

TENDER TECHNICAL SPECIFICATION

S.No	Item Name	Description	Qty	Compliance YES/No
1	Boundary Layer Microphone	Supply, Installation, testing and commissioning of boundary layer table Microphone, it should be pre-polarised condenser microphone having Cardioid or better polar pattern, shall have frequency response of 42Hz to 20kHz, Should have Max SPL Level of 135dB or more, it should support phantom power, Should have sensitivity of 10mV/PA or better and dynamic range of 111db(A), Should come with mute/unmute button, should have muted/unmuted status LED Indication and Logic output for third party integration for control camera etc complete required as per the specifications.	15	
2	Look At Me Button	Look At Me Button	1	
3	Ceiling Mount Speaker	Supply, Installation, Testing & Commissioning of 2-way, Ceiling-mount loudspeaker. Rated Power - 30Watts, Sensitivity-89 dB SPL, Coverage Angle (-6 dB)-110° (500 Hz to 5 kHz), Maximum SPLContinuous/Peak-104dB/110dB, Rated Impedance - 8 Ohms. Transformer Tapping - 70V/100V(30, 15, 7.5watts). Transducer - LF - 6.5-inch Polypropylene cone with butyl rubber surround, HF- .86-inch silk dome tweeter, coaxially mounted with LF, Material - Painted ABS polymer Baffle and Power coated steel grille. Safety rating - UL1480, UL2043. Mounting rails and C-Ring for ceiling tile included.	8	
4	Amplifier	Supply, Installation, Testing & Commissioning of Quad channel class-D Energy Star rated amplifier. Wattage per Channel - 100 watts/channel into Low-Z loads (8Ω/4Ω). Four channels shall also be bridged in pairs, each pair providing up to 200 watts rms into 4/8 ohms and up to 175 watts into 70V/100V. Signal to Noise (A weighted, 20 Hz-20 kHz)->100 dB, Frequency Response-20Hz-20kHz, Input Sensitivity-1.23 Vrms (+4 dBu), Input Impedance->10 kΩ balanced/unbalanced, Front Panel Indicators-Power, per channel Signal,Protect/Limit, Controls- 4Ω/8Ω/70V Bridge	1	

		Highpass On/100V Bridged Highpass on per channel pair. Shall include all mounting accessories for mounting in half or 1 rack space.		
5	DSP	Supply, Installation, Testing & Commissioning of Digital Signal Processor with 8 Mic/Line inputs, 8 Line outputs and 8 software assignable channels, configurable as Mic/Line Inputs or Line outputs. The processor shall have minimum 24 assignable & routable AEC channels and 8 General Purpose Inputs (GPI) x 8 General Purpose Outputs (GPO) ports. The processor shall have minimum 8x8 Dante channels and shall also support up to 160x160 Network audio channels via Dante or AES67 or similar protocol. It shall also support SIP Softphone integration for Audio conferencing and configurable 16x16 USB Audio channels via USB-B or Type-C ports supporting AV USB Bridging for software or web based conferencing applications. The processor shall also have minimum 24 bit-A/D-D/A converters, 48 kHz Sample rate, Input frequency response of 20 Hz to 20 kHz @ +21dBu, Input dynamic range > 109.5 dB at @ +24 dBu sensitivity. The processor shall support third party device control via Ethernet, RS232 and GPIO and shall have front panel display for control and indicators for device status.	1	
6	GPIO Port	Supply, Installation, Testing & Commissioning of Control Network control expander with GPIO Ports. Ports – 8xGPI and 8xGPO ports, Power-PoE and AUX. Ethernet daisy-chaining up to four units. 4xIR emitters included, Surface and Wall-mountable hardware included.	1	
7	PTZ Camera	SITC of Full HD 1080p @ 60 frames per second PTZ Camera with minimum 20X Optical Zoom and FoV of minimum 57 deg, min 255 Presets. Camera should support simultaneous outputs through Ethernet, HDMI, 3G-SDI & USB 3.0, Audio In and can be controlled via RS232 & 422 In & Out & IP. Panning angle -170° ~ +170°, Tilting angle -30° ~ +90°. The tilting and panning speed of camera should be minimum 200° per second. Camera should support SRT, FreeD Protocol, PoE and Virtual USB Driver. Camera can be controlled and managed through centralised software on network. Quoted model should be BIS, CE, FCC & RoHS Certified with	1	

		Test Lab Reports		
8	Custom Wall Mount for camera	Custom Wall Mount for camera	1	
9	Cable Manager	Cable Manager	2	
10	4x2 Matrix Switcher	SITC of UHD+ 4x2 Matrix with Audio Output. 4x HDMI Input, 2x HDMI Output, 1x Stereo Audio output, Control port : 2x RS-232. Should have HDMI 2.0, HDCP 2.2 compliance, Should have DVI 1.0 compatible, Input Signal 4096x2160p@60 8-bit YUV 4:4:4 HDR 10, Output Signal 4096x2160p@60 8-bit YUV 4:4:4 HDR 10, should supports 16-bit Deep Color up to 1080p60, Should support pass-through of LPCM 2.0/5.1/7.1, Bitstream, and HD Bitstream audio formats, EDID Management internal and external, Should have front panel button, Controllable via WebGUI, Telnet and RS-232 and IR remote. Should support auto source switching. Product should be CE & FCC Certified.	1	
11	1x8 HDMI SPlitter	SITC of 1x8 HDMI splitter. Input 1x HDMI or better, Output 8x HDMI, Control I/O 1 RS-232, 1 USB, HDMI Compliance HDMI 2.0 (DVI 1.0), HDCP Compliance 2.X, Input Signal Types 4K@60 8bit YUV 4:4:4, HDR 12, Output Saignal Type 4K@60 8bit YUV 4:4:4, HDR 12, Audio Digital Format HDMI LPCM(8CH), Bitstream, HD Bitstream, Per-output, selectable, 4K to 1080p down-scaling/color space conversion (4:4:4 to 4:2:0), Supports eight internal EDIDs, eight external EDIDs copied from connected devices, and two user provided EDIDs, Support for the CEC, Power Supply 5V/3A DC, Power Consumption 9.57W, Operating Temperature 0 °C–40 °C, Relative Humidity 20–90% RH, Product should be CE and FCC certified.	1	
12	USB Extender	Supply, Installation, Testing & Commissioning of USB 3.2 Extenders. Transmitter should have 1xUSB C input port, 1X RJ45, 1xUSB-A Output Port. Receiver should have Input Port 1×Cat5e/6A/7 (RJ45). 1×USB-C, 3×USB-A Output Port. Bandwidth upto 5Gbps (SuperSpeed), Tranmission distance upto 100M. Devices should be controlable by the USB host on a transmitter. Should have backward compatibility with USB 2.0	1	

13	8 Port Network Switch	8 Port network switch preconfigured for Audio, Video and Control with 8x PoE ports and 110 Watts or more PoE budget	1	
14	AV Rack	21U 19" AV Equipment Rack with Standard Accessories	1	
15	IPS Display 23.8 Inch	IPS display with a 23.8-inch (60.4 cm) diagonal screen and a resolution of 2560 × 1440, delivering sharp and vibrant visuals. It offers excellent color performance with 16.7 million colors and 100% sRGB coverage, along with a 16:9 aspect ratio. The display provides a typical brightness of 350 cd/m ² , a contrast ratio of 1000:1, and a response time of 12 ms. For connectivity, it includes one mini-HDMI (HDMI Type-C) port and one USB-C port. The stylus is battery-free and comes with three customizable side switches and 8192 pressure levels for precise input. It supports multi-touch functionality and is compatible with Windows 10 or later, macOS 13 or later, and Android 8.0 and above. In terms of security, it supports a Kensington® MicroSaver 2.0 lock (sold separately), and it comes with a 1-year onsite warranty that includes free pickup and drop service.	1	
16	USB Hub	4 Port USB Hub	1	
17	Installation Material	Installation Material which include Speaker Cable ,Microphone Cable, Connector for Boundary layer Microphone, Cat Cable, 10 Mtr HDMI Cable x1, HDMI Joiner x1, Mini HDMI to HDMI x1, USB Cable x 1, Type C to USB x 1	1	
18	Installation Testing Commissioning, Programming, Project Handling and Handover	Installation Testing Commissioning, Programming, Project Handling and Handover	1	

Eligibility Criteria & Terms and Conditions

Additional Terms & Conditions

1. The bidder should be available for the demonstration of the same product during technical evaluation whenever called if required. The bidder have to bring all the solutions with their company representative's along with their valid ID proofs. Failing which the bid is liable to be rejected.
2. Bidder Turnover Criteria: The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year, should be ₹2.5 crore. Documentary evidence in the form of certified audited balance sheets of the relevant periods or a certificate from a Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be submitted with the bid. In case the audited financial statements for the most recent financial year are not yet available, the turnover of the preceding three completed financial years (excluding the latest year) shall be considered for evaluation.
3. MAF : The bidder is requested to submit the MAF (Manufacturer Authorization Form) for the item Microphone, Speaker, DSP, Amplifier, Camera, Splitter, 4x2 Switcher. Failure to submit the MAF may result in rejection of the bid.
4. The bidder must have completed similar work in any Government department as follows:
 - One similar work of 80% of the Tender value, or
 - Two similar works of 60% of the Tender value, or
 - Three similar works of 50% of the Tender value.
5. A compliance sheet on the OEM's letterhead must be submitted by the bidder.
6. Datasheets for all the quoted products must be submitted by the bidder.
7. Any other certificates mentioned in the specifications must also be submitted by the Bidder