

### PHILIPPINE BIDDING DOCUMENTS

(As Harmonized with Development Partners)

# Supply and Delivery of IT Equipment and Supplies (VSU-GOODS-23-46)

Government of the Republic of the Philippines

November 09, 2023; 9:00 AM BAC Conference Room, VSU Market, Visca, Baybay City, Leyte and via Zoom

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## Glossary of Acronyms, Terms, and Abbreviations

**ABC** – Approved Budget for the Contract.

**BAC** – Bids and Awards Committee.

**Bid** – A signed offer or proposal to undertake a contract submitted by a bidder in response to and in consonance with the requirements of the bidding documents. Also referred to as *Proposal* and *Tender*. (2016 revised IRR, Section 5[c])

**Bidder** – Refers to a contractor, manufacturer, supplier, distributor and/or consultant who submits a bid in response to the requirements of the Bidding Documents. (2016 revised IRR, Section 5[d])

**Bidding Documents** – The documents issued by the Procuring Entity as the bases for bids, furnishing all information necessary for a prospective bidder to prepare a bid for the Goods, Infrastructure Projects, and/or Consulting Services required by the Procuring Entity. (2016 revised IRR, Section 5[e])

**BIR** – Bureau of Internal Revenue.

**BSP** – Bangko Sentral ng Pilipinas.

Consulting Services – Refer to services for Infrastructure Projects and other types of projects or activities of the GOP requiring adequate external technical and professional expertise that are beyond the capability and/or capacity of the GOP to undertake such as, but not limited to: (i) advisory and review services; (ii) pre-investment or feasibility studies; (iii) design; (iv) construction supervision; (v) management and related services; and (vi) other technical services or special studies. (2016 revised IRR, Section 5[i])

**CDA** - Cooperative Development Authority.

**Contract** – Refers to the agreement entered into between the Procuring Entity and the Supplier or Manufacturer or Distributor or Service Provider for procurement of Goods and Services; Contractor for Procurement of Infrastructure Projects; or Consultant or Consulting Firm for Procurement of Consulting Services; as the case may be, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

CIF – Cost Insurance and Freight.

**CIP** – Carriage and Insurance Paid.

**CPI** – Consumer Price Index.

**DDP** – Refers to the quoted price of the Goods, which means "delivered duty paid."

**DTI** – Department of Trade and Industry.

**EXW** – Ex works.

**FCA** – "Free Carrier" shipping point.

FOB - "Free on Board" shipping point.

**Foreign-funded Procurement or Foreign-Assisted Project**— Refers to procurement whose funding source is from a foreign government, foreign or international financing institution as specified in the Treaty or International or Executive Agreement. (2016 revised IRR, Section 5[b]).

**Framework Agreement** – Refers to a written agreement between a procuring entity and a supplier or service provider that identifies the terms and conditions, under which specific purchases, otherwise known as "Call-Offs," are made for the duration of the agreement. It is in the nature of an option contract between the procuring entity and the bidder(s) granting the procuring entity the option to either place an order for any of the goods or services identified in the Framework Agreement List or not buy at all, within a minimum period of one (1) year to a maximum period of three (3) years. (GPPB Resolution No. 27-2019)

**GFI** – Government Financial Institution.

**GOCC** – Government-owned and/or –controlled corporation.

Goods – Refer to all items, supplies, materials and general support services, except Consulting Services and Infrastructure Projects, which may be needed in the transaction of public businesses or in the pursuit of any government undertaking, project or activity, whether in the nature of equipment, furniture, stationery, materials for construction, or personal property of any kind, including non-personal or contractual services such as the repair and maintenance of equipment and furniture, as well as trucking, hauling, janitorial, security, and related or analogous services, as well as procurement of materials and supplies provided by the Procuring Entity for such services. The term "related" or "analogous services" shall include, but is not limited to, lease or purchase of office space, media advertisements, health maintenance services, and other services essential to the operation of the Procuring Entity. (2016 revised IRR, Section 5[r])

**GOP** – Government of the Philippines.

**GPPB** – Government Procurement Policy Board.

**INCOTERMS** – International Commercial Terms.

**Infrastructure Projects** – Include the construction, improvement, rehabilitation, demolition, repair, restoration or maintenance of roads and bridges, railways, airports, seaports, communication facilities, civil works components of information technology projects, irrigation, flood control and drainage, water supply, sanitation, sewerage and solid waste management systems, shore protection, energy/power and electrification facilities, national buildings, school buildings, hospital buildings, and other related construction projects of the government. Also referred to as *civil works or works*. (2016 revised IRR, Section 5[u])

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

**NGA** – National Government Agency.

**PhilGEPS -** Philippine Government Electronic Procurement System.

**Procurement Project** – refers to a specific or identified procurement covering goods, infrastructure project or consulting services. A Procurement Project shall be described, detailed, and scheduled in the Project Procurement Management Plan prepared by the agency which shall be consolidated in the procuring entity's Annual Procurement Plan. (GPPB Circular No. 06-2019 dated 17 July 2019)

**PSA** – Philippine Statistics Authority.

**SEC** – Securities and Exchange Commission.

**SLCC** – Single Largest Completed Contract.

**Supplier** – refers to a citizen, or any corporate body or commercial company duly organized and registered under the laws where it is established, habitually established in business and engaged in the manufacture or sale of the merchandise or performance of the general services covered by his bid. (Item 3.8 of GPPB Resolution No. 13-2019, dated 23 May 2019). Supplier as used in these Bidding Documents may likewise refer to a distributor, manufacturer, contractor, or consultant.

**UN** – United Nations.

## Section I. Invitation to Bid



## INVITATION TO BID FOR SUPPLY AND DELIVERY OF I.T. EQUIPMENT AND SUPPLIES AND OFFICE EQUIPMENT

1. The Visayas State University through the General Fund, Special Trust Fund, and Trust Fund intends to apply the sum of Six Million Eight Hundred Sixty Two Thousand Three Hundred Fifty Four Pesos (PhP 6,862,354.00) being the ABC to payments under the contract for Supply and Delivery of 1.T Equipment and Supplies (VSU-GOODS-23-46). Bids received in excess of the ABC shall be automatically rejected at bid opening.

The Visayas State University, through the General Fund, Special Trust Fund, and Trust Fund intends to apply the following ABC per item to payments under the contract for each item, to wit:

Ite m#	Description	Unit	Qty	Unit Price	Total Price
1	1TB, Hard disk Drive, 7200rpm, for desktop	рс	2	3,000.00	6,000.00
	<b>⊚</b> 11TB	P		2,00000	2,00000
	■SATA 6Gb/s interface optimizes burst performance;				
	■64MB Cache				
	■Average Data Rate, Read/Write : 156				
	■Max Sustained Data Rate, OD Read (MB/s) : 210				
	■Cache, Multisegmented (MB) : 64				
2	3D Printer Filament (ABS)	рс	1	2,000.00	2,000.00
	■Mass: 1 KG (approximately 2.20 lbs) Spool				
	■Filament Diameter: 1.75mm (Dimensional Accuracy +/- 0.03m				
	■Extrusion/Nozzle Temperature: 210°C - 240°C				
	(410°F - 464°F)				
	■Spool Diameter: 7.88"				
	■Spool Width: 2.69"				
	■Spool Hub Hole Diameter: 2.20"				
	<b>©</b> Color: Black				
	■Material Type: ABS				
3	3D Printer Filament (TPU)	set	1	1,500.00	1,500.00
	■Color: black				
	■Item Diameter: 1.75 millimeters				
	■Item weight: not less than 15.7 ounces				
	■Material: Rep-Flex-Tpu- Vacuumed Sealed With				
	Desiccant				
	■Outside Diameter: 1.75 millimeters (+/- 0.05mm)				
	■Recommended Extrusion/Nozzle Temp: 195 - 230				
	degree celsuis				
	■Recommended Platform Temperature: 40 - 60				
	degree celsuis				

	■Packing List:TPU Flexible Filament 1.75mm				
	250g(vacuum sealed)				
4	3D Printer PLA filament	рс	1	2,000.00	2,000.00
	■Recommended Extrusion/Nozzle Temp: 90°C -	•		,	,
	220°C (374 <i>°F</i> ~ 428 <i>°F</i> )				
	■Heated Bed Temp: 25°C - 60°C (77°F~ 140°F)				
	■Filaments Diameter and Accuracy: 1.75 mm +/- 0.05				
	■Filaments Net Weight: 1 kg (2.2 lbs) / Spool				
	■Build Surface: 200 mm x 200 mm (7.88" x 7.88")				
	■Type of filament: PLA				
5	Android Smartphone	unit	1	7,000.00	7,000.00
	Specification:	u.i.t	•	1,000.00	1,000.00
	—Chipset: Mediatek Helio G80 (12 nm)				
	—Operating system: Android 10				
	—ROM: at least 32 GB				
	—RAM: at least 3GB				
	—Screen Type: IPS LCD, at least 400 nits				
	—Camera Front : at least 8 MP				
	—Primary(Back) Camera Resolution at least 13MP				
	Resolution: at least 1080 x 2340 pixels				
	—SIM: Dual SIM (Nano-SIM, dual stand-by)				
6	Apple USB-C Digital AV Multiport Adapter	unit	1	4,000.00	4,000.00
	Compatible with Mac and iPad			,	,
	Connections: HDMI, USB, USB-C				
	Compatible iPad Models: iPad Pro 12.9-inch				
	(5th generation), iPad Pro 12.9-inch (4th generation), iPad Pro 12.9-inch				
	Compatible Mac Models: MacBook Air (M2, 2022),				
	1 / //				
	MacBook Air (M1, 2020), MacBook Air (Retina,				
	13-inch, 2020), MacBook Air (Retina, 13-inch, 2018 -				
	2019), MacBook Pro (13-inch, M2, 2022), MacBook				
	Pro (13-inch, M1, 2020)				
-	Genuine Apple Accessory		4	400 000 00	400 000 00
7	Camera with 28-70 mm Zoom Lens	рс	1	132,000.00	132,000.00
	Product Specification:				
	Lens				
	Lens Mount: E-mount				
	Image Sensor				
	Aspect Ratio: 3:2				
	Number Of Pixels (Effective): Approx. 24.2				
	megapixels				
	Number of Pixels (total): Approx. 25.3 megapixels				
	Sensor Type: 35 mm full frame (35.6 x 23.8 mm),			<u> </u>	
	Exmor R CMOS sensor				
	Anti-Dust System: Charge protection coating on				
	optical filter and image sensor shift mechanism				
	Recording (still images)				
	Image Size (pixels) [16:9]: 35 mm full frame L: 6000 x				
	3376 (20 M), M: 3936 x 2216 (8.7 M), S: 3008 x 1688	ĺ	I		

	(5.1 M), APS-C L: 3936 x 2216 (8.7 M), M: 3008 x		
	1688 (5.1 M), S: 1968 x 1112 (2.2 M)		
	Image Size (pixels) [Sweep Panorama]		
	Picture Effect: 8 types: Posterization (Color),		
	Posterization (B/W), Pop Color, Retro Photo, Partial		
	Color (R/G/B/Y), High Contrast Monochrome, Toy		
	Camera (Normal/Cool/Warm/Green/Magenta), Soft		
	High-key , Rich-tone Monochrome		
	Creative Style: Standard, Vivid, Neutral, Clear, Deep,		
	Light, Portrait, Landscape, Sunset, Night Scene,		
	Autumn leaves, Black & White, Sepia, Style Box (1-		
	6), (Contrast [-3 to +3 steps], Saturation [-3 to +3		
	steps], Sharpness [-3 to +3 steps])		
	Picture Profile: Yes (Off/PP1-PP10) Parameters:		
	Black level, Gamma (Movie, Still, Cine1-4, ITU709,		
	ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3),		
	Black Gamma, Knee, Color Mode, Saturation, Color		
<u> </u>	Phase, Color Depth, Detail, Copy, Reset		
	Dynamic Range Functions: Off, Dynamic Range		
	Optimizer (Auto/Level (1-5)), Auto High Dynamic		
	Range (Auto Exposure Difference, Exposure		
	Difference Level (1-6 EV, 1.0 EV step))		
	Color Space: sRGB standard (with sYCC gamut) and		
	Adobe RGB standard, compatible with TRILUMINOS		
	Color		
	14bit RAW: Yes		
	Uncompressed RAW: Yes		
	Recording (movie)		
	Recording Format: XAVC S, AVCHD format Ver. 2.0		
	compliant		
	Color Space: xvYCC standard (x.v.Color when		
	connected via HDMI cable) compatible with		
	TRILUMINOS Color		
	Picture Effect: Posterization (Color), Posterization		
	(B/W), Pop Color, Retro Photo, Partial Color		
	(R/G/B/Y), High Contrast Monochrome, Toy Camera		
	(Normal/Cool/Warm/Green/Magenta), Soft High-key		
	Creative Style: Standard, Vivid, Neutral, Clear, Deep,		
	Light, Portrait, Landscape, Sunset, Night Scene,		
	Autumn leaves, Black & White, Sepia, Style Box (1–		
	6), (Contrast [-3 to +3 steps], Saturation [-3 to +3		
	steps], Sharpness [-3 to +3 steps])		
	Picture Profile: Yes (Off/PP1-PP10) Parameters:		
	Black level, Gamma (Movie, Still, Cine1-4, ITU709,		
	ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3),		
	Black Gamma, Knee, Color Mode, Saturation, Color		
	Phase, Color Depth, Detail, Copy, Reset		
	Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160		
	(30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160		
	(30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD:		

	1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60			
	M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (30p, 50			
	M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 25			
	M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080			
	(60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)			
	Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160			
	(25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD:			
	1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60			
	M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (25p, 50			
	M), AVCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x			
	1080 (50i, 17 M, FH)			
	Slow and quick motion (shooting frame rate): NTSC			
	,			
	mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps,			
	120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps,			
	25fps, 50fps, 100fps			
	Slow and quick motion (recording frame rate and			
	image size): NTSC mode: 1920x1080 (60p, 30p,			
<u> </u>	24p), PAL mode: 1920x1080 (50p, 25p)			
	Movie Functions: Audio Level Display, Audio Rec			
	Level, PAL/NTSC Selector, Yes (1280 x 720			
	(Approx.9 Mbps)), TC/UB (TC Preset/UB Preset/TC			
	Format/TC Run/TC Make/UB Time Rec), Auto Slow			
	, .			
	Shutter, REC Control, Clean HDMI Info. (ON/OFF			
	selectable), Gamma Disp. Assist			
	Clean HDMI output: 3840 x 2160 (25p), 1920 x 1080			
	(50p), 1920 x 1080 (50i), 1920 x 1080 (24p), 1920 x			
	1080 (60p), 1920 x 1080 (60i), 3840 x 2160 (30p),			
	3840 x 2160 (24p), YCbCr 4:2:2 8-bit / RGB 8-bit			
	Recording System			
	Location information Link from smartphone: Yes			
	Media: Memory Stick PRO Duo, Memory Stick PRO-			
	HG Duo, Memory Stick Micro (M2), SD memory card,			
	SDHC memory card (UHS-I/II compliant), SDXC			
	memory card (UHS-I/II compliant), microSD memory			
	card, microSDHC memory card, microSDXC memory			
	card			
	Memory Card Slot: SLOT1: Slot for SD (UHS-I/II			
	·			
	compliant) memory card, SLOT2: Multi slot for			
	Memory Stick Duo/SD (UHS-I compliant) memory			
	card			
	Recording mode on 2 memory cards: Simult. Rec			
	(Still), Simult. Rec (Movie), Simult. Rec (Still/Movie),			
	Sort (JPEG/RAW), Sort (Still/Movie), Auto Switch			
	Media (On/Off), Copy			
	Noise Reduction			
	Noise Reduction: Long exposure NR: On/Off,			
	available at shutter speeds longer than 1 sec., High			
	ISO NR: Normal/Low/Off			
	Multi Frame NR			
	White balance			
			1	1

White Balance Modes: Auto / Daylight / Shade /	
Cloudy / Incandescent / Fluorescent / Warm White /	
Cool White / Day White / Daylight / Flash / Underwater	
/ Color Temperature 2500 to 9900K and color filter G7	
to M7 (57-step), A7 to B7 (29-step) / Custom	
AWB Micro Adjustment: Yes G7 to M7, 57-step A7 to	
B7, 29-step	
<del>-                                    </del>	+ + + + + + + + + + + + + + + + + + + +
Priority Set in AWB: Yes	<del>                                     </del>
Bracketing: 3 frames, H/L selectable	<del>                                     </del>
Focus	
Focus Type: Fast Hybrid AF (phase-detection	
AF/contrast-detection AF)2	
Focus Sensor: Exmor R® CMOS sensor	
Focus Point: 35 mm full frame: 693 points (phase-	
detection AF), APS-C mode with full frame lens: 299	
points (phase-detection AF), with APS-C lens: 221	
points (phase-detection AF) / 425 points (contrast-	
detection AF)	
Focus Sensitivity Range: EV-3 to EV20 (ISO100	
equivalent with F2.0 lens attached)	
Focus Mode: AF-A (Automatic AF), AF-S (Single-shot	<del>                                     </del>
AF), AF-C (Continuous AF), DMF (Direct Manual	
Focus), Manual Focus	
Focus Area: Wide (693 points (phase-detection AF),	
425 points (contrast-detection AF)) / Zone / Center /	
Flexible Spot (S/M/L) /Expanded Flexible Spot/ Lock-	
on AF (Wide / Zone / Center / Flexible Spot	
(S/M/L)/Expanded Flexible Spot)	
Other Features: Eye-start AF (only with LA-EA2 or LA-	
EA4 attached (sold separately)), Lock-on AF, Eye AF,	
AF micro adjustment with LA-EA2 or LA-EA4 (sold	
separately), Predictive control, Focus lock, AF Track	
Sens, Swt.V/H AF Area, AF Area Regist.	
AF Illuminator: Yes (with built-in LED type)	
AF Illuminator range: Approx. 0.3–3.0 m (with FE 28–	
70 mm F3.5–5.6 OSS attached)	
Focus type with LA-EA3 (Sold separately): selectable	
(phase-detection, contrast-detection)	
Exposure	+ + + + + + + + + + + + + + + + + + + +
· ·	+ + +
Metering Type: 1200-zone evaluative metering	<del>                                     </del>
Viewfinder (0.5.4.)	<del>                                     </del>
Viewfinder Type: 1.3 cm (0.5 type) electronic	
viewfinder (color), XGA OLED	
Number of Dots: 2,359,296 dots	
Brightness Control (Viewfinder): Auto/Manual (5 steps	
between -2 and +2)	
Color Temperature Control: Manual (5 steps)	
Field Coverage: 100%	
Magnification: approx. 0.78 x (with 50mm lens at	

infinity,	-1m-1)		
	Adjustment: -4.0 to +3.0 m-1		
	pint: Approx. 23 mm from the eyepiece lens,		
	nm from the eyepiece frame at -1 m-1 (CIPA		
standa	- /		
	Frame Rate Selection		
	Contents: Graphic Display, Display All Info,		
	play Info, Digital Level Gauge, Histogram		
LCD S			
	r Type: 7.5 cm (3.0-type) type TFT		
	er of Dots: 921,600 dots		
	Panel: Yes		
Brightn	ess Control: Manual (5 steps between -2 and		
+2), Si	inny Weather mode		
Adjusta	able Angle: Up by approx. 107 degrees, Down		
by app	rox. 41 degrees		
	Selector (Finder/LCD): Yes (Auto/Manual)		
Real-tii	me Image Adjustment Display (LCD): On/Off		
	Navi: Yes		
Focus	Magnifier: Yes (35 mm full frame: 5.9x, 11.7x,		
	: 3.8x, 7.7x)		
	Yes (selectable level + range or lower limit as		
	setting)		
	g MF: Yes (Level setting: High/Mid/Low/Off,		
	White/Red/Yellow)		
	: Grid Line (Rule of 3rds Grid/Square Grid/Diag.		
	Square Grid/Off), Movie Marker		
	r/Aspect/Safety Zone/Guideframe)		
	Content: Graphic Display, Display All Info, No		
	Info, Digital Level Gauge, Histogram, For		
	der, Monitor Off		
+	eatures		
	emories Camera Apps™		
	mage Zoom: Still images: Approx. 2x, Movies:		
	1.5x (4K), Approx. 2x (HD)		
	Zoom: Smart zoom (Still images): 35 mm full		
	M: approx 1.5x, S: approx 2x, APS-C: M:		
	1.3x, S: approx 2x, Digital zoom (Still images):		
	full frame: L: approx 4x, M: approx 6.1x, S:		
	8x, APS-C: L: approx 4x, M: approx 5.2x, S:		
	8x, Digital zoom (Movie): 35 mm full frame:		
	4x, APS-C: approx 4x		
	Detection: Modes: Face Priority in AF (On/Off),		
	Priority in Multi Metering (On/Off), Regist. Faces		
detecta	(On/Off), Face registration, Max. number of		
	note: 6 ortrait Self-Timer		
	: Touch Focus: Yes (Available with LCD		
IIIOIIIIO	r or Viewfinder operation), ISO AUTO Min. SS,		

		—
Bright Monitoring, Set File Name, FTP Transfer Func.,		
Help guide, Area Setting, Shop Front Mode, Video		
Light Mode, Zoom Ring Rotate		
Eye-Fi ready		
Shutter		
Type: Electronically-controlled, vertical-traverse, focal-		
plane type		
Shutter Type		
Shutter Speed: Still images: 1/8000 to 30 sec, Bulb,		
Movies: 1/8000 to 1/4 (1/3 steps), up to 1/60 in AUTO		
mode (up to 1/30 in Auto slow shutter mode)		
Flash Sync. Speed: 1/250 sec.3		
Electronic Front Curtain Shutter: Yes (ON/OFF)		
1 /		
Silent Shooting: Yes (ON/OFF)		
Image Stabilization		
Type: Image Sensor-Shift mechanism with 5-axis		
compensation (compensation depends on lens		
specifications)		
Compensation Effect: 5.0 stops (based on CIPA		
standard. Pitch/yaw shake only. With Planar T* FE		
50mm F1.4 ZA lens mounted. Long exposure NR off.)		
Flash Control		
Control: Pre-flash TTL		
Flash Compensation: +/-3.0 EV (switchable between		
1/3 and 1/2 EV steps)\		
Flash Bracketing: 3/5/9 frames selectable. With 3 or 5		
frames, in 1/3, 1/2, 2/3, 1.0, 2.0, 3.0 EV increments,		
with 9 frames, in 1/3, 1/2, 2/3, 1.0 EV increments.		
Flash Modes: Flash off, Autoflash, Fill-flash, Slow		
Sync., Rear Sync., Red-eye reduction (on/off		
selectable), Wireless4, Hi-speed sync.4		
External Flash Compatibility: Sony α System Flash		
compatible with Multi Interface Shoe, attach the shoe		
adapter for flash compatible with Auto-lock accessory		
shoe		
FE Level Lock: Yes		
		_
Wireless Control: Yes (Light signal: Available with Fill-		
flash, Slow Sync., Hi-speed sync. /Radio signal:		
Available with Fill-flash, Rear Sync., Slow Sync., Hi-		
speed sync.)		_
Drive		_
Drive Modes: Single Shooting, Continuous shooting		
(Hi+/Hi/Mid/Lo selectable), Self-timer, Self-timer		
(Cont.), Bracket: Single, Bracket: Cont., White		
Balance bracket, DRO bracket		
Continuous Drive Speed (approx. max.): Continuous		
shooting: Hi+: max. 10 fps, Hi: max. 8 fps, Mid: max.		
6fps, Lo: max. 3 fps 5		
No. of recordable frames (approx.): JPEG Extra fine L:		
	<u> </u>	——

			_
163 frames, JPEG Fine L: 172 frames, JPEG			
Standard L: approx. 177 frames, RAW: 89 frames,			
RAW & JPG: 79 frames, RAW (Uncompressed): 40			
frames, RAW (Uncompressed) & JPG: 36 frames 5			
Self-Timer: 10 sec. delay/5 sec. delay/2 sec.			
delay/Continuous self-timer (3 frames after 10 sec.			
delay/5 frames after 10 sec. delay/3 frames after 5			
sec. delay/5 frames after 5 sec. delay/3 frames after 2			
sec. delay/5 frames after 2 sec. delay/5 frames after 2 sec. delay/5 frames after 2 sec. delay)/Bracketing self-			
•			
timer			
Playback			
Photo Capture: Yes			
Modes: Single (with or without shooting information Y			
RGB histogram & highlight/shadow warning), 9/25-			
frame index view, Enlarged display mode (L: 18.8x, M:			
12.3x, S: 9.4x), Auto Review (10/5/2 sec, Off), Image			
orientation (Auto/Manual/Off selectable), Slideshow,			
Folder selection (Date/ Still/ AVCHD/XAVC S			
HD/XAVC S 4K), Forward/Rewind (movie), Delete,			
Protect, Rating, Disp Cont Shoot Grp			
Interface			
PC Interface: Mass-storage, MTP, PC remote			
Multi/micro USB terminal: Yes			
USB Type-C® Terminal: Yes (SuperSpeed USB (USB			
3.1 Gen 1) compatible)			
NFC: Yes (NFC forum Type 3 Tag compatible), One-			
touch remote, One-touch sharing			
Wireless LAN (Built-In): Wi-Fi Compatible, IEEE			
802.11b/g/n (2.4 GHz band), View on Smartphone,			
Remote control via Smartphone, Send to Computer,			
View on TV			
HD Output: HDMI micro connector (Type-D), BRAVIA			
Sync (Control for HDMI), PhotoTV HD, 4K movie			
output/4K still image PB			
Bluetooth®: Yes (Bluetooth Standard Ver. 4.1 (2.4			
GHz band))			
Auto-lock Accessory Shoe			
Multi Interface Shoe: Yes			
Smart Accessory Terminal 2			
Mic Terminal: Yes (3.5 mm Stereo minijack)			
DC IN Terminal			
Sync Terminal			
Headphone Terminal: Yes (3.5 mm Stereo minijack)			
Vertical Grip Connector: Yes			
PC Remote: Yes			
LAN Terminal			
Print			
Compatible Standards: Exif Print, Print Image			
Matching III, DPOF setting			
 <u> </u>	1	•	

Weight (with battery and memory card included): Approx. 650 g (1 lb 7.0 oz)  Dimensions (W x H x D): Approx. 126.9 mm x 95.6 mm x 73.7 mm, Approx. 126.9 mm x 95.6 mm x 62.7 mm (from grip to monitor)/Approx. 5 x 3 7/8 x 3 inches, Approx. 5 x 3 7/8 x 2 1/2 inches (from grip to monitor)  Audio  Microphone: Built-in stereo microphone or XLR- K2M/XLR-K1M/ECM-XYST1M (sold separately)  Speaker: Built-in, monaural Others  Operating Temperature: 32 - 104 degrees F / 0 - 40 degrees C  Compact Document Scanner  25ppm/50ipm, 2-sided colour scan speed	unit	2	18,000.00	36,000.00
Weight (with battery and memory card included): Approx. 650 g (1 lb 7.0 oz)  Dimensions (W x H x D): Approx. 126.9 mm x 95.6 mm x 73.7 mm, Approx. 126.9 mm x 95.6 mm x 62.7 mm (from grip to monitor)/Approx. 5 x 3 7/8 x 3 inches, Approx. 5 x 3 7/8 x 2 1/2 inches (from grip to monitor)  Audio  Microphone: Built-in stereo microphone or XLR-K2M/XLR-K1M/ECM-XYST1M (sold separately)  Speaker: Built-in, monaural  Others  Operating Temperature: 32 - 104 degrees F / 0 - 40 degrees C			40,000,00	20,000,00
Weight (with battery and memory card included): Approx. 650 g (1 lb 7.0 oz)  Dimensions (W x H x D): Approx. 126.9 mm x 95.6 mm x 73.7 mm, Approx. 126.9 mm x 95.6 mm x 62.7 mm (from grip to monitor)/Approx. 5 x 3 7/8 x 3 inches, Approx. 5 x 3 7/8 x 2 1/2 inches (from grip to monitor)  Audio  Microphone: Built-in stereo microphone or XLR-K2M/XLR-K1M/ECM-XYST1M (sold separately)  Speaker: Built-in, monaural  Others  Operating Temperature: 32 - 104 degrees F / 0 - 40				
Weight (with battery and memory card included): Approx. 650 g (1 lb 7.0 oz)  Dimensions (W x H x D): Approx. 126.9 mm x 95.6 mm x 73.7 mm, Approx. 126.9 mm x 95.6 mm x 62.7 mm (from grip to monitor)/Approx. 5 x 3 7/8 x 3 inches, Approx. 5 x 3 7/8 x 2 1/2 inches (from grip to monitor)  Audio  Microphone: Built-in stereo microphone or XLR-K2M/XLR-K1M/ECM-XYST1M (sold separately)  Speaker: Built-in, monaural  Others				
Weight (with battery and memory card included): Approx. 650 g (1 lb 7.0 oz)  Dimensions (W x H x D): Approx. 126.9 mm x 95.6 mm x 73.7 mm, Approx. 126.9 mm x 95.6 mm x 62.7 mm (from grip to monitor)/Approx. 5 x 3 7/8 x 3 inches, Approx. 5 x 3 7/8 x 2 1/2 inches (from grip to monitor)  Audio  Microphone: Built-in stereo microphone or XLR-K2M/XLR-K1M/ECM-XYST1M (sold separately)				
Weight (with battery and memory card included): Approx. 650 g (1 lb 7.0 oz)  Dimensions (W x H x D): Approx. 126.9 mm x 95.6 mm x 73.7 mm, Approx. 126.9 mm x 95.6 mm x 62.7 mm (from grip to monitor)/Approx. 5 x 3 7/8 x 3 inches, Approx. 5 x 3 7/8 x 2 1/2 inches (from grip to monitor)  Audio  Microphone: Built-in stereo microphone or XLR-				
Weight (with battery and memory card included): Approx. 650 g (1 lb 7.0 oz)  Dimensions (W x H x D): Approx. 126.9 mm x 95.6 mm x 73.7 mm, Approx. 126.9 mm x 95.6 mm x 62.7 mm (from grip to monitor)/Approx. 5 x 3 7/8 x 3 inches, Approx. 5 x 3 7/8 x 2 1/2 inches (from grip to monitor)  Audio				
Weight (with battery and memory card included): Approx. 650 g (1 lb 7.0 oz)  Dimensions (W x H x D): Approx. 126.9 mm x 95.6 mm x 73.7 mm, Approx. 126.9 mm x 95.6 mm x 62.7 mm (from grip to monitor)/Approx. 5 x 3 7/8 x 3 inches, Approx. 5 x 3 7/8 x 2 1/2 inches (from grip to monitor)				
Weight (with battery and memory card included): Approx. 650 g (1 lb 7.0 oz)  Dimensions (W x H x D): Approx. 126.9 mm x 95.6 mm x 73.7 mm, Approx. 126.9 mm x 95.6 mm x 62.7 mm (from grip to monitor)/Approx. 5 x 3 7/8 x 3 inches, Approx. 5 x 3 7/8 x 2 1/2 inches (from grip to				
Weight (with battery and memory card included): Approx. 650 g (1 lb 7.0 oz)  Dimensions (W x H x D): Approx. 126.9 mm x 95.6 mm x 73.7 mm, Approx. 126.9 mm x 95.6 mm x 62.7 mm (from grip to monitor)/Approx. 5 x 3 7/8 x 3				
Weight (with battery and memory card included): Approx. 650 g (1 lb 7.0 oz) Dimensions (W x H x D): Approx. 126.9 mm x 95.6 mm x 73.7 mm, Approx. 126.9 mm x 95.6 mm x 62.7				
Weight (with battery and memory card included): Approx. 650 g (1 lb 7.0 oz) Dimensions (W x H x D): Approx. 126.9 mm x 95.6				
Weight (with battery and memory card included): Approx. 650 g (1 lb 7.0 oz)				
Weight (with battery and memory card included):				
Size & Weight			l	
Size & Weight				
USB Terminal or USB Type-C Terminal)				
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Power consumption with Viewfinder: Still images:				
Multi/Micro USB Terminal or USB Type-C Terminal)				
Internal Battery Charge: Yes (Available with				
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,				
(Viewfinder) / approx. 710 shots (LCD monitor) (CIPA				
FZ100				
,				
(Body 2 sets /memory card 4 sets), My Menu, Reg				
Type: Custom key settings, Programmable Setting				
	(Body 2 sets /memory card 4 sets), My Menu, Reg Cust Shoot Set Lens Compensation Setting: Peripheral Shading, Chromatic Aberration, Distortion Power Supplied Battery: One rechargeable battery pack NP-FZ100 Battery Life (Still Images): Approx. 610 shots (Viewfinder) / approx. 710 shots (LCD monitor) (CIPA standard)8 Battery Life (Movie, actual recording): Approx. 115 min (Viewfinder) / Approx. 125 min (LCD monitor) (CIPA standard)910 Battery Life (Movie, continuous recording): Approx. 200 min (Viewfinder) / Approx. 210 min (LCD monitor) (CIPA standard)911 Internal Battery Charge: Yes (Available with Multi/Micro USB Terminal or USB Type-C Terminal) Power consumption with Viewfinder: Still images: approx. 3.2 W (with FE 28-70 mm F3.5-5.6 OSS lens attached), Movies: approx. 4.9 W (with FE 28-70 mm F3.5-5.6 OSS lens attached) Power consumption with LCD screen: Still images: approx. 2.8 W (with FE 28-70 mm F3.5-5.6 OSS lens attached) Word Power Supply: Yes (Available with Multi/Micro USB Power Supply: Yes (Available with Multi/Micro USB Terminal or USB Type-C Terminal)	Type: Custom key settings, Programmable Setting (Body 2 sets /memory card 4 sets), My Menu, Reg Cust Shoot Set Lens Compensation Setting: Peripheral Shading, Chromatic Aberration, Distortion Power Supplied Battery: One rechargeable battery pack NP-FZ100 Battery Life (Still Images): Approx. 610 shots (Viewfinder) / approx. 710 shots (LCD monitor) (CIPA standard)8 Battery Life (Movie, actual recording): Approx. 115 min (Viewfinder) / Approx. 125 min (LCD monitor) (CIPA standard)910 Battery Life (Movie, continuous recording): Approx. 200 min (Viewfinder) / Approx. 210 min (LCD monitor) (CIPA standard)911 Internal Battery Charge: Yes (Available with Multi/Micro USB Terminal or USB Type-C Terminal) Power consumption with Viewfinder: Still images: approx. 3.2 W (with FE 28-70 mm F3.5-5.6 OSS lens attached), Movies: approx. 4.9 W (with FE 28-70 mm F3.5-5.6 OSS lens attached) Power consumption with LCD screen: Still images: approx. 2.8 W (with FE 28-70 mm F3.5-5.6 OSS lens attached) USB Power Supply: Yes (Available with Multi/Micro USB Terminal or USB Type-C Terminal)	Type: Custom key settings, Programmable Setting (Body 2 sets /memory card 4 sets), My Menu, Reg Cust Shoot Set Lens Compensation Setting: Peripheral Shading, Chromatic Aberration, Distortion Power Supplied Battery: One rechargeable battery pack NP-FZ100 Battery Life (Still Images): Approx. 610 shots (Viewfinder) / approx. 710 shots (LCD monitor) (CIPA standard)8 Battery Life (Movie, actual recording): Approx. 115 min (Viewfinder) / Approx. 125 min (LCD monitor) (CIPA standard)910 Battery Life (Movie, continuous recording): Approx. 200 min (Viewfinder) / Approx. 210 min (LCD monitor) (CIPA standard)911 Internal Battery Charge: Yes (Available with Multi/Micro USB Terminal or USB Type-C Terminal) Power consumption with Viewfinder: Still images: approx. 3.2 W (with FE 28-70 mm F3.5-5.6 OSS lens attached), Movies: approx. 4.9 W (with FE 28-70 mm F3.5-5.6 OSS lens attached) Power consumption with LCD screen: Still images: approx. 2.8 W (with FE 28-70 mm F3.5-5.6 OSS lens attached) USB Power Supply: Yes (Available with Multi/Micro USB Terminal or USB Type-C Terminal)	Type: Custom key settings, Programmable Setting (Body 2 sets /memory card 4 sets), My Menu, Reg Cust Shoot Set Lens Compensation Setting: Peripheral Shading, Chromatic Aberration, Distortion Power Supplied Battery: One rechargeable battery pack NP-FZ100 Battery Life (Still Images): Approx. 610 shots (Viewfinder) / approx. 710 shots (LCD monitor) (CIPA standard)8 Battery Life (Movie, actual recording): Approx. 115 min (Viewfinder) / Approx. 125 min (LCD monitor) (CIPA standard)910 Battery Life (Movie, continuous recording): Approx. 200 min (Viewfinder) / Approx. 210 min (LCD monitor) (CIPA standard)911 Internal Battery Charge: Yes (Available with Multi/Micro USB Terminal or USB Type-C Terminal) Power consumption with Viewfinder: Still images: approx. 3.2 W (with FE 28-70 mm F3.5-5.6 OSS lens attached), Movies: approx. 4.9 W (with FE 28-70 mm F3.5-5.6 OSS lens attached) Power consumption with LCD screen: Still images: approx. 2.8 W (with FE 28-70 mm F3.5-5.6 OSS lens attached) Power consumption with LCD screen: Still images: approx. 2.8 W (with FE 28-70 mm F3.5-5.6 OSS lens attached) USB Power Supply: Yes (Available with Multi/Micro USB Terminal or USB Type-C Terminal)

	Portable with micro-B USB3.0 Bus power				
	Dedicated plastic ID card slot				
	Scan to PC and USB host				
	Scanning Speed: 25ppm (A4) 2-sided colour scan				
	, , ,				
	Speed				
	Document Size - Multiple Papers - Width: 51 mm to 215.9 mm				
	Document Size - Multiple Papers - Length: 70 mm to 863 mm				
	Document Size - Single Papers - Width: 51 mm to				
	215.9 mm				
	Document Size - Single Papers - Length: 70 mm to				
	863 mm				
	Colour/Black: Yes/Yes				
	Duplex Scan: Yes				
	,				
	Color Depth - Input: 48-bit colour processing				
	Color Depth - Output: 24-bit colour processing Resolution - Optical: Max 600 dpi x 600 dpi				
	, , , , , , , , , , , , , , , , , , , ,				
	Resolution - Interpolated: Max 1,200 dpi x 1,200 dpi				
	Scanning Width: Max 216mm				
	Grayscale: 256 levels				
	Memory Capacity: SDRAM: 256 MB				
	ADF: up to 20 sheets				
	Interface: USB: Hi-Speed USB 2.0, Superspeed USB 3.0				
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9	Computer Printer	unit	1	15,000.00	15,000.00
9	Computer Printer  ■Compact integrated tank design	unit	1	15,000.00	15,000.00
9	Computer Printer  ■Compact integrated tank design  ■Print speeds up to 10.5ipm for black and 5.0ipm for	unit	1	15,000.00	15,000.00
9	Computer Printer  ©Compact integrated tank design  ©Print speeds up to 10.5ipm for black and 5.0ipm for colour	unit	1	15,000.00	15,000.00
9	Computer Printer  ©Compact integrated tank design  ©Print speeds up to 10.5ipm for black and 5.0ipm for colour  ©Auto-duplex printing	unit	1	15,000.00	15,000.00
9	Computer Printer  © Compact integrated tank design  © Print speeds up to 10.5ipm for black and 5.0ipm for colour  © Auto-duplex printing  © Wi-Fi & Wi-Fi Direct	unit	1	15,000.00	15,000.00
9	Computer Printer  © Compact integrated tank design  © Print speeds up to 10.5ipm for black and 5.0ipm for colour  © Auto-duplex printing  © Wi-Fi & Wi-Fi Direct  © Borderless Printing up to A4 size	unit	1	15,000.00	15,000.00
9	Computer Printer  Compact integrated tank design  Print speeds up to 10.5ipm for black and 5.0ipm for colour  Auto-duplex printing  Wi-Fi & Wi-Fi Direct  Borderless Printing up to A4 size  Spill-free ink refilling	unit	1	15,000.00	15,000.00
9	Computer Printer  Compact integrated tank design  Print speeds up to 10.5ipm for black and 5.0ipm for colour  Auto-duplex printing  Wi-Fi & Wi-Fi Direct  Borderless Printing up to A4 size  Spill-free ink refilling  Warranty of 2 years or 30,000 pages, whichever	unit	1	15,000.00	15,000.00
9	Computer Printer  Compact integrated tank design  Print speeds up to 10.5ipm for black and 5.0ipm for colour  Auto-duplex printing  Wi-Fi & Wi-Fi Direct  Borderless Printing up to A4 size  Spill-free ink refilling  Warranty of 2 years or 30,000 pages, whichever comes first	unit	1	15,000.00	15,000.00
9	Computer Printer  Compact integrated tank design  Print speeds up to 10.5ipm for black and 5.0ipm for colour  Auto-duplex printing  Wi-Fi & Wi-Fi Direct  Borderless Printing up to A4 size  Spill-free ink refilling  Warranty of 2 years or 30,000 pages, whichever comes first  Printer Type:	unit	1	15,000.00	15,000.00
9	Computer Printer  ■Compact integrated tank design  ■Print speeds up to 10.5ipm for black and 5.0ipm for colour  ■Auto-duplex printing  ■Wi-Fi & Wi-Fi Direct  ■Borderless Printing up to A4 size  ■Spill-free ink refilling  ■Warranty of 2 years or 30,000 pages, whichever comes first  ■Printer Type: <print, copy<="" scan,="" td=""><td>unit</td><td>1</td><td>15,000.00</td><td>15,000.00</td></print,>	unit	1	15,000.00	15,000.00
9	Computer Printer  © Compact integrated tank design  © Print speeds up to 10.5ipm for black and 5.0ipm for colour  © Auto-duplex printing  © Wi-Fi & Wi-Fi Direct  © Borderless Printing up to A4 size  © Spill-free ink refilling  © Warranty of 2 years or 30,000 pages, whichever comes first  © Printer Type:  ✓ Print, Scan, Copy  © Printing Technology:	unit	1	15,000.00	15,000.00
9	Computer Printer  © Compact integrated tank design  © Print speeds up to 10.5ipm for black and 5.0ipm for colour  © Auto-duplex printing  © Wi-Fi & Wi-Fi Direct  © Borderless Printing up to A4 size  © Spill-free ink refilling  © Warranty of 2 years or 30,000 pages, whichever comes first  © Printer Type:  < Print, Scan, Copy  © Printing Technology:  © Print Method:	unit	1	15,000.00	15,000.00
9	Computer Printer  Compact integrated tank design  Print speeds up to 10.5ipm for black and 5.0ipm for colour  Auto-duplex printing  Wi-Fi & Wi-Fi Direct  Borderless Printing up to A4 size  Spill-free ink refilling  Warranty of 2 years or 30,000 pages, whichever comes first  Printer Type:  Print, Scan, Copy  Print Method:  On-demand inkjet (piezoelectric)	unit	1	15,000.00	15,000.00
9	Computer Printer  Compact integrated tank design  Print speeds up to 10.5ipm for black and 5.0ipm for colour  Auto-duplex printing  Wi-Fi & Wi-Fi Direct  Borderless Printing up to A4 size  Spill-free ink refilling  Warranty of 2 years or 30,000 pages, whichever comes first  Printer Type:  Print, Scan, Copy  Printing Technology:  Print Method:  On-demand inkjet (piezoelectric)  Minimum Ink Droplet Volume:	unit	1	15,000.00	15,000.00
9	Computer Printer  Compact integrated tank design  Print speeds up to 10.5ipm for black and 5.0ipm for colour  Auto-duplex printing  Wi-Fi & Wi-Fi Direct  Borderless Printing up to A4 size  Spill-free ink refilling  Warranty of 2 years or 30,000 pages, whichever comes first  Printer Type:  Print, Scan, Copy  Printing Technology:  Print Method:  On-demand inkjet (piezoelectric)  Minimum Ink Droplet Volume:  ■ 3 pl	unit	1	15,000.00	15,000.00
9	Computer Printer  © Compact integrated tank design  © Print speeds up to 10.5ipm for black and 5.0ipm for colour  © Auto-duplex printing  © Wi-Fi & Wi-Fi Direct  © Borderless Printing up to A4 size  © Spill-free ink refilling  © Warranty of 2 years or 30,000 pages, whichever comes first  © Printer Type:  ✓ Print, Scan, Copy  © Print Method:  ✓ On-demand inkjet (piezoelectric)  © Minimum Ink Droplet Volume:  ✓ 3 pl  © Printer Language:	unit	1	15,000.00	15,000.00
9	Computer Printer  Compact integrated tank design  Print speeds up to 10.5ipm for black and 5.0ipm for colour  Auto-duplex printing  Wi-Fi & Wi-Fi Direct  Borderless Printing up to A4 size  Spill-free ink refilling  Warranty of 2 years or 30,000 pages, whichever comes first  Printer Type:  Print, Scan, Copy  Printing Technology:  Print Method:  On-demand inkjet (piezoelectric)  Minimum Ink Droplet Volume:  3 pl  Printer Language:  ESC / P-R	unit	1	15,000.00	15,000.00
9	Computer Printer  Compact integrated tank design  Print speeds up to 10.5ipm for black and 5.0ipm for colour  Auto-duplex printing  Wi-Fi & Wi-Fi Direct  Borderless Printing up to A4 size  Spill-free ink refilling  Warranty of 2 years or 30,000 pages, whichever comes first  Printer Type:  Print, Scan, Copy  Printing Technology:  Print Method:  On-demand inkjet (piezoelectric)  Minimum Ink Droplet Volume:  3 pl  Printer Language:  ESC / P-R  Print Direction:	unit	1	15,000.00	15,000.00
9	Computer Printer  © Compact integrated tank design  © Print speeds up to 10.5ipm for black and 5.0ipm for colour  © Auto-duplex printing  © Wi-Fi & Wi-Fi Direct  © Borderless Printing up to A4 size  © Spill-free ink refilling  © Warranty of 2 years or 30,000 pages, whichever comes first  © Printer Type:  ✓ Print, Scan, Copy  © Printing Technology:  © Print Method:  ✓ On-demand inkjet (piezoelectric)  © Minimum Ink Droplet Volume:  ✓ 3 pl  © Printer Language:  ✓ ESC / P-R  © Print Direction:  ✓ Bi-directional printing, Uni-directional printing	unit	1	15,000.00	15,000.00
9	Computer Printer  Compact integrated tank design  Print speeds up to 10.5ipm for black and 5.0ipm for colour  Auto-duplex printing  Wi-Fi & Wi-Fi Direct  Borderless Printing up to A4 size  Spill-free ink refilling  Warranty of 2 years or 30,000 pages, whichever comes first  Printer Type:  Print, Scan, Copy  Printing Technology:  Print Method:  On-demand inkjet (piezoelectric)  Minimum Ink Droplet Volume:  3 pl  Printer Language:  ESC / P-R  Print Direction:  Bi-directional printing, Uni-directional printing  Nozzle Configuration:	unit	1	15,000.00	15,000.00
9	Computer Printer  © Compact integrated tank design  © Print speeds up to 10.5ipm for black and 5.0ipm for colour  © Auto-duplex printing  © Wi-Fi & Wi-Fi Direct  © Borderless Printing up to A4 size  © Spill-free ink refilling  © Warranty of 2 years or 30,000 pages, whichever comes first  © Printer Type:  ✓ Print, Scan, Copy  © Printing Technology:  © Print Method:  ✓ On-demand inkjet (piezoelectric)  © Minimum Ink Droplet Volume:  ✓ 3 pl  © Printer Language:  ✓ ESC / P-R  © Print Direction:  ✓ Bi-directional printing, Uni-directional printing	unit	1	15,000.00	15,000.00

■Maximum Resolution:		
■5760 x 1440 dpi (with Variable-Sized Droplet		
Technology)		
■Automatic 2-sided Printing:		
✓ Yes (up to A4)		
■Print Speed:		
■ Photo Default - 10 x 15 cm / 4 x 6 " *2:		
■ 1Approx. 69 sec per photo (Border) *1		
■ Approx. 92 sec per photo (Border) 1		
■ Draft, A4 (Black / Colour):		
, ,	+	
<ul><li>■Up to 33 ppm / 15 ppm *1</li><li>■ISO 24734, A4 Simplex (Black / Colour):</li></ul>		
■Up to 10.5 ipm / 5.0 ipm *1 ■USO 24724 A4 Dupley (Pleak / Colour)		
■ISO 24734, A4 Duplex (Black / Colour):		
<b>⋖</b> Up to 6.0 ipm / 4.0 ipm *1		
©Copy Speed:		
©Copy Quality:		
◆Draft / Standard / Best Quality		
■Maximum Copies from Standalone:		
◀99 copies		
■Reduction / Enlargement:		
<b>■</b> 25 - 400%, Auto Fit Function		
■Maximum Copy Size:		
■A4, Letter		
■ISO 29183, A4 Simplex Flatbed (Black / Colour):		
<b>⋖</b> Up to 7.7 ipm / 3.8 ipm		
■Max Copy Resolution:0		
<b>◄</b> 1440 x 720 dpi		
■Scan Function:		
<b>■</b> Scanner Type:		
<b>©</b> Sensor Type:		
<b>◄</b> CIS		
<b>⊚</b> Optical Resolution:		
<b>■</b> 1200 x 2400 dpi		
<b>◙</b> Maximum Scan Area:		
<b>■</b> 216 x 297 mm (8.5 x 11.7 ")		
■Scanner Bit Depth (Colour):		
■48-bit input, 24-bit output		
■Scanner Bit Depth (Grayscale):		
■16-bit input, 8-bit output		
■Scanner Bit Depth (Black & White):		
■16-bit input, 1-bit output		
■Scan Speed:		
■Flatbed (Black / Colour):		
■ 200 dpi: 11 sec / 200 dpi: 28 sec		
■Paper Handling:		
■Number of Paper Trays:		

	■Ultra-low-cost printing: Print up to 4,500 pages in black and 7,500 in colour				
11	Colored-Ink Tank	unit	Э	14,000.00	70,000.00
11	Computer Printer, All-in-One/Multifunction	uni4	5	14 000 00	70 000 00
	■Borderless printing up to 4R				
	<b>■</b> Wi-Fi, Wi-Fi Direct				
	Spill-free, error-free refilling				
	■High yield ink bottles				
	■Compact integrated tank design				
10	with CIS Filled with Inks	unit		12,000.00	12,000.00
10	Computer Printer 3-in-1	unit	1	12,500.00	12,500.00
	■TCP/IPv4, TCP/IPv6, LPD, IPP, PORT9100, WSD				
	■Wi-Fi IEEE 802.11b/g/n, Wi-Fi Direct  ■Network Protocol:				
	■Network:				
	■USB: <b>USB</b> 2.0				
	■Interface:				
	■ Mac OS X 10.6.8 or later				
	for Windows Server OS				
	<b>◄</b> Only printing and scanning functions are supported				
	■ Windows Server 2003 / 2008 / 2012 / 2016				
	7/8/8.1/10				
	■Windows XP / XP Professional x 64 Edition / Vista /				
	■Operating System Compatibility:				
	■Printer Software:				
	<b>⋖</b> SD Memory Card				
	■Supported Memory Cards:				
	<b>▲</b> Memory Device				
	■Type of Direct Printing:				
	■Card Slot / USB Host Function:				
	printer driver (except plain paper) *3				
	<b>◄</b> 0 mm top, left, right, bottom via custom settings in				
	Print Margin:				
	DL, C6				
	A6, 100 x 148 mm, B6, 5 x 7 ", 4 x 6 ", Envelopes #10,				
	■ Legal, 8.5 x 13 ", Letter, A4, 195 x 270 mm, B5, A5,				
	■Paper Size:				
	■ Friction feed				
	■Paper Feed Method:				
	■Maximum Paper Size.  ■215.9 x 1200 mm (8.5 x 47.24 ")				
	■20 sheets, Premium Glossy Photo Paper  ■Maximum Paper Size:				
	■ 30 sheets, A4 Plain Paper				
	Output Capacity:				
	■20 sheets, Premium Glossy Photo Paper  □ 1 1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3				
	■100 sheets, A4 Plain paper (80 g/m2)				
	■Standard Paper Input Capacity:				
	◀1 (Paper Cassette)				

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60 720
00 40,000.00
10,000100
450,000,00
00 150,000.00

	■Screen: at least 23" IPS Monitor FHD				1
	■ Optical Drive: No Optical Drive				
	■USB Mouse and Keyboard				
	■ Uninterruptible Power Supply (UPS): at least				
	600VA, at most 4 hours charging time				
	<b>■</b> OS: Windows 10 Home Single Language (64bit)				
	English or higher				
15	Desktop Computer, Assembled, 12th Gen Core i5	unit	1	50,000.00	50,000.00
10	■Processor: Intel Core i5 12500 with Intel® UHD	unit	'	30,000.00	30,000.00
	Graphics 770 processor graphics or higher				
	■Motherboard: Intel® H610 Motherboard with 6+1+1				
	Hybrid Phases Digital VRM Design, PCIe 4.0* Design,				
	Gen3 x4 M.2, mATX form factor, Anti-Sulfur Resistor				
	or higher				
	■Memory: 16GB (2x8) 3200MHz DDR4 or higher				
	SSD: 500GB 3D NAND SSD PCIe Gen3x4 or higher				
	■Casing: MATX casing with acrylic side panels				
	■Power Supply: 450Watts 80+ Bronze Certified with				
	120mm thermally controlled low-noise cooling fan				
	■Monitor: 23" IPS FHD, 72% NSTC color gamut with				
	75Hz refresh rate				
	■Operating System: Genuine Windows 11 Pro				
	Keyboard and Mouse Combo: Spill-resistant design				
	with up to Up to 5 million keystrokes (excludes				
	number lock key) keyboard and full-sized				
	ambidextrous optical mouse				
	■500W IC controlled AVR				
40	Desktop Computer, Assembled, 12th Gen Core i5,	4	4	40,000,00	400 000 00
16	SDD and HDD	set	4	49,000.00	196,000.00
	■Processor: Intel® Core i5 12th gen with Intel® UHD				
	Graphics 730 or higher				
	■Motherboard :Intel® H610 Chipset for 12th Gen				
	Intel® Core™ Series Processors, Dual Channel Non-				
	ECC Unbuffered DDR4, 2 DIMMs, 6+1+1 Hybrid				
	Digital VRM Design, Intel® GbE LAN, NVMe PCIe 3.0				
	x4 M.2, High Quality Audio Capacitors and Audio				
	Noise Guard, mATX form factor or higher				
	■RAM: 16GB DDR4 3200 Mhz or higher				
	■SSD: 512 GB NVMe PCIe Gen 3x4				
	■HDD: 1 TB 7200 RPM				
	■PSU: 650w 80 plus Bronze Certified				
	■Casing: mATX Casing with transparent acrylic side				
	panel				
	■24" IPS monitor 72% NSTC color gamut with 75Hz				
	refresh rate				
	■Keyboard and Mouse Combo: Spill-resistant design				
	with up to Up to 5 million keystrokes (excludes				
	1		1	i I	
	number lock key) keyboard and full-sized				

	■Operating system: Genuine Windows 11				
17	DHT11 Temperature/Humidity Sensor module for Arduino with wires, temp accuracy +-2°C	unit	12	80	960
	DHT11 Temperature/Humidity Sensor module for				
	Arduino with wires, temp accuracy +-2°C, functional				
	and good quality				
18	EPSON M200 Ink 774 black	btl	3	645	1,935.00
	Epson Genuine 774 Pigment Black 140ml Ink for M200;				
19	External Hard Drive, 1 TB	unit	2	3,000.00	6,000.00
	Capacity: 1TB				
	Connection interface: USB 2.0/3.0				
	Storage Media: 2.5" SATA HDD				
	Op. Voltage: USB DC 5V				
	Size :129.5mm x 82.4mm x 20.4mm				
	Weight: 216g				
20	Global Positioning System (GPS)	unit	1	35,000.00	35,000.00
	4-inch dual-orientation,				,
	glove friendly touchscreen display;				
	8 megapixel autofocus camera;				
	automatically geotags photos; tracks both GPS and				
	GLONASS satellites;				
	1-year birds Eye Satellite Imagery subscription;				
	3-axis compass with barometric altimeter				
21	HDMI Cable	рс	2	300	600
	3m	Po	_		
22	HDMI Cable, 10m	mete r	4	700	2,800.00
	■10 meters				
	■Nylon braided				
	■1.4 version 3D support				
	■Support all high resolutions including 480p, 720p, 1080p and 1180p.				
	■Multi -channel digital audio with a 10.2 Gbps band- width				
	■HDMI AV cable for HDTV				
	■HDMI EMI/RFI Compliant Cable				
	■24k GOLD plated HDMI plugs				
	■ROHS compliant cable.				
23	Headset with Noise Cancelling Mic	unit	2	1,800.00	3,600.00
	■Input Impedance: at least 32 Ohms	G.1116	_	1,000100	
	Sensitivity (headphone):at least 94 dBV/Pa +/- 3 dB				
	Sensitivity (microphone): -17 dBV/Pa +/- 4 dB				
	■Frequency response (Headset): 20 Hz - 20 KHz				
	■ Frequency response (Microphone): 100 Hz - 10 KHz				
	■ Cable Length: at least 7 ft				
	©Connections: USB-A compatible (1.1, 2.0, 3.0), USB				
	port 1Type A port or adapter				
24	Ink Cartridge Canon G2010	рс	20	1,000.00	20,000.00

25	Ink continuous, refill, black (Brother DCP T310)	btl	10	400	4,000.00
	Ink continuous, refill, black (Brother DCP T310)				·
	BTD60 BK - Black;				
26	Ink, Brother BT5000C Cyan	btl	5	500	2,500.00
27	Ink, Brother BT5000M Magenta	btl	5	500	2,500.00
28	Ink, Brother BT5000Y Yellow	btl	5	500	2,500.00
29	Ink, Epson 003, Genuine Black 65mL	btl	35	350	12,250.00
30	Ink, EPSON 003, Genuine Cyan 65mL	btl	16	350	5,600.00
31	Ink, EPSON 003, Genuine Magenta 65mL	btl	11	350	3,850.00
32	Ink, EPSON 003, Genuine Yellow 65mL	btl	16	350	5,600.00
33	Ink, Epson, genuine, (BK) T664, 70 ml	рс	4	350	1,400.00
34	ANTI VIRUS 1 DEVICE 2 YEARS	рс	3	1,000.00	3,000.00
35	INTERNET SECURITY 1 DEVICE 1 YEAR	рс	3	700	2,100.00
36	Keyboard And Mouse Combo Bundle, USB	set	2	600	1,200.00
30	powered	361		000	1,200.00
	■Keyboard				
	■Keycaps: A-Shape, Round Edge				
	→ Hotkeys: No				
	■Adjustable Keyboard Legs: Yes				
	■Rating: 5 V / 30 mA				
	■Mouse				
	■Report Rate: 125 Hz				
	■ Sensor: Optical				
	■Resolution: 1000 DPI				
	■Rating: 5 V / 100 mA				
	<b>■</b> Buttons No.: 3				
	■Ergonomic Design: Symmetric				
	Size: Middle / Big Hands				
37	LCD Projector (XGA), 3LCD Technology	unit	22	25,000.00	550,000.00
	■Projection System Technology: RGB liquid crystal				
	shutter projection system (3LCD), 3-chip technology				
	■White Light Output (Normal/Eco):3,600 Im				
	<b>■</b> Colour Light Output:3,600 lm				
	■Resolution XGA, at least 1024 x 768,				
	■Analog Input:D-Sub 15pin: 1				
	■Digital Input:HDMI: 1				
	■LCD:Native Resolution: XGA (1024 x 768)				
	■Size: 0.55" (C2fine)				
	■Lightsource:Type: 210W UHE				
	■Life (Normal / Eco): 6,000 / 12,000 hours				
	■Aspect Ratio:4:3				
	■USB Interface:USB Type B: 1 (For Firmware				
	Update, Copy OSD Settings)				
	■Analog Input:D-Sub 15pin: 1				
	■Digital Input:HDMI: 1				
38	LCD Projector, XGA (1024x768)	unit	13	27,000.00	351,000.00
	■Projection Method: Front/rear/ceiling mount				

	■Pixel Number: at least 786,432 dots (1024 x 768) x 3				1
	©Color Brightness: 3.600 lumen- 2.235 lumen				
	(economy) In accordance with IDMS15.4				
	■Aspect ratio: 4:3				
	■Lamp Life: ECO Mode up to 5000 hrs				
	■Normal Mode up to 4000 hrs				
	■Projection Distance Wide/Tele: 1,8 m - 2,17 m ( 60 inch screen)				
	/				
	Keystone Correction: Manual      No. 10				
	■USB Plug 'n Play: Compatible w/ PC and MAC				
	computers				
	©Contrast Ratio: 15.000 : 1				
	©Color Reproduction: 16.77 million color			242	
39	Mouse, Wired, Optical, USB	рс	3	210	630
	■USB Port Connectivity				
	■Sensor: Optical				
	■DPI: 1600				
	<b>■</b> Work method: Wired				
	■Buttons: Left button, middle button, right button				
	■Scroll wheel direction: Two way				
	■Design highlights: Easy installation. 1600 DPI high-				
	definition tracking engine. Anti-slip scroll wheel. Full-				
	size, ambidextrous design				
40	NETBOOK	unit	1	16,000.00	16,000.00
	PROCESSOR INTEL 4th GENERATION				-
	PROCESSOR or higher				
	PROCESSOR MODEL INTEL CORE i3/i5/i7				
	STORAGE CAPACITY 16GB or higher				
	SOLID STATE DISK CAPACITY 512GB or higher				
	MECHANICAL HARD DISK CAPACITY 500GB HDD				
	or higher				
	SCREEN SIZE 15.6 INCHES - 14 INCHES				
41	Printer, All-in-One Wireless Ink Tank Color	unit	16	11,000.00	176,000.00
71	■ Product Description	unit	10	11,000.00	170,000.00
	■ Product Description ■ Product Details of All-in-One Wireless Ink Tank				
	Colour Printer				
	◆Printing resolution(dpi): 4800(horizontal) x				
	1200(vertical)				
	1 /				
	Interface: USB Port=Hi-Speed USB *1, LAN Port=Wireless   AN:   IEEE903.11a /   IEEE903.11a				
	Port=Wireless LAN: IEEE802.11n / IEEE802.11g / IEEE802.11b*2				
	■ Multiple copy: Max. 20 pages				
	■Maximum scanning size: A4/Letter, 8.5" x 11.7"/216x297 mm				
	<ul><li>■ Multiple Copy: Mx. 99 pages</li><li>■ Scanner Driver: Windows=TWAIN 1.9</li></ul>				
	Scanning resolution: optical resolution (horizontal x				
<u> </u>	vertical)= 600 x 1200 dpi				

	■ Gradiation (input/Output): Gray=16bit/8bit, Color=				
	RGB each 16bit/8bit				
	◆Data Compressing System: Black=MH, MR, MMR, Color= JPEG				
	■Modem Speed: Max. 33.6 kbps				
	■ Density adjustment: 3 levels				
	■Memory: Transmission/reception= approx. 50 pages				
	<b>⋖</b> Color: 200 x 200 dpi				
	◆Operating System: Windows 10,8.1,7 SP1				
	■Hard Disk Space: 3.1GB				
	■ Display: XGA 1024 x 768				
	<b>Connectivity Type: WiFi</b>				
	■Wireless LAN: Supported Standards: IEEE802.11n / IEEE802.11g / IEEE802.11b				
	◆Frequency bandwidth: 2.4 GHz				
	■WCN (WCN-NET) • Easy wireless connect				
	<b>◄</b> Other Features: Administration password				
	<b>◄</b> Other Supported OS: iOS, Android, Windows 10				
	Mobile				
	■Mobile Printing Capability: Google Cloud Print,				
	Apple AirPrint				
40	Printer, computer, continuous ink system, 4-in-1	•4		00 000 00	22 222 22
42	(Print, Scan, Xerox copy, Fax with ADF)	unit	3	22,000.00	66,000.00
	■Print Method: On-demand ink jet (piezoelectric)				
	■Minimum Ink Droplet Volume:3 pl				
	■Print Direction: Bi-directional printing, Uni-directional				
	printing				
	■Nozzle Configuration: 180 nozzles Black, 59 nozzles				
	per colour (Cyan, Magenta, Yellow)				
	■Maximum Resolution: 5760 x 1440 dpi (with				
	Variable-Sized Droplet Technology)				
	■USB: USB 2.0				
	■Network: Wi-Fi IEEE 802.11b/g/n, Wi-Fi Direct				
	■Network Protocol: TCP/IPv4, TCP/IPv6				
43	SD Card, 1 TB	рс	3	800	2,400.00
	U3 4K C10 V30	•			,
	Capacity: 1 TB				
	Compatibility: Compatible with				
	microSDHC/SDXC,/SDHC UHS-I/microSDXC UHS-I				
	supporting host devices				
	Sequential Read Performance: 200MB/s				
	Sequential Write Performance: 140MB/s				
	Dimension (L x W x H): 10.92mm x 14.99mm x				
	1.02mm				
44	Stereo Speaker for PC Desktop	рс	1	10,000.00	10,000.00
	Product Description	_ r *	<u> </u>	- /	-,
	Quantum Duo PC speakers with the different color				
	presets and lighting patterns				
	1 p		L		

	General Specifications:				
	Output power (W)20				
	Audio Specifications:				
	Dynamic frequency response range (Hz)				
	60 Hz - 20K Hz				
	Dimensions:				
	Dimensions (cm)				
	8.9 x 21 x 17.6				
	Dimensions (in)				
	3.5 x 8.3 x 6.9				
	Weight (kgs) 2.8				
	Weight (lbs)6.2				
	Control and Connection Specifications:				
	Bluetooth profiles				
	A2DP v1.3, AVRCP v1.5				
	Bluetooth frequency 2402 MHz - 2480 MHz				
	Bluetooth transmitted modulation				
	GFSK, π/4 DQPSK, 8DPSK				
	Bluetooth transmitter power				
	≤ 12.5 dBm (EIRP)				
	Bluetooth version				
45	4.2			070	4 000 00
45	Temperature and Humidity Sensor DHT11	рс	6	270	1,620.00
	Operating voltage: 3.3v-5.5v				
	Humidity measuring range: 20%-95%				
10	Small plates PCB size: 3.2cm x 1.4cm			250	0.400.00
46	Temperature and Humidity Sensor, DHT22	рс	6	350	2,100.00
	Sensing element				
	◆polymer capacitor				
	■Power supply				
	<b>◄</b> 3.3 to 6V DC				
	◆Operating range				
	<b>⋖</b> 0-100% RH;				
	4-40 to 80 celsius Temp				
	■ Dimension				
	<b>◄</b> 22 x 28 x 5 mm				
47	Temperature-Humidity Data Logger	рс	2	2,000.00	4,000.00
	■Portable and hand-held				
	■16000 data recording capacity.				
	■Adjustable record interval: 10s~24hour				
	■Multi-function LCD				
	■Internal NTC temperature thermal sensor with				
	optional external sensor				
	■Data export in PDF/EXCEL via data management				
	software				
	■Selectable °F/°C temperature unit ■Size: approx. 84 (L) x 44(W) x 20 (H) mm				

	<b>■</b> Good quality				
	<b>■</b> Durable				
48	UPS 800W ( for Computer)	unit	3	5,000.00	15,000.00
	■Charging time: At most 4 hours;			·	·
49	USB Hub, 4 gangs	рс	4	680	2,720.00
	MS Universal USB 3.0 Multi-Port Socket at least 4				·
	ports				
	Plug type: US, EU				
50	Web Camera for PC	unit	6	2,500.00	15,000.00
	■Image sensor: 1 / 2.9			,	,
	©Lens: 3.6mm/75.7 °				
	■Effective pixel: 1932 (H) * 1088 (V)				
	■Horizontal resolution: 2MP				
	■SNR: > 50dB				
	■Video stream: H.264:1920 * 1080 / 1920 * 720 / 640				
	* 360 MJPEG: 1920 * 1080 / 1920 * 720 / 640 * 360				
	■Video Frame rate: 25FPS / 30FPS				
	■Electronic shutter: Auto				
	■Protocol: UVC / UVA				
	■Video output: USB video stream				
	■Working voltage: DC5V / 160mA ± 6mA				
	■Working environment: -20 °C to 60 °C				
	Desktop Computer, AMD Ryzen 5 5600G, 16GB		_		
51	RAM, GTX 1660 ti	set	1	50,000.00	50,000.00
	Processor: AMD Ryzen 5 5600G 6 Cores & 12				
	Threads, 3.9 GHz Base Clock,4.4 GHz Max Boost				
	Clock, Socket AM4, 3MB L2 & 16MB L3 Cache or				
	higher				
	■Motherboard: AMD B550 Chipset Ultra Durable				
	Motherboard with 5+3 Phases Pure Digital VRM				
	Solution with Low RDS(on) MOSFETs, PCIe 4.0 x16				
	Slot, Dual PCIe 4.0/3.0 M.2 Connectors, Realtek GbE				
	LAN, High Quality Audio Capacitors and Audio Noise				
	Guard for Ultimate Audio Quality or higher				
	■Graphics: GTX 1660 ti				
	■Monitor: 24"				
	■Memory: 16GB DDR4 3200MHZ(8+8) or higher				
	■Storage: 512g SSD M2 or higher				
	■Storage: 1TB HDD				
	■Keyboard and Mouse				
	■Audio: HD audio Realtek				
	■Operating System: Genuine Windows 10 or higher				
52	Laptop (Pentium Dual Core)	рс	2	30,000.00	60,000.00
	■Processor: Intel Pentium Gold 4417u Processor or				
	higher				
	■Memory: at least 4GB DDR4 or higher				
	■Storage: at least 128GB SSD				
	■Display: 14" HD (1366x768) LED Display				
	■Video Processor: nVidia MX110 2GB VRAM or				

	higher				
	©Connectivity: 802.11AC WiFi + BT   USB3.0 Port   HDMi Port				
	■Operating System: Genuine Windows 10 Home				
53	Desktop Computer (i7) Branded, with 24" FHD IPS Monitor	unit	1	100,000.00	100,000.00
	■Processor Type: Intel Core i7 (2.1 GHz base				
	frequency, up to 4.9 GHz with Intel Turbo Boost				
	Technology, 25 MB L3 cache, 12 cores, 20 threads) or higher				
	■Memory: 16 GB DDR4-3200 SDRAM (1 x 16 GB) or higher				
	■Hard Drive: 512 GB PCIe NVMe M.2 SSD; 1 TB 7200 rpm SATA HDD				
	■OS: Windows 11				
	■"Expansion Slot: 2 x PCI Express Slots (1 x PCI-Ex16 ,1 x PCI-Ex1 ), 2 x M.2 Expansion Slots (1 for SSD; 1 for WLAN)", Expansion Bay: HDD 3.5" x 2 (or HDD 3.5" x 1 + HDD 2.5" x1) + 9.5mm slim ODD x 1				
	Monitor: 24" FHD IPS Monitor				
	■Graphics: NVIDIA GeForce GTX 1660 SUPER (6 GB GDDR6 dedicated)				
	■Power Supply: 350 W 80 Plus Gold cerfified power supply				
	■Keyboard & Mouse: Wireless Keyboard and mouse combo				
	■LAN: Integrated 10/100/1000 GbE LAN				
	■"WLAN: Realtek Wi-Fi 6 (2x2) and Bluetooth 5.2 combo (Supporting Gigabit data rate) MU-MIMO supported "Bluetooth: YES				
	■Ports: Front: 2 SuperSpeed USB Type-A 5Gbps signaling rate; 2 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-C 5Gbps signaling rate; Rear: 4 USB 2.0 Type-A				
	■Speakers:				
	■ Single USB cable for computers and laptops   enjoy a hassle-free Audio experience with a single USB				
	cable without the need for a power adapter				
54	HP, Laser Jet 107a Toner HP 107A (W1107A), Black	рс	4	3,250.00	13,000.00
55	Printer, Tank Ink System, 3 in 1 (Print, Scan, Copy)	unit	1	11,000.00	11,000.00
	■Tank Ink System				
	■ Printer Type: Print, Scan and Copy				
	Scanner Type: Flatbed colour image scanner				
	Sensor Type: CIS				
	Optical Resolution: 600 x 1200 dpi				
	©Copy Speed: Maximum Copies from Standalone: 20 copies				
	■Maximum Copy Size: A4, Letter				

PICO 20102 Ad Cimpley Flethed (Pleak	/ Colourly IIn			1	
■ISO 29183, A4 Simplex Flatbed (Black	Colour). Op				
to 7.0 ipm / 1.7 ipm					
<ul><li>Max Copy Resolution: 300 x 300 dpi</li><li>Paper Handling: Up to 20 Sheets-Presonant</li></ul>	mium Classy				
Photo Paper 10 Sheets-Envelope,					
Postcard	30 SHEERS-				
■Output Capacity: Up to 30 sheets					
■A4 plain paper: 20 sheets, Premium 0	Placey Photo				
Paper	nossy i noto				
■Maximum Paper Size: 215.9 x 1200	mm (8.5 y				
47.24")	11111 (0.0 X				
■Nozzle Configuration: 180 x 1 nozzles	Black 59 x 1				
nozzles per colour (Cyan, Magenta, Yello	·				
■Print Direction: Bi-directional printing	,				
■Maximum Print Resolution: 5760 x 14	140 dni (with				
Variable-Sized Droplet Technology)5760	• •				
(with Variable-Sized Droplet Technology)					
■Minimum Ink Droplet Size: 3 pl					
56 Toner Cartridge, HP 85A   CE285A, Bla	ck	box	4	3,500.00	14,000.00
HP 85A (CE285A) toner cartridges we		- COX	-	5,555.65	1 1,000100
LaserJet Pro M1212nf, M1217nfw, P1102					
HP 85A toner cartridge yield (approx.):					
Operating temperature range is 10 to 32.5					
57 1 Lot LAN Cable		lot	1	84,000.00	84,000.00
7 spools at 12,000.00 each				,	,
LAN Cable, Cat 6 (VSU existing fleet Beld	len)				
Cat6 UTP cable, 4 pairs, AWG23, e-splir					
listed, ISO, 305m(1000ft)/spool	,				
58 1 Lot Network Infrastructure (Miscellar	eous)	lot	1	91,000.00	91,000.00
Network IP Phones:	,				
3 units at 7,000.00					
Cisco CP-6821 (same existing fleet	of VSU IP				
Phones)					
IP Network Camera:					
5 units at 3,500.00					
Hikvision, Dome type camera, 2 Mega	Pixel IP67				
(Same brand of Existing VSU fleet camer					
3M Volition (Same fleet of VSU existing	) Face plate				
with module, flush type					
*2 Ports Face plate with RJ-45 Module Ca	at 6				
25 sets at 850.00					
3M Keystone					
Original 3M Volition (Cat6 female To	ol-less RJ45				
Keystone Mount)					
Re-usable					
Shallow Depth, Cable Entry from top or b	ottom				
Keystone Mounting					
Accepts both solid conductors from AWG	26 to 22 and	Ţ	T	T	
stranded conductors					

	Integral shutter Benefits				
	Easy and quick to install			+	
	Integral shutter protects jack in the patch panel				
	*1 Port Face plate with RJ-45 Module Cat 6				
	25 sets at 450.00				
	3M Keystone				
	Original 3M Volition (Cat6 female Tool-less RJ45				
	Keystone Mount)				
	Re-usable				
	Shallow Depth, Cable Entry from top to bottom				
	Keystone Mounting				
	Accepts both solid conductors from AWG 26 to 22 and			+	
	stranded conductors				
	Integral shutter Benefits			+	
	Easy and quick to install				
	Integral shutter protects jack in the patch panel				
	Granding FA1-H Biometric System (Same with existing VSU fleet)				
	ů ,				
	2 units at 10,000.00				
-	Biometric System, finger print and facial recognition				
	Built-in backup battery				
	Network port			450 000 00	450.000.00
59	1 Lot Network Switches	lot	1	450,000.00	450,000.00
	6 units at 75,000.00 each				
	Network Switches:				
	Units-HP Aruba 2530 (Based on VSU Existing HP				
	fleet of network equipment)				
	*PoE, PoE+ (370watts)				
	*24 ports				
	*Up to 104 Gbps capacity				
	*Layer 2				
	*Fast Ethernet, 1GbE				
	*Lifetime Warranty				
60	1 Lot Network Switches (2)	lot	1	190,000.00	190,000.00
	2 units at 95,000.00 each				
	Network Switches:				
	HP Aruba 2540 (Based on VSU existing HP fleet of				
	network equipment)				
	PoE, PoE+ (370 watts)				
	24 ports				
	Up to 176 Gbps Switching capacity				
	Layer 2 with Static and RIP				
	1G, SFP, SFP+				
	Lifetime Warranty				
61	1 Lot Uninterruptible Power Supply (UPS)	lot	1	54,000.00	54,000.00
					•
ı	UPS: 9 units at 6,000.00				
	1000 watts, 1500VA, Universal type of outlet, built-in				
62	,	lot	1	300,000.00	300,000.00

	20 units Network WiFi Access Points				
	Unifi Nano HD				
	(Existing fleet of VSU Wifi Access Points)				
63	Network Switch	unit	4	15,000.00	60,000.00
03	■Standards: IEEE 802.3, 802.3u, 802.3x, 802.3ab,	unit	4	13,000.00	00,000.00
_	802.3az				
	Number of Ports: 24 Gigabit				
	■Speed: 10/100/1000				
	■Speed. 10/100/1000 ■Bandwidth: 48 Gbps (non-blocking)				
	■Performance: Full line rate and forwarding rate of				
	64B frame at: 1.488Mpps for 1000M port ,				
	0.1488Mpps for 100M port, 0.01488Mpps for 10M port				
	■Quality of Service: 802.1p and DSCP ■MAC Address Table: 8K				
C A			2	7 500 00	22 500 00
64	UTP Cable (305 meters), CAT 6 23 AWG	unit	3	7,500.00	22,500.00
	©UTP Cable cat6				
	©Cat 6 Cable UTP Unshielded AWG23				
	■Gray Data LAN Cable				
	■1000 feet 305m 1000ft.				
	must be UL listed & ISO certified cable	14	_		
65	Laptop, 14" (i7)	unit	5	75,000.00	375,000.00
	■Processor: Intel Core i7 10th generation or higher				
	■Graphics: NVIDIA GeForce MX250 at least 2GB GDDR5				
	■Memory: at least 8GB DDR4-2666				
	■Storage: at least 256GB SSD M.2 + 1TB HDD				
	■Display: 14" FHD (1920x1080) IPS 250nits Anti-				
	glare				
	■Touchscreen: None				
	■Optical: None				
	<b>■</b> Ethernet: None				
	■WLAN + Bluetooth				
	■Camera: at least 720p				
	■Microphone: at least 2x, Array				
	■Operating System: licensed Windows 10 Home or				
	Pro				
	■Bundled Software: Microsoft Office Perpetual				
-	License				
	■Repair and replacement should be at most 3 month from returning the unit				
	■at least 3 years Warranty				
	■FREE: Backpack				
66	HDMI to HDMI cable	рс	30	500	15,000.00
	chord 1.8 meter long	•			·
67	External Hard Disk Drive (Portable, 2TB), USB	unit	1	4,200.00	4,200.00
	■Shock-absorbing			,	•
	■Interface: USB 3.1 (Max.5Gb/s)				
	■Capacity: 2TB				

	■Texture: Plastic/Rubber				
	■Operating Voltage: DC 5V, 900mA				
	System Requirements: Windows XP / Vista / 7 / 8 /				
	8.1 / 10, Mac OS X 10.6 or later, Linux Kernel 2.6 or				
	later				
68	Multimedia Speakers 2.0, 6W, USB powered	pair	2	600	1,200.00
	Total Output Power (RMS): 6W	P STATE			-,
	Satellite wattage (RMS):3W				
	Satellite Driver: Size: 2.5"				
	Frequency Range: 70-20000 Hz				
	Interface: 3.5mm jack				
	Housing material : ABS				
	Controls: Overall Volume				
	Power Supply: via USB, 5V				
69	DJI Inspire 2 TB50 Intelligent Flight Battery	рс	4	10,000.00	40,000.00
	Lithium Polymer battery 2150MAH 11.V Sensefly	Po		·	•
70	Type 2150 MAH-Min 2150 mAh-24wh	рс	2	15,000.00	30,000.00
71	A4 Pigment Printer	lot	1	20,000.00	20,000.00
	Smartphone for 3D and Internet-of-Things				·
72	Development and Controls	unit	1	80,000.00	80,000.00
	6-core CPU with 2 performance and 4 efficiency				
	cores; 5-core GPU; 16-core Neural Engine				
	Gold Finish				
	6.1-inch (diagonal) all-screen OLED display				
	2556-by-1179-pixel resolution at 460 ppi				
	256 GB				
	Rated IP68 (maximum depth of 6 meters up to 30				
	minutes) under IEC standard 60529				
	TrueDepth camera for facial recognition				
	Precision dual-frequency GPS (GPS, GLONASS,				
	Galileo, QZSS, and BeiDou)				
	Digital compass				
	Wi-Fi				
	Cellular				
	iBeacon microlocation				
	LiDAR Scanner				
	Barometer				
	High dynamic range gyro				
	High-g accelerometer				
	Proximity sensor				
	Dual ambient light sensors				
73	Arduino UNO microcontroller, Microchip AT mega328P	unit	6	1,500.00	9,000.00
74	Computer Monitor 24", IPS, Bezel-less Full HD Monitor	set	8	7,000.00	56,000.00
	■Panel Type: IPS				
	■Brightness(Typical): 250cd/m <sup>2</sup>				
	■Brightness(Min): 200cd/m²				

	■Contrast Ratio Static: 1000:1(typical)				
	■Dynamic Contrast Ratio: MegaFlat				
	■Resolution: 1920x1080				
	■Response Time: 5ms(GTG)				
	■Max Color Support: Max 16.7M				
	■Max Refresh Rate: Max 75Hz				
	■Interface: D-sub(x1), HDMI(x1)				
75	CPU (Central Processing Unit)	рс	2	15,000.00	30,000.00
	■AMD A10-8770 Processor	Po	_	10,000.00	00,000.00
	■Motherboard compatible with the processor				
	Skingston 4GB DDR4-2666 Memory				
	■CPU Casing w/ PSU				
	■256GB SSD				
76	External Hard Disk Drive (Portable, 1TB), USB 3.1	unit	15	3,500.00	52,500.00
10	Shock-absorbing	unit	13	3,300.00	32,300.00
	■Shock-absorbing ■Interface: USB 3.1 (Max.5Gb/s)				
<u> </u>		1			
-	■Capacity: 1TB ■Texture: Plastic/Rubber				
	©Operating Voltage: DC 5V, 900mA				
	System Requirements: Windows XP / Vista / 7 / 8 /				
	8.1 / 10, Mac OS X 10.6 or later, Linux Kernel 2.6 or later				
77		maale	10	9 000 00	90 000 00
11	Ink, T05C1, BLACK, Genuine	pack	10	8,000.00	80,000.00
	(for Epson C878R WorkForce Pro A3 Colour				
	Multifunction Printer, Replaceable Ink Pack System				
70	RIPS Original Pigment Inks)	maale	40	0.000.00	00 000 00
78	Ink, T05C2, Cyan, Genuine	pack	10	9,000.00	90,000.00
	(for Epson C878R WorkForce Pro A3 Colour				
	Multifunction Printer, Replaceable Ink Pack System				
70	RIPS Original Pigment Inks)	maak	40	0.000.00	00 000 00
79	Ink, T05C3, Magenta, Genuine	pack	10	9,000.00	90,000.00
	(for Epson C878R WorkForce Pro A3 Colour				
	Multifunction Printer, Replaceable Ink Pack System				
00	RIPS Original Pigment Inks)	maale	40	0.000.00	00 000 00
80	Ink, T05C4, Yellow, Genuine	pack	10	9,000.00	90,000.00
	(for Epson C878R WorkForce Pro A3 Colour				
	Multifunction Printer, Replaceable Ink Pack System				
04	RIPS Original Pigment Inks)		20	40 500 00	000 000 00
81	Laptop 14" (i5)	unit	20	49,500.00	990,000.00
	■ Processor: Intel Core i5-1035G1 Processor 1.0 GHz				
	6M Cache, up to 3.60 GHz or higher				
	Operating system: Windows 10 Home	1			
	■Memory: 4GB memory, 1 x SO-DIMM socket (for				
	expansion) or higher				
	©Display: 14.0" (16:9) LED-backlit FHD (1920x1080)				
	60Hz Anti-Glare Panel with 45% NTSC	1			
	■Video Processor: NVIDIA GeForce MX330 , with				
<u> </u>	2GB GDDR5 VRAM or higher	1			
	■Storage: 512GB PCle Gen3 x2 SSD				

82	Universal HDMI to VGA Adapter Cable, at least 1.8 meters	unit	10	600	6,000.00
83	Desktop Computer with 2 Units Printer	unit	1	120,000.00	120,000.00
	Desktop Computer with 2 units Printers				•
	Intel Core i7-13400, 10C (6P + 4E) / 16T, P-core 2.5 /				
	4.6GHz, E-core 1.8 / 3.3GHz, 20MB or higher				
	mATX B760 Chipset Motherboard with Hybrid 8+1+1				
	Phases Digital VRM Solution/ Advanced Thermal				
	Design & M.2 Thermal Guard				
	16GB UDIMM DDR4-3200 or higher				
	1TB SSD M.2 2280 PCIe 4.0x4 NVMe				
	600Watts Bronze Certified PSU or higher				
	Casing with Acrylic Side Panels				
	NVIDIA GeForce RTX 3050 8GB GDDR6				
	Wi-Fi 6, 11ax 2x2 + BT5.1				
	24" IPS Monitor, 75Hz				
	4 outlets (4 NEMA 5-15R), 650VA/360W, AVR				
	Technology, Surge Protection, UPS				
	Genuine Windows 11 Home				
	With: UPS, Keyboard, Mouse, Web Camera and				
	Headset				
	Computer Printer, All-in-One Multifunction, Colored				
	Ink Tank				
84	Laptop	unit	1	80,000.00	80,000.00
<u> </u>	Laptop:Intel Core i7-12650H Processor 2.3 GHz (24M	ame	•	00,000.00	00,000.00
	Cache, up to 4.7 GHz, 10 cores) or higher				
	16GB RAM or higher				
	512GB M.2 NVMe PCIe 3.0 SSD or higher				
	16.0-inch WUXGA (1920 x 1200) 16:10 aspect ratio				
	LED Backlit IPS-level Panel 120Hz refresh rate				
	NVIDIA Geforce RTX 3050 4GB Laptop GPU 4GB				
	GDDR6				
	Wi-Fi 6E (802.11ax) (Dual band) 1*1 + Bluetooth 5.3				
	Wireless Card				
	Windows 11 Home				
85	Epson 003 Ink Bottle for Epson L3150, Black	btl	6	400	2,400.00
86	Epson 003 Ink Bottle for Epson L3150, CYAN	btl	6	400	2,400.00
87	Epson 003 Ink Bottle for Epson L3150, MAGENTA	btl	6	400	2,400.00
88	Epson 003 lnk Bottle for Epson L3150, WAGENTA	btl	6	400	2,400.00
	· · · · · · · · · · · · · · · · · · ·		1		•
89	Router, Wireless	рс	I	4,900.00	4,900.00
	■Enjoy the benefits of Wireless-N300 (802.11n) in				
	your home ideal for surfing the web, emailing and				
	printing wirelessly				
	©Connect your computers, wireless printers,				
	smartphones, and other wireless devices at up to 300				
	Mbps transfer speed				
	■Enjoy broad wireless coverage provided by MIMO				
	antenna technology				
	■Use four Fast Ethernet (10/100 Mbps) ports to				

	directly connect wired devices				
	■Keep your network protected with customizable				
	security settings, including WPA/WPA2 Personal and SPI firewall protection				
90	Laptop	unit	1	49,999.00	49,999.00
	Operating System				
	Windows 11 Home Single Language				
	Operating System Architecture 64-bit				
	Processor: Intel Core™ i5 -12500H or higher				
	Processor Speed 2.50 GHz				
	Processor Core Dodeca-core (12 Core™)				
	Processor Generation 12th Gen				
	Graphics Controller Manufacturer: NVIDIA®				
	Graphics Controller Model				
	GeForce® RTX™ 3050				
	Graphics Memory Capacity 4 GB				
	GDDR6				
	Graphics Memory Accessibility				
	Dedicated				
	GPU Boost Clock				
	Up to 1600 MHz				
	Maximum Graphics Power				
	Up to 95 W				
	Screen Size: 39.6 cm (15.6")				
	Display Screen Type: LCD				
	Backlight Technology: LED				
	Screen Resolution: 1920 x 1080				
	Standard Refresh Rate				
	144 Hz				
	Total Installed System Memory: 8 GB				
	DDR4 SDRAM				
	Total Solid State Drive Capacity ; 512 GB				
	Solid State Drive Interface				
	PCI Express				
	Wireless LAN Standard				
	IEEE 802.11 a/b/g/n/ac/ax				
	Wireless LAN Model				
	Wi-Fi 6 AX 1650i				
	Ethernet Technology				
	Gigabit Ethernet				
	Bluetooth Standard				
	Bluetooth 5.1 or above				
	Built-in Devices				
	Microphone				
	Interfaces/Ports				
	HDMI				
	Number of HDMI Outputs: 1				
	Number of USB 3.2 Gen 1 Type-A Ports: 1				

	Number of USB 3.2 Gen 2 Type-A Ports: 2				
	Number of USB 3.2 Gen 2 Type-C Ports:1				
	Total Number of USB Ports:4				
	USB Type-C				
	USB Type-C Detail				
	USB Type-C port supporting: USB 3.2 Gen 2 (up to 10				
	Gbps), DisplayPort over USB-C, Thunderbolt 4, USB				
	charging 5 V; 3 A, DC-in port 20 V; 65 W				
	Network (RJ-45)				
	Pointing Device Type				
	TouchPad				
	Keyboard Backlight				
	TouchPad Features				
	Multi-touch Gesture				
	4-cell Lithium Ion (Li-Ion) Battery				
	Maximum Power Supply Wattage 180 W				
	Product Color Obsidian Black				
	Miscellaneous				
	Package Contents				
	Nitro 5 AN515-58-50YE Gaming Notebook				
	Lithium Ion Battery				
	AC Adapter				
	Security Features				
	Firmware Trusted Platform Module (TPM) solution				
	1 7				
	Kensington lock slot				
	Kensington lock slot				
	Kensington lock slot  Rebidding - VSU-GOODS-23-36				
91	- J	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36 4000W Power Inverter + 3A solar controller kit	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit Specifications:	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit Specifications: Output Voltage 220V	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit Specifications: Output Voltage 220V Color: Yellow Black	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit Specifications: Output Voltage 220V Color: Yellow Black Material: Plastic	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit Specifications: Output Voltage 220V Color: Yellow Black Material: Plastic Waveform: Modified Sine Wave	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit Specifications: Output Voltage 220V Color: Yellow Black Material: Plastic Waveform: Modified Sine Wave Surge Peak Power: 4000W	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit Specifications: Output Voltage 220V Color: Yellow Black Material: Plastic Waveform: Modified Sine Wave Surge Peak Power: 4000W Input voltage: 12V	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit Specifications: Output Voltage 220V Color: Yellow Black Material: Plastic Waveform: Modified Sine Wave Surge Peak Power: 4000W Input voltage: 12V Input voltage Range; 9.5V - 15.5V	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit Specifications: Output Voltage 220V Color: Yellow Black Material: Plastic Waveform: Modified Sine Wave Surge Peak Power: 4000W Input voltage: 12V Input voltage Range; 9.5V - 15.5V Output Voltage Range: 220V+ 10%	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit  Specifications: Output Voltage 220V Color: Yellow Black Material: Plastic Waveform: Modified Sine Wave Surge Peak Power: 4000W Input voltage: 12V Input voltage Range; 9.5V - 15.5V Output Voltage Range: 220V+ 10% Frequency: 50Hz	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit Specifications: Output Voltage 220V Color: Yellow Black Material: Plastic Waveform: Modified Sine Wave Surge Peak Power: 4000W Input voltage: 12V Input voltage Range; 9.5V - 15.5V Output Voltage Range: 220V+ 10% Frequency: 50Hz Efficiency 90%	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit  Specifications: Output Voltage 220V Color: Yellow Black Material: Plastic Waveform: Modified Sine Wave Surge Peak Power: 4000W Input voltage: 12V Input voltage Range; 9.5V - 15.5V Output Voltage Range: 220V+ 10% Frequency: 50Hz Efficiency 90% Circuit topology push-pull No load current < 0.7A Low voltage protection: Minimum protection voltage	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit  Specifications: Output Voltage 220V Color: Yellow Black Material: Plastic Waveform: Modified Sine Wave Surge Peak Power: 4000W Input voltage: 12V Input voltage Range; 9.5V - 15.5V Output Voltage Range: 220V+ 10% Frequency: 50Hz Efficiency 90% Circuit topology push-pull No load current < 0.7A Low voltage protection: Minimum protection voltage 9.5V	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit  Specifications: Output Voltage 220V Color: Yellow Black Material: Plastic Waveform: Modified Sine Wave Surge Peak Power: 4000W Input voltage: 12V Input voltage Range; 9.5V - 15.5V Output Voltage Range: 220V+ 10% Frequency: 50Hz Efficiency 90% Circuit topology push-pull No load current < 0.7A Low voltage protection: Minimum protection voltage 9.5V High voltage protection: Max protection voltage 15.5V	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit  Specifications: Output Voltage 220V Color: Yellow Black Material: Plastic Waveform: Modified Sine Wave Surge Peak Power: 4000W Input voltage: 12V Input voltage Range; 9.5V - 15.5V Output Voltage Range: 220V+ 10% Frequency: 50Hz Efficiency 90% Circuit topology push-pull No load current < 0.7A Low voltage protection: Minimum protection voltage 9.5V High voltage protection: Max protection voltage 15.5V Overload protection: Yes	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit  Specifications: Output Voltage 220V Color: Yellow Black Material: Plastic Waveform: Modified Sine Wave Surge Peak Power: 4000W Input voltage: 12V Input voltage Range: 9.5V - 15.5V Output Voltage Range: 220V+ 10% Frequency: 50Hz Efficiency 90% Circuit topology push-pull No load current < 0.7A Low voltage protection: Minimum protection voltage 9.5V High voltage protection: Max protection voltage 15.5V Overload protection: Yes Output short circuit protection: Yes	set	1	5,000.00	5,000.00
91	Rebidding - VSU-GOODS-23-36  4000W Power Inverter + 3A solar controller kit  Specifications: Output Voltage 220V Color: Yellow Black Material: Plastic Waveform: Modified Sine Wave Surge Peak Power: 4000W Input voltage: 12V Input voltage Range; 9.5V - 15.5V Output Voltage Range: 220V+ 10% Frequency: 50Hz Efficiency 90% Circuit topology push-pull No load current < 0.7A Low voltage protection: Minimum protection voltage 9.5V High voltage protection: Max protection voltage 15.5V Overload protection: Yes	set	1	5,000.00	5,000.00

	Output regulation: Yes		Ī		
	Display Scree: Display Output Voltage Battery Voltage				
	Input terminal wiring: terminal				
	Output interface: 1Socket, 2* USB				
	USB Output 2.14				
	Car Cigarette Plug Length: 42.5cm/16.7inch				
	Battery clips length 46.8cm / 6.334.4* 2.2 inch				
	(NOTE: see attached specifications)				
	Automatic Voltage Regulator, 5000 VA, Servo-				
92	motor controlled	рс	1	8,000.00	8,000.00
	Capacity: 5000 VA			0,000.00	0,000.00
	Input Voltage: 160-240 V				
	Output Voltage: 110/220 V				
	Phase: Single				_
	Control System: Servo-Motor Control				_
	Response Time: within 4sec against 10%, Input				
	Fluctuation				
	Overload Protection				
	Time Delay Function				
	Analog Volt Meter and Ammeter				
93	Camera	unit	1	55,000.00	55,000.00
- 33	SENSOR TYPE: 1.0-type (13.2 mm x 8.8 mm) Exmor	unit	'	33,000.00	33,000.00
	RS® CMOS sensor, aspect ratio 3:2				
	NUMBER OF PIXELS (EFFECTIVE): Approx. 20.1				
	Megapixels				
	LENS TYPE: ZEISS® Vario-Sonnar® T* Lens, 10				
	elements in 9 groups (9 aspheric elements including				
	AA lens)				
	F-NUMBER (MAXIMUM APERTURE): F1.8(W)-				
	2.8(T)				
	ND-FILTER: Auto/On (3 steps)/Off				
	FOCAL LENGTH: f = 8.8-25.7 mm				
	ANGLE OF VIEW (35 MM FORMAT EQUIVALENT):				_
	84 deg-34 deg (f = 24-70 mm2)3				
	FOCUS RANGE (FROM THE FRONT OF THE				
	LENS): iAuto: AF (W: Approx. 5 cm (0.17 ft) to Infinity,				
	T: Approx. 30 cm (0.99 ft) to Infinity) / Program Auto:				
	AF (W: Approx. 5 cm (0.17 ft) to Infinity, T: Approx. 30				
	cm (0.99 ft) to Infinity)				
	OPTICAL ZOOM: 2.9x				
	CLEAR IMAGE ZOOM (STILL IMAGE): 20 M Approx.				
	5.8x/10 M Approx. 8.2x/5.0 M Approx. 11x/VGA				
	Approx. 44x				
	CLEAR IMAGE ZOOM (MOVIE): 4K: 4.35x, HD:				
	Approx. 5.8x				
	DIGITAL ZOOM (STILL IMAGE): 20 M Approx. 11x/10				
	M Approx.16x/5.0 M Approx. 23x/VGA Approx. 44x				
	DIGITAL ZOOM (MOVIE): Digital Zoom Approx. 11x				
	SCREEN TYPE: 7.5 cm (3.0 type)(4:3)/1,228,800				
L	, JP5/(5), .,=20,000	l	L		

data Wara Eira a ITET LOD	<u> </u>	T 1
dots/Xtra Fine/TFT LCD		
ADJUSTABLE ANGLE: Up by approx. 180 degrees,		
down by approx. 45 degrees		
DISPLAY SELECTOR (FINDER/LCD): Auto/EVF		
(Manual)/Monitor(Manual)		
MS ASSIST MAGNIFICATION: 5.3x, 10.7x		
SCREEN TYPE/NUMBER OF DOTS: 0.39-type		
electronic viewfinder(OLED), 2,359,296 dots		
FIELD COVERAGE: 100%		
MAGNIFICATION: Approx. 0.59x with 50 mm lens at		
infinity, -1m-1(diopter) (35 mm equiv.)		
EYE POINT: Approx. 20 mm from the eyepiece, 19.2		
mm from the eyepiece frame at -1m-1(diopter) (CIPA		
standard)		
DIOPTRE ADJUSTMENT: -4.0 to +3.0 m-1		
BRIGHTNESS CONTROL: Auto, Manual (5 steps)		
IMAGE PROCESSING ENGINE: Yes (BIONZ X)		+
STEADYSHOT (STILL IMAGE): Optical		+
STEADYSHOT (MOVIE): Yes (Intelligent Active		
Mode, Optical type with electronic compensation, Anti		
Rolling type)		
FOCUS TYPE: Fast Hybrid AF(phase-detection		
AF/contrast-detection AF)		
FOCUS MODE: Single-shot AF, Automatic AF,		
Continuous AF, DMF, Manual Focus		
FOCUS AREA: Wide (315 points (phase-detection		
AF), 25 points [contrast-detection AF]), Zone, Center,		
Flexible Spot (S/M/L), Expanded Flexible Spot, Lock		
on AF Wide/Zone/Center/Flexible		
Spot(S/M/L)/Expanded Flexible Spot		
LOCK ON AF: Yes		
LIGHT METERING MODE: Multi Pattern, Center-		
Weighted, Spot, Entire Screen Avg, Highlight		
EXPOSURE COMPENSATION: +/- 3.0 EV, 1/3 EV		
step		
ISO SENSITIVITY (STILL IMAGE)(RECOMMENDED		
EXPOSURE INDEX)		
Auto (ISO125-12800, selectable with upper/lower		
limit),125/160/200/250/320/400/500/640/800/1000/125		
0/1600/2000/2500/3200/4000/5000/6400/8000/10000/		
12800 (Extendable to ISO80/100), Multi-Frame NR:		
Auto(ISÒ125-12800),		
200/400/800/1600/3200/6400/12800/2560056		
ISO SENSITIVITY (MOVIE)		
Auto: (ISO125–ISO12800, selectable with upper/lower		
limit),		
125/160/200/250/320/400/500/640/800/1000/1250/16		
00/2000/2500/3200/4000/5000/6400/8000/10000/128		
00		

MINI	MUM ILLUMINATION (MOVIE): Auto:1.2		
lux(S	Shutter Speed 1/30")		
WHI	TE BALANCE MODES: Auto, Daylight, Shade,		
	dy, Incandescent, Fluor.: Warm White, Fluor.:		
	White, Fluor.: Day White, Fluor.: Daylight, Flash,		
	erwater Auto, C.Temp./Filter, Custom		
	MICRO ADJUSTMENT: Yes		
<b>_</b>			
	TTER SPEED		
	o (4" - 1/2000)/Program Auto (30" -		
	00)/Manual (Bulb, 30" - 1/2000)/Aperture Priority		
(30" -	- 1/2000)/Shutter Priority (30" - 1/2000)		
ELEC	CTRONIC SHUTTER		
iAuto	) (4" - 1/32000)/Program Auto (30" -		
	000)/Manual (30" - 1/32000)/Aperture Priority (30"		
	2000)/Shutter Priority (30" - 1/32000)		
	RTURE		
		-	
	(F1.8/F11(W)) / Program Auto(F1.8/F11(W)) /		
	ual(F1.8/F11(W)) / Shutter Priority(F1.8/F11(W)) /		
	ture Priority(F1.8/F11(W))		
IMAC	GE CONTROL		
Cont	rast, Saturation, Sharpness, Creative Style, Color		
	ce (sRGB/Adobe RGB), Quality		
	N/RAW&JPEG (Extra fine, Fine, Standard)/JPEG		
,	a fine, Fine, Standard)		
	SE REDUCTION		
	exposure NR: On/Off, available of shutter		
	ds longer than 1/3 sec., high ISO NR:		
	nal/Low/Off, Multi Frame NR: Auto, ISO200-		
2560			
	AMIC RANGE FUNCTIONS		
Off, I	Dynamic Range Optimizer (Auto/Level 1-5), Auto		
High	Dynamic Range (Auto Exposure Difference,		
Expo	osure Difference Level (1.0–6.0 EV, 1.0 EV step))		
SHO	OTING MODE		
	O(Intelligent Auto/Superior Auto), Program Auto,		
	ture Priority, Shutter Speed Priority, Manual		
	osure, MR(Memory Recall) [body 3 sets/memory		
	4 sets], Movie Mode(Program Auto, Aperture		
Prior			
	osure),HFR Mode (Program Auto, Aperture		
	ity, Shutter Speed Priority, Manual Exposure),		
Pano	orama, Scene Selection	<u> </u>	
SCE	NE SELECTION		
Portr	rait, Sports Action, Macro, Landscape, Sunset,		
	t Scene, Handheld Twilight, Night Portrait, Anti-		
	on Blur, Pet Mode, Gourmet, Fireworks, High		
	sitivity		
	ITINUOUS SHOOTING SPEED (MAXIMUM)		
	` '		
[ (VVI I	H MAX. RECORDING PIXELS)		

		1
Continuous Shooting Hi: approx. 24fps, Continuous		
Shooting Mid: approx. 10fps, Continuous Shooting		
Low: approx. 3.5fps 8910		
SELF-TIMER		
10 s / 5 s / 2 s / 3 or 5 consecutive shots with 10 s, 5		
s, or 2 s delay selectable / Bracketing shots with 10 s,		
5 s, or 2 s delay selectable		
DRIVE MODES		
Single, Continuous shooting (Hi/Mid/Lo), Self-timer,		
Self-timer(cont.), Contbracketing11, Single-		
bracketing11, White balance bracketing11, DRO		
bracketing11		
PANORAMA (SHOOTING): Sweep Panorama		
PICTURE EFFECT		
[Still Image]:Toy camera, Pop Color, Posterization,		
Retro Photo, Soft High-key, Partial Color, High		
Contrast Mono., Soft Focus, HDR Painting, Richtone		
Monochrome, Miniature, Watercolor, Illustration;		
[Movie]:Toy camera, Pop Color, Posterization, Retro		
Photo, Soft High-key, Partial Color, High Contrast		
Mono.		
CREATIVE STYLE		
Standard, Vivid, Neutral, Clear, Deep, Light, Portrait,		
Landscape, Sunset, Night Scene, Autumn Leaves,		
Black & White, Sepia, Style Box		
PICTURE PROFILE		
off/PP1-PP7(Black Level, Gamma (Movie, Still, Cine1-		
2, ITU709, ITU709 [800%], S-Log2), Black Gamma,		
Knee, Color Mode, Saturation, Color Level, Color		
Phase, Color Depth, Detail, Copy, Reset)		
NUMBER OF RECOGNISED SCENES		
Still Image:Superior Auto: 44 / iAuto: 33, Movie:44		
FLASH MODE: Auto/Flash On/Slow Synchro/Rear		
Sync/Flash Off		
FLASH TYPE: Built-in, manual pop-up		
AF ILLUMINATOR: Auto / Off		
BRACKETING: Yes		
FLASH RANGE		
ISO Auto: Approx.0.4 m to 10.2 m (1.31 ft to 33.46 ft)		
(W) / Approx. 0.4 m to 6.5 m (1.31 ft to 21.33 ft) (T),		
ISO12800: up to Approx. 20.4 m (66.93 ft.) (W) /		
Approx. 13.0 m (42.65 ft.) (T)		
COMPATIBLE RECORDING MEDIA		
Memory Stick Duo, Memory Stick PRO Duo, Memory		
Stick PRO Duo (High Speed), Memory Stick PROHG		
Duo, Memory Stick Micro1, Memory Stick Micro		
(Mark2), SD Memory Card, SDHC Memory		
Card(UHS-I), SDXC Memory Card (UHS-I), microSD		
Memory Card, microSDHC Memory Card, microSDXC		

Memory Card			
RECORDING FORMAT			
[Still Image]: JPEG(DCF Ver.2.0, Exif	Ver 2.31 MPF		
Baseline compliant), RAW (Sony AR			
[Movie]: XAVC S, AVCHD format Ver.2			
RECORDING FORMAT (MOVIE AUDI			
1			
XAVC S: LPCM 2ch, AVCHD: Dolby	Digital (AC-3)		
2ch (Dolby Digital Stereo Creator)			
COLOUR SPACE (STILL)			
sRGB, Adobe® RGB			
DCF/DPOF			
DCF/DPOF/EXIF/MPF			
STILL IMAGE NUMBER OF RECO	RDED PIXELS		
(IMAGE SIZE)			
3:2 mode: 20M (5,472 x 3,648) / 10M (	3,888 x 2,592) /		
5M (2,736 x 1,824), 4:3 mode:18M (4	,864 x 3,648) /		
10M (3,648 x 2,736) / 5M (2,592 x 1,9			
mode:17M (5,472 x 3,080) / 7.5M (3			
4.2M (2,720 x 1,528), 1:1 mode: 13M (	3,648 x 3,648) /		
6.5M (2,544 x 2,544) / 3.7M (1,920 x			
Panorama: Wide (12,416 x 1,856/5	,536 x 2,160),		
Standard (8,192 x 1,856/3,872 x 2,160	)		
MOVIE RECORDING MODE (NTSC)			
NTSC/PAL Selector: [NTSC] AVCH	ID: 24 M FX		
(1,920x1,080/60i)/17 M FH (1,920x1,0			
S 4K: 30p 100 M (3,840x2,160/3			
(3,840x2,160/30p)/24p 100 M (3,840x			
60 M (3,840x2,160/24p), XAVC S I			
(1,920x1,080/60p)/60p 25 M (1,920x			
50 M (1,920x1,080/30p)/30p			
(1,920x1,080/30p)/24p 50 M (1,920x1			
100 M (1,920x1,080/120p)/120			
(1,920x1,080/120p)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
MOVIE RECORDING MODE (PAL)			
NTSC/PAL Selector: [PAL] mode AV	CHD: 24 M FX	+	
(1,920x1,080/50i)/17 M FH (1,920x1,			
S 4K: 25p 100 M (3,840x2,160/2	, .		
(3,840x2,160/25p), XAVC S HE			
(1,920x1,080/50p)/50p 25 M (1,920x	•		
50 M (1,920x1,080/25p)/25p			
(1,920x1,080/25p)/100p 10			
(1,920x1,080/100p)/100p 60 M (1,920x	•		
HFR	ι,ουο, τουρ),		
(Recording) NTSC/PAL Selector: [PAL	I mode YAV/C S		
HD:50p 50M(1920x1080/250fp			
50M(1920x1080/500fps),	50p		
50M(1920x1080/1000fps) /	25p		
50M(1920x1080/250fps),	25p		
50M(1920x1080/500fps),	25p		

T	
50M(1920x1080/1000fps), NTSC/PAL Selector:	
[NTSC] mode XAVC S HD:60p 50 M	
(1,920x1,080/240fps), 60p 50 M	
(1,920x1,080/480fps), 60p 50 M	
(1,920x1,080/960fps)/30p 50M (1,920x1,080/240fps),	
30p 50 M (1,920x1,080/480fps), 30p 50 M	
(1,920x1,080/960fps)/24p 50 M (1,920x1,080/240fps),	
24p 50 M (1,920x1,080/480fps), 24p 50 M	
(1,920x1,080/960fps) (Sensor Readout Number of	
effective pixels) Quality Priority: 240fps/250fps	
(1,824x1,026), 480fps/500fps (1,824x616),	
960fps/1000fps (1,244x420)/Shoot Time Priority:	
240fps/250fps (1,824x616), 480fps/500fps	
(1,292x436),960fps/1000fps (912x308)	
STILL IMAGE NUMBER OF RECORDED PIXELS	
(IMAGE SIZE) DURING MOVIE	
16:9 mode:	
17M(5472×3080)/7.5M(3648×2056)/4.2M(2720×1528)	
PROXY RECORDING	
Yes(1280 x 720 [approx. 9 Mbps])	
INPUT AND OUTPUT TERMINALS: Multi/Micro USB	
Terminal14, High-Speed USB (USB 2.0), Micro HDMI	
NFC: NFC forum Type 3 Tag compatible, One-touch	
remote, One-touch sharing	
WI-FI: Yes (IEEE802.11b/g/n(2.4 GHz band))	
POWER SOURCE	
DC 3.6 V(supplied battery) / DC 5.0 V(supplied AC	
Adapter)	
BATTERY SYSTEM	
Rechargeable Battery Pack NP-BX1	
POWER CONSUMPTION (CAMERA MODE)	
Approx. 2.6 W with LCD monitor and approx. 3.0 W	
with viewfinder (CIPA standard)	
USB CHARGE/USB POWER SUPPLY	
Yes (Shooting, Playback)	
BATTERY LIFE(STILL IMAGES)(CIPA)	
Monitor:Approx. 220 / Approx. 110 min.,	
ViewFinder:Approx. 210/Approx. 105 min.	
BATTERY LIFE(MOVIES ACTUAL	
SHOOTING)(CIPA)	
Monitor:Approx. 35 min., ViewFinder:Approx. 35 min.	
BATTERY LIFE(MOVIES CONTINUOUS	
SHOOTING)(CIPA)	
Monitor:Approx. 65 min., ViewFinder:Approx. 65 min.	
DIMENSIONS (W X H X D) (APPROX.)	
101.6x58.1x41.0 mm (4 in x 2 3/8 in × 1 5/8 in)	
WEIGHT (CIPA COMPLIANT)	<del>                                     </del>
Approx. 299 g (10.5 oz)(Battery and Memory Stick	
Duo are included) / Approx. 272 g (9.6 oz)(Body Only)	

94	Digital Multimeter	рс	1	7,000.00	7,000.00
	DCV: 400m/4/40/400/1000V				
	ACV: 4/40/400/1000V ±(1.2%+7)				
	DCA: 400µ/4000µ/40m/400m/4/10A				
	ACA: 400µ/4000µ/40m/400m/4/10A				
	Resistance: 400/4k/40k/400k/4M/40MΩ				
	Capacitance: 50n/500n/5µ/50µ/100µF				
	Frequency: 5/50/500/5k/50k/100kHz				
	Continuity: Buzzer sounds and LED lights up at				
	between $0\Omega$ and $85\Omega$ (±45 $\Omega$ ). Open				
	voltage:Approx. 0.4V				
	Diode test: Open voltage:approx.1.5V				
	Battery Check: Approximate value (30Ω load) 1.5V				
	battery only				
	Display numeral display: 4000				
	Sampling rate: 3 times/sec.				
	Bandwidth: 40~400Hz (Sine wave)				
	Fuse: 0.5A/1000V 30kA $\Phi$ 6.35×32mm 10A/1000V				
	30kA Φ10×38mm				
	Battery: R6Px2				
	Battery life: Approx.400h (manganese battery) at DCV				
	rangeSafety: IEC61010CAT. III 600V/CAT. II				
	1000VDCV: 400m/4/40/400/1000V				
	ACV: 4/40/400/1000V ±(1.2%+7)				
	DCA: 400µ/4000µ/40m/400m/4/10A				
	ACA: 400µ/4000µ/40m/400m/4/10A				
	Resistance: 400/4k/40k/400k/4M/40MΩ				
	Capacitance: 50n/500n/5µ/50µ/100µF				
	Frequency: 5/50/500/5k/50k/100kHz				
	Continuity: Buzzer sounds and LED lights up at				
	between $0\Omega$ and $85\Omega$ (±45 $\Omega$ ) . Open				
	voltage:Approx. 0.4V				
	Diode test: Open voltage:approx.1.5V				
	Battery Check: Approximate value (30Ω load) 1.5V				
	battery only				
	Display numeral display: 4000				
	Sampling rate: 3 times/sec.				
	Bandwidth: 40~400Hz (Sine wave)				-
	Fuse: 0.5A/1000V 30kA Φ6.35×32mm 10A/1000V				
	30kA Φ10×38mm				
	Battery: R6Px2				
	Battery life: Approx.400h (manganese battery) at DCV				
	range				
	Safety: IEC61010CAT. III 600V/CAT. II 1000V				
95	Electronics Tools and Instruments	lot	1	138,000.00	138,000.00
	Digital Multimeter -> 10 units	101	<del>  '</del>	,	,
	For measuring AC & DC current, resistance,			†	
	capacitance, continuity, frequency, duty cycle and				

diode				
,				
• 1				
1				
Terminal				
HAIFD HOLL 40NCV42/DC\ Doord		4		
HAIER HOU-10NOV 13(DC) Board	pc	ı	4,000.00	4,000.00
PCB NO.A 500201 - 100Q;				
Hard Drive (2 TB)	рс	1	3,000.00	3,000.00
Tablet 10.9", 64GB, Wifi + Cellular	unit	1	42,000.00	42,000.00
■A14 Bionic chip with 64-bit architecture, Neural Engine				
■10.9-inch (diagonal) LED-backlit Multi-Touch display with IPS technology				
■2360-by-1640-pixel resolution at 264 pixels per				
■1080p HD video recording at 30 fps or 60 fps				
I ©1080p HD video recording at 60 fps				
■1080p HD video recording at 60 fps  ■Wide color capture for photos and Live Photos				
	HAIER HSU-18NSV13(DC) Board  PCB NO.A 500201 - 100Q;  Hard Drive (2 TB)  Tablet 10.9", 64GB, Wifi + Cellular  @64GB Storage Capacity  @A14 Bionic chip with 64-bit architecture, Neural Engine  @10.9-inch (diagonal) LED-backlit Multi-Touch display with IPS technology	Toolbox → 2 units  Dimensions: 494 x 263 x 250 mm  With removable tote tray  Lineman Pliers Set → 1 unit  3-pc Set of Insulated Chrome Vanadium Steel of: Regular pliers, Long Nose pliers, and Diagonal Cutting pliers  Extra Long Nose Pliers Set → 1 unit  1 pc. 0° Plier Length: 285mm/ 11.02inch.  1 pc. 45° Plier Length: 280mm/ 11.02inch.  1 pc. 90° Plier Length: 285mm/ 10.43inch.  1 pc. 0 Shape Plier Length: 275mm/ 10.83inch.  Multi-functional automatic wire stripping pliers → > 1 unit  Self-adjusting Automatic Wire Stripper/Cutting Pliers for wire stripping, cutting, crimping, and installing TAB Terminal  HAIER HSU-18NSV13(DC) Board  PCB NO.A 500201 - 100Q;  Hard Drive (2 TB)  Tablet 10.9", 64GB, Wifi + Cellular  ■64GB Storage Capacity ■A14 Bionic chip with 64-bit architecture, Neural Engine ■10.9-inch (diagonal) LED-backlit Multi-Touch display with IPS technology ■2360-by-1640-pixel resolution at 264 pixels per inch (ppi) ■10.9-inch display (P3) ■True Tone display ■Fingerprint-resistant oleophobic coating ■Fully laminated display ■Antireflective coating ■12MP Wide camera ■1/1.8 aperture ■Five-element lens ■Hybrid IR filter ■4K video recording at 24 fps, 30 fps, or 60 fps ■1080p HD video recording at 30 fps or 60 fps	Toolbox -> 2 units  Dimensions: 494 x 263 x 250 mm  With removable tote tray  Lineman Pliers Set -> 1 unit  3-pc Set of Insulated Chrome Vanadium Steel of: Regular pliers, Long Nose pliers, and Diagonal Cutting pliers  Extra Long Nose Pliers Set -> 1 unit  1 pc. 0° Plier Length: 285mm/ 11.22inch.  1 pc. 45° Plier Length: 285mm/ 11.02inch.  1 pc. 90° Plier Length: 285mm/ 10.43inch.  1 pc. 0° Shape Plier Length: 275mm/ 10.83inch.  Multi-functional automatic wire stripping pliers -> 1 unit  Self-adjusting Automatic Wire Stripper/Cutting Pliers for wire stripping, cutting, crimping, and installing TAB Terminal  HAIER HSU-18NSV13(DC) Board  PCB NO.A 500201 - 100Q;  Hard Drive (2 TB)  Tablet 10.9", 64GB, Wifi + Cellular  with IPS technology  with IPS technology	Toolbox -> 2 units Dimensions: 494 x 263 x 250 mm  With removable tote tray Lineman Pliers Set -> 1 unit 3-pc Set of Insulated Chrome Vanadium Steel of: Regular pliers, Long Nose pliers, and Diagonal Cutting pliers Extra Long Nose Plier Set -> 1 unit 1 pc. 0° Plier Length: 285mm/ 11.22inch. 1 pc. 45° Plier Length: 285mm/ 11.02inch. 1 pc. 90° Plier Length: 285mm/ 10.43inch. 1 pc. 0° Plier Length: 275mm/ 10.43inch. 1 pc. 0 Shape Plier Length: 275mm/ 10.83inch. Multi-functional automatic wire stripping pliers -> 1 unit Self-adjusting Automatic Wire Stripper/Cutting Pliers for wire stripping, cutting, crimping, and installing TAB Terminal  HAIER HSU-18NSV13(DC) Board PCB NO.A 500201 - 100Q; Hard Drive (2 TB)  Tablet 10.9", 64GB, Wifi + Cellular  wift 1 1 42,000.00  ### Blonic chip with 64-bit architecture, Neural Engine ### Blonic chip with 64-bit architecture, Neural Engine #### Blonic chip with 64-bit architecture, Neural Engine ####################################

	■Stereo speakers				
	■Dual microphones for calls, video recording, and				
	audio recording				
	■802.11ax Wi-Fi 6; simultaneous dual band (2.4GHz				
	and 5GHz); HT80 with MIMO				
	■UMTS/HSPA/HSPA+/DC-HSDPA (850, 900,				
	1700/2100, 1900, 2100 MHz); GSM/EDGE (850, 900,				
	1800, 1900 MHz)				
	■Gigabit-class LTE (Bands 1, 2, 3, 4, 5, 7, 8, 11, 12,				
	13, 14, 17, 18, 19, 20, 21, 25, 26, 29, 30, 34, 38, 39,				
	40, 41, 66, 71)4				
	■Bluetooth 5.0 technology				
99	Temperature-Humidity Data Logger	рс	5	2,000.00	10,000.00
	■Portable and hand-held	•			·
	■16000 data recording capacity.				
	■Adjustable record interval: 10s~24hour				
	■Multi-function LCD				
	■Internal NTC temperature thermal sensor with				
	optional external sensor				
	■Data export in PDF/EXCEL via data management				
	software				
	■Selectable °F/°C temperature unit				
	■Size: approx. 84 (L) x 44(W) x 20 (H) mm				
	■Good quality				
	■Durable				
	<del> </del>				
100	UPS, Smart UPS, 2000VA	рс	1	35.000.00	35.000.00
100	UPS, Smart UPS, 2000VA  ■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA	рс	1	35,000.00	35,000.00
100	■Max Configurable Power (Watts): 1.6kWatts /	рс	1	35,000.00	35,000.00
100	■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA	рс	1	35,000.00	35,000.00
100	■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA  ■Output Voltage Note: Configurable for 220 : 230 or 240 nominal output voltage  ■Efficiency at Full Load: 88.0 %	рс	1	35,000.00	35,000.00
100	■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA  ■Output Voltage Note: Configurable for 220 : 230 or 240 nominal output voltage  ■Efficiency at Full Load: 88.0 %  ■Output Frequency (sync to mains): 50/60 Hz +/- 3	рс	1	35,000.00	35,000.00
100	<ul> <li>■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA</li> <li>■Output Voltage Note: Configurable for 220 : 230 or 240 nominal output voltage</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains</li> </ul>	рс	1	35,000.00	35,000.00
100	■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA  ■Output Voltage Note: Configurable for 220 : 230 or 240 nominal output voltage  ■Efficiency at Full Load: 88.0 %  ■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains  ■Other Output Voltages: 220 V, 240 V\	рс	1	35,000.00	35,000.00
100	■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA  ■Output Voltage Note: Configurable for 220 : 230 or 240 nominal output voltage  ■Efficiency at Full Load: 88.0 %  ■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains  ■Other Output Voltages: 220 V, 240 V\ ■Load Crest Factor: 3 : 1	рс	1	35,000.00	35,000.00
100	<ul> <li>■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA</li> <li>■Output Voltage Note: Configurable for 220 : 230 or 240 nominal output voltage</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains</li> <li>■Other Output Voltages: 220 V, 240 V\</li> <li>■Load Crest Factor: 3 : 1</li> <li>■Topology: Double conversion online</li> </ul>	рс	1	35,000.00	35,000.00
100	■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA  ■Output Voltage Note: Configurable for 220 : 230 or 240 nominal output voltage  ■Efficiency at Full Load: 88.0 %  ■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains  ■Other Output Voltages: 220 V, 240 V\ ■Load Crest Factor: 3 : 1  ■Topology: Double conversion online  ■Input frequency: 40 - 70 Hz	pc	1	35,000.00	35,000.00
100	<ul> <li>■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA</li> <li>■Output Voltage Note: Configurable for 220 : 230 or 240 nominal output voltage</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains</li> <li>■Other Output Voltages: 220 V, 240 V\</li> <li>■Load Crest Factor: 3 : 1</li> <li>■Topology: Double conversion online</li> <li>■Input frequency: 40 - 70 Hz</li> <li>■Input voltage range for main operations: 110 - 285</li> </ul>	pc	1	35,000.00	35,000.00
100	<ul> <li>■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA</li> <li>■Output Voltage Note: Configurable for 220 : 230 or 240 nominal output voltage</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains</li> <li>■Other Output Voltages: 220 V, 240 V\</li> <li>■Load Crest Factor: 3 : 1</li> <li>■Topology: Double conversion online</li> <li>■Input frequency: 40 - 70 Hz</li> <li>■Input voltage range for main operations: 110 - 285 Adjustable (half load), 160 - 280V</li> </ul>	рс	1	35,000.00	35,000.00
100	<ul> <li>■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA</li> <li>■Output Voltage Note: Configurable for 220 : 230 or 240 nominal output voltage</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains</li> <li>■Other Output Voltages: 220 V, 240 V\</li> <li>■Load Crest Factor: 3 : 1</li> <li>■Topology: Double conversion online</li> <li>■Input frequency: 40 - 70 Hz</li> <li>■Input voltage range for main operations: 110 - 285 Adjustable (half load), 160 - 280V</li> <li>■Number of Power Cords: 1</li> </ul>	pc	1	35,000.00	35,000.00
100	<ul> <li>■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA</li> <li>■Output Voltage Note: Configurable for 220: 230 or 240 nominal output voltage</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains</li> <li>■Other Output Voltages: 220 V, 240 V\</li> <li>■Load Crest Factor: 3: 1</li> <li>■Topology: Double conversion online</li> <li>■Input frequency: 40 - 70 Hz</li> <li>■Input voltage range for main operations: 110 - 285 Adjustable (half load), 160 - 280V</li> <li>■Number of Power Cords: 1</li> <li>■Efficiency at Full Load: 88.0 %</li> </ul>	pc	1	35,000.00	35,000.00
100	<ul> <li>■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA</li> <li>■Output Voltage Note: Configurable for 220: 230 or 240 nominal output voltage</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains</li> <li>■Other Output Voltages: 220 V, 240 V\</li> <li>■Load Crest Factor: 3: 1</li> <li>■Topology: Double conversion online</li> <li>■Input frequency: 40 - 70 Hz</li> <li>■Input voltage range for main operations: 110 - 285 Adjustable (half load), 160 - 280V</li> <li>■Number of Power Cords: 1</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Other Input Voltages: 220 V, 240 V</li> </ul>	рс	1	35,000.00	35,000.00
100	<ul> <li>■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA</li> <li>■Output Voltage Note: Configurable for 220: 230 or 240 nominal output voltage</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains</li> <li>■Other Output Voltages: 220 V, 240 V\</li> <li>■Load Crest Factor: 3: 1</li> <li>■Topology: Double conversion online</li> <li>■Input frequency: 40 - 70 Hz</li> <li>■Input voltage range for main operations: 110 - 285 Adjustable (half load), 160 - 280V</li> <li>■Number of Power Cords: 1</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Other Input Voltages: 220 V, 240 V</li> <li>■Waveform type: Sine wave</li> </ul>	pc	1	35,000.00	35,000.00
100	<ul> <li>■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA</li> <li>■Output Voltage Note: Configurable for 220: 230 or 240 nominal output voltage</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains</li> <li>■Other Output Voltages: 220 V, 240 V\</li> <li>■Load Crest Factor: 3: 1</li> <li>■Topology: Double conversion online</li> <li>■Input frequency: 40 - 70 Hz</li> <li>■Input voltage range for main operations: 110 - 285 Adjustable (half load), 160 - 280V</li> <li>■Number of Power Cords: 1</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Other Input Voltages: 220 V, 240 V</li> <li>■Waveform type: Sine wave</li> <li>■Bypass: Internal bypass (automatic and manual)</li> </ul>	рс	1	35,000.00	35,000.00
100	<ul> <li>■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA</li> <li>■Output Voltage Note: Configurable for 220: 230 or 240 nominal output voltage</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains</li> <li>■Other Output Voltages: 220 V, 240 V\</li> <li>■Load Crest Factor: 3: 1</li> <li>■Topology: Double conversion online</li> <li>■Input frequency: 40 - 70 Hz</li> <li>■Input voltage range for main operations: 110 - 285 Adjustable (half load), 160 - 280V</li> <li>■Number of Power Cords: 1</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Other Input Voltages: 220 V, 240 V</li> <li>■Waveform type: Sine wave</li> <li>■Bypass: Internal bypass (automatic and manual)</li> <li>■Battery type: Lead-acid battery</li> </ul>	pc	1	35,000.00	35,000.00
100	<ul> <li>■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA</li> <li>■Output Voltage Note: Configurable for 220: 230 or 240 nominal output voltage</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains</li> <li>■Other Output Voltages: 220 V, 240 V\</li> <li>■Load Crest Factor: 3: 1</li> <li>■Topology: Double conversion online</li> <li>■Input frequency: 40 - 70 Hz</li> <li>■Input voltage range for main operations: 110 - 285 Adjustable (half load), 160 - 280V</li> <li>■Number of Power Cords: 1</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Other Input Voltages: 220 V, 240 V</li> <li>■Waveform type: Sine wave</li> <li>■Bypass: Internal bypass (automatic and manual)</li> <li>■Battery type: Lead-acid battery</li> <li>■Typical recharge time: 4hour(s)</li> </ul>	pc	1	35,000.00	35,000.00
100	<ul> <li>■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA</li> <li>■Output Voltage Note: Configurable for 220: 230 or 240 nominal output voltage</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains</li> <li>■Other Output Voltages: 220 V, 240 V\</li> <li>■Load Crest Factor: 3: 1</li> <li>■Topology: Double conversion online</li> <li>■Input frequency: 40 - 70 Hz</li> <li>■Input voltage range for main operations: 110 - 285 Adjustable (half load), 160 - 280V</li> <li>■Number of Power Cords: 1</li> <li>■Efficiency at Full Load: 88.0 %</li> <li>■Other Input Voltages: 220 V, 240 V</li> <li>■Waveform type: Sine wave</li> <li>■Bypass: Internal bypass (automatic and manual)</li> <li>■Battery type: Lead-acid battery</li> </ul>	рс	1	35,000.00	35,000.00

	<b>■</b> Control panel: Multifunction LCD status and control console				
	■Audible Alarm: Alarm when on battery: distinctive low battery alarm: overload continuous tone alarm				
	■Surge energy rating: 600Joules				
101	Various Electronic Components and Supplies	lot	1	59,500.00	59,500.00
	HDMI Cable -> 10 units				
	10 meters				
	830 breadboard set electronic component basic starter kit with breadboard cable resistor				
	capacitor led potentiometer -> 20 units				
	1 power supply				
	1 830-point breadboard				
	65 pcs jumper wires				
	140 pcs solderless jumper wires				
	20 pcs female-to-male dupont wire				
	2 pcs pin header (40 pin)				
	1 precision potentiometer				
	2 photoresistors				
	1 thermistor				
	5 pcs rectifier diode (1N40007)				
	5 pcs NPN transistor (PN2222)				
	1 IC 4N35				
	1 IC 74HC595				
	1 active buzzer				
	1 passive buzzer				
	10 pcs button (small)				
	10 pcs 22pF ceramic capacitor				
	10 pcs 104 ceramic capacitor				
	5 pcs electrolytic capacitor (10uF, 50V)				
	5 pcs electrolytic capacitor (100uF, 50V)				
	10 pcs white LED				
	10 pcs yellow LED				
	10 pcs blue LED				
	10 pcs green LED				
	10 pcs red LED				
	10 pcs RGB LED				
	10 pcs 10R resistor				
	10 pcs 100R resistor				
	10 pcs 220R resistor				
	10 pcs 330R resistor				
	10 pcs 1K resistor				
	10 pcs 2K resistor				
	10 pcs 5K1 resistor				
	10 pcs 10K resistor				
	10 pcs 10K resistor				
	10 pcs 1M resistor				-

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	Single-Sided Copper Clad Board FR4 With 35µm				
	Copper Thick, 200 x 300 x 1.6mm -> 2 units				
	PCB Developing Kit with Transfer Film -> 1 unit				
	Non-Corrosive Soldering Paste (used for welding				
	and desoldering) -> 1 unit				
	Soldering Iron -> 6 units				
	Mini Soldering Iron with Adjustable Temperature, 60W				
	Soldering Iron Stand -> 6 units				
	Stainless Steel spiral, 90mm long				
	Desoldering Pump -> 2 units				
	Replaceable and Self Cleaning tip				
	Sealed vacuum chamber				
	Microcontroller -> 10 units				
	microcontroller board (ATmega328P based)				
	14 digital inputs/outputs (six of which can be used as				
	PWM outputs)				
	six analog inputs				
	has a 16MHz ceramic resonator				
	has a USB-C connector				
	has a reset button				
	CIRCUIT OPERATING VOLTAGE: 5V				
	INPUT VOLTAGE (LIMIT): 6-12V				
	BATTERY CONNECTOR: None.				
	DC CURRENT PER: I/O PIN 20 mA				
	DC CURRENT FOR: 3.3V PIN 50 mA				
	MAIN PROCESSOR: ATmega328P 16 MHz				
	USB-SERIAL PROCESSOR: ATmega16U2 16 MHz				
	MEMORY: ATMEGA328P 2KB SRAM, 32KB FLASH,				
	1KB EEPROM				
102	Wifi Access Point (Existing fleet of VSU Access	unit	1	12,000.00	40 000 00
	Points)				12,000.00
	UAP-nanoHD				
	Dimensions: 160 x 160 x 32.65 mm (6.30 x 6.30 x 1.29")				
	Weight: 300 g (10.6 oz)				
	With Mounting Kits: 315 g (11.1 oz)				
	Networking Interface: (1) 10/100/1000 Ethernet Port				
	Buttons: Reset				
	Power Method: 802.3af PoE				
	Power Supply: UniFi Switch (PoE)				
	Power Save: Supported				
	Beamforming: Supported				
	Maximum Power Consumption: 10.5W				
	Supported Voltage Range: 44 to 57VDC				
	TX Power				
	2.4 GHz: 23 dBm				
	5 GHz: 26 dBm				
	MIMO				
	2.4 GHz: 2x2				
	Δ. <del>11</del> ΟΙ ΙΔ. ΔλΔ				

	5 GHz: 4x4				=
	Radio Rates				
	2.4 GHz: 300 Mbps				
	5 GHz: 1733 Mbps				
	Antennas				
	2.4 GHz: (2) Single-Port, Single-Polarity Antennas, 2.8 dBi each				
	5 GHz: (2) Single-Port, Dual-Polarity Antennas, 3				
	dBi each				
	Wi-Fi Standards: 802.11 a/b/g/n/r/k/v/ac/ac-wave2				
	Wireless Security: WEP, WPA-PSK, WPA-Enterprise				
	(WPA/WPA2, TKIP/AES), 802.11w/PMF				
	BSSID: 8 per Radio				
	Mounting: Wall/Ceiling (Kits Included)				
	Operating Temperature: -10 to 70 C (14 to 158 F)				
	Operating Humidity: 5 to 95% Noncondensing				
	Certifications: CE, FCC, IC			+	
	Advanced Traffic Management			+	
	VLAN: 802.1Q			+	
	Advanced QoS: Per-User Rate Limiting				
	Guest Traffic Isolation: Supported				
	WMM: Voice, Video, Best Effort, and Background				
	Concurrent Clients: 200+				
	Supported Data Rates (Mbps)				
	Standard Data Rates				
	802.11a 6,9,12,18,24,36,48,54 Mbps				
	802.11n 6.5 Mbps to 300 Mbps (MCS0-MCS15, HT				
	20/40				
	802.11ac 6.5 Mbps to 1.7 Gbps (MCS0-MCS9				
	NSS1/2/3/4, VHT 20/40/80)				
	58 Mbps to 1.7 Gpbs (MCS0-MCS9 NSS1/2, VHT				
	160)				
	802.11b 1, 2, 5.5, 11 Mbps				
	802.11g 6, 9, 12, 18, 24, 36, 48, 54 Mbps				
103	Large-Diaphragm Cardioid Condenser Microphone	unit	2	17,500.00	35,000.00
	For Voice, Instruments, Drums, and Cabs				
	Cardioid Pattern Lessens Room Noise				
	Switchable -10 dB Pad Hinders Distortion				
	Low-Cut Filter Limits Bass Buildup				
	Shockmount Inhibits Vibration Noise				
	Large-Diaphragm True Condenser Capsule				
	Handles Immense Sound Pressure Levels				
	Includes Protective Case and Dust Cover				
	XLR Output for Hookup to Mic Preamp				
	Operates on 48V Phantom Power				
	Microphone				
	Form Factor: Large Diaphragm Mic / Stand/Boom				
	Mount				
	Intended Sound Sources: Vocals, Speech/Voice Over,				
	Instrument				
		l	l	L	

	Sound Field: Mono				
	Operating Principle: Pressure Gradient				
	Capsule: Condenser				
	Polar Pattern: Cardioid				
	Performance				
	Frequency Range: 20 Hz to 20 kHz				
	Maximum SPL: 145 dB SPL (1 kHz, 1% THD)				
	155 dB SPL (1 kHz, 1% THD, with Pad)				
	Impedance: 100 Ohms				
	Sensitivity: -32 dBV/Pa				
	Dynamic Range: 133 dB (1 kHz, at Max SPL)				
	Signal-to-Noise Ratio: 82 dB (1 kHz)				
	Equivalent Noise Level: 12 dB SPL A-Weighted				
	Power				
	Operating Voltage: 48 V (Phantom Power) Operating Current Consumption: 4.2 mA				
	Physical Color Physic				
	Color: Black				
	Mounting: Shockmount (Included)				
	Included Case: Hard Case, Mic Sock				
	Included Filters: None				
	Dimensions: ø: 2.1 x L: 6.69" / ø: 5.3 x L: 16.99 cm				
404	Weight: 12.7 oz / 360 g	.,	4		
104	SDI to HDMI Converter Bidirectional	units	4	5,750.00	23,000.00
	"Video Inputs: 1 x BNC (3G-SDI), 1 x HDMI (HDMI 2.0)				
	Audio Inputs: None				
	Video Outputs: 1 x BNC (3G-SDI), 1 x HDMI (HDMI				
	2.0)				
	Audio Outputs: None				
	Other I/O: 1 x USB-C Input				
	Expansion Slots: None				
	Embedded Audio: HDMI/SDI				
	Power I/O: 1 x USB-C (4.4 to 5.2 VDC) Input				
	Power Consumption: 2.5 W"				
105	Headset, Over Ear, wired	sets	2	750.00	1,500.00
	■Wearing Type: Over-ear				-
	■Microphone: Yes				
	■Volume Control: Yes				
	■One Key Mute Button: Yes				
	■Microphone: Omnidirectional				
	■Plug Type: 3.5mm				
	Speaker Diameter: 50mm				
	Receive Sensitivity: 101dB				
	■Impedance: 32Ω				
	Frequency Response: 20-20kHz				
106	Speaker, for PC, 2.1 (Speaker with Subwoofer)	рс	1	1,500.00	1,500.00
	■Power Output : rms 4.5w×2 sw: 12w	<u> </u>	-	,	-,

	■Signal to noise ratio : 80dba				
	■Frequency Response: 80hz~20khz (±6db)				
	■R/I: 300±50mv sw: 100 ± 20mv				
	■Aux/USB/SD card				
	■Bass driver :4 inch				
407	Treble driver :2 3/4 inch		4	700.00	700.00
107	Web Camera for Laptop and Desktop	pcs	1	720.00	720.00
	■About 360 degrees, rotate up and down 45 degrees,				
	you can adjust the angle.				
	■With clips for laptops and desktops.				
	■Sensor pixels: 2 million				
	■Interface: USB 2.0				
	■Frame rate: 30 FPS				
	■Image sensor: CMOS				
	■Brightness/color: automatically adjusts				
	■Additional features: built-in microphone				
108	System Unit (CPU), Core i7 8GB RAM	units	2	40,000.00	80,000.00
	CPU: 9th Gen Intel Core i7-9700 (8-Core, 12MB				•
	Cache, up to 4.7GHz with Intel Turbo Boost				
	Technology) or higher				
	SDD: 256GB M.2 PCIe NVMe Solid State Drive or				
	higher + 1TB 7200 rpm 3.5" SATA Hard Drive or				
	higher				
	RAM: at least 8GB (8GBx1) DDR4 2666MHz or higher				
	Graphics: NVIDIA GeForce GTX 1650 4GB GDDR5				
	or higher				
	ATX casing with 700W PSU				
	With genuine Microsoft Office license.				
	OS: at least Windows 10				
109	VOIP Phone	units	2	10,000.00	20,000.00
100	■1-Line PoE+ SIP VOIP Phone SPA MAC address	unito		10,000.00	20,000.00
	(IEEE 802.3) with lifetime warranty				
	■IPv4 (RFC 791)Integrated web server provides web-				
	based administration and configuration				
	,				
	■Telephone keypad configuration via display				
	menu/navigation  ■Automated provisioning and upgrade via HTTPS, HTTP, TFTP				
	Asynchronous notification of upgrade availability via NOTIFY				
	Nonintrusive in-service upgrades				
	■Report generation and event logging				
	Statistics transmitted in BYE message				
	Syslog and debug server records: configurable per				
	line				
	■Address Resolution Protocol (ARP)				
	1 /				
	■DNS: A record (RFC 1706), SRV record (RFC 2782) ■Dynamic Host Configuration Protocol (DHCP) client (RFC				
	2131)				
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	■Internet Control Message Protocol (ICMP) (RFC				

	MTCD (DEC 702)				
	TUDE (RFC 793)				
	■User Datagram Protocol (UDP) (RFC 768)				
	■Real-Time Transport Protocol (RTP) (RFC 1889, 1890)				
	■Real-Time Control Protocol (RTCP) (RFC 1889)				
	■Differentiated Services (DiffServ) (RFC 2475)				
	■Type of service (ToS) (RFC 791, 1349)				
	■VLAN tagging 802.1p/Q: Layer 2 quality of service (QoS)				
	■Simple Network Time Protocol (SNTP) (RFC 2030)SIP version 2 (RFC 3261, 3262, 3263, 3264)				
	■SPCP with the Cisco Unified Communications 500				
	Series				
	■SIP proxy redundancy: dynamic via DNS SRV, A				
	records				
	■Reregistration with primary SIP proxy server				
	■SIP support in NAT networks (including STUN)				
	■SIPFrag (RFC 3420)		İ		
	■Secure (encrypted) calling via SRTP		İ		
	■Codec name assignment				
	■Voice algorithms:				
	■G.711 (A-law and μ-law)				
	■G.726 (16/24/32/40 kbps)				
	<b>■</b> G.729 A				
	<b>■</b> G.722				
	■Dynamic payload support				
	■Adjustable audio frames per packet				
	Dual-tone multifrequency (DTMF), in-band and out-				
	of-band (RFC 2833) (SIP INFO)				
	■Flexible dial plan support with interdigit timers				
	■IP address/URI dialing support				
	■Call progress tone generation				
	■Jitter buffer: adaptive				
	■Frame loss concealment				
	■Comfort Noise Generation (CNG)				
	■Voice activity detection (VAD) with silence				
	suppression				
	■Attenuation/gain adjustments				
	■VMWI - Voicemail Waiting Indicator, via NOTIFY,				
	SUBSCRIBE				
	■Caller ID support (name and number)				
	■Third-party call control (RFC 3725)				
	Should be compatible with existing fleet of VSU IP				
440	Phones	r	2	F00 00	4 500 00
110	Laptop Cooling Pad 14"	pcs	3	500.00	1,500.00
	1.one 14cm big LED light fan				
	2.metal mesh material				
	3. Powered by USB cable from laptop				
	4.Support size:12"-14"laptop				

	5.Color:black,				
111	Rechargeable Wireless Keyboard and Mouse Set	unit	3	950.00	2,850.00
	■Rechargeable Office Wireless Keyboard and Mouse				,
	Set				
	■Size: 284*121*16.mm				
	■Weight: 280g				
	■Connection method: USB receiver/Bluetooth				
	Rebidding - VSU-GOODS-23-35				
112	Coffee Maker Machine, Touch-Screen 10-cups		4		
112	Programmable with Glass Carafe, Stainless Steel	рс	1	2,300.00	2,300.00
113	Colored Digital Photocopier	unit	1	150,000.00	150,000.00
	Full color digital copier with network printing, color				
	scanning and network fax				
	Copy and print speed of 30 copies per minute, A4				
	7-inch color touch screen panel				
	CPU: dual core 1.2 GHz				
	Paper size from A6R to Legal Size				
	Standard memory capacity is 1GB, max 3GB Plus				
	128GB SSD option				
	Paper capacity of 250 sheets cassette and 100 sheets				
	multipurpose tray				
	Built-in 75-sheets reversing document processor and				
	stackless duplex unit				
	Compatible with windows, makintosh and linux				
	Scan to SMB/E-mail/FTP/USB host/Box, Network				
	Twain scan and WSDScan				
	Low power consumption Copying: 512w or less, Sleep				
	mode: 0.6W				
	Super G3Fax, Stand-alone network connection				
	Maintenance Kit of 200,000 copies				
	With lifetime service				
114	Cordless Kettle	unit	30	1,200.00	36,000.00
	Electric Glass Kettle, Cordless				
	HWK-118GI				
	Power: 230V - 60Hz, 2000W				
	Capacity: 1.8L				
	360 degree rotary base, easy to use with high				
	borosilicate glass body,				
	Durable and stain resistant blue LED light indication				
	when boiling Concealed stainless steel				
	heating element Automatic one button cover starter				
	boiling dry protection Automatically				
4.1-	turns off when water boiled.			400 000 00	100 555 55
115	Stencil Digital Duplicator Machine	unit	1	100,000.00	100,000.00
	Print Speed: 60 - 90 Sheets Per Minute (2 Steps)				
	Resolution: 300 x 300 dpi				
	Printing Process: Fully Automatic One Drum Stencil				
	System				
	Minimum Print Paper Size: 90 x 140 mm				

	LCD Display 700w microwave power				
	Electronic Control				
	20-Liter   220V				
116	Microwave Oven, 20L 20-Liter	unit	4	5,000.00	20,000.00
116	Weight: 55kg	unit	A	5 000 00	20 000 00
	Dimensions (W x D x H): 1,232 x 672 x 519 mm				
	Standby: 35 W				
	Printing: Less than 175 W (at 90 sheets per minute)				
	175 W				
	Maximum: Master making: less than				
	Power consumption				
	Power source: 220-240 V, 50 – 60 Hz				
	Paper feed/delivery table: 500 sheets (80 g/m²)				
	Colour printing: By replacing colour, drum				
	Zoom: No				
	Pre-set reduction: 71, 82, 87, 93%				
	Reproduction ratios: Pre-set enlargement: 115, 122,				
	Image position: Vertical: ± 10 mm , Horizontal: ± 10 mm				
	Image modes: Letter mode, Photo mode, Photo/Letter mode				
	Specifications:				
	CM ink (custom-made colours, 500 ml)				
	navy, brown, maroon, orange, teal				
	yellow, green, purple,				
	Digital Duplicator colour ink type II (600 ml): red, blue,				
	Priport™ black ink type (500 ml)				
	Priport™ master type (100 masters per roll, B4)				
	Consumables				
	Cabinet				
	Colour drum type 20 (B4)				
	Interface board type 20				
	USB controller printer unit type VC-20				
	originals, spot colour printing with optional colour drum units.  Options				
	mode, SP mode (for technical service use only), combine two				
	Auto background correction, auto cycle, photo/letter mode, tint				
	Features:				
	First Print Speed: Less Than 40 Seconds				
	Print Area: Maximum 250 x 355 mm				
	Maximum Print Paper Size: 275 x 395 mm Print Paper Weight: 35.0-127.9 g/m2				

	■Shred Type: Cross Cut				
	■Maximum Sheet capacity(70gsm) : 10 Sheets				
	■Waste Container capacity: 21 Liters				
	■Power Source: 220 - 240 VAC				
118	Washing Machine Heavy DutyWasher	unit	2	60,000.00	120,000.00
	15 kg. IEC Rated Capacity U.S Heavy Duty Washer				
	11 Wash Cycles				
	Quick Wash Cycle				
	Whites Cycle				
	Delicate Cycle				
	6th Sense Technology				
	Dual Action Agitator				
	Fabcon Dispenser				
	Liquid Bleach Dispenser				
	Mechanical Control panel				
	Deep Water Wash System				
	Soil Level Selection				
	Wash Temperature Selection				
	Load Size Selection				
	Extra Rinse Selection				
	Galvanized Heavy Duty Body				
	White Porcelain Tub				
	Child Lid Lock				
	Color: White				
	Dimension (h:w:d) 109.22 : 69:85 : 68.58 cm				
				TOTAL:	6,862,354.00

Bids received in excess of the ABC for each item shall be automatically rejected at bid opening.

- 2. The *Visayas State University* now invites bids for the above Procurement Project. Delivery of the Goods is required by *thirty* (30) calendar days upon receipt of Notice to Proceed (NTP). Bidders should have completed, within two (2) years from the date of submission and receipt of bids, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
- 3. Bidding will be conducted through open competitive bidding procedures using a non-discretionary "pass/fail" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

Bidding is restricted to Filipino citizens/sole proprietorships, partnerships, or organizations with at least sixty percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines, and to citizens or organizations of a country the laws or regulations of which grant similar rights or privileges to Filipino citizens, pursuant to RA No. 5183.

- 4. Prospective Bidders may obtain further information from *Visayas State University* and inspect the Bidding Documents at the address given below during *Mondays Fridays* (8:00 AM-5:00 PM).
- 5. A complete set of Bidding Documents may be acquired by interested Bidders on 19 October 09 November 2023 until 8:30 AM from the given address and website(s) below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of Ten Thousand Pesos (PhP 10,000.00). The Procuring Entity shall allow the bidder to present its proof of payment for the fees in person, by facsimile, or through electronic means.
- 6. The *Visayas State University* will hold a Pre-Bid Conference on *October 27, 2023;* 9:00 AM at the BAC Conference Room, VSU Market, Visca, Baybay City, Leyte and via Zoom, which shall be open to prospective bidders.
  - Bidders are advised to contact the BAC Secretariat before the scheduled Pre-Bid Conference for the Zoom Meeting ID and Passcode.
- 7. Bids must be duly received by the BAC Secretariat through (i) manual submission at the office address indicated below, (ii) online or electronic submission as indicated below, or (iii) both on or before *November 09, 2023 until 8:30 AM*. Late bids shall not be accepted.
- 8. For bidders who opt to submit their bids electronically, a hardcopy (original) of the bid must be sent to the BAC through preferred couriers. A proof (e.g. courier receipt/waybill, etc.) that a hardcopy of the bid is on transit must be presented upon submission of the electronic bid.
- 9. All Bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 14.
- 10. Bid opening shall be on *November 09 2023; 9:00 AM* at the *BAC Conference Room*, *VSU Market*, *Visca*, *Baybay City*, *Leyte* and via *Zoom*. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
  - Bidders are advised to contact the BAC Secretariat before the scheduled Bid Opening for the Zoom Meeting ID and Passcode.
- 11. The *Visayas State University* reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised IRR of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
- 12. For further information, please refer to:

Mr. Leopoldo S. Escala Jr. (BAC Secretariat)

Office of the Head for Procurement, VSU-Main, Visca, Baybay City, Leyte

Mobile: 053 565 0600 local 1093 or 09639629709

Email: leopoldo.escala@vsu.edu.ph

or

# Mr. Toni Marc L. Dargantes (BAC Secretariat)

Office of the VP for Planning, Resource Generation & Auxiliary Services VSU-Main, Visca, Baybay City, Leyte

Mobile: 0977 7186594

Email: tmdargantes@vsu.edu.ph

## 13. You may visit the following websites:

For downloading of Bidding Documents: https://www.vsu.edu.ph/philgeps-opportunities

October 18, 2023

<u>DILBERTO O. FERRAREN</u> Chairperson, VSU BAC

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# Section II. Instructions to Bidders

## 1. Scope of Bid

The Procuring Entity, Visayas State University, wishes to receive Bids for the Supply and Delivery of I.T Equipment and Supplies, with identification number VSU-GOODS-23-46.

The Procurement Project (referred to herein as "Project") is composed of 123 items, the details of which are described in Section VII (Technical Specifications).

## 2. Funding Information

- 2.1. The GOP through the source of funding as indicated below for 2023 in the amount of Six Million Eight Hundred Sixty Two Thousand Three Hundred Fifty Four Pesos (PhP 6,862,354.00).
- 2.2. The source of funding is: NGA, the General Appropriations Act, Special Trust Fund, and Trust Fund.

## 3. Bidding Requirements

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manuals and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof.

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or **IB** by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have verified and accepted the general requirements of this Project, including other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

### 4. Corrupt, Fraudulent, Collusive, and Coercive Practices

The Procuring Entity, as well as the Bidders and Suppliers, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex "I" of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

## 5. Eligible Bidders

5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.

- 5.2. Foreign ownership limited to those allowed under the rules may participate in this Project.
- 5.3. Pursuant to Section 23.4.1.3 of the 2016 revised IRR of RA No.9184, the Bidder shall have an SLCC that is at least one (1) contract similar to the Project the value of which, adjusted to current prices using the PSA's CPI, must be at least equivalent to:

Bidder should comply with the following requirements:

- i. Completed at least two (2) similar contracts, the aggregate amount of which should be equivalent to at least *fifty percent* (50%) of the ABC for this Project; and
- ii. The largest of these similar contracts must be equivalent to at least half of the percentage of the ABC as required above.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.1 of the 2016 IRR of RA No. 9184.

## 6. Origin of Goods

There is no restriction on the origin of goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN, subject to Domestic Preference requirements under **ITB** Clause 18.

#### 7. Subcontracts

7.1. The Bidder may subcontract portions of the Project to the extent allowed by the Procuring Entity as stated herein, but in no case more than twenty percent (20%) of the Project.

The Procuring Entity has prescribed that: **Subcontracting is not allowed**.

#### 8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address and/or through videoconferencing/webcasting as indicated in paragraph 6 of the **IB**.

## 9. Clarification and Amendment of Bidding Documents

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the **IB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

## 10. Documents comprising the Bid: Eligibility and Technical Components

- 10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section VIII** (Checklist of Technical and Financial **Documents**).
- 10.2. The Bidder's SLCC as indicated in **ITB** Clause 5.3 should have been completed within **two** (2 years) prior to the deadline for the submission and receipt of bids.
- 10.3. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. Similar to the required authentication above, for Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.

## 11. Documents comprising the Bid: Financial Component

- 11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section VIII** (**Checklist of Technical and Financial Documents**).
- 11.2. If the Bidder claims preference as a Domestic Bidder or Domestic Entity, a certification issued by DTI shall be provided by the Bidder in accordance with Section 43.1.3 of the 2016 revised IRR of RA No. 9184.
- 11.3. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.4. For Foreign-funded Procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

## 12. Bid Prices

- 12.1. Prices indicated on the Price Schedule shall be entered separately in the following manner:
  - a. For Goods offered from within the Procuring Entity's country:
    - i. The price of the Goods quoted EXW (ex-works, ex-factory, exwarehouse, ex-showroom, or off-the-shelf, as applicable);
    - ii. The cost of all customs duties and sales and other taxes already paid or payable;

- iii. The cost of transportation, insurance, and other costs incidental to delivery of the Goods to their final destination; and
- iv. The price of other (incidental) services, if any, listed in e.

#### b. For Goods offered from abroad:

- i. Unless otherwise stated in the **BDS**, the price of the Goods shall be quoted delivered duty paid (DDP) with the place of destination in the Philippines as specified in the **BDS**. In quoting the price, the Bidder shall be free to use transportation through carriers registered in any eligible country. Similarly, the Bidder may obtain insurance services from any eligible source country.
- ii. The price of other (incidental) services, if any, as listed in **Section VII (Technical Specifications).**

## 13. Bid and Payment Currencies

- 13.1. For Goods that the Bidder will supply from outside the Philippines, the bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies, shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.
- 13.2. Payment of the contract price shall be made in: Philippine Pesos.

## 14. Bid Security

- 14.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.
- 14.2. The Bid and bid security shall be valid until *March 9, 2023*. Any Bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

#### 15. Sealing and Marking of Bids

Each Bidder shall submit one copy of the first and second components of its Bid.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

If the Procuring Entity allows the submission of bids through online submission or any other electronic means, the Bidder shall submit an electronic copy of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

#### 16. Deadline for Submission of Bids

16.1. The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph 7 of the **IB.** 

## 17. Opening and Preliminary Examination of Bids

17.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

17.2. The preliminary examination of bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

#### 18. Domestic Preference

18.1. The Procuring Entity will grant a margin of preference for the purpose of comparison of Bids in accordance with Section 43.1.2 of the 2016 revised IRR of RA No. 9184.

#### 19. Detailed Evaluation and Comparison of Bids

- 19.1. The Procuring BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*," using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of the 2016 revised IRR of RA No. 9184.
- 19.2. If the Project allows partial bids, bidders may submit a proposal on any of the lots or items, and evaluation will be undertaken on a per lot or item basis, as the case maybe. In this case, the Bid Security as required by **ITB** Clause 15 shall be submitted for each lot or item separately.
- 19.3. The descriptions of the lots or items shall be indicated in **Section VII** (**Technical Specifications**), although the ABCs of these lots or items are indicated in the **BDS** for purposes of the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184. The NFCC must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder.
- 19.4. The Project shall be awarded as follows: One Project having several items, which shall be awarded as separate contracts per item.

19.5. Except for bidders submitting a committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation, all Bids must include the NFCC computation pursuant to Section 23.4.1.4 of the 2016 revised IRR of RA No. 9184, which must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder. For bidders submitting the committed Line of Credit, it must be at least equal to ten percent (10%) of the ABCs for all the lots or items participated in by the prospective Bidder.

## 20. Post-Qualification

20.1. Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS) and other appropriate licenses and permits required by law and stated in the **BDS**.

## 21. Signing of the Contract

21.1. The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.

# Section III. Bid Data Sheet

# **Bid Data Sheet**

ITB	
Clause	
5.3	For this purpose, contracts similar to the Project shall be: <b>a.</b> <i>I.T. Equipment, I.T. Supplies, or a combination of the foregoing</i> b. completed within two (2) years prior to the deadline for the submission and receipt of bids.
7.1	Subcontracting is not allowed.
12	The price of the Goods shall be quoted <i>DDP VSU Main, Visca, Baybay City, Leyte</i> or the applicable International Commercial Terms (INCOTERMS) for this Project.
14.1	The bid security shall be in the form of a Bid Securing Declaration, or any of the following forms and amounts:  a. The amount of not less than <i>One Hundred Thirty Seven Thousand Two Hundred Forty Seven and 08/100 Pesos (PhP 137,247.08) or two percent (2%) of ABC</i> , if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or  b. The amount of not less than <i>Three Hundred Forty Three Thousand One Hundred Seventeen and 70/100 Pesos (PhP 343,117.70) or five percent (5%) of ABC</i> if bid security is in Surety Bond.
15	Bidders are requested to submit two (2) more copies of its bid (Copy 1 and Copy 2) in addition to the required original hardcopy.  For filing purposes, the bidders are urged to use <b>Orange</b> envelopes for its Technical and Financial Component envelopes, including the Mother (outer) Envelope.
19.3	See Section I. Invitation to Bid (Item 1) for the list of items and their corresponding total Approved Budget for the Contract (ABC) per item.
20.2	Bidders are required to submit its updated Mayor's/Business Permit during post-qualification.
21.2	Not Applicable.

## 1. Scope of Contract

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

Additional requirements for the completion of this Contract shall be provided in the **Special Conditions of Contract (SCC).** 

## 2. Advance Payment and Terms of Payment

- 2.1. Advance payment of the contract amount is provided under Annex "D" of the revised 2016 IRR of RA No. 9184.
- 2.2. The Procuring Entity is allowed to determine the terms of payment on the partial or staggered delivery of the Goods procured, provided such partial payment shall correspond to the value of the goods delivered and accepted in accordance with prevailing accounting and auditing rules and regulations. The terms of payment are indicated in the **SCC**.

## 3. Performance Security

Within ten (10) calendar days from receipt of the Notice of Award by the Bidder from the Procuring Entity but in no case later than prior to the signing of the Contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR of RA No. 9184.

## 4. Inspection and Tests

The Procuring Entity or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Project specifications at no extra cost to the Procuring Entity in accordance with the Generic Procurement Manual. In addition to tests in the SCC, Section IV (Technical Specifications) shall specify what inspections and/or tests the Procuring Entity requires, and where they are to be conducted. The Procuring Entity shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.

All reasonable facilities and assistance for the inspection and testing of Goods, including access to drawings and production data, shall be provided by the Supplier to the authorized inspectors at no charge to the Procuring Entity.

## 5. Warranty

- 6.1. In order to assure that manufacturing defects shall be corrected by the Supplier, a warranty shall be required from the Supplier as provided under Section 62.1 of the 2016 revised IRR of RA No. 9184.
- 6.2. The Procuring Entity shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall, repair or replace the defective Goods or parts thereof without cost to the Procuring Entity, pursuant to the Generic Procurement Manual.

## 6. Liability of the Supplier

The Supplier's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

If the Supplier is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.



**Special Conditions of Contract** 

aaa	
GCC Clause	
1	Delivery and Documents –
	E
	For purposes of the Contract, "EXW," "FOB," "FCA," "CIF," "CIP," "DDP"
	and other trade terms used to describe the obligations of the parties shall have the meanings assigned to them by the current edition of INCOTERMS published
	by the International Chamber of Commerce, Paris. The Delivery terms of this
	Contract shall be as follows:
	The delivery term applicable to this Contract is delivered VSU Main Campus,
	Visca, Baybay City, Leyte. Risk and title will pass from the Supplier to the
	Procuring Entity upon receipt and final acceptance of the Goods at their final
	destination.
	Delivery of the Goods shall be made by the Supplier in accordance with the
	terms specified in Section VI (Schedule of Requirements).
	For purposes of this Clause the Procuring Entity's Representative at the Project
	Site is:
	Site is.
	Vivian V. Balbarino
	Head, Supply and Property Management Office
	VSU-Main, Visca, Baybay City, Leyte
	Contact #: 053 565 0600 local 1082/09175518871
	Email: sppmo@vsu.edu.ph
	Additional Instruction: The Supplier should notify the Head of Supply and
	Property Management Office atleast 1 week before the scheduled delivery.
	Incidental Services –
	incluental Sel vices –
	The Supplier is required to provide all of the following services, including
	additional services, if any, specified in Section VI. Schedule of Requirements:
	a. performance or supervision of on-site assembly and/or start-up of the
	supplied Goods;
	b. furnishing of tools required for assembly and/or maintenance of the
	supplied Goods;
	c. furnishing of a detailed operations and maintenance manual for each
	appropriate unit of the supplied Goods;
	d. performance or supervision or maintenance and/or repair of the
	supplied Goods, for a period of time agreed by the parties, provided
	that this service shall not relieve the Supplier of any warranty
	obligations under this Contract; and e. training of the Procuring Entity's personnel, at the Supplier's plant
	e. training of the Procuring Entity's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or
	repair of the supplied Goods.
	Tepan of the supplied Goods.

The Contract price for the Goods shall include the prices charged by the Supplier for incidental services and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.
Spare Parts –
The Supplier is required to provide all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:
a. such spare parts as the Procuring Entity may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under this Contract; and
b. in the event of termination of production of the spare parts:
i. advance notification to the Procuring Entity of the pending termination, in sufficient time to permit the Procuring Entity to procure needed requirements; and
ii. following such termination, furnishing at no cost to the Procuring Entity, the blueprints, drawings, and specifications of the spare parts, if requested.
The spare parts and other components required are listed in <b>Section VI</b> ( <b>Schedule of Requirements</b> ) and the cost thereof are included in the contract price.
The Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spare parts or components for the Goods for a period of 3 years.
Spare parts or components shall be supplied as promptly as possible, but in any case, within 1 month of placing the order.
Packaging –
The Supplier shall provide such packaging of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in this Contract. The packaging shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packaging case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

The packaging, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified below, and in any subsequent instructions ordered by the Procuring Entity.  The outer packaging must be clearly marked on at least four (4) sides as follows:
The outer puckaging must be crearly marked on at least roar (1) stace as ronows.
Name of the Procuring Entity
Name of the Supplier
Contract Description
Final Destination
Gross weight
Any special lifting instructions
Any special handling instructions
Any relevant HAZCHEM classifications
A packaging list identifying the contents and quantities of the package is to be placed on an accessible point of the outer packaging if practical. If not practical the packaging list is to be placed inside the outer packaging but outside the secondary packaging.
Transportation –
Where the Supplier is required under Contract to deliver the Goods CIF, CIP, or DDP, transport of the Goods to the port of destination or such other named place of destination in the Philippines, as shall be specified in this Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.
Where the Supplier is required under this Contract to transport the Goods to a specified place of destination within the Philippines, defined as the Project Site, transport to such place of destination in the Philippines, including insurance and storage, as shall be specified in this Contract, shall be arranged by the Supplier, and related costs shall be included in the contract price.
Where the Supplier is required under Contract to deliver the Goods CIF, CIP or DDP, Goods are to be transported on carriers of Philippine registry. In the event that no carrier of Philippine registry is available, Goods may be shipped by a carrier which is not of Philippine registry provided that the Supplier obtains and presents to the Procuring Entity certification to this effect from the nearest Philippine consulate to the port of dispatch. In the event that carriers of Philippine registry are available but their schedule delays the Supplier in its performance of this Contract the period from when the Goods were first ready for shipment and the actual date of shipment the period of delay will be considered force majeure.

	Intellectual Property Rights — The Supplier shall indemnify the Procuring Entity against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof.
2.2	Payment of staggered deliveries shall be allowed. Payment shall be on "as per cost of the items delivered" subject to inspection and acceptance.
4	The inspections and tests that will be conducted will be specified by the appropriate technical team of VSU Main to confirm conformity to the contract specifications at no extra cost to VSU.

## Section VI. Schedule of Requirements

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

Ite	Qty	Uni	Description	Delivered, Weeks/Months
m#		t	•	All Items Should Be Delivered
1	2	рс	1TB, Hard disk Drive, 7200rpm, for desktop	Within 30 Calendar days to
			■11TB	VSU Main, Visca, Baybay City,
			SATA 6Gb/s interface optimizes burst performance;	Leyte from Receipt of Notice to
			■64MB Cache	Proceed And Purchase Order
			Average Data Rate, Read/Write: 156  Average Data Rate, Read/Write: 156	
			■Max Sustained Data Rate, OD Read (MB/s) : 210	
			■Cache, Multisegmented (MB): 64	
2	1	рс	3D Printer Filament (ABS)	
			■Mass: 1 KG (approximately 2.20 lbs) Spool	
			■Filament Diameter: 1.75mm (Dimensional Accuracy +/- 0.03m	
			■Extrusion/Nozzle Temperature: 210°C - 240°C (410°F -	
			464°F)	
			Spool Diameter: 7.88"	
			Spool Width: 2.69"	
			Spool Hub Hole Diameter: 2.20"	
			■Color: Black	
			■Material Type: ABS	
3	1	set	3D Printer Filament (TPU)	
			■Color: black	
			■Item Diameter: 1.75 millimeters	
			■Item weight: not less than 15.7 ounces	
			■Material: Rep-Flex-Tpu- Vacuumed Sealed With	
			Desiccant	
			■Outside Diameter: 1.75 millimeters (+/- 0.05mm)	
			■Recommended Extrusion/Nozzle Temp: 195 - 230	
			degree celsuis	
			■Recommended Platform Temperature: 40 - 60 degree	
			celsuis	
			■Packing List:TPU Flexible Filament 1.75mm	
			250g(vacuum sealed)	
4	1	рс	3D Printer PLA filament	
			■Recommended Extrusion/Nozzle Temp: 90°C - 220°C	
			(374°F~ 428°F)	
			■Heated Bed Temp: 25°C - 60°C (77°F~ 140°F)	
			■Filaments Diameter and Accuracy: 1.75 mm +/- 0.05	
			■Filaments Net Weight: 1 kg (2.2 lbs) / Spool	
			■Build Surface: 200 mm x 200 mm (7.88" x 7.88")	
			■Type of filament: PLA	
5	1	uni t	Android Smartphone	
			■Specification:	

		T	011 (14 11 (1 11 11 000 //0 )
			—Chipset: Mediatek Helio G80 (12 nm)
			—Operating system: Android 10
			—ROM: at least 32 GB
			<b>─</b> RAM: at least 3GB
			—Screen Type: IPS LCD, at least 400 nits
			—Camera Front : at least 8 MP
			—Primary(Back) Camera Resolution at least 13MP
			-Resolution: at least 1080 x 2340 pixels
			—SIM: Dual SIM (Nano-SIM, dual stand-by)
_		uni	Apple USB-C Digital AV Multiport Adapter
6	1	t	Compatible with Mac and iPad
			Connections: HDMI, USB, USB-C
			Compatible iPad Models: iPad Pro 12.9-inch
			(5th generation), iPad Pro 12.9-inch (4th generation),
			iPad Pro 12.9-inch
			Compatible Mac Models: MacBook Air (M2, 2022).
			MacBook Air (M1, 2020), MacBook Air (Retina, 13-inch,
			2020), MacBook Air (Retina, 13-inch, 2018 - 2019),
			MacBook Pro (13-inch, M2, 2022), MacBook Pro (13-
			inch, M1, 2020)
			Genuine Apple Accessory
7	1	no	Camera with 28-70 mm Zoom Lens
		рс	
			Product Specification:
			Lens
		<u> </u>	Lens Mount: E-mount
		1	Image Sensor
		<u> </u>	Aspect Ratio: 3:2
			Number Of Pixels (Effective): Approx. 24.2 megapixels
			Number of Pixels (total): Approx. 25.3 megapixels
			Sensor Type: 35 mm full frame (35.6 x 23.8 mm), Exmor
			R CMOS sensor
			Anti-Dust System: Charge protection coating on optical
			filter and image sensor shift mechanism
			Recording (still images)
			Image Size (pixels) [16:9]: 35 mm full frame L: 6000 x
			3376 (20 M), M: 3936 x 2216 (8.7 M), S: 3008 x 1688
			(5.1 M), APS-C L: 3936 x 2216 (8.7 M), M: 3008 x 1688
			(5.1 M), S: 1968 x 1112 (2.2 M)
			Image Size (pixels) [Sweep Panorama]
			Picture Effect: 8 types: Posterization (Color),
			Posterization (B/W), Pop Color, Retro Photo, Partial
			Color (R/G/B/Y), High Contrast Monochrome, Toy
			Camera (Normal/Cool/Warm/Green/Magenta), Soft High-
			key, Rich-tone Monochrome
			Creative Style: Standard, Vivid, Neutral, Clear, Deep,
			Light, Portrait, Landscape, Sunset, Night Scene, Autumn
			leaves, Black & White, Sepia, Style Box (1–6), (Contrast
			[-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3
			to +3 steps])

Picture Profile: Yes (Off/PP1-PP10) Parameters: Black	
level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709	
[800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma,	
Knee, Color Mode, Saturation, Color Phase, Color Depth,	
Detail, Copy, Reset	
Dynamic Range Functions: Off, Dynamic Range	
Optimizer (Auto/Level (1-5)), Auto High Dynamic Range	
(Auto Exposure Difference, Exposure Difference Level (1-	
6 EV, 1.0 EV step))	
Color Space: sRGB standard (with sYCC gamut) and	
Adobe RGB standard, compatible with TRILUMINOS	
Color	
14bit RAW: Yes	
Uncompressed RAW: Yes	
Recording (movie)	
Recording Format: XAVC S, AVCHD format Ver. 2.0	
compliant	
Color Space: xvYCC standard (x.v.Color when connected	
via HDMI cable) compatible with TRILUMINOS Color	
Picture Effect: Posterization (Color), Posterization (B/W),	
Pop Color, Retro Photo, Partial Color (R/G/B/Y), High	
Contrast Monochrome, Toy Camera	
(Normal/Cool/Warm/Green/Magenta), Soft High-key	
Creative Style: Standard, Vivid, Neutral, Clear, Deep,	
Light, Portrait, Landscape, Sunset, Night Scene, Autumn	
leaves, Black & White, Sepia, Style Box (1-6), (Contrast	
[-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3	
to +3 steps])	
Picture Profile: Yes (Off/PP1-PP10) Parameters: Black	
level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709	
[800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma,	
Knee, Color Mode, Saturation, Color Phase, Color Depth,	
Detail, Copy, Reset	
Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160	
(30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160	
(30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920	
x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x	
1080 (60p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080	
(24p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (30p,	
16 M), AVCHD: 1920 x 1080 (60i, 24 M, FX), 1920 x	
1080 (60i, 17 M, FH)	
Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p,	
100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x	
1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x	
1080 (50p, 50 M), 1920 x 1080 (25p, 50 M), AVCHD:	
1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)	
Slow and quick motion (shooting frame rate): NTSC	
mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps,	
PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps,	
100fps	

1.	
Slow and quick motion (recording frame rate and image	
size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL	
mode: 1920x1080 (50p, 25p)	
PAL/NTSC Selector, Yes (1280 x 720 (Approx.9 Mbps)),	
TC/UB (TC Preset/UB Preset/TC Format/TC Run/TC	
Make/UB Time Rec), Auto Slow Shutter, REC Control,	
Clean HDMI Info. (ON/OFF selectable), Gamma Disp.	
Assist	
Clean HDMI output: 3840 x 2160 (25p), 1920 x 1080	
(50p), 1920 x 1080 (50i), 1920 x 1080 (24p), 1920 x 1080	
(60p), 1920 x 1080 (60i), 3840 x 2160 (30p), 3840 x 2160	
(24p), YCbCr 4:2:2 8-bit / RGB 8-bit	
Recording System	
Location information Link from smartphone: Yes	
Media: Memory Stick PRO Duo, Memory Stick PRO-HG	
Duo, Memory Stick Micro (M2), SD memory card, SDHC	
memory card (UHS-I/II compliant), SDXC memory card	
(UHS-I/II compliant), microSD memory card, microSDHC	
memory card, microSDXC memory card	
Memory Card Slot: SLOT1: Slot for SD (UHS-I/II	
compliant) memory card, SLOT2: Multi slot for Memory	
Stick Duo/SD (UHS-I compliant) memory card	
Recording mode on 2 memory cards: Simult. Rec (Still),	
Simult. Rec (Movie), Simult. Rec (Still/Movie), Sort	
(JPEG/RAW), Sort (Still/Movie), Auto Switch Media	
(On/Off), Copy	
Noise Reduction	
Noise Reduction: Long exposure NR: On/Off, available at	
shutter speeds longer than 1 sec., High ISO NR:	
Normal/Low/Off	
Multi Frame NR	
White balance	
White Balance Modes: Auto / Daylight / Shade / Cloudy /	
Incandescent / Fluorescent / Warm White / Cool White /	
Day White / Daylight / Flash / Underwater / Color	
Temperature 2500 to 9900K and color filter G7 to M7 (57-	
step), A7 to B7 (29-step) / Custom	
AWB Micro Adjustment: Yes G7 to M7, 57-step A7 to B7,	
29-step	
Priority Set in AWB: Yes	
Bracketing: 3 frames, H/L selectable	
Focus	
Focus Type: Fast Hybrid AF (phase-detection	
AF/contrast-detection AF)2	
Focus Sensor: Exmor R® CMOS sensor	
Focus Point: 35 mm full frame: 693 points (phase-	
detection AF), APS-C mode with full frame lens: 299	
	size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)  Movie Functions: Audio Level Display, Audio Rec Level, PAL/NTSC Selector, Yes (1280 x 720 (Approx.9 Mbps)), TC/UB (TC Preset/UB Preset/TC Format/TC Run/TC Make/UB Time Rec), Auto Slow Shutter, REC Control, Clean HDMI Info. (ON/OFF selectable), Gamma Disp. Assist  Clean HDMI output: 3840 x 2160 (25p), 1920 x 1080 (50p), 1920 x 1080 (50i), 1920 x 1080 (24p), 1920 x 1080 (60p), 1920 x 1080 (60i), 3840 x 2160 (30p), 3840 x 2160 (24p), YCbCr 4:2:28-bit / RGB 8-bit  Recording System  Location information Link from smartphone: Yes  Media: Memory Stick PRO Duo, Memory Stick PRO-HG Duo, Memory Stick PRO Duo, Memory Card, SDHC memory card (UHS-I/II compliant), sDXC memory card, SDHC memory card, microSDXC memory card, microSDHC memory card, microSDXC memory card  Memory Card Slot: SLOT1: Slot for SD (UHS-I/II compliant) memory card Sick Duo/SD (UHS-I compliant) memory card  Recording mode on 2 memory cards: Simult. Rec (Still), Simult. Rec (Movie), Simult. Rec (Still/Movie), Sort (JPEG/RAW), Sort (Still/Movie), Auto Switch Media (On/Off), Copy  Noise Reduction: Long exposure NR: On/Off, available at shutter speeds longer than 1 sec., High ISO NR: Normal/Low/Off  Multi Frame NR  White Balance Modes: Auto / Daylight / Shade / Cloudy / Incandescent / Fluorescent / Warm White / Cool White / Day White / Daylight / Flash / Underwater / Color Temperature 2500 to 9900K and color filter G7 to M7 (57-step), A7 to B7 (29-step) / Custom  AWB Micro Adjustment: Yes G7 to M7, 57-step A7 to B7, 29-step  Priority Set in AWB: Yes  Bracketing: 3 frames, H/L selectable  Focus  Focus Type: Fast Hybrid AF (phase-detection AF/contrast-detection AF)2  Focus Sensor: Exmor R® CMOS sensor  Focus Point: 35 mm full frame: 693 points (phase-

	(phase-detection AF) / 425 points (contrast-detection AF)	
	Focus Sensitivity Range: EV-3 to EV20 (ISO100	
	equivalent with F2.0 lens attached)	
	Focus Mode: AF-A (Automatic AF), AF-S (Single-shot	
	AF), AF-C (Continuous AF), DMF (Direct Manual Focus),	
	Manual Focus	
	Focus Area: Wide (693 points (phase-detection AF), 425	
	points (contrast-detection AF)) / Zone / Center / Flexible	
	Spot (S/M/L) /Expanded Flexible Spot/ Lock-on AF (Wide	
	/ Zone / Center / Flexible Spot (S/M/L)/Expanded Flexible	
	Spot)	
	Other Features: Eye-start AF (only with LA-EA2 or LA-	
	EA4 attached (sold separately)), Lock-on AF, Eye AF, AF	
	micro adjustment with LA-EA2 or LA-EA4 (sold	
	separately), Predictive control, Focus lock, AF Track	
	, , , , , , , , , , , , , , , , , , , ,	
	Sens, Swt. V/H AF Area, AF Area Regist.	
	AF Illuminator: Yes (with built-in LED type)	
	AF Illuminator range: Approx. 0.3–3.0 m (with FE 28–70	
	mm F3.5–5.6 OSS attached)	
	Focus type with LA-EA3 (Sold separately): selectable	
	(phase-detection, contrast-detection)	
	Exposure	
	Metering Type: 1200-zone evaluative metering	
	Viewfinder	
	Viewfinder Type: 1.3 cm (0.5 type) electronic viewfinder	
	(color), XGA OLED	
	Number of Dots: 2,359,296 dots	
	Brightness Control (Viewfinder): Auto/Manual (5 steps	
	between -2 and +2)	
	Color Temperature Control: Manual (5 steps)	
	Field Coverage: 100%	
	Magnification: approx. 0.78 x (with 50mm lens at infinity, -	
	1 <i>m</i> -1)	
	Diopter Adjustment: -4.0 to +3.0 m-1	
	Eye Point: Approx. 23 mm from the eyepiece lens, 18.5	
	mm from the eyepiece frame at -1 m-1 (CIPA standard)	
	Finder Frame Rate Selection	
	Display Contents: Graphic Display, Display All Info, No	
	Display Info, Digital Level Gauge, Histogram  LCD Screen	
	Monitor Type: 7.5 cm (3.0-type) type TFT	
	Number of Dots: 921,600 dots	
	Touch Panel: Yes	
	Brightness Control: Manual (5 steps between -2 and +2),	
	Sunny Weather mode	
	Adjustable Angle: Up by approx. 107 degrees, Down by	
	approx. 41 degrees	
	Display Selector (Finder/LCD): Yes (Auto/Manual)	
	Real-time Image Adjustment Display (LCD): On/Off	

Ouiok Novi: Voo	 
Quick Navi: Yes	
Focus Magnifier: Yes (35 mm full frame: 5.9x, 11.7x,	
APS-C: 3.8x, 7.7x)	
Zebra: Yes (selectable level + range or lower limit as	
custom setting)	
Peaking MF: Yes (Level setting: High/Mid/Low/Off, Color:	
White/Red/Yellow)	
Others: Grid Line (Rule of 3rds Grid/Square Grid/Diag. +	
Square Grid/Off), Movie Marker (Center/Aspect/Safety	
Zone/Guideframe)	
Display Content: Graphic Display, Display All Info, No	
Disp. Info, Digital Level Gauge, Histogram, For	
viewfinder, Monitor Off	
Other Features	
PlayMemories Camera Apps™	
Clear Image Zoom: Still images: Approx. 2x, Movies:	
Approx. 1.5x (4K), Approx. 2x (HD)	
Digital Zoom: Smart zoom (Still images): 35 mm full	
frame: M: approx 1.5x, S: approx 2x, APS-C: M: approx	
1.3x, S: approx 2x, Digital zoom (Still images): 35 mm full	
frame: L: approx 4x, M: approx 6.1x, S: approx 8x, APS-	
C: L: approx 4x, M: approx 5.2x, S: approx 8x, Digital	
zoom (Movie): 35 mm full frame: approx 4x, APS-C:	
approx 4x	
Face Detection: Modes: Face Priority in AF (On/Off),	
Face Priority in Multi Metering (On/Off), Regist. Faces	
Priority (On/Off), Face registration, Max. number of	
detectable: 8	
Self-Portrait Self-Timer	
Others: Touch Focus: Yes (Available with LCD monitor or	
Viewfinder operation), ISO AUTO Min. SS, Bright	
Monitoring, Set File Name, FTP Transfer Func., Help	
guide, Area Setting, Shop Front Mode, Video Light Mode,	
Zoom Ring Rotate	
Eye-Fi ready	
Shutter	
Type: Electronically-controlled, vertical-traverse, focal-	
plane type	
Shutter Type	
Shutter Speed: Still images: 1/8000 to 30 sec, Bulb,	
Movies: 1/8000 to 1/4 (1/3 steps), up to 1/60 in AUTO	
mode (up to 1/30 in Auto slow shutter mode)	
Flash Sync. Speed: 1/250 sec.3	
Electronic Front Curtain Shutter: Yes (ON/OFF)	
Silent Shooting: Yes (ON/OFF)	
Image Stabilization	
Type: Image Sensor-Shift mechanism with 5-axis	
compensation (compensation depends on lens	
specifications)	

Interface	
PC Interface: Mass-storage, MTP, PC remote	
Multi/micro USB terminal: Yes	
USB Type-C® Terminal: Yes (SuperSpeed USB (USB	
3.1 Gen 1) compatible)	
NFC: Yes (NFC forum Type 3 Tag compatible), One-	
touch remote, One-touch sharing	
Wireless LAN (Built-In): Wi-Fi Compatible, IEEE	
802.11b/g/n (2.4 GHz band), View on Smartphone,	
Remote control via Smartphone, Send to Computer, View	
on TV	
HD Output: HDMI micro connector (Type-D), BRAVIA	
Sync (Control for HDMI), PhotoTV HD, 4K movie	
output/4K still image PB	
Bluetooth®: Yes (Bluetooth Standard Ver. 4.1 (2.4 GHz	
band))	
Auto-lock Accessory Shoe	
Multi Interface Shoe: Yes	
Smart Accessory Terminal 2	
Mic Terminal: Yes (3.5 mm Stereo minijack)	
DC IN Terminal	
Sync Terminal	
Headphone Terminal: Yes (3.5 mm Stereo minijack)	
Vertical Grip Connector: Yes	
PC Remote: Yes	
LAN Terminal	
Print	
Compatible Standards: Exif Print, Print Image Matching	
III, DPOF setting	
Custom function	
Type: Custom key settings, Programmable Setting (Body	
2 sets /memory card 4 sets), My Menu, Reg Cust Shoot	
Set	
Lens Compensation	
Setting: Peripheral Shading, Chromatic Aberration,	
Distortion	
Power	
Supplied Battery: One rechargeable battery pack NP-	
FZ100	
Battery Life (Still Images): Approx. 610 shots (Viewfinder)	
/ approx. 710 shots (LCD monitor) (CIPA standard)8	
Battery Life (Movie, actual recording): Approx. 115 min	
(Viewfinder) / Approx. 125 min (LCD monitor) (CIPA	
standard)910	
Battery Life (Movie, continuous recording): Approx. 200	
min (Viewfinder) / Approx. 210 min (LCD monitor) (CIPA	
standard)911	
Internal Battery Charge: Yes (Available with Multi/Micro	
USB Terminal or USB Type-C Terminal)	
1 3 3 2 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

			Power consumption with Viewfinder: Still images: approx.
			3.2 W (with FE 28-70 mm F3.5-5.6 OSS lens attached),
			Movies: approx. 4.9 W (with FE 28-70 mm F3.5-5.6 OSS
			lens attached)
			Power consumption with LCD screen: Still images:
			approx. 2.8 W (with FE 28-70 mm F3.5-5.6 OSS lens
			attached), Movies: approx. 4.7 W (with FE 28-70 mm
			F3.5-5.6 OSS lens attached)
			USB Power Supply: Yes (Available with Multi/Micro USB
			Terminal or USB Type-C Terminal)
			Size & Weight
			Weight (with battery and memory card included): Approx.
			650 g (1 lb 7.0 oz)
			Dimensions (W x H x D): Approx. 126.9 mm x 95.6 mm x
			73.7 mm, Approx. 126.9 mm x 95.6 mm x 62.7 mm (from
			grip to monitor)/Approx. 5 x 3 7/8 x 3 inches, Approx. 5 x
			3 7/8 x 2 1/2 inches (from grip to monitor)
			Audio
			Microphone: Built-in stereo microphone or XLR-
			K2M/XLR-K1M/ECM-XYST1M (sold separately)
			Speaker: Built-in, monaural
			Others
			Operating Temperature: 32 - 104 degrees F / 0 - 40
			degrees C
8	2	uni t	Compact Document Scanner
8	2		Compact Document Scanner  25ppm/50ipm, 2-sided colour scan speed
8	2		·
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF)
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF)
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host Scanning Speed: 25ppm (A4) 2-sided colour scan speed
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host Scanning Speed: 25ppm (A4) 2-sided colour scan speed Document Size - Multiple Papers - Width: 51 mm to 215.9
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host Scanning Speed: 25ppm (A4) 2-sided colour scan speed Document Size - Multiple Papers - Width: 51 mm to 215.9 mm
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host Scanning Speed: 25ppm (A4) 2-sided colour scan speed Document Size - Multiple Papers - Width: 51 mm to 215.9 mm Document Size - Multiple Papers - Length: 70 mm to 863 mm
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host Scanning Speed: 25ppm (A4) 2-sided colour scan speed Document Size - Multiple Papers - Width: 51 mm to 215.9 mm Document Size - Multiple Papers - Length: 70 mm to 863
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host Scanning Speed: 25ppm (A4) 2-sided colour scan speed Document Size - Multiple Papers - Width: 51 mm to 215.9 mm Document Size - Multiple Papers - Length: 70 mm to 863 mm Document Size - Single Papers - Width: 51 mm to 215.9 mm
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host Scanning Speed: 25ppm (A4) 2-sided colour scan speed Document Size - Multiple Papers - Width: 51 mm to 215.9 mm Document Size - Multiple Papers - Length: 70 mm to 863 mm Document Size - Single Papers - Width: 51 mm to 215.9
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host Scanning Speed: 25ppm (A4) 2-sided colour scan speed Document Size - Multiple Papers - Width: 51 mm to 215.9 mm Document Size - Multiple Papers - Length: 70 mm to 863 mm Document Size - Single Papers - Width: 51 mm to 215.9 mm Document Size - Single Papers - Length: 70 mm to 863
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host Scanning Speed: 25ppm (A4) 2-sided colour scan speed Document Size - Multiple Papers - Width: 51 mm to 215.9 mm Document Size - Multiple Papers - Length: 70 mm to 863 mm Document Size - Single Papers - Width: 51 mm to 215.9 mm Colour/Black: Yes/Yes
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host Scanning Speed: 25ppm (A4) 2-sided colour scan speed Document Size - Multiple Papers - Width: 51 mm to 215.9 mm Document Size - Multiple Papers - Length: 70 mm to 863 mm Document Size - Single Papers - Width: 51 mm to 215.9 mm Colour/Black: Yes/Yes Duplex Scan: Yes
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host Scanning Speed: 25ppm (A4) 2-sided colour scan speed Document Size - Multiple Papers - Width: 51 mm to 215.9 mm  Document Size - Multiple Papers - Length: 70 mm to 863 mm Document Size - Single Papers - Width: 51 mm to 215.9 mm  Document Size - Single Papers - Length: 70 mm to 863 mm Colour/Black: Yes/Yes Duplex Scan: Yes Color Depth - Input: 48-bit colour processing
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host Scanning Speed: 25ppm (A4) 2-sided colour scan speed Document Size - Multiple Papers - Width: 51 mm to 215.9 mm Document Size - Multiple Papers - Length: 70 mm to 863 mm Document Size - Single Papers - Width: 51 mm to 215.9 mm Document Size - Single Papers - Length: 70 mm to 863 mm Colour/Black: Yes/Yes Duplex Scan: Yes Color Depth - Input: 48-bit colour processing Color Depth - Output: 24-bit colour processing
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host Scanning Speed: 25ppm (A4) 2-sided colour scan speed Document Size - Multiple Papers - Width: 51 mm to 215.9 mm  Document Size - Multiple Papers - Length: 70 mm to 863 mm  Document Size - Single Papers - Width: 51 mm to 215.9 mm  Document Size - Single Papers - Length: 70 mm to 863 mm  Colour/Black: Yes/Yes Duplex Scan: Yes Color Depth - Input: 48-bit colour processing Color Depth - Output: 24-bit colour processing Resolution - Optical: Max 600 dpi x 600 dpi
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host Scanning Speed: 25ppm (A4) 2-sided colour scan speed Document Size - Multiple Papers - Width: 51 mm to 215.9 mm  Document Size - Multiple Papers - Length: 70 mm to 863 mm  Document Size - Single Papers - Width: 51 mm to 215.9 mm  Document Size - Single Papers - Length: 70 mm to 863 mm  Colour/Black: Yes/Yes Duplex Scan: Yes Color Depth - Input: 48-bit colour processing Color Depth - Output: 24-bit colour processing Resolution - Optical: Max 600 dpi x 600 dpi Resolution - Interpolated: Max 1,200 dpi x 1,200 dpi
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host Scanning Speed: 25ppm (A4) 2-sided colour scan speed Document Size - Multiple Papers - Width: 51 mm to 215.9 mm Document Size - Multiple Papers - Length: 70 mm to 863 mm Document Size - Single Papers - Width: 51 mm to 215.9 mm Colour/Black: Yes/Yes Duplex Scan: Yes Color Depth - Input: 48-bit colour processing Color Depth - Output: 24-bit colour processing Resolution - Optical: Max 600 dpi x 600 dpi Resolution - Interpolated: Max 1,200 dpi x 1,200 dpi Scanning Width: Max 216mm
8	2		25ppm/50ipm, 2-sided colour scan speed 20 sheets Automatic Document Feeder (ADF) Portable with micro-B USB3.0 Bus power Dedicated plastic ID card slot Scan to PC and USB host Scanning Speed: 25ppm (A4) 2-sided colour scan speed Document Size - Multiple Papers - Width: 51 mm to 215.9 mm  Document Size - Multiple Papers - Length: 70 mm to 863 mm  Document Size - Single Papers - Width: 51 mm to 215.9 mm  Document Size - Single Papers - Length: 70 mm to 863 mm  Colour/Black: Yes/Yes Duplex Scan: Yes Color Depth - Input: 48-bit colour processing Color Depth - Output: 24-bit colour processing Resolution - Optical: Max 600 dpi x 600 dpi Resolution - Interpolated: Max 1,200 dpi x 1,200 dpi

1		1	ADE to 00 stoods
			ADF: up to 20 sheets
		<u> </u>	Interface: USB: Hi-Speed USB 2.0, Superspeed USB 3.0
9	1	uni t	Computer Printer
			■Compact integrated tank design
			■Print speeds up to 10.5ipm for black and 5.0ipm for
			colour
			■Auto-duplex printing
			■Wi-Fi & Wi-Fi Direct
			■Borderless Printing up to A4 size
			■Spill-free ink refilling
			■Warranty of 2 years or 30,000 pages, whichever comes first
			■Printer Type:
			◆Print, Scan, Copy
			■Printing Technology:
			■Print Method:
			◆On-demand inkjet (piezoelectric)
			■Minimum Ink Droplet Volume:
			<b>◄</b> 3 pl
			■Printer Language:
			<b>⋖</b> ESC/P-R
			■Print Direction:
			■Bi-directional printing, Uni-directional printing
			■Nozzle Configuration:
			■180 nozzles Black, 59 nozzles per colour (Cyan,
			Magenta, Yellow)
			■Maximum Resolution:
			■5760 x 1440 dpi (with Variable-Sized Droplet
			Technology)
			■Automatic 2-sided Printing:
			✓ Yes (up to A4)
			■Print Speed:
			■Photo Default - 10 x 15 cm / 4 x 6 " *2:
			◀1Approx. 69 sec per photo (Border) *1
			■Approx. 92 sec per photo (Borderless) *1
			■Draft, A4 (Black / Colour):
			<b>◄</b> Up to 33 ppm / 15 ppm *1
			■ISO 24734, A4 Simplex (Black / Colour):
			<b>◄</b> Up to 10.5 ipm / 5.0 ipm *1
			■ISO 24734, A4 Duplex (Black / Colour):
			<b>◄</b> Up to 6.0 ipm / 4.0 ipm *1
			©Copy Speed:
			©Copy Quality:
			■ Draft / Standard / Best Quality
			Maximum Copies from Standalone:
			■99 copies
			■Reduction / Enlargement:

<b>■</b> 25 - 400%, Auto Fit Function	
■Maximum Copy Size:	
<b>◄</b> A4, Letter	
■ISO 29183, A4 Simplex Flatbed (Black / Colour):	
<b>◄</b> <i>Up to 7.7 ipm / 3.8 ipm</i>	
■Max Copy Resolution:0	
<b>◄</b> 1440 x 720 dpi	
■Scan Function:	
■Scanner Type:	
◆Flatbed colour image scanner	
■Sensor Type:	
<b>◄</b> CIS	
■Optical Resolution:	
<b>■</b> 1200 x 2400 dpi	
■Maximum Scan Area:	
<b>◄</b> 216 x 297 mm (8.5 x 11.7 ")	
■Scanner Bit Depth (Colour):	
<b>◄</b> 48-bit input, 24-bit output	
■Scanner Bit Depth (Grayscale):	
<b>◄</b> 16-bit input, 8-bit output	
■Scanner Bit Depth (Black & White):	
◀16-bit input, 1-bit output	
■Scan Speed:	
■Flatbed (Black / Colour):	
■ 200 dpi: 11 sec / 200 dpi: 28 sec	
■Paper Handling:	
■Number of Paper Trays:	
◀1 (Paper Cassette)	
■Standard Paper Input Capacity:	
■ 100 sheets, A4 Plain paper (80 g/m2)	
■ 20 sheets, Premium Glossy Photo Paper	
■Output Capacity:	
■ 30 sheets, A4 Plain Paper	
■ 20 sheets, Premium Glossy Photo Paper	
■Maximum Paper Size:	
<b>◄</b> 215.9 x 1200 mm (8.5 x 47.24 ")	
■Paper Feed Method:	
◆Friction feed	
■Paper Size:	
<b>◄</b> Legal, 8.5 x 13 ", Letter, A4, 195 x 270 mm, B5, A5,	
A6, 100 x 148 mm, B6, 5 x 7 ", 4 x 6 ", Envelopes #10,	
DL, C6	
■Print Margin:	
<b>◄</b> 0 mm top, left, right, bottom via custom settings in	
printer driver (except plain paper) *3	
■ Card Slot / USB Host Function:	
■Type of Direct Printing:	
■ Memory Device	

	1		T -
			■Supported Memory Cards:
			■SD Memory Card
			■Printer Software:
			■Operating System Compatibility:
			■ Windows XP / XP Professional x 64 Edition / Vista / 7 / 8 / 8.1 / 10
			■Windows Server 2003 / 2008 / 2012 / 2016
			■Only printing and scanning functions are supported for Windows Server OS
			Mac OS X 10.6.8 or later
			■Interface:
			■USB:
			<b>■</b> USB 2.0
			■Network:
			<i>▼Wi-Fi IEEE 802.11b/g/n, Wi-Fi Direct</i>
			Network Protocol:
			▼TCP/IPv4, TCP/IPv6, LPD, IPP, PORT9100, WSD
10	1	uni t	Computer Printer 3-in-1
			with CIS Filled with Inks
			■Compact integrated tank design
			■High yield ink bottles
			Spill-free, error-free refilling
			<b>◙</b> Wi-Fi, Wi-Fi Direct
			■Borderless printing up to 4R
11	5	uni t	Computer Printer, All-in-One/Multifunction Colored-Ink Tank
			■Ultra-low-cost printing: Print up to 4,500 pages in black and 7,500 in colour
			■Next generation ink filling system: Enjoy hassle and
			mess-free refills with the enhanced ink bottles
			■Wi-Fi, Wi-Fi Direct & apps: Print from mobile devices
			■3-in-1: Print, copy & scan and borderless photo printing ■Nozzle Configuration: 180 Nozzles Black, 59 Nozzles
			per Color
			■Minimum Droplet Size: 3 pl, With Variable-Sized Droplet
			Technology
			■Ink Technology: Dye Ink
			■ Printing Resolution: 5,760 x 1,440 DPI
12	2	рс	Data logger module for Arduino UNO
			SD card interface works with FAT16 or FAT32 formatted cards.
			3.3V level shifter circuitry prevents damage to your SD card.
			Real time clock (RTC) keeps the time going even when
			the Arduino is unplugged.
			Included libraries and example code for both SD and
			RTC, means you can get going quickly.
			Prototyping area for soldering connectors, circuitry or

	1	1	T
40			sensors.
13	1	set	Desktop Computer (i3, 11th Gen)
			■ Processor: Intel Core i3-11300 (4 cores /8 threads) or
			higher
			Motherboard: Intel H510M Ultra Durable motherboard,     Oaming LANA Acti Outfur Paristan LOA 1000
			Gaming LAN, Anti-Sulfur Resistor, LGA-1200
			■8GB DDR4 2933 DIMM Desktop Memory or higher
			■SSD: 240GB NVMe or higher
			■Keyboard and Mouse Combo
			©Casing with Power Supply
			Monitor: 18.5 inch, HD Ready (1366 X 768), TN Panel
			Connectivity Port: 1 VGA Port, 1 HDMI Port / Aspect
			Ratio: 16:9, Brightness (Typical): 200 cd/m2 / Refresh
			Rate: 60 Hz,
			■ Operating System: Genuine Windows 10 Home (OEM)
			■AVR: 500W IC controlled
14	2	uni t	Desktop Computer (i7 Branded)
		<u> </u>	■CPU: 9th Gen Intel Core i7-9700 (8-Core, 12MB Cache,
			up to 4.7GHz with Intel Turbo Boost Technology) or
			higher
			■HDD: 256GB M.2 PCIe NVMe Solid State Drive or
			higher + 1TB 7200 rpm 3.5" SATA Hard Drive or higher
			■RAM: 8GB (8GBx1) DDR4 2666MHz or higher
			■Graphics: NVIDIA GeForce GTX 1650 4GB GDDR5 or
			higher
			Screen: at least 23" IPS Monitor FHD
			■Optical Drive: No Optical Drive
			■USB Mouse and Keyboard
			■ Uninterruptible Power Supply (UPS): at least 600VA, at
			most 4 hours charging time
			■OS: Windows 10 Home Single Language (64bit)
			English or higher
15	1	uni t	Desktop Computer, Assembled, 12th Gen Core i5
		† <b>-</b>	■Processor: Intel Core i5 12500 with Intel® UHD
			Graphics 770 processor graphics or higher
		1	■Motherboard: Intel® H610 Motherboard with 6+1+1
			Hybrid Phases Digital VRM Design, PCIe 4.0* Design,
			Gen3 x4 M.2, mATX form factor, Anti-Sulfur Resistor or
			higher
			■Memory: 16GB (2x8) 3200MHz DDR4 or higher
		1	SSD: 500GB 3D NAND SSD PCIe Gen3x4 or higher
		1	©Casing: MATX casing with acrylic side panels
		1	■Power Supply: 450Watts 80+ Bronze Certified with
			120mm thermally controlled low-noise cooling fan
			■Monitor: 23" IPS FHD, 72% NSTC color gamut with
			75Hz refresh rate
	I .	1	- Spording System. Soliding Williams 11110

	1		
			■Keyboard and Mouse Combo: Spill-resistant design
			with up to Up to 5 million keystrokes (excludes number
			lock key) keyboard and full-sized ambidextrous optical
			mouse
			■500W IC controlled AVR
16	4	set	Desktop Computer, Assembled, 12th Gen Core i5, SDD and HDD
			■Processor: Intel® Core i5 12th gen with Intel® UHD
			Graphics 730 or higher
			■Motherboard :Intel® H610 Chipset for 12th Gen Intel®
			Core™ Series Processors, Dual Channel Non-ECC
			Unbuffered DDR4, 2 DIMMs, 6+1+1 Hybrid Digital VRM
			Design, Intel® GbE LAN, NVMe PCIe 3.0 x4 M.2, High Quality Audio Capacitors and Audio Noise Guard, mATX
			form factor or higher
			■RAM: 16GB DDR4 3200 Mhz or higher
			■SSD: 512 GB NVMe PCIe Gen 3x4
			■HDD: 1 TB 7200 RPM
			■PSU: 650w 80 plus Bronze Certified
			■Casing: mATX Casing with transparent acrylic side
			panel
			■24" IPS monitor 72% NSTC color gamut with 75Hz
			refresh rate
			■Keyboard and Mouse Combo: Spill-resistant design
			with up to Up to 5 million keystrokes (excludes number
			lock key) keyboard and full-sized ambidextrous optical
			mouse
			■Operating system: Genuine Windows 11
17	12	uni	DHT11 Temperature/Humidity Sensor module for
		t	Arduino with wires, temp accuracy +-2°C  DHT11 Temperature/Humidity Sensor module for Arduino
			with wires, temp accuracy +-2°C, functional and good
			quality
18	3	btl	EPSON M200 lnk 774 black
		<u> </u>	Epson Genuine 774 Pigment Black 140ml Ink for M200;
19	2	uni t	External Hard Drive, 1 TB
			Capacity: 1TB
			Connection interface: USB 2.0/3.0
			Storage Media: 2.5" SATA HDD
			Op. Voltage: USB DC 5V
			Size :129.5mm x 82.4mm x 20.4mm
			Weight: 216g
20	1	uni t	Global Positioning System (GPS)
			4-inch dual-orientation,
			glove friendly touchscreen display;
			8 megapixel autofocus camera;
			automatically geotags photos; tracks both GPS and

			0.00000
			GLONASS satellites;
			1-year birds Eye Satellite Imagery subscription;
			3-axis compass with barometric altimeter
21	2	рс	HDMI Cable
			3m
22	4	met er	HDMI Cable, 10m
			■10 meters
			■Nylon braided
			■1.4 version 3D support
			■Support all high resolutions including 480p, 720p,
			1080p and 1180p.
			■Multi -channel digital audio with a 10.2 Gbps band-
			width
			■HDMI AV cable for HDTV
			■HDMI EMI/RFI Compliant Cable
			■24k GOLD plated HDMI plugs
			■ROHS compliant cable.
23	2	uni t	Headset with Noise Cancelling Mic
			■Input Impedance: at least 32 Ohms
			■Sensitivity (headphone):at least 94 dBV/Pa +/- 3 dB
			■Sensitivity (microphone): -17 dBV/Pa +/- 4 dB
			■Frequency response (Headset): 20 Hz - 20 KHz
			■Frequency response (Microphone): 100 Hz - 10 KHz
			■Cable Length: at least 7 ft
			■Connections: USB-A compatible (1.1, 2.0, 3.0), USB
			port 1Type A port or adapter
24	20	рс	Ink Cartridge Canon G2010
25	10	btl	Ink continuous, refill, black (Brother DCP T310)
			Ink continuous, refill, black (Brother DCP T310) BTD60
00	_	1-41	BK - Black;
26	5	btl	Ink, Brother BT5000C Cyan
27	5	btl	Ink, Brother BT5000M Magenta
28	5	btl	Ink, Brother BT5000Y Yellow
29	35	btl	Ink, Epson 003, Genuine Black 65mL
30	16	btl	Ink, EPSON 003,Genuine Cyan 65mL
31	11	btl	Ink, EPSON 003,Genuine Magenta 65mL
32	16	btl	Ink, EPSON 003,Genuine Yellow 65mL
33 34	3	рс	Ink, Epson, genuine, (BK) T664, 70 ml ANTI VIRUS 1 DEVICE 2 YEARS
35	3	рс	INTERNET SECURITY 1 DEVICE 1 YEAR
36	2	pc set	Keyboard And Mouse Combo Bundle, USB powered
30		<b>ક્ટા</b>	Reyboard And Mouse Combo Bundle, USB powered
		-	■ Adjustable Keyboard Legs: Yes ■ Pating: 5 V / 20 m/4
	<u> </u>		■Rating: 5 V / 30 mA

			Mouse
	-	-	■Mouse  ■ Report Rate: 125 Hz
			■ Report Rate. 125 HZ ■ Sensor: Optical
			■ Resolution: 1000 DPI
			■ Rating: 5 V / 100 mA
			■Buttons No.: 3
			<ul><li>✓ Ergonomic Design: Symmetric</li><li>✓ Size: Middle / Big Hands</li></ul>
		:	■ Size. Midule / Big Harius
37	22	uni t	LCD Projector (XGA), 3LCD Technology
			■ Projection System Technology: RGB liquid crystal
			shutter projection system (3LCD), 3-chip technology
			■White Light Output (Normal/Eco):3,600 lm
			■Colour Light Output:3,600 Im
			■Resolution XGA, at least 1024 x 768,
			■Analog Input:D-Sub 15pin: 1
			■Digital Input:HDMI: 1
			■LCD:Native Resolution: XGA (1024 x 768)
			■Size: 0.55" (C2fine)
			■Lightsource:Type: 210W UHE
			■Life (Normal / Eco): 6,000 / 12,000 hours
			■Aspect Ratio:4:3
			■USB Interface:USB Type B: 1 (For Firmware Update,
			Copy OSD Settings)
			■Analog Input:D-Sub 15pin: 1
			■Digital Input:HDMI: 1
38	13	uni t	LCD Projector, XGA (1024x768)
			■Projection Method: Front/rear/ceiling mount
			■Pixel Number: at least 786,432 dots (1024 x 768) x 3
			■Color Brightness: 3.600 lumen- 2.235 lumen (economy)
			In accordance with IDMS15.4
			■Aspect ratio: 4:3
			■Aspect ratio: 4:3 ■Lamp Life: ECO Mode up to 5000 hrs
			■Lamp Life: ECO Mode up to 5000 hrs
			■Lamp Life: ECO Mode up to 5000 hrs  ■Normal Mode up to 4000 hrs
			<ul> <li>Lamp Life: ECO Mode up to 5000 hrs</li> <li>Normal Mode up to 4000 hrs</li> <li>Projection Distance Wide/Tele: 1,8 m - 2,17 m (60 inch screen)</li> <li>Keystone Correction: Manual</li> </ul>
			■Lamp Life: ECO Mode up to 5000 hrs  ■Normal Mode up to 4000 hrs  ■Projection Distance Wide/Tele: 1,8 m - 2,17 m (60 inch screen)
			<ul> <li>Lamp Life: ECO Mode up to 5000 hrs</li> <li>Normal Mode up to 4000 hrs</li> <li>Projection Distance Wide/Tele: 1,8 m - 2,17 m (60 inch screen)</li> <li>Keystone Correction: Manual</li> </ul>
			<ul> <li>Lamp Life: ECO Mode up to 5000 hrs</li> <li>Normal Mode up to 4000 hrs</li> <li>Projection Distance Wide/Tele: 1,8 m - 2,17 m (60 inch screen)</li> <li>Keystone Correction: Manual</li> <li>USB Plug 'n Play: Compatible w/ PC and MAC computers</li> <li>Contrast Ratio: 15.000: 1</li> </ul>
			■Lamp Life: ECO Mode up to 5000 hrs  ■Normal Mode up to 4000 hrs  ■Projection Distance Wide/Tele: 1,8 m - 2,17 m (60 inch screen)  ■Keystone Correction: Manual  ■USB Plug 'n Play: Compatible w/ PC and MAC computers
39	3	рс	<ul> <li>Lamp Life: ECO Mode up to 5000 hrs</li> <li>Normal Mode up to 4000 hrs</li> <li>Projection Distance Wide/Tele: 1,8 m - 2,17 m (60 inch screen)</li> <li>Keystone Correction: Manual</li> <li>USB Plug 'n Play: Compatible w/ PC and MAC computers</li> <li>Contrast Ratio: 15.000: 1</li> </ul>
39	3	рс	■Lamp Life: ECO Mode up to 5000 hrs  ■Normal Mode up to 4000 hrs  ■Projection Distance Wide/Tele: 1,8 m - 2,17 m (60 inch screen)  ■Keystone Correction: Manual  ■USB Plug 'n Play: Compatible w/ PC and MAC computers  ■Contrast Ratio: 15.000: 1  ■Color Reproduction: 16.77 million color
39	3	рс	<ul> <li>Lamp Life: ECO Mode up to 5000 hrs</li> <li>Normal Mode up to 4000 hrs</li> <li>Projection Distance Wide/Tele: 1,8 m - 2,17 m (60 inch screen)</li> <li>Keystone Correction: Manual</li> <li>USB Plug 'n Play: Compatible w/ PC and MAC computers</li> <li>Contrast Ratio: 15.000: 1</li> <li>Color Reproduction: 16.77 million color</li> <li>Mouse, Wired, Optical, USB</li> </ul>
39	3	рс	<ul> <li>Lamp Life: ECO Mode up to 5000 hrs</li> <li>Normal Mode up to 4000 hrs</li> <li>Projection Distance Wide/Tele: 1,8 m - 2,17 m (60 inch screen)</li> <li>Keystone Correction: Manual</li> <li>USB Plug 'n Play: Compatible w/ PC and MAC computers</li> <li>Contrast Ratio: 15.000: 1</li> <li>Color Reproduction: 16.77 million color</li> <li>Mouse, Wired, Optical, USB</li> <li>USB Port Connectivity</li> </ul>
39	3	рс	■Lamp Life: ECO Mode up to 5000 hrs  ■Normal Mode up to 4000 hrs  ■Projection Distance Wide/Tele: 1,8 m - 2,17 m (60 inch screen)  ■Keystone Correction: Manual  ■USB Plug 'n Play: Compatible w/ PC and MAC computers  ■Contrast Ratio: 15.000 : 1  ■Color Reproduction: 16.77 million color  Mouse, Wired, Optical, USB  ■USB Port Connectivity  ■Sensor: Optical
39	3	рс	<ul> <li>Lamp Life: ECO Mode up to 5000 hrs</li> <li>Normal Mode up to 4000 hrs</li> <li>Projection Distance Wide/Tele: 1,8 m - 2,17 m (60 inch screen)</li> <li>Keystone Correction: Manual</li> <li>USB Plug 'n Play: Compatible w/ PC and MAC computers</li> <li>Contrast Ratio: 15.000: 1</li> <li>Color Reproduction: 16.77 million color</li> <li>Mouse, Wired, Optical, USB</li> <li>USB Port Connectivity</li> <li>Sensor: Optical</li> <li>DPI: 1600</li> </ul>

			Docian highlights: Fooy installation 1600 DDI high
			Design highlights: Easy installation. 1600 DPI high-
			definition tracking engine. Anti-slip scroll wheel. Full-size, ambidextrous design
		uni	ambidextrous design
40	1	t	NETBOOK
			PROCESSOR INTEL 4th GENERATION PROCESSOR
			or higher
			PROCESSOR MODEL INTEL CORE i3/i5/i7
			STORAGE CAPACITY 16GB or higher
			SOLID STATE DISK CAPACITY 512GB or higher
			MECHANICAL HARD DISK CAPACITY 500GB HDD or
			higher
			SCREEN SIZE 15.6 INCHES - 14 INCHES
41	16	uni t	Printer, All-in-One Wireless Ink Tank Color
			■Product Description
			◆Product Details of All-in-One Wireless Ink Tank Colour Printer
			■Interface: USB Port=Hi-Speed USB *1, LAN
			Port=Wireless LAN: IEEE802.11n / IEEE802.11g / IEEE802.11b*2
			■ Multiple copy: Max. 20 pages
			■ Maximum scanning size: A4/Letter, 8.5" x
			11.7"/216x297 mm
			■ Multiple Copy: Mx. 99 pages
			■Data Compressing System: Black=MH, MR, MMR, Color= JPEG
			■ Modem Speed: Max. 33.6 kbps
			<b>■</b> Density adjustment: 3 levels
			■Memory: Transmission/reception= approx. 50 pages
			<b>◄</b> Color: 200 x 200 dpi
			◆Operating System: Windows 10,8.1,7 SP1
			◆Hard Disk Space: 3.1GB
			<b>■</b> Display: XGA 1024 x 768
			<b>Connectivity Type: WiFi</b>
			■Wireless LAN: Supported Standards: IEEE802.11n /
			IEEE802.11g / IEEE802.11b
			◆Frequency bandwidth: 2.4 GHz
			■WCN (WCN-NET) • Easy wireless connect
			◆Other Features: Administration password
			■Other Supported OS: iOS, Android, Windows 10

			Mobile
			Mobile  Mobile Printing Conshility Consider Cloud Print Apple
			■Mobile Printing Capability: Google Cloud Print, Apple AirPrint
		1115	AirPrint  Printer computer continuous ink system 4 in 1
42	3	uni t	Printer, computer, continuous ink system, 4-in-1 (Print, Scan, Xerox copy, Fax with ADF)
		·	■ Print Method: On-demand ink jet (piezoelectric)
			■Minimum Ink Droplet Volume:3 pl
			■ Print Direction: Bi-directional printing, Uni-directional
			printing
			■Nozzle Configuration: 180 nozzles Black, 59 nozzles
			per colour (Cyan, Magenta, Yellow)
			■Maximum Resolution: 5760 x 1440 dpi (with Variable-
			Sized Droplet Technology)
			■USB: USB 2.0
			■Network: Wi-Fi IEEE 802.11b/g/n, Wi-Fi Direct
			■Network Protocol: TCP/IPv4, TCP/IPv6
43	3	рс	SD Card, 1 TB
			U3 4K C10 V30
			Capacity: 1 TB
			Compatibility: Compatible with microSDHC/SDXC,/SDHC
			UHS-I/microSDXC UHS-I supporting host devices
			Sequential Read Performance: 200MB/s
			Sequential Write Performance: 140MB/s
			Dimension (L x W x H): 10.92mm x 14.99mm x 1.02mm
44	1	рс	Stereo Speaker for PC Desktop
			Product Description
			Quantum Duo PC speakers with the different color
			presets and lighting patterns General Specifications:
			Output power (W)20
			Audio Specifications:
			Dynamic frequency response range (Hz)
			60 Hz - 20K Hz
			Dimensions:
			Dimensions (cm)
			8.9 x 21 x 17.6
			Dimensions (in)
			3.5 x 8.3 x 6.9
			Weight (kgs) 2.8
			Weight (lbs)6.2
			Control and Connection Specifications:
			Bluetooth profiles
			A2DP v1.3, AVRCP v1.5
			Bluetooth frequency
			2402 MHz - 2480 MHz
			Bluetooth transmitted modulation
			GFSK, π/4 DQPSK, 8DPSK
			Bluetooth transmitter power
	ĺ	1	≤ 12.5 dBm (EIRP)

			Divide of his version
			Bluetooth version
45	_		4.2
45	6	рс	Temperature and Humidity Sensor DHT11
			Operating voltage: 3.3v-5.5v
			Humidity measuring range: 20%-95%
			Small plates PCB size: 3.2cm x 1.4cm
46	6	рс	Temperature and Humidity Sensor, DHT22
			■Sensing element
			■ polymer capacitor
			■Power supply
			<b>◄</b> 3.3 to 6V DC
			◆ Operating range
			<b>◄</b> 0-100% RH;
			◄-40 to 80 celsius Temp
			Dimension
			<b>■</b> 22 x 28 x 5 mm
47	2	рс	Temperature-Humidity Data Logger
			■Portable and hand-held
			■16000 data recording capacity.
			■Adjustable record interval: 10s~24hour
			■Multi-function LCD
			■Internal NTC temperature thermal sensor with optional
			external sensor
			■Data export in PDF/EXCEL via data management
			software
			■Selectable °F/°C temperature unit
			■Size: approx. 84 (L) x 44(W) x 20 (H) mm
			<b>■</b> Good quality
			Durable
48	3	uni t	UPS 800W ( for Computer)
			■Charging time: At most 4 hours;
49	4	рс	USB Hub, 4 gangs
			MS Universal USB 3.0 Multi-Port Socket at least 4 ports
			Plug type: US, EU
50	6	uni t	Web Camera for PC
			■Image sensor: 1 / 2.9
			©Lens: 3.6mm/75.7 °
			■Effective pixel: 1932 (H) * 1088 (V)
			■Horizontal resolution: 2MP
			■SNR: > 50dB
			■Video stream: H.264:1920 * 1080 / 1920 * 720 / 640 *
			360 MJPEG: 1920 * 1080 / 1920 * 720 / 640 * 360
			■Video Frame rate: 25FPS / 30FPS
			■Electronic shutter: Auto
			■Protocol: UVC / UVA
			■Video output: USB video stream
		1	

			■Working voltage: DC5V / 160mA ± 6mA
			<ul> <li>■Working environment: -20 °C to 60 °C</li> <li>Desktop Computer, AMD Ryzen 5 5600G, 16GB RAM,</li> </ul>
51	1	set	GTX 1660 ti
			Processor: AMD Ryzen 5 5600G 6 Cores & 12 Threads,
			3.9 GHz Base Clock,4.4 GHz Max Boost Clock, Socket
			AM4, 3MB L2 & 16MB L3 Cache or higher
			■Motherboard: AMD B550 Chipset Ultra Durable
			Motherboard with 5+3 Phases Pure Digital VRM Solution
			with Low RDS(on) MOSFETs, PCIe 4.0 x16 Slot, Dual
			PCIe 4.0/3.0 M.2 Connectors, Realtek GbE LAN, High
			Quality Audio Capacitors and Audio Noise Guard for
			Ultimate Audio Quality or higher
			■Graphics: GTX 1660 ti
			■Monitor: 24"
			■Memory: 16GB DDR4 3200MHZ(8+8) or higher
			■Storage: 512g SSD M2 or higher
			■Storage: 1TB HDD
			■Keyboard and Mouse
			■Audio: HD audio Realtek
			■Operating System: Genuine Windows 10 or higher
52	2	рс	Laptop (Pentium Dual Core)
			■Processor: Intel Pentium Gold 4417u Processor or
			higher
			■Memory: at least 4GB DDR4 or higher
			■Storage: at least 128GB SSD
			■Display: 14" HD (1366x768) LED Display
			■Video Processor: nVidia MX110 2GB VRAM or higher
			©Connectivity: 802.11AC WiFi + BT   USB3.0 Port   HDMi Port
			■Operating System: Genuine Windows 10 Home
	_	uni	Desktop Computer (i7) Branded, with 24" FHD IPS
53	1	t	Monitor
			■ Processor Type: Intel Core i7 (2.1 GHz base frequency, up to 4.9 GHz with Intel Turbo Boost Technology, 25 MB L3 cache, 12 cores, 20 threads) or higher
			■Memory: 16 GB DDR4-3200 SDRAM (1 x 16 GB) or
			higher
			■Hard Drive: 512 GB PCIe NVMe M.2 SSD; 1 TB 7200
			rpm SATA HDD
			■OS: Windows 11
			■"Expansion Slot: 2 x PCI Express Slots (1 x PCI-Ex16
			,1 x PCI-Ex1), 2 x M.2 Expansion Slots (1 for SSD; 1 for WLAN)", Expansion Bay: HDD 3.5" x 2 (or HDD 3.5" x 1
			+ HDD 2.5" x1) + 9.5mm slim ODD x 1
			Monitor: 24" FHD IPS Monitor  Complian: NVIDIA Concerns CTV 1660 SUPER (6 CP)
	i	ĺ	■Graphics: NVIDIA GeForce GTX 1660 SUPER (6 GB)
			GDDR6 dedicated)  ■Power Supply: 350 W 80 Plus Gold certified power

	1	1	
			supply
			■Keyboard & Mouse: Wireless Keyboard and mouse
			combo
			■LAN: Integrated 10/100/1000 GbE LAN
			■"WLAN: Realtek Wi-Fi 6 (2x2) and Bluetooth 5.2 combo
			(Supporting Gigabit data rate) MU-MIMO supported "
			Bluetooth: YES
			■Ports: Front: 2 SuperSpeed USB Type-A 5Gbps
			signaling rate; 2 SuperSpeed USB Type-A 10Gbps
			signaling rate; 1 SuperSpeed USB Type-C 5Gbps
			signaling rate; Rear: 4 USB 2.0 Type-A  Speakers:
			■ Single USB cable for computers and laptops   enjoy a
			hassle-free Audio experience with a single USB cable
			without the need for a power adapter
54	4	рс	HP, Laser Jet 107a Toner HP 107A (W1107A), Black
		uni	
55	1	t	Printer, Tank Ink System, 3 in 1 (Print, Scan, Copy)
			■Tank Ink System
			■Printer Type: Print, Scan and Copy
			■Scanner Type: Flatbed colour image scanner
			■Sensor Type: CIS
			■Optical Resolution: 600 x 1200 dpi
			■Copy Speed: Maximum Copies from Standalone: 20
			copies
			■Maximum Copy Size: A4, Letter
			■ISO 29183, A4 Simplex Flatbed (Black / Colour): Up to
			7.0 ipm / 1.7 ipm
			Max Copy Resolution: 300 x 300 dpi
			■Paper Handling: Up to 20 Sheets-Premium Glossy Photo Paper 10 Sheets-Envelope, 30 Sheets-Postcard
			■ Output Capacity: Up to 30 sheets
			■Output Capacity. Op to 30 sheets ■A4 plain paper: 20 sheets, Premium Glossy Photo
			Paper
			■Maximum Paper Size: 215.9 x 1200 mm (8.5 x 47.24")
			Nozzle Configuration: 180 x 1 nozzles Black, 59 x 1
			nozzles per colour (Cyan, Magenta, Yellow)
			■Print Direction: Bi-directional printing
			■Maximum Print Resolution: 5760 x 1440 dpi (with
			Variable-Sized Droplet Technology)5760 x 1440 dpi (with
			Variable-Sized Droplet Technology)
			■Minimum Ink Droplet Size: 3 pl
56	4	box	Toner Cartridge, HP 85A   CE285A, Black
			HP 85A (CE285A) toner cartridges work with: HP
			LaserJet Pro M1212nf, M1217nfw, P1102w, P1109w
			HP 85A toner cartridge yield (approx.): 1,600 pages.
	_		Operating temperature range is 10 to 32.5°C
57	1	lot	1 Lot LAN Cable
			7 spools at 12,000.00 each

	Ī	1	T. AND T. O. (0.0/0); T. (1.0.0)
			LAN Cable, Cat 6 (VSU existing fleet Belden)
			Cat6 UTP cable, 4 pairs, AWG23, e-spline center, UL
			listed, ISO, 305m(1000ft)/spool
58	1	lot	1 Lot Network Infrastructure (Miscellaneous)
			Network IP Phones:
			3 units at 7,000.00
			Cisco CP-6821 (same existing fleet of VSU IP Phones)
			IP Network Camera:
			5 units at 3,500.00
			Hikvision, Dome type camera, 2 Mega Pixel IP67 (Same
			brand of Existing VSU fleet camera)
			3M Volition (Same fleet of VSU existing) Face plate with
			module, flush type
			*2 Ports Face plate with RJ-45 Module Cat 6
			25 sets at 850.00
			3M Keystone
			Original 3M Volition (Cat6 female Tool-less RJ45
			Keystone Mount)
			Re-usable
			Shallow Depth, Cable Entry from top or bottom
			Keystone Mounting
			Accepts both solid conductors from AWG 26 to 22 and
			stranded conductors
			Integral shutter Benefits
			Easy and quick to install
			Integral shutter protects jack in the patch panel
			*1 Port Face plate with RJ-45 Module Cat 6 25 sets at 450.00
			3M Keystone
			Original 3M Volition (Cat6 female Tool-less RJ45
			Keystone Mount)
			Re-usable
			Shallow Depth, Cable Entry from top to bottom
			Keystone Mounting
			Accepts both solid conductors from AWG 26 to 22 and
			stranded conductors
			Integral shutter Benefits
			Easy and quick to install
			Integral shutter protects jack in the patch panel
			Granding FA1-H Biometric System (Same with existing
			VSU fleet)
			2 units at 10,000.00
			Biometric System, finger print and facial recognition
			Built-in backup battery
			Network port
59	1	lot	1 Lot Network Switches
	-		6 units at 75,000.00 each
			Network Switches:
	<b> </b>	<del>                                     </del>	Units-HP Aruba 2530 (Based on VSU Existing HP fleet of

		1	not work a guinmont
			network equipment)
			*PoE, PoE+ (370watts)
			*24 ports
			*Up to 104 Gbps capacity
			*Layer 2
			*Fast Ethernet, 1GbE
00		1	*Lifetime Warranty
60	1	lot	1 Lot Network Switches (2)
			2 units at 95,000.00 each
			Network Switches:
			HP Aruba 2540 (Based on VSU existing HP fleet of
			network equipment)
			PoE, PoE+ (370 watts)
			24 ports
			Up to 176 Gbps Switching capacity
			Layer 2 with Static and RIP
			1G, SFP, SFP+
04	4	1.4	Lifetime Warranty
61	1	lot	1 Lot Uninterruptible Power Supply (UPS)
			UPS: 9 units at 6,000.00
00		1-4	1000 watts, 1500VA, Universal type of outlet, built-in AVR
62	1	lot	Network Wifi Access Points
			20 units Network WiFi Access Points
			Unifi Nano HD
			(Existing fleet of VSU Wifi Access Points)
63	4	uni t	Network Switch
		ι	■Standards: IEEE 802.3, 802.3u, 802.3x, 802.3ab,
			802.3az
			■Number of Ports: 24 Gigabit
			Speed: 10/100/1000
			■Bandwidth: 48 Gbps (non-blocking)
		1	■Performance: Full line rate and forwarding rate of 64B
			frame at: 1.488Mpps for 1000M port , 0.1488Mpps for
			100M port, 0.01488Mpps for 10M port
			■ Quality of Service: 802.1p and DSCP
			■MAC Address Table: 8K
_		uni	
64	3	t	UTP Cable (305 meters), CAT 6 23 AWG
			■UTP Cable cat6
			■Cat 6 Cable UTP Unshielded AWG23
			■Gray Data LAN Cable
			■1000 feet 305m 1000ft.
			must be UL listed & ISO certified cable
65	5	uni t	Laptop, 14" (i7)
		1	■Processor: Intel Core i7 10th generation or higher
			■Graphics: NVIDIA GeForce MX250 at least 2GB GDDR5

12			5-core GPU; 16-core Neural Engine Gold Finish 6.1-inch (diagonal) all-screen OLED display 2556-by-1179-pixel resolution at 460 ppi
			Gold Finish
			,
		1	1
12	Ì		6-core CPU with 2 performance and 4 efficiency cores;
	<u>'</u>	t	Development and Controls
72	1	uni	Smartphone for 3D and Internet-of-Things
71	1	lot	Type 2150 MAH-Min 2150 mAh-24wh A4 Pigment Printer
70	2	рс	Lithium Polymer battery 2150MAH 11.V Sensefly
69	4	рс	DJI Inspire 2 TB50 Intelligent Flight Battery
			Power Supply: via USB, 5V
			Controls: Overall Volume
			Housing material : ABS
			Interface: 3.5mm jack
			Frequency Range: 70-20000 Hz
			Satellite Driver: Size: 2.5"
			Satellite wattage (RMS):3W
		<u> </u>	Total Output Power (RMS): 6W
68	2	pai r	Multimedia Speakers 2.0, 6W, USB powered
			10, Mac OS X 10.6 or later, Linux Kernel 2.6 or later
			System Requirements: Windows XP / Vista / 7 / 8 / 8.1 /
			■ Operating Voltage: DC 5V, 900mA
			■ Texture: Plastic/Rubber
			©Capacity: 2TB
			■Interface: USB 3.1 (Max.5Gb/s)
		t	Shock-absorbing
67	1	uni	External Hard Disk Drive (Portable, 2TB), USB
UU	30	μc	chord 1.8 meter long
66	30	рс	HDMI to HDMI cable
			■ REE: Backpack
			■at least 3 years Warranty
			from returning the unit
			■Repair and replacement should be at most 3 month
			■Bundled Software: Microsoft Office Perpetual License
			■ Operating System: licensed Windows 10 Home or Pro
			■Camera: at least 720p ■Microphone: at least 2x, Array
			■Ethernet: None ■WLAN + Bluetooth
			■Media Reader: 4-in-1 Card Reader
			Optical: None
			Touchscreen: None
			■Display: 14" FHD (1920x1080) IPS 250nits Anti-glare
		1	_D'   AMEUD (4000 4000) IBC 050 '' * '' '
			■Storage: at least 256GB SSD M.2 + 1TB HDD

			Rated IP68 (maximum depth of 6 meters up to 30
			minutes) under IEC standard 60529
			TrueDepth camera for facial recognition
			Precision dual-frequency GPS (GPS, GLONASS, Galileo,
			QZSS, and BeiDou)
			Digital compass
			Wi-Fi
			Cellular
			iBeacon microlocation
			LiDAR Scanner
			Barometer
			High dynamic range gyro
			High-g accelerometer
			Proximity sensor
		:	Dual ambient light sensors
73	6	uni	Arduino UNO microcontroller, Microchip AT
		t	mega328P  Computer Monitor 24", IPS, Bezel-less Full HD
74	8	set	Monitor
			■Panel Type: IPS
			■Brightness(Typical): 250cd/m²
			■Brightness(Min): 200cd/m²
			Contrast Ratio Static: 1000:1(typical)
			■Dynamic Contrast Ratio: MegaFlat
			■Resolution: 1920x1080
			■Response Time: 5ms(GTG)
			■Max Color Support: Max 16.7M ■Max Refresh Rate: Max 75Hz
			■Interface: D-sub(x1), HDMI(x1)
75	2	nc	CPU (Central Processing Unit)
13	L	рс	■AMD A10-8770 Processor
			■Motherboard compatible with the processor
			■Kingston 4GB DDR4-2666 Memory
			■CPU Casing w/ PSU
			■256GB SSD
		uni	
76	15	t	External Hard Disk Drive (Portable, 1TB), USB 3.1
			■Shock-absorbing
			■Interface: USB 3.1 (Max.5Gb/s)
			■Capacity: 1TB
			■Texture: Plastic/Rubber
			■Operating Voltage: DC 5V, 900mA
			System Requirements: Windows XP / Vista / 7 / 8 / 8.1 /
			10, Mac OS X 10.6 or later, Linux Kernel 2.6 or later
	40	pac	Ink, T05C1, BLACK, Genuine
77	10	k	
77	10	K	(for Epson C878R WorkForce Pro A3 Colour

	ı	ı	
			Original Pigment Inks)
78	10	pac k	Ink, T05C2, Cyan, Genuine
			(for Epson C878R WorkForce Pro A3 Colour Multifunction Printer, Replaceable Ink Pack System RIPS Original Pigment Inks)
79	10	pac k	Ink, T05C3, Magenta, Genuine
			(for Epson C878R WorkForce Pro A3 Colour Multifunction Printer, Replaceable Ink Pack System RIPS Original Pigment Inks)
80	10	pac k	Ink, T05C4, Yellow, Genuine
			(for Epson C878R WorkForce Pro A3 Colour Multifunction Printer, Replaceable Ink Pack System RIPS Original Pigment Inks)
81	20	uni t	Laptop 14" (i5)
			■ Processor: Intel Core i5-1035G1 Processor 1.0 GHz 6M Cache, up to 3.60 GHz or higher
			■Operating system: Windows 10 Home
			■Memory: 4GB memory, 1 x SO-DIMM socket (for
			expansion) or higher
			■Display: 14.0" (16:9) LED-backlit FHD (1920x1080)
			60Hz Anti-Glare Panel with 45% NTSC
			■Video Processor: NVIDIA GeForce MX330, with 2GB GDDR5 VRAM or higher
			■Storage: 512GB PCIe Gen3 x2 SSD
		uni	Universal HDMI to VGA Adapter Cable, at least 1.8
82	10	t	meters
83	1	uni t	Desktop Computer with 2 Units Printer
			Desktop Computer with 2 units Printers
			Intel Core i7-13400, 10C (6P + 4E) / 16T, P-core 2.5 /
			4.6GHz, E-core 1.8 / 3.3GHz, 20MB or higher
			mATX B760 Chipset Motherboard with Hybrid 8+1+1
			Phases Digital VRM Solution/ Advanced Thermal Design & M.2 Thermal Guard
			16GB UDIMM DDR4-3200 or higher
			1TB SSD M.2 2280 PCIe 4.0x4 NVMe
			600Watts Bronze Certified PSU or higher
			Casing with Acrylic Side Panels
			NVIDIA GeForce RTX 3050 8GB GDDR6
			Wi-Fi 6, 11ax 2x2 + BT5.1
			24" IPS Monitor, 75Hz
			4 outlets (4 NEMA 5-15R), 650VA/360W, AVR
			// /
			Technology, Surge Protection, UPS
			,

	1	1	T
			Computer Printer, All-in-One Multifunction, Colored Ink Tank
84	1	uni t	Laptop
			Laptop:Intel Core i7-12650H Processor 2.3 GHz (24M
			Cache, up to 4.7 GHz, 10 cores) or higher
			16GB RAM or higher
			512GB M.2 NVMe PCIe 3.0 SSD or higher
			16.0-inch WUXGA (1920 x 1200) 16:10 aspect ratio LED
			Backlit IPS-level Panel 120Hz refresh rate
			NVIDIA Geforce RTX 3050 4GB Laptop GPU 4GB GDDR6
			Wi-Fi 6E (802.11ax) (Dual band) 1*1 + Bluetooth 5.3
			Wireless Card
			Windows 11 Home
85	6	btl	Epson 003 Ink Bottle for Epson L3150, Black
86	6	btl	Epson 003 Ink Bottle for Epson L3150, CYAN
87	6	btl	Epson 003 Ink Bottle for Epson L3150, MAGENTA
88	6	btl	Epson 003 Ink Bottle for Epson L3150, YELLOW
89	1	рс	Router, Wireless
			■Enjoy the benefits of Wireless-N300 (802.11n) in your
			home ideal for surfing the web, emailing and printing wirelessly
			■Connect your computers, wireless printers,
			smartphones, and other wireless devices at up to 300 Mbps transfer speed
			■Enjoy broad wireless coverage provided by MIMO antenna technology
			■Use four Fast Ethernet (10/100 Mbps) ports to directly
			connect wired devices
			Reep your network protected with customizable security settings, including WPA/WPA2 Personal and SPI firewall protection
90	1	uni t	Laptop
			Operating System
			Windows 11 Home Single Language
			Operating System Architecture 64-bit
			Processor: Intel Core™ i5 -12500H or higher
			Processor Speed 2.50 GHz
			Processor Core Dodeca-core (12 Core™)
			Processor Generation 12th Gen
			Graphics Controller Manufacturer: NVIDIA®
			Graphics Controller Model
			GeForce® RTX™ 3050
			Graphics Memory Capacity 4 GB
			GDDR6
			GDDR6 Graphics Memory Accessibility

-		
	GPU Boost Clock	
	Up to 1600 MHz	
	Maximum Graphics Power	
	Up to 95 W	
	Screen Size: 39.6 cm (15.6")	
	Display Screen Type: LCD	
	Backlight Technology: LED	
	Screen Resolution: 1920 x 1080	
	Standard Refresh Rate	
	144 Hz	
	Total Installed System Memory: 8 GB	
	DDR4 SDRAM	
	Total Solid State Drive Capacity ; 512 GB	
	Solid State Drive Interface	
	PCI Express	
	Wireless LAN Standard	
	IEEE 802.11 a/b/g/n/ac/ax	
	Wireless LAN Model	
	Wi-Fi 6 AX 1650i	
	Ethernet Technology	
	Gigabit Ethernet	
	Bluetooth Standard	
	Bluetooth 5.1 or above	
	Built-in Devices	
	Microphone	
	Interfaces/Ports	
	HDMI	
	Number of HDMI Outputs: 1	
	Number of USB 3.2 Gen 1 Type-A Ports: 1	
	Number of USB 3.2 Gen 2 Type-A Ports: 2	
	Number of USB 3.2 Gen 2 Type-C Ports:1	
	Total Number of USB Ports:4	
	USB Type-C	
	USB Type-C Detail	
	USB Type-C port supporting: USB 3.2 Gen 2 (up to 10	
	Gbps), DisplayPort over USB-C, Thunderbolt 4, USB	
	charging 5 V; 3 A, DC-in port 20 V; 65 W	
	Network (RJ-45)	
	Pointing Device Type	
	TouchPad	
	Keyboard Backlight	
	TouchPad Features	
	Multi-touch Gesture	
	4-cell Lithium Ion (Li-Ion) Battery	
	Maximum Power Supply Wattage 180 W	
	Product Color Obsidian Black	
	Miscellaneous	
	Package Contents	
	i donago comonto	

			Nitro 5 ANE15 50 50VF Coming Notation
			Nitro 5 AN515-58-50YE Gaming Notebook
		1	Lithium Ion Battery
			AC Adapter
			Security Features
			Firmware Trusted Platform Module (TPM) solution
			Kensington lock slot
			Rebidding - VSU-GOODS-23-36
91	1	set	4000W Power Inverter + 3A solar controller kit
			Specifications:
			Output Voltage 220V
			Color: Yellow Black
			Material: Plastic
			Waveform: Modified Sine Wave
			Surge Peak Power: 4000W
			Input voltage: 12V
			Input voltage Range; 9.5V - 15.5V
			Output Voltage Range: 220V+ 10%
			Frequency: 50Hz
			Efficiency 90%
			Circuit topology push-pull
			No load current < 0.7A
			Low voltage protection: Minimum protection voltage 9.5V
			High voltage protection: Max protection voltage 15.5V
			Overload protection: Yes
			Output short circuit protection: Yes
			Positive and negative reverse connection protection: YES
			Output regulation: Yes
			Display Scree: Display Output Voltage Battery Voltage
			Input terminal wiring: terminal
			Output interface: 1Socket, 2* USB
			USB Output 2.14
			Car Cigarette Plug Length: 42.5cm/16.7inch
			Battery clips length 46.8cm / 6.334.4* 2.2 inch
			(NOTE: see attached specifications)
92	1	рс	Automatic Voltage Regulator, 5000 VA, Servo-motor
		<u> </u>	Capacity: 5000 VA
			Input Voltage: 160-240 V
			Output Voltage: 110/220 V
			Phase: Single
			Control System: Servo-Motor Control
			Response Time: within 4sec against 10%, Input
			Fluctuation
			Overload Protection
93	1	unit	
93	1	unit	Time Delay Function Analog Volt Meter and Ammeter  Camera

SENSOR TYPE: 1.0-type (13.2 mm x 8.8 mm) Exmor	
RS® CMOS sensor, aspect ratio 3:2	
NUMBER OF PIXELS (EFFECTIVE): Approx. 20.1	
Megapixels	
LENS TYPE: ZEISS® Vario-Sonnar® T* Lens, 10	
elements in 9 groups (9 aspheric elements including AA	
lens)	
F-NUMBER (MAXIMUM APERTURE): F1.8(W)–2.8(T)	
ND-FILTER: Auto/On (3 steps)/Off	
FOCAL LENGTH: f = 8.8-25.7 mm	
ANGLE OF VIEW (35 MM FORMAT EQUIVALENT): 84	
deg-34 deg (f = 24-70 mm2)3	
FOCUS RANGE (FROM THE FRONT OF THE LENS):	
iAuto: AF (W: Approx. 5 cm (0.17 ft) to Infinity, T: Approx.	
30 cm (0.99 ft) to Infinity) / Program Auto: AF (W: Approx.	
5 cm (0.17 ft) to Infinity, T: Approx. 30 cm (0.99 ft) to	
Infinity)	
OPTICAL ZOOM: 2.9x	
CLEAR IMAGE ZOOM (STILL IMAGE): 20 M Approx.	
5.8x/10 M Approx. 8.2x/5.0 M Approx. 11x/VGA Approx.	
44x	
CLEAR IMAGE ZOOM (MOVIE): 4K: 4.35x, HD: Approx.	
5.8x	
DIGITAL ZOOM (STILL IMAGE): 20 M Approx. 11x/10 M	
Approx.16x/5.0 M Approx. 23x/VGA Approx. 44x	
DIGITAL ZOOM (MOVIE): Digital Zoom Approx. 11x	
SCREEN TYPE: 7.5 cm (3.0 type)(4:3)/1,228,800	
dots/Xtra Fine/TFT LCD	
ADJUSTABLE ANGLE: Up by approx. 180 degrees,	
down by approx. 45 degrees	
DISPLAY SELECTOR (FINDER/LCD): Auto/EVF	
(Manual)/Monitor(Manual)	
MS ASSIST MAGNIFICATION: 5.3x, 10.7x	
SCREEN TYPE/NUMBER OF DOTS: 0.39-type	
electronic viewfinder(OLED), 2,359,296 dots	
FIELD COVERAGE: 100%	
MAGNIFICATION: Approx. 0.59x with 50 mm lens at	
infinity, -1m-1(diopter) (35 mm equiv.)	
EYE POINT: Approx. 20 mm from the eyepiece, 19.2 mm	
from the eyepiece frame at -1m-1(diopter) (CIPA	
standard)	
DIOPTRE ADJUSTMENT: -4.0 to +3.0 m-1	
BRIGHTNESS CONTROL: Auto, Manual (5 steps)	
IMAGE PROCESSING ENGINE: Yes (BIONZ X)	
STEADYSHOT (STILL IMAGE): Optical	
STEADYSHOT (MOVIE): Yes (Intelligent Active Mode,	
Optical type with electronic compensation, Anti Rolling	
type)	
FOCUS TYPE: Fast Hybrid AF(phase-detection	

AF( ( ( ) ( ) AF)	
AF/contrast-detection AF)	
FOCUS MODE: Single-shot AF, Automatic AF,	
Continuous AF, DMF, Manual Focus	
FOCUS AREA: Wide (315 points (phase-detection AF),	
25 points [contrast-detection AF]), Zone, Center, Flexible	
Spot (S/M/L), Expanded Flexible Spot, Lock on AF	
Wide/Zone/Center/Flexible Spot(S/M/L)/Expanded	
Flexible Spot	
LOCK ON AF: Yes	
LIGHT METERING MODE: Multi Pattern, Center-	
Weighted, Spot, Entire Screen Avg, Highlight	
EXPOSURE COMPENSATION: +/- 3.0 EV, 1/3 EV step	
ISO SENSITIVITY (STILL IMAGE)(RECOMMENDED	
EXPOSURE INDEX)	
Auto (ISO125-12800, selectable with upper/lower	
limit),125/160/200/250/320/400/500/640/800/1000/1250/1	
600/2000/2500/3200/4000/5000/6400/8000/10000/12800	
(Extendable to ISO80/100), Multi-Frame NR:	
Auto(ISO125-12800),	
200/400/800/1600/3200/6400/12800/2560056	
ISO SENSITIVITY (MOVIE)	
Auto: (ISO125–ISO12800, selectable with upper/lower	
limit),	
125/160/200/250/320/400/500/640/800/1000/1250/1600/	
2000/2500/3200/4000/5000/6400/8000/10000/12800	
MINIMUM ILLUMINATION (MOVIE): Auto:1.2 lux(Shutter	
Speed 1/30")	
WHITE BALANCE MODES: Auto, Daylight, Shade,	
Cloudy, Incandescent, Fluor.: Warm White, Fluor.: Cool	
White, Fluor.: Day White, Fluor.: Daylight, Flash,	
Underwater Auto, C.Temp./Filter, Custom	
WB MICRO ADJUSTMENT: Yes	
SHUTTER SPEED	
iAuto (4" - 1/2000)/Program Auto (30" - 1/2000)/Manual	
(Bulb, 30" - 1/2000)/Aperture Priority (30" -	
1/2000)/Shutter Priority (30" - 1/2000)	
ELECTRONIC SHUTTER	
, , ,	
1/32000)/Manual (30" - 1/32000)/Aperture Priority (30" -	
1/32000)/Shutter Priority (30" - 1/32000)	
APERTURE	
iAuto (F1.8/F11(W)) / Program Auto(F1.8/F11(W)) /	
Manual(F1.8/F11(W)) / Shutter Priority(F1.8/F11(W)) /	
Aperture Priority(F1.8/F11(W))	
IMAGE CONTROL	
Contrast, Saturation, Sharpness, Creative Style, Color	
Space (sRGB/Adobe RGB), Quality (RAW/RAW&JPEG	
(Extra fine, Fine, Standard)/JPEG (Extra fine, Fine,	
Standard)	

NOISE DEDUCTION	
NOISE REDUCTION	
Long exposure NR: On/Off, available of shutter speeds	
longer than 1/3 sec., high ISO NR: Normal/Low/Off, Multi	
Frame NR: Auto, ISO200-25600	
DYNAMIC RANGE FUNCTIONS	
Off, Dynamic Range Optimizer (Auto/Level 1-5), Auto	
High Dynamic Range (Auto Exposure Difference,	
Exposure Difference Level (1.0–6.0 EV, 1.0 EV step))	
SHOOTING MODE	
AUTO(Intelligent Auto/Superior Auto), Program Auto,	
Aperture Priority, Shutter Speed Priority, Manual	
Exposure, MR(Memory Recall) [body 3 sets/memory card	
4 sets], Movie Mode(Program Auto, Aperture Priority,	
Shutter Speed Priority, Manual Exposure),HFR Mode	
(Program Auto, Aperture Priority, Shutter Speed Priority,	
Manual Exposure), Panorama, Scene Selection	
SCENE SELECTION	
Portrait, Sports Action, Macro, Landscape, Sunset, Night	
Scene, Handheld Twilight, Night Portrait, Anti-Motion	
Blur, Pet Mode, Gourmet, Fireworks, High Sensitivity	
CONTINUOUS SHOOTING SPEED (MAXIMUM) (WITH	
MAX. RECORDING PIXELS)	
Continuous Shooting Hi: approx. 24fps, Continuous	
Shooting Mid: approx. 10fps, Continuous Shooting Low:	
approx. 3.5fps 8910 SELF-TIMER	
10 s / 5 s / 2 s / 3 or 5 consecutive shots with 10 s, 5 s, or	
2 s delay selectable / Bracketing shots with 10 s, 5 s, or 2	
s delay selectable	
DRIVE MODES	
Single, Continuous shooting (Hi/Mid/Lo), Self-timer, Self-	
timer(cont.), Contbracketing11, Single-bracketing11,	
White balance bracketing11, DRO bracketing11	
PANORAMA (SHOOTING): Sweep Panorama	
PICTURE EFFECT	
[Still Image]:Toy camera, Pop Color, Posterization, Retro	
Photo, Soft High-key, Partial Color, High Contrast Mono.,	
Soft Focus, HDR Painting, Richtone Monochrome,	
Miniature, Watercolor, Illustration; [Movie]:Toy camera,	
Pop Color, Posterization, Retro Photo, Soft High-key,	
Partial Color, High Contrast Mono.	
CREATIVE STYLE	
Standard, Vivid, Neutral, Clear, Deep, Light, Portrait,	
Landscape, Sunset, Night Scene, Autumn Leaves, Black	
& White, Sepia, Style Box	
PICTURE PROFILE	
off/PP1-PP7(Black Level, Gamma (Movie, Still, Cine1-2,	
ITU709, ITU709 [800%], S-Log2), Black Gamma, Knee,	
Color Mode, Saturation, Color Level, Color Phase, Color	
1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<u>L</u>

Depth, Detail, Copy, Reset)	
NUMBER OF RECOGNISED SCENES	
Still Image:Superior Auto: 44 / iAuto: 33, Movie:44	
FLASH MODE: Auto/Flash On/Slow Synchro/Rear	
Sync/Flash Off	
FLASH TYPE: Built-in, manual pop-up	
AF ILLUMINATOR: Auto / Off	
BRACKETING: Yes	
FLASH RANGE	
ISO Auto: Approx.0.4 m to 10.2 m (1.31 ft to 33.46 ft) (W)	
/ Approx. 0.4 m to 6.5 m (1.31 ft to 21.33 ft) (T),	
ISO12800: up to Approx. 20.4 m (66.93 ft.) (W) / Approx.	
13.0 m (42.65 ft.) (T)	
COMPATIBLE RECORDING MEDIA	
Memory Stick Duo, Memory Stick PRO Duo, Memory	
Stick PRO Duo (High Speed), Memory Stick PROHG	
Duo, Memory Stick Micro1, Memory Stick Micro (Mark2),	
SD Memory Card, SDHC Memory Card(UHS-I), SDXC	
Memory Card (UHS-I), microSD Memory Card,	
microSDHC Memory Card, microSDXC Memory Card	
RECORDING FORMAT	
[Still Image]: JPEG(DCF Ver.2.0, Exif Ver.2.31, MPF	
Baseline compliant), RAW (Sony ARW 2.3 format);	
[Movie]: XAVC S, AVCHD format Ver.2.0 compatible	
RECORDING FORMAT (MOVIE AUDIO)	
XAVC S: LPCM 2ch, AVCHD: Dolby Digital (AC-3) 2ch	
(Dolby Digital Stereo Creator)	
COLOUR SPACE (STILL)	
sRGB, Adobe® RGB	
DCF/DPOF	
DCF/DPOF/EXIF/MPF	
STILL IMAGE NUMBER OF RECORDED PIXELS	
(IMAGE SIZE)	
3:2 mode: 20M (5,472 x 3,648) / 10M (3,888 x 2,592) /	
5M (2,736 x 1,824), 4:3 mode:18M (4,864 x 3,648) / 10M	
(3,648 x 2,736) / 5M (2,592 x 1,944) / VGA,16:9	
mode:17M (5,472 x 3,080) / 7.5M (3,648 x 2,056) / 4.2M	
(2,720 x 1,528), 1:1 mode: 13M (3,648 x 3,648) / 6.5M	
(2,544 x 2,544) / 3.7M (1,920 x 1,920), Sweep	
Panorama: Wide (12,416 x 1,856/5,536 x 2,160),	
Standard (8,192 x 1,856/3,872 x 2,160)	
MOVIE RECORDING MODE (NTSC)	
NTSC/PAL Selector: [NTSC] AVCHD: 24 M FX	
(1,920x1,080/60i)/17 M FH (1,920x1,080/60i), XAVC S	
4K: 30p 100 M (3,840x2,160/30p)/30p 60 M	
(3,840x2,160/30p)/24p 100 M (3,840x2,160/24p)/24p 60	
M (3,840x2,160/24p), XAVC S HD: 60p 50 M	
(1,920x1,080/60p)/60p 25 M (1,920x1,080/60p)/30p 50 M	
(1,920x1,080/30p)/30p 16 M (1,920x1,080/30p)/24p 50 M	
1 (1,020x1,000/00p)/00p 10 W (1,020x1,000/00p)/27p 00 W	

 T	
(1,920x1,080/24p)/120p 100 M (1,920x1,080/120p)/120p	
60 M (1,920x1,080/120p)	
MOVIE RECORDING MODE (PAL)	
NTSC/PAL Selector: [PAL] mode AVCHD: 24 M FX	
(1,920x1,080/50i)/17 M FH (1,920x1,080/50i), XAVC S	
4K: 25p 100 M (3,840x2,160/25p)/25p 60 M	
(3,840x2,160/25p), XAVC S HD:50p 50 M	
(1,920x1,080/50p)/50p 25 M (1,920x1,080/50p)/25p 50 M	
(1,920x1,080/25p)/25p 16 M (1,920x1,080/25p)/100p 100	
M (1,920x1,080/100p)/100p 60 M (1,920x1,080/100p),	
HFR	
(Recording) NTSC/PAL Selector: [PAL] mode XAVC S	
HD:50p 50M(1920x1080/250fps), 50p	
50M(1920x1080/500fps), 50p 50M(1920x1080/1000fps) /	
25p 50M(1920x1080/250fps), 25p	
50M(1920x1080/500fps), 25p 50M(1920x1080/1000fps),	
NTSC/PAL Selector: [NTSC] mode XAVC S HD:60p 50	
M (1,920x1,080/240fps), 60p 50 M (1,920x1,080/480fps),	
60p 50 M (1,920x1,080/960fps)/30p 50M	
(1,920x1,080/240fps), 30p 50 M (1,920x1,080/480fps),	
30p 50 M (1,920x1,080/960fps)/24p 50 M	
(1,920x1,080/240fps), 24p 50 M (1,920x1,080/480fps),	
24p 50 M (1,920x1,080/960fps) (Sensor Readout	
Number of effective pixels) Quality Priority: 240fps/250fps	
(1,824x1,026), 480fps/500fps (1,824x616),	
960fps/1000fps (1,244x420)/Shoot Time Priority:	
240fps/250fps (1,824x616), 480fps/500fps	
(1,292x436),960fps/1000fps (912x308)	
STILL IMAGE NUMBER OF RECORDED PIXELS	
(IMAGE SIZE) DURING MOVIE	
16:9 mode:	
17M(5472×3080)/7.5M(3648×2056)/4.2M(2720×1528)	
PROXY RECORDING	
Yes(1280 x 720 [approx. 9 Mbps])	
INPUT AND OUTPUT TERMINALS: Multi/Micro USB	
Terminal14, High-Speed USB (USB 2.0), Micro HDMI	
NFC: NFC forum Type 3 Tag compatible, One-touch	
remote, One-touch sharing	
WI-FI: Yes (IEEE802.11b/g/n(2.4 GHz band))	
POWER SOURCE	
DC 3.6 V(supplied battery) / DC 5.0 V(supplied AC	
Adapter)	
BATTERY SYSTEM  Dechargooble Potton, Deck ND DY1	
Rechargeable Battery Pack NP-BX1	
POWER CONSUMPTION (CAMERA MODE)	
Approx. 2.6 W with LCD monitor and approx. 3.0 W with	
viewfinder (CIPA standard)	
USB CHARGE/USB POWER SUPPLY	
Yes (Shooting, Playback)	

	•	,	
			BATTERY LIFE(STILL IMAGES)(CIPA)
			Monitor:Approx. 220 / Approx. 110 min.,
			ViewFinder:Approx. 210/Approx. 105 min.
			BATTERY LIFE(MOVIES ACTUAL SHOOTING)(CIPA)
			Monitor:Approx. 35 min., ViewFinder:Approx. 35 min.
			BATTERY LIFE(MOVIES CONTINUOUS
			SHOOTING)(CIPA)
			Monitor:Approx. 65 min., ViewFinder:Approx. 65 min.
			DIMENSIONS (W X H X D) (APPROX.)
			101.6x58.1x41.0 mm (4 in x 2 3/8 in × 1 5/8 in)
			WEIGHT (CIPA COMPLIANT)
			Approx. 299 g (10.5 oz)(Battery and Memory Stick Duo
			are included) / Approx. 272 g (9.6 oz)(Body Only)
94	1	рс	Digital Multimeter
			DCV: 400m/4/40/400/1000V
			ACV: 4/40/400/1000V ±(1.2%+7)
			DCA: 400µ/4000µ/40m/400m/4/10A
			ACA: 400µ/4000µ/40m/400m/4/10A
			Resistance: 400/4k/40k/400k/4M/40MΩ
			Capacitance: 50n/500n/5µ/50µ/100µF
			Frequency: 5/50/500/5k/50k/100kHz
			Continuity: Buzzer sounds and LED lights up at between
			$0\Omega$ and $85\Omega$ (±45Ω) . Open voltage:Approx. 0.4V
			Diode test: Open voltage:approx.1.5V
			Battery Check: Approximate value (30Ω load) 1.5V
			battery only
			Display numeral display: 4000
			Sampling rate: 3 times/sec.
			Bandwidth: 40~400Hz (Sine wave)
			Fuse: 0.5A/1000V 30kA Φ6.35×32mm 10A/1000V 30kA
			Ф10×38mm
			Battery: R6Px2
			Battery life: Approx.400h (manganese battery) at DCV
			rangeSafety: IEC61010CAT. III 600V/CAT. II 1000VDCV:
			400m/4/40/400/1000V
			ACV: 4/40/400/1000V ±(1.2%+7)
			DCA: 400µ/4000µ/40m/400m/4/10A
			ACA: 400µ/4000µ/40m/400m/4/10A
			Resistance: 400/4k/40k/400k/4M/40MΩ
			Capacitance: 50n/500n/5µ/50µ/100µF
			Frequency: 5/50/500/5k/50k/100kHz
			Continuity: Buzzer sounds and LED lights up at between
			$0\Omega$ and $85\Omega$ (±45Ω) . Open voltage:Approx. 0.4V
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			Ф10×38mm		
			Battery: R6Px2		
			Battery life: Approx.400h (manganese battery) at DCV		
			range		
			Safety: IEC61010CAT. III 600V/CAT. II 1000V		
95	1	lot	Electronics Tools and Instruments		
			Digital Multimeter -> 10 units		
			For measuring AC & DC current, resistance, capacitance,		
			continuity, frequency, duty cycle and diode		
			Toolbox -> 2 units		
			Dimensions: 494 x 263 x 250 mm		
			With removable tote tray		
			Lineman Pliers Set -> 1 unit		
			3-pc Set of Insulated Chrome Vanadium Steel of:		
			Regular pliers, Long Nose pliers, and Diagonal Cutting pliers		
			Extra Long Nose Pliers Set -> 1 unit		
			1 pc. 0° Plier Length: 285mm/ 11.22inch.		
			1 pc. 45° Plier Length: 280mm/ 1102inch.		
			1 pc. 90° Plier Length:265mm/ 10.43inch.		
			1 pc. O Shape Plier Length: 275mm/ 10.83inch.		
			Multi-functional automatic wire stripping pliers -> 1		
			unit		
			Self-adjusting Automatic Wire Stripper/Cutting Pliers for		
			wire stripping, cutting, crimping, and installing TAB		
			Terminal		
96	1	рс	HAIER HSU-18NSV13(DC) Board		
			PCB NO.A 500201 - 100Q;		
97	1	pc .,	Hard Drive (2 TB)		
98	1	unit	Tablet 10.9", 64GB, Wifi + Cellular		
			■64GB Storage Capacity		
			■A14 Bionic chip with 64-bit architecture, Neural Engine		
			■10.9-inch (diagonal) LED-backlit Multi-Touch display with IPS technology		
			■2360-by-1640-pixel resolution at 264 pixels per		
			inch (ppi)		
			■Wide color display (P3)		
			■True Tone display		
			■Fingerprint-resistant oleophobic coating		
			■Fully laminated display		
		<del>                                     </del>	, ,		
			Manurenective coating		
			■Antireflective coating ■12MP Wide camera		
			■12MP Wide camera		
			■12MP Wide camera ■f/1.8 aperture		

■1080p HD video recording at 30 fps or 60 fps ■Slo-mo video support for 1080p at 120 fps or 240 fps ■7/P photos ■f/2.2 aperture ■1080p HD video recording at 60 fps ■Wide color capture for photos and Live Photos ■Smart HDR ■Stereo speakers ■Dual microphones for calls, video recording, and audio recording ■802.11ax Wi-Fi 6; simultaneous dual band (2.4GHz and 5GHz); HT80 with MIMO ■UMTS/HSPA/HSPA+/DC-HSDPA (850, 900, 1700/2100, 1900, 2100 MHz); GSM/EDGE (850, 900, 1800, 1900 MHz) ■©igabit-class LTE (Bands 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 20, 21, 25, 26, 29, 30, 34, 38, 39, 40, 41, 66, 71)4 ■®Bluetooth 5.0 technology  99 5 pc Temperature-Humidity Data Logger ■Portable and hand-held ■16000 data recording capacity. ■Adjustable record interval: 10s~24hour ■Multi-function LCD ■Internal NTC temperature thermal sensor with optional external sensor ■Data export in PDF/EXCEL via data management software ■Sclectable °F/°C temperature unit ■Size: approx. 84 (L) x 44(W) x 20 (H) mm ■Good quality ■Durable  100 1 pc UPS, Smart UPS, 2000VA ■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA ■Output Voltage Note: Configurable for 220 : 230 or 240 nominal output voltage ■Efficiency at Full Load: 88.0 % ■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains ■Mother Output Voltages: 220 V, 240 V\ ■Load Crest Factor: 3: 1 ■Topology: Double conversion online ■Input frequency: 40 - 70 Hz ■Input voltage range for main operations: 110 - 285 Adjustable (half load), 160 - 280V ■Number of Power Cords: 1 ■Efficiency at Full Load: 88.0 % ■Other Input Voltages: 220 V, 240 V\ ■Number of Power Cords: 1 ■Efficiency at Full Load: 88.0 %				
■7MP photos ■ f/2.2 aperture ■ 1080p HD video recording at 60 fps ■ Wide color capture for photos and Live Photos ■ Smart HDR ■ Stereo speakers ■ Dual microphones for calls, video recording, and audio recording ■ 802.11ax Wi-Fi 6; simultaneous dual band (2.4GHz and 5GHz); HT80 with MIMO ■ UMTS/HSPA/HSPA+IDC-HSDPA (850, 900, 1700/2100, 1900, 2100 MHz); GSM/EDGE (850, 900, 1800, 1900 MHz) ■ Gigabit-class LTE (Bands 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 20, 21, 25, 26, 29, 30, 34, 38, 39, 40, 41, 66, 71)4 ■ Bluetooth 5.0 technology  99 5 pc Temperature-Humidity Data Logger ■ Portable and hand-held ■ 16000 data recording capacity. ■ Madjustable record interval: 10s~24hour ■ Multi-function LCD ■ Internal NTC temperature thermal sensor with optional external sensor ■ Data export in PDF/EXCEL via data management software ■ Selectable °F/°C temperature unit ■ Size: approx. 84 (L) x 44(W) x 20 (H) mm ■ Good quality ■ Durable ■ Durable ■ Max Configurable Power (Watts): 1.6kWatts / 2.0kVA ■ Output Voltage Note: Configurable for 220: 230 or 240 nominal output voltage ■ Efficiency at Full Load: 88.0 % ■ Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains ■ Configurable Power (watts): 1.6kWatts / 2.0kVA ■ Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains ■ Configurable Power (watts): 1.6kWatts / 2.0kVA ■ Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains ■ Configurable Power (watts): 1.6kWatts / 2.0kVA ■ Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains ■ Configurable Power (watts): 1.6kWatts / 2.0kVA ■ Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains ■ Configurable Power (watts): 1.6kWatts / 2.0kVA ■ Number of Power Cords: 1 ■ Fopology: Double conversion online ■ Input frequency: 40 - 70 Hz ■ Input voltage range for main operations: 110 - 285 Adjustable (half load), 160 - 280V ■ Number of Power Cords: 1 ■ Efficiency at Full Load: 88.0 % ■ Other Input Voltages: 220 V, 240 V				■1080p HD video recording at 30 fps or 60 fps
mf/2.2 aperture m1080p HD video recording at 60 fps mWide color capture for photos and Live Photos mSmart HDR mStereo speakers mDual microphones for calls, video recording, and audio recording m802.11ax Wi-Fi 6; simultaneous dual band (2.4GHz and 5GHz); HT80 with MIMO mUMTS/HSPA/HSPA+/DC-HSDPA (850, 900, 1700/2100, 1900, 2100 MHz); GSM/EDGE (850, 900, 1800, 1900 MHz) mGigabit-class LTE (Bands 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 20, 21, 25, 26, 29, 30, 34, 38, 39, 40, 41, 66, 71)4 mBluetooth 5.0 technology pp 5 pc Temperature-Humidity Data Logger mPortable and hand-held m16000 data recording capacity. mAdjustable record interval: 10s~24hour mMulti-function LCD mInternal NTC temperature thermal sensor with optional external sensor mData export in PDF/EXCEL via data management software mSelectable "F/"C temperature unit mSize: approx. 84 (L) x 44(W) x 20 (H) mm mGood quality mDurable mMax Configurable Power (Watts): 1.6kWatts / 2.0kVA mOutput Voltage Note: Configurable for 220 : 230 or 240 nominal output voltage mEfficiency at Full Load: 88.0 % mOutput Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains mOther Output Voltages: 220 V, 240 V\ mInterpology: Double conversion online mInput frequency: 40 - 70 Hz mInput voltage range for main operations: 110 - 285 Adjustable (half load), 160 - 280V mInterpology: Double conversion online mInput frequency: 40 - 70 Hz mInput voltages: 220 V, 240 V mInterpology: Double conversion online mInput frequency: 40 - 70 Hz mInput voltage range for main operations: 110 - 285 Adjustable (half load), 160 - 280V, 240 V				■Slo-mo video support for 1080p at 120 fps or 240 fps
■1080p HD video recording at 60 fps				■7MP photos
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BUMTS/HSPA/HSPA+/DC-HSDPA (850, 900, 1700/2100, 1900, 2100 MHz); GSM/EDGE (850, 900, 1800, 1900 MHz)  □ Gigabit-class LTE (Bands 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 20, 21, 25, 26, 29, 30, 34, 38, 39, 40, 41, 66, 71)4 □ Bluetooth 5.0 technology  99 5 pc Temperature-Humidity Data Logger □ Portable and hand-held □ 16000 data recording capacity. □ Adjustable record interval: 10s~24hour □ Multi-function LCD □ Internal NTC temperature thermal sensor with optional external sensor □ Data export in PDF/EXCEL via data management software □ Selectable °F/°C temperature unit □ Size: approx. 84 (L) x 44(W) x 20 (H) mm □ Good quality □ Durable □ UPS, Smart UPS, 2000VA □ Max Configurable Power (Watts): 1.6kWatts / 2.0kVA □ Output Voltage Note: Configurable for 220 : 230 or 240 nominal output voltage □ Efficiency at Full Load: 88.0 % □ Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains □ Other Output Voltages: 220 V, 240 V\ □ Load Crest Factor: 3 : 1 □ Topology: Double conversion online □ Input frequency: 40 - 70 Hz □ Input voltage range for main operations: 110 - 285 Adjustable (half load), 160 - 280V □ Number of Power Cords: 1 □ Efficiency at Full Load: 88.0 % □ Other Input Voltages: 220 V, 240 V				■802.11ax Wi-Fi 6; simultaneous dual band (2.4GHz and
1700/2100, 1900, 2100 MHz); GSM/EDGE (850, 900, 1800, 1900 MHz)  Gigabit-class LTE (Bands 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 20, 21, 25, 26, 29, 30, 34, 38, 39, 40, 41, 66, 71)4  Billuetooth 5.0 technology  pc Temperature-Humidity Data Logger  Portable and hand-held  16000 data recording capacity.  Adjustable record interval: 10s~24hour  Multi-function LCD  Internal NTC temperature thermal sensor with optional external sensor  Data export in PDF/EXCEL via data management software  Selectable °F/°C temperature unit  Size: approx. 84 (L) x 44(W) x 20 (H) mm  Good quality  Durable  100 1 pc UPS, Smart UPS, 2000VA  Max Configurable Power (Watts): 1.6kWatts / 2.0kVA  Output Voltage Note: Configurable for 220 : 230 or 240 nominal output voltage  Efficiency at Full Load: 88.0 %  Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains  Other Output Voltages: 220 V, 240 V\  Load Crest Factor: 3 : 1  Topology: Double conversion online  Input frequency: 40 - 70 Hz  Input voltage range for main operations: 110 - 285 Adjustable (half load), 160 - 280V  Number of Power Cords: 1  Efficiency at Full Load: 88.0 %  Other Input Voltages: 220 V, 240 V				
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BGigabit-class LTE (Bands 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 20, 21, 25, 26, 29, 30, 34, 38, 39, 40, 41, 66, 71)4  BBluetooth 5.0 technology  99 5 pc Temperature-Humidity Data Logger  ■Portable and hand-held ■16000 data recording capacity. ■Adjustable record interval: 10s~24hour ■Multi-function LCD ■Internal NTC temperature thermal sensor with optional external sensor ■Data export in PDF/EXCEL via data management software ■Selectable °F/°C temperature unit ■Size: approx. 84 (L) x 44(W) x 20 (H) mm ■Good quality ■Durable  100 1 pc UPS, Smart UPS, 2000VA ■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA ■Output Voltage Note: Configurable for 220 : 230 or 240 nominal output voltage ■Efficiency at Full Load: 88.0 % ■Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz Sync to mains ■Other Output Voltages: 220 V, 240 V\ ■Load Crest Factor: 3 : 1 ■Topology: Double conversion online ■Input frequency: 40 - 70 Hz ■Input voltage range for main operations: 110 - 285 Adjustable (half load), 160 - 280V ■Number of Power Cords: 1 ■Efficiency at Full Load: 88.0 % ■Other Input Voltages: 220 V, 240 V				1700/2100, 1900, 2100 MHz); GSM/EDGE (850, 900,
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Other Input Voltages: 220 V, 240 V				
■ ■ Waveform type: Sine wave				
				■Waveform type: Sine wave

<ul> <li>■Bypass: Internal bypass (automatic and manual)</li> <li>■Battery type: Lead-acid battery</li> <li>■Typical recharge time: 4hour(s)</li> <li>■Battery Charge Power (Watts): 76 Watts</li> <li>■Interface Port(s): DB-9 RS-232, USB</li> <li>■Control panel: Multifunction LCD status and console</li> </ul>	
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· · · · · · · · · · · · · · · · · · ·	
l l concolo	ntrol
console	
■Audible Alarm: Alarm when on battery : distinctive	low
battery alarm : overload continuous tone alarm	
■Surge energy rating: 600Joules	
1 lot Various Electronic Components and Supplies	
HDMI Cable -> 10 units 10 meters	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	!-
830 breadboard set electronic component b	
starter kit with breadboard cable resistor capacities led potentiometer -> 20 units	Citor
1 power supply	
1 830-point breadboard	
65 pcs jumper wires	
140 pcs solderless jumper wires	
20 pcs female-to-male dupont wire	
2 pcs pin header (40 pin)	
1 precision potentiometer	
2 photoresistors	
1 thermistor	
5 pcs rectifier diode (1N40007)	
5 pcs NPN transistor (PN2222)	
1 IC 4N35	
1 IC 74HC595	
1 active buzzer	
1 passive buzzer	
10 pcs button (small)	
10 pcs 22pF ceramic capacitor	
10 pcs 104 ceramic capacitor	
5 pcs electrolytic capacitor (10uF, 50V)	
5 pcs electrolytic capacitor (100uF, 50V)	
10 pcs white LED	
10 pcs yellow LED	
10 pcs blue LED	
10 pcs green LED	
10 pcs red LED	
10 pcs RGB LED	
10 pcs 10R resistor	
10 pcs 100R resistor	
10 pcs 220R resistor	
10 pcs 330R resistor	
10 pcs 1K resistor	
10 pcs 2K resistor	

	1	1	
			10 pcs 5K1 resistor
			10 pcs 10K resistor
			10 pcs 10K resistor
			10 pcs 1M resistor
			Single-Sided Copper Clad Board FR4 With 35µm
			Copper Thick, 200 x 300 x 1.6mm -> 2 units
			PCB Developing Kit with Transfer Film -> 1 unit
			Non-Corrosive Soldering Paste (used for welding and
			desoldering) -> 1 unit
			Soldering Iron -> 6 units
			Mini Soldering Iron with Adjustable Temperature, 60W
			Soldering Iron Stand -> 6 units
			Stainless Steel spiral, 90mm long
			Desoldering Pump -> 2 units
			Replaceable and Self Cleaning tip
			Sealed vacuum chamber
			Microcontroller -> 10 units
			microcontroller board (ATmega328P based)
			14 digital inputs/outputs (six of which can be used as
			PWM outputs)
			six analog inputs
			has a 16MHz ceramic resonator
			has a USB-C connector
			has a reset button
			CIRCUIT OPERATING VOLTAGE: 5V
			INPUT VOLTAGE (LIMIT): 6-12V
			BATTERY CONNECTOR: None.
			DC CURRENT PER: I/O PIN 20 mA
			DC CURRENT FOR: 3.3V PIN 50 mA
			MAIN PROCESSOR: ATmega328P 16 MHz
			USB-SERIAL PROCESSOR: ATmega16U2 16 MHz
			MEMORY: ATMEGA328P 2KB SRAM, 32KB FLASH,
			1KB EEPROM
102	1	unit	Wifi Access Point (Existing fleet of VSU Access Points)
			UAP-nanoHD
			Dimensions: 160 x 160 x 32.65 mm (6.30 x 6.30 x 1.29")
			Weight: 300 g (10.6 oz)
			With Mounting Kits: 315 g (11.1 oz)
			Networking Interface: (1) 10/100/1000 Ethernet Port
			Buttons: Reset
			Power Method: 802.3af PoE
			Power Supply: UniFi Switch (PoE)
		1	Power Save: Supported
		1	Beamforming: Supported
		1	Maximum Power Consumption: 10.5W
			Supported Voltage Range: 44 to 57VDC
		1	TX Power
	I	1	

		1	
			2.4 GHz: 23 dBm
			5 GHz: 26 dBm
			MIMO
			2.4 GHz: 2x2
			5 GHz: 4x4
			Radio Rates
			2.4 GHz: 300 Mbps
			5 GHz: 1733 Mbps
			Antennas
			2.4 GHz: (2) Single-Port, Single-Polarity Antennas, 2.8 dBi each
			5 GHz: (2) Single-Port, Dual-Polarity Antennas, 3 dBi
			each
			Wi-Fi Standards: 802.11 a/b/g/n/r/k/v/ac/ac-wave2
			Wireless Security: WEP, WPA-PSK, WPA-Enterprise
			(WPA/WPA2, TKIP/AES), 802.11w/PMF
			BSSID: 8 per Radio
			Mounting: Wall/Ceiling (Kits Included)
			Operating Temperature: -10 to 70 C (14 to 158 F)
			Operating Humidity: 5 to 95% Noncondensing
			Certifications: CE, FCC, IC
			Advanced Traffic Management
			VLAN: 802.1Q
			Advanced QoS: Per-User Rate Limiting
			Guest Traffic Isolation: Supported
			WMM: Voice, Video, Best Effort, and Background
			Concurrent Clients: 200+
			Supported Data Rates (Mbps)
			Standard Data Rates
			802.11a 6,9,12,18,24,36,48,54 Mbps
			802.11n 6.5 Mbps to 300 Mbps (MCS0-MCS15, HT 20/40
			802.11ac 6.5 Mbps to 1.7 Gbps (MCS0-MCS9 NSS1/2/3/4, VHT 20/40/80)
			58 Mbps to 1.7 Gpbs (MCS0-MCS9 NSS1/2, VHT 160)
			802.11b 1, 2, 5.5, 11 Mbps
			802.11g 6, 9, 12, 18, 24, 36, 48, 54 Mbps
103	2	unit	Large-Diaphragm Cardioid Condenser Microphone
			For Voice, Instruments, Drums, and Cabs
			Cardioid Pattern Lessens Room Noise
			Switchable -10 dB Pad Hinders Distortion
			Low-Cut Filter Limits Bass Buildup
			Shockmount Inhibits Vibration Noise
			Large-Diaphragm True Condenser Capsule
			Handles Immense Sound Pressure Levels
			Includes Protective Case and Dust Cover
			XLR Output for Hookup to Mic Preamp
Т			1
			Operates on 48V Phantom Power
			Operates on 48V Phantom Power  Microphone

			Intended Sound Sources: Vocals, Speech/Voice Ov
			Instrument
			Sound Field: Mono
			Operating Principle: Pressure Gradient
			Capsule: Condenser
			Polar Pattern: Cardioid
			Performance
			Frequency Range: 20 Hz to 20 kHz
			Maximum SPL: 145 dB SPL (1 kHz, 1% THD)
			155 dB SPL (1 kHz, 1% THD, with Pad)
			Impedance: 100 Ohms
			Sensitivity: -32 dBV/Pa
			Dynamic Range: 133 dB (1 kHz, at Max SPL)
			Signal-to-Noise Ratio: 82 dB (1 kHz)
			Equivalent Noise Level: 12 dB SPL A-Weighted
			Power
			Operating Voltage: 48 V (Phantom Power)
			Operating Current Consumption: 4.2 mA
			Physical
			Color: Black
			Mounting: Shockmount (Included)
			Included Case: Hard Case, Mic Sock
			Included Filters: None
			Dimensions: ø: 2.1 x L: 6.69" / ø: 5.3 x L: 16.99 cm
			Weight: 12.7 oz / 360 g
104	4	unit s	SDI to HDMI Converter Bidirectional
			"Video Inputs: 1 x BNC (3G-SDI), 1 x HDMI (HDMI 2.0)
			Audio Inputs: None
			Video Outputs: 1 x BNC (3G-SDI), 1 x HDMI (HDMI 2.0
			Audio Outputs: None
			Other I/O: 1 x USB-C Input
			Expansion Slots: None
			Embedded Audio: HDMI/SDI
			Power I/O: 1 x USB-C (4.4 to 5.2 VDC) Input
			Power Consumption: 2.5 W"
105	2	set s	Headset, Over Ear, wired
			■Wearing Type: Over-ear
			■Microphone: Yes
			■Volume Control: Yes
		1	■One Key Mute Button: Yes
			■Microphone: Omnidirectional
			■Plug Type: 3.5mm
		1	Speaker Diameter: 50mm
		1	■Receive Sensitivity: 101dB
		1	■Impedance: 32Ω
		1	■Frequency Response: 20-20kHz
		1	

400	4		Charles for DC 24 (Charles with Culture for)			
106	1	рс	Speaker, for PC, 2.1 (Speaker with Subwoofer)			
		1	■Power Output: rms 4.5w×2 sw: 12w			
			Signal to noise ratio: 80dba			
			■Frequency Response : 80hz~20khz (±6db)			
			■R/I: 300±50mv sw: 100 ± 20mv			
			Aux/USB/SD card      Description of the best of t			
			Bass driver: 4 inch  Trable driver: 2 2/4 inch			
407			Treble driver :2 3/4 inch			
107	1	pcs	Web Camera for Laptop and Desktop			
			■ About 360 degrees, rotate up and down 45 degrees,			
			you can adjust the angle.			
			With clips for laptops and desktops.  Sensor pixels: 2 million.			
			Sensor pixels: 2 million			
			■Interface: USB 2.0 ■Frame rate: 30 FPS			
			Image sensor: CMOS     Printtness (color: outpostically adjusts)			
			■Brightness/color: automatically adjusts ■Additional features: built-in microphone			
		unit	Madulional realures, built-in microphone			
108	2	S	System Unit (CPU), Core i7 8GB RAM			
			CPU: 9th Gen Intel Core i7-9700 (8-Core, 12MB Cache,			
			up to 4.7GHz with Intel Turbo Boost Technology) or			
			higher			
			SDD: 256GB M.2 PCIe NVMe Solid State Drive or higher			
			+ 1TB 7200 rpm 3.5" SATA Hard Drive or higher			
			RAM: at least 8GB (8GBx1) DDR4 2666MHz or higher			
			Graphics: NVIDIA GeForce GTX 1650 4GB GDDR5 or			
			higher			
			ATX casing with 700W PSU			
			With genuine Microsoft Office license.			
		ļ	OS: at least Windows 10			
109	2	unit	VOIP Phone			
		S	MALLing DoEL CID VOID Dhong CDA MAC address /IFFF			
			■1-Line PoE+ SIP VOIP Phone SPA MAC address (IEEE 802.3) with lifetime warranty			
			■IPv4 (RFC 791)Integrated web server provides web-			
			based administration and configuration			
		1	■Telephone keypad configuration via display			
			menu/navigation			
			Automated provisioning and upgrade via HTTPS, HTTP, TFTP			
			Asynchronous notification of upgrade availability via NOTIFY			
			■Nonintrusive in-service upgrades			
			■Report generation and event logging			
			■Statistics transmitted in BYE message			
			■Syslog and debug server records: configurable per line			
			■Address Resolution Protocol (ARP)			
			■DNS: A record (RFC 1706), SRV record (RFC 2782)			
			■Dynamic Host Configuration Protocol (DHCP) client (RFC 2131)			
			■Internet Control Message Protocol (ICMP) (RFC 792)			

			records
			■Reregistration with primary SIP proxy server ■SIP support in NAT networks (including STUN)
			SIPFrag (RFC 3420)
			Secure (encrypted) calling via SRTP
			©Codec name assignment
			■Voice algorithms:
			■G.711 (A-law and μ-law)
			■G.726 (16/24/32/40 kbps)
			<b>©</b> G.729 A
			<b>©</b> G.722
			■Dynamic payload support
			■Adjustable audio frames per packet
			■Dual-tone multifrequency (DTMF), in-band and out-of-
			band (RFC 2833) (SIP INFO)  ■Flexible dial plan support with interdigit timers
			■ Paddress/URI dialing support
			■Call progress tone generation
			Ditter buffer: adaptive
			■Frame loss concealment
			©Comfort Noise Generation (CNG)
			■Voice activity detection (VAD) with silence suppression
			■Attenuation/gain adjustments
			■VMWI - Voicemail Waiting Indicator, via NOTIFY,
			SUBSCRIBE
			■Caller ID support (name and number)
			■Third-party call control (RFC 3725)
			Should be compatible with existing fleet of VSU IP
446			Phones P. 1441
110	3	pcs	Laptop Cooling Pad 14"
			1.one 14cm big LED light fan
		-	2. metal mesh material
			3. Powered by USB cable from laptop
			4.Support size:12"-14"laptop
			5.Color:black,

	1		
			■Rechargeable Office Wireless Keyboard and Mouse
			Set
			<b>■</b> Size: 284*121*16.mm
			■Weight: 280g
			■Connection method: USB receiver/Bluetooth
			Rebidding - VSU-GOODS-23-35
112	1	рс	Coffee Maker Machine, Touch-Screen 10-cups Programmable with Glass Carafe, Stainless Steel
113	1	unit	Colored Digital Photocopier
110	•	unit	Full color digital copier with network printing, color
			scanning and network fax
			Copy and print speed of 30 copies per minute, A4
			7-inch color touch screen panel
			CPU: dual core 1.2 GHz
			Paper size from A6R to Legal Size
			Standard memory capacity is 1GB, max 3GB Plus
			128GB SSD option
			Paper capacity of 250 sheets cassette and 100 sheets
			multipurpose tray
			Built-in 75-sheets reversing document processor and
			stackless duplex unit
			Compatible with windows, makintosh and linux
			Scan to SMB/E-mail/FTP/USB host/Box, Network Twain
			scan and WSDScan
			Low power consumption Copying: 512w or less, Sleep
			mode: 0.6W
			Super G3Fax, Stand-alone network connection
			Maintenance Kit of 200,000 copies
			With lifetime service
114	30	unit	Cordless Kettle
			Electric Glass Kettle, Cordless
			HWK-118GI
			Power: 230V - 60Hz, 2000W
			Capacity: 1.8L
			360 degree rotary base, easy to use with high
			borosilicate glass body,
			Durable and stain resistant blue LED light indication
			when boiling Concealed stainless steel
			heating element Automatic one button cover starter
			boiling dry protection Automatically
115	1	unit	turns off when water boiled.
115	1	unit	Stencil Digital Duplicator Machine
			Print Speed: 60 - 90 Sheets Per Minute (2 Steps)  Resolution: 300 x 300 dpi
			Printing Process: Fully Automatic One Drum Stencil
			System
			Minimum Print Paper Size: 90 x 140 mm
			Maximum Print Paper Size: 275 x 395 mm
			Print Paper Weight: 35.0-127.9 g/m2
			1 mil 1 apel vveigit. 33.0-121.3 g/mz

			<u>,                                      </u>
			Print Area: Maximum 250 x 355 mm
			First Print Speed: Less Than 40 Seconds
			Features:
			Auto background correction, auto cycle, photo/letter mode, tint mode,
			SP mode (for technical service use only), combine two originals, spot
			colour printing with optional colour drum units.  Options
			USB controller printer unit type VC-20
			Interface board type 20
			Colour drum type 20 (B4)
			Cabinet
			Consumables
			Priport™ master type (100 masters per roll, B4)
			Priport™ flaster type (100 flasters per foli, 64)
			Digital Duplicator colour ink type II (600 ml): red, blue,
			yellow, green, purple,
			navy, brown, maroon, orange, teal
		+	CM ink (custom-made colours, 500 ml)
			Specifications:
			Image modes: Letter mode, Photo mode, Photo/Letter
			mode
			Image position: Vertical: ± 10 mm , Horizontal: ± 10 mm
			Reproduction ratios: Pre-set enlargement: 115, 122, Pre-
			set reduction: 71, 82, 87, 93%
			Zoom: No
			Colour printing: By replacing colour, drum
			Paper feed/delivery table: 500 sheets (80 g/m²)
			Power source: 220-240 V, 50 – 60 Hz
			Power consumption
			Maximum: Master making: less than
			175 W
		-	Printing: Less than 175 W (at 90 sheets per minute)
		-	Standby: 35 W
		-	Dimensions (W x D x H): 1,232 x 672 x 519 mm
116		:4	Weight: 55kg
116	4	unit	Microwave Oven, 20L
		+	20-Liter 220V
		+	Electronic Control
		-	
		+	LCD Display
		+	700w microwave power 6 autocook functions
		+	Reheat and defrost capacity
		1	Dimension: ( h:w:d ) 10.35 x 18 x 14 in
		1	Warranty: One year on service, 2 years on parts
117	1	unit	Paper shredder machine, heavy duty
11/	ı	uriit	■Shred Type: Cross Cut
		+	■Maximum Sheet capacity(70gsm) : 10 Sheets
		+	■Waste Container capacity: 21 Liters
			Envaste Container capacity. 21 Liters

			■Power Source: 220 - 240 VAC
118	2	unit	Washing Machine Heavy DutyWasher
			15 kg. IEC Rated Capacity U.S Heavy Duty Washer
			11 Wash Cycles
			Quick Wash Cycle
			Whites Cycle
			Delicate Cycle
			6th Sense Technology
			Dual Action Agitator
			Fabcon Dispenser
			Liquid Bleach Dispenser
			Mechanical Control panel
			Deep Water Wash System
			Soil Level Selection
			Wash Temperature Selection
			Load Size Selection
			Extra Rinse Selection
			Galvanized Heavy Duty Body
			White Porcelain Tub
			Child Lid Lock
			Color: White
			Dimension (h:w:d) 109.22 : 69:85 : 68.58 cm

## Section VII. Technical Specifications

**Technical Specifications** 

tion Statement of Compliance
m, for desktop [Bidders must state here
either "Comply" or "Not
zes burst performance; Comply" against each of the
individual parameters of
rite: 156 each Specification stating
D Read (MB/s): 210 the corresponding
performance parameter of
the equipment offered.
2.20 lbs) Spool Statements of "Comply" or "Net Comply" or
nsional Accuracy +/- 0.03m "Not Comply" must be
re: 210°C - 240°C (410°F - supported by evidence in a
Bidders Bid and cross- referenced to that
evidence. Evidence shall
20" be in the form of manufacturer's un-amended
sales literature,
unconditional statements of
specification and
compliance issued by the
manufacturer samples
.7 ounces independent test data etc
Vacuumed Sealed With as appropriate. A statement
that is not supported by
neters (+/- 0.05mm) evidence or is subsequently
ozzle Temp: 195 - 230   found to be contradicted by
the evidence presented will
render the Bid under evaluation liable for
ble Filament 1.75mm rejection. A statement
either in the Bidder's
statement of compliance or
ozzle Temp: 90°C - 220°C the supporting evidence that
is found to be false either
0°C (77°F~ 140°F) during Bid evaluation, post-
uracy: 1.75 mm +/- 0.05 qualification or the
2.2 lbs) / Spool execution of the Contract
mm (7.88" x 7.88") may be regarded as
fraudulent and render the
Bidder or supplier liable for prosecution subject to the
applicable laws and
0 (12 nm) issuances.]
10

	ı	1	
			—Screen Type: IPS LCD, at least 400 nits
			—Camera Front : at least 8 MP
			—Primary(Back) Camera Resolution at least 13MP
			—Resolution: at least 1080 x 2340 pixels
			—SIM: Dual SIM (Nano-SIM, dual stand-by)
6	1	uni t	Apple USB-C Digital AV Multiport Adapter Compatible with Mac and iPad
			Connections: HDMI, USB, USB-C
			Compatible iPad Models: iPad Pro 12.9-inch (5th generation), iPad Pro 12.9-inch (4th generation), iPad Pro 12.9-inch
			Compatible Mac Models: MacBook Air (M2, 2022), MacBook Air (M1, 2020), MacBook Air (Retina, 13-inch, 2020), MacBook Air (Retina, 13-inch, 2018 - 2019), MacBook Pro (13-inch, M2, 2022), MacBook Pro (13-inch, M1, 2020)
			Genuine Apple Accessory
7	1	рс	Camera with 28-70 mm Zoom Lens
			Product Specification:
			Lens
			Lens Mount: E-mount
			Image Sensor
			Aspect Ratio: 3:2
	-		Number Of Pixels (Effective): Approx. 24.2 megapixels
			Number of Pixels (total): Approx. 25.3 megapixels
			Sensor Type: 35 mm full frame (35.6 x 23.8 mm), Exmor R CMOS sensor
			Anti-Dust System: Charge protection coating on optical filter and image sensor shift mechanism
			Recording (still images)
			Image Size (pixels) [16:9]: 35 mm full frame L: 6000 x
			3376 (20 M), M: 3936 x 2216 (8.7 M), S: 3008 x 1688
			(5.1 M), APS-C L: 3936 x 2216 (8.7 M), M: 3008 x 1688 (5.1 M), S: 1968 x 1112 (2.2 M)
			Image Size (pixels) [Sweep Panorama]
			Picture Effect: 8 types: Posterization (Color), Posterization (B/W), Pop Color, Retro Photo, Partial Color (R/G/B/Y), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High- key, Rich-tone Monochrome
			Creative Style: Standard, Vivid, Neutral, Clear, Deep,
			Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1–6), (Contrast [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps])
			Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma,
			Knee, Color Mode, Saturation, Color Phase, Color Depth,

Detail, Copy, Reset  Dynamic Range Functions: Off. Dynamic Range Optimizer (AutoLevel (1-5)), Auto High Dynamic Range (Auto Exposure Difference, Exposure Difference Level (1-6 EV. 1.0 EV step))  Color Space: SRGB standard (with sYCC gamut) and Adobe RGB standard, compatible with TRILUMINOS Color  14bit RAW: Yes  Uncompressed RAW: Yes  Recording (movie)  Recording fromat: XAVC S, AVCHD format Ver. 2.0 compliant  Color Space: xvYCC standard (x. v. Color when connected via HDMI cable) compatible with TRILUMINOS Color  Picture Effect: Posterization (Color), Posterization (B/W), Pop Color, Retro Photo, Partial Color (R/GB/Y), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Garen/Magenta), 50t High-key  Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portralt, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1-6), (Contrast [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps])  Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU/T09, ITU/T09 [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 100 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60), 24 M, FXJ, 1920 x 1080 (60), 74 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 50 M), XAVC S HD: 1920 x 1080 (60), 74 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 50 M), XAVC S HD: 1920 x 1080 (50p, 50 M), 1920 x 1080 (60), 24 M, FXJ, 1920 x 1080 (60), 54 M, FXJ, 1920 x 1080 (50), 50 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 25p), 100 Mp  Slow and quick motion (shooting frame rate) : NTSC mode: 1920x1080 (50p, 25p), 50 Mp, Adolo Rec Level,	<u></u>	
Optimizer (AutoLevel (1-5)), Auto High Dynamic Range (Auto Exposure Difference, Exposure Difference Level (1-6 EV, 1.0 EV step))  Color Space: SRGB standard (with sYCC gamut) and Adobe RGB standard, compatible with TRILUMINOS Color  14bit RAW: Yes  Uncompressed RAW: Yes  Recording (movie)  Recording format: XAVC S, AVCHD format Ver. 2.0 compliant  Color Space: xvYCC standard (x.v. Color when connected via HDMI cable) compatible with TRILUMINOS Color  Picture Effect: Posterization (Color), Posterization (B/W), Pop Color, Retro Photo, Parlial Color (RVG/B/Y), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High-key  Creative Style: Standard, Vivid, Neutral. Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1-6), (Contrast [-3 to +3 steps]), Sharpness [-3 to +3 steps])  Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITUT09, ITUT09 (800%), S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset  Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (50p, 5		
(Auto Exposure Difference, Exposure Difference Level (1-6 EV, 1.0 EV step))  Color Space: sRGB standard (with sYCC gamut) and Adobe RGB standard, compatible with TRILUMINOS Color  14bit RAW: Yes  Uncompressed RAW: Yes  Recording (movie)  Recording format: XAVC S, AVCHD format Ver. 2.0 compliant  Color Space: xVYCC standard (x.v. Color when connected via HDMI cable) compatible with TRILUMINOS Color  Picture Effect: Posterization (Color), Posterization (B/M), Pop Color, Retro Photo, Partial Color (R/GB/Y), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High-key  Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1-6), (Contrast [-3 to +3 steps]), Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps])  Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITUT09), ITUT09 (B00%), S-Log2, S-Log3, H.I.G, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset  Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (24p, 100 M), 1920 x 1080 (20p, 50 M), 1920 x 1080 (20p, 100 M), 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD. 1920 x 1080 (50p, 50 M), 1920 x 1080 (60p, 100, 100, 100, 100, 100, 100, 100, 1	Dynamic Range Functions: Off, Dynamic Range	
GEV. 1.0 EV. step.))  Color Space: RFGB standard (with sYCC gamut) and Adobe RGB standard, compatible with TRILUMINOS Color  14bit RAW: Yes  Recording format: XAVC S, AVCHD format Ver. 2.0 compliant  Color Space: xvYCC standard (x.v. Color when connected via HDMi cable) compatible with TRILUMINOS Color Picture Effect: Posterization (Color), Posterization (BM), Pop Color, Retro Photo, Parlial Color (R/G/B/Y), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magental), Soft High-key  Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1–6), (Contrast [-3 to +3 steps]), Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps]), Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps])  Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail. Copy, Reset  Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (60p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (30p, 16 M), 4920 x 1080 (60p, 25 M), 1920 x 1080 (30p, 16 M), 4920 x 1080 (60p, 25 M), 1920 x 1080 (60p, 17 M, HH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (60p, 17 M, HH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (60p, 100 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (60p, 100 M), 1920 x		
Color Space: sRGB standard (with sYCC gamut) and Adobe RGB standard, compatible with TRILUMINOS Color  14bit RAW: Yes  Uncompressed RAW: Yes  Recording format: XAVC S, AVCHD format Ver. 2.0 compliant  Color Space: xvYCC standard (x.v. Color when connected via HDMI cable) compatible with TRILUMINOS Color  Picture Effect: Posterization (Color), Posterization (BMI), Pop Color, Retro Photo, Partial Color (R/G/B/Y), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High-key  Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1–6), (Contrast [-3 to +3 steps]), Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps], Saturation [-3 to +3 steps], Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITUT09, ITUT09 [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset  Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), X4VC S HD: 1920 x 1080 (10p, 100 M), 3840 x 2160 (24p, 60 M), X4VC S HD: 1920 x 1080 (60p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (60p, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 50 M), X4VC S HD: 1920 x 1080 (60p, 100 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (60p, 100 M), 1920 x 1080 (50p, 25 M), 1920 x 1080 (60p, 100 M), 1920 x 1080 (60p, 100 M), 1920 x 1080 (60p, 100 M), 1920 x 1080 (50p, 25 M), 1920 x 1080 (70ps, 100 M), 1920 x 1080 (70ps, 100 M), 1920 x 1080 (70ps, 100 M), 1920 x 1080 (70ps, 100 M), 1920 x 1080 (70ps, 100 M), 1920 x 1080 (70ps, 100 M), 1920 x 1080 (70ps, 100 M), 1920 x 1080 (70ps, 100 M), 1920 x 1080 (70ps, 100 M), 1920 x 1080 (70ps, 100 M), 1920 x 1080 (70ps, 100 M), 1920 x 1080 (70ps, 100 M), 1920 x 1080 (	(Auto Exposure Difference, Exposure Difference Level (1-	
Adobe RGB standard, compatible with TRILUMINOS Color  14bit RAW: Yes  Recording (movie)  Recording Format: XAVC S, AVCHD format Ver. 2.0 compliant  Color Space: xvYCC standard (x.v. Color when connected via HDM cable) compatible with TRILUMINOS Color  Picture Effect: Posterization (Color), Posterization (B/W), Pop Color, Retro Photo, Partial Color (R/G/B/Y), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High-key  Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portralt, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1–6), (Contrast [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness	, 177	
Color  14bit RAW: Yes  Uncompressed RAW: Yes  Recording (movie)  Recording format: XAVC S, AVCHD format Ver. 2.0 compliant  Color Space: xvYCC standard (x.v.Color when connected via HDMI cable) compatible with TRILUMINOS Color  Picture Effect: Posterization (Color), Posterization (B/W), Pop Color, Retro Photo, Partial Color (R/G/B/Y), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High-key  Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1–6), (Contrast [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps])  Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset  Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 100 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (60p, 10 M), 3840 x 2160 (25p, 100 M), 1920 x 1080 (60p, 25p), 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (60p, 10 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (50p, 50 M), 1920	Color Space: sRGB standard (with sYCC gamut) and	
14bit RAW: Yes   Uncompressed RAW: Yes   Recording (movie)	Adobe RGB standard, compatible with TRILUMINOS	
Uncompressed RAW: Yes Recording Inovie) Recording Format: XAVC S, AVCHD format Ver. 2.0 compilant Color Space: xyYCC standard (x.v. Color when connected via HDMI cable) compatible with TRILUMINOS Color Picture Effect: Postenzation (Color), Postenzation (B/W), Pop Color, Retro Photo, Partial Color (R/G/B/Y), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High-key Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1-6), (Contrast [-3 to +3 steps]), Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps]] Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 (800%), S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 108 M), 1920 x 1080 (120p, 108 M), 1920 x 1080 (120p, 108 M), 1920 x 1080 (100p, 108 M), 1920 x 1080 (60i, 17 M, FHI) Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (60i, 17 M, FHI) Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 50 M), 1920 x 1080 (50p,  Color		
Recording (movie) Recording Format: XAVC S, AVCHD format Ver. 2.0 compliant Color Space: xvYCC standard (x.v. Color when connected via HDMI cable) compatible with TRILUMINOS Color Picture Effect: Posterization (Color), Posterization (BW), Pop Color, Retro Photo, Partial Color (R'G'BY), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High-key Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1-6), (Contrast [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps]] Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709, I800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (50p, 50 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (60p, 17 M, FH) Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (60p, 17 M, FH) Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 17 M, FH) Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 25p)	14bit RAW: Yes	
Recording (movie) Recording Format: XAVC S, AVCHD format Ver. 2.0 compliant Color Space: xvYCC standard (x.v. Color when connected via HDMI cable) compatible with TRILUMINOS Color Picture Effect: Posterization (Color), Posterization (BW), Pop Color, Retro Photo, Partial Color (R'G'BY), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High-key Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1-6), (Contrast [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps]] Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709, I800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (50p, 50 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (60p, 17 M, FH) Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (60p, 17 M, FH) Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 17 M, FH) Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 25p)	Uncompressed RAW: Yes	
compliant Color Space: xvYCC standard (x.v. Color when connected via HDMI cable) compatible with TRILUMINOS Color Picture Effect: Posterization (Color), Posterization (B/W), Pop Color, Retro Photo, Partial Color (R/G/B/Y), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High-key Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1–6), (Contrast [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness	Recording (movie)	
compliant Color Space: xvYCC standard (x.v. Color when connected via HDMI cable) compatible with TRILUMINOS Color Picture Effect: Posterization (Color), Posterization (B/W), Pop Color, Retro Photo, Partial Color (R/G/B/Y), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High-key Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1–6), (Contrast [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness	Recording Format: XAVC S, AVCHD format Ver. 2.0	
Color Space: xvYCC standard (x.v.Color when connected via HDMI cable) compatible with TRILUMINOS Color Picture Effect: Posterization (Color), Posterization (B/W), Pop Color, Retro Photo, Partial Color (R/G/B/Y), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High-key Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1–6), (Contrast [-3 to +3 steps]), Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps]), Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps]) Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 (800%), S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset  Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (30p, 16 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), AVCHD: 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), AVCHD: 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), AVCHD: 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), AVCHD: 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), AVCHD: 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), AVCHD: 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), AVCHD: 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), AVCHD: 1920 x 1080 (50p, 50 M), 50p, 50ps,		
via HDMI cable) compatible with TRILUMINOS Color  Picture Effect: Posterization (Color), Posterization (B/W), Pop Color, Retro Photo, Partial Color (R/G/B/Y), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High-key  Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1-6), (Contrast [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps])  Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 (800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset  Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50j, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (50p, 25p)		
Picture Effect: Posterization (Color), Posterization (BW),	· · · · · · · · · · · · · · · · · · ·	
Pop Color, Retro Photo, Partial Color (R/G/B/Y), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High-key Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1–6), (Contrast [-3 to +3 steps]). Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps]). Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3], Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset   Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)   Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (50i, 50 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50i, 50 M), 1920 x 1080 (50i, 50 M), 1920 x 1080 (50i, 74 M, FH)   Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (50i, 54 M, FX), 1920 x 1080 (50i, 77 M, FH)   Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps   Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (50p, 25p)	, ,	
Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High-key Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1–6), (Contrast [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps])  Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset  Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (10p, 50 M), 1920 x 1080 (12p, 60 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (50i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (50i, 50 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), 4VCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15ps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (50p, 25p)		
(Normal/Cool/Warm/Green/Magenta), Soft High-key Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1–6), (Contrast [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps])  Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset  Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (25p, 50 M), AVCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)	,	
Creative Style: Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1–6). (Contrast [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps])  Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset  Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (50p, 25 M), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (10p, 100 M), 1920 x 1080 (10p, 60 M), 1920 x 1080 (10p, 100 M), 1920 x 1080 (25p, 50 M), NVAVC S HD: 1920 x 1080 (10p, 50 M), 1920 x 1080 (25p, 50 M), AVCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)	,	
Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia, Style Box (1–6), (Contrast [-3 to +3 steps]), Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps])  Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset  Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080 (60), 25 M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (25p, 50 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50i, 74 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (50p, 25p)		
leaves, Black & White, Sepia, Style Box (1–6), (Contrast [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps])  Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset  Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (30p, 60 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (25p, 50 M), AVCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)		
[-3 to +3 steps], Saturation [-3 to +3 steps], Sharpness [-3 to +3 steps])  Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset  Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (120p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), AVCHD: 1920 x 1080 (50j, 24 M, FX), 1920 x 1080 (50j, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (50p, 25p)		
to +3 stepsj)  Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset  Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60i, 25 M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (25p, 50 M), AVCHD: 1920 x 1080 (50p, 50 M), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (50p, 25p)		
Picture Profile: Yes (Off/PP1-PP10) Parameters: Black level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709 [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset  Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (60i, 25 M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (50p, 25p)		
level, Gamma (Movie, Still, Cine1-4, ITU709, ITU709   [800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset   Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)   Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50i, 17 M, FH)   Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps   Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (50p, 25p)	, ,,	
[800%], S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset  Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (25p, 50 M), 1920 x 1080 (50p, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)	· · · · · · · · · · · · · · · · · · ·	
Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset   Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)   Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50i, 17 M, FH)   Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps   Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (50p, 25p)		
Detail, Copy, Reset   Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)   Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (50i, 17 M, FH)   Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps   Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (50p, 25p)		
Image Size (pixels), NTSC: XAVC S 4K: 3840 x 2160 (30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (25p, 50 M), AVCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (50p, 25p)		
(30p, 100 M), 3840 x 2160 (24p, 100 M), 3840 x 2160 (30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (25p, 50 M), AVCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)		
(30p, 60 M), 3840 x 2160 (24p, 60 M), XAVC S HD: 1920 x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (25p, 50 M), AVCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)	- " '	
x 1080 (120p, 100 M), 1920 x 1080 (120p, 60 M), 1920 x 1080 (60p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (25p, 50 M), AVCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)		
1080 (60p, 50 M), 1920 x 1080 (30p, 50 M), 1920 x 1080 (24p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (25p, 50 M), AVCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)		
(24p, 50 M), 1920 x 1080 (60p, 25 M), 1920 x 1080 (30p, 16 M), AVCHD: 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (25p, 50 M), AVCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)		
16 M), AVCHD: 1920 x 1080 (60i, 24 M, FX), 1920 x 1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (25p, 50 M), AVCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)		
1080 (60i, 17 M, FH)  Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (25p, 50 M), AVCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)		
Image Size (pixels), PAL: XAVC S 4K: 3840 x 2160 (25p, 100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (25p, 50 M), AVCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)		
100 M), 3840 x 2160 (25p, 60 M), XAVC S HD: 1920 x 1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (25p, 50 M), AVCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)		
1080 (100p, 100 M), 1920 x 1080 (100p, 60 M), 1920 x 1080 (50p, 50 M), 1920 x 1080 (25p, 50 M), AVCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)		
1080 (50p, 50 M), 1920 x 1080 (25p, 50 M), AVCHD: 1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)	· · · · · · · · · · · · · · · · · · ·	
1920 x 1080 (50i, 24 M, FX), 1920 x 1080 (50i, 17 M, FH)  Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)		
Slow and quick motion (shooting frame rate): NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)		
mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)		
PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps  Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)	, , ,	
100fps Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)		
Slow and quick motion (recording frame rate and image size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)		
size): NTSC mode: 1920x1080 (60p, 30p, 24p), PAL mode: 1920x1080 (50p, 25p)		
mode: 1920x1080 (50p, 25p)		

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Recording System	
Location information Link from smartphone: Yes	
Media: Memory Stick PRO Duo, Memory Stick PRO-HG	
Duo, Memory Stick Micro (M2), SD memory card, SDHC	
memory card (UHS-I/II compliant), SDXC memory card	
(UHS-I/II compliant), microSD memory card, microSDHC	
memory card, microSDXC memory card	
· · · · · · · · · · · · · · · · · · ·	
compliant) memory card, SLOT2: Multi slot for Memory	
Stick Duo/SD (UHS-I compliant) memory card	
Recording mode on 2 memory cards: Simult. Rec (Still),	
Simult. Rec (Movie), Simult. Rec (Still/Movie), Sort	
(JPEG/RAW), Sort (Still/Movie), Auto Switch Media	
(On/Off), Copy	
Noise Reduction	
Noise Reduction: Long exposure NR: On/Off, available at	
shutter speeds longer than 1 sec., High ISO NR:	
Normal/Low/Off	
Multi Frame NR	
White balance	
White Balance Modes: Auto / Daylight / Shade / Cloudy /	
Incandescent / Fluorescent / Warm White / Cool White /	
Day White / Daylight / Flash / Underwater / Color	
Temperature 2500 to 9900K and color filter G7 to M7 (57-	
step), A7 to B7 (29-step) / Custom	
29-step	
Priority Set in AWB: Yes	
Bracketing: 3 frames, H/L selectable	
Focus	
Focus Type: Fast Hybrid AF (phase-detection	
AF/contrast-detection AF)2	
Focus Sensor: Exmor R® CMOS sensor	
Focus Point: 35 mm full frame: 693 points (phase-	
detection AF), APS-C mode with full frame lens: 299	
points (phase-detection AF), with APS-C lens: 221 points	
(phase-detection AF) / 425 points (contrast-detection AF)	
Focus Sensitivity Range: EV-3 to EV20 (ISO100	
equivalent with F2.0 lens attached)	
Focus Mode: AF-A (Automatic AF), AF-S (Single-shot	
	Media: Memory Stick PRO Duo, Memory Stick PRO-HG Duo, Memory Stick Micro (M2), SD memory card, SDHC memory card (UHS-I/II compliant), microSD memory card, microSDHC memory card, microSDXC memory card, microSDHC memory card, microSDXC memory card, microSDHC memory card, microSDXC memory card, microSDHC memory card, slot: SLOT1: Slot for SD (UHS-I/II compliant) memory card, SLOT2: Multi slot for Memory Stick Duo/SD (UHS-I compliant) memory card.  Recording mode on 2 memory cards: Simult. Rec (Still), Simult. Rec (Movie), Simult. Rec (Still/Movie), Sort (JPEG/RAW), Sort (Still/Movie), Auto Switch Media (On/Off), Copy  Noise Reduction  Noise Reduction: Long exposure NR: On/Off, available at shutter speeds longer than 1 sec., High ISO NR: Normal/Low/Off  Multi Frame NR  White balance  White balance Modes: Auto / Daylight / Shade / Cloudy / Incandescent / Fluorescent / Warm White / Cool White / Day White / Daylight / Flash / Underwater / Color Temperature 2500 to 9900K and color filter G7 to M7 (57-step), A7 to B7 (29-step) / Custom  AWB Micro Adjustment: Yes G7 to M7, 57-step A7 to B7, 29-step  Priority Set in AWB: Yes  Bracketing: 3 frames, H/L selectable  Focus  Focus Type: Fast Hybrid AF (phase-detection AF)contrast-detection AF)2  Focus Sensor: Exmor R® CMOS sensor  Focus Point: 35 mm full frame: 693 points (phase-detection AF), APS-C mode with full frame lens: 299 points (phase-detection AF), with APS-C lens: 221 points (phase-detection AF) / 425 points (contrast-detection AF)  Focus Sensitivity Range: EV-3 to EV20 (ISO100 equivalent with F2.0 lens attached)

	AF), AF-C (Continuous AF), DMF (Direct Manual Focus),	
	Manual Focus	
	Focus Area: Wide (693 points (phase-detection AF), 425	
	points (contrast-detection AF)) / Zone / Center / Flexible	
	Spot (S/M/L) /Expanded Flexible Spot/ Lock-on AF (Wide	
	/ Zone / Center / Flexible Spot (S/M/L)/Expanded Flexible	
	Spot) Other Features: Eye-start AF (only with LA-EA2 or LA-	
	EA4 attached (sold separately)), Lock-on AF, Eye AF, AF	
	micro adjustment with LA-EA2 or LA-EA4 (sold	
	separately), Predictive control, Focus lock, AF Track	
	Sens, Swt.V/H AF Area, AF Area Regist.	
	AF Illuminator: Yes (with built-in LED type)	
	AF Illuminator range: Approx. 0.3–3.0 m (with FE 28–70)	
	mm F3.5–5.6 OSS attached)	
	Focus type with LA-EA3 (Sold separately): selectable	
	(phase-detection, contrast-detection)	
	Exposure	
	Metering Type: 1200-zone evaluative metering	
	Viewfinder	
	Viewfinder Type: 1.3 cm (0.5 type) electronic viewfinder	
	(color), XGA OLED	
	Number of Dots: 2,359,296 dots	
	Brightness Control (Viewfinder): Auto/Manual (5 steps	
	between -2 and +2)	
	Color Temperature Control: Manual (5 steps)	
	Field Coverage: 100%	
	Magnification: approx. 0.78 x (with 50mm lens at infinity, -	
	1m-1)	
	Diopter Adjustment: -4.0 to +3.0 m-1	
	Eye Point: Approx. 23 mm from the eyepiece lens, 18.5	
	mm from the eyepiece frame at -1 m-1 (CIPA standard)	
	Finder Frame Rate Selection	
	Display Contents: Graphic Display, Display All Info, No	
	Display Info, Digital Level Gauge, Histogram	
	LCD Screen	
	Monitor Type: 7.5 cm (3.0-type) type TFT	
	Number of Dots: 921,600 dots	
	Touch Panel: Yes	
	Brightness Control: Manual (5 steps between -2 and +2), Sunny Weather mode	
	Adjustable Angle: Up by approx. 107 degrees, Down by	
	approx. 41 degrees	
	Display Selector (Finder/LCD): Yes (Auto/Manual)	
	Real-time Image Adjustment Display (LCD): On/Off	
	Quick Navi: Yes	
	Focus Magnifier: Yes (35 mm full frame: 5.9x, 11.7x, APS-C: 3.8x, 7.7x)	
	Zebra: Yes (selectable level + range or lower limit as	
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custom setting)	
Peaking MF: Yes (Level setting: High/Mid/Low/Off, Color: White/Red/Yellow)	
Others: Grid Line (Rule of 3rds Grid/Square Grid/Diag. +	
Square Grid/Off), Movie Marker (Center/Aspect/Safety	
Zone/Guideframe)	
Display Content: Graphic Display, Display All Info, No	
Disp. Info, Digital Level Gauge, Histogram, For	
viewfinder, Monitor Off	
Other Features	
PlayMemories Camera Apps™	
Clear Image Zoom: Still images: Approx. 2x, Movies:	
Approx. 1.5x (4K), Approx. 2x (HD)	
Digital Zoom: Smart zoom (Still images): 35 mm full	
frame: M: approx 1.5x, S: approx 2x, APS-C: M: approx	
1.3x, S: approx 2x, Digital zoom (Still images): 35 mm full	
frame: L: approx 4x, M: approx 6.1x, S: approx 8x, APS-	
C: L: approx 4x, M: approx 5.2x, S: approx 8x, Digital	
zoom (Movie): 35 mm full frame: approx 4x, APS-C:	
approx 4x	
Face Detection: Modes: Face Priority in AF (On/Off),	
Face Priority in Multi Metering (On/Off), Regist. Faces	
Priority (On/Off), Face registration, Max. number of	
detectable: 8	
Self-Portrait Self-Timer	
Others: Touch Focus: Yes (Available with LCD monitor or	
Viewfinder operation), ISO AUTO Min. SS, Bright	
Monitoring, Set File Name, FTP Transfer Func., Help	
guide, Area Setting, Shop Front Mode, Video Light Mode,	
Zoom Ring Rotate	
Eye-Fi ready	
Shutter  Type: Fleetrenieelly centralled wortigel treverse feed	
Type: Electronically-controlled, vertical-traverse, focal-	
plane type Shutter Type	
Shutter Speed: Still images: 1/8000 to 30 sec, Bulb,	
Movies: 1/8000 to 1/4 (1/3 steps), up to 1/60 in AUTO	
mode (up to 1/30 in Auto slow shutter mode)	
Flash Sync. Speed: 1/250 sec.3	
Electronic Front Curtain Shutter: Yes (ON/OFF)	
Silent Shooting: Yes (ON/OFF)	
Image Stabilization	
Type: Image Sensor-Shift mechanism with 5-axis	
compensation (compensation depends on lens	
specifications)	
Compensation Effect: 5.0 stops (based on CIPA	
standard. Pitch/yaw shake only. With Planar T* FE 50mm	
F1.4 ZA lens mounted. Long exposure NR off.)	
Flash Control	

Control: Pre-flash TTL	
Flash Compensation: +/-3.0 EV (switchable between 1/3	
and 1/2 EV steps)\	
Flash Bracketing: 3/5/9 frames selectable. With 3 or 5	
frames, in 1/3, 1/2, 2/3, 1.0, 2.0, 3.0 EV increments, with	
9 frames, in 1/3, 1/2, 2/3, 1.0 EV increments.	
Flash Modes: Flash off, Autoflash, Fill-flash, Slow Sync.,	
Rear Sync., Red-eye reduction (on/off selectable),	
Wireless4, Hi-speed sync.4	
External Flash Compatibility: Sony α System Flash	
compatible with Multi Interface Shoe, attach the shoe	
adapter for flash compatible with Auto-lock accessory	
shoe	
FE Level Lock: Yes	
Wireless Control: Yes (Light signal: Available with Fill-	
flash, Slow Sync., Hi-speed sync. /Radio signal: Available	
with Fill-flash, Rear Sync., Slow Sync., Hi-speed sync.)	
Drive	
Drive Modes: Single Shooting, Continuous shooting	
(Hi+/Hi/Mid/Lo selectable), Self-timer, Self-timer (Cont.),	
Bracket: Single, Bracket: Cont., White Balance bracket,	
DRO bracket	
Continuous Drive Speed (approx. max.): Continuous	
shooting: Hi+: max. 10 fps, Hi: max. 8 fps, Mid: max.	
6fps, Lo: max. 3 fps 5	
No. of recordable frames (approx.): JPEG Extra fine L:	
163 frames, JPEG Fine L: 172 frames, JPEG Standard L:	
approx. 177 frames, RAW: 89 frames, RAW & JPG: 79	
frames, RAW (Uncompressed): 40 frames, RAW	
(Uncompressed) & JPG: 36 frames 5	
Self-Timer: 10 sec. delay/5 sec. delay/2 sec.	
delay/Continuous self-timer (3 frames after 10 sec.	
delay/5 frames after 10 sec. delay/3 frames after 5 sec. delay/5 frames after 5 sec. delay/3 frames after 2 sec.	
delay/5 frames after 5 sec. delay/5 frames after 2 sec. delay/5 frames after 2 sec. delay/6 frames after 2 sec.	
Playback	
Photo Capture: Yes	
Modes: Single (with or without shooting information Y	
RGB histogram & highlight/shadow warning), 9/25-frame	
index view, Enlarged display mode (L: 18.8x, M: 12.3x, S:	
9.4x), Auto Review (10/5/2 sec, Off), Image orientation	
(Auto/Manual/Off selectable), Slideshow, Folder selection	
(Date/ Still/ AVCHD/XAVC S HD/XAVC S 4K),	
Forward/Rewind (movie), Delete, Protect, Rating, Disp	
Cont Shoot Grp	
Interface	
PC Interface: Mass-storage, MTP, PC remote	
Multi/micro USB terminal: Yes	
USB Type-C® Terminal: Yes (SuperSpeed USB (USB	
Type-ow reminal res (superspeed ost (ost	

3.1 Gen 1) compatible)	
NFC: Yes (NFC forum Type 3 Tag compatible), One-	
touch remote, One-touch sharing	
Wireless LAN (Built-In): Wi-Fi Compatible, IEEE	
802.11b/g/n (2.4 GHz band), View on Smartphone,	
Remote control via Smartphone, Send to Computer, View	
on TV	
HD Output: HDMI micro connector (Type-D), BRAVIA	
Sync (Control for HDMI), PhotoTV HD, 4K movie	
output/4K still image PB	
Bluetooth®: Yes (Bluetooth Standard Ver. 4.1 (2.4 GHz	
band))	
Auto-lock Accessory Shoe	
Multi Interface Shoe: Yes	
Smart Accessory Terminal 2	
Mic Terminal: Yes (3.5 mm Stereo minijack)	
DC IN Terminal	
Sync Terminal	
Headphone Terminal: Yes (3.5 mm Stereo minijack)	
Vertical Grip Connector: Yes	
PC Remote: Yes	
LAN Terminal	
Print	
Compatible Standards: Exif Print, Print Image Matching	
III, DPOF setting	
Custom function	
Type: Custom key settings, Programmable Setting (Body	
2 sets /memory card 4 sets), My Menu, Reg Cust Shoot	
Set	
Lens Compensation	
Setting: Peripheral Shading, Chromatic Aberration,	
Distortion	
Power	
Supplied Battery: One rechargeable battery pack NP-	
FZ100	
Battery Life (Still Images): Approx. 610 shots (Viewfinder)	
/ approx. 710 shots (LCD monitor) (CIPA standard)8	
Battery Life (Movie, actual recording): Approx. 115 min	
(Viewfinder) / Approx. 125 min (LCD monitor) (CIPA	
standard)910	
Battery Life (Movie, continuous recording): Approx. 200	
min (Viewfinder) / Approx. 210 min (LCD monitor) (CIPA	
standard)911	
Internal Battery Charge: Yes (Available with Multi/Micro	
USB Terminal or USB Type-C Terminal)	
Power consumption with Viewfinder: Still images: approx.	
3.2 W (with FE 28-70 mm F3.5-5.6 OSS lens attached),	
Movies: approx. 4.9 W (with FE 28-70 mm F3.5-5.6 OSS	
lens attached)	

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			Power consumption with LCD screen: Still images:
			approx. 2.8 W (with FE 28-70 mm F3.5-5.6 OSS lens
			attached), Movies: approx. 4.7 W (with FE 28-70 mm
			F3.5-5.6 OSS lens attached)
			USB Power Supply: Yes (Available with Multi/Micro USB
			Terminal or USB Type-C Terminal)
			Size & Weight
			Weight (with battery and memory card included): Approx.
			650 g (1 lb 7.0 oz)
			Dimensions (W x H x D): Approx. 126.9 mm x 95.6 mm x
			73.7 mm, Approx. 126.9 mm x 95.6 mm x 62.7 mm (from
			grip to monitor)/Approx. 5 x 3 7/8 x 3 inches, Approx. 5 x
			3 7/8 x 2 1/2 inches (from grip to monitor)
			Audio
			Microphone: Built-in stereo microphone or XLR- K2M/XLR-K1M/ECM-XYST1M (sold separately)
			Speaker: Built-in, monaural
			Others
			Operating Temperature: 32 - 104 degrees F / 0 - 40
			degrees C
8	2	uni t	Compact Document Scanner
			25ppm/50ipm, 2-sided colour scan speed
			20 sheets Automatic Document Feeder (ADF)
			Portable with micro-B USB3.0 Bus power
			Dedicated plastic ID card slot
			Scan to PC and USB host
			Scanning Speed: 25ppm (A4) 2-sided colour scan speed
			Document Size - Multiple Papers - Width: 51 mm to 215.9 mm
			Document Size - Multiple Papers - Length: 70 mm to 863 mm
			Document Size - Single Papers - Width: 51 mm to 215.9
			mm
			Document Size - Single Papers - Length: 70 mm to 863
			mm
			Colour/Black: Yes/Yes
			Duplex Scan: Yes
			Color Depth - Input: 48-bit colour processing
			Color Depth - Output: 24-bit colour processing
			Resolution - Optical: Max 600 dpi x 600 dpi
			Resolution - Interpolated: Max 1,200 dpi x 1,200 dpi
			Scanning Width: Max 216mm
			Grayscale: 256 levels
			Memory Capacity: SDRAM: 256 MB
			ADF: up to 20 sheets
			Interface: USB: Hi-Speed USB 2.0, Superspeed USB 3.0

	■Compact integrated tank design
	■Print speeds up to 10.5ipm for black and 5.0ipm for
	colour
	■Auto-duplex printing
	■Wi-Fi & Wi-Fi Direct
	■Borderless Printing up to A4 size
	■Spill-free ink refilling
	■Warranty of 2 years or 30,000 pages, whichever comes
	first
	■Printer Type:
	■Print, Scan, Copy
	■Printing Technology:
	■Print Method:
	◆On-demand inkjet (piezoelectric)
	■Minimum Ink Droplet Volume:
	<b>4</b> 3 pl
	■Printer Language:
	<b>⋖</b> ESC/P-R
	■Print Direction:
	■Bi-directional printing, Uni-directional printing
	■Nozzle Configuration:
	■180 nozzles Black, 59 nozzles per colour (Cyan,
	Magenta, Yellow)
	■Maximum Resolution:
	■5760 x 1440 dpi (with Variable-Sized Droplet
	Technology)
	■Automatic 2-sided Printing:
	✓ Yes (up to A4)
	■Print Speed:
	■Photo Default - 10 x 15 cm / 4 x 6 " *2:
	■1Approx. 69 sec per photo (Border) *1
	■Approx. 92 sec per photo (Borderless) *1
	■Draft, A4 (Black / Colour):
	<b>■</b> Up to 33 ppm / 15 ppm *1
	■ISO 24734, A4 Simplex (Black / Colour):
	<b>Up</b> to 10.5 ipm / 5.0 ipm *1
	■ISO 24734, A4 Duplex (Black / Colour):
	<b>■</b> Up to 6.0 ipm / 4.0 ipm *1
	©Copy Speed:
	©Copy Quality:
	■ Draft / Standard / Best Quality
	Maximum Copies from Standalone:
	■99 copies
	■Reduction / Enlargement:
	■Neduction Emargement.  ■25 - 400%, Auto Fit Function
	Maximum Copy Size:
	■MAXIIII Copy Size.  ■A4, Letter
++++	■ISO 29183, A4 Simplex Flatbed (Black / Colour):
	■100 23100, A+ OIITIPIEX FIALDEU (DIAUX / CUIUUI).

■ Up to 7.7 ipm / 3.8 ipm ■ Max Copy Resolution:0 ■ 1440 x 720 dpi ■ Scan Function: ■ Scanner Type: ■ Flatbed colour image scanner ■ Sensor Type: ■ CIS ■ Optical Resolution: ■ 1200 x 2400 dpi ■ Maximum Scan Area: ■ 216 x 297 mm (8.5 x 11.7 ") ■ Scanner Bit Depth (Colour): ■ 48-bit input, 24-bit output ■ Scanner Bit Depth (Grayscale): ■ 16-bit input, 8-bit output ■ Scanner Bit Depth (Black & White): ■ 16-bit input, 1-bit output ■ Scan Speed: ■ Flatbed (Black / Colour): ■ 200 dpi: 11 sec / 200 dpi: 28 sec ■ Paper Handling: ■ Number of Paper Trays: ■ 1 (Paper Cassette) ■ Standard Paper Input Capacity: ■ 100 sheets, A4 Plain paper (80 g/m2)
<ul> <li>■ 1440 x 720 dpi</li> <li>■ Scan Function:</li> <li>■ Scanner Type:</li> <li>■ Flatbed colour image scanner</li> <li>■ Sensor Type:</li> <li>■ CIS</li> <li>■ Optical Resolution:</li> <li>■ 1200 x 2400 dpi</li> <li>■ Maximum Scan Area:</li> <li>■ 216 x 297 mm (8.5 x 11.7")</li> <li>■ Scanner Bit Depth (Colour):</li> <li>■ 48-bit input, 24-bit output</li> <li>■ Scanner Bit Depth (Grayscale):</li> <li>■ 16-bit input, 8-bit output</li> <li>■ Scanner Bit Depth (Black &amp; White):</li> <li>■ 16-bit input, 1-bit output</li> <li>■ Scan Speed:</li> <li>■ Flatbed (Black / Colour):</li> <li>■ 200 dpi: 11 sec / 200 dpi: 28 sec</li> <li>■ Paper Handling:</li> <li>■ Number of Paper Trays:</li> <li>■ 1 (Paper Cassette)</li> <li>■ Standard Paper Input Capacity:</li> </ul>
Scanner Type:  In Scanner Type:  In Flatbed colour image scanner  In Sensor Type:  In CIS  In Optical Resolution:  In 1200 x 2400 dpi  In Maximum Scan Area:  In 216 x 297 mm (8.5 x 11.7 ")  In Scanner Bit Depth (Colour):  In 48-bit input, 24-bit output  In Scanner Bit Depth (Grayscale):  In 16-bit input, 8-bit output  In Scanner Bit Depth (Black & White):  In 16-bit input, 1-bit output  In Scan Speed:  In Flatbed (Black / Colour):  In 200 dpi: 11 sec / 200 dpi: 28 sec  In Paper Handling:  In Number of Paper Trays:  In Paper Cassette)  In Standard Paper Input Capacity:
■ Scanner Type:
■ Flatbed colour image scanner Sensor Type: CIS © Optical Resolution: ■ 1200 x 2400 dpi ® Maximum Scan Area: ■ 216 x 297 mm (8.5 x 11.7") ® Scanner Bit Depth (Colour): ■ 48-bit input, 24-bit output ® Scanner Bit Depth (Grayscale): ■ 16-bit input, 8-bit output ® Scanner Bit Depth (Black & White): ■ 16-bit input, 1-bit output ® Scan Speed: © Flatbed (Black / Colour): ■ 200 dpi: 11 sec / 200 dpi: 28 sec © Paper Handling: ® Number of Paper Trays: ■ 1 (Paper Cassette) ® Standard Paper Input Capacity:
■Sensor Type: <ul> <li>CIS</li> <li>Optical Resolution:</li> <li>1200 x 2400 dpi</li> <li>Maximum Scan Area:</li> <li>216 x 297 mm (8.5 x 11.7 ")</li> <li>Scanner Bit Depth (Colour):</li> <li>48-bit input, 24-bit output</li> <li>Scanner Bit Depth (Grayscale):</li> <li>16-bit input, 8-bit output</li> <li>Scanner Bit Depth (Black &amp; White):</li> <li>16-bit input, 1-bit output</li> <li>Scan Speed:</li> <li>Flatbed (Black / Colour):</li> <li>200 dpi: 11 sec / 200 dpi: 28 sec</li> <li>Paper Handling:</li> <li>Number of Paper Trays:</li> <li>1 (Paper Cassette)</li> <li>Standard Paper Input Capacity:</li> </ul>
<ul> <li>CIS</li> <li>Optical Resolution:</li> <li>✓ 1200 x 2400 dpi</li> <li>Maximum Scan Area:</li> <li>✓ 216 x 297 mm (8.5 x 11.7 ")</li> <li>Scanner Bit Depth (Colour):</li> <li>✓ 48-bit input, 24-bit output</li> <li>Scanner Bit Depth (Grayscale):</li> <li>✓ 16-bit input, 8-bit output</li> <li>Scanner Bit Depth (Black &amp; White):</li> <li>✓ 16-bit input, 1-bit output</li> <li>Scan Speed:</li> <li>Scan Speed:</li> <li>Flatbed (Black / Colour):</li> <li>✓ 200 dpi: 11 sec / 200 dpi: 28 sec</li> <li>Paper Handling:</li> <li>Number of Paper Trays:</li> <li>✓ 1 (Paper Cassette)</li> <li>Standard Paper Input Capacity:</li> </ul>
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Scanner Bit Depth (Colour):  ■ 48-bit input, 24-bit output  Scanner Bit Depth (Grayscale):  ■ 16-bit input, 8-bit output  Scanner Bit Depth (Black & White):  ■ 16-bit input, 1-bit output  Scan Speed:  Flatbed (Black / Colour):  ■ 200 dpi: 11 sec / 200 dpi: 28 sec  Paper Handling:  Number of Paper Trays:  ■ 1 (Paper Cassette)  Standard Paper Input Capacity:
<ul> <li>■ 48-bit input, 24-bit output</li> <li>■ Scanner Bit Depth (Grayscale):</li> <li>■ 16-bit input, 8-bit output</li> <li>■ Scanner Bit Depth (Black &amp; White):</li> <li>■ 16-bit input, 1-bit output</li> <li>■ Scan Speed:</li> <li>■ Flatbed (Black / Colour):</li> <li>■ 200 dpi: 11 sec / 200 dpi: 28 sec</li> <li>■ Paper Handling:</li> <li>■ Number of Paper Trays:</li> <li>■ 1 (Paper Cassette)</li> <li>■ Standard Paper Input Capacity:</li> </ul>
Scanner Bit Depth (Grayscale):  ■ 16-bit input, 8-bit output  ■ Scanner Bit Depth (Black & White):  ■ 16-bit input, 1-bit output  ■ Scan Speed:  ■ Flatbed (Black / Colour):  ■ 200 dpi: 11 sec / 200 dpi: 28 sec  ■ Paper Handling:  ■ Number of Paper Trays:  ■ 1 (Paper Cassette)  ■ Standard Paper Input Capacity:
<ul> <li>■ 16-bit input, 8-bit output</li> <li>■ Scanner Bit Depth (Black &amp; White):</li> <li>■ 16-bit input, 1-bit output</li> <li>■ Scan Speed:</li> <li>■ Flatbed (Black / Colour):</li> <li>■ 200 dpi: 11 sec / 200 dpi: 28 sec</li> <li>■ Paper Handling:</li> <li>■ Number of Paper Trays:</li> <li>■ 1 (Paper Cassette)</li> <li>■ Standard Paper Input Capacity:</li> </ul>
Scanner Bit Depth (Black & White):  ■ 16-bit input, 1-bit output  ■ Scan Speed: ■ Flatbed (Black / Colour): ■ 200 dpi: 11 sec / 200 dpi: 28 sec ■ Paper Handling: ■ Number of Paper Trays: ■ 1 (Paper Cassette) ■ Standard Paper Input Capacity:
<ul> <li>■ 16-bit input, 1-bit output</li> <li>■ Scan Speed:</li> <li>■ Flatbed (Black / Colour):</li> <li>■ 200 dpi: 11 sec / 200 dpi: 28 sec</li> <li>■ Paper Handling:</li> <li>■ Number of Paper Trays:</li> <li>■ 1 (Paper Cassette)</li> <li>■ Standard Paper Input Capacity:</li> </ul>
<ul> <li>■ 16-bit input, 1-bit output</li> <li>■ Scan Speed:</li> <li>■ Flatbed (Black / Colour):</li> <li>■ 200 dpi: 11 sec / 200 dpi: 28 sec</li> <li>■ Paper Handling:</li> <li>■ Number of Paper Trays:</li> <li>■ 1 (Paper Cassette)</li> <li>■ Standard Paper Input Capacity:</li> </ul>
<ul> <li>■Flatbed (Black / Colour):</li> <li>■ 200 dpi: 11 sec / 200 dpi: 28 sec</li> <li>■ Paper Handling:</li> <li>■ Number of Paper Trays:</li> <li>■ 1 (Paper Cassette)</li> <li>■ Standard Paper Input Capacity:</li> </ul>
<ul> <li>✓ 200 dpi: 11 sec / 200 dpi: 28 sec</li> <li>⑤ Paper Handling:</li> <li>⑥ Number of Paper Trays:</li> <li>✓ 1 (Paper Cassette)</li> <li>⑥ Standard Paper Input Capacity:</li> </ul>
<ul> <li>✓ 200 dpi: 11 sec / 200 dpi: 28 sec</li> <li>⑤ Paper Handling:</li> <li>⑥ Number of Paper Trays:</li> <li>✓ 1 (Paper Cassette)</li> <li>⑥ Standard Paper Input Capacity:</li> </ul>
<ul> <li>■Paper Handling:</li> <li>■Number of Paper Trays:</li> <li>◄1 (Paper Cassette)</li> <li>■Standard Paper Input Capacity:</li> </ul>
<ul><li>■Number of Paper Trays:</li><li>◀1 (Paper Cassette)</li><li>■Standard Paper Input Capacity:</li></ul>
■ 100 sheets, A4 Plain paper (80 g/m2)
■20 sheets, Premium Glossy Photo Paper
■Output Capacity:
■30 sheets, A4 Plain Paper
■20 sheets, Premium Glossy Photo Paper
■Maximum Paper Size:
<b>■</b> 215.9 x 1200 mm (8.5 x 47.24 ")
■Paper Feed Method:
✓ Friction feed
■Paper Size:
Legal, 8.5 x 13 ", Letter, A4, 195 x 270 mm, B5, A5,
A6, 100 x 148 mm, B6, 5 x 7 ", 4 x 6 ", Envelopes #10,
DL, C6
■Print Margin:
■0 mm top, left, right, bottom via custom settings in
printer driver (except plain paper) *3
■Card Slot / USB Host Function:
■Type of Direct Printing:
■Supported Memory Cards:
■SD Memory Card
■Printer Software:
■Operating System Compatibility:

	1		1
			■Windows XP / XP Professional x 64 Edition / Vista / 7 / 1 / 14 / 14 / 14 / 14 / 14 / 14 /
			8/8.1/10
			■ Windows Server 2003 / 2008 / 2012 / 2016
			<b>◄</b> Only printing and scanning functions are supported for
			Windows Server OS
			Mac OS X 10.6.8 or later  A Mac OS X 10.6.8 or later
			■Interface:
		1	©USB:
		1	<b>◄</b> USB 2.0
			Network:
			■ Wi-Fi IEEE 802.11b/g/n, Wi-Fi Direct
			Network Protocol:
		:	▼TCP/IPv4, TCP/IPv6, LPD, IPP, PORT9100, WSD
10	1	uni t	Computer Printer 3-in-1
			■with CIS Filled with Inks
			■Compact integrated tank design
			■High yield ink bottles
			■Spill-free, error-free refilling
			■Wi-Fi, Wi-Fi Direct
			■Borderless printing up to 4R
11	5	uni t	Computer Printer, All-in-One/Multifunction Colored-Ink Tank
			■Ultra-low-cost printing: Print up to 4,500 pages in black
			and 7,500 in colour
			■Next generation ink filling system: Enjoy hassle and
			mess-free refills with the enhanced ink bottles
			■Wi-Fi, Wi-Fi Direct & apps: Print from mobile devices
			■3-in-1: Print, copy & scan and borderless photo printing
			■Nozzle Configuration: 180 Nozzles Black, 59 Nozzles
			per Color
			■Minimum Droplet Size: 3 pl, With Variable-Sized Droplet
		1	Technology
		1	■Ink Technology: Dye Ink
40	_	1	■ Printing Resolution: 5,760 x 1,440 DPI
12	2	рс	Data logger module for Arduino UNO
			SD card interface works with FAT16 or FAT32 formatted
		1	cards.
			3.3V level shifter circuitry prevents damage to your SD
			Card.
			Real time clock (RTC) keeps the time going even when
			the Arduino is unplugged.  Included libraries and example code for both SD and
			RTC, means you can get going quickly.
		+	Prototyping area for soldering connectors, circuitry or
			sensors.
13	1	set	Desktop Computer (i3, 11th Gen)
			■Processor: Intel Core i3-11300 (4 cores /8 threads) or
			higher

			■Motherboard: Intel H510M Ultra Durable motherboard,
			Gaming LAN, Anti-Sulfur Resistor, LGA-1200
			■8GB DDR4 2933 DIMM Desktop Memory or higher
			■SSD: 240GB NVMe or higher
			■Keyboard and Mouse Combo
			■Casing with Power Supply
			■Monitor: 18.5 inch, HD Ready (1366 X 768), TN Panel
			Connectivity Port: 1 VGA Port, 1 HDMI Port / Aspect
			Ratio: 16:9, Brightness (Typical): 200 cd/m2 / Refresh
			Rate: 60 Hz,
			■Operating System: Genuine Windows 10 Home (OEM)
			■AVR: 500W IC controlled
14	2	uni t	Desktop Computer (i7 Branded)
			■CPU: 9th Gen Intel Core i7-9700 (8-Core, 12MB Cache,
			up to 4.7GHz with Intel Turbo Boost Technology) or
			higher
			■HDD: 256GB M.2 PCIe NVMe Solid State Drive or
			higher + 1TB 7200 rpm 3.5" SATA Hard Drive or higher
			■RAM: 8GB (8GBx1) DDR4 2666MHz or higher
			■ Graphics: NVIDIA GeForce GTX 1650 4GB GDDR5 or
			'
			higher
			Screen: at least 23" IPS Monitor FHD
			■ Optical Drive: No Optical Drive
			■USB Mouse and Keyboard
			■ Uninterruptible Power Supply (UPS): at least 600VA, at
			most 4 hours charging time
			■OS: Windows 10 Home Single Language (64bit)
		ļ	English or higher
15	1	uni t	Desktop Computer, Assembled, 12th Gen Core i5
			■Processor: Intel Core i5 12500 with Intel® UHD
			Graphics 770 processor graphics or higher
			■Motherboard: Intel® H610 Motherboard with 6+1+1
			Hybrid Phases Digital VRM Design, PCIe 4.0* Design,
			Gen3 x4 M.2, mATX form factor , Anti-Sulfur Resistor or
			higher
			■Memory: 16GB (2x8) 3200MHz DDR4 or higher
			SSD: 500GB 3D NAND SSD PCIe Gen3x4 or higher
			Ü
			©Casing: MATX casing with acrylic side panels
			■ Power Supply: 450Watts 80+ Bronze Certified with
			120mm thermally controlled low-noise cooling fan
			Monitor: 23" IPS FHD, 72% NSTC color gamut with
			75Hz refresh rate
			Operating System: Genuine Windows 11 Pro     November Spill registant, design
			■Keyboard and Mouse Combo: Spill-resistant design
		1	with up to Up to 5 million keystrokes (excludes number
			lock key) keyboard and full-sized ambidextrous optical mouse

			■500W IC controlled AVR
16	4	set	Desktop Computer, Assembled, 12th Gen Core i5, SDD and HDD
			■Processor: Intel® Core i5 12th gen with Intel® UHD
			Graphics 730 or higher
			■Motherboard :Intel® H610 Chipset for 12th Gen Intel®
			Core™ Series Processors, Dual Channel Non-ECC
			Unbuffered DDR4, 2 DIMMs, 6+1+1 Hybrid Digital VRM
			Design, Intel® GbE LAN, NVMe PCIe 3.0 x4 M.2, High
			Quality Audio Capacitors and Audio Noise Guard, mATX
			form factor or higher
			■RAM: 16GB DDR4 3200 Mhz or higher
			■SSD: 512 GB NVMe PCIe Gen 3x4
			■HDD: 1 TB 7200 RPM
			■PSU: 650w 80 plus Bronze Certified
			■Casing: mATX Casing with transparent acrylic side
			panel
			■24" IPS monitor 72% NSTC color gamut with 75Hz refresh rate
			■Keyboard and Mouse Combo: Spill-resistant design
			with up to Up to 5 million keystrokes (excludes number
			lock key) keyboard and full-sized ambidextrous optical
			mouse
			■Operating system: Genuine Windows 11
17	12	uni t	DHT11 Temperature/Humidity Sensor module for Arduino with wires, temp accuracy +-2°C
			DHT11 Temperature/Humidity Sensor module for Arduino
			with wires, temp accuracy +-2°C, functional and good
			quality
18	3	btl	EPSON M200 Ink 774 black
		_	Epson Genuine 774 Pigment Black 140ml Ink for M200;
19	2	uni t	External Hard Drive, 1 TB
			Capacity: 1TB
			Connection interface: USB 2.0/3.0
			Storage Media: 2.5" SATA HDD
			Op. Voltage: USB DC 5V
			Size :129.5mm x 82.4mm x 20.4mm
			Weight: 216g
20	1	uni t	Global Positioning System (GPS)
			4-inch dual-orientation,
			glove friendly touchscreen display;
			8 megapixel autofocus camera;
			automatically geotags photos; tracks both GPS and GLONASS satellites;
			1-year birds Eye Satellite Imagery subscription;
			3-axis compass with barometric altimeter
21	2	рс	HDMI Cable

	1		3m
		mot	3111
22	4	met er	HDMI Cable, 10m
			■10 meters
			■Nylon braided
			■1.4 version 3D support
			■Support all high resolutions including 480p, 720p, 1080p and 1180p.
			■Multi -channel digital audio with a 10.2 Gbps bandwidth
			■HDMI AV cable for HDTV
			■HDMI EMI/RFI Compliant Cable
			■24k GOLD plated HDMI plugs
			■ROHS compliant cable.
23	2	uni t	Headset with Noise Cancelling Mic
			■Input Impedance: at least 32 Ohms
			■Sensitivity (headphone):at least 94 dBV/Pa +/- 3 dB
			■Sensitivity (microphone): -17 dBV/Pa +/- 4 dB
			■Frequency response (Headset): 20 Hz - 20 KHz
			■Frequency response (Microphone): 100 Hz - 10 KHz
			■Cable Length: at least 7 ft
			■Connections: USB-A compatible (1.1, 2.0, 3.0), USB
			port 1Type A port or adapter
24	20	рс	Ink Cartridge Canon G2010
25	10	btl	Ink continuous, refill, black (Brother DCP T310)
			Ink continuous, refill, black (Brother DCP T310) BTD60
			BK - Black;
26	5	btl	Ink, Brother BT5000C Cyan
27	5	btl	Ink, Brother BT5000M Magenta
28	5	btl	Ink, Brother BT5000Y Yellow
29	35	btl	Ink, Epson 003,Genuine Black 65mL
30	16	btl	Ink, EPSON 003,Genuine Cyan 65mL
31	11	btl	Ink, EPSON 003,Genuine Magenta 65mL
32	16	btl	Ink, EPSON 003,Genuine Yellow 65mL
33	4	рс	Ink, Epson, genuine, (BK) T664, 70 ml ANTI VIRUS 1 DEVICE 2 YEARS
34	3	рс	INTERNET SECURITY 1 DEVICE 1 YEAR
35		pc	
36	2	set	Keyboard And Mouse Combo Bundle, USB powered
			Keyboard  Keyboard  Royanna A Shana Royand Edga
			★Keycaps: A-Shape, Round Edge     ★Hetkeyer No.
			◆Hotkeys: No  ◆Character: Logar Engraving
			■ Adjustable Keyboard Legs: Yes
			Mouse
			■ Report Rate: 125 Hz
			■ Sensor: Optical ■ Receivition: 1000 DRI
			■Resolution: 1000 DPI

	T		
			■ Rating: 5 V / 100 mA
			<b>◄</b> Buttons No.: 3
			◆Ergonomic Design: Symmetric
			◀ Size: Middle / Big Hands
37	22	uni t	LCD Projector (XGA), 3LCD Technology
			■Projection System Technology: RGB liquid crystal
			shutter projection system (3LCD), 3-chip technology
			■White Light Output (Normal/Eco):3,600 lm
			■Colour Light Output:3,600 lm
			■Resolution XGA, at least 1024 x 768,
			■Analog Input:D-Sub 15pin: 1
			■Digital Input:HDMI: 1
			■LCD:Native Resolution: XGA (1024 x 768)
			■Size: 0.55" (C2fine)
			■Lightsource:Type: 210W UHE
			■ Life (Normal / Eco): 6,000 / 12,000 hours
			■Aspect Ratio:4:3
			■USB Interface:USB Type B: 1 (For Firmware Update,
			Copy OSD Settings)
			■Analog Input:D-Sub 15pin: 1
			■Digital Input:HDMI: 1
38	13	uni t	LCD Projector, XGA (1024x768)
			■Projection Method: Front/rear/ceiling mount
			■Pixel Number: at least 786,432 dots (1024 x 768) x 3
			©Color Brightness: 3.600 lumen- 2.235 lumen (economy)
			In accordance with IDMS15.4
			■Aspect ratio: 4:3
			■Lamp Life: ECO Mode up to 5000 hrs
			■Normal Mode up to 4000 hrs ■Projection Distance Wide/Tele: 1,8 m - 2,17 m ( 60 inch
			screen)
	1	i	3010011
			,
			■Keystone Correction: Manual
			■Keystone Correction: Manual ■USB Plug 'n Play: Compatible w/ PC and MAC
			■Keystone Correction: Manual
			<ul> <li>Keystone Correction: Manual</li> <li>USB Plug 'n Play: Compatible w/ PC and MAC computers</li> <li>Contrast Ratio: 15.000 : 1</li> </ul>
39	3	рс	<ul> <li>■Keystone Correction: Manual</li> <li>■USB Plug 'n Play: Compatible w/ PC and MAC computers</li> <li>■Contrast Ratio: 15.000 : 1</li> <li>■Color Reproduction: 16.77 million color</li> </ul>
39	3	рс	<ul> <li>Keystone Correction: Manual</li> <li>USB Plug 'n Play: Compatible w/ PC and MAC computers</li> <li>Contrast Ratio: 15.000 : 1</li> </ul>
39	3	рс	<ul> <li>■Keystone Correction: Manual</li> <li>■USB Plug 'n Play: Compatible w/ PC and MAC computers</li> <li>■Contrast Ratio: 15.000 : 1</li> <li>■Color Reproduction: 16.77 million color</li> <li>Mouse, Wired, Optical, USB</li> </ul>
39	3	pc	<ul> <li>■Keystone Correction: Manual</li> <li>■USB Plug 'n Play: Compatible w/ PC and MAC computers</li> <li>■Contrast Ratio: 15.000: 1</li> <li>■Color Reproduction: 16.77 million color</li> <li>Mouse, Wired, Optical, USB</li> <li>■USB Port Connectivity</li> </ul>
39	3	рс	<ul> <li>■Keystone Correction: Manual</li> <li>■USB Plug 'n Play: Compatible w/ PC and MAC computers</li> <li>■Contrast Ratio: 15.000 : 1</li> <li>■Color Reproduction: 16.77 million color</li> <li>Mouse, Wired, Optical, USB</li> <li>■USB Port Connectivity</li> <li>■Sensor: Optical</li> </ul>
39	3	pc	<ul> <li>■Keystone Correction: Manual</li> <li>■USB Plug 'n Play: Compatible w/ PC and MAC computers</li> <li>■Contrast Ratio: 15.000 : 1</li> <li>■Color Reproduction: 16.77 million color</li> <li>Mouse, Wired, Optical, USB</li> <li>■USB Port Connectivity</li> <li>■Sensor: Optical</li> <li>■DPI: 1600</li> </ul>
39	3	рс	■Keystone Correction: Manual  ■USB Plug 'n Play: Compatible w/ PC and MAC computers  ■Contrast Ratio: 15.000 : 1  ■Color Reproduction: 16.77 million color  Mouse, Wired, Optical, USB  ■USB Port Connectivity  ■Sensor: Optical  ■DPI: 1600  ■Work method: Wired
39	3	pc	<ul> <li>■Keystone Correction: Manual</li> <li>■USB Plug 'n Play: Compatible w/ PC and MAC computers</li> <li>■Contrast Ratio: 15.000: 1</li> <li>■Color Reproduction: 16.77 million color</li> <li>Mouse, Wired, Optical, USB</li> <li>■USB Port Connectivity</li> <li>■Sensor: Optical</li> <li>■DPI: 1600</li> <li>■Work method: Wired</li> <li>■Buttons: Left button, middle button, right button</li> </ul>
39	3	рс	■Keystone Correction: Manual  ■USB Plug 'n Play: Compatible w/ PC and MAC computers  ■Contrast Ratio: 15.000 : 1  ■Color Reproduction: 16.77 million color  Mouse, Wired, Optical, USB  ■USB Port Connectivity  ■Sensor: Optical  ■DPI: 1600  ■Work method: Wired  ■Buttons: Left button, middle button, right button  ■Scroll wheel direction: Two way
39	3	pc	■Keystone Correction: Manual  ■USB Plug 'n Play: Compatible w/ PC and MAC computers  ■Contrast Ratio: 15.000 : 1  ■Color Reproduction: 16.77 million color  Mouse, Wired, Optical, USB  ■USB Port Connectivity  ■Sensor: Optical  ■DPI: 1600  ■Work method: Wired  ■Buttons: Left button, middle button, right button  ■Scroll wheel direction: Two way  ■Design highlights: Easy installation. 1600 DPI high-

	ı	1 .	
		t	
			PROCESSOR INTEL 4th GENERATION PROCESSOR
			or higher
			PROCESSOR MODEL INTEL CORE i3/i5/i7
			STORAGE CAPACITY 16GB or higher
			SOLID STATE DISK CAPACITY 512GB or higher
			MECHANICAL HARD DISK CAPACITY 500GB HDD or
			higher
			SCREEN SIZE 15.6 INCHES - 14 INCHES
41	16	uni t	Printer, All-in-One Wireless Ink Tank Color
			■Product Description
			◆Product Details of All-in-One Wireless Ink Tank Colour Printer
			Interface: USB Port=Hi-Speed USB *1, LAN Port=Wireless LAN: IEEE802.11n / IEEE802.11g / IEEE802.11b*2
			■Multiple copy: Max. 20 pages
			■Maximum scanning size: A4/Letter, 8.5" x
			11.7"/216x297 mm
			■ Multiple Copy: Mx. 99 pages
			■Scanning resolution: optical resolution (horizontal x vertical)= 600 x 1200 dpi
			◆Data Compressing System: Black=MH, MR, MMR, Color= JPEG
			■Modem Speed: Max. 33.6 kbps
			■Density adjustment: 3 levels
			■Memory: Transmission/reception= approx. 50 pages
			<b>⋖</b> Color: 200 x 200 dpi
			◆Operating System: Windows 10,8.1,7 SP1
			◆Hard Disk Space: 3.1GB
			<b>◄</b> <i>Display: XGA 1024 x 768</i>
			Connectivity Type: WiFi
			■Wireless LAN: Supported Standards: IEEE802.11n /
			IEEE802.11g / IEEE802.11b
			◆Frequency bandwidth: 2.4 GHz
			■ WCN (WCN-NET) • Easy wireless connect
			◆Other Features: Administration password
			◆Other Supported OS: iOS, Android, Windows 10 Mobile
			■Mobile Printing Capability: Google Cloud Print, Apple
42	2	1112	AirPrint
42	3	uni	Printer, computer, continuous ink system, 4-in-1

		t	(Print, Scan, Xerox copy, Fax with ADF)
			■ Print Method: On-demand ink jet (piezoelectric)
			■Minimum Ink Droplet Volume:3 pl
			■ Print Direction: Bi-directional printing, Uni-directional
			printing
			■Nozzle Configuration: 180 nozzles Black, 59 nozzles
			per colour (Cyan, Magenta, Yellow)
			■Maximum Resolution: 5760 x 1440 dpi (with Variable-
			Sized Droplet Technology)
			■USB: USB 2.0
			■Network: Wi-Fi IEEE 802.11b/g/n, Wi-Fi Direct
			■Network Protocol: TCP/IPv4, TCP/IPv6
43	3	рс	SD Card, 1 TB
		_	U3 4K C10 V30
			Capacity: 1 TB
			Compatibility: Compatible with microSDHC/SDXC,/SDHC
			UHS-I/microSDXC UHS-I supporting host devices
			Sequential Read Performance: 200MB/s
			Sequential Write Performance: 140MB/s
			Dimension (L x W x H): 10.92mm x 14.99mm x 1.02mm
44	1	рс	Stereo Speaker for PC Desktop
			Product Description
			Quantum Duo PC speakers with the different color
			presets and lighting patterns
			General Specifications:
			Output power (W)20
			Audio Specifications:
			Dynamic frequency response range (Hz)
			60 Hz - 20K Hz
			Dimensions:
			Dimensions (cm)
			8.9 x 21 x 17.6  Dimensions (in)
			3.5 x 8.3 x 6.9
			3.5 x 6.5 x 6.9
			Weight (lbs)6.2
			Control and Connection Specifications:
			Bluetooth profiles
			A2DP v1.3, AVRCP v1.5
			Bluetooth frequency
			2402 MHz - 2480 MHz
			Bluetooth transmitted modulation
			GFSK, π/4 DQPSK, 8DPSK
			Bluetooth transmitter power
			≤ 12.5 dBm (EIRP)
			Bluetooth version
			4.2
			T.L

_			Desktop Computer, AMD Ryzen 5 5600G, 16GB RAM,
			■Working environment: -20 °C to 60 °C
			■Working voltage: DC5V / 160mA ± 6mA
			■Video output: USB video stream
			■Protocol: UVC / UVA
			■Electronic shutter: Auto
			■Video Frame rate: 25FPS / 30FPS
			360 MJPEG: 1920 * 1080 / 1920 * 720 / 640 * 360
			■Video stream: H.264:1920 * 1080 / 1920 * 720 / 640 *
			SNR: > 50dB
			Horizontal resolution: 2MP
			■Effective pixel: 1932 (H) * 1088 (V)
			■Image sensor: 1 / 2.9 ■Lens: 3.6mm/75.7 °
50	6	t	Web Camera for PC
		uni	Plug type: US, EU
			MS Universal USB 3.0 Multi-Port Socket at least 4 ports
49	4	рс	USB Hub, 4 gangs
			■Charging time: At most 4 hours;
48	3	uni t	UPS 800W ( for Computer)
			<b>■</b> Durable
			■Good quality
			<b>Size</b> : approx. 84 (L) x 44(W) x 20 (H) mm
			■Selectable °F/°C temperature unit
			software
			■Data export in PDF/EXCEL via data management
			external sensor
			■Internal NTC temperature thermal sensor with optional
			Multi-function LCD
			■ Adjustable record interval: 10s~24hour
			■16000 data recording capacity.
71		PC	Portable and hand-held
47	2	рс	Temperature-Humidity Data Logger
			■22 x 28 x 5 mm
			<b>⋖</b> 0-100% RH;
			◆ Operating range  ◆ 0.40000 PUI  • Output  • Description  • Output  •
			<b>◄</b> 3.3 to 6V DC
			■Power supply
			■ polymer capacitor
			■Sensing element
46	6	рс	Temperature and Humidity Sensor, DHT22
			Small plates PCB size: 3.2cm x 1.4cm
			Humidity measuring range: 20%-95%
			Operating voltage: 3.3v-5.5v

			Processor: AMD Ryzen 5 5600G 6 Cores & 12 Threads,	
			3.9 GHz Base Clock,4.4 GHz Max Boost Clock, Socket	
			AM4, 3MB L2 & 16MB L3 Cache or higher	
			■Motherboard: AMD B550 Chipset Ultra Durable	
			Motherboard with 5+3 Phases Pure Digital VRM Solution	
			with Low RDS(on) MOSFETs, PCIe 4.0 x16 Slot, Dual	
			PCIe 4.0/3.0 M.2 Connectors, Realtek GbE LAN, High	
			Quality Audio Capacitors and Audio Noise Guard for	
			Ultimate Audio Quality or higher	
			■Graphics: GTX 1660 ti	
			■Monitor: 24"	
			■Memory: 16GB DDR4 3200MHZ(8+8) or higher	
			■Storage: 512g SSD M2 or higher	
			■Storage: 1TB HDD	
			■Keyboard and Mouse	
			■Audio: HD audio Realtek	
			■Operating System: Genuine Windows 10 or higher	
52	2	рс	Laptop (Pentium Dual Core)	
			■Processor: Intel Pentium Gold 4417u Processor or	
			higher	
			■Memory: at least 4GB DDR4 or higher	
			■Storage: at least 128GB SSD	
			■Display: 14" HD (1366x768) LED Display	
			■Video Processor: nVidia MX110 2GB VRAM or higher	
			■Connectivity: 802.11AC WiFi + BT   USB3.0 Port	
			HDMi Port	
			■Operating System: Genuine Windows 10 Home	
53	1	uni t	Desktop Computer (i7) Branded, with 24" FHD IPS Monitor	
			■ Processor Type: Intel Core i7 (2.1 GHz base frequency,	
			up to 4.9 GHz with Intel Turbo Boost Technology, 25 MB	
			L3 cache, 12 cores, 20 threads) or higher	
			20 dadie, 12 deles, 20 andadoj di ingila	
			Memory: 16 GB DDR4-3200 SDRAM (1 x 16 GR) or	
			■Memory: 16 GB DDR4-3200 SDRAM (1 x 16 GB) or higher	
			higher	
			higher  BHARD Drive: 512 GB PCIe NVMe M.2 SSD; 1 TB 7200	
			higher	
			higher  Mard Drive: 512 GB PCIe NVMe M.2 SSD; 1 TB 7200 rpm SATA HDD  OS: Windows 11	
			higher  ■Hard Drive: 512 GB PCIe NVMe M.2 SSD; 1 TB 7200 rpm SATA HDD  ■OS: Windows 11  ■"Expansion Slot: 2 x PCI Express Slots (1 x PCI-Ex16	
			higher  Mard Drive: 512 GB PCIe NVMe M.2 SSD; 1 TB 7200 rpm SATA HDD  OS: Windows 11  "Expansion Slot: 2 x PCI Express Slots (1 x PCI-Ex16 ,1 x PCI-Ex1), 2 x M.2 Expansion Slots (1 for SSD; 1 for	
			higher  ■Hard Drive: 512 GB PCIe NVMe M.2 SSD; 1 TB 7200 rpm SATA HDD  ■OS: Windows 11  ■"Expansion Slot: 2 x PCI Express Slots (1 x PCI-Ex16	
			higher  ■Hard Drive: 512 GB PCIe NVMe M.2 SSD; 1 TB 7200 rpm SATA HDD  ■OS: Windows 11  ■"Expansion Slot: 2 x PCI Express Slots (1 x PCI-Ex16 ,1 x PCI-Ex1), 2 x M.2 Expansion Slots (1 for SSD; 1 for WLAN)", Expansion Bay: HDD 3.5" x 2 (or HDD 3.5" x 1	
			higher  ■Hard Drive: 512 GB PCIe NVMe M.2 SSD; 1 TB 7200 rpm SATA HDD  ■OS: Windows 11  ■"Expansion Slot: 2 x PCI Express Slots (1 x PCI-Ex16 ,1 x PCI-Ex1), 2 x M.2 Expansion Slots (1 for SSD; 1 for WLAN)", Expansion Bay: HDD 3.5" x 2 (or HDD 3.5" x 1 + HDD 2.5" x1) + 9.5mm slim ODD x 1  ■Monitor: 24" FHD IPS Monitor	
			higher  ■Hard Drive: 512 GB PCIe NVMe M.2 SSD; 1 TB 7200 rpm SATA HDD  ■OS: Windows 11  ■"Expansion Slot: 2 x PCI Express Slots (1 x PCI-Ex16 ,1 x PCI-Ex1), 2 x M.2 Expansion Slots (1 for SSD; 1 for WLAN)", Expansion Bay: HDD 3.5" x 2 (or HDD 3.5" x 1 + HDD 2.5" x1) + 9.5mm slim ODD x 1	
			higher  Mard Drive: 512 GB PCIe NVMe M.2 SSD; 1 TB 7200 rpm SATA HDD  OS: Windows 11  "Expansion Slot: 2 x PCI Express Slots (1 x PCI-Ex16 ,1 x PCI-Ex1), 2 x M.2 Expansion Slots (1 for SSD; 1 for WLAN)", Expansion Bay: HDD 3.5" x 2 (or HDD 3.5" x 1 + HDD 2.5" x1) + 9.5mm slim ODD x 1  Monitor: 24" FHD IPS Monitor  Graphics: NVIDIA GeForce GTX 1660 SUPER (6 GB GDDR6 dedicated)	
			higher  ■Hard Drive: 512 GB PCIe NVMe M.2 SSD; 1 TB 7200 rpm SATA HDD  ■OS: Windows 11  ■"Expansion Slot: 2 x PCI Express Slots (1 x PCI-Ex16 ,1 x PCI-Ex1), 2 x M.2 Expansion Slots (1 for SSD; 1 for WLAN)", Expansion Bay: HDD 3.5" x 2 (or HDD 3.5" x 1 + HDD 2.5" x1) + 9.5mm slim ODD x 1  ■Monitor: 24" FHD IPS Monitor  ■Graphics: NVIDIA GeForce GTX 1660 SUPER (6 GB GDDR6 dedicated)  ■Power Supply: 350 W 80 Plus Gold certified power	
			higher  Mard Drive: 512 GB PCIe NVMe M.2 SSD; 1 TB 7200 rpm SATA HDD  OS: Windows 11  "Expansion Slot: 2 x PCI Express Slots (1 x PCI-Ex16 ,1 x PCI-Ex1), 2 x M.2 Expansion Slots (1 for SSD; 1 for WLAN)", Expansion Bay: HDD 3.5" x 2 (or HDD 3.5" x 1 + HDD 2.5" x1) + 9.5mm slim ODD x 1  Monitor: 24" FHD IPS Monitor  Graphics: NVIDIA GeForce GTX 1660 SUPER (6 GB GDDR6 dedicated)	
			higher  ■Hard Drive: 512 GB PCIe NVMe M.2 SSD; 1 TB 7200 rpm SATA HDD  ■OS: Windows 11  ■"Expansion Slot: 2 x PCI Express Slots (1 x PCI-Ex16 ,1 x PCI-Ex1), 2 x M.2 Expansion Slots (1 for SSD; 1 for WLAN)", Expansion Bay: HDD 3.5" x 2 (or HDD 3.5" x 1 + HDD 2.5" x1) + 9.5mm slim ODD x 1  ■Monitor: 24" FHD IPS Monitor  ■Graphics: NVIDIA GeForce GTX 1660 SUPER (6 GB GDDR6 dedicated)  ■Power Supply: 350 W 80 Plus Gold cerfified power supply	

	1	T	
			■"WLAN: Realtek Wi-Fi 6 (2x2) and Bluetooth 5.2 combo
			(Supporting Gigabit data rate) MU-MIMO supported "
			Bluetooth: YES
			■Ports: Front: 2 SuperSpeed USB Type-A 5Gbps
			signaling rate; 2 SuperSpeed USB Type-A 10Gbps
			signaling rate; 1 SuperSpeed USB Type-C 5Gbps
			signaling rate; Rear: 4 USB 2.0 Type-A
			■Speakers:
			■Single USB cable for computers and laptops   enjoy a
			hassle-free Audio experience with a single USB cable
			without the need for a power adapter
54	4	рс	HP, Laser Jet 107a Toner HP 107A (W1107A), Black
55	1	uni t	Printer, Tank Ink System, 3 in 1 (Print, Scan, Copy)
			■Tank Ink System
			■Printer Type: Print, Scan and Copy
			■Scanner Type: Flatbed colour image scanner
			■Sensor Type: CIS
			■Optical Resolution: 600 x 1200 dpi
			■Copy Speed: Maximum Copies from Standalone: 20
			copies
			■Maximum Copy Size: A4, Letter
			■ISO 29183, A4 Simplex Flatbed (Black / Colour): Up to
			7.0 ipm / 1.7 ipm
			■Max Copy Resolution: 300 x 300 dpi
			■Paper Handling: Up to 20 Sheets-Premium Glossy
			Photo Paper 10 Sheets-Envelope, 30 Sheets-Postcard
			■Output Capacity: Up to 30 sheets
			■A4 plain paper: 20 sheets, Premium Glossy Photo
			Paper
			■Maximum Paper Size: 215.9 x 1200 mm (8.5 x 47.24")
			■Nozzle Configuration: 180 x 1 nozzles Black, 59 x 1
			nozzles per colour (Cyan, Magenta, Yellow)
			■Print Direction: Bi-directional printing
			■Maximum Print Resolution: 5760 x 1440 dpi (with
			Variable-Sized Droplet Technology)5760 x 1440 dpi (with
			Variable-Sized Droplet Technology)
			■Minimum Ink Droplet Size: 3 pl
56	4	box	
			HP 85A (CE285A) toner cartridges work with: HP
			LaserJet Pro M1212nf, M1217nfw, P1102w, P1109w
			HP 85A toner cartridge yield (approx.): 1,600 pages.
			Operating temperature range is 10 to 32.5°C
57	1	lot	1 Lot LAN Cable
			7 spools at 12,000.00 each
			LAN Cable, Cat 6 (VSU existing fleet Belden)
			Cat6 UTP cable, 4 pairs, AWG23, e-spline center, UL
58		lot	listed, ISO, 305m(1000ft)/spool  1 Lot Network Infrastructure (Miscellaneous)

	_	1	
			Network IP Phones:
			3 units at 7,000.00
			Cisco CP-6821 (same existing fleet of VSU IP Phones)
			IP Network Camera:
			5 units at 3,500.00
			Hikvision, Dome type camera, 2 Mega Pixel IP67 (Same
			brand of Existing VSU fleet camera)
			3M Volition (Same fleet of VSU existing) Face plate with
			module, flush type
			*2 Ports Face plate with RJ-45 Module Cat 6
			25 sets at 850.00
			3M Keystone
			Original 3M Volition (Cat6 female Tool-less RJ45
			Keystone Mount)
			Re-usable
			Shallow Depth, Cable Entry from top or bottom
			Keystone Mounting
			Accepts both solid conductors from AWG 26 to 22 and
			stranded conductors
			Integral shutter Benefits
			Easy and quick to install
			Integral shutter protects jack in the patch panel
			*1 Port Face plate with RJ-45 Module Cat 6
			25 sets at 450.00
			3M Keystone
			Original 3M Volition (Cat6 female Tool-less RJ45
			Keystone Mount)
			Re-usable
			Shallow Depth, Cable Entry from top to bottom
			Keystone Mounting
			Accepts both solid conductors from AWG 26 to 22 and
			stranded conductors
			Integral shutter Benefits
			Easy and quick to install
			Integral shutter protects jack in the patch panel
			Granding FA1-H Biometric System (Same with existing
			VSU fleet)
			2 units at 10,000.00
			Biometric System, finger print and facial recognition
			Built-in backup battery
			Network port
59	1	lot	1 Lot Network Switches
			6 units at 75,000.00 each
			Network Switches:
			Units-HP Aruba 2530 (Based on VSU Existing HP fleet of
			network equipment)
			*PoE, PoE+ (370watts)
			*24 ports
	1	1	*Up to 104 Gbps capacity

			*1 0.10 * 2
			*Layer 2 *Fast Ethernet, 1GbE
			*Lifetime Warranty
60	1	lot	1 Lot Network Switches (2)
00		101	2 units at 95,000.00 each
			Network Switches:
			HP Aruba 2540 (Based on VSU existing HP fleet of network equipment)
			PoE, PoE+ (370 watts)
			24 ports
			Up to 176 Gbps Switching capacity
			Layer 2 with Static and RIP
			1G, SFP, SFP+
			Lifetime Warranty
61	1	lot	1 Lot Uninterruptible Power Supply (UPS)
-	•	101	UPS: 9 units at 6,000.00
			1000 watts, 1500VA, Universal type of outlet, built-in AVR
62	1	lot	Network Wifi Access Points
	•	100	20 units Network WiFi Access Points
			Unifi Nano HD
			(Existing fleet of VSU Wifi Access Points)
63	4	uni t	Network Switch
			■Standards: IEEE 802.3, 802.3u, 802.3x, 802.3ab, 802.3az
			■Number of Ports: 24 Gigabit
			■Speed: 10/100/1000
			■Bandwidth: 48 Gbps (non-blocking)
			■Performance: Full line rate and forwarding rate of 64B
			frame at: 1.488Mpps for 1000M port, 0.1488Mpps for
			100M port, 0.01488Mpps for 10M port
			■Quality of Service: 802.1p and DSCP
			■MAC Address Table: 8K
64	3	uni t	UTP Cable (305 meters), CAT 6 23 AWG
			■UTP Cable cat6
			■Cat 6 Cable UTP Unshielded AWG23
			■Gray Data LAN Cable
			■1000 feet 305m 1000ft.
			■must be UL listed & ISO certified cable
65	5	uni t	Laptop, 14" (i7)
			■Processor: Intel Core i7 10th generation or higher
			■Graphics: NVIDIA GeForce MX250 at least 2GB GDDR5
			■Memory: at least 8GB DDR4-2666
			■Storage: at least 256GB SSD M.2 + 1TB HDD
			■Display: 14" FHD (1920x1080) IPS 250nits Anti-glare
			Bullispiay. 14 1110 (1920x1000) II 8 2001113 Anti-giare

	T	1	
	-	<del>                                     </del>	Optical: None
		<u> </u>	■Media Reader: 4-in-1 Card Reader
		_	■Ethernet: None
			■WLAN + Bluetooth
			■Camera: at least 720p
			■Microphone: at least 2x, Array
			■Operating System: licensed Windows 10 Home or Pro
			■Bundled Software: Microsoft Office Perpetual License
			■Repair and replacement should be at most 3 month
		1	from returning the unit
		1	■at least 3 years Warranty
00			■FREE: Backpack
66	30	рс	HDMI to HDMI cable
		<u> </u>	chord 1.8 meter long
67	1	uni t	External Hard Disk Drive (Portable, 2TB), USB
			■Shock-absorbing
		<del>                                     </del>	■Interface: USB 3.1 (Max.5Gb/s)
			©Capacity: 2TB
			■Texture: Plastic/Rubber
			■Operating Voltage: DC 5V, 900mA
			System Requirements: Windows XP / Vista / 7 / 8 / 8.1 /
		<u> </u>	10, Mac OS X 10.6 or later, Linux Kernel 2.6 or later
68	2	pai r	Multimedia Speakers 2.0, 6W, USB powered
			Total Output Power (RMS): 6W
			Satellite wattage (RMS):3W
			Satellite Driver : Size : 2.5"
			Frequency Range: 70-20000 Hz
			Interface: 3.5mm jack
			Housing material : ABS
			Controls: Overall Volume
			Power Supply: via USB, 5V
69	4	рс	DJI Inspire 2 TB50 Intelligent Flight Battery
70	2	рс	Lithium Polymer battery 2150MAH 11.V Sensefly
			Type 2150 MAH-Min 2150 mAh-24wh
71	1	lot	A4 Pigment Printer
72	1	uni	Smartphone for 3D and Internet-of-Things
		t	Development and Controls
			6-core CPU with 2 performance and 4 efficiency cores;
		1	5-core GPU; 16-core Neural Engine
		<del>                                     </del>	Gold Finish
		<u> </u>	6.1-inch (diagonal) all-screen OLED display
		<del>                                     </del>	2556-by-1179-pixel resolution at 460 ppi
		<u> </u>	256 GB
			Rated IP68 (maximum depth of 6 meters up to 30
	ļ	<u> </u>	minutes) under IEC standard 60529
			TrueDepth camera for facial recognition  Precision dual-frequency GPS (GPS, GLONASS, Galileo,

			Wi-Fi Cellular
			iBeacon microlocation
			LiDAR Scanner
			Barometer
			High dynamic range gyro
			High-g accelerometer
			Proximity sensor
			Dual ambient light sensors
73	6	uni t	Arduino UNO microcontroller, Microchip AT mega328P
74	8	set	Computer Monitor 24", IPS, Bezel-less Full HD Monitor
			■Panel Type: IPS
			■Brightness(Typical): 250cd/ m²
			<b>■</b> Brightness(Min): 200cd/ <i>m</i> ²
			■Contrast Ratio Static: 1000:1(typical)
			■Dynamic Contrast Ratio: MegaFlat
			■Resolution: 1920x1080
			■Response Time: 5ms(GTG)
			■Max Color Support: Max 16.7M
			Max Refresh Rate: Max 75Hz  What of the condition of the
75	2	200	©Interface: D-sub(x1), HDMI(x1)
3		рс	CPU (Central Processing Unit)  © AMD A10-8770 Processor
			■Motherboard compatible with the processor
			■Kingston 4GB DDR4-2666 Memory
			©CPU Casing w/ PSU
			■256GB SSD
<b>'</b> 6	15	uni t	External Hard Disk Drive (Portable, 1TB), USB 3.1
			■Shock-absorbing
			■Interface: USB 3.1 (Max.5Gb/s)
			■Capacity: 1TB
			■Texture: Plastic/Rubber
			■Operating Voltage: DC 5V, 900mA
			■System Requirements: Windows XP / Vista / 7 / 8 / 8.1 / 10, Mac OS X 10.6 or later, Linux Kernel 2.6 or later
77	10	pac k	Ink, T05C1, BLACK, Genuine
			(for Epson C878R WorkForce Pro A3 Colour Multifunction Printer, Replaceable Ink Pack System RIPS Original Pigment Inks)
		pac	,

			M W
			Multifunction Printer, Replaceable Ink Pack System RIPS Original Pigment Inks)
79	10	pac k	Ink, T05C3, Magenta, Genuine
			(for Epson C878R WorkForce Pro A3 Colour
			Multifunction Printer, Replaceable Ink Pack System RIPS
			Original Pigment Inks)
80	10	pac k	Ink, T05C4, Yellow, Genuine
			(for Epson C878R WorkForce Pro A3 Colour
			Multifunction Printer, Replaceable Ink Pack System RIPS
			Original Pigment Inks)
81	20	uni t	Laptop 14" (i5)
			■Processor: Intel Core i5-1035G1 Processor 1.0 GHz 6M
			Cache, up to 3.60 GHz or higher
			■Operating system: Windows 10 Home
			■Memory: 4GB memory, 1 x SO-DIMM socket (for
			expansion) or higher
			■Display: 14.0" (16:9) LED-backlit FHD (1920x1080)
			60Hz Anti-Glare Panel with 45% NTSC
			■ Video Processor: NVIDIA GeForce MX330, with 2GB
			GDDR5 VRAM or higher
		<u> </u>	Storage: 512GB PCIe Gen3 x2 SSD
82	10	uni t	Universal HDMI to VGA Adapter Cable, at least 1.8 meters
83	1	uni t	Desktop Computer with 2 Units Printer
			Desktop Computer with 2 units Printers
			Intel Core i7-13400, 10C (6P + 4E) / 16T, P-core 2.5 /
			4.6GHz, E-core 1.8 / 3.3GHz, 20MB or higher
	1	1	mATX B760 Chipset Motherboard with Hybrid 8+1+1
			Phases Digital VRM Solution/ Advanced Thermal Design
			Phases Digital VRM Solution/ Advanced Thermal Design & M.2 Thermal Guard
			Phases Digital VRM Solution/ Advanced Thermal Design & M.2 Thermal Guard  16GB UDIMM DDR4-3200 or higher
			Phases Digital VRM Solution/ Advanced Thermal Design & M.2 Thermal Guard  16GB UDIMM DDR4-3200 or higher  1TB SSD M.2 2280 PCIe 4.0x4 NVMe
			Phases Digital VRM Solution/ Advanced Thermal Design & M.2 Thermal Guard  16GB UDIMM DDR4-3200 or higher  1TB SSD M.2 2280 PCIe 4.0x4 NVMe  600Watts Bronze Certified PSU or higher
			Phases Digital VRM Solution/ Advanced Thermal Design & M.2 Thermal Guard  16GB UDIMM DDR4-3200 or higher  1TB SSD M.2 2280 PCIe 4.0x4 NVMe  600Watts Bronze Certified PSU or higher  Casing with Acrylic Side Panels
			Phases Digital VRM Solution/ Advanced Thermal Design & M.2 Thermal Guard  16GB UDIMM DDR4-3200 or higher  1TB SSD M.2 2280 PCIe 4.0x4 NVMe  600Watts Bronze Certified PSU or higher  Casing with Acrylic Side Panels  NVIDIA GeForce RTX 3050 8GB GDDR6
			Phases Digital VRM Solution/ Advanced Thermal Design & M.2 Thermal Guard  16GB UDIMM DDR4-3200 or higher  1TB SSD M.2 2280 PCIe 4.0x4 NVMe  600Watts Bronze Certified PSU or higher  Casing with Acrylic Side Panels  NVIDIA GeForce RTX 3050 8GB GDDR6  Wi-Fi 6, 11ax 2x2 + BT5.1
			Phases Digital VRM Solution/ Advanced Thermal Design & M.2 Thermal Guard  16GB UDIMM DDR4-3200 or higher  1TB SSD M.2 2280 PCIe 4.0x4 NVMe  600Watts Bronze Certified PSU or higher  Casing with Acrylic Side Panels  NVIDIA GeForce RTX 3050 8GB GDDR6
			Phases Digital VRM Solution/ Advanced Thermal Design & M.2 Thermal Guard  16GB UDIMM DDR4-3200 or higher  1TB SSD M.2 2280 PCIe 4.0x4 NVMe  600Watts Bronze Certified PSU or higher  Casing with Acrylic Side Panels  NVIDIA GeForce RTX 3050 8GB GDDR6  Wi-Fi 6, 11ax 2x2 + BT5.1  24" IPS Monitor, 75Hz  4 outlets (4 NEMA 5-15R), 650VA/360W, AVR
			Phases Digital VRM Solution/ Advanced Thermal Design & M.2 Thermal Guard  16GB UDIMM DDR4-3200 or higher  1TB SSD M.2 2280 PCIe 4.0x4 NVMe  600Watts Bronze Certified PSU or higher  Casing with Acrylic Side Panels  NVIDIA GeForce RTX 3050 8GB GDDR6  Wi-Fi 6, 11ax 2x2 + BT5.1  24" IPS Monitor, 75Hz  4 outlets (4 NEMA 5-15R), 650VA/360W, AVR Technology, Surge Protection, UPS
			Phases Digital VRM Solution/ Advanced Thermal Design & M.2 Thermal Guard  16GB UDIMM DDR4-3200 or higher  1TB SSD M.2 2280 PCIe 4.0x4 NVMe  600Watts Bronze Certified PSU or higher  Casing with Acrylic Side Panels  NVIDIA GeForce RTX 3050 8GB GDDR6  Wi-Fi 6, 11ax 2x2 + BT5.1  24" IPS Monitor, 75Hz  4 outlets (4 NEMA 5-15R), 650VA/360W, AVR Technology, Surge Protection, UPS  Genuine Windows 11 Home
			Phases Digital VRM Solution/ Advanced Thermal Design & M.2 Thermal Guard  16GB UDIMM DDR4-3200 or higher  1TB SSD M.2 2280 PCIe 4.0x4 NVMe  600Watts Bronze Certified PSU or higher  Casing with Acrylic Side Panels  NVIDIA GeForce RTX 3050 8GB GDDR6  Wi-Fi 6, 11ax 2x2 + BT5.1  24" IPS Monitor, 75Hz  4 outlets (4 NEMA 5-15R), 650VA/360W, AVR Technology, Surge Protection, UPS
			Phases Digital VRM Solution/ Advanced Thermal Design & M.2 Thermal Guard  16GB UDIMM DDR4-3200 or higher  1TB SSD M.2 2280 PCIe 4.0x4 NVMe  600Watts Bronze Certified PSU or higher  Casing with Acrylic Side Panels  NVIDIA GeForce RTX 3050 8GB GDDR6  Wi-Fi 6, 11ax 2x2 + BT5.1  24" IPS Monitor, 75Hz  4 outlets (4 NEMA 5-15R), 650VA/360W, AVR Technology, Surge Protection, UPS  Genuine Windows 11 Home

			Laptop:Intel Core i7-12650H Processor 2.3 GHz (24M)
			Cache, up to 4.7 GHz, 10 cores) or higher
			16GB RAM or higher
			512GB M.2 NVMe PCIe 3.0 SSD or higher
			16.0-inch WUXGA (1920 x 1200) 16:10 aspect ratio LED
			Backlit IPS-level Panel 120Hz refresh rate
			NVIDIA Geforce RTX 3050 4GB Laptop GPU 4GB
			GDDR6
			Wi-Fi 6E (802.11ax) (Dual band) 1*1 + Bluetooth 5.3
			Wireless Card
		1.41	Windows 11 Home
85	6	btl	Epson 003 Ink Bottle for Epson L3150, Black
86	6	btl	Epson 003 Ink Bottle for Epson L3150, CYAN
87	6	btl	Epson 003 Ink Bottle for Epson L3150, MAGENTA
88	6	btl	Epson 003 Ink Bottle for Epson L3150, YELLOW
89	1	рс	Router, Wireless
			■ Enjoy the benefits of Wireless-N300 (802.11n) in your
			home ideal for surfing the web, emailing and printing
			wirelessly
			■Connect your computers, wireless printers, smartphones, and other wireless devices at up to 300
			Mbps transfer speed
			■Enjoy broad wireless coverage provided by MIMO
			antenna technology
			■Use four Fast Ethernet (10/100 Mbps) ports to directly
			connect wired devices
			■Keep your network protected with customizable security
			settings, including WPA/WPA2 Personal and SPI firewall
			protection
90	1	uni	Laptop
	<u>'</u>	t	• •
			Operating System
			Windows 11 Home Single Language
	1		Operating System Architecture 64-bit
	1		Processor: Intel Core™ i5 -12500H or higher
	1		Processor Speed 2.50 GHz
	1		Processor Core Dodeca-core (12 Core™)
	1		Processor Generation 12th Gen
	1		Graphics Controller Manufacturer: NVIDIA®
			Graphics Controller Model
			GeForce® RTX™ 3050
			Graphics Memory Capacity 4 GB
			GDDR6
			Graphics Memory Accessibility
			Dedicated Clark
			GPU Boost Clock
			Up to 1600 MHz
	-		Maximum Graphics Power
			Up to 95 W

Screen Size: 39.6 cm (15.6")  Display Screen Type: LCD  Backlight Technology: LED  Screen Resolution: 1920 x 1080  Standard Refresh Rate
Backlight Technology: LED Screen Resolution: 1920 x 1080 Standard Refresh Rate
Screen Resolution: 1920 x 1080 Standard Refresh Rate
Screen Resolution: 1920 x 1080 Standard Refresh Rate
4441
144 Hz
Total Installed System Memory: 8 GB
DDR4 SDRAM
Total Solid State Drive Capacity ; 512 GB
Solid State Drive Interface
PCI Express
Wireless LAN Standard
IEEE 802.11 a/b/g/n/ac/ax
Wireless LAN Model
Wi-Fi 6 AX 1650i
Ethernet Technology
Gigabit Ethernet
Bluetooth Standard
Bluetooth 5.1 or above
Built-in Devices
Microphone
Interfaces/Ports
HDMI
Number of HDMI Outputs: 1
Number of USB 3.2 Gen 1 Type-A Ports: 1
Number of USB 3.2 Gen 2 Type-A Ports: 2
Number of USB 3.2 Gen 2 Type-A Ports: 2  Number of USB 3.2 Gen 2 Type-C Ports:1
Total Number of USB Ports:4
USB Type-C
,,
USB Type-C Detail
USB Type-C port supporting: USB 3.2 Gen 2 (up to 10
Gbps), DisplayPort over USB-C, Thunderbolt 4, USB
charging 5 V; 3 A, DC-in port 20 V; 65 W Network (RJ-45)
Pointing Device Type
TouchPad
Keyboard Backlight
TouchPad Features
Multi-touch Gesture
4-cell Lithium Ion (Li-Ion) Battery
Maximum Power Supply Wattage 180 W
Product Color Obsidian Black
Miscellaneous
Package Contents
Nitro 5 AN515-58-50YE Gaming Notebook
Lithium Ion Battery
AC Adapter
Security Features

	1	1	T =
	1		Firmware Trusted Platform Module (TPM) solution
			Kensington lock slot
			Rebidding - VSU-GOODS-23-36
		<u> </u>	
91	1	set	4000W Power Inverter + 3A solar controller kit
			Specifications:
			Output Voltage 220V
			Color: Yellow Black
			Material: Plastic
			Waveform: Modified Sine Wave
			Surge Peak Power: 4000W
			Input voltage: 12V
			Input voltage Range; 9.5V - 15.5V
			Output Voltage Range: 220V+ 10%
			Frequency: 50Hz
			Efficiency 90%
			Circuit topology push-pull
			No load current < 0.7A
			Low voltage protection: Minimum protection voltage 9.5V
			High voltage protection: Max protection voltage 15.5V
			Overload protection: Yes
			Output short circuit protection: Yes
			Positive and negative reverse connection protection: YES
			Output regulation: Yes
			Display Scree: Display Output Voltage Battery Voltage
			Input terminal wiring: terminal
			Output interface: 1Socket, 2* USB
			USB Output 2.14
			Car Cigarette Plug Length: 42.5cm/16.7inch
			Battery clips length 46.8cm / 6.334.4* 2.2 inch
			(NOTE: see attached specifications)
02	4		Automatic Voltage Regulator, 5000 VA, Servo-motor
92	1	рс	controlled
			Capacity: 5000 VA
			Input Voltage: 160-240 V
			Output Voltage: 110/220 V
			Phase: Single
			Control System: Servo-Motor Control
			Response Time: within 4sec against 10%, Input
			Fluctuation
			Overload Protection
			Time Delay Function
		1	Analog Volt Meter and Ammeter
93	1	unit	Camera
	<del>  '</del>	JIIII.	SENSOR TYPE: 1.0-type (13.2 mm x 8.8 mm) Exmor
			RS® CMOS sensor, aspect ratio 3:2
		†	NUMBER OF PIXELS (EFFECTIVE): Approx. 20.1
			Megapixels
	<u> </u>	1	Mogapinolo

LENS TYPE: ZEISS® Vario-Sonnar® T* Lens, 10	
elements in 9 groups (9 aspheric elements including AA	
lens)	
F-NUMBER (MAXIMUM APERTURE): F1.8(W)–2.8(T)	
ND-FILTER: Auto/On (3 steps)/Off	
FOCAL LENGTH: f = 8.8-25.7 mm	
ANGLE OF VIEW (35 MM FORMAT EQUIVALENT): 84	
deg-34 deg (f = 24-70 mm2)3	
FOCUS RANGE (FROM THE FRONT OF THE LENS):	
iAuto: AF (W: Approx. 5 cm (0.17 ft) to Infinity, T: Approx.	
30 cm (0.99 ft) to Infinity) / Program Auto: AF (W: Approx.	
5 cm (0.17 ft) to Infinity, T: Approx. 30 cm (0.99 ft) to	
Infinity)	
OPTICAL ZOOM: 2.9x	
CLEAR IMAGE ZOOM (STILL IMAGE): 20 M Approx.	
5.8x/10 M Approx. 8.2x/5.0 M Approx. 11x/VGA Approx.	
44x	
CLEAR IMAGE ZOOM (MOVIE): 4K: 4.35x, HD: Approx.	
5.8x	
DIGITAL ZOOM (STILL IMAGE): 20 M Approx. 11x/10 M	
Approx. 16x/5.0 M Approx. 23x/VGA Approx. 44x	
DIGITAL ZOOM (MOVIE): Digital Zoom Approx. 11x	
SCREEN TYPE: 7.5 cm (3.0 type)(4:3)/1,228,800	
dots/Xtra Fine/TFT LCD	
ADJUSTABLE ANGLE: Up by approx. 180 degrees,	
down by approx. 45 degrees	
DISPLAY SELECTOR (FINDER/LCD): Auto/EVF	
(Manual)/Monitor(Manual)	
MS ASSIST MAGNIFICATION: 5.3x, 10.7x	
SCREEN TYPE/NUMBER OF DOTS: 0.39-type	
electronic viewfinder(OLED), 2,359,296 dots	
FIELD COVERAGE: 100%	
MAGNIFICATION: Approx. 0.59x with 50 mm lens at	
infinity, -1m-1(diopter) (35 mm equiv.)	
EYE POINT: Approx. 20 mm from the eyepiece, 19.2 mm	
from the eyepiece frame at -1m-1(diopter) (CIPA	
standard)	
DIOPTRE ADJUSTMENT: -4.0 to +3.0 m-1	
BRIGHTNESS CONTROL: Auto, Manual (5 steps)	
IMAGE PROCESSING ENGINE: Yes (BIONZ X)	
STEADYSHOT (STILL IMAGE): Optical	
STEADYSHOT (MOVIE): Yes (Intelligent Active Mode,	
Optical type with electronic compensation, Anti Rolling	
type)	
FOCUS TYPE: Fast Hybrid AF(phase-detection	
AF/contrast-detection AF)	
FOCUS MODE: Single-shot AF, Automatic AF,	
Continuous AF, DMF, Manual Focus	
FOCUS AREA: Wide (315 points (phase-detection AF),	

25 points [contrast-detection AF]), Zone, Center, Flexible	
Spot (S/M/L), Expanded Flexible Spot, Lock on AF	
Wide/Zone/Center/Flexible Spot(S/M/L)/Expanded	
Flexible Spot	
LOCK ON AF: Yes	
LIGHT METERING MODE: Multi Pattern, Center-	
Weighted, Spot, Entire Screen Avg, Highlight	
EXPOSURE COMPENSATION: +/- 3.0 EV, 1/3 EV step	
ISO SENSITIVITY (STILL IMAGE)(RECOMMENDED EXPOSURE INDEX)	
Auto (ISO125-12800, selectable with upper/lower	
limit),125/160/200/250/320/400/500/640/800/1000/1250/1	
600/2000/2500/3200/4000/5000/6400/8000/10000/12800	
(Extendable to ISO80/100), Multi-Frame NR:	
Auto(ISO125-12800),	
200/400/800/1600/3200/6400/12800/2560056	
ISO SENSITIVITY (MOVIE)	
Auto: (ISO125–ISO12800, selectable with upper/lower	
limit),	
125/160/200/250/320/400/500/640/800/1000/1250/1600/	
2000/2500/3200/4000/5000/6400/8000/10000/12800	
MINIMUM ILLUMINATION (MOVIE): Auto:1.2 lux(Shutter	
Speed 1/30")	
WHITE BALANCE MODES: Auto, Daylight, Shade,	
Cloudy, Incandescent, Fluor.: Warm White, Fluor.: Cool	
White, Fluor.: Day White, Fluor.: Daylight, Flash,	
Underwater Auto, C.Temp./Filter, Custom	
WB MICRO ADJUSTMENT: Yes	
SHUTTER SPEED	
iAuto (4" - 1/2000)/Program Auto (30" - 1/2000)/Manual	
(Bulb, 30" - 1/2000)/Aperture Priority (30" -	
1/2000)/Shutter Priority (30" - 1/2000)	
ELECTRONIC SHUTTER	
iAuto (4" - 1/32000)/Program Auto (30" -	
1/32000)/Manual (30" - 1/32000)/Aperture Priority (30" -	
1/32000)/Shutter Priority (30" - 1/32000)	
APERTURE	
iAuto (F1.8/F11(W)) / Program Auto(F1.8/F11(W)) /	
Manual(F1.8/F11(W)) / Shutter Priority(F1.8/F11(W)) /	
Aperture Priority(F1.8/F11(W))	
IMAGE CONTROL	
Contrast, Saturation, Sharpness, Creative Style, Color	
Space (sRGB/Adobe RGB), Quality (RAW/RAW&JPEG	
(Extra fine, Fine, Standard)/JPEG (Extra fine, Fine,	
Standard)	
NOISE REDUCTION	
Long exposure NR: On/Off, available of shutter speeds	
longer than 1/3 sec., high ISO NR: Normal/Low/Off, Multi	
Frame NR: Auto, ISO200-25600	
1 1 14.110 111.1.14.10, 10 0 20 0 20 00 0	

DYNAMIC RANGE FUNCTIONS	
Off, Dynamic Range Optimizer (Auto/Level 1-5), Auto	
High Dynamic Range (Auto Exposure Difference,	
Exposure Difference Level (1.0–6.0 EV, 1.0 EV step))	
SHOOTING MODE	
AUTO(Intelligent Auto/Superior Auto), Program Auto,	
Aperture Priority, Shutter Speed Priority, Manual	
Exposure, MR(Memory Recall) [body 3 sets/memory card	
4 sets], Movie Mode(Program Auto, Aperture Priority,	
Shutter Speed Priority, Manual Exposure),HFR Mode	
(Program Auto, Aperture Priority, Shutter Speed Priority,	
Manual Exposure), Panorama, Scene Selection	
SCENE SELECTION	
Portrait, Sports Action, Macro, Landscape, Sunset, Night	
Scene, Handheld Twilight, Night Portrait, Anti-Motion	
Blur, Pet Mode, Gourmet, Fireworks, High Sensitivity	
CONTINUOUS SHOOTING SPEED (MAXIMUM) (WITH	
MAX. RECORDING PIXELS)	
Continuous Shooting Hi: approx. 24fps, Continuous	
Shooting Mid: approx. 10fps, Continuous Shooting Low:	
approx. 3.5fps 8910	
SELF-TIMER	
10 s / 5 s / 2 s / 3 or 5 consecutive shots with 10 s, 5 s, or	
2 s delay selectable / Bracketing shots with 10 s, 5 s, or 2	
s delay selectable	
DRIVE MODES	
Single, Continuous shooting (Hi/Mid/Lo), Self-timer, Self-	
timer(cont.), Contbracketing11, Single-bracketing11,	
White balance bracketing11, DRO bracketing11	
PANORAMA (SHOOTING): Sweep Panorama	
PICTURE EFFECT	
[Still Image]:Toy camera, Pop Color, Posterization, Retro	
Photo, Soft High-key, Partial Color, High Contrast Mono.,	
Soft Focus, HDR Painting, Richtone Monochrome,	
Miniature, Watercolor, Illustration; [Movie]:Toy camera,	
Pop Color, Posterization, Retro Photo, Soft High-key,	
Partial Color, High Contrast Mono.	
CREATIVE STYLE	
Standard, Vivid, Neutral, Clear, Deep, Light, Portrait,	
Landscape, Sunset, Night Scene, Autumn Leaves, Black	
& White, Sepia, Style Box	
PICTURE PROFILE	
off/PP1-PP7(Black Level, Gamma (Movie, Still, Cine1-2,	
ITU709, ITU709 [800%], S-Log2), Black Gamma, Knee,	
Color Mode, Saturation, Color Level, Color Phase, Color	
Depth, Detail, Copy, Reset)	
NUMBER OF RECOGNISED SCENES	
Still Image:Superior Auto: 44 / iAuto: 33, Movie:44	
FLASH MODE: Auto/Flash On/Slow Synchro/Rear	

Sync/Flash Off	
FLASH TYPE: Built-in, manual pop-up	
AF ILLUMINATOR: Auto / Off	
BRACKETING: Yes	
FLASH RANGE	
ISO Auto: Approx.0.4 m to 10.2 m (1.31 ft to 33.46 ft) (W)	
/ Approx. 0.4 m to 6.5 m (1.31 ft to 21.33 ft) (T),	
ISO12800: up to Approx. 20.4 m (66.93 ft.) (W) / Approx.	
13.0 m (42.65 ft.) (T)	
1 1	
COMPATIBLE RECORDING MEDIA	
Memory Stick Duo, Memory Stick PRO Duo, Memory	
Stick PRO Duo (High Speed), Memory Stick PROHG	
Duo, Memory Stick Micro1, Memory Stick Micro (Mark2),	
SD Memory Card, SDHC Memory Card(UHS-I), SDXC	
Memory Card (UHS-I), microSD Memory Card,	
microSDHC Memory Card, microSDXC Memory Card	
RECORDING FORMAT	
[Still Image]: JPEG(DCF Ver.2.0, Exif Ver.2.31, MPF	
Baseline compliant), RAW (Sony ARW 2.3 format);	
[Movie]: XAVC S, AVCHD format Ver.2.0 compatible	
RECORDING FORMAT (MOVIE AUDIO)	
XAVC S: LPCM 2ch, AVCHD: Dolby Digital (AC-3) 2ch	
(Dolby Digital Stereo Creator)	
COLOUR SPACE (STILL)	
sRGB, Adobe® RGB	
DCF/DPOF	
DCF/DPOF/EXIF/MPF	
STILL IMAGE NUMBER OF RECORDED PIXELS	
(IMAGE SIZE)	
3:2 mode: 20M (5,472 x 3,648) / 10M (3,888 x 2,592) /	
5M (2,736 x 1,824), 4:3 mode:18M (4,864 x 3,648) / 10M	
(3,648 x 2,736) / 5M (2,592 x 1,944) / VGA,16:9	
mode:17M (5,472 x 3,080) / 7.5M (3,648 x 2,056) / 4.2M	
(2,720 x 1,528), 1:1 mode: 13M (3,648 x 3,648) / 6.5M	
(2,544 x 2,544) / 3.7M (1,920 x 1,920), Sweep	
Panorama: Wide (12,416 x 1,856/5,536 x 2,160),	
Standard (8,192 x 1,856/3,872 x 2,160)	
MOVIE RECORDING MODE (NTSC)	
NTSC/PAL Selector: [NTSC] AVCHD: 24 M FX	
(1,920x1,080/60i)/17 M FH (1,920x1,080/60i), XAVC S	
4K: 30p 100 M (3,840x2,160/30p)/30p 60 M	
(3,840x2,160/30p)/24p 100 M (3,840x2,160/24p)/24p 60	
M (3,840x2,160/24p), XAVC S HD: 60p 50 M	
(1,920x1,080/60p)/60p 25 M (1,920x1,080/60p)/30p 50 M	
(1,920x1,080/30p)/30p 16 M (1,920x1,080/30p)/24p 50 M	
(1,920x1,080/24p)/120p 100 M (1,920x1,080/120p)/120p	
60 M (1,920x1,080/120p)	
MOVIE RECORDING MODE (PAL)	
NTSC/PAL Selector: [PAL] mode AVCHD: 24 M FX	

(1,920x1,080/50i)/17 M FH (1,920x1,080/50i), XAVC S 4K: 25p 100 M (3,840x2,160/25p)/25p 60 M (3,840x2,160/25p), XAVC S HD:50p 50 M (1,920x1,080/50p)/50p 25 M (1,920x1,080/50p)/25p 50 M (1,920x1,080/25p)/25p 16 M (1,920x1,080/25p)/100p 100 M (1,920x1,080/100p)/100p 60 M (1,920x1,080/100p),	
HFR	
(Recording) NTSC/PAL Selector: [PAL] mode XAVC S HD:50p 50M(1920x1080/250fps), 50p 50M(1920x1080/500fps), 50p 50M(1920x1080/1000fps) / 25p 50M(1920x1080/250fps), 25p 50M(1920x1080/500fps), 25p 50M(1920x1080/500fps), 25p 50M(1920x1080/1000fps), NTSC/PAL Selector: [NTSC] mode XAVC S HD:60p 50 M (1,920x1,080/240fps), 60p 50 M (1,920x1,080/480fps), 60p 50 M (1,920x1,080/480fps), 30p 50 M (1,920x1,080/480fps), 30p 50 M (1,920x1,080/480fps), 30p 50 M (1,920x1,080/480fps), 24p 50 M (1,920x1,080/960fps) (Sensor Readout Number of effective pixels) Quality Priority: 240fps/250fps (1,824x616), 960fps/1000fps (1,244x420)/Shoot Time Priority: 240fps/250fps	
240fps/250fps (1,824x616), 480fps/500fps	
(1,292x436),960fps/1000fps (912x308)	
STILL IMAGE NUMBER OF RECORDED PIXELS	
(IMAGE SIZE) DURING MOVIE	
16:9 mode:	
17M(5472×3080)/7.5M(3648×2056)/4.2M(2720×1528)	
PROXY RECORDING	
Yes(1280 x 720 [approx. 9 Mbps])	
INPUT AND OUTPUT TERMINALS: Multi/Micro USB	
Terminal14, High-Speed USB (USB 2.0), Micro HDMI	
NFC: NFC forum Type 3 Tag compatible, One-touch remote, One-touch sharing	
WI-FI: Yes (IEEE802.11b/g/n(2.4 GHz band))	
POWER SOURCE	
DC 3.6 V(supplied battery) / DC 5.0 V(supplied AC	
Adapter)	
BATTERY SYSTEM	
Rechargeable Battery Pack NP-BX1	
POWER CONSUMPTION (CAMERA MODE)	
Approx. 2.6 W with LCD monitor and approx. 3.0 W with	
viewfinder (CIPA standard)	
USB CHARGE/USB POWER SUPPLY	
Yes (Shooting, Playback)	
BATTERY LIFE(STILL IMAGES)(CIPA)	
Monitor:Approx. 220 / Approx. 110 min.,	
ViewFinder:Approx. 210/Approx. 105 min.	
BATTERY LIFE(MOVIES ACTUAL SHOOTING)(CIPA)	

	1	1	T
			Monitor:Approx. 35 min., ViewFinder:Approx. 35 min.
			BATTERY LIFE(MOVIES CONTINUOUS
			SHOOTING)(CIPA)
			Monitor:Approx. 65 min., ViewFinder:Approx. 65 min.
			DIMENSIONS (W X H X D) (APPROX.)
			101.6x58.1x41.0 mm (4 in x 2 3/8 in × 1 5/8 in)
			WEIGHT (CIPA COMPLIANT)
			Approx. 299 g (10.5 oz)(Battery and Memory Stick Duo
	4		are included) / Approx. 272 g (9.6 oz)(Body Only)
94	1	рс	Digital Multimeter
			DCV: 400m/4/40/400/1000V
			ACV: 4/40/400/1000V ±(1.2%+7)
			DCA: 400µ/4000µ/40m/400m/4/10A
			ACA: 400µ/4000µ/40m/400m/4/10A
			Resistance: 400/4k/40k/400k/4M/40MΩ
			Capacitance: 50n/500n/5µ/50µ/100µF
			Frequency: 5/50/500/5k/50k/100kHz
			Continuity: Buzzer sounds and LED lights up at between
			$0\Omega$ and $85\Omega$ (±45Ω) . Open voltage:Approx. 0.4V
			Diode test: Open voltage:approx.1.5V
			Battery Check: Approximate value (30 $\Omega$ load) 1.5V
			battery only
			Display numeral display: 4000
			Sampling rate: 3 times/sec.
			Bandwidth: 40~400Hz (Sine wave)
			Fuse: 0.5A/1000V 30kA Φ6.35×32mm 10A/1000V 30kA
			Ф10×38mm
			Battery: R6Px2
			Battery life: Approx.400h (manganese battery) at DCV
			rangeSafety: IEC61010CAT. III 600V/CAT. II 1000VDCV:
			400m/4/40/400/1000V
			ACV: 4/40/400/1000V ±(1.2%+7)
			DCA: 400µ/4000µ/40m/400m/4/10A
			ACA: 400µ/4000µ/40m/400m/4/10A
			Resistance: 400/4k/40k/400k/4M/40MΩ
			Capacitance: 50n/500n/5µ/50µ/100µF
			Frequency: 5/50/500/5k/50k/100kHz
			Continuity: Buzzer sounds and LED lights up at between
			$0\Omega$ and $85\Omega$ (±45Ω) . Open voltage:Approx. 0.4V
			Diode test: Open voltage:approx.1.5V
			Battery Check: Approximate value (30 $\Omega$ load) 1.5V
			battery only
			Display numeral display: 4000
			Sampling rate: 3 times/sec.
			Bandwidth: 40~400Hz (Sine wave)
			Fuse: 0.5A/1000V 30kA Ф6.35×32mm 10A/1000V 30kA
			Ф10×38mm
			Battery: R6Px2

		_	
			Battery life: Approx.400h (manganese battery) at DCV
			range
			Safety: IEC61010CAT. III 600V/CAT. II 1000V
95	1	lot	Electronics Tools and Instruments
			Digital Multimeter -> 10 units
			For measuring AC & DC current, resistance, capacitance,
			continuity, frequency, duty cycle and diode
			Toolbox -> 2 units
			Dimensions: 494 x 263 x 250 mm
			With removable tote tray
			Lineman Pliers Set -> 1 unit
			3-pc Set of Insulated Chrome Vanadium Steel of:
			Regular pliers, Long Nose pliers, and Diagonal Cutting
			pliers
			Extra Long Nose Pliers Set -> 1 unit
			1 pc. 0° Plier Length: 285mm/ 11.22inch.
			1 pc. 45° Plier Length: 280mm/ 1102inch.
			1 pc. 90° Plier Length:265mm/ 10.43inch.
			1 pc. O Shape Plier Length: 275mm/ 10.83inch.
			Multi-functional automatic wire stripping pliers -> 1
			unit
			Self-adjusting Automatic Wire Stripper/Cutting Pliers for
			wire stripping, cutting, crimping, and installing TAB
			Terminal
96	1	рс	HAIER HSU-18NSV13(DC) Board
			PCB NO.A 500201 - 100Q;
97	1	рс	Hard Drive (2 TB)
98	1	unit	Tablet 10.9", 64GB, Wifi + Cellular
			■64GB Storage Capacity
			■A14 Bionic chip with 64-bit architecture, Neural Engine
			■10.9-inch (diagonal) LED-backlit Multi-Touch display
			with IPS technology
			■2360-by-1640-pixel resolution at 264 pixels per
			inch (ppi)
			■Wide color display (P3)
			■True Tone display
			■Fingerprint-resistant oleophobic coating
			■Fully laminated display
			■Antireflective coating
			■12MP Wide camera
			■f/1.8 aperture
			■Five-element lens
			■Hybrid IR filter
			■4K video recording at 24 fps, 30 fps, or 60 fps
			■1080p HD video recording at 30 fps or 60 fps
			■Slo-mo video support for 1080p at 120 fps or 240 fps
			■7MP photos
			■f/2.2 aperture
	l .	1	J

			■1080p HD video recording at 60 fps	
			■Wide color capture for photos and Live Photos	
			■Smart HDR	
			■Stereo speakers	
			■Dual microphones for calls, video recording, and audio	
			recording	
			■802.11ax Wi-Fi 6; simultaneous dual band (2.4GHz and	
			5GHz); HT80 with MIMO	
			■UMTS/HSPA/HSPA+/DC-HSDPA (850, 900,	
			1700/2100, 1900, 2100 MHz); GSM/EDGE (850, 900,	
			1800, 1900 MHz)	
			■Gigabit-class LTE (Bands 1, 2, 3, 4, 5, 7, 8, 11, 12, 13,	
			14, 17, 18, 19, 20, 21, 25, 26, 29, 30, 34, 38, 39, 40, 41,	
			66, 71)4	
			■Bluetooth 5.0 technology	
99	5	рс	Temperature-Humidity Data Logger	
			■Portable and hand-held	
			■16000 data recording capacity.	
			■Adjustable record interval: 10s~24hour	
			■Multi-function LCD	
			■Internal NTC temperature thermal sensor with optional	
			external sensor	
			■Data export in PDF/EXCEL via data management	
			software	
			■Selectable °F/°C temperature unit	
			■Size: approx. 84 (L) x 44(W) x 20 (H) mm	
			■Good quality	
			• Durable	
100	1	рс	UPS, Smart UPS, 2000VA	
			■Max Configurable Power (Watts): 1.6kWatts / 2.0kVA	
			Output Voltage Note: Configurable for 220 : 230 or 240	
			nominal output voltage	
			©Efficiency at Full Load: 88.0 %	
			Output Frequency (sync to mains): 50/60 Hz +/- 3 Hz	
			Sync to mains	
			■Other Output Voltages: 220 V, 240 V\	
			■Load Crest Factor: 3 : 1	
			■Topology: Double conversion online	
			■Input frequency: 40 - 70 Hz	
			■Input voltage range for main operations: 110 - 285	
			Adjustable (half load), 160 - 280V	
			Number of Power Cords: 1	
			■Efficiency at Full Load: 88.0 %	
			■Other Input Voltages: 220 V, 240 V	
			■Waveform type: Sine wave	
			Bypass: Internal bypass (automatic and manual)	
			■Battery type: Lead-acid battery	
	Ī		■Typical recharge time: 4hour(s)	
			■Battery Charge Power (Watts): 76 Watts	

			■Interface Port(s): DB-9 RS-232, USB
			<b>©</b> Control panel: Multifunction LCD status and control
			console
			■Audible Alarm: Alarm when on battery : distinctive low
			battery alarm : overload continuous tone alarm
			Surge energy rating: 600Joules
101	1	lot	Various Electronic Components and Supplies
			HDMI Cable -> 10 units
			10 meters
			830 breadboard set electronic component basic
			starter kit with breadboard cable resistor capacitor
			led potentiometer -> 20 units
			1 power supply
			1 830-point breadboard
			65 pcs jumper wires
			140 pcs solderless jumper wires
			20 pcs female-to-male dupont wire
			2 pcs pin header (40 pin)
			1 precision potentiometer
			2 photoresistors
			1 thermistor
			5 pcs rectifier diode (1N40007)
			5 pcs NPN transistor (PN2222)
			1 IC 4N35
			1 IC 74HC595
			1 active buzzer
			1 passive buzzer
			10 pcs button (small)
			10 pcs 22pF ceramic capacitor
			10 pcs 104 ceramic capacitor
			5 pcs electrolytic capacitor (10uF, 50V)
			5 pcs electrolytic capacitor (100uF, 50V)
			10 pcs white LED
			10 pcs yellow LED 10 pcs blue LED
			-
		1	10 pcs green LED
			10 pcs red LED 10 pcs RGB LED
		+	10 pcs 10R resistor
			10 pcs 10R resistor
			10 pcs 100R resistor
			10 pcs 330R resistor
			10 pcs 1K resistor
			10 pcs 1K resistor
		1	10 pcs 5K1 resistor
		1	10 pcs 3KT resistor
			10 pcs 10K resistor
			10 pcs 10k resistor
	1		וט אָספּ וואו ופּפופנטו

		1	0. 1 0.1 1 0 0 1 1 0 1 0 1 0 1 0 1 0 1 0
			Single-Sided Copper Clad Board FR4 With 35µm
			Copper Thick, 200 x 300 x 1.6mm -> 2 units
			PCB Developing Kit with Transfer Film -> 1 unit
			Non-Corrosive Soldering Paste (used for welding and
			desoldering) -> 1 unit
			Soldering Iron -> 6 units
			Mini Soldering Iron with Adjustable Temperature, 60W
			Soldering Iron Stand -> 6 units
			Stainless Steel spiral, 90mm long
			Desoldering Pump -> 2 units
			Replaceable and Self Cleaning tip
			Sealed vacuum chamber
			Microcontroller -> 10 units
			microcontroller board (ATmega328P based)
			14 digital inputs/outputs (six of which can be used as
			PWM outputs)
			six analog inputs
			has a 16MHz ceramic resonator
			has a USB-C connector
			has a reset button
			CIRCUIT OPERATING VOLTAGE: 5V
			INPUT VOLTAGE (LIMIT): 6-12V
			BATTERY CONNECTOR: None.
			DC CURRENT PER: I/O PIN 20 mA
			DC CURRENT FOR: 3.3V PIN 50 mA
			MAIN PROCESSOR: ATmega328P 16 MHz
			USB-SERIAL PROCESSOR: ATmega16U2 16 MHz
			MEMORY: ATMEGA328P 2KB SRAM, 32KB FLASH,
			1KB EEPROM
400	,	.,	Wifi Access Point (Existing fleet of VSU Access
102	1	unit	Points)
			UAP-nanoHD
			Dimensions: 160 x 160 x 32.65 mm (6.30 x 6.30 x 1.29")
			Weight: 300 g (10.6 oz)
			With Mounting Kits: 315 g (11.1 oz)
			Networking Interface: (1) 10/100/1000 Ethernet Port
			Buttons: Reset
			Power Method: 802.3af PoE
			Power Supply: UniFi Switch (PoE)
			Power Save: Supported
			Beamforming: Supported
			Maximum Power Consumption: 10.5W
			Supported Voltage Range: 44 to 57VDC
			TX Power
			2.4 GHz: 23 dBm
			5 GHz: 26 dBm
			MIMO
			2.4 GHz: 2x2
			Z.4 UI IZ. ZXZ

			5 GHz: 4x4		
			Radio Rates		
			2.4 GHz: 300 Mbps		
			5 GHz: 1733 Mbps		
			Antennas		
			2.4 GHz: (2) Single-Port, Single-Polarity Antennas, 2.8 dBi each		
			5 GHz: (2) Single-Port, Dual-Polarity Antennas, 3 dBi		
			each		
			Wi-Fi Standards: 802.11 a/b/g/n/r/k/v/ac/ac-wave2		
			Wireless Security: WEP, WPA-PSK, WPA-Enterprise (WPA/WPA2, TKIP/AES), 802.11w/PMF		
			BSSID: 8 per Radio		
			Mounting: Wall/Ceiling (Kits Included)		
			Operating Temperature: -10 to 70 C (14 to 158 F)		
			Operating Humidity: 5 to 95% Noncondensing		
			Certifications: CE, FCC, IC		
			Advanced Traffic Management		
			VLAN: 802.1Q		
			Advanced QoS: Per-User Rate Limiting		
			Guest Traffic Isolation: Supported		
			WMM: Voice, Video, Best Effort, and Background		
			Concurrent Clients: 200+		
			Supported Data Rates (Mbps)		
			Standard Data Rates		
			802.11a 6,9,12,18,24,36,48,54 Mbps		
			802.11n 6.5 Mbps to 300 Mbps (MCS0-MCS15, HT 20/40		
			802.11ac 6.5 Mbps to 1.7 Gbps (MCS0-MCS9		
			NSS1/2/3/4, VHT 20/40/80)		
			58 Mbps to 1.7 Gpbs (MCS0-MCS9 NSS1/2, VHT 160)		
			802.11b 1, 2, 5.5, 11 Mbps		
			802.11g 6, 9, 12, 18, 24, 36, 48, 54 Mbps		
103	2	unit	Large-Diaphragm Cardioid Condenser Microphone		
			For Voice, Instruments, Drums, and Cabs		
			Cardioid Pattern Lessens Room Noise		
			Switchable -10 dB Pad Hinders Distortion		
			Low-Cut Filter Limits Bass Buildup		
			Shockmount Inhibits Vibration Noise		
			Large-Diaphragm True Condenser Capsule		
			Handles Immense Sound Pressure Levels		
			Includes Protective Case and Dust Cover		
			XLR Output for Hookup to Mic Preamp		
	1		Operates on 48V Phantom Power		
			Microphone		
			Form Factor: Large Diaphragm Mic / Stand/Boom Mount		
			Intended Sound Sources: Vocals, Speech/Voice Over,		
			Instrument Sound Field: Mono		
	1	1	L SOUDA FIRIA: MODO		
			Operating Principle: Pressure Gradient		

<b>104</b> 4 un
105 2 se
<b>106</b> 1 pc
105 2 s

	1		- D# 000 · F0 400 · 00
			■R/I: 300±50mv sw: 100 ± 20mv
			■Aux/USB/SD card
			Bass driver :4 inch
			■Treble driver :2 3/4 inch
107	1	pcs	Web Camera for Laptop and Desktop
			■ About 360 degrees, rotate up and down 45 degrees,
			you can adjust the angle.
			With clips for laptops and desktops.
			Sensor pixels: 2 million
			■Interface: USB 2.0
			■Frame rate: 30 FPS
			■Image sensor: CMOS
			■Brightness/color: automatically adjusts
			■Additional features: built-in microphone
108	2	unit s	System Unit (CPU), Core i7 8GB RAM
			CPU: 9th Gen Intel Core i7-9700 (8-Core, 12MB Cache,
			up to 4.7GHz with Intel Turbo Boost Technology) or
			higher
			SDD: 256GB M.2 PCIe NVMe Solid State Drive or higher
			+ 1TB 7200 rpm 3.5" SATA Hard Drive or higher
		-	RAM: at least 8GB (8GBx1) DDR4 2666MHz or higher
			Graphics: NVIDIA GeForce GTX 1650 4GB GDDR5 or
			higher
			ATX casing with 700W PSU
			With genuine Microsoft Office license.  OS: at least Windows 10
		unit	OS. at least Willdows TO
109	2	S	VOIP Phone
			■1-Line PoE+ SIP VOIP Phone SPA MAC address (IEEE
			802.3) with lifetime warranty
			■IPv4 (RFC 791)Integrated web server provides web-
		-	based administration and configuration
	1	I	■Telephone keypad configuration via display
			menu/navigation
			menu/navigation  ■Automated provisioning and upgrade via HTTPS, HTTP, TFTP
			menu/navigation  ■Automated provisioning and upgrade via HTTPS, HTTP, TFTP  ■Asynchronous notification of upgrade availability via NOTIFY
			menu/navigation  ■Automated provisioning and upgrade via HTTPS, HTTP, TFTP  ■Asynchronous notification of upgrade availability via NOTIFY  ■Nonintrusive in-service upgrades
			menu/navigation  Automated provisioning and upgrade via HTTPS, HTTP, TFTP  Asynchronous notification of upgrade availability via NOTIFY  Nonintrusive in-service upgrades  Report generation and event logging
			menu/navigation  Automated provisioning and upgrade via HTTPS, HTTP, TFTP  Asynchronous notification of upgrade availability via NOTIFY  Nonintrusive in-service upgrades  Report generation and event logging  Statistics transmitted in BYE message
			menu/navigation  Automated provisioning and upgrade via HTTPS, HTTP, TFTP  Asynchronous notification of upgrade availability via NOTIFY  Nonintrusive in-service upgrades  Report generation and event logging  Statistics transmitted in BYE message  Syslog and debug server records: configurable per line
			menu/navigation  Automated provisioning and upgrade via HTTPS, HTTP, TFTP  Asynchronous notification of upgrade availability via NOTIFY  Nonintrusive in-service upgrades  Report generation and event logging  Statistics transmitted in BYE message
			menu/navigation  Automated provisioning and upgrade via HTTPS, HTTP, TFTP  Asynchronous notification of upgrade availability via NOTIFY  Nonintrusive in-service upgrades  Report generation and event logging  Statistics transmitted in BYE message  Syslog and debug server records: configurable per line  Address Resolution Protocol (ARP)
			menu/navigation  Automated provisioning and upgrade via HTTPS, HTTP, TFTP  Asynchronous notification of upgrade availability via NOTIFY  Nonintrusive in-service upgrades  Report generation and event logging  Statistics transmitted in BYE message  Syslog and debug server records: configurable per line  Address Resolution Protocol (ARP)  DNS: A record (RFC 1706), SRV record (RFC 2782)  Dynamic Host Configuration Protocol (DHCP) client (RFC 2131)
			menu/navigation  Automated provisioning and upgrade via HTTPS, HTTP, TFTP  Asynchronous notification of upgrade availability via NOTIFY  Nonintrusive in-service upgrades  Report generation and event logging  Statistics transmitted in BYE message  Syslog and debug server records: configurable per line  Address Resolution Protocol (ARP)  DNS: A record (RFC 1706), SRV record (RFC 2782)
			menu/navigation  Automated provisioning and upgrade via HTTPS, HTTP, TFTP  Asynchronous notification of upgrade availability via NOTIFY  Nonintrusive in-service upgrades  Report generation and event logging  Statistics transmitted in BYE message  Syslog and debug server records: configurable per line  Address Resolution Protocol (ARP)  DNS: A record (RFC 1706), SRV record (RFC 2782)  Dynamic Host Configuration Protocol (DHCP) client (RFC 2131)  Internet Control Message Protocol (ICMP) (RFC 792)
			menu/navigation  Automated provisioning and upgrade via HTTPS, HTTP, TFTP  Asynchronous notification of upgrade availability via NOTIFY  Nonintrusive in-service upgrades  Report generation and event logging  Statistics transmitted in BYE message  Syslog and debug server records: configurable per line  Address Resolution Protocol (ARP)  DNS: A record (RFC 1706), SRV record (RFC 2782)  Dynamic Host Configuration Protocol (DHCP) client (RFC 2131)  Internet Control Message Protocol (ICMP) (RFC 792)  TCP (RFC 793)

			■Differentiated Services (DiffServ) (RFC 2475)
			■Type of service (ToS) (RFC 791, 1349)
			■VLAN tagging 802.1p/Q: Layer 2 quality of service
			(QoS)
			■Simple Network Time Protocol (SNTP) (RFC 2030)SIP
			version 2 (RFC 3261, 3262, 3263, 3264)
			■SPCP with the Cisco Unified Communications 500
			Series
			■SIP proxy redundancy: dynamic via DNS SRV, A
			records
		1	■Reregistration with primary SIP proxy server
			■SIP support in NAT networks (including STUN)
		1	SIPFrag (RFC 3420)
			Secure (encrypted) calling via SRTP
			■Codec name assignment
		1	■ Voice algorithms:
			■G.711 (A-law and μ-law)
		-	■G.726 (16/24/32/40 kbps) ■G.729 A
		1	■G.729 A ■G.722
			Dynamic payload support  Adiustable audio frames per paylot  The distribution of the support of
			Adjustable audio frames per packet  Dual tana multifraguancy (DTME), in hand, and, out of
			■Dual-tone multifrequency (DTMF), in-band and out-of-band (RFC 2833) (SIP INFO)
			■Flexible dial plan support with interdigit timers
			■IP address/URI dialing support
			Call progress tone generation
			Jitter buffer: adaptive
			■Frame loss concealment
			©Comfort Noise Generation (CNG)
			■Voice activity detection (VAD) with silence suppression
			Attenuation/gain adjustments
			■VMWI - Voicemail Waiting Indicator, via NOTIFY,
			SUBSCRIBE
		1	■Caller ID support (name and number)
		1	■Third-party call control (RFC 3725)
			■Should be compatible with existing fleet of VSU IP
			Phones
110	3	pcs	Laptop Cooling Pad 14"
			1.one 14cm big LED light fan
			2.metal mesh material
			3. Powered by USB cable from laptop
			4.Support size:12"-14"laptop
			5.Color:black,
111	3	unit	Rechargeable Wireless Keyboard and Mouse Set
			■Rechargeable Office Wireless Keyboard and Mouse
			Set
			■Size: 284*121*16.mm
			■Weight: 280g

			Composition mothed LICD we as it was /Direct and			
			©Connection method: USB receiver/Bluetooth			
			Rebidding - VSU-GOODS-23-35			
112	1	рс	Coffee Maker Machine, Touch-Screen 10-cups Programmable with Glass Carafe, Stainless Steel			
113	1	unit	Colored Digital Photocopier			
			Full color digital copier with network printing, color			
			scanning and network fax			
			Copy and print speed of 30 copies per minute, A4			
			7-inch color touch screen panel			
			CPU: dual core 1.2 GHz			
			Paper size from A6R to Legal Size			
			Standard memory capacity is 1GB, max 3GB Plus			
			128GB SSD option			
			Paper capacity of 250 sheets cassette and 100 sheets			
			multipurpose tray			
			Built-in 75-sheets reversing document processor and			
			stackless duplex unit			
			Compatible with windows, makintosh and linux			
			Scan to SMB/E-mail/FTP/USB host/Box, Network Twain			
			scan and WSDScan			
			Low power consumption Copying: 512w or less, Sleep			
			mode: 0.6W			
			Super G3Fax, Stand-alone network connection			
			Maintenance Kit of 200,000 copies			
444		.,	With lifetime service			
114	30	unit				
			Electric Glass Kettle, Cordless			
			HWK-118GI			
			Power: 230V - 60Hz, 2000W			
			Capacity: 1.8L			
			360 degree rotary base, easy to use with high			
			borosilicate glass body,			
			Durable and stain resistant blue LED light indication			
			when boiling Concealed stainless steel heating element Automatic one button cover starter			
			boiling dry protection Automatically			
			• • •			
115	1	unit	turns off when water boiled.			
110	ı	unil	Stencil Digital Duplicator Machine Print Speed: 60 - 90 Sheets Per Minute (2 Steps)			
			Resolution: 300 x 300 dpi			
			Printing Process: Fully Automatic One Drum Stencil			
			System			
			Minimum Print Paper Size: 90 x 140 mm			
			Maximum Print Paper Size: 275 x 395 mm			
			Print Paper Weight: 35.0-127.9 g/m2			
			Print Area: Maximum 250 x 355 mm			
			First Print Speed: Less Than 40 Seconds			
			Features:			
			Auto background correction, auto cycle, photo/letter mode, tint mode,			

			T	
			SP mode (for technical service use only), combine two originals, spot	
			colour printing with optional colour drum units.  Options	
			USB controller printer unit type VC-20	
			Interface board type 20	
			Colour drum type 20 (B4)	
			Cabinet	
Consumables				
	Priport™ master type (100 masters per roll, B4)			
			Priport™ black ink type (500 ml)	
			Digital Duplicator colour ink type II (600 ml): red, blue,	
	yellow, green, purple,			
			navy, brown, maroon, orange, teal	
CM ink (custom-made colours, 500 ml)		·		
Specifications:		•		
			Image modes: Letter mode, Photo mode, Photo/Letter mode	
			Image position: Vertical: ± 10 mm , Horizontal: ± 10 mm	
			Reproduction ratios: Pre-set enlargement: 115, 122, Pre-	
			set reduction: 71, 82, 87, 93%	
			Zoom: No	
			Colour printing: By replacing colour, drum	
			Paper feed/delivery table: 500 sheets (80 g/m²)	
			Power source: 220-240 V, 50 – 60 Hz	
			Power consumption	
			Maximum: Master making: less than	
			175 W	
			Printing: Less than 175 W (at 90 sheets per minute)	
			Standby: 35 W	
			Dimensions (W x D x H): 1,232 x 672 x 519 mm	
			Weight: 55kg	
116	4	unit	Microwave Oven, 20L	
			20-Liter	
			220V	
			Electronic Control	
			LCD Display	
			700w microwave power	
			6 autocook functions	
			Reheat and defrost capacity	
			Dimension: ( h:w:d ) 10.35 x 18 x 14 in	
			Warranty: One year on service, 2 years on parts	
117	1	unit	Paper shredder machine, heavy duty	
			■Shred Type: Cross Cut	
			■Maximum Sheet capacity(70gsm) : 10 Sheets	
			■Waste Container capacity: 21 Liters	
			■Power Source: 220 - 240 VAC	
118	2	unit	Washing Machine Heavy DutyWasher	
1.10				
110			15 kg. IEC Rated Capacity U.S Heavy Duty Washer	

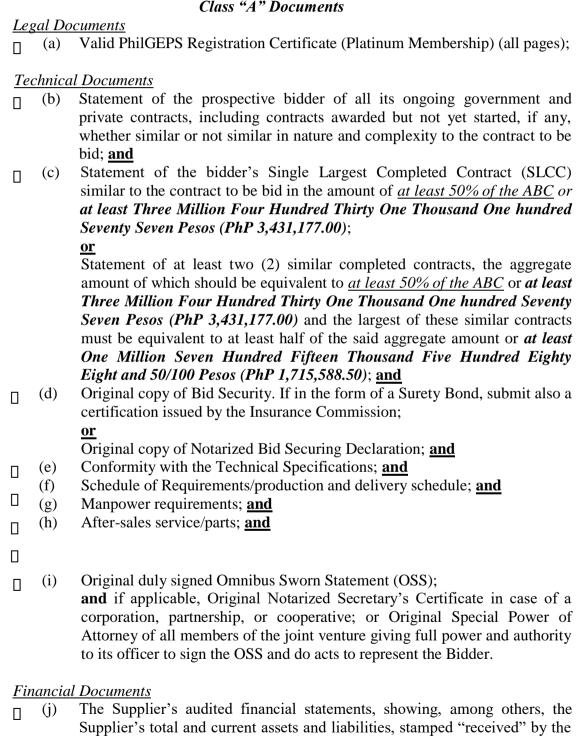
Quick Wash Cycle	
Whites Cycle	
Delicate Cycle	
6th Sense Technology	
Dual Action Agitator	
Fabcon Dispenser	
Liquid Bleach Dispenser	
Mechanical Control panel	
Deep Water Wash System	
Soil Level Selection	
Wash Temperature Selection	
Load Size Selection	
Extra Rinse Selection	
Galvanized Heavy Duty Body	
White Porcelain Tub	
Child Lid Lock	
Color: White	
Dimension (h:w:d) 109.22 : 69:85 : 68.58 cm	

# Section VIII. Checklist of Technical and Financial Documents

## Checklist of Technical and Financial Documents

#### TECHNICAL COMPONENT ENVELOPE

#### Class "A" Documents



BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; and

The prospective bidder's computation of Net Financial Contracting Capacity (NFCC) – at least equal to ABC (PhP 6,862,354.00);  $\underline{or}$ ,

A committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation (at least 10% of ABC or **PhP 686,235.40**).

### II. FINANCIAL COMPONENT ENVELOPE

- (a) Original of duly signed and accomplished Financial Bid Form; and
- $\sqcap$  (b) Original of duly signed and accomplished Price Schedule(s).

# Guidelines on the Preparation of Electronic Bid (e-Bid) (for bidders who prefer electronic bid submission)

- 1. Scan per file all documents into Portable Document Format (PDF) and should be printable.
- 2. Properly label all documents for prompt identification. Filename of documents, whichever are applicable to the bidder, should be as follows:

	Document	Filename (in PDF form)
1.	PhilGEPS Certificate of Registration	PhilGEPS
	(Platinum)	
2.	Statement of On-Going Government	Statement of On-Going
	& Private Contracts	Contracts
3.	Statement of Bidder's Single Largest	SLCC
	Completed Contract	
4.	Statement of at least two (2) similar	Statement of Completed
	completed contracts	Contracts
5.	Bid Security	Bid Security
6.	Technical Specifications	Technical Specifications
7.	SCHEDULE of	Schedule of Requirements
	Requirements/Production and	
	delivery schedule	
8.	Manpower Requirements	Manpower Requirements
9.	After Sales service/parts	After Sales
10.	Omnibus Sworn Statement	Omnibus Sworn Statement
11.	Audited Financial Statements	Audited Financial Statements
12.	Net Financial Contracting Capacity	NFCC
13.	Committed Line of Credit	CLC
14.	Bid Form	Bid Form
15.	Price Schedule	Price Schedule

- 3. Create two (2) folders that are password-protected. The first folder should contain all requirements under Technical Component checklist as presented under Section VIII. The second folder should contain all requirements under Financial Component checklist.
- 4. Compress the two (2) folders and name as follows: a) first folder: **Technical Documents**, b) second folder: **Financial Documents**.
- 5. Email the 2 compressed folders to Mr. Leopoldo S. Escala Jr.at <a href="leopoldo.escala@vsu.edu.ph">leopoldo.escala@vsu.edu.ph</a> on or before the deadline (November 9, 2023; 8:30 AM).





