

Design Basis



Designed by,



Eyte Technologies Pvt. Ltd.

EYTE TECHNOLOGIES PRIVATE LIMITED

A-405, Damji Shamji Corporate Square,
Laxmi Nagar, Ghatkopar East, Mumbai-400075, Maharashtra, India

AUDIO VISUAL DESIGN BASIS REPORT

DOCUMENT HISTORY –

DOCUMENT NUMBER	DATE & REV.	PREPARED BY	REVIEWED BY
SBI-LHO-MUM-DBR		Mr. Hardik	

CUSTOMER –

SBI LHO, BKC, Mumbai.

PROJECT / SITE LOCATION – Mumbai (BKC)

SCOPE MATRIX -

Description	Customer	EYTE	AV-SI	Others (Consultants /Contractors)
1. AV system design		√		
2. Product supply			√	
3. Product Integration			√	
4. Quality control & documentation		√		
5. UPS, structural requirements etc.			√	
6. DATA points & Power Points				√
7. Physical mounts fabrication for AV			√	

ROOM TYPE AND PROPOSED AUDIO-VISUAL DESIGN**Reception Area (1/2/3/4 Floors)**

- Multiple displays on wall.
- Two PC connectivity.
- Set top box.

Meeting room / Audit Room (1/2/3/4 Floors)

- Wall mount display.
- Room PC.
- Sharing wired and wireless content on display.
- Set top box, Wireless Presenter and
- Table interface with universal power and signal
- Touch panel for AV control
- Room scheduler

Cabins (1/2/3/4 Floor)

- Wall mount display.
- Two room PC.
- Set top Box
- Sharing Video content on display
- Video Conferencing.
- Touch panel for AV control.

Large Conference room. (1st Floor)

- Large display on wall.
- Multiple camera system for room view.
- Video feedback display.
- Table interface with universal power and signal.
- Table monitors for video.
- Video conferencing.
- Multiple microphone system.
- Wired and wireless content on display.
- Table interface with universal power and signal.
- Audio Speaker system.
- Touch panel for AV control and lights control.

Multipurpose Hall (1st Floor)

- Large display
- Multiple camera System.
- Video feedback display.
- Wired and wireless video content on display.
- Audio speaker system.

- Touch panel for AV control and lights control.
- Digital Podium

Dealing Area (4th Floor)

- Two large display with multi feed on screen.
- Ceiling suspended display.
- Centralised control via Hub room.
- Touch control system for area.
- Dealing machine feed on all displays.

The bidder should offer their design along with a proposal and present concept design of each area, considering above points.

The proposed AV system for SBI's **Conference Room, Meeting Room (all type), Cabins, Multipurpose Hall and Reception Lounge** focuses on enhancing user experience, operational flexibility, and system reliability. the new solution will deliver an immersive, efficient, and future-ready meeting and conferencing environment aligned with SBI's vision of technological excellence and governance efficiency.

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STATE BANK OF INDIA						
SITC OF AUDIO VISUAL SYSTEM						
Please Note:						
The quoted rate should include cost of necessary installations, programming, testing and commissioning, cables, connectors of specifications mentioned below.						
Contractor has to make necessary arrangements at his own cost to take all safety measures and insurance during installation of Audio-video systems.						
Contractor has to make proper co-ordination with the civil, interior and electrical contractor during execution of work, if any.						
The quoted rate should include cost of necessary scaffolding, staging, ladders etc. as required for execution of the job at any height and location including removal of same.						
Contractor shall visit the site and understand the requirement befor quoting the rates for the proposed work.						
S. No.	Description	Units	Quantity	Model	Unit Rate	Total Amount
1	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL 55-INCH DISPLAY SYSTEM					
	Supply, Installation, Configuration, and Commissioning of a Professional Display at all required heights, levels, and locations, including providing suitable mounting brackets and accessories, making necessary interconnections, etc., complete with the following configuration: (i) Diagonal Size: Minimum 55 inches (ii) Total Resolution: 4K (Ultra HD) or higher (iii) Brightness (Typical): 700 nits or better (iv) Contrast Ratio (Static / Typ.): 1200:1 or better (v) Panel Type: High-quality color panel (IPS / Equivalent) (vi) Viewing Angle (H/V): 178° / 178° (vii) Operation Time Support: 24/7 (viii) Response Time: 8ms (typical) (ix) HDR Support: HDR10 and HDR10+ content or better (x) Smart / Built-in OS / Platform: Capable of content management, Digital Signage, Wi-Fi, Bluetooth, screen sharing & video conferencing compatibility (xi) Connectivity / Inputs: Multiple HDMI and USB ports, Network and control interfaces (RS232, LAN) (xii) Audio Output: Built-in speakers minimum 20 W total (10 W + 10 W) or better (xiii) Wireless: Wi-Fi and Bluetooth or equivalent (xiv) Power Supply: AC 100–240V, 50/60 Hz (xv) Mounting Bracket: Proper standard wall mount bracket suitable for a 55-inch screen Includes Installation and Commissioning Approved Makes: SONY / SAMSUNG / LG	Nos.	50.00			
2	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL 65-INCH DISPLAY SYSTEM					
	Supply and installation of Professional Display at all heights, levels and locations including providing suitable mounting brackets and accessories, making necessary interconnections etc. complete with following configuration: (i) Diagonal Size: Minimum 65 inches (ii) Total Resolution: 4K (Ultra HD) or higher (iii) Brightness (Typical): 700 nits or better (iv) Contrast Ratio (Static / Typ.): 1200:1 or better (v) Panel Type: High-quality color panel (IPS / Equivalent) (vi) Viewing Angle (H/V): 178° / 178° (vii) Operation Time Support: 24/7 (viii) Response Time: 8ms (typical) (ix) HDR Support: HDR10 and HDR10+ content or better (x) Smart / Built-in OS / Platform: Capable of content management, Digital Signage, Wi-Fi, Bluetooth, screen sharing & video conferencing compatibility (xi) Connectivity / Inputs: Multiple HDMI and USB ports, Network and control interfaces (RS232, LAN) (xii) Audio Output: Built-in speakers minimum 20 W total (10 W + 10 W) or better (xiii) Wireless: Wi-Fi and Bluetooth or equivalent (xiv) Power Supply: AC 100–240V, 50/60 Hz (xv) Wall Mount Bracket: Proper standard wall mount bracket suitable for a 65-inch screen Includes Installation and Commissioning Approved Makes.: SONY / SAMSUNG / LG	Nos.	14.00			
3	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL 75-INCH DISPLAY SYSTEM					
	Supply and installation of Professional Display at all heights, levels and locations including providing suitable mounting brackets and accessories, making necessary interconnections etc. complete with following configuration: (i) Diagonal Size: Minimum 75 inches (ii) Total Resolution: 4K (Ultra HD) or higher (iii) Brightness (Typical): 700 nits or better (iv) Contrast Ratio (Static / Typ.): 1200:1 or better (v) Panel Type: High-quality color panel (IPS / Equivalent) (vi) Viewing Angle (H/V): 178° / 178° (vii) Operation Time Support: 24/7 (viii) Response Time: 8ms (typical) (ix) HDR Support: HDR10 and HDR10+ content or better (x) Smart / Built-in OS / Platform: Capable of content management, Digital Signage, Wi-Fi, Bluetooth, screen sharing & video conferencing compatibility (xi) Connectivity / Inputs: Multiple HDMI and USB ports, Network and control interfaces (RS232, LAN) (xii) Audio Output: Built-in speakers minimum 20 W total (10 W + 10 W) or better (xiii) Wireless: Wi-Fi and Bluetooth or equivalent (xiv) Power Supply: AC 100–240V, 50/60 Hz (xv) Wall Mount Bracket: Proper standard wall mount bracket suitable for a 65-inch screen Includes Installation and Commissioning Approved Makes – SONY / SAMSUNG / LG	Nos.	3.00			
4	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL 98-INCH DISPLAY SYSTEM					

	Supply, installation, programming, testing and commissioning of Professional Display at all heights, levels and locations including providing suitable mounting brackets and accessories, making necessary interconnections etc. complete with following configuration: (i) Diagonal Size: Minimum 98 inches (ii) Total Resolution: 4K (Ultra HD) or higher (iii) Brightness (Typical): 700 nits or better (iv) Contrast Ratio (Static / Typ.): 1200:1 or better (v) Panel Type: High-quality color panel (IPS / Equivalent) (vi) Viewing Angle (H/V): 178° / 178° (vii) Operation Time Support: 24/7 (viii) Response Time: 8ms (typical) (ix) HDR Support: HDR10 and HDR10+ content or better (x) Smart / Built-in OS / Platform: Capable of content management, Digital Signage, Wi-Fi, Bluetooth, screen sharing & video conferencing compatibility (xi) Connectivity / Inputs: Multiple HDMI and USB ports, Network and control interfaces (RS232, LAN) (xii) Audio Output: Built-in speakers minimum 20 W total (10 W + 10 W) or better (xiii) Wireless: Wi-Fi and Bluetooth or equivalent (xiv) Power Supply: AC 100–240V, 50/60 Hz (xv) Wall Mount Bracket: Proper standard wall mount bracket suitable for a 65-inch screen Includes Installation and Commissioning Approved Makes – SONY / SAMSUNG / LG	Nos.	2.00			
5	SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF PROFESSIONAL MOUNTING BRACKETS FOR VARIOUS DISPLAYS INCLUDE WALL/CEILING FRONT MOUNT/CEILING BACK TO BACK/POP OUT BRACKET AS PER THE TECHNICAL SPECIFICATIONS					
	55" POP OUT Wall mount Bracket Supply, Installation, Configuration, and Commissioning of a Professional 55" Display Mounts for all required heights, levels, and locations, including providing suitable mounting brackets and accessories, making necessary interconnections, etc., complete with the following configuration: Heavy-duty wall mount POP Out mechanism front mount suitable for 55" display, supporting up to 75 kg, with adjustable tilt range and universal VESA compatibility. Constructed from high-grade steel with a fine-texture black powder-coated finish, ensuring durability and stability. Includes Installation and Commissioning Approved Makes: B-TECH / PEERLESS / CHIEF	Nos.	41.00			
	55" Ceiling mount Bracket Supply, Installation, Configuration, and Commissioning of a Professional 55" Display Mounts at all required heights, levels, and locations, including providing suitable mounting brackets and accessories, making necessary interconnections, etc., complete with the following configuration: Ultra-slim ceiling back to back mount suitable for 55" displays, supporting up to 70 kg. Features universal VESA mounting patterns for flexible installation, a low-profile design for a neat wall finish, and durable steel construction with a black powder-coated finish. Approved Makes: B-TECH / PEERLESS / CHIEF	Nos.	6.00			
	55" Ceiling Tilt Mount Bracket Supply, Installation, Configuration, and Commissioning of a Professional Display Mounts at all required heights, levels, and locations, including providing suitable mounting brackets and accessories, making necessary interconnections, etc., complete with the following configuration: Heavy-duty tilting Ceiling mount suitable for 40"–80" displays, supporting up to 70 kg. Provides easy tilt adjustment for optimal viewing angles, universal VESA compatibility, and a slim profile design for clean installation. Constructed from high-quality steel with black powder-coated finish. Approved Makes: B-TECH / PEERLESS / CHIEF	Nos.	2.00			
	55" LOW PROFILE TROLLEY MOUNT BRACKET Supply, Installation, Configuration, and Commissioning of Professional TV display trolley as per the technical specifications. Heavy-duty free-standing trolley suitable for 32"–70" displays, providing stable support for 55" displays. Constructed from high-quality metal/iron with black finish, designed for easy mobility and secure display placement. Approved Makes: Audiovan / PEERLESS / B-TECH	Nos.	1.00			
	65" DISPLAY FLAT/POP OUT WALL MOUNTING BRACKET Supply, Installation, Configuration, and Commissioning of a Professional Display Mounts at all required heights, levels, and locations, including providing suitable mounting brackets and accessories, making necessary interconnections, etc., complete with the following configuration: Heavy-duty flat/tilt wall mount suitable for 43"–90" displays, supporting up to 75 kg, with adjustable tilt range and universal VESA compatibility. Constructed from high-grade steel with a fine-texture black powder-coated finish, ensuring durability and stability. Includes Installation and Commissioning Approved Makes: B-TECH / PEERLESS / CHIEF	Nos.	14.00			
	75" DISPLAY FLAT / TILT TV WALL MOUNT BRACKET AS PER THE TECHNICAL SPECIFICATIONS Supply, Installation, Configuration, and Commissioning of a Professional Display Mounts at all required heights, levels, and locations, including providing suitable mounting brackets and accessories, making necessary interconnections, etc., complete with the following configuration: Heavy-duty flat/tilt wall mount suitable for 43"–90" displays, supporting up to 75 kg, with adjustable tilt range and universal VESA compatibility. Constructed from high-grade steel with a fine-texture black powder-coated finish, ensuring durability and stability. Includes Installation and Commissioning Approved Makes: B-TECH / PEERLESS / CHIEF	Nos.	3.00			
	98" Display Flat POP OUT WALL MOUNTING BRACKET Supply, installation, programming, testing and commissioning of a Professional Display Mounts at all required heights, levels, and locations, including providing suitable mounting brackets and accessories, making necessary interconnections, etc., complete with the following configuration: Heavy-duty wall mount suitable for 98" large professional displays (up to 70 kg per screen). Features scissor-arm pop-out mechanism for easy rear-screen service access, micro-adjustment for precise screen alignment, and push-to-open / push-to-close latching system. Compatible with universal VESA mounting patterns and designed for video wall configurations. Constructed from high-grade steel with black powder-coated finish. Approved Makes: B-TECH / PEERLESS / CHIEF	Nos.	2.00			

6	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF ALL-IN-ONE 288-INCH LED VIDEO WALL				
	Supply, installation, programming, testing and commissioning of LED Video Wall at all heights, levels, and locations including providing suitable mounting structure, interconnections, cabling, accessories, and commissioning complete with following configuration: (i) Diagonal Size: Minimum 288 inches (ii) Resolution: 4K Ultra HD per panel or higher, configurable as video wall (iii) Brightness (Typical): 600 nits or better (iv) Contrast Ratio (Static / Dynamic): 5000:1 / 700,000:1 or better (v) Pixel Pitch: 1.25 mm or finer (vi) Panel / Diode Type: Flip-chip RGB LED, 1 Red, 1 Green, 1 Blue per pixel (vii) Viewing Angle (H/V): 160° / 160° or better (viii) Color Temperature: 6,500K ± 500K (Adjustable 2,800K–10,000K via controller) (ix) HDR Support: HDR10 / HDR10+ or equivalent (x) Video / Frame Rate: 50/60 Hz input, Refresh rate 3,840 Hz or higher (xi) Power Supply: AC 100–240 V, 50/60 Hz (xii) Power Consumption: Max 467 W/m², Typical 183 W/m² (xiii) Lifetime: 100,000 hours (xiv) Operating Conditions: 0–40°C, 10–80% RH; Storage -20–45°C (xv) Controller / Connectivity: Compatible LED video wall controller with optical interface (CS4B or equivalent) (xvi) Service Access: Front maintenance (xvii) Mounting / Special Installation: Modular video wall, supports concave curves up to 11,500R (xviii) Certification / Compliance: IEC 62368-1, IEC 60950-1, EMC Class A, TUV Eye Comfort certified (xix) Accessories: Décor Frame, Frame Kit included Dimensions: 7.2x1.35m Includes Supply, Installation, Testing, and Commissioning. Approved Makes: SAMSUNG / LG / CHRISTIE	Nos	1.00		
7	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF ALL-IN-ONE 110-INCH LED VIDEO WALL				
	Supply, installation, programming, testing and commissioning of LED Video Wall at all heights, levels, and locations including providing suitable mounting structure, interconnections, cabling, accessories, and commissioning complete with following configuration: (i) Diagonal Size: Minimum 110 inches (ii) Resolution: 4K Ultra HD per panel or higher, configurable as video wall (iii) Brightness (Typical): 500 nits or better (iv) Contrast Ratio (Static / Dynamic): 5000:1 / 700,000:1 or better (v) Pixel Pitch: 1.26 mm or finer (vi) Panel / Diode Type: Flip-chip RGB LED, 1 Red, 1 Green, 1 Blue per pixel (vii) Viewing Angle (H/V): 160° / 160° or better (viii) Color Temperature: 6,500K ± 500K (Adjustable 2,800K–10,000K via controller) (ix) HDR Support: HDR10 / HDR10+ or equivalent (x) Video / Frame Rate: 50/60 Hz input, Refresh rate 3,840 Hz or higher (xi) Power Supply: AC 100–240 V, 50/60 Hz (xii) Power Consumption: Max 467 W/m², Typical 183 W/m² (xiii) Lifetime: 100,000 hours (xiv) Operating Conditions: 0–40°C, 10–80% RH; Storage -20–45°C (xv) Controller / Connectivity: Compatible LED video wall controller with optical interface (CS4B or equivalent) (xvi) Service Access: Front maintenance (xvii) Mounting / Special Installation: Modular video wall, supports concave curves up to 11,500R (xviii) Certification / Compliance: IEC 62368-1, IEC 60950-1, EMC Class A, TUV Eye Comfort certified (xix) Accessories: Décor Frame, Frame Kit included Dimension: 2.44x1.46m Includes Supply, Installation, Testing, and Commissioning. Approved Makes: SAMSUNG / LG / CHRISTIE	Nos	1.00		
8	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF ALL-IN-ONE 136-INCH LED VIDEO WALL				
	Supply, installation, programming, testing and commissioning of LED Video Wall at all heights, levels, and locations including providing suitable mounting structure, interconnections, cabling, accessories, and commissioning complete with following configuration: (i) Diagonal Size: Minimum 136 inches (ii) Resolution: 4K Ultra HD per panel or higher, configurable as video wall (iii) Brightness (Typical): 500 nits or better (iv) Contrast Ratio (Static / Dynamic): 5000:1 / 700,000:1 or better (v) Pixel Pitch: 1.5 mm or finer (vi) Panel / Diode Type: Flip-chip RGB LED, 1 Red, 1 Green, 1 Blue per pixel (vii) Viewing Angle (H/V): 160° / 160° or better (viii) Color Temperature: 6,500K ± 500K (Adjustable 2,800K–10,000K via controller) (ix) HDR Support: HDR10 / HDR10+ or equivalent (x) Video / Frame Rate: 50/60 Hz input, Refresh rate 3,840 Hz or higher (xi) Power Supply: AC 100–240 V, 50/60 Hz (xii) Power Consumption: Max 467 W/m², Typical 183 W/m² (xiii) Lifetime: 100,000 hours (xiv) Operating Conditions: 0–40°C, 10–80% RH; Storage -20–45°C (xv) Controller / Connectivity: Compatible LED video wall controller with optical interface (CS4B or equivalent) (xvi) Service Access: Front maintenance (xvii) Mounting / Special Installation: Modular video wall, supports concave curves up to 11,500R (xviii) Certification / Compliance: IEC 62368-1, IEC 60950-1, EMC Class A, TUV Eye Comfort certified (xix) Accessories: Décor Frame, Frame Kit included Dimension: 3.0x1.69 Includes Supply, Installation, Testing, and Commissioning. Approved Makes: SAMSUNG / LG / CHRISTIE	Nos	1.00		
9	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF LED WALL PROCESSOR/CONTROLLER AS PER THE TECHNICAL SPECIFICATIONS, COMPATIBLE WITH THE PROPOSED 17.3-INCH CONTROL MONITOR.				
	Supply, installation, programming, testing and commissioning of professional 17.3-inch TFT active matrix control display system including all mounting structures, interconnections, cabling, accessories, and required configuration, complete with the following specifications: (i) Diagonal Size: 17.3 inches or equivalent				

	(i) Diagonal Size: 17.3 inches or equivalent (ii) Display Resolution: Full HD (1920 × 1080 pixels) or higher (iii) Brightness (Typical): 400 cd/m² or better (iv) Contrast Ratio: 600:1 or better (v) Panel / Display Type: TFT Active Matrix LCD with LED Backlight (vi) Pixel Pitch: Approximately 0.1989 (H) × 0.1989 (V) mm (vii) Viewing Angle (H/V): 80°/80° (L/R), 60°/80° (U/D) or better (viii) Response Time: Tr 37 ms, Tf 3 ms (or better) (ix) Display Area: Approx. 381.9 (H) × 214.8 (V) mm (x) Backlight Life: 50,000 hours or higher (xi) Operating Temperature: 0°C to +40°C (xii) Storage Temperature: -20°C to +60°C (xiii) Control Type: Electronic Up/Down Control (xiv) Material Construction: Brushed Stainless Steel Cover Plate with Powder-Coated Steel Cabinet (xv) Input / Connectivity: DVI-I and DVI-D Inputs, RJ45 CAT5 Interface with Loop; HDCP Compliant (xvi) Control Protocol: RS422 (RJ45 CAT5) with AHnet Protocol Support (xvii) Power Supply: 100–240 VAC, 47/63 Hz, 12 VDC External Power Supply (xviii) Power Consumption: Up to 50 W (typical) (xix) Service Access: Front Access for Maintenance (xx) Mounting: Suitable for table-top, wall, or rack-mounted integration (xxi) Certification / Compliance: IEC 62368-1, IEC 60950-1, EMC Class A or equivalent (xxii) Accessories: Standard Power Supply, Interconnection Cables, and Mounting Hardware Included Includes Supply, Installation, Programming, Testing, and Commissioning. Approved Makes: ARTHUR HOLM / ALBIRAL / SOLTEC	Nos	11.00			
10	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL 17.3-INCH MONITOR CONTROLLER AS PER THE TECHNICAL SPECIFICATIONS, COMPATIBLE WITH THE PROPOSED CONTROL DISPLAY.					
	Supply, installation, programming, testing and commissioning of LED wall processor/controller as per the technical specifications, compatible with the proposed 17.3-inch control monitor, complete with the following specifications: (i) Connections: Ethernet (RJ45 network connection), 1 × RS-422 and RS-485 (RJ45) (ii) Wireless Control: ALink or equivalent wireless communication protocol (iii) Electrical: External power supply, 100–240 V AC, 47/63 Hz; 12 V DC output (iv) Power Consumption: Maximum 8 W (v) Mechanical Dimensions: 129 × 73 × 24.5 mm (5.08" × 2.87" × 0.96") (vi) Mounting / Compatibility: Suitable for integration with professional display and control systems (vii) Construction: Compact, durable housing suitable for continuous operation Includes Supply, Installation, Programming, Testing, and Commissioning. Approved Makes: ARTHUR HOLM / ALBIRAL / SOLTEC	Nos	1.00			
11	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL WIRELESS PRESENTATION DEVICE AS PER THE TECHNICAL SPECIFICATIONS.					
	Supply, installation, programming, testing and commissioning of professional wireless presentation device as per the technical specifications, complete with the following specifications: (i) Ports: 1 × Ethernet (RJ-45), 3 × USB 3.0 (Type-A) (ii) Video Output: 1 × HDMI 2.0 (Female) (iii) Video Resolution: Up to 4K output (iv) Processor: Intel® N100 or equivalent (v) Main Memory: 16GB DDR4 or higher (vi) Storage: 128GB SSD or higher (vii) Networking: 1 × Gigabit LAN, Wi-Fi 802.11 ac/b/g/n dual band, Bluetooth (viii) Operating System: Linux or equivalent (ix) Power Supply: 12V DC (x) Power Consumption: 3.8 A or as per manufacturer specification (xi) Control / Management: Cloud-based management software (xii) Enclosure: Aluminium cooling with fan, heatsink, and Kensington lock (xiii) Dimensions (W × D × H): 89.9 × 89.9 × 36 mm (approx. 3.54" × 3.54" × 1.42") (xiv) Weight: Approx. 0.2 kg (0.5 lbs) (xv) Shipping Dimensions (W × D × H): 159 × 119 × 111 mm (approx. 6.26" × 4.69" × 4.37") (xvi) Shipping Weight: Approx. 0.9 kg (1.9 lbs) (xvii) Operating Temperature: 0°C to +40°C (xviii) Storage Temperature: -40°C to +70°C (xix) Humidity: 10% to 90%, non-condensing (xx) Regulatory / Safety Compliance: CE, FCC, UL, BIS certified (xxi) Accessories: Power adapter and standard mounting / connection hardware included Includes Supply, Installation, Programming, Testing, and Commissioning. Approved Makes: BARCO / KRAMER / WOLFFVISION	Nos	7.00			
12	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL WIRELESS PRESENTATION DEVICE AS PER THE TECHNICAL SPECIFICATIONS.					

	Supply, installation, programming, testing and commissioning of professional wireless presentation device as per the technical specifications, complete with the following specifications: (i) Ports: 1 × Ethernet (RJ-45), 3 × USB 3.0 (Type-A) (ii) Video Output: 1 × HDMI 2.0 (Female) (iii) Video Resolution: Up to 4K@30Hz for both input and output (iv) Processor: Intel® N100 or equivalent (v) Main Memory: 16GB DDR5 or higher (vi) Storage: 128GB SSD or higher (vii) Networking: 1 × Gigabit LAN, Wi-Fi 802.11 ac/b/g/n dual band, Bluetooth (viii) Operating System: Linux or equivalent (ix) Control / Management: Cloud-based management software (x) Video Conferencing Compatibility: Supports major cameras and apps such as Microsoft Teams and Zoom (xi) Power Supply: 12V DC (xii) Power Consumption: 3.8 A or as per manufacturer specification (xiii) Enclosure: Aluminium housing with cooling fan, heatsink, Kensington lock (xiv) Product Dimensions (W × D × H): Approx. 90 × 90 × 34 mm (3.54" × 3.54" × 1.34") (xv) Product Weight: Approx. 0.3 kg (0.6 lbs) (xvi) Shipping Dimensions (W × D × H): Approx. 157 × 120 × 110 mm (6.18" × 4.72" × 4.33") (xvii) Shipping Weight: Approx. 0.9 kg (2.0 lbs) (xviii) Operating Temperature: 0°C to +40°C (xix) Humidity: 10% to 90%, non-condensing (xx) Regulatory / Safety Compliance: CE, FCC, UL, BIS certified (xxi) Accessories Included: Power adapter and standard connection accessories Includes Supply, Installation, Programming, Testing, and Commissioning. Approved Makes: BARCO / KRAMER / WOLFSVISION	Nos	2.00			
13	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL MATRIX SWITCHER AS PER THE TECHNICAL SPECIFICATIONS. Supply, installation, programming, testing and commissioning of professional matrix switcher as per the technical specifications, complete with the following specifications: (i) Inputs: HDMI (4 or more) (ii) Outputs: HDMI (2 or more) (iii) Video Resolution: Up to 4K@60Hz (iv) HDCP Compliance: 2.2 / 1.4 (v) Control / User Interface: Front panel, IR, remote, or software control (vi) Ports: Ethernet, RS-232, USB, and contact-closure switches (vii) Power Supply: 5V DC, as per manufacturer specification (viii) Enclosure: Standard 1U/half 19" aluminum chassis with cooling (ix) Environmental Conditions: Operating 0°C to +40°C, Storage -40°C to +70°C, 10–90% non-condensing humidity (x) Accessories: Power adapter, standard connection accessories Includes Supply, Installation, Programming, Testing, and Commissioning. Approved Makes: KRAMER / CRESTRON / EXTRON	Nos	7.00			
14	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL HDBaseT TRANSMITTER AS PER THE TECHNICAL SPECIFICATIONS, COMPLETE WITH ALL REQUIRED CONNECTIONS AND ACCESSORIES. Supply, installation, programming, testing and commissioning of professional HDBaseT transmitter as per the technical specifications, complete with the following specifications: (i) Inputs: HDMI (ii) Outputs: HDBaseT (iii) Ports: IR and RS-232 for control and extension (iv) Video Resolution: Up to 4K UHD @60Hz (v) HDCP Compliance: 2.2 (vi) Bandwidth: Up to 10.2 Gbps (vii) Extension: HDBaseT 1.0 compliant, up to 40m at 4K@60Hz, up to 70m at Full HD@60Hz (viii) Power Supply: 12V DC (ix) Enclosure: Aluminum, standard form factor with convection cooling (x) Environmental Conditions: Operating 0°C to +40°C, Storage -40°C to +70°C, 10–90% non-condensing humidity (xi) Accessories: Power supply and standard connection accessories Includes Supply, Installation, Programming, Testing, and Commissioning. Approved Makes: KRAMER / CRESTRON / EXTRON	Nos	8.00			
15	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL HDBaseT RECEIVER AS PER THE TECHNICAL SPECIFICATIONS, COMPLETE WITH ALL REQUIRED CONNECTIONS AND ACCESSORIES. Supply, installation, programming, testing and commissioning of professional HDBaseT transmitter as per the technical specifications, complete with the following specifications: (i) Inputs: HDMI (ii) Outputs: HDBaseT (iii) Ports: IR and RS-232 for control and extension (iv) Video Resolution: Up to 4K UHD @60Hz (v) HDCP Compliance: 2.2 (vi) Bandwidth: Up to 10.2 Gbps (vii) Extension: HDBaseT 1.0 compliant, up to 40m at 4K@60Hz, up to 70m at Full HD@60Hz (viii) Power Supply: 12V DC (ix) Enclosure: Aluminum, standard form factor with convection cooling (x) Environmental Conditions: Operating 0°C to +40°C, Storage -40°C to +70°C, 10–90% non-condensing humidity (xi) Accessories: Power supply and standard connection accessories Includes Supply, Installation, Programming, Testing, and Commissioning. Approved Makes: KRAMER / CRESTRON / EXTRON	Nos	8.00			
16	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL TRANSMITTER AS PER THE TECHNICAL SPECIFICATIONS, COMPLETE WITH ALL REQUIRED CONNECTIONS AND ACCESSORIES.					

	Supply, installation, programming, testing and commissioning of professional HDBaseT switcher transmitter as per the technical specifications, complete with the following specifications: (i) Inputs: HDMI, USB-C, HDBaseT (as applicable) (ii) Outputs: HDMI, HDBaseT, Audio Line (balanced) (iii) Ports: USB (Host & Device), RS-232, IR, GPIO (iv) Video: Supports 4K resolution, HDCP compliant, HDMI features including HDR and deep color (v) Extension Line: HDBaseT standard, capable of transmitting video/audio/control signals over long distances (vi) USB & Control: Supports USB data transfer, RS-232, and IR control (vii) Power: External DC power supply, as per manufacturer standards (viii) Environmental Conditions: Operating and storage temperatures suitable for professional AV equipment, humidity 10–90% non-condensing (ix) Enclosure: Durable metal housing with ventilation (x) Accessories Included: Power adapter, cables, standard connection accessories (xi) Dimensions & Weight: As per manufacturer standards Includes Supply, Installation, Programming, Testing, and Commissioning. Approved Makes: KRAMER / CRESTRON / EXTRON	Nos	14.00			
17	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL Receiver AS PER THE TECHNICAL SPECIFICATIONS, COMPLETE WITH ALL REQUIRED CONNECTIONS AND ACCESSORIES. .					
	Supply, installation, programming, testing and commissioning of professional HDBaseT switcher transmitter as per the technical specifications, complete with the following specifications: (i) Inputs: HDMI, USB-C, HDBaseT (as applicable) (ii) Outputs: HDMI, HDBaseT, Audio Line (balanced) (iii) Ports: USB (Host & Device), RS-232, IR, GPIO (iv) Video: Supports 4K resolution, HDCP compliant, HDMI features including HDR and deep color (v) Extension Line: HDBaseT standard, capable of transmitting video/audio/control signals over long distances (vi) USB & Control: Supports USB data transfer, RS-232, and IR control (vii) Power: External DC power supply, as per manufacturer standards (viii) Environmental Conditions: Operating and storage temperatures suitable for professional AV equipment, humidity 10–90% non-condensing (ix) Enclosure: Durable metal housing with ventilation (x) Accessories Included: Power adapter, cables, standard connection accessories (xi) Dimensions & Weight: As per manufacturer standards Includes Supply, Installation, Programming, Testing, and Commissioning. Approved Makes: KRAMER / CRESTRON / EXTRON	Nos	14.00			
18	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL TRANSMITTER AS PER THE TECHNICAL SPECIFICATIONS, COMPLETE WITH ALL REQUIRED CONNECTIONS AND ACCESSORIES. .					
	Supply, installation, programming, testing and commissioning of professional HDBaseT switcher transmitter as per the technical specifications, complete with the following specifications: (i) Inputs: HDMI, USB-C, HDBaseT (as applicable) (ii) Outputs: HDMI, HDBaseT, Audio Line (balanced) (iii) Ports: USB (Host & Device), RS-232, IR, GPIO (iv) Video: Supports 4K resolution, HDCP compliant, HDMI features including HDR and deep color (v) Extension Line: HDBaseT standard, capable of transmitting video/audio/control signals over long distances (vi) USB & Control: Supports USB data transfer, RS-232, and IR control (vii) Power: External DC power supply, as per manufacturer standards (viii) Environmental Conditions: Operating and storage temperatures suitable for professional AV equipment, humidity 10–90% non-condensing (ix) Enclosure: Durable metal housing with ventilation (x) Accessories Included: Power adapter, cables, standard connection accessories (xi) Dimensions & Weight: As per manufacturer standards Includes Supply, Installation, Programming, Testing, and Commissioning. Approved Makes: KRAMER / CRESTRON / EXTRON	Nos	20.00			
19	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL RECEIVER AS PER THE TECHNICAL SPECIFICATIONS, COMPLETE WITH ALL REQUIRED CONNECTIONS AND ACCESSORIES. .					
	Supply, installation, programming, testing, and commissioning of professional HDBaseT receiver as per the technical specifications, complete with the following specifications: (i) Inputs: HDMI, HDBaseT (ii) Outputs: HDMI, HDBaseT, Balanced Stereo Audio Line (iii) Ports: USB (Host & Device), LAN/Ethernet, RS-232, IR, GPIO, Relay (iv) Extension Line: HDBaseT standard, capable of transmitting video/audio/control signals over long distances (v) Video: Supports 4K resolution, HDCP compliant, HDMI features including HDR and deep color (vi) USB: Supports USB data transfer and extended USB features (vii) Ethernet: Supports Gigabit LAN data transfer (viii) RS-232 & Control: Supports serial and IR control, relay control as needed (ix) Power: External DC power supply or PoE, as per manufacturer standards (x) Enclosure: Durable metal housing with ventilation (xi) Environmental Conditions: Suitable operating and storage temperatures for professional AV equipment, humidity 10–90% non-condensing (xii) Accessories Included: Power adapter, mounting brackets, standard connection accessories (xiii) Dimensions & Weight: As per manufacturer standards Includes Supply, Installation, Programming, Testing, and Commissioning. Approved Makes: KRAMER / CRESTRON / EXTRON	Nos	20.00			
20	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL TRANSCODER AS PER THE TECHNICAL SPECIFICATIONS, COMPLETE WITH ALL REQUIRED CONNECTIONS AND ACCESSORIES. .					

	Supply, installation, programming, testing and commissioning of professional transcoder as per the technical specifications, complete with all required connections and accessories. (i) Video Inputs: HDMI and USB-C supporting standard video input formats or more (ii) Video Output: HDMI output with scaling and format conversion capabilities (iii) Audio: Multi-channel audio support, compatible with professional audio routing systems (iv) USB Ports: USB for peripheral connectivity and optional power delivery (v) Networking: LAN connectivity with optional Power over Ethernet (PoE) (vi) Power Supply: DC power or PoE as required (vii) Mounting: Standard mounting hardware included for flexible installation (viii) Environmental Conditions: Suitable for typical operating and storage temperatures and humidity (ix) Product Dimensions: Compact, professional-grade enclosure suitable for integration (x) Product Weight: As per standard professional encoder devices (xi) Regulatory / Safety Compliance: Compliant with applicable international safety and environmental standards (xii) Accessories Included: Power adapter, standard connection accessories, and mounting hardware Includes Supply, Installation, Programming, Testing, and Commissioning. Approved Makes: CRESTRON / ZEEVEE / QSC	Nos	32.00			
21	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL TRANSCODER AS PER THE TECHNICAL SPECIFICATIONS, COMPLETE WITH ALL REQUIRED CONNECTIONS AND ACCESSORIES.					
	Supply, installation, programming, testing and commissioning of professional transcoder as per the technical specifications, complete with all required connections and accessories. Specifications: (i) Audio Channels: 64 x 32, Dante: up to 32 x 32 (licensable) (ii) Audio Processing: 8 AEC processors, 1 VoIP instance, 4-channel recording / 16-channel playback (iii) Video Compression: HDCP 2.2 compliant, AES-128 encryption (iv) HDMI Inputs: 3x HDMI 2.0, supports up to 4K60 4:4:4 (v) HDMI Outputs: 2x HDMI 2.0, supports up to 4K60 4:4:4 with scaling (vi) Analog Audio I/O: 3.5 mm stereo mic/line input/output, Q-SYS routable (vii) Control Ports: RS-232, GPIO, configurable via Euroblock connectors (viii) Networking: LAN A (Gigabit, PoE Type 4), LAN B (redundant, Core Mode only) (ix) Audio Performance: SNR 90 dBFS, THD+N <0.02% (x) Power Supply: 48V DC, 1.5A nominal, PoE 802.3bt Type 4 compliant (xi) Operating Conditions: 0–50°C, 5–85% RH; Storage: –20–70°C (xii) Enclosure & Mounting: 1RU half-rack width, rack-mountable, table or wall mount; mounting hardware included (xiii) Dimensions (W×D×H): 220 × 286.6 × 43.6 mm (8.66 × 11.28 × 1.72 in) (xiv) Weight: 1.81 kg (4.0 lbs) approx. Includes supply, installation, programming, testing, and commissioning. Approved Makes: CRESTRON / ZEEVEE / QSC	Nos	3.00			
22	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL TRANSCODER POWER ADAPTER AS PER THE TECHNICAL SPECIFICATIONS, COMPLETE WITH ALL REQUIRED CONNECTIONS AND ACCESSORIES.					
	Supply, installation, programming, testing and commissioning of professional external power supply as per the technical specifications, complete with all required connections and accessories. (i) Input Voltage: 12V DC (ii) Output Current: 9A (iii) Power Output: 108W (iv) Connector Type: 2-pin terminal (v) Mounting: Rack or surface mount (vi) Dimensions (W × D × H): Approx. 185 × 132 × 31 mm (vii) Weight: Approx. 1.3 kg (viii) Operating Temperature: 0°C to 40°C (ix) Storage Temperature: -20°C to 70°C (x) Compliance: CE, RoHS (xi) Accessories Included: Power cord, mounting brackets Includes Supply, Installation, Programming, Testing, and Commissioning. Approved Makes: CRESTRON / ZEEVEE / QSC	Nos	14.00			
23	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL HDBT DISTRIBUTION DEVICE AS PER THE TECHNICAL SPECIFICATIONS					
	Supply, installation, programming, testing and commissioning of professional hdbt distribution device as per the technical specifications, complete with all required connections and accessories. (i) Inputs: 1 × HDMI (Female) (ii) Outputs: 4 × HDBT (RJ-45 Female) (iii) Ports: 1 × IR (3.5mm mini jack), 1 × RS-232 (3-pin terminal block) (iv) Video Resolution: Up to 4K@60Hz (4:2:0), HDCP 1.4 compliant (v) Video Bandwidth: Up to 10.2 Gbps (3.4 Gbps per graphic channel) (vi) HDMI Features: Deep Color, Lip Sync, 7.1 PCM, 2K, 4K, 3D (vii) Extension Line: Up to 40m at 4K@60Hz; up to 70m at 1080p@60Hz (using HDBaseT cables) (viii) Controls: EDID setup button, 12 DIP switches (ix) Indicators: LEDs for outputs, link status, active input, power (x) Power Supply: 5.2V DC, 4A (xi) Power Consumption: 5V DC, 800mA (xii) Enclosure: Aluminum, MegaTool size, fan ventilation (xiii) Product Dimensions (W × D × H): Approx. 19 × 11.6 × 2.7 cm (xiv) Product Weight: Approx. 0.5 kg (xv) Operating Temperature: 0°C to +40°C (xvi) Storage Temperature: -40°C to +70°C (xvii) Humidity: 10% to 90%, non-condensing (xviii) Accessories Included: Power supply unit Includes Supply, Installation, Programming, Testing, and Commissioning. Approved Makes: KRAMER / CRESTRON / EXTRON	Nos	3.00			
24	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL DISTRIBUTION AMPLIFIER DEVICE AS PER THE TECHNICAL SPECIFICATIONS .					

	Supply, installation, programming, testing and commissioning of professional Distribution amplifier as per the technical specifications, complete with all required connections and accessories. (i) Inputs: 1 × HDBT (RJ-45 Female) (ii) Outputs: 1 × HDMI (Female) (iii) Ports: 1 × RS-232 (3-pin terminal block), 1 × IR (3.5mm mini jack) (iv) Extension Line: Standard Compression up to 40m at 4K@60Hz; High Compression up to 70m at 4K@60Hz; No Compression up to 70m at full HD (using HDBaseT cables) (v) Video Resolution: Up to 4K@60Hz (4:4:4 / 4:2:0), HDCP 2.2 compliant, HDR10 (vi) Video Bandwidth: Up to 18 Gbps (6 Gbps per graphic channel) (vii) HDMI Features: Deep Color, Lip Sync, HDMI uncompressed audio, 2K, 4K, 3D (viii) RS-232: 300 to 115200 baud, bidirectional (ix) IR: 20kHz to 100kHz, bidirectional (x) Controls: DIP switches (xi) Indicators: IN, OUT, LINK, ON LEDs (xii) Power Supply: 12V DC, 2A (xiii) Power Consumption: 680 mA (xiv) Enclosure: Aluminum, size, convection ventilation (xv) Product Dimensions (W × D × H): Approx. 12 × 7.15 × 2.44 cm (xvi) Product Weight: Approx. 0.3 kg (xvii) Operating Temperature: 0°C to +40°C (xviii) Storage Temperature: -40°C to +70°C (xix) Humidity: 10% to 90%, non-condensing (xx) Accessories Included: Power adapter, power cord, bracket set Includes Supply, Installation, Programming, Testing, and Commissioning. Approved Makes: KRAMER / CRESTRON / EXTRON	Nos	12.00			
25	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL DISTRIBUTION AMPLIFIER DEVICE AS PER THE TECHNICAL SPECIFICATIONS . Supply, installation, programming, testing and commissioning of professional Distribution amplifier device as per the technical specifications, complete with all required connections and accessories. (i) Inputs: 1 × HDMI (Female) (ii) Outputs: 4 × HDBT (RJ-45 Female) (iii) Ports: 1 × IR (3.5mm mini jack), 1 × RS-232 (3-pin terminal block / Mini-USB for firmware upgrade) (iv) Video Resolution: Up to 4K@60Hz (4:2:0) 24bpp, HDCP 1.4 compliant (v) Video Bandwidth: Up to 10.2 Gbps (3.4 Gbps per graphic channel) (vi) HDMI Features: Deep Color, Lip Sync, 7.1 PCM, 2K, 4K, 3D (vii) Extension Line: Up to 40m at 4K@60Hz; up to 70m at 1080p@60Hz (using HDBaseT cables) (viii) Controls: EDID setup button, 12 DIP switches (ix) Indicators: LEDs for outputs 1-4, link status 1-4, active input, power (x) Power Supply: 5.2V DC, 4A (xi) Power Consumption: 5V DC, 800mA (xii) Enclosure: Aluminum, MegaTool size, fan ventilation (xiii) Product Dimensions (W × D × H): Approx. 19 × 11.6 × 2.7 cm (xiv) Product Weight: Approx. 0.5 kg (xv) Operating Temperature: 0°C to +40°C (xvi) Storage Temperature: -40°C to +70°C (xvii) Humidity: 10% to 90%, non-condensing (xviii) Accessories Included: Power supply unit Includes supply, installation, programming, testing, and commissioning. Approved Makes: KRAMER / CRESTRON / EXTRON	Nos	1.00			
26	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL CAPTURE CARD DEVICE AS PER THE TECHNICAL SPECIFICATIONS Supply, installation, programming, testing and commissioning of professional USB capture card as per the technical specifications, complete with all required connections and accessories. (i) Inputs: 1 × HDMI (Female), 1 × Stereo Audio (3.5mm) (ii) Outputs: 1 × HDMI (Female), 1 × USB 3.0 Type-B (iii) Video Resolution: Up to 4K@60Hz, HDCP compliant (iv) Audio: 2-channel LPCM from HDMI (v) Compatibility: Windows, macOS, Linux; supports Teams, Zoom, Webex, and other UVC software (vi) Power Supply: USB powered (5V DC) (vii) Enclosure: Metal/Steel, black (viii) Product Dimensions: Approx. 13 × 11 × 2.5 cm (ix) Product Weight: Approx. 0.36 kg (x) Operating Temperature: 0°C to +45°C (xi) Storage Temperature: -40°C to +105°C (xii) Accessories Included: USB cable (xiii) Certifications: HDCP-compliant, CE, FCC, RoHS Includes Supply, Installation, Programming, Testing, and Commissioning. Approved Makes: INOGINI / MAGEWELL/ CRESTRON	Nos	3.00			
27	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL DIGITAL ENCODER DEVICE AS PER THE TECHNICAL SPECIFICATIONS Supply, installation, programming, testing and commissioning of professional digital encoder as per the technical specifications, complete with all required connections and accessories. (i) Inputs: HDMI, USB, Audio (ii) Outputs: HDMI, Ethernet, USB, Audio (iii) Ports: RS-232, IR, USB Host (iv) Video: Supports 4K and Full HD formats (v) Audio: Supports LPCM, Dolby, DTS formats (vi) Network: Supports multicast and unicast streaming (vii) Control: Front panel buttons, web interface, API commands (viii) Power: PoE or optional DC power supply (ix) Operating Temperature: 0°C to +45°C (x) Storage Temperature: -20°C to +70°C (xi) Humidity: 10% to 90%, non-condensing (xii) Enclosure: Metal, compact design (xiii) Product Dimensions (W × D × H): Approx. 18.9 × 14.5 × 2.8 cm (xiv) Product Weight: Approx. 0.7 kg (xv) Accessories Included: Power supply, mounting hardware Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / CRESTRON / ZEEVEE	Nos	6.00			

28	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL DIGITAL DECODER DEVICE AS PER THE TECHNICAL SPECIFICATIONS				
	Supply, installation, programming, testing and commissioning of professional digital decoder as per the technical specifications, complete with all required connections and accessories. (i) Inputs: HDMI, Ethernet, Audio, USB (ii) Outputs: HDMI, Ethernet, USB, Audio (iii) Ports: RS-232, IR, USB Host (iv) Video: Supports 4K and Full HD formats (v) Audio: Supports LPCM, Dolby, DTS formats (vi) Network: Supports multicast and unicast streaming (vii) Control: Front panel buttons, web interface, API commands (viii) Power: PoE or optional DC power supply (ix) Operating Temperature: 0°C to +45°C (x) Storage Temperature: -20°C to +70°C (xi) Humidity: 10% to 90%, non-condensing (xii) Enclosure: Metal, compact design (xiii) Product Dimensions (W × D × H): Approx. 18.9 × 14.5 × 2.8 cm (xiv) Product Weight: Approx. 0.7 kg (xv) Accessories Included: Power supply, mounting hardware Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / CRESTRON / ZEEVEE	Nos	16.00		
29	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL VIDEO CONFERENCING DEVICE AS PER THE TECHNICAL SPECIFICATIONS				
	Supply, installation, programming, testing and commissioning of professional video conferencing bar as per the technical specifications, complete with all required connections and accessories. (i) Camera: Single-lens, 4K UHD resolution, up to 20 MP, 5x digital zoom, attachable privacy cover (ii) Field of View: Diagonal 110°, Horizontal 95° (iii) Smart Camera Technology: Automatic speaker, people, and group framing (iv) Video Standards: UVC 1.1, up to 4K NV12 30 fps, 4K MJPEG 30 fps (v) Connectivity: USB Type-C, USB Type-A, HDMI-in/out, RJ-11, RJ-45 Ethernet; Wi-Fi 802.11a/b/g/n/ac/ax; Bluetooth 5.0 (vi) Audio: Full duplex, dual speakers (40 W max), two MEMS microphones, acoustic echo cancellation, noise and acoustic fence technology (vii) Audio Standards: Up to 48 kHz/16-bit/Stereo; UAC 2.0 (viii) Power Supply: External adapter, 37 VA, 120/230 V, 50/60 Hz (ix) Cooling: Heat dissipation 65 BTU/h (x) Operating Temperature: 0°C to +40°C (32°F to 104°F) (xi) Storage Temperature: -40°C to +70°C (-40°F to 158°F) (xii) Humidity: 15% to 80% operating; 5% to 95% non-operating (xiii) Management: Cloud-based software management (xiv) Microphone Pickup Range: Up to 20 ft (6.09 m) (xv) Accessories Included: Ethernet cable, HDMI cable, USB cable, monitor clamp, power cable, AC adapter, privacy cover, quick start guide, warranty card, compliance and safety documents Includes supply, installation, programming, testing, and commissioning. Approved Makes: POLY / CISCO	Nos	23.00		
30	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL VIDEO CONFERENCING DEVICE AS PER THE TECHNICAL SPECIFICATIONS				
	Supply, installation, programming, testing and commissioning of professional video conferencing bar as per the technical specifications, complete with all required connections and accessories. (i) Camera: Dual-lens, 4K UHD resolution (2160p), up to 20 MP, 7.3x digital zoom (ii) Field of View: Horizontal 120° (wide) / 70° (narrow); Diagonal 140° (wide) / 78° (narrow) (iii) Microphones: Two MEMS microphones; two second-order microphones (iv) Microphone Pickup Range: Up to 25 ft (7.62 m) (v) Speakers: Dual speakers, 2 x 20 W (mid RMS) / 30 W max; 2 x 15 W (tweeter RMS) / 20 W max (vi) I/O Ports: 1 HDMI input (provisioning only), 2 HDMI outputs (provisioning only), 1 3.5 mm Line-in (disabled), 1 3.5 mm Line-out (disabled), 1 RJ11 (expansion microphone), 2 USB-A (disabled by default; can be enabled), 1 USB-C® (for connection to PC), 2 RJ45 Ethernet ports (LAN and IP peripheral), 1 power connector (vii) Management: cloud-based software (viii) Product Dimensions (W × D × H): 33.1 × 5.3 × 4.6 in (840.18 × 135.38 × 117.93 mm) (ix) Product Weight: 7.28 lb (3306.8 g) (x) Accessories Included: AC adapter, HDMI cable, Ethernet cable, wall mount kit, USB C- cable Includes supply, installation, programming, testing, and commissioning. Approved Makes: POLY / CISCO	Nos	8.00		
31	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL VIDEO CONFERENCING MOUNT AS PER THE TECHNICAL SPECIFICATIONS				
	Supply, installation, testing, and commissioning of professional VC bar mounting bracket as per the technical specifications. Heavy-duty VESA mounting bracket designed for secure installation of video conferencing bars (VC Bars) on displays or walls. Provides stable support, optimal positioning, and easy installation. Approved Makes: POLY / CISCO	Nos	8.00		
32	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL PTZ CAMERA DEVICE AS PER THE TECHNICAL SPECIFICATIONS				
	Supply, installation, programming, testing and commissioning of professional PTZ network camera as per the technical specifications, complete with all required connections and accessories. (i) Camera: Motorized PTZ network camera with optical zoom and wide field of view (ii) Sensor: High-quality CMOS sensor (iii) Pan/Tilt: Wide horizontal and vertical rotation range, adjustable speed (iv) Lens: Zoom lens with variable focal length (v) Mounting: Ceiling or wall mountable (vi) Minimum Illumination: Suitable for low-light operation (vii) Video Output: HDMI, SDI, IP streaming (viii) Supported Video Resolutions: Full HD and 4K compatible (ix) Power: DC and PoE supported (x) Enclosure: Robust, suitable for professional use (xi) Dimensions & Weight: Compact and lightweight Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / CRESTRON / AVONIC	Nos	6.00		

33	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL PTZ CAMERA DEVICE AS PER THE TECHNICAL SPECIFICATIONS				
	Supply, installation, programming, testing and commissioning of professional fixed-lens network ePTZ camera as per the technical specifications, complete with all required connections and accessories. (i) Description: Fixed-lens network ePTZ camera with 110° horizontal field-of-view (ii) Image Sensor: 1/2.8" Low Noise CMOS (iii) Lens Characteristics: Fixed focus lens, 8x maximum zoom (2x lossless), f = 1.86 mm (iv) Sensor Scanning Mode: Progressive (v) Horizontal Rotation Range: Supports electronic pan, tilt, and zoom (vi) Vertical Rotation Range: Supports electronic pan, tilt, and zoom (vii) Mounting: Ceiling mountable with image rotation control for inverted mounting (viii) Minimum Illumination: 0.5 Lux @ (F1.8, AGC ON) (ix) Shutter Speed: 1/30 s to 1/1000 s (x) White Balance: Auto, indoor, outdoor, one-push, manual, or specified color temperature (xi) IP Stream Resolutions (Preview Window): H.264 @ 360p, 270p, or 180p (xii) Power Input: Power over Ethernet (PoE) Class 2 (Type 1), no DC power input Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / CRESTRON / AVONIC	Nos	1.00		
34	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL MULTI CAMERA SYSTEM DEVICE AS PER THE TECHNICAL SPECIFICATIONS .				
	Supply, installation, programming, testing and commissioning of professional multi-camera system as per the technical specifications, complete with all required connections and accessories. (i) System: Multi-camera management and processing system (ii) Camera Support: Compatible with professional PTZ and fixed cameras (iii) Camera Capacity: Supports up to 16 cameras per system (Presenter Spotlight, Speaker Spotlight, and static views) (iv) Power Supply: External 500 W power supply (v) Operating Temperature: 0° C to 40° C (vi) Storage Temperature: -40° C to +85° C (vii) Operating Humidity: 10% to 95% @ 40° C (viii) Storage Humidity: 10% to 95% @ 40° C (ix) Power Consumption: Idle ~225 W, Full load ~289 W (x) Thermal Dissipation: Idle ~767 BTU/hr, Full load ~986 BTU/hr (xi) Dimensions: Compact rack-mountable enclosure (xii) Weight: Suitable for professional installation (xiii) Licenses: Required for multi-camera operation Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / CRESTRON	Nos	2.00		
35	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF LICENSE AS PER THE TECHNICAL SPECIFICATIONS, COMPLETE WITH ALL REQUIRED CONNECTIONS AND ACCESSORIES.				
	Supply, installation, programming, testing and commissioning of License as per the technical specifications, complete with all required connections and accessories. Should include updated and supported license; bundled with every AI license for multi camera system. One license required per room. Upon expire, it will continue to operate as is without the ability to update the specific software. AI Accelerator required. Approved Makes: QSC / CRESTRON	Nos	2.00		
36	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF LICENSE AS PER THE TECHNICAL SPECIFICATIONS, COMPLETE WITH ALL REQUIRED CONNECTIONS AND ACCESSORIES.				
	Supply, installation, programming, testing and commissioning of License as per the technical specifications, complete with all required connections and accessories. Perpetual AI license; supports audience and presentation space tracking. One license required per room. AI Accelerator required. Update support license required to continue receiving ongoing updates and support. Approved Makes: QSC / CRESTRON	Nos	2.00		
37	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL VC CODEC DEVICE AS PER THE TECHNICAL SPECIFICATIONS FOR VIDEO CONFERENCING.				
	Supply, installation, programming, testing and commissioning of professional video conferencing system as per the technical specifications, complete with all required connections and accessories. (i) System: Professional video conferencing codec and management unit (ii) Video Input/Output: Supports multiple video inputs and outputs, including HDMI, USB, and network interfaces (iii) Video Resolution: Supports standard high-definition video and UHD content (iv) Video Standards: Compatible with industry-standard video codecs and protocols (v) Audio: Full-duplex audio with echo cancellation, noise suppression, and high-quality speaker output (vi) Microphones: Supports multiple microphone channels with adequate pickup range for meeting spaces (vii) Connectivity: Ethernet, USB, and optional wireless interfaces for audio/video/data transmission (viii) Features: Participant framing, content sharing, multi-party conferencing, and system management (ix) Controls & Indicators: Local and remote control capability with status indicators (x) Power: Compatible with standard external power supply or PoE+ sources (xi) Environmental Conditions: Suitable for standard office operating temperature and humidity ranges (xii) Security: Supports standard network and data encryption protocols (xiii) Dimensions & Weight: Compact and suitable for professional installation (xiv) Package Contents: System unit, cables, power supply, and documentation Includes supply, installation, programming, testing, and commissioning. Approved Makes: POLY / CISCO	Nos	2.00		
38	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL WEB CAMERA DEVICE AS PER THE TECHNICAL SPECIFICATIONS FOR VIDEO CONFERENCING.				

	Supply, installation, programming, testing and commissioning of professional personal webcam as per the technical specifications for video conferencing. (i) Resolution: Full HD 1080p (also supports 720p) (ii) Field of View (DFOV): 80° (iii) Zoom: 4x digital zoom / ePTZ (iv) Lens / Focus: Autofocus, fixed-lens (v) Microphone: Integrated directional microphone (vi) Microphone Frequency Response: 50 Hz – 16 kHz (vii) Connectivity: USB-A 2.0, plug-and-play (UVC/UAC) (viii) Privacy Shutter: Integrated mechanical shutter for lens privacy (ix) Operating Temperature: 0° to +40° C (x) Mounting: Removable monitor clamp; tripod-ready (xi) Dimensions (Camera Body W × H × D): ~37.7 × 34 × 62 mm (xii) Dimensions (With Monitor Clamp W × H × D): 60 × 43 × 68 mm (xiii) Weight: ~68 g (0.15 lb) Includes supply, installation, programming, testing, and commissioning. Approved Makes: POLY / CISCO	Nos	355.00			
39	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL HEADSET DEVICE AS PER THE TECHNICAL SPECIFICATIONS FOR VIDEO CONFERENCING. Supply, installation, programming, testing and commissioning of professional USB headset as per the technical specifications. USB wired headset with noise-canceling microphone, wideband audio, inline controls for volume and mute, comfortable ear cushions for extended use, and plug-and-play connectivity. Connectivity Type : USB C and USB A Approved Makes: POLY / JABRA /	Nos	355.00			
40	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL FRONT-OF-HOUSE LOUDSPEAKER AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. Supply, installation, programming, testing and commissioning of professional FOH loudspeaker as per the technical specifications, complete with all required connections and accessories. (i) Transducers: LF – 12 in (320 mm), 3 in (75 mm) voice coil, neodymium; HF – Compression driver, 3 in (75 mm) voice coil (ii) Enclosure Configuration: Two-way, passive point source loudspeaker in bass reflex enclosure (iii) Coverage: Symmetrical – 90° x 50°, 70° x 50°, 110° x 50°; Asymmetrical – 100° x 50°, 90° x 50°, 80° x 50° (Reconfigurable half horn assemblies included) (iv) System Sensitivity: 102 dB @ 1 W/1 m (v) Maximum SPL (continuous): 124 dB (vi) Enclosure Material: Exterior plywood (vii) Enclosure Color: Black (RAL 9011) (viii) Weatherization: IP54; external plywood; stainless screws; treated grille vs. UV and corrosion; hydrophobic stainless steel mesh behind grille; polyurea paint; input cup (IP65) sealing with gland (ix) Product Dimensions & Weight: As per manufacturer specifications (x) Accessories Included: Mounting hardware, input connectors, grille, and any manufacturer-supplied accessories Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	2.00			
41	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL FRONT-OF-HOUSE LOUDSPEAKER MOUNT AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. Supply, installation, testing, and commissioning of professional loudspeaker horizontal yoke mount as per the technical specifications. Heavy-duty steel yoke mount for secure horizontal installation of point-source loudspeakers, providing flexible tilt and orientation adjustment. Powder-coated finish ensures durability and professional-grade performance. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	2.00			
42	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL SUBWOOFER AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. Supply, installation, programming, testing and commissioning of professional 12-inch subwoofer as per the technical specifications for audio reinforcement. (i) Transducers: LF: 12 in (300 mm), 3 in (75 mm) voice coil (ii) Enclosure Configuration: Passive subwoofer in bass reflex enclosure (iii) Coverage: Omnidirectional (iv) System Bandwidth (-10 dB with EQ): 40–100 Hz (Sub Crossover = 80); 40–110 Hz (Sub Crossover = 100); 40–140 Hz (Sub Crossover = 125) (v) System Sensitivity: 93 dB @ 1 W/1 m (vi) Max SPL (continuous): 137 dB (vii) Enclosure Material: Exterior plywood (viii) Enclosure Color: Black (RAL 9011) (ix) Connectors: 2x Speakon NL4 (cable connector not provided), 1x Euroblock (parallel to Speakon, solid wire 8–24 AWG, 4 poles) (x) Weatherization: IP54; treated exterior plywood, stainless screws, treated grille, hydrophobic stainless steel mesh behind grille, polyurea paint, IP65-sealed input cup with gland (xi) Product Dimensions (W × D × H): 12.7 × 20.6 × 24 in (325 × 525 × 610 mm) (xii) Product Weight: 53.1 lb (24.1 kg) Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	2.00			
43	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL SUBWOOFER AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT.					

	Supply, installation, programming, testing and commissioning of professional subwoofer as per the technical specifications for audio reinforcement. (i) LF Transducer: 6.5-inch (165 mm) dual voice coil weather-treated paper cone woofer (ii) HF Transducer: Not applicable (iii) Effective Frequency Range: 45 Hz – 150 Hz (iv) Rated Noise Power / Voltage: 100 W / 20 V (rms) (v) Sensitivity: 86 dB @ 1 W, 1 m (vi) Coverage: Omni-directional (vii) Directivity Factor & Index: TBD (viii) Maximum SPL: 100 dB (continuous) / 106 dB (peak) (ix) Recommended Amplifier: 100 W (x) Transformer Taps / Impedance: 70 V: 100, 50, 25, 12.5 W (mono); 100 V: 100, 50, 25 W (mono); Bypass: 4 Ω mono or 8 Ω + 8 Ω stereo (xi) Connectors: Hi-Z mono input: 4-pole Euroblock with thru output; Low-Z input: 4-pole Euroblock left/right; Hi-pass mono output: x2 4-pole Euroblock for x4 satellites (xii) Enclosure Material: Vinyl-wrapped medium density fiberboard (xiii) Port Baffle / Cover Panel: ABS (xiv) Ingress Protection: Not applicable (xv) Operating Environment: Designed for indoor use (xvi) Operating Temperature Range: -20°C to 50°C (-4°F to 122°F) (xvii) Product Dimensions (Ø x H): 13.8 x 8.2 x 17 in (350 x 209 x 432 mm) (xviii) Net Weight: 23.6 lb (10.7 kg) (xix) Shipping Weight & Dimensions: TBD (xx) Included Accessories: V-wall bracket, 4x Euroblock connectors, rear cover panel, adhesive rubber feet (xxi) Safety Agency: Transformer UL registered per UL1876, ROHS, CE compliant Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	1.00			
44	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL STAGE MONITOR AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. Supply, installation, programming, testing and commissioning of professional stage monitor as per the technical specifications for audio reinforcement. (i) Configuration: Two-way active loudspeaker (ii) LF Transducer: 8-inch cone (iii) HF Transducer: 1.4-inch compression driver (iv) Frequency Response (-6 dB): 56 Hz – 20 kHz (v) Frequency Range (-10 dB): 53 Hz – 20 kHz (vi) Nominal Coverage Angle: 90° axisymmetric (vii) Maximum Rated SPL: 124 dB (viii) Amplifier: Class D, peak 800 W (LF), 200 W (HF) (ix) Controls: Power, 2 × Gain, Mic Boost push switch, 6-way contour selection switch (x) Indicators: Power LED, Input Signal LED, Mic selected LED, Limiter active LED (xi) Connectors: 2 × locking XLR/F ¼" combo, 1 × 3.5 mm TRS, 1 × XLR/M, 1 × IEC power connector (xii) AC Power Input: 100 – 240 VAC, 50 – 60 Hz (xiii) AC Power Consumption: 100 VAC: 0.75 A, 240 VAC: 0.31 A (xiv) Enclosure Material: Polypropylene (xv) Attachment Points: M8 threaded insert (xvi) Color: Black (xvii) Grille: 18-gauge powder-coated steel (xviii) Dimensions (H×W×D): 411 × 273 × 256 mm (16.2 × 10.7 × 10.1 in) (xix) Net Weight: 9.5 kg (21 lb) (xx) Shipping Weight: 11.5 kg (25.4 lb) (xxi) Optional Accessories: Tote, Outdoor Cover, Yoke Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	1.00			
45	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL CEILING SPEAKER AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. Supply, installation, programming, testing and commissioning of professional ceiling speaker as per the technical specifications for audio reinforcement. (i) Speaker Type: Two-way ceiling speaker (ii) Frequency Response: Wideband coverage suitable for general audio reinforcement (iii) Rated Power: Suitable for 60 W continuous operation (iv) Sensitivity: Standard sensitivity for ceiling speakers in professional AV installations (v) Coverage: Wide conical pattern, typically 120°–140° (vi) Maximum SPL: Suitable for typical conference or room audio levels (vii) Impedance: 16 Ω nominal (or configurable via transformer for line-level applications) (viii) LF Transducer: Weather-resistant cone woofer (ix) HF Transducer: Dome tweeter for clear high-frequency response (x) Input Connector Type: Euroblock / terminal block with parallel output option (xi) Enclosure Material: Durable ABS or equivalent (xii) Grille Material: Powder-coated steel or equivalent (xiii) Ingress Protection: Suitable for indoor environment; IP rating recommended (xiv) Operating Temperature Range: -20°C to +50°C (xv) Installation: Flush mount into standard ceiling tile or structure (xvi) Cutout Dimension: Standard circular cutout as per speaker size (xvii) Dimensions: Diameter and height suitable for ceiling installation (xviii) Weight: Compatible with standard ceiling mounting supports (xix) Accessories Included: Mounting brackets, screws, cut-out template, connection hardware (xx) Optional Accessories: Optional ceiling covers or mud rings (xxi) Certifications: UL / CE / RoHS compliance for safety and quality standards Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	14.00			
46	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL CEILING SPEAKER AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT.					

	Supply, installation, programming, testing and commissioning of professional ceiling speaker as per the technical specifications for audio reinforcement. (i) LF Transducer: 165 mm (6.5 in) weather-treated paper cone woofer (ii) HF Transducer: 19 mm (0.75 in) aluminum dome tweeter (iii) Effective Frequency Range: 65 Hz – 20 kHz (iv) Rated Power: 60 W (rms) (v) Sensitivity: 88 dB @ 1 W, 1 m (vi) Coverage: 135° conical (vii) Maximum SPL: 106 dB (continuous) / 112 dB (peak) (viii) Transformer Taps / Impedance: Bypass: 16 Ω; 7.5 W (70 V); 15 W (100 V) Tap: 667 Ω; 15 W (70 V); 30 W (100 V) Tap: 333 Ω; 30 W (70 V); 60 W (100 V) Tap: 167 Ω; 60 W (70 V); N/A (100 V) Tap: 83 Ω (ix) Input Connector: Euroblock with parallel output (x) Enclosure Material: ABS baffle on powder-coated steel back can (xi) Grille Material: Powder-coated steel (xii) Ingress Protection: IP-34 (xiii) Operating Temperature: -20°C to 50°C (xiv) Product Dimensions (Ø x H): Ø 280 x 237 mm (xv) Net Weight: 4.3 kg (xvi) Included Accessories: C-ring and tile rails, rail screws, Euroblock connector, cut-out template, grille Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	14.00			
47	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL COLUMN ARRAY SPEAKER AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT.					
	Supply, installation, programming, testing and commissioning of professional column array speaker as per the technical specifications for audio reinforcement. (i) Transducers: Multiple weather-treated paper cone woofers (ii) Effective Frequency Range: 90 Hz – 17 kHz (iii) Rated Noise Power / Voltage: 120 W / 31 V (rms) (iv) Sensitivity: 87 dB @ 1 W, 1 m (v) Coverage (Horizontal x Vertical): 160° x 20° nominal; frequency-dependent variations (vi) Directivity: Directivity index 12 dB; Directivity factor TBD (vii) Maximum SPL: 108 dB continuous, 114 dB peak (viii) Recommended Amplifier: 120 W (ix) Transformer Taps / Impedance: 8 Ω bypass; 7.5W–60W options for 70V/100V lines (x) Input Connector Type: Euroblock with parallel output (xi) Enclosure Material: Powder-coated aluminum (xii) Grille Material: Powder-coated aluminum (xiii) Ingress Protection: IP-54 (xiv) Operating Environment: Indoor or outdoor use (xv) Operating Temperature Range: -20°C to 50°C (-4°F to 122°F) (xvi) Net Weight: 6.2 kg (13.7 lb) (xvii) Product Dimensions (H x W x D): 595 x 131 x 126 mm (23.4 x 5.2 x 5 in) (xviii) Shipping Weight: 8.8 kg (19.4 lb) (xix) Shipping Dimensions (H x W x D): 312 x 251 x 823 mm (12.3 x 9.9 x 32.4 in) (xx) Included Accessories: Sealed input cover plate with gland nut, Quick Hang Pan/Tilt wall bracket (xxi) Safety Agency Compliance: UL registered, ROHS, CE compliant Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	2.00			
48	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL WALL LOUDSPEAKER AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT.					
	Supply, installation, programming, testing and commissioning of professional wall loudspeaker as per the technical specifications for audio reinforcement. (i) Effective Frequency Range: 60 Hz – 20 kHz (ii) Rated Noise Power / Voltage: 150 W / 35 V (rms) (iii) Sensitivity: 89 dB SPL (iv) Coverage Angle (-6 dB): 105° conical (v) Directivity Factor (Q): 5 (vi) Directivity Index: 7 dB (vii) Maximum SPL (Continuous / Peak): 110 / 116 dB (viii) Rated Impedance: 8 Ω (ix) Recommended Amplifier Power: 300 W (x) Transformer Taps: 70 V: 60, 30, 15, 7.5 W; 100 V: 60, 30, 15 W; 8 Ω bypass (xi) LF Transducer: 6.5 in weather-resistant paper cone woofer, 1.5 in / 38 mm voice coil (xii) HF Transducer: 1 in silk dome tweeter, horn loaded (xiii) Input Connector Type: Euroblock connector with parallel output terminals (xiv) Enclosure Material: Painted ABS polymer (xv) Grille Material: Powder-coated aluminum (xvi) X-Mount Material: Powder-coated aluminum (xvii) Ingress Protection: IP-54 (xviii) Operating Environment: Indoor and outdoor use (xix) Net Weight: 13.6 lb / 6.2 kg (xx) Product Dimensions (H x W x D): 14.4 x 8.5 x 8.5 in (365 x 215 x 215 mm) (xxi) Shipping Weight: 33.4 lb / 15.2 kg (pair packed) (xxii) Shipping Dimensions (H x W x D): 20 x 12 x 23 in (510 x 305 x 585 mm) (pair packed) (xxiii) Included Accessories: X-Mount mounting system, Euroblock connector, input panel cover Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	6.00			
49	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL DELAY SPEAKERS AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT.					

	Supply, installation, programming, testing and commissioning of professional delay speaker as per the technical specifications for audio reinforcement. (i) Speaker Type: Two-way passive point source delay loudspeaker in bass reflex enclosure (ii) LF Transducer: 2 × 4" (102 mm) neodymium cone drivers, 1.3" (33 mm) voice coil (iii) HF Transducer: 1" (25 mm) compression driver (iv) Coverage: 110° horizontal × 50° vertical (v) Sensitivity: 97.3 dB @ 1 W/1 m (vi) Maximum SPL: 114 dB continuous (vii) Enclosure Material: Exterior plywood with polyurea paint finish (viii) Grille: Stainless steel mesh, treated for UV and corrosion resistance (ix) Weatherization: IP54 (x) Input Connector: IP65 sealed input cup with gland (xi) Enclosure Color: Black (RAL 9011) (xii) Accessories Included: Mounting hardware as required (xiii) Certifications: UL / CE / RoHS compliance Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	2.00			
50	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL DELAY SPEAKERS MOUNT AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. Supply, installation, testing, and commissioning of professional delay speaker horizontal yoke mount as per the technical specifications. Heavy-duty steel yoke mount designed for horizontal installation of large-format point-source Delay speakers, allowing precise tilt and positioning. Powder-coated finish provides durability and weather resistance. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	2.00			
51	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL HANDHELD WIRELESS MICROPHONE SYSTEM AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. Supply, installation, programming, testing and commissioning of professional handheld wireless microphone system as per the technical specifications for audio reinforcement. (i) Frequency Range: Compatible UHF and BLE bands (ii) Audio Frequency Response: 20 Hz – 20 kHz (iii) Total Harmonic Distortion: ≤ 1% (iv) System Latency: ≤ 2 ms (v) Operating Temperature: -10 °C to +55 °C (vi) Microphone Type: Handheld dynamic with cardioid pickup pattern (vii) Transmit Power: Up to 10 mW (ERP) (viii) Receiver: Rack-mountable with balanced audio output (ix) Power Supply: Compatible with standard AC or DC input (x) Dimensions & Weight: Standard handheld and receiver form factor (xi) Accessories: Batteries, cables, mounting hardware Includes supply, installation, programming, testing, and commissioning. Approved Make: SHURE / SENNHEISER / TELEVIC	Nos	6.00			
52	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL GOOSENECK MICROPHONE AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. Supply, installation, programming, testing and commissioning of professional gooseneck microphone as per the technical specifications for audio reinforcement. (i) Microphone Type: Condenser gooseneck microphone, cardioid pickup pattern (ii) Frequency Response: 50 Hz – 20 kHz (iii) Sensitivity: 15 mV/Pa (iv) Maximum Sound Pressure Level: 130 dB @ 1 kHz, <3% THD (v) Output Impedance: <100 Ω @ 1 kHz (vi) Power Supply: 12–48 V phantom power (P12–P48), 3–3.7 mA consumption (vii) Signal Indicator: 12–30 V DC light ring, 1–18 mA (viii) Connectors: XLR-5M (microphone), XLR-5F / XLR-3M / 3x terminal (interface module) (ix) Activation Modes: Push-to-Talk (PTT), Push-to-Mute (PTM), ON/OFF toggle, permanently ON, or external logic control (x) Operating Temperature: 0°C to 40°C (32°F to 104°F) (xi) Storage Temperature: -25°C to +70°C (-13°F to 158°F) (xii) Weight: Approx. 1.2 kg (42.33 oz) (xiii) Dimensions (W × D × H): 120 × 170 × 43 mm (4.72" × 6.69" × 1.69") Includes supply, installation, programming, testing, and commissioning. Approved Make: SHURE / SENNHEISER / TELEVIC	Nos	2.00			
53	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL CEILING TILE MICROPHONE AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT.					

	Supply, installation, programming, testing and commissioning of professional ceiling tile microphone as per the technical specifications for audio reinforcement. (i) Product Dimensions (L × B × H): 590 × 590 × 43 mm (ii) Weight: 5.67 kg (12.5 lbs) (iii) Audio Output: 1 × 3-pin terminal; 2 × Digital Dante Network Audio (RJ-45 Primary and Secondary) (iv) Ethernet / Control: 1 × RJ-45 Ethernet Port for PoE power supply and data/control communication (v) Supply Voltage: 44 – 57 V DC; PoE IEEE 802.3af Class 3 (vi) Power Consumption: Max. 8.8 W (vii) Safety Certification: UL 62368 (including UL 2043 compliance) (viii) Operating Temperature: 0 – 40°C (32 – 104°F) (ix) Storage Temperature: –10 – 60°C (14 – 140°F) (x) Relative Humidity: 20 – 95 %, non-condensing (xi) Transducer Principle: Pre-polarized condenser microphone (xii) Audio Frequency Response: 160 Hz – 18 kHz (xiii) Sensitivity: 0 dBV/Pa (988 mV/Pa) (xiv) Signal-to-Noise Ratio: 83 dB (A) (xv) Latency: 4 ms (xvi) Equivalent Noise Level: 11 dB (A) (xvii) Microphone Capsules: 28 KE 10-237 (xviii) Pick-up Pattern: Beam Pattern (xix) Maximum Sound Pressure Level: 104 dB SPL (xx) Dynamic Range: 93 dB (A) Includes supply, installation, programming, testing, and commissioning. Approved Make: SHURE / SENNHEISER / TELEVIC	Nos	3.00		
54	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL AUDIO AMPLIFIER AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. (Type 1) Supply, installation, programming, testing and commissioning of professional audio amplifier as per the technical specifications for audio reinforcement. (i) Stereo Mode Output Power per Channel (8 Ω dynamic, both channels driven): 60 W (ii) Stereo Mode Output Power per Channel (4 Ω dynamic, both channels driven): 60 W (iii) Bridged Mode Output Power per Channel Pair (8 Ω & 4 Ω): 200 W continuous (iv) Bridged Mode Output Power per Channel Pair (70 V & 100 V): 250 W (v) Signal-to-Noise Ratio (A-weighted, 20 Hz–20 kHz): >100 dB (vi) Input Sensitivity: 1.23 Vrms (+4 dBu) (vii) Maximum Voltage Gain: 25 dB (viii) Output Circuitry: Class D (ix) Frequency Response: 20 Hz – 20 kHz (x) Input Impedance: >10 kΩ (balanced), >10 kΩ (unbalanced) (xi) Maximum Input Level: 12.3 V (+24 dBu) (xii) Highpass Filter: Switchable 80 Hz (when Bridged in 70 V & 100 V mode) (xiii) Front Panel Indicators: Power, per channel signal, protect/limit (xiv) Controls: 4Ω/8Ω/70V Bridge, Highpass On/100V Bridged Highpass On per channel pair (xv) Dimensions (H × W × D): 1.7 × 8.7 × 9.5 in / 43 × 220 × 241 mm (1 RU) (xvi) Net Weight: 3.5 lb / 1.6 kg (xvii) Shipping Weight: 6 lb / 2.3 kg (xviii) Agency Approvals: UL, CE, ENERGY STAR, RoHS/WEEE compliant, FCC Class B (Conducted and Radiated emissions) (xix) Carton Contents: Power cable, quick start guide, connector kit, rack mount ears, mounting brackets Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	2.00		
55	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL AUDIO AMPLIFIER AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. (Type 2). Supply, installation, programming, testing and commissioning of professional audio amplifier as per the technical specifications for audio reinforcement. (i) Stereo Mode Power (8 Ω / 4 Ω, both channels driven): 60 W (ii) Bridged Mode Power (8 Ω & 4 Ω, 70 V & 100 V): 200 W (iii) Signal-to-Noise Ratio: >100 dB (A weighted, 20 Hz–20 kHz) (iv) Input Sensitivity: 1.23 Vrms (+4 dBu) (v) Maximum Voltage Gain: 25 dB (vi) Output Circuitry: Class D (vii) Frequency Response: 20 Hz – 20 kHz (viii) Input Impedance: >10 kΩ (balanced), >10 kΩ (unbalanced) (ix) Maximum Input Level: 12.3 V (+24 dBu) (x) Highpass Filter: Switchable 80 Hz (when Bridged in 70V & 100V) (xi) Front Panel Indicators: Power per channel, Signal per channel, Protect/Limit (xii) Controls: 4Ω/8Ω/70V Bridge Highpass On / 100V Bridged Highpass On per channel pair (xiii) Dimensions (H × W × D): 1.7 × 8.7 × 9.5 in (43 × 220 × 241 mm) / 1RU (xiv) Weight (Net): 1.6 kg (3.5 lb) (xv) Weight (Shipping): 2.3 kg (6 lb) (xvi) Agency Approvals: UL, CE, ENERGY STAR, RoHS/WEEE compliant, FCC Class B (xvii) Carton Contents: Power cable, quick start guide, connector kit, rack mount ears, mounting brackets Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	1.00		
56	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL AUDIO AMPLIFIER AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. (Type 3)				

	Supply, installation, programming, testing and commissioning of professional audio amplifier as per the technical specifications for audio reinforcement. (i) Channels: 2 / 4 / 8 (ii) Power Output: 8 Ω / 4 Ω / 70 V / 100 V: 200 W (iii) Frequency Response: 20 Hz – 20 kHz ± 0.5 dB (iv) Signal-to-Noise Ratio: >103 dB (v) Input Sensitivity: 1.23 V (+4 dBu) (vi) Output Circuitry: Class D (vii) Input Impedance: >10 kΩ, balanced or unbalanced (viii) Cooling: Forced air, thermally regulated fan (ix) User-Configurable Modes: Low impedance 4 Ω / 8 Ω, High impedance 70 V / 100 V (x) Dimensions (H $\times$ W $\times$ D): 1.75 $\times$ 19 $\times$ 14.8 in (44 $\times$ 483 $\times$ 377 mm) (xi) Weight: 3.5 – 5.8 kg (xii) Power Supply: 100 – 240 VAC, 50–60 Hz (xiii) Agency Approvals: UL, CE, RoHS/WEEE, FCC Class B Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	1.00			
57	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL AUDIO AMPLIFIER AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. (Type 4)					
	Supply, installation, programming, testing and commissioning of professional audio amplifier as per the technical specifications for audio reinforcement. (i) Channels: 2 / 4 / 8 (ii) Power Output: 8 Ω / 4 Ω / 70 V / 100 V: 200 W (iii) Frequency Response: 20 Hz – 20 kHz ± 0.5 dB (iv) Signal-to-Noise Ratio: >103 dB (v) Input Sensitivity: 1.23 V (+4 dBu) (vi) Output Circuitry: Class D (vii) Input Impedance: >10 kΩ, balanced or unbalanced (viii) Cooling: Forced air, thermally regulated fan (ix) User-Configurable Modes: Low impedance 4 Ω / 8 Ω, High impedance 70 V / 100 V (x) Dimensions (H $\times$ W $\times$ D): 1.75 $\times$ 19 $\times$ 14.8 in (44 $\times$ 483 $\times$ 377 mm) (xi) Weight: 3.5 – 5.8 kg (xii) Power Supply: 100 – 240 VAC, 50–60 Hz (xiii) Agency Approvals: UL, CE, RoHS/WEEE, FCC Class B Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	1.00			
58	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL AUDIO AMPLIFIER AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. (Type 5)					
	Supply, installation, programming, testing and commissioning of professional audio amplifier as per the technical specifications for audio reinforcement. (i) Maximum Power Output (all channels driven): 8 Ω: 700 W 4 Ω: 800 W 70 V: 700 W 100 V: 700 W (ii) Frequency Response: 20 Hz – 20 kHz ± 0.2 / -0.7 dB (iii) Total Harmonic Distortion: 0.02 – 0.05 % (8 Ω), 0.04 – 0.1 % (4 Ω) (iv) Signal-to-Noise Ratio: >102 dB unweighted, >106 dB weighted (v) Gain: 33 dB (vi) Input Impedance: >8 kΩ balanced, >4 kΩ unbalanced (vii) Amplifier Protection: Short circuit, open circuit, over-current, over-voltage, thermal, RF, DC fault shutdown, active inrush limiting, on/off muting (viii) Cooling: Forced air (ix) Connectors: Input – 3-pin Euro; Output – 8-pin Euro; Q-LAN network connectivity (x) Front Panel Indicators: Power, Channel Mute, Channel Select, Signal & Clip LEDs, Output & Limit LED meters (xi) Rear Panel: AC power disconnect (IEC C-14) (xii) Dimensions (H $\times$ W $\times$ D): 89 $\times$ 482 $\times$ 406 mm (3.5 $\times$ 19 $\times$ 16 in) (xiii) Net Weight: 10.4 kg (23 lb) (xiv) Shipping Weight: 12.2 kg (27 lb) (xv) Power Requirements: Universal AC, 100 – 240 V, 50 – 60 Hz (xvi) Agency Approvals: UL, CE, RoHS/WEEE compliant, FCC Class B Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	1.00			
59	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL AUDIO AMPLIFIER AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. (Type 6)					

	Supply, installation, programming, testing and commissioning of professional audio amplifier as per the technical specifications for audio reinforcement. (i) Maximum Power Output (all channels driven): 8 Ω: 700 W 4 Ω: 800 W 70 V: 700 W 100 V: 700 W (ii) Frequency Response: 20 Hz – 20 kHz $\pm 0.2 / -0.7$ dB (iii) Total Harmonic Distortion: 0.02 – 0.05 % (8 Ω), 0.04 – 0.1 % (4 Ω) (iv) Signal-to-Noise Ratio: >102 dB unweighted, >106 dB weighted (v) Gain: 33 dB (vi) Input Impedance: >8 kΩ balanced, >4 kΩ unbalanced (vii) Amplifier Protection: Short circuit, open circuit, over-current, over-voltage, thermal, RF, DC fault shutdown, active inrush limiting, on/off muting (viii) Cooling: Forced air (ix) Connectors: Input – 3-pin Euro; Output – 8-pin Euro; Q-LAN network connectivity (x) Front Panel Indicators: Power, Channel Mute, Channel Select, Signal & Clip LEDs, Output & Limit LED meters (xi) Rear Panel: AC power disconnect (IEC C-14) (xii) Dimensions (H x W x D): 89 x 482 x 406 mm (3.5 x 19 x 16 in) (xiii) Net Weight: 10.4 kg (23 lb) (xiv) Shipping Weight: 12.2 kg (27 lb) (xv) Power Requirements: Universal AC, 100 – 240 V, 50 – 60 Hz (xvi) Agency Approvals: UL, CE, RoHS/WEEE compliant, FCC Class B Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / FOHNN / MEYER SOUND	Nos	1.00			
60	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL EXTENSION MICROPHONE AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. Supply, installation, programming, testing and commissioning of professional extension microphone as per the technical specifications for audio reinforcement. (i) Compatibility: USB / USB-C conferencing systems and video conferencing solutions (ii) Sound Coverage: 360° omnidirectional (iii) Connectivity: 7.5–8 metre RJ11 / RJ12 cable (or equivalent) (iv) Microphone Controls: Built-in mute function (v) Plug & Play: Yes (vi) Recommended Usage: Business / Meeting Rooms (vii) Features: Extends existing conferencing system audio, suitable for medium to large rooms (viii) Warranty: Minimum 1-year service or replacement warranty (ix) Product Color: Black Includes supply, installation, programming, testing, and commissioning. Approved Makes: Poly / Cisco	Nos	8.00			
61	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL EXTENSION MICROPHONE CABLE AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. Supply, installation, programming, testing and commissioning of professional extension microphone cable as per the technical specifications for audio reinforcement. Includes supply, installation, programming, testing, and commissioning. Approved Makes: Poly / Cisco	Nos	8.00			
62	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL DIGITAL SIGNAL PROCESSOR AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. Supply, installation, programming, testing and commissioning of professional digital signal processor as per the technical specifications for audio reinforcement. (i) Processor: 64-bit architecture (ii) Audio processing: 32-bit floating point (iii) Network audio I/O: 160 x 160 (iv) Analog I/O: 24x (mic/line in, line out, flex) (v) Dante channels: 8 x 8 and expandable (vi) AEC channels: 24 (vii) Audio recording / playback: 4 channels recording / 16 channels playback (expandable) (viii) USB audio device support: Standard USB headset / speakerphone, up to 16x16 channels (ix) Product dimensions (L x W x H): 482 x 311 x 44 mm (x) Product weight: 5.4 kg (xi) Power consumption: 60 W typical, 150 W maximum (xii) Line voltage: 100–240 VAC, 50/60 Hz (xiii) Operating temperature: 0°C to +50°C (xiv) Storage temperature: -20°C to +70°C (xv) Humidity: 5% to 85% (xvi) Regulatory compliance: FCC, CE, RoHS/WEEE, UL Includes supply, installation, programming, testing, and commissioning. Approved Makes: QSC / SYMETRIX / BIAMP	Nos	2.00			
63	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL AUDIO DE-EMBEDDER AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT.					

	Supply, installation, programming, testing and commissioning of professional audio de-embedder as per the technical specifications for audio reinforcement. (i) Inputs: HDMI on a female HDMI connector (ii) Outputs: HDMI on a female HDMI connector; S/PDIF Digital Audio on RCA; Balanced Stereo Analog Audio on 5-pin terminal block (iii) Video: Up to 4K@60 (4:4:4), 12-bit color, HDCP 2.2 (iv) Audio Frequency Response: 20 Hz – 20 kHz $\pm$0.1 dB (v) Signal-to-Noise Ratio: >90 dB (vi) Total Harmonic Distortion + Noise (THD+N): 0.004% (vii) User Controls: DIP-switch setup for EDID, audio settings, analog audio amplification; contact closure for output mute (viii) Indicators: Audio IN/OUT, Digital/Analog output, Power (ix) Power: 5V DC, 370 mA (x) Operating Temperature: 0° – 40°C; Storage Temperature: –40° – +70°C (xi) Humidity: 10% – 90%, non-condensing (xii) Enclosure: Aluminum, convection ventilation (xiii) Product Dimensions (W x D x H): 12.0 x 7.15 x 2.44 cm (xiv) Product Weight: 0.2 kg approx. (xv) Included Accessories: Power adapter, power cord, bracket set Includes supply, installation, programming, testing, and commissioning. Approved Makes: KRAMER / CRESTRON / EXTRON	Nos	1.00			
64	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL WIRELESS STREAMING AMPLIFIER AS PER THE TECHNICAL SPECIFICATIONS FOR AUDIO REINFORCEMENT. Supply, installation, programming, testing and commissioning of professional music amplifier as per the technical specifications for audio reinforcement. (i) Independent streaming audio player (ii) Built-in AirPlay 2 streaming with full metadata to iOS/Android apps or XTS7 touchscreens (iii) Built-in Google Cast for Audio support with full metadata to iOS/Android apps or XTS7 touchscreens (iv) Bluetooth audio streaming (v) Hi-Res audio streaming support up to 24-bit/192 kHz (vi) USB support for flash or external USB hard drive-based music collections (vii) Digital (PCM) and analog stereo inputs (viii) Digital or analog output (analog output configurable as fixed or variable) (ix) Can be integrated as a source with controllers, or standalone as a zone with any amplifier or receiver (x) Controllable with Suitable App, IPK-1 keypad, and XTS7 in-wall touchscreen (xi) Bass, treble, and loudness settings adjustable via suitable App (xii) Supports local favorites (xiii) Onboard browser-based configuration, accessible from smartphone or tablet (xiv) Compatible with other components for versatile system designs Includes supply, installation, programming, testing, and commissioning. Approved Makes: RUSSOUND / YAMAHA	Nos	1.00			
65	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL NETWORKED AV CONTROL PROCESSOR AS PER THE TECHNICAL SPECIFICATIONS Supply, installation, programming, testing and commissioning of Networked AV Control Processor suitable for the following: (i) Network: Ethernet 100 Mbps, TCP/IP, UDP/IP, DHCP, SSL/TLS, HTTPS, SNMP, IPv4/IPv6, Active Directory support, XiO Cloud® client (ii) Control Ports: RS-232/422/485, IR, USB OTG for console and storage (iii) Memory & Storage: Minimum 1 GB RAM, 8 GB flash, supports external USB storage up to 1 TB (iv) Digital I/O & Relays: Digital inputs, relay outputs, IR outputs, serial communication support (v) Indicators & Controls: Power, network, and error LEDs; hardware/software reset buttons (vi) Power: IEEE 802.3at PoE PD, typical consumption $\leq$ 7 W (vii) Operating Environment: Temperature 0–40 °C, Humidity 10–90% RH (non-condensing) (viii) Mounting & Form Factor: Freestanding, surface mount, stackable, or DIN rail; compact enclosure (ix) Quality & Security Standards: IEC/UL or equivalent certified for AV control systems Processor with separate power Approved Makes: CRESTRON / KRAMER / QSC	Nos	31.00			
66	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL WI-FI 6 ROUTER AS PER THE TECHNICAL SPECIFICATIONS Supply, installation, programming, testing and commissioning of Dual-Band Wi-Fi 6 Router suitable for the following: (i) Wi-Fi Standards: IEEE 802.11ax/ac/n/a 5 GHz, IEEE 802.11ax/n/b/g 2.4 GHz, AX5400 speeds or better (ii) Coverage & Antennas: High-performance antennas with beamforming and high-power FEM for extended coverage; suitable for medium to large home/office areas (iii) Wireless Features: 4x4 MU-MIMO, OFDMA, Airtime Fairness, DFS, 6 streams, dual-band operation for multiple devices (iv) Security & VPN: WPA/WPA2/WPA3, SPI firewall, access control, IP/MAC binding, HomeShield security (intrusion prevention, IoT protection, malicious site blocking, DDoS protection); supports VPN client/server (OpenVPN, PPTP, L2TP) (v) Ethernet & USB: 1x Gigabit WAN port, 4x Gigabit LAN ports (LAG support), 1x USB 3.0 port for storage/media server/time machine/FTP/Samba (vi) Control & Management: Web interface, mobile app, OneMesh™ support, parental controls, QoS, auto firmware upgrade, cloud management (vii) Operating Environment: Temp 0–40 °C, Humidity 10–90% RH (non-condensing), Storage Temp –40–70 °C (viii) Power: 12 V – 2.5 A (ix) Certifications: FCC, CE, RoHS or equivalent Approved Makes: TP-Link / D-Link	Nos	31.00			
67	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL ANDROID TABLET AS PER THE TECHNICAL SPECIFICATIONS					

	Supply, installation, programming, testing and commissioning of Android Tablet suitable for the following: (i) Processor: Octa-Core CPU, 2.0–2.2 GHz or better (ii) Display: 22 cm (approx. 8.7") TFT, WXGA+ resolution (1340 × 800), 16M colors (iii) Camera: Rear 8 MP with autofocus, front 5 MP, video recording FHD 1080p@30fps (iv) Memory & Storage: 8 GB RAM, 128 GB internal storage (min. 108 GB available), expandable via MicroSD up to 2 TB (v) Connectivity: Wi-Fi 802.11a/b/g/n/ac dual-band, Bluetooth 5.3 (vi) Operating System & Apps: Android OS, supports SmartThings, Gear and accessory compatibility (vii) Sensors: Accelerometer, geomagnetic sensor, light sensor, proximity sensor (viii) Battery & Power: 5100 mAh, non-removable (ix) Audio/Video Playback: Supports MP4, MKV, AVI, FLAC, MP3, AAC and other common formats; FHD video playback (x) Physical: Dimensions approx. 211 × 125 × 8 mm, weight 337 g, tablet form factor Approved Makes: Samsung / Lenovo / APPLE Tablet should be supplied with any reputed mounting hardware with power charge	Nos	31.00			
68	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL ANDROID OS CONTROL DEVICE AS PER THE TECHNICAL SPECIFICATIONS					
	Supply, installation, programming, testing and commissioning of Android OS Control Device / Tablet suitable for the following: (i) Mobile control app for android tablet which can support super Retina display (ii) Support Playstore (iii) App Should allow multiple control devices. Approved Makes: Crestron / Kramer / QSC	Nos	29.00			
69	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL ROOM SCHEDULER AS PER THE TECHNICAL SPECIFICATIONS					
	Supply, installation, programming, testing and commissioning of Touch Panel Control Display suitable for the following: (i) Display: 7" TFT active matrix LCD, WXGA (1280 × 800), 16:10 aspect ratio, 350 nits brightness, 850:1 contrast, 16.7M colors, edgellit LED with auto brightness (ii) Touch Screen: Projected capacitive, 5-point multitouch capable (iii) Buttons: 6 virtual buttons for Power, Home, Lights, Up, Down, Microphone; optional custom programming; 1 rear pin-hole reset button (iv) Room Scheduling: Supports Microsoft Exchange / Office 365, Google Calendar / G Suite, CollegeNET® 25Live®, Ad Astra®, and select third-party scheduling apps (v) Control & Management: Setup and diagnostics via web browser, cloud, or onscreen UI Approved Makes: Crestron / Kramer / EXTRON	Nos	12.00			
70	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL 10" TOUCH DISPLAY AS PER THE TECHNICAL SPECIFICATIONS					
	Supply, installation, programming, testing and commissioning of Touch Display / Control Panel suitable for the following: (i) Display: 10" TFT/LCD, 1920 × 1200 px, 16:10 aspect ratio, 380–400 nits brightness, 800:1 contrast, landscape/portrait support (ii) Touch & Orientation: Multi-touch capable; optional table-top stand; supports landscape orientation; future accessory expansion possible (iii) Mounting & Accessories: Supports PoE+ Class 4; optional accessories for table-top or wall mount (iv) Weight & Power: Approx. 947 g (33.4 oz), typical power consumption 4 W (v) Additional Features: Built-in touch interface, web/browser-based control, setup and diagnostics support Should be supplied with table mount Approved Make: CRESTRON / QSC / KRAMER	Nos	1.00			
71	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL 7" TOUCH DISPLAY AS PER THE TECHNICAL SPECIFICATIONS					
	Supply, installation, programming, testing and commissioning of Touch Display / Control Panel suitable for the following: (i) Display: 7" TFT/LCD, 1920 × 1200 px, 16:10 aspect ratio, 380–400 nits brightness, 800:1 contrast, landscape/portrait support (ii) Touch & Orientation: Multi-touch capable; optional table-top stand; supports landscape orientation; future accessory expansion possible (iii) Mounting & Accessories: Supports PoE+ Class 4; optional accessories for table-top or wall mount (iv) Weight & Power: Approx. 947 g (33.4 oz), typical power consumption 4 W (v) Additional Features: Built-in touch interface, web/browser-based control, setup and diagnostics support Should be supplied with table mount Approved Make: CRESTRON / QSC / KRAMER	Nos	1.00			
72	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL RACK-MOUNT NETWORK SWITCH AS PER THE TECHNICAL SPECIFICATIONS					
	Supply, installation, programming, testing and commissioning of Rack-Mount Network Switch suitable for the following: (i) Form Factor: Full-width, 1U rack-mount; Dimensions approx. 440 × 43 × 400 mm (ii) Switching Capacity: 176 Gbps or higher (iii) Ports: 48 × 10/100/1000 Mbps Ethernet ports (Foct) 4 × 1G/10G uplink ports (iv) Power Supply: 1 × Fixed 550 W (C14) with On/Off switch; optional redundant slots (2 slots available) (v) Power Consumption: Typical 236 W (vi) Rack & Mounting: Standard 19" rack compatible Approved Makes: JUNIPER / NETGEAR	NOS	2.00			
73	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL SERIAL / POE INTERFACE DEVICE AS PER THE TECHNICAL SPECIFICATIONS					

	Supply, installation, programming, testing and commissioning of Serial / PoE Interface Device suitable for the following: (i) Serial Ports: 1 × RS-232/RS-422/RS-485 configurable port (protocol, baud rate, flow control) 3 × RS-232 configurable ports (protocol, baud rate, flow control) (ii) Connectivity & Power: Gigabit LAN (PoE) for Q-LAN, PoE compliant with IEEE 802.3af Type 1 Ethernet daisy-chaining via LAN (Thru) port External 24 VDC, 2.5 A power supply (optional daisy-chain support) (iii) Mounting: Surface, wall, and rack-mountable (1RU, quarter-rack width; mounting hardware optional) (iv) Physical & Environmental: Dimensions 139.7 × 108 × 40.4 mm; weight 0.54 kg; operating temp 0°–50°C; humidity 0%–85% up to 30°C; storage temp -20°–70°C; thermal dissipation 8.5 BTU/hr (v) Compliance & Certification: FCC, IC, CE, EU RoHS, WEEE, China RoHS, EAC, UL, C-UL, NOM Approved Make: CRESTRON / QSC / KRAMER	NOS	1.00			
74	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL DALI LIGHTING CONTROL MODULE AS PER THE TECHNICAL SPECIFICATIONS Supply, installation, programming, testing and commissioning of Dali light control module suitable for the following: (i) Supply & Power: Single-phase, 100–240 VAC, 0.25 A; DyNet DC Output: 12 VDC, 120 mA Switched Output: 1 × 20 A feed-through DALI Protection: Electronic self-resettable fuse, IEC Overvoltage Category III (ii) Control & Communication: 1 × RS-485 serial port supporting DyNet protocol DMX Rx: 64 channels Control Channel Output: 1 × DALI-2 (supports DALI 207 & DALI 209 Tuneable White; DALI-2 certified drivers only) Dry Contact Inputs: 1 × AUX User Inputs: 1 × service switch, 1 × switched output toggle Diagnostic LED for device status (iii) Diagnostics : Lamp failure reporting, Driver failure reporting, Driver runtime tracking, Switched output runtime tracking, Emergency test reporting, Device online/offline status (iv) Physical & Mounting: Dimensions: 95 × 105 × 75 mm: Weight: 0.45 kg Polycarbonate DIN rail enclosure (6 units) Serial Ports: 1 × RJ12, 1 × 6-way pluggable screw terminal (max 2.5 mm² conductor) Supply Terminals: 3 × screw terminals (Line, Neutral, Earth; max 5 mm² conductor) Control Terminals: 1 × 2-way screw terminal (max 5 mm² conductor) Relay/Loop Terminals: 4 × screw terminals (Loop IN, Loop OUT, Relay IN, Relay OUT; max 5 mm² conductor) (vi) Compliance & Certification: CE, RCM, UL/cUL, FCC, ICES, UKCA, RoHS, DALI-2, IEC62386 Approved Makes: DYNALITE / LUTRON	NOS	2.00			
75	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL DALI DC CONTROL MODULE AS PER THE TECHNICAL SPECIFICATIONS Supply, installation, programming, testing and commissioning of DALI DC CONTROL MODULE suitable for the following: (i) Supply & Power: DyNet or DC powered, 12–24 VDC DyNet Supply Current: 100 mA @ 12 VDC, 50 mA @ 24 VDC DC Supply Current: 300 mA @ 12 VDC, 250 mA @ 24 VDC DyNet DC Output Current: 200 mA, IEC Overvoltage Category III (ii) Control & Communication: 1 × RS-485 serial port, 1 × Ethernet (10/100 Base-T) Supported Protocols: DyNet / DyNet2, DMX, TCP/IP (TCP, UDP, IPv4/IPv6), HTTP/HTTPS/FTP/CGI/Telnet Dry Contact Inputs: 1 × AUX (iii) Clock & Scheduling Features: 365-day clock with lithium backup Sunrise/sunset tracking and automatic daylight saving adjustment 250 timed events, 64 tasks Storage Capacity: 16 MB XML file storage, 28-day rolling network log (iv) User Interface & Indicators: 1 × service switch, 1 × service LED, 2 × Ethernet status LEDs (v) Physical & Mounting: Low-profile DIN rail polycarbonate enclosure (6 units) Communication Ports: 1 × RJ45, 1 × RJ12, 1 × 6-way pluggable screw terminal (max 2.5 mm²) Supply Terminals: 1 × 2-way pluggable screw terminal (max 2.5 mm²) (v) Compliance & Certification: CE, RCM, UL/cUL, FCC, ICES, UKCA, RoHS Approved Makes: DYNALITE / LUTRON	NOS	2.00			
76	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL DYNET WALL CONTROL/SENSOR MODULE AS PER THE TECHNICAL SPECIFICATIONS Supply, installation, programming, testing and commissioning of DYNET WALL CONTROL/SENSOR MODULE suitable for the following: (i) Supply & Power: DyNet powered, 12–24 VDC, SELV/Class 2 Supply Current: 35 mA @ 12 VDC, 20 mA @ 24 VDC (ii) Application Module Features: User Inputs: 2 / 4 / 6 software-configurable buttons Indicators: White LED on each button, white wall-wash backlight Temperature Sensor: Range 5° to 40°C, Accuracy ±0.5°C Field Effect Detection: Approx. 15 cm (6 in) (iii) Communication Module: Serial Ports: 1 × RS-485 Supported Protocols: DyNet, DMX Tx (64 channels) User Inputs: 1 × service switch Indicators: 1 × service LED (iv) Physical & Mounting: Serial Ports: 1 × 5-way pluggable screw terminal (+V, D-, D+, GND, SHLD; max 2.5 mm² conductor) (v) Environmental: Operating Temperature: -5° to 50°C Storage/Transport Temperature: -25° to 60°C Humidity: 0–90% non-condensing IEC Pollution Degree II (vi) Compliance & Certification: CE, RCM, UL, FCC, ICES, UKCA, RoHS IP Rating: IP22 Approved Makes: DYNALITE / LUTRON	NOS	4.00			

77	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL DYNET SINGLE-PHASE POWER SUPPLY MODULE AS PER THE TECHNICAL SPECIFICATIONS				
	Supply, installation, programming, testing and commissioning of Dynet single-phase power supply module suitable for the following: (i) Supply & Power: Single-phase, 110–277 VAC, 0.5 A Output Voltage: 15 VDC Output Current: 1.5 A (screw terminal), 0.1 A (RJ12 port) Protection: Self-resetting overload protection, short circuit protection, automatic thermal shutdown IEC Overvoltage Category III (ii) Control & Communication: Communication Ports: 1 × RS-485 Supported Protocols: DyNet Indicators: 1 × power LED (iii) Physical & Mounting: Dimensions: 95 × 108 × 64 mm Packed Weight: 0.2 kg Construction: Polycarbonate DIN-rail enclosure (6 units) Communication Ports: 1 × RJ12, 1 × 5-way pluggable screw terminal (SHLD, GND, D+, D-, +15V) Supply Terminals: 3 × screw terminals (Line, Neutral, Earth; max conductor ≤ 5 mm²) Pluggable Screw Terminal Conductor Size: 0.3–2.5 mm² (iv) Environmental: Operating Temperature: 0° to 50°C Storage/Transport Temperature: -25° to 60°C Humidity: 0–90% non-condensing IEC Pollution Degree II (v) Compliance & Certification: CE, RCM, UL/cUL, FCC, UKCA, RoHS Approved Makes: DYNALITE / LUTRON	NOS	2.00		
78	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL TABLET DEVICE AS PER THE TECHNICAL SPECIFICATIONS				
	Supply, installation, programming, testing and commissioning of Professional tablet device suitable for the following: (i) Display: Retina 10.2-inch (diagonal) LED-backlit Multi-Touch display with IPS technology Resolution: 2160 × 1620 pixels at 264 ppi, 500 nits brightness; Supports Apple Pencil (1st generation) Fingerprint-resistant oleophobic coating (ii) Processor & Performance: A13 Bionic chip with Neural Engine (iii) Storage & Memory: Capacity options: 64 GB / 256 GB; Expandable via cloud storage only (no external microSD) (iv) Camera & Video: Rear Camera: 8 MP Wide camera, f/2.4 aperture, Digital zoom up to 5x Front Camera: 12 MP Ultra Wide, 122° field of view, f/2.4 aperture, Center Stage Video Recording: 1080p HD @ 25/30 fps, 720p HD @ 30 fps, Slo-mo 720p @ 120 fps; Video Formats: HEVC and H.264 (v) Audio & Speakers: Stereo speakers; Dual microphones for calls and recordings (vi) Connectivity & Network: Wi-Fi 5 (802.11ac) with 2x2 MIMO, speeds up to 866 Mbps; Bluetooth 4.2 Wi-Fi + Cellular Models: UMTS/HSPA/HSPA+/DC-HSDPA and Gigabit-class LTE (multi-band support) SIM: Nano-SIM + eSIM (cellular models); Location: GPS/GNSS, Digital compass, iBeacon micro-location (vii) Sensors & Security: Touch ID, Three-axis gyro, Accelerometer, Barometer, Ambient light sensor Apple Pay support with Touch ID (viii) Operating System: iPadOS with built-in apps and features (ix) Power & Battery: Built-in 32.4-Wh rechargeable lithium-polymer battery; Up to 10 hours web browsing or video on Wi-Fi; 9 hours on mobile network (cellular models) Charging via USB-C or power adapter (x) Physical Specifications: Colors: Silver, Space Grey (xi) Accessories should be included: iPad (9th generation); Lightning to USB-C Cable; 20W USB-C Power Adapter Approved Makes: Apple / Samsung	NOS	3.00		
79	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL WIRELESS DEVICE CHARGING SYSTEM AS PER THE TECHNICAL SPECIFICATIONS				
	Supply, installation, programming, testing and commissioning of Wireless device charging system suitable for the following: (i) Functionality: Wireless charging system for compatible devices Docking and charging via magnetic alignment Device stability ensured during charging LED indicators for charging status (ii) Mounting & Installation: Desk or surface mountable Optional accessory for flexible mounting Easy integration with existing furniture or AV setups (iii) Compatibility & Safety: Supports specified compatible devices Overcharge and short-circuit protection CE / FCC / RoHS compliant (iv) Physical Specifications: Compact form factor suitable for office or classroom environments Approved Makes: Launchport / Iport	NOS	2.00		
80	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL WI-FI ACCESS POINT AS PER THE TECHNICAL SPECIFICATIONS				

	Supply, installation, programming, testing and commissioning of Wifi Access Point suitable for the following: (i) Power & Consumption: Power Supply: 12V/2.5A (30W) via included adapter or PoE+ switch; Power Consumption: 15.2W (ii) Physical Specifications: Dimensions (W × D × H): 7.71 × 7.71 × 1.74 in (196 × 196 × 44.4 mm) Mounting: Ceiling or Wall mount (iii) Network Interfaces & Buttons: One (1) 100/1000/2500 Mbps Ethernet (RJ-45) PoE port with Auto Uplink Hardware Button: Default Reset; LEDs: Power, LAN, 2.4GHz, 5GHz (iv) Environmental Specifications: Operating Temperature: 0° to 40°C; Storage Temperature: -40° to 70°C Operating Humidity: 5% to 95%; Storage Humidity: 5% to 95% MTBF: >1,896,453 hours @25°C, >431,098 hours @45°C Safety Certification: CB, EN60950, EN62368 (v) RF Characteristics & Standards: Standards: IEEE 802.11ax/ac/n/g/b/a; Frequency Bands: 2.4GHz & 5GHz concurrent Maximum Theoretical Throughput: 600 Mbps (2.4GHz), 3600 Mbps (5GHz) Maximum Number of Clients: 256 (128 per band) (vi) Network Management & Antenna: Deployment Options: Standalone Web UI Antenna: 5 dBi (2.4GHz), 5 dBi (5GHz) (vii) Security: Wi-Fi Protected Access (WPA2/WPA3) MAC Address filtering Supports 4 SSIDs Approved Makes: TP-Link / Aruba / NEATGEAR	NOS	2.00			
81	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL CONTROL PROCESSOR / MEDIA CONTROLLER AS PER THE TECHNICAL SPECIFICATIONS Supply, installation, programming, testing and commissioning of Control Processor suitable for the following: (i) Control & Connectivity: HDMI Input: 1 × Female HDMI HDMI Output: 1 × Female HDMI USB: 3 ports (2 × USB 3.0, 1 × USB 2.0) LAN: 1 × Gigabit RJ-45 for network connectivity and device control (ii) Processor & Memory: Processor: Quad-Core SOC (Intel® Gemini Lake or equivalent) Memory: 4GB LPDDR4 Storage: 32GB eMMC (iii) Networking & Control: Ethernet: Gigabit LAN Wi-Fi: 802.11 ac/b/g/n dual band (optional) OS: Linux or equivalent real-time AV control compatible OS (iv) Power & Consumption: Power Input: 12V DC Power Consumption: 1.7A typical (v) Environmental: Operating Temperature: 0° to 40°C Storage Temperature: -40° to 70°C Humidity: 10% to 90% RH, non-condensing (vi) Construction & Accessories: Enclosure: Aluminum, fan-cooled Accessories: Power adapter, AV control cables, VESA mount Approved Makes & Models: QSC / CRESTRON / KRAMER	NOS	2.00			
82	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL TABLET DEVICE AS PER THE TECHNICAL SPECIFICATIONS Supply, installation, programming, testing and commissioning of Professional tablet device suitable for the following: (i) Display & Touch: Display: 10.2-inch LED backlit Multi-Touch display with IPS technology Resolution: 2160 × 1620 pixels, 264 ppi; Brightness: 500 nits; Touch: Supports stylus input (ii) Processor & Memory: Processor: High-performance mobile SoC with Neural Engine Memory: 3GB RAM Storage: 64GB / 256GB (iii) Camera & Audio: Rear Camera: 8MP Wide, f/2.4 aperture, Digital zoom up to 5x Front Camera: 12MP Ultra Wide, f/2.4 aperture Video Recording: 1080p HD video, Slo-mo, Time-lapse with stabilisation Speakers: Stereo; Microphones: Dual (iv) Connectivity & Network: Wi-Fi: 802.11ac (2x2 MIMO) SIM: Nano-SIM + eSIM (for cellular models) Location: GPS/GNSS, Digital compass, Micro-location support (v) Operating System & Features: OS: Tablet OS with full app ecosystem Biometric Authentication: Fingerprint or equivalent Voice Assistant support Supports video and audio calling (vi) Power & Battery: Battery: Built-in rechargeable lithium-polymer Charging: Via power adapter or USB-C, Finish: Metallic or equivalent Approved Makes: Apple, Samsung	NOS	2.00			
83	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL WIRELESS DEVICE CHARGING SYSTEM AS PER THE TECHNICAL SPECIFICATIONS					

	Supply, installation, programming, testing and commissioning of Wireless device charging system suitable for the following: (i) Functionality: Wireless charging system for compatible devices Docking and charging via magnetic alignment Device stability ensured during charging LED indicators for charging status (ii) Mounting & Installation: Desk or surface mountable Optional accessory for flexible mounting Easy integration with existing furniture or AV setups (iii) Compatibility & Safety: Supports specified compatible devices Overcharge and short-circuit protection CE / FCC / RoHS compliant (iv) Physical Specifications: Compact form factor suitable for office or classroom environments Approved Makes: Launchport / Iport	NOS	2.00			
84	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL MANAGED GIGABIT POE+ SWITCH AS PER THE TECHNICAL SPECIFICATIONS Supply, installation, programming, testing and commissioning of Managed Gigabit PoE+ switch suitable for the following: (i) Form Factor & Physical: Full width, 1U rack mount Dimensions: 440 × 43.2 × 400 mm Weight: Approx. 19–20 kg (ii) Performance & Ports: Switching Capacity: 176 Gbps Ports: 48 × 10/100/1000 Mbps (Foet) Uplink: 4 × 1G / 10G (iii) Power Supply: Fixed PSU, 550W (C14), On/Off switch PoE+: Supports IEEE 802.3at/af, Class 4 (iv) Management & Features: Managed Layer 2/3 capabilities VLAN, QoS, IGMP Snooping, Link Aggregation Web, CLI, SNMP, and remote management support (v) Environmental: Operating Temperature: 0°–50°C Humidity: 5%–95% non-condensing (vi) Compliance & Safety: Certifications: CE, FCC, RoHS, UL/cUL Approved Makes: NETGEAR / JUNIPER	NOS	2.00			
85	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL LIGHTING CONTROL MODULE AS PER THE TECHNICAL SPECIFICATIONS Supply, installation, programming, testing and commissioning of professional lighting control module as per the technical specifications, complete with all required connections and accessories. (i) Power Consumption: 5.4 W (0.23A @ 24V DC) (ii) Channels: 8 relay switch channels (iii) Load Capacity: Up to 10A per channel @ 120–240V AC (iv) Load Types: Compatible with incandescent, fluorescent, low-voltage, and motor loads (v) Communication Interface: secondary mode (vi) Control and Indicators: LED status indicators, setup and override buttons, local channel control (vii) Mounting: 35 mm rail mount, 9-module form factor (viii) Operating Temperature: 0° to 40°C (ix) Humidity: 10% to 90% RH (non-condensing) (x) Dimensions (H × W × D): 95 × 159 × 60 mm (xi) Weight: 0.37 kg approx. Approved Makes: CRESTRON / LUTRON	NOS	20.00			
86	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL POWER SUPPLY AS PER THE TECHNICAL SPECIFICATIONS Supply, installation, programming, testing and commissioning of professional power supply unit as per the technical specifications, complete with all required connections and accessories. (i) Output Rating: 60 W (2.5 A) at 24 V DC, regulated (ii) Efficiency: 85% minimum (iii) Input Power: 100–277 V AC, 50/60 Hz (iv) Power Consumption: 70 W at full load (v) Communication Ports: Multiple 4-pin detachable terminal blocks for power and data distribution (vi) Protection: Integrated fuse and current limiting (vii) Indicators: LED for 24 V DC output status (viii) Mounting: 35 mm DIN rail mount, 6-module form factor (ix) Operating Temperature: 0° to 40° C (x) Humidity: 10% to 90% RH (non-condensing) (xi) Dimensions (H × W × D): 94 × 108 × 58 mm (xii) Weight: 0.17 kg approx. Approved Makes: Crestron / LUTRON	NOS	20.00			
87	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL CABLE RETRACTOR AS PER THE TECHNICAL SPECIFICATIONS Supply, installation, programming, testing and commissioning of professional cable retractor unit as per the technical specifications, complete with all required connections and accessories. Cable retractor for HDMI Signal upto 1.8m of length. 1 female connector and 1 male connector. Cable retractor should be form same OEM of Cable Cubby Approved Makes: KRAMER / CRESTRON / EXTRON	NOS	24.00			
88	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL CABLE RETRACTOR AS PER THE TECHNICAL SPECIFICATIONS					

	Supply, installation, programming, testing and commissioning of professional cable retractor unit as per the technical specifications, complete with all required connections and accessories. Cable retractor for USB C Signal upto 1.7m of length. 1 male connector Cable retractor should be form same OEM of Cable Cubby Approved Makes: KRAMER / CRESTRON / EXTRON	NOS	24.00			
89	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL CABLE CUBBY AS PER THE TECHNICAL SPECIFICATIONS					
	Supply, installation, testing, and commissioning of professional cable cubby / tabletop connection panel as per the technical specifications. Tabletop connectivity solution providing multiple AV and data interfaces in a compact enclosure, suitable for conference tables. Supports HDMI, audio, USB, and control connections for seamless integration with room AV systems. Includes 2 x universal power outlets and 2 x cable pass-throughs for convenient device charging and cable management. Approved Makes: KRAMER / CRESTRON / EXTRON	NOS	24.00			
90	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL PODIUM AS PER THE TECHNICAL SPECIFICATIONS					
	Supply, installation, programming, testing and commissioning of Digital Podium with Connectivity - 1x HDMI, 1xUSBC; 1xGigabit LAN, 2xUniversal Power Socket. Complete with all required accessories. Built in display monitor Approved Makes: AHA / MAXHUB /	NOS	1.00			
91	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL AV RACK AS PER THE TECHNICAL SPECIFICATIONS					
	Supply, installation, programming, testing and commissioning of 24U AV Rack with required accessories like cooling fan, equipment shelf, PDU, lacing bar etc Approved Makes: NETRACK / MIDDLE ATLANTIC	NOS	2.00			
92	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL AV RACK AS PER THE TECHNICAL SPECIFICATIONS					
	Supply, installation, programming, testing and commissioning of 37U AV Rack with required accessories like cooling fan, equipment shelf, PDU, lacing bar etc. Approved Makes: NETRACK / MIDDLE ATLANTIC /	NOS	1.00			
93	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL AV RACK AS PER THE TECHNICAL SPECIFICATIONS					
	Supply, installation, programming, testing and commissioning of 42U AV Rack with required accessories like cooling fan, equipment shelf, PDU, lacing bar etc. Approved Makes: NETRACK / MIDDLE ATLANTIC /	NOS	1.00			
94	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL UPS AS PER THE TECHNICAL SPECIFICATIONS					
	Supply, installation, programming, testing and commissioning of professional online UPS system as per the technical specifications. 10 kVA online double-conversion UPS with wide input tolerance, built-in/external battery support, overload and short-circuit protection, LED/LCD status display, and remote monitoring capability. Approved Makes: VERTIVE / AMARON	NOS	4.00			
95	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL UPS BATTERY AS PER THE TECHNICAL SPECIFICATIONS					
	Supply, installation, programming, testing and commissioning of maintenance-free VRLA battery as per the technical specifications. 12 V, 26 Ah sealed lead-acid (VRLA) battery suitable for UPS and backup applications, with spill-proof, maintenance-free design, vibration-resistant construction, and long service life. Approved Makes: Exide / Amaron	NOS	4.00			
96	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL RECEIVER WITH EXISTING DEALING AREA SYSTEM AS PER THE TECHNICAL SPECIFICATIONS					
	Supply, installation, programming, testing and commissioning of professional receiver integrated with the existing dealing area system as per the technical specifications. (i) Should support resolution upto 2x 1920x1200@60Hz or 1x 3840x2160@60Hz (ii) Power Consumption Max 35W (iii) Interfaces: 2 x USB 3.0 Type A SuperSpeed 2 x USB 2.0 Type A HighSpeed (iv) Indicator LEDs Ethernet link and activity on each RJ45 connector (v) CPU Intel® Xeon® W-11555MLE, Cores 6 Threads 12, Max 4.4 GHz, TDP 25 Watt (vi) Operating temperature: 8 - 40 °C Storage temperature: 0 - 60 °C Operating location: Indoor use Relative humidity: 45 - 85 % non condensing (vii) Should support playback videos with 4k (viii) Should create multiple layouts and save as presets Approved Makes: Weytec	NOS	3.00			
97	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF PROFESSIONAL SMART VISUALIZATION SYSTEM AS PER THE TECHNICAL SPECIFICATIONS					
	Supply, installation, programming, testing and commissioning of professional smart visualization server system as per the technical specifications. (i) Size W/D/H (mm) 16 Slot 245 x 483 x 176 mm (LxWxH) Weight (g) 6000g (ii) Interfaces: 2 x USB 3.0 Type A SuperSpeed 2 x USB 2.0 Type A HighSpeed (iii) Ethernet 1 x Gigabit RJ45 and 1 x 2.5 Gigabit RJ45 (iv) Operating Conditions Operating temperature: 8 - 40 °C Storage temperature: 0 - 60 °C Operating location: Indoor use Relative humidity: 45 - 85 % non condensing (v) Should manage unit for the distributed video wall system Smartvisual, Should create layout using existing Weytec Keyboard (vi) Should communicate with multiple existing smartVisual receiver (vii) Should have a user interface which allows window size position, Bezel correction in real time Approved Makes: Weytec	NOS	1.00			
98	SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING OF BULK CABLES AND CONNECTORSAS PER THE TECHNICAL SPECIFICATIONS					

	Supply, installation, programming, testing and commissioning of bulk cables and connectors as per the technical specifications. HDMI, USB, CAT6 patch cables, Speaker, mic , audio ,control, cable, Connectors, Adapters, Converters, Power supplies, and required Accesaries for completion of project as per site condition etc. Approved Makes: Kramer / Crestron	LUMP SUM	1			
99	Supply, installation, programming, testing, and commissioning of AV rack with shelves, cable management trays, and power distribution units, POE Enjector	LUMP SUM	1			
	Total OF SUPPLY, INSTALLATION, PROGRAMMING, TESTING AND COMMISSIONING					
	OPERATOR SERVICE COST PER YEAR (TWO RESIDENCE ENGINEERS)	YEARS	5			
	4TH YEAR CAMC COST FOR EQUIPMENTS	LUMP SUM	1			
	5TH YEAR CAMC COST FOR EQUIPMENTS	LUMP SUM	1			
	REMARK - QUOTED RATES SHALL BE EXCLUSIVE OF GST					