



ODISHA COMPUTER APPLICATION CENTRE  
OCAC BUILDING, N-1/7-D,  
ACHARYA VIHAR SQUARE, NEXT TO PLANETORIUM,  
BHUBANESWAR – 751013

Our Ref. No.OCAC-SEGP-INFRA-0000-2025 - 5645 /Date 01-11-2025

**Short Quotation Call Notice**

Sealed quotations are invited from authorized supplier/dealer/distributor having valid document as mentioned below to supply the following item(s) in the Office of the State Education Tribunal, Tosali Plaza, Bhubaneswar.

Sl.No.	Description	Qty./ Unit	Rate (Rs.)	GST	Amount (Rs.)	Total (Rs.)
1	High Performance PTZ Camera having 4K resolution, 12K optical zoom with auto framing and speaker tracking facility as per detail specification of Annexure-I	2 Nos.				
2	Video Mixure-cum-Capture device to handle minimum 2 USB cameras with audio input and HDMI out facility as per detail specification of Annexure-I	1 No.				
3	Digital Signal Processing with 8 user -configured card slots and built-in 4x4 I/O ports of Dante Network Audio. 2ch input & 2ch output USB Audio. Integrated Licenses-activated AEC Etc. as per detail specification at Annexure-I	1 No.				
4	Hhigh-quality boundary layer microphone, suitable for conference tables, offering superior speech intelligibility and discreet design as per detail specification at Annexure-I	3 Nos.				
5	1:4 HDMI Distribution Amplifier w/4K60 4:4:4 & HDR Support. Fully compatible with HD 1080p, and DCI 4K sources and displays as per detail specification at Annexure-I	1 No.				
6	All-in-One Desktop Computers Intel Corei5, 13 Gen Processor, 512GB M.2 NVMe 8GB RAM, Windows-11 MS-Office 2021 (Home & Student), 23.8" FHD Display with 3 years warranty	1 No.				
7	120W power amplifier 4 ohm and 100-volt output options Rear panel volume control Balanced input and as per detail specification at Annexure-I	1 No.				
8	Ceiling speaker, suitable for high-quality background music and voice reproduction in commercial AV installations as per detail specification at Annexure-I	4 Nos.				

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Contd.

9	Supply of 1KVA Online UPS inbuilt battery as per detail specification at Annexure-I	1 No.				
10	Supply of 27" FHD Curved Monitor as per detail specification at Annexure-I	1 No.				
11	Supply of 55" Commercial LFD with Sound as per detail specification at Annexure-I	1 No.				
12	Cables & Accessories	1 LS.				
13	Installation & Commissioning and Training	1 LS.				
Grand Total Rs.:						

The sealed quotations should reach the undersigned on or before 07-11-2025 by 4:00 PM. The authority reserves the right to accept/reject any or all the quotation without assigning any reason thereof. The interested firms should submit their quotations.

Document to be enclosed:

1. GST Registration certificate.
2. OEM Authorization Certificate

  
 General Manager(Tech)

C.C: Notice Board and website of OCAC for information of the vendors.

N.B.: The material should be delivered within 1 Week of issue of Purchase Order.

**ANNEXURE-I****Technical Specification: DSP**

S/N	Item Technical Specifications	Compliance (Yes/No)	Deviations (If Any)
1	The DSP should have 40-bit DSP Floating-Point Operation Engine Processing Chip		
2	It should support 24-bit A/D and D/A Conversion		
3	It should support audio Sampling Rate Up to 48 Khz		
4	It should have 4 Balanced Mic/Line Inputs with Bare Wire Interface Terminals & 4 Balanced Outputs with Bare Wire Interface terminals.		
5	It should have 3 Parametric Equalizers Supported: 5-Segment Parametric Equalizer, 8-Segment Parametric Equalizer & 12-Segment Parametric Equalizer. 3 Graphical Equalizers: 10-Segment Graphical Equalizer, 15-Segment Graphical Equalizer & 31-Segment Graphical Equalizer. 3 Feedback Inhibition Stages: 5, 8 & 12 Stage.		
6	It should support Built-in USB Audio Interface, Supporting UC Applications, USB Playback.		
7	It should have input Preamplifier, Signal Generator, Expander, Compressor, Parametric Equalizer, Automatic Gain Control, Feedback Suppressor.		
8	It should have Output: Graphic Equalization, High & Low Pass Filters, Delay, Limiter, Output Forward & Reverse, Gain Adjustment.		
9	It should support Built-in Microphone Adaptive Feedback Cancellation (AFC), Digital Matrix, Automatic Mixing, Echo Cancellation, Noise Suppression.		
10	It should have RS-232, RS-485, RJ-45(10/100 Base-T Ethernet Connector for IP-Based PC Software, Host Control & Third-Party Controller), GPIO Interface (8-Channel Logic Output, with 4 Pairs of Universal Grounding Pins)		
11	It should support Max Input Level + 12dBu/Line, -9 dBu/Mic		
12	It should support input gain 0/3/6/9/12/15/18/21/24/27/30/33/36/39/42/45/48 dBu		
13	It should support + 48 VDC phantom power for Individual Input		
14	It should support output impedance Balanced 102 $\Omega$		
15	It should support Quantization of 24Bit ADC, 24Bit DAC		
16	It should support Total Harmonic Distortion 0.003% @4dBu		
17	It should support Dynamic Range 110 dB		
18	It should have Background Noise -91 Db (A-weighted)		
19	It should have Common Mode Rejection Ratio @60Hz of 80 dB		
20	It should have Channel Isolation @1KHz of 108 dB		
21	It should support I/P Impedance (Balanced) 9.4 k $\Omega$ and O/P Impedance (Balanced) 102 $\Omega$		
22	It should have System Delay of <3 ms		
23	The OEM Should have CE, RoHs, FCC, ISO 9001:2015, ISO 14001:2015 , ISO 27001:2022,ISO 50001:2018 certificates		
24	Tender specific MAF from OEM should be submitted by Bidder		
25	Manufacturer sharing any land-border with India will not be permitted		
26	Warranty: Minimum One Year or as per OEM		

**Technical Specification: Table top Microphone**

<b>SL NO.</b>	<b>ITEM TECHNICAL SPECIFICATIONS</b>	<b>COMPLIANCE (YES/NO)</b>	<b>DEVIATIONS (IF ANY)</b>
1	The flat surface microphone must consist of a pre-polarised condenser cell		
2	It should have cardioid polar diagram which reduces the ambient noise substantially and the speaker voice is enhanced.		
3	Should have a built-in pre-amplifier which is remote powered from the mixers/DSP or amplifier (Phantom power) which means it requires no batteries.		
4	Shall have an Output impedance of 100 ohms.		
5	Must have an on/off switch and light		
6	Must have ON/OFF indicator		
7	Frequency response must range from 30 Hz to 12kHz and Sensitivity: -53 dB		
8	Shall have maximum SPL at 1% TDH be 125 dB at 1kHz.		
9	Phantom Supply shall be 12 to 52VDC.		
10	Power Consumption shall be less than 6mA.		
11	Manufacturer sharing any land-border with India will not be permitted		
12	Tender specific MAF from OEM should be submitted by Bidder		
13	Warranty: Minimum One Year or as per OEM		

**Technical Specification: USB Video Mixer**

Sr No	Item Technical Specifications	Compliance Yes/No	Deviations (If Any)
1	It should be All-in-One Device to Offer 2ch FHD Video Sources Capturing, Mixing, Switching, Recording and Live Streaming.		
2	Device must have Video input 2 x USB (UVC) or HDMI-to-USB (UVC) dongle, 2 x RJ-45.		
3	Device must have Audio input 1 x USB (UAC).		
4	Device must have Video output 1 x HDMI, 1 x Display Port.		
5	Device must have Audio output 1 x HDMI, 1 x Display Port.		
6	Device must have 3 x USB, 1 x USB 3.0.		
7	Device must have option to be controllable through TCP over LAN.		
8	Device must support external storage for recording over USB port.		
9	It must Supports USB drive recording with File Format MP4.		
10	The device must be comparable with backup integration server such as FTP/ SFTP/ Opencast/ Panopto/ Kaltura.		
11	It should support user login modes like video manager, online director & administrator (web-based and desktop applications) for management of device.		
12	It should support touch control over on-screen GUI for management of device via external touch monitor.		
13	It should support Streaming Input Protocols: RTSP, RTP, RTMP.		
14	It should support Streaming Output Protocols: RTP, RTMP (RTMPS), RTSP, SRT.		
15	Device must support Video Processing Compression H.264/ AVC, Frame Rate Max. 30fps, Bit Rate 300Kbps~8Mbps, Resolution Max. 1080p (640x360 ~ 1920x1080).		
16	Device must be compatible with 3rd party network cameras, encoders, streaming sources via IP streaming.		
17	It should support centralized scheduling via iCalendar, Opencast server, Panopto server, Kaltura server, Manual Calendar import, Periodic Calendar import.		
18	It should have provision for pre-defined recording layouts, including full screen/ picture-in-picture/ picture-by-picture/ multi-channel split screen		
19	It should support camera PTZ control over VISCA over IP/ ONVIF profile S with Baud rate: 2400, 4800, 9600, and 115200.		

20	It should support Audio Processing Compression AAC-LC, Bit Rate 80Kbps~320Kbps.		
21	It should support volume adjustment of the recorded files, input which include Balanced, 2 x IP Audio with configurable range of sound input is 0-125.		
22	It should support Easily Add Background Images, Overlays and Change Video Layouts in Video Making.		
23	It should support cloud management when connected to WAN network.		
24	It should be able to broadcast the synchronized Mixed Video from 2 channels to a minimum of 2 Platforms Simultaneously.		
25	It should support auto boot when applied to main power.		
26	Product's Country of Origin should not be any country which shares any land border with India		
27	Tender specific MAF from OEM should be submitted by Bidder.		
28	Warranty: Minimum One Year or as per OEM		

**Technical Specification: Ceiling Speakers**

SL NO.	ITEM TECHNICAL SPECIFICATIONS	COMPLIANCE (YES/NO)	DEVIATIONS (IF ANY)
1	The device should feature a 2 way in-ceiling speaker with back can		
2	It should feature transducer complements 1 x 4" coaxial speaker		
3	It should have a frequency response of 90Hz ~ 20kHz		
4	It should possess direct power handling capabilities of 30W.		
5	It should feature power taping@100V- 1.25, 2.5, 5, 10W		
6	It should feature power taping@70V 2.5, 5, 10, 20W		
7	It must include a nominal impedance of 8Ω and a sensitivity of 87dB		
8	It should possess a maximum SPL direct mode of 99dB @ 20W		
9	It should have Tuned rear enclosures (back can), ABS moulded		
10	It should support Both LMT, direct modes		
11	Product's Country of Origin should not be any country which shares any land border with India		
12	Tender specific MAF from OEM should be submitted by Bidder		
13	Warranty: Minimum One Year or as per OEM		

### Technical Specification: Amplifier

Sr No	Item Technical Specifications	Compliance (Yes/No)	Deviations (If Any)
1	It should at least have minimum 4 input channels, each capable of accepting MIC or LINE level input through XLR or RCA connectors.		
2	It should at least have in-built power amplification with a continuous output of around 120 W RMS.		
3	It should at least support both low-impedance (4 $\Omega$ ) and high-impedance (100 V line) speaker outputs.		
4	It should at least have independent volume control for each input channel.		
5	It should at least have master volume, bass, and treble tone controls for overall output adjustment.		
6	It should at least have a line-level REC OUT or pre-output for cascading additional amplifiers.		
7	It should at least have priority override function to give paging microphone first preference.		
8	It should at least have phantom power option (where applicable) for condenser microphone connection.		
9	It should at least have short-circuit and overload protection for amplifier output.		
10	It should at least have signal-to-noise ratio greater than 70 dB and THD less than 0.3 %.		
11	It should at least have frequency response from 100 Hz to 20 kHz suitable for speech and background music.		
12	It should at least be built in a compact 1U rack-mountable metal chassis suitable for professional installations.		
13	It should at least have internal convection cooling ensuring silent operation.		
14	It should at least be powered from 230 V AC $\pm$ 10 %, 50 Hz mains supply.		
15	It should at least comply with safety and EMC standards relevant to audio installations.		
16	Manufacturer sharing any land-border with India will not be permitted		
17	Tender specific MAF from OEM should be submitted by Bidder.		
18	Warranty: Minimum One Year or as per OEM		

### Technical Specification: HDMI Distribution Amplifier

SL NO.	ITEM TECHNICAL SPECIFICATIONS	COMPLIANCE (YES/NO)	DEVIATIONS (IF ANY)
1	It should connect one HDMI source to up to four HDMI displays simultaneously.		
2	Supports up to 4096 x 2160 / 3840 x 2160 @ 60Hz (4:2:0) and 4096 x 2160 / 3840 x 2160 @ 30Hz (4:4:4).		
3	It must support Dolby True HD and DTS HD Master Audio.		
4	Supports Long-distance transmission capability of up to 15 meters, utilizing 24 AWG cables.		
5	It must have interfaces for video and audio Input: 1 x HDMI Type A Female, with a maximum distance of 3m at @3840x2160@30Hz (4:4:4)		
6	It must have interfaces for video and audio Output: 4 x HDMI Type A Female, with a maximum distance of 15m at @3840x2160@30Hz (4:4:4)		
7	It should support the maximum data rate of 10.2 Gbps, with 3.4 Gbps per lane		
8	Required to be HDMI (3D, Deep color, 4K) compliant; HDCP compliant.		
9	It should support plug-and-play functionality.		
10	The device should be operational within a temperature range of 0–50°C and capable of storage within a range of -20–60°C, while maintaining a humidity level of 0 - 80% RH, non-condensing.		
11	Manufacturer sharing any land-border with India will not be permitted.		
12	Tender specific MAF from OEM should be submitted by Bidder		
	Warranty: Minimum One Year or as per OEM		

### Technical Specification: PTZ Camera

Sl. No.	Description	ITEM TECHNICAL SPECIFICATIONS	Compliance (Yes/No)	Deviations (If Any)
1	Camera Type	Minimum 8 MP PTZ Camera		
2	Camera	The Camera system should have dual cameras with 107-degree HFOV & 71-degree HFOV respectively		
3	Output	Should support 4K UHD resolution		
4	Zoom	minimum 12X Optical zoom		
5	Pan Range	+/-170 degrees		
6	Tilt Range	+30/-30 degrees		
7	Camera Feature	The camera system should have group framing and presenter tracking functionality		
8	Camera PTZ Control	IR Remote Control to be supplied day one.		
9	Interface	one USB 3.0 minimum		
10	Privacy Cover	Camera should come with privacy cover		
11	Certification	Camera should be certified by Microsoft Teams and Zoom		
12	Warranty	The complete solution should be from the same OEM with 1 year minimum warranty from day or as per OEM.		

### Technical Specification: 55" LED Display

Sl. No	Item Specifications	Compliance (Yes/No)	Deviations (If Any)
1	Diagonal Size: 55 inches		
2	Resolution: 3840 x 2160 (Ultra HD, 16:9)		
3	Brightness (Typical): $\geq 350$ nits		
4	Orientation: Landscape / Portrait		
5	Haze: 2%		
6	Contrast Ratio (Typical): 4000:1		
7	Panel Type: VA (Vertical Alignment)		
8	Active Display Area: 1209.6 mm (H) x 680.4 mm (V)		
9	Pixel Pitch: 0.315 mm x 0.315 mm		
10	Wi-Fi (2.4/5.0GHz dual) & Bluetooth		
11	Color Gamut: NTSC 72%		
12	Operation Hours: $\geq 16/7$		
13	Video Input: HDMI 2.0 x 3		
14	HDCP: HDCP 2.2		
15	Audio Input/Output: Stereo mini jack		
16	USB: USB 2.0 x 2		
17	Wi-Fi / Bluetooth: Yes		
18	External Control: RS232C (in/out), RJ45		
19	Bezel Width: $\geq 11.5$ mm (Even)		
20	Bezel Colour: Charcoal Black		
21	Safety: 60950-1 / 62368-1		
22	EMC: Class B		
23	Environment: ENERGY STAR 8.0, EPEAT		
24	IP Rating: IP5x		
25	Security: 802.1x (WPA2 Enterprise: EAP-TLS, EAP-TTLS, EAP-PEAP), WPA3-Personal		
26	Warranty: Minimum One Year or as per OEM		

**Technical Specification: 27" Curve LED Display**

Sl. No	Item Specifications	Compliance (Yes/No)	Deviations (If Any)
1	Resolution: Full HD 1920 x 1080 pixels		
2	Panel Type: VA / IPS		
3	Curvature: 1500R – 1800R curvature		
4	Aspect Ratio: 16:9		
5	Brightness (Typ.): 250 – 300 cd/m <sup>2</sup>		
6	Contrast Ratio (Typ.): 3000:1 (VA) / 1000:1 (IPS)		
7	Viewing Angle: 178° horizontal / 178° vertical		
8	Response Time: ≤ 4 ms (GtG)		
9	Refresh Rate: 60 Hz or higher		
10	Color Support: 16.7 million colors, sRGB ≥ 99%		
11	Video Inputs: HDMI x 1 or 2		
12	Audio: Built-in speakers (optional)		
13	USB Ports: USB Hub (optional)		
14	Mounting: VESA compatible (100 x 100 mm)		
15	Flicker-free technology		
16	Low Blue Light mode		
17	Anti-glare screen		
18	On-screen display (OSD) controls		
19	Energy Star / EPEAT certified (if applicable)		
20	Minimum 3-year onsite warranty from OEM		
21	RoHS, CE, FCC or equivalent certifications		
22	ISO 9241-307 or equivalent ergonomic compliance		
23	Warranty: Minimum One Year or as per OEM		

### Technical Specification: Online UPS – 1KVA

S. No.	Parameter	Specification	Compliance (Yes/No)	Deviations (If Any)
1	<b>Capacity</b>	1 kVA / 0.8 kW		
2	<b>Topology</b>	True Online Double Conversion		
3	<b>Input</b>			
3.1	Voltage Range	230V AC $\pm$ 20% (176 – 276V AC)		
3.2	Frequency Range	50 Hz $\pm$ 10%		
3.3	Power Factor	$\geq$ 0.99 at full load		
3.4	Phase	Single Phase (1 $\emptyset$ in / 1 $\emptyset$ out)		
4	<b>Output</b>			
4.1	Voltage	230V AC $\pm$ 1% (Regulated)		
4.2	Frequency	50 Hz $\pm$ 0.1% (Free Running Mode)		
4.3	Power Factor	0.8 (Lagging)		
4.4	THD (Linear Load)	< 3%		
4.5	Transfer Time	0 ms (Online Mode)		
4.6	Output Waveform	Pure Sine Wave		
5	<b>Battery</b>			
5.1	Type	Sealed Maintenance Free (SMF), VRLA		
5.2	DC Voltage	24V DC		
5.3	Backup Time	Minimum 10–15 minutes (at full load)		
5.4	Recharge Time	90% capacity within 4–6 hours		
6	<b>Efficiency</b>	> 85% (AC–AC)		
7	<b>Protection</b>	Short Circuit, Overload, Over-temperature, Battery Deep Discharge, Input Surge		
8	<b>Indications / Display</b>	LCD/LED for Input, Output, Battery, and Fault Status		
9	<b>Communication Port</b>	USB / RS232 port for monitoring (optional SNMP card slot)		
10	<b>Noise Level</b>	< 45 dB at 1 meter		
11	<b>Operating Temperature</b>	0°C to 40°C		
12	<b>Relative Humidity</b>	0–90% RH (non-condensing)		
13	<b>Standards</b>	IEC 62040-1, IEC 62040-2, CE Certified		
14	<b>Form Factor</b>	Tower Model		
15	<b>Accessories</b>	Standard input/output cables and software CD		
16	<b>Warranty</b>	Minimum One Year or as per OEM		

**Technical Specification: All-in-One Desktop Computer**

Sl. No	Item Specifications	Compliance (Yes/No)	Deviations (If Any)
1	Intel Corei5 Processor, 13 <sup>th</sup> Generation or higher		
2	Display, 24" FHD Display		
3	Memory, 8 GB Minimum		
4	SSD Drive. M.2 NVMe SSD 512GB minimum		
5	Operating System & MS-Office, Windows-11 + MS-Office 2021(Home & Student Edition)		
6	WiFi + Bluetooth		
7	Ports, Gigabit Ethernet, HDMI Out, USB 2.0/3.0/USB-C, Audio out		
8	Built-in Speaker & Mic		
9	Built-in Web Camera		
10	Wireless Key Board & Mouse		
11	Warranty, 3 Years		