





Subject: REVISE TENDER SPECIFICATION OF NETWORKING ITEMS FOR THE FININCIAL YEAR 2025-26


The list of Networking items along with specifications are as under


S.no	Item	Item specifications	
1.	Firewall	<ul style="list-style-type: none"> • Must Be Listed in Gartner Magic Quadrant for Next Generation Firewall • Must Be Listed in ICSA Labs Certified Next Generation Firewall • Must Be Listed in Cyber Ratings for Enterprise Firewall • Must have full features working even license is expired • Must Have Minimum Firewall 30 Gbps Throughput • Must have 20Gbps Application Control Throughput • Must Have Minimum 7 Gbps Throughput (FW+SA+IPS) • Must Have Minimum 3.5 Gbps Threat Protection Throughput (FW + SA +BM+ IPS +Antivirus) • Must Have Unrestricted Concurrent User • Must have 4 million concurrent session • Must Have Minimum 1000 IPsec VPN • Must Have Minimum 256GB SSD Storage Capacity • Must Have Minimum 16GB RAM • Must Have Minimum 1G Ethernet Interfaces • Must Have Minimum 10G SFP+ Interfaces SFP+ Transceivers • Must have Dual Power Supply (Hot-Swapping) • Must have Minimum 2 Free Network ports Slot for future Expansion. • Must Include Intrusion Prevention System (IPS), Anti-Virus & Anti-Malware, Email SecurityProtection, Cloud-Based Security Sandbox, Web Filtering, Anti-Brute force attack Application Control, Bandwidth Management • Must Quote Minimum 100 Concurrent Users for SSL VPN • Must Support Real-Time Vulnerability Scanner 	

		<ul style="list-style-type: none"> • Built-in SOC monitor for visibility • Must Quote 3 Year Complete Security Features License • Must Quote 3 Year Software Upgrade & 24x7 Technical Support • Must Quote 3 Year Hardware Warranty Service • Must Quote OEM Onsite Configuration & Installation 	
2.	Clamping Tool	<p>Handle Material Polyvinyl Chloride (PVC) Grip Type Contoured J45 pass through crimp tool and 2 replaceable blades, with 18-month warranty RJ45 Crimp Tool, RJ45 Pass Through Crimping Tool for Cat7 Cat6 Cat5 Ethernet Pass Through Connectors, Cutting, Stripping, Crimping All-in-one RJ45 Crimper with 2 Replacement Blades Dimensions : 10.51 x 4.09 x 0.98 inches Material : Stainless Steel Package</p>	
3.	Labor Rate for installation of CAT6/Fiber Cable per feet in Duct & Pipe	Labor Rate for installation of CAT6/Fiber Cable per feet in Duct & Pipe	
4.	Labor Rate for installation of Electric Cable Per feet	Labor Rate for installation of Electric Cable Per feet	
5.	Tagging machine with cassettes	<p>Keyboard layout QWERTY Display - LCD 96 x 16 dots Display - Display (input data) 12 digits x 1 lines Printing resolution 200 dpi/96 dots Unit of length switching cm/inches Printing speed (mm/sec.)6,0 Maximum printing height (mm) 12 Maximum printing lines 3 Fonts Sans-serif Yes, Character styles Normal/Bold/Outline Character effects Shading/Underline/Box Built-in character types 534 Alphanumeric characters 62 Special characters/symbols 182 Illustrations 111 Accented characters 179</p>	


		<p>Frame printing No Print preview Yes Tape length setting Yes Message switching 8 languages(English/Spanish/German/French/Italian/Swedih/P ortuguese/Indonesian) Print job memories 10 data sets Dimensions: H x W x D (mm) * The height dimension includes the feet 54.5 x 189 x 115 Approximate weight (g) * Not including batteries 430 Bundled tape cartridge 12mm x 1</p>	
6.	Patch panel 24 port	<p>24-port Cat6 patch panel for high density and easy patching solutions in data centers. The Cat6 Ethernet patch panel is designed for use in 19" racks and ideal for 10/100/1000Base-T and 10GBase-T Ethernet applications Category Cat6/Cat5e No. of Ports 24 Shielding Type C6P-U24FT1U: Unshielded C6P-S24FT1U: Shielded No. of Rack Spaces 1U Material SPCC + ABS Plastics Color Black Type of Patch Panel Flat Connector Type Dimensions (HxWxD) RJ45 Ethernet/HDMI/USB 1.75"x19"x3.62" (44.5x482.5x92mm) Operating Temperature Range -25°C to 70°C (-13 to 158°F)</p>	
7.	Patch panel 48 port	<p>48-Port Patch Panel for High-Speed Cat6 Network Cabling Condenses 48 Ports into Just 2U of Space in Your 19 in. Enclosure or Open Frame Rac Shipping Dimensions (L x W x H) 20 x 4.25 x 3 in Product Type 110 Panels Performance CAT6 Connector 8P8C Ports 48-Port Rack Mount Rear IDC</p>	


		<p>Mounting Rack Rack Space 2 Packaging Single Port Labeling Port Spacing: 0.6, Tape Width: 3/8" (9mm) Country of Origin (subject to change) Taiwan, TAA compliant</p>	
8.	Cable Manager	<p>1U/2U Horizontal Cable Manager Finger Duct with Cover, Rackmount, Single-Sided, 19 inch Rack Unit 1U Style Finger Duct with Cover Orientation Horizontal Configuration Single-Sided Material ABS Dimensions (HxWxD) 1.73"x19.00"x2.70" (44.0x482.6x68.6mm) Weight 0.88lbs (0.45kg) Installation Standard EIA 19" Rack Rails Included Accessories M6*15mm Screw x4 and M6 Nut x4 Cable Capacity (Theoretical Value) 48pcs Cat6 24AWG Color Black Coat Black Powder</p>	
9.	Cat 6A Cable	<p>Conductor Solid Bare Electrolytic Grade Copper, should be A category Nominal Conductor Diameter 24 AWG Insulation Polyolefin Pairing Twisted into 2 core No. Of Pair 04, Each pair twisted Color: white Code: Pair #1 Pair #2 Pair #3 Pair #4 Blue-White with Blue Orange-White with Orange Green-White with Green Brown White with Brown Barrier Tape Yes Outer Sheath FR-PVC Colour of Sheath white Approximate OD 6.90 mm ± 0.30mm Sequential Marking At Every Meter Temperature Rating -150C to +750C</p>	
10.	Digital Meter Cat 6 Cable Tester	<p>Digital meter cable testing Length measurement Length broken detected</p>	


		<p>ET618 3 ID Mapping Ethernet Network Cable Tester with Length Calibration Function & Multifunctional Multimeter 2in1 Continuity Tester All in One</p> <p>includes Ethernet cable tester, electrical wire tracer and multimeter in one single device. Press the button MODE for circuit tracer, DMM for multimeter and switch over functions easily. The tester is competent for communication wiring, engineering maintenance, radio tracking, manufacturing, laboratories etc.</p> <p>Equipped with a professional analog tone generator, which rings louder when it gets closer to the target cables. The sensibility of sensor is adjustable through the wheel on the wire tracker receiver to narrow down the tracing range. Silent vibration mode is also available to avoid disturbing.</p> <p>Length calibration is accessible to measure network cable, telephone cable and video coax cable as long as 500 meters. There's the option of manual calibration to ensure the accurate results. Ethernet wiring diagram for RJ45 connector is visualized on the display or via the 8 indicators on the wire tracker receiver. Tester should be chargeable from any usb device.</p> <p>The multifunctional multimeter can measure or test temperature, continuity, voltage, current, resistance, diode, NCV etc. All necessary accessories for the measurement are included in the package.</p> <p>The LCD screen of high brightness and clearance allows working in darkness or under sunlight and ensures that the letters are readable in different work scenes. Each main device and receiver has its own flashlight, which makes the tracing process more convenient.</p>	
11.	Cable Tie 4"	1 pack rate	
12.	Cable Tie 6"	1 pack rate	
13.	Cable Tie 8"	1 pack rate	
14.	Cable Tie 10"	1 pack rate	
15.	Plast Pipe 1"	Plast Pipe 1" L10'	
16.	Plast Pipe 2"	Plast Pipe 2" L10'	
17.	Metal U Clip 1"	Metal U Clip for Pipe	
18.	Metal U Clip 2"	Metal U Clip for Pipe	
19.	pigtail sc to sc	Connector type: SC Length: 1 m	
20.	pigtail lc to sc	Connector type: LC to SC Length: 1 m	


21.	PDU	<p>Color Black</p> <p>PDU type Basic</p> <p>Cord length 2.50 m</p> <p>Provided equipment Installation guide</p> <p>Rack mounting brackets</p> <p>User manual</p> <p>Cable</p> <p>Input Voltage 200 V</p> <p>208 V</p> <p>230 V</p> <p>Height 4.44 cm</p> <p>Width 48.2 cm</p> <p>Output Voltage 208 V</p> <p>230 V</p> <p>Depth 4.44 cm</p> <p>net weight 0.58 kg</p> <p>Mounting location Front</p> <p>Rear</p> <p>Rack units 1U</p> <p>Mounting position Horizontal</p> <p>Input current limits 16 A</p> <p>Load capacity 3680 VA</p> <p>Network frequency 50/60 Hz</p> <p>Outlet type and quantity 8 IEC 60320 C13</p> <p>Warranty 1 year repair or replace</p>	
22.	KJ nut	For Switch Hang	
23.	PVC Cable Duct 1"	1 inch	
24.	PVC Cable Duct 2"	2 inches	
25.	PVC Duct Cutter	Best Quality	
26.	i/o punching tool	<p>The punch down tool inserts and cuts terminations in one simple operation for cat6a cat6 cat5e cat5 network cables. Install wires into a telephone socket, cat5e faceplate or patch panel</p> <p>BLADE STORAGE: tool is designed with a twist and lock holder for spare blade storage that helps prevent blade loss</p> <p>PRECISE INTERCHANGEABLE & REVERSIBLE BLADES: The precision blades for the punch down tool are conveniently interchangeable and reversible between 110 and Krone standards</p>	
27.	RJ45 CAT6E Lan I/O	<p>Type: 2x Keystone Jack + 1x Gang Box + 1x Dual Socket Face Plate</p> <p>Suitable for : CAT6 / CAT6E</p> <p>Color - Off White / White / Ivory</p> <p>Quantity - 1 Set</p>	
28.	I/O Face Plate	I/O 3X3 1M Dual Face Plate	


29.	I/O back box	I/O back box	
30.	SFP transceiver Modules	<p>Industry's smallest 10G form factor for greatest density per chassis</p> <p>Hot-swappable input/output device that plugs into an Ethernet SFP+ port of a Cisco switch (no need to power down if installing or replacing)</p> <p>Supports "pay-as-you-populate" model for investment protection and ease of technology migration</p> <p>Digital optical monitoring capability for strong diagnostic capabilities</p> <p>Optical interoperability with 10GBASE XENPAK, 10GBASE X2, and 10GBASE XFP interfaces on the same link</p> <p>10GBASE-T module (Figure 2) offers connectivity options at the following data rates: 100M/1G/10Gbps. It has the SFP+ form factor and an RJ-45 interface so that CAT5e/CAT6A/CAT7 cables can be used to connect to end points with embedded 10GBASE-T ports. They are suitable for distances up to 30 meters and offers a cost-effective way to connect within racks and across adjacent racks.</p>	
31.	Wi-Fi 6 Router (Short Range)	<p>SPEED: 574 Mbps at 2.4 GHz + 2402 Mbps at 5 GHz + 2402 Mbps at 6 GHz</p> <p>SPEC: 6x Antennas, Broadcom 1.7 GHz Quad- Core CPU, 1x Gigabit WAN Port + 4x Gigabit LAN Ports, USB 3.0 Port,, 1024- QAM, OFDMA, HE160, Wi-Fi 6E</p> <p>FEATURE: Tether App, WPA3, Access Point Mode, IPv6 Supported, IPTV, Beamforming, Smart Connect, Airtime Fairness, VPN Server, VPN Client, DFS, Cloud Support, HomeShield, OnemeshWarranty</p> <p>1 Year Warranty</p> <p>MAL from OEM</p> <p>Quoted brand should be in Gartner since 2019</p>	
32.	Omni Directional Antenna 12 or 15dBi 2.4GHz	<p>23 dBi Outdoor CPE Port: 1 x Gigabit Shielded Ethernet Port</p> <p>SPEED: 867 Mbps at 5 GHz FEATURE: 23 dBi, 30+ km, IP65 Weatherproof, Passive PoE, Centralized Management, Spectrum Analyzer, AP/Client/AP Router/AP Client Router</p> <p>1 year warranty</p> <p>MAL from OEM</p> <p>Quoted brand should be in Gartner since 2019</p>	
33.	Long Range CPE	<p>Long range CPE outdoor</p> <p>Passive PoE supports to allow flexible deployment and convenient installation</p> <p>Interface: 1 10/100/1000 Mbps Shielded Ethernet Port (LAN/POE), 1 Reset Button</p> <p>Power Supply: Passive Power over Ethernet via LAN (+4,5pins; -7,8pins), Voltage range: 16-27V DC</p> <p>Enclosure: Material: Outdoor PC stabilized plastic,</p>	


		<p>Weatherproof: IP65 water and dust proof design</p> <p>Wireless Standards: IEEE 802.11a/n/ac</p> <p>Frequency: 5.15~5.85 GHz</p> <p>System-level Optimizations: Optimized IGMP Snooping / Proxy for multicast applications</p> <p>Input: 100-240VAC, 50/60Hz</p> <p>Output: 24VDC, 0.5A Max, +4, 5pins; -7, 8pins. (Support up to 60m Power over Ethernet)</p> <p>Efficiency: > 84.29%</p> <p>15dBi high-gain omni directional 2x2 MIMO, ideal for long-distance application</p> <p>Excellent beam directivity, improved latency and noise cancellation</p> <p>Innovative snap-lock parts make for fast assembly and a sturdy structural design keeps stable even in strong winds</p> <p>Durable IP65 weatherproof enclosure along with 15kV ESD and 6kV lightning protection ensures all-weather suitability</p> <p>Pharos Control gives administrators a free, centralized management system</p> <p>Passive PoE supports to allow flexible deployment and convenient installation</p> <p>1 year warranty</p> <p>MAL from OEM</p> <p>Quoted brand should be in Gartner since 2019</p>	
34.	IT-Tech Network Toolkit	<p>Electrical adhesive tape</p> <p>CRV red black Rubber plastic screwdriver 5*100(-)</p> <p>Crystal box 22pc (8p:10pcs 6p:6pcs 4p:6pcs</p> <p>CRV red black Rubber plastic hand Shank screwdriver 5*100(+)</p> <p>Precision screw drivers 2.4(-) 2.4(+)</p> <p>Digital electrical pen test 12-250v</p> <p>Long flat nose pliers</p> <p>wire stripper</p> <p>Network pliers</p> <p>Wire cutter</p> <p>Network tester</p>	
35.	Duct 60 x 60 (Each 10ft Length)	Duct 60 x 60 (Each 10ft Length)	
36.	Duct 40 x 40 (Each 10ft Length)	Duct 40 x 40 (Each 10ft Length)	


37.	Duct 16 x38 (Each 10ft Length)	Duct 16 x38 (Each 10ft Length)	
38.	PVC Pipe 1 1/2 Inch for Ethernet Cabling	PVC Pipe 1 1/2 Inch for Ethernet Cabling	
39.	PVC Pipe 1 Inch for Power & Fiber (Each 10ft Length)	PVC Pipe 1 Inch for Power & Fiber (Each 10ft Length)	
40.	40/76 Power Cable (ft)	40/76 Copper Extension Cable Wire For AC 220V & DC 12V Solar, Fire Retardant High Fidelity Flexible PVC Shielding	
41.	Digging and Filling for Optical Fiber (ft)	Digging and Filling for Optical Fiber (ft)	
42.	OFDF 24 Ports	OFDF 24 Ports	
43.	27U Rack	27 U Rack, Floor Standing Perforated Dual Compartment Door 2 Fixed Tray and 1 sliding tray 4 Fans ,Fan kit and PDU	
44.	42U Rack	42 U Rack, Floor Standing Perforated Dual Compartment Door 2 Fixed Tray and 1 sliding tray 4 Fans, Fan kit and PDU	
45.	9U rack	Heavy-duty cold roll steel construction · Glass door with vented holes for visible assurance while provides ventilation· Lockable front door and side panels helps prevent damage, tampering or theft· Removable side panels for quick access to equipment and cabling· Removable cable entry panels at top, bottom and back · Top cooling vents ensure proper airflow patterns · Ships fully assembled and ready to mount to the wall	
46.	UTP I/O Installation Termination per I/O	Installation, Configuration & commissioning charges per I/O: * Installation and Termination of UTP I/O	
47.	Installation / Termination of per Patch Panel	Installation and Termination of per Patch Panel	
48.	Installation /Termination of OFDF per OFDF	Commission: Installation and Termination of per OFDF	
49.	Installation /fixation of Data Cabinet	Commission: Installation and fixation of per Data Cabinet	

50.	Installation /Configuration of per Switch job,	Installation and Configuration of per Switch job,	
51.	Installation and Configuration of, Access Point Controller	Installation and Configuration of, Access Point Controller	
52.	Installation and Configuration of Firewalls	Installation and Configuration of Firewalls	
53.	JOINTER for Rj-45	Good quality	
54.	Splicing Machine	<p>Splicing Machine</p> <p>Applicable Fibers: SM (ITU-T G.652&G.657) / MM (ITU-T G.651) / DS (ITU-T G.653) / NZDS (ITU-T G.655)</p> <p>Compatible Fiber / Cable :0.25~3.0 mm / Indoor Cable</p> <p>Cleaved Length Diameter: 0.125~1 mm / Cleave Length: 8~16 mm</p> <p>Splicing Mode: Preset 7 modes / Max 128 modes</p> <p>Typical Splice Loss SM: 0.02dB / MM:0.01dB / DS:0.04dB / NZDS: 0.04dB / G.657: 0.02dB (ITU-T Standard)</p> <p>Return Loss :>>60dB</p> <p>Splicing Time Auto mode: 9 sec / Quick mode: 7 sec</p> <p>Estimated Splice Loss: Available</p> <p>Protection Sleeve Length: 20~60 mm</p> <p>Heating Time Typical heating time: 35 sec</p> <p>Results Storage: The last 2000 results</p> <p>Tension Test :1.96~2.25N</p> <p>Operating Condition Operating Altitude: 0~5000m above sea level, 0~95% relative humidity, -10~50°C, Max Wind 15m/s</p> <p>Storage Condition: 0~95% relative humidity, -40~80°C</p> <p>Display: 90° bi-directional view, 5.0" Color High Resolution Display</p> <p>Fiber View & Magnification: X, Y, XY, X/Y: 520X Magnification</p> <p>Power Supply: AC Input 100-240V, DC Input 9-14V</p> <p>No. of Splice / Heating with Battery :4200mAh Battery Capacity, Typical 170 times (Splice + Heat)</p> <p>Operating Methods: Button / Touch screen</p> <p>Automatic Calibration: Automatic arc calibration by air pressure and temperature</p> <p>Electrode Life: 3500 arcs, can be extended by using an electrode grinder</p> <p>Terminal USB: 2.0 / MINI USB / HDMI</p> <ol style="list-style-type: none"> 1. 1. Core alignment splicing (DACAS Digital Analysis Core Alignment System) 2. 2. The highest 520X magnification and resolution 3. 3. 5" Color LCD touch screen 	

		<ul style="list-style-type: none"> 4. 4. Double tapping (zoom in & out) 5. 5. Detachable SOC holder and heating oven for splice-on connectors 6. 6. 3 Bright LEDs for dark environments 7. 7. Ceramic clamp for improved durability 8. 8. Easy to replace electrodes 9. 9. Mirrorless design for easy maintenance 	
55.	Wi-Fi long Range CPE	<p>Long range CPE outdoor</p> <p>Passive PoE supports to allow flexible deployment and convenient installation</p> <p>Interface: 1 10/100/1000 Mbps Shielded Ethernet Port (LAN/POE), 1 Reset Button</p> <p>Power Supply: Passive Power over Ethernet via LAN (+4,5pins; -7,8pins), Voltage range: 16-27V DC</p> <p>Enclosure: Material: Outdoor PC stabilized plastic, Weatherproof: IP65 water and dust proof design</p> <p>Wireless Standards: IEEE 802.11a/n/ac</p> <p>Frequency: 5.15~5.85 GHz</p> <p>System-level Optimizations: Optimized IGMP Snooping / Proxy for multicast applications</p> <p>Input: 100-240VAC, 50/60Hz</p> <p>Output: 24VDC, 0.5A Max, +4, 5pins; -7, 8pins. (Support up to 60m Power over Ethernet)</p> <p>Efficiency: > 84.29%</p> <p>15dBi high-gain omni directional 2x2 MIMO, ideal for long-distance application</p> <p>Excellent beam directivity, improved latency and noise cancellation</p> <p>Innovative snap-lock parts make for fast assembly and a sturdy structural design keeps stable even in strong winds</p> <p>Durable IP65 weatherproof enclosure along with 15kV ESD and 6kV lightning protection ensures all-weather suitability</p> <p>Pharos Control gives administrators a free, centralized management system</p> <p>Passive PoE supports to allow flexible deployment and convenient installation</p> <p>1 year warranty</p> <p>MAL from OEM</p> <p>Quoted brand should be in Gartner since 2019</p>	
56.	Wi-Fi Router (Long Range)	<p>Tri-Band Gigabit Wi-Fi 6E Router</p> <p>1.7 GHz Quad-Core CPU</p> <p>1x Gigabit WAN Port</p>	

		<p>4× Gigabit LAN Ports 1× USB 3.0 Port 6 GHz: 2402 Mbps (802.11ax) 5 GHz: 2402 Mbps (802.11ax) 2.4 GHz: 574 Mbps (802.11ax) 6× Fixed High-Performance Antennas Multiple antennas form a signal-boosting array to cover more directions and large areas Beamforming Concentrates wireless signal strength towards clients to expand WiFi range High-Power FEM Improves transmission power to strengthen signal coverage Homeshield Onemesh Compatible with Alexa Tri-Band Allocate devices to different bands for optimal performance OFDMA Simultaneously communicates with multiple Wi-Fi 6 clients Airtime Fairness Improves network efficiency by limiting excessive occupation DFS Access an extra band to reduce congestion 6 Streams Connect your devices to more bandwidth 1 year warranty MAL from OEM Quoted brand should be in Gartner since 2019</p>	
57.	Manageable Enterprise 4G Router	<p>4G+ Cat6 AX3000 Gigabit VPN Router 1× Nano SIM Card Support 4G+ Cat6*: NANO SIM 300 Mbps AX3000 Dual-Band WiFi 6: Supports 2402 Mbps on 5 GHz and 574 Mbps on 2.4 GHz*** 6 Gigabit Ethernet Ports: Provide high-speed wired connectivity. 5 High-Gain Detachable Antennas: Extend and concentrate the Wi-Fi signals. Centralized Management: Cloud access and the Omada app for easy management. Omada Mesh: Seamlessly connects to EAPs that support mesh technology.* Δ High-Security VPN: Supports IPSec / SSL / WireGuard / OpenVPN / PPTP / L2TP VPN. Δ • Downlink: 300 Mbps; • Uplink: 50 Mbps • 1 Gigabit SFP WAN/LAN Port</p>	


		<ul style="list-style-type: none"> • 1 Gigabit WAN Port • 4 Gigabit LAN/WAN Ports Flash 128 MB NAND DRAM 512 MB DDR4 LED SYS, WLAN, SFP, LTE Signal, WAN (1000M Link/Act, 100/10M Link/Act), WAN/LAN (1000M Link/Act, 100/10M Link/Act) Manageable through controller 5 years warranty MAL from OEM Quoted brand should be in Gartner since 2019	
58.	KVM Switch Over IP	1-Local/1-Remote Access 16-Port Multi-Interface Cat 5 Dual Rail LCD KVM over IP Switch Panel Array Mode™ – monitors all ports in a grid display (both local and remote screens) Supports web-friendly KVM-over-IP access with HTML5 Web Client viewer Laptop USB Console (LUC) – a dedicated USB port directly connects to a laptop for easy console operation High-grade security – supports TLS 1.3 and an embedded FIPS 140-2 certified OpenSSL cryptographic module (Certificate #4282) Exclusive LED illumination light designed by ATEN to illuminate the keyboard and touchpad to allow visibility in lowlight conditions Integrated KVM console with 19" LED-backlit LCD monitor in a dual rail housing One bus for local and one bus for remote KVM over IP access Space-saving RJ-45 ports for Cat 5e/6 cable connections KVM adapter cables with automatic conversion allow flexible interface combinations (PS/2, USB, Sun and serial) to control all computer types Extra Console Ports – manage computers from the built-in LCD screen or an external console setup (monitor, USB keyboard and mouse) Supports PS/2, USB, Sun Legacy (13W3) and serial (RS-232) connectivity Supports external USB mouse Dual rail housing is slightly less than 1U with top and bottom clearance for smooth operation in 1U of rack space Dual Rail Housing – allows the LCD monitor to slide independently of the keyboard and touchpad LCD module rotates up to 120 degrees for a more comfortable viewing angle Console lock enables the console drawer to remain securely locked away when not in use LCD power button saves energy and prolongs the life of the display	


	<p>High Port Density – RJ-45 connectors provide up to 16 ports in 1U housing</p> <p>Two 10/100/1000 Mbps NICs for redundant LAN or dual IP operation</p> <p>Blade server support</p> <p>Supports multiplatform server environments: Windows, Mac, Sun, Linux and VT100 based serial devices</p> <p>High Video Resolutions – up to 1920 x 1200 @ 60 Hz with 24-bit color depth at the switch’s external local console and on remote displays; up to 1280 x 1024 @ 75 Hz at the switch’s built-in LCD screen</p> <p>Monitor and control up to 16 computers on a single level or control up to 256 computers in a cascade*</p> <p>Optional rack mount kits available including easy installation options</p> <p>Note: Cascade-compatible KVM switches include the following: CS1308, CS1316, KH1508A and KH1516A.</p> <p>Up to 64 user accounts</p> <p>Up to 32 concurrent logins</p> <p>End Session Feature – administrators can terminate any remote session</p> <p>Port Share Mode allows multiple users to gain access to a server simultaneously</p> <p>Remote power control for attached ATEN PDU devices</p> <p>Integration with ATEN CC2000 Management Software</p> <p>Integration with ATEN CCVSR Video Session Recording Software*</p> <p>Supports ATEN KVM over IP Console Station (KA8270 / KA8280 / KA8278 / KA8288)</p> <p>Event logging and Windows-based Log Server support</p> <p>Local Log Event</p> <p>Firmware upgradeable</p> <p>IPv6 capable</p> <p>Critical system event notification via SMTP email; SNMP trap and Syslog support</p> <p>Customizable events notification</p> <p>Out-of-Band Access – modem dial-in / dial-out / dial-back support</p> <p>Adapter ID Function – stores port information, allowing administrators to relocate servers to different ports without having to re-configure adapters or switches</p> <p>Note: Supports recording computer operations accessed via remote sessions.</p> <p>Console Connections</p> <p>Local 1</p> <p>Remote 1</p>	
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Computer Connections
 Direct 16
 Maximum 256 (via Cascade)
 Port Selection OSD, Hotkeys, Pushbuttons
 Connectors
 Console Ports 2 x USB Type-A Female (White)
 1 x DVI-D Female (White)
 1 x HDB-15 Female (Blue)
 External Mouse Port 1 x USB Type-A Female
 KVM Ports 16 x RJ-45 Female
 Serial 2 x RJ-45 Female
 PON 1 x RJ-45 Female
 Modem 1 x RJ-45 Female
 LAN Ports 2 x RJ-45 Female
 Power 1 x IEC 60320/C14
 Switches
 Port Selection 16 x Pushbutton
 Reset 1 x Semi-recessed Pushbutton
 Power 1 x Rocker
 LCD Power 1 x Pushbutton
 LCD Adjustment 4 x Pushbutton
 LEDs
 Online 16 (Green)
 Selected 16 (Orange)10/100/1000 Mbps 2 (Orange / Orange & Green / Green)
 Power 1 (Blue)
 LCD Power 1 (Orange)
 Lock 1 x Num Lock(Green)
 1 x Caps Lock(Green)
 1 x Scroll Lock(Green)
 Video
 Remote 1920 x 1200@60Hz
 Panel Spec
 LCD Module 19"
 Resolution 1280 x 1024 @75Hz
 Pixel Pitch 0.294 mm x 0.294 mm
 Response time5 ms
 Viewing Angle 170° (H), 160° (V)
 Contrast Ratio 1000:1
 Support Color 16.7M colors
 Luminance 250 cd/m²
 Emulation
 Keyboard / Mouse PS/2; USB
 Scan Interval 1-255 Sec.
 Maximum Input Power Rating 100-240V AC; 50-60Hz;
 1A
 Power Consumption AC110V:32.1W:157BTU/h



		<p>AC220V:32.4W:158BTU/h</p> <p>Note: The measurement in Watts indicates the typical power consumption of the device with no external loading. The measurement in BTU/h indicates the power consumption of the device when it is fully loaded.</p> <p>Environmental Operating Temperature 0 - 40°C Storage Temperature -20 - 60°C Humidity 0–80% RH, Non-condensing</p> <p>Physical Properties Housing Metal Weight 15.28 kg (33.66 lb) Dimensions (L x W x H) 48.00 x 70.12 x 4.40 cm (18.9 x 27.61 x 1.73 in.)</p>	
59.	Slotted Cable Duct	Slotted Cable Duct 33mm x 33mm	
60.	26-Port 10G Stackable L3 Managed Aggregation Switch with 6 25G Slots	<p>26-Port 10G Stackable L3 Managed Aggregation Switch with 6 25G Slots</p> <p>PORT: 26× 10G SFP+ Slots, 6× 25G SFP28 Slots, RJ45/Type C USB Console Port, Management Port, 2× USB3.0 Ports</p> <p>SPEC: 1U 19-inch Rack-mountable Steel Case</p> <p>FEATURE: Integration with Omada SDN Controller, Stacking, L3 features includes RIP, OSPF, VRRP, ECMP, PIM-DM, ERPS, Static Routing, DHCP Server, DHCP Relay, RSPAN, QinQ, OAM, sFlow, DDM, 802.1Q VLAN, STP/RSTP/MSTP, IGMP Snooping, 802.1p/DSCP, QoS, ACL, 802.1x, Radius/Tacacs+ SNMP, Authentication, LACP, CLI, SNMP, Dual Image/Configuration, IPv6, hot swappable fan and power supply modules</p> <p>5 years warranty</p> <p>MAL from OEM</p> <p>Quoted brand should be in Gartner since 2019</p>	
61.	48 port switch with 6 sfp's	<p>48-Port Gigabit Stackable L3 Managed Switch with 6 10GE SFP+ Slots</p> <p>PORT: 48× Gigabit RJ45 Ports, 6× 10G SFP+ Slots, RJ45/Type C USB Console Port, Management Port, 2× USB2.0 Ports</p> <p>SPEC: 1U 19-inch Rack-mountable Steel Case</p> <p>FEATURE: Integration with Omada SDN Controller, Stacking, RIP, OSPF, VRRP, ECMP, PIM-DM, Static Routing, DHCP Server, DHCP Relay, ERPS, RSPAN, QinQ, OAM, sFlow, DDM, 802.1Q VLAN, STP/RSTP/MSTP, IGMP Snooping, 802.1p/DSCP, QoS, ACL, 802.1x, Radius/Tacacs+ Authentication, LACP, CLI, SNMP, Dual Image/Configuration, IPv6, Dual Redundant Power Supplies</p>	

		<p>Manageable through free cloud on AWS</p> <p>5 years warranty MAL from OEM</p> <p>Quoted brand should be in Gartner since 2019</p>	
62.	24 port switch with 6 sfp's	<p>24-Port PoE+ Gigabit L2+ Managed Switch with 4 10GE SFP+ Slots</p> <p>PORT: 24x Gigabit PoE+ Ports, 4x 10G SFP+ Slots, RJ45/Micro-USB Console Port</p> <p>SPEC: 802.3at/af, 384 W PoE Power, 1U 19-inch Rack-mountable Steel Case</p> <p>FEATURE: Integration with Omada SDN Controller, Static Routing, OAM, DDM, sFlow, 802.1Q VLAN, QinQ, STP/RSTP/MSTP, IGMP Snooping, 802.1p/DSCP QoS, ACL, 802.1x, Radius/Tacacs+ Authentication, LACP, CLI, SNMP, Dual Image/Configuration, IPv6</p> <p>5 years Warranty</p> <p>MAL from OEM</p> <p>Quoted brand should be in Gartner since 2019</p>	
63.	SFP Transceiver module- LR	<p>10Gbase-LR SFP+ LC Transceiver</p> <p>SPEC: 1310 nm Single-mode, LC Duplex Connector, Up to 10 km Distance</p>	
64.	SFP transceiver module-SR	<p>10Gbase-SR SFP+ LC Transceiver</p> <p>SPEC: 850nm Multi-mode, LC Duplex Connector, Up to 300m(Fiber Type 50/125um)/33m(Fiber Type 62.5/125um) Distance</p>	
65.	SFP module SMD	<p>SFP module SMD</p> <p>single-mode (maximum distance 10 km / 6.2 mi.)</p> <p>LC fiber connector</p>	
66.	SFP module MMD	<p>SFP module MMD</p> <p>single-mode (maximum distance 10 km / 6.2 mi.)</p> <p>LC fiber connector</p>	
67.	2 Core Power cable for centralized power distribution	<p>2 Core Power cable for centralized power distribution</p> <p>ISO certified brand,</p> <p>Two Core 2.5 mm</p> <p>pure copper,</p> <p>flexible,</p> <p>(Rate Per Feet)</p>	
68.	ODF box for outdoor use	<p>Water / weather proof, edge DB for Poe switch, ODF for outdoor use</p> <p>Weather and rust proof power coated</p> <p>Built-in fiber splice box</p> <p>Built-in temperature control sheet</p> <p>inside 20 Ft extra OFC 12/24 core rolling option.</p> <p>operating temp -10 to +55 C,</p> <p>including fans for heat extraction, air filter with exhaust pocket</p> <p>removable tray with dual shelves and universal fittings</p> <p>built-in fiber in out holding clumps inside DB</p> <p>built-in earthing strips and electric connectors</p> <p>digital volt meter, 6 to 10A, 2 Pole, Schneider circuit breaker, power distribution board (minimum 4 port PDU) dual locks with keys,</p>	

		Dual mounting options ground and wall. Built in rain shed Permeant tagging plates	
69.	RJ-45 Connectors	Baynet Rj-45 connectors best quality	
70.	ODF for indoor	<ol style="list-style-type: none"> 1. 19" Standard rack mount 2. Material: SPCC cold rolled steel 3. Designed by full mobilization: <ol style="list-style-type: none"> A. Unit body have the fusion of optical fiber fusion, tray storing and distribution B. the integrated fusion and distribution tray can be singly taken out to meet the demands for operation. 4. Optical cable, pigtail fiber and patch cords can be clearly managed, 5. Easy for installation of inlay, convenient to expand capacity, obliquity of adapter is 30 degrees. 6. Ensure the bend radius of patch cord and avoid laser burning eyes. 7. FC, SC port is available for the integrated fusion and distribution tray 8. Two sides accommodate cable entry and exit 	
71.	Wireless access controller	<p>Centralized Management: Up to 500 points, 100 JetStream switches, and 100 routers.</p> <p>Free Cloud Access: Manage and monitor with the Web UI from anywhere, anytime.</p> <p>On-Premises Management: Locally monitor and manage devices with the ultimate security and stability.</p> <p>Industry-Leading Hardware Design: A powerful chipset, durable metal casing, USB 3.0 port for auto backup, and two Gigabit ports.</p> <p>Easy and Intelligent Network Monitoring: The easy-to-use dashboard makes it simple to see the real-time network status and traffic distribution.</p> <p>Real-Time Network Topology: Helps IT admins quickly see and troubleshoot connections at a glance.</p> <p>Easier Network Maintenance: WiFi heatmap simulator, visualizable network report, and batch & multi-site management benefit network maintenance.</p>	
72.	Wireless Access Point	<p>Ceiling Mount Dual-Band Wi-Fi 6 Access Point</p> <p>PORT: 1x Gigabit RJ45 Port</p> <p>SPEED: 574Mbps at 2.4 GHz + 2402 Mbps at 5 GHz</p> <p>FEATURE: 802.3at POE and 12V DC (Power Adapter is not included), 3x Internal Antennas One of the antennas is an auxiliary antenna for the 5G frequency band, which enhances coverage capability) , 160MHz Supported, MU-MIMO,</p>	

		Seamless Roaming, Band Steering, Beamforming, Load Balance, Airtime Fairness, Centralized Management by SDN Controller, App Free Cloud, Free software Controller 5 years Warranty MAL from OEM Quoted brand should be in gartner since 2019	
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HOD(IMD)
MTI, ATH, Abbottabad.



Network Administrator
MTI, ATH, Abbottabad.