

	<p style="text-align: center;"> भारतीय प्रौद्योगिकी संस्थान मद्रास चेन्नै 600 036  <b>INDIAN INSTITUTE OF TECHNOLOGY MADRAS Chennai 600 036</b>  भंडार एवं क्रय अनुभाग  <b>STORES &amp; PURCHASE SECTION</b>  दूरभाष: (044) 2257 8285/8290/8287/8288 फैक्स: (044) 2257 8292/2257 8082  Telephone : (044) 2257 8285/8290/8287/8288 FAX: (044) 2257 8292/2257 8082  email ID- <a href="mailto:adstores@iitm.ac.in">adstores@iitm.ac.in</a>  <b>GST IN : 33AAAAI3615G1Z6</b> </p>	
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**G. Chitrapavai**  
**Deputy Registrar (Stores & Purchase)**

**Dated: 25.11.2019**

**CORRIGENDUM-III**

**Tender No. IITM/SPS/CEC/ VIDEO AND AUDIO SYSTEM IN CSE /012/2019-20**  
**e-Tender ID: 2019\_IITM\_35856\_1**

**“DESIGN, SUPPLY,INSTALLATION AND COMMISSIONING OF VIDEO AND AUDIO SYSTEM IN CSE CONFERENCE ROOM – IIT MADRAS “**

In the tender document, the following corrigendum are issued

**1. In Sl.No :2, Vendor Eligibility Criteria (Pg No.4) may read as**

1.	<p>OEM authorization letter is not required for the following items :</p> <p>1.12 PC with dual HDMI,  1.13 Podium  1.17 I Pad 2017 - 32GB with Docking and Charging Station  1.18 Wireless access point  1.19 Ethernet Switch  3.01 Branded bulk cables, connectors and accessories  3.02 Microphone bulk cable  3.03 Shielded Cat6 cable  3.04 Audio cable  3.05 Serial control cable  3.06 Floor Box with accessories  3.07 Equipment Rack.  <b>For rest of the items OEM authorization should be submitted.</b></p>
2.	<p>The bidder should have experiences in Govt. Institutions/any of Central PSU's / any of central Government/ autonomous bodies/reputed firms in executing the following works (any one category) in the last 3 financial year.</p> <p style="padding-left: 40px;">i) Two (2) similar contracts each costing not less than Rs. 20 Lakhs  (Or)  ii) One (1) similar contracts costing not less than Rs. 40 Lakhs</p> <p>Copies of the documents listed below should be submitted as a proof for the above work experience:</p> <p style="padding-left: 40px;">a) Purchase Order  b) Work Completion Certificates  c) User Performance Certificate from End user.</p>
3.	<p>The bidder shall have an annual financial turnover of not less than <b>Rs. 3 Crores (Rupees Three Crores only)</b> during the last three financial years i.e. 2016-17, 2017-18 and 2018-2019 (each year).</p>
<b>Instead of</b>	
1.	<p>The bidder should submit OEM authorization for all Make/brand of item for which they are submitting the bid.</p>
2.	<p>The bidder should have experiences in Govt. Institutions/any of Central PSU's / any of central Government/ autonomous bodies/reputed firms in executing the following works (any one category) in the last 3 financial year.</p> <p style="padding-left: 40px;">i) Two (2) similar contracts each costing not less than Rs. 20 Lakhs  (Or)  ii) One (1) similar contracts costing not less than Rs. 40 Lakhs</p> <p>Copies of the documents listed below should be submitted as a proof for the above work experience:</p> <p style="padding-left: 40px;">a) Purchase Order  b) Work Completion Certificates  c) User Performance Certificate from End user</p>
3.	<p>The bidder shall have an annual financial turnover of not less than <b>Rs. 4 Crores (Rupees Four Crores only)</b> during the last three financial years i.e. 2015-16, 2016-17 and 2017-2018 (each year).</p>

2. In Annexure – A, Point No : B Vendor Eligibility Criteria (Pg No.8) may read as

1.	OEM authorization letter is not required for the following items : <b>1.12 PC with dual HDMI,</b> <b>1.13 Podium</b> <b>1.17 I Pad 2017 - 32GB with Docking and Charging Station</b> <b>1.18 Wireless access point</b> <b>1.19 Ethernet Switch</b> <b>3.01 Branded bulk cables, connectors and accessories</b> <b>3.02 Microphone bulk cable</b> <b>3.03 Shielded Cat6 cable</b> <b>3.04 Audio cable</b> <b>3.05 Serial control cable</b> <b>3.06 Floor Box with accessories</b> <b>3.07 Equipment Rack.</b> <b>For rest of the items OEM authorization should be submitted.</b>
2.	The bidder should have experiences in Govt. Institutions/any of Central PSU's / any of central Government/ autonomous bodies/reputed firms in executing the following works (any one category) in the last 3 financial year. i) Two (2) similar contracts each costing not less than Rs. 20 Lakhs (Or) ii) One (1) similar contracts costing not less than Rs. 40 Lakhs Copies of the documents listed below should be submitted as a proof for the above work experience: c) Purchase Order d) Work Completion Certificates c) User Performance Certificate from End user.
3.	The bidder shall have an annual financial turnover of not less than <b>Rs. 3 Crores (Rupees Three Crores only)</b> during the last three financial years i.e. 2016-17, 2017-18 and 2018-2019 (each year).
<b>Instead of</b>	
1.	The bidder should submit OEM authorization for all Make/brand of item for which they are submitting the bid.
2.	The bidder should have experiences in Govt. Institutions/any of Central PSU's / any of central Government/ autonomous bodies/reputed firms in executing the following works (any one category) in the last 3 financial year. i) Two (2) similar contracts each costing not less than Rs. 20 Lakhs (Or) ii) One (1) similar contracts costing not less than Rs. 40 Lakhs Copies of the documents listed below should be submitted as a proof for the above work experience: c) Purchase Order d) Work Completion Certificates c) User Performance Certificate from End user
3.	The bidder shall have an annual financial turnover of not less than <b>Rs. 4 Crores (Rupees Four Crores only)</b> during the last three financial years i.e. 2015-16, 2016-17 and 2017-2018 (each year).

3. In Annexure A, Sl.No : 1 Vendor Eligibility Criteria (Pg No.21) may read as

1.	OEM authorization letter is not required for the following items : <b>1.12 PC with dual HDMI,</b> <b>1.13 Podium</b> <b>1.17 I Pad 2017 - 32GB with Docking and Charging Station</b> <b>1.18 Wireless access point</b> <b>1.19 Ethernet Switch</b> <b>3.01 Branded bulk cables, connectors and accessories</b> <b>3.02 Microphone bulk cable</b> <b>3.03 Shielded Cat6 cable</b> <b>3.04 Audio cable</b> <b>3.05 Serial control cable</b> <b>3.06 Floor Box with accessories</b> <b>3.07 Equipment Rack.</b> <b>For rest of the items OEM authorization should be submitted.</b>
2.	The bidder shall have an annual financial turnover of not less than <b>Rs. 3 Crores (Rupees Three Crores only)</b> during the last three financial years i.e. 2016-17, 2017-18 and 2018-2019 (each year).
3.	The bidder should have experiences in Govt. Institutions/any of Central PSU's / any of central Government/ autonomous

	<p>bodies/reputed firms in executing the following works (any one category) in the last 3 financial year.</p> <p>i) Two (2) similar contracts each costing not less than Rs. 20 Lakhs (Or)</p> <p>ii) One (1) similar contracts costing not less than Rs. 40 Lakhs</p> <p>Copies of the documents listed below should be submitted as a proof for the above work experience:</p> <p>a) Purchase Order b) Work Completion Certificates c) User Performance Certificate from End user</p>
<b>Instead of</b>	
1.	The bidder should submit OEM authorization for all Make/brand of item for which they are submitting the bid.
2.	The bidder shall have an annual financial turnover of not less than Rs. 4 Crores (Rupees Four Crores only) during the last three financial years i.e. 2015-16, 2016-17 and 2017-2018 (each year).
3.	<p>The bidder should have experiences in Govt. Institutions/any of Central PSU's / any of central Government/ autonomous bodies/reputed firms in executing the following works (any one category) in the last 3 financial year.</p> <p>i) Two (2) similar contracts each costing not less than Rs. 20 Lakhs (Or)</p> <p>ii) One (1) similar contracts costing not less than Rs. 40 Lakhs</p> <p>Copies of the documents listed below should be submitted as a proof for the above work experience:</p> <p>a) Purchase Order b) Work Completion Certificates c) User Performance Certificate from End user</p>

4. In Page No.5, Sl.No.8 – Payment may read as

<b>30 %Advance Payment, 30 % after supply of item and 40% against satisfactory installation/Commissioning will be made for Indigenous purchase.</b>
<b>Instead of</b>
<b>No Advance Payment will be made for Indigenous purchase.</b> Payment will be made only after supply and satisfactory installation/Commissioning.

5. In Page No.8, (C)- Bill of Material may be read as

Sl. No.	Description	Approved Make	UoM	Qty
1.00	<b>Video System</b>			
1.04	Professional display	Christie, NEC, Panasonic, <b>Sony ,LG and Samsung</b>	Nos.	2
1.06	Active wall plate	AMX, Kramer,Lightware, <b>Extron</b>	No.	1
1.07	Presentation Switcher	AMX, Kramer,Lightware, <b>Extron</b>	No.	1
1.08	Distribution Amplifier	AMX, Kramer,Lightware , <b>Extron</b>	No.	1
1.09	HD Base T twisted pair transmitter	AMX, Kramer,Lightware, <b>Extron</b>	Nos.	4
1.10	HD Base T twisted pair receiver	AMX, Kramer,Lightware, <b>Extron</b>	Nos.	5
1.14	VGA Audio Interface Cable	AMX, canare,Kramer, <b>Extron</b>	No.	1
1.15	HDMI Interface Cable	AMX, canare,Kramer, <b>Extron</b>	Nos.	13
1.16	Control Processor	AMX, Kramer, <b>Extron</b>	No.	1
2.00	<b>Audio System</b>			
2.09	Audio DSP	Polycom, QSC, Symetrix,RCF, <b>Extron</b>	No.	1
3.00	<b>Cables and accessories</b>			
3.02	Microphone bulk cable	Belden, Canare, Kramer, <b>Extron</b>	Meter	48
3.03	Shielded Cat6 cable	Crestron, Dlink,Kramer, <b>Extron</b>	Meter	200
3.04	Audio cable	Belden, Canare,Kramer, <b>Extron</b>	Meter	210
3.05	Serial control cable	Belden, Canare,Kramer, <b>Extron</b>	Meter	210
<b>Instead of</b>				
1.00	<b>Video System</b>			
1.04	Professional display	Christie, NEC, Panasonic,	Nos.	2
1.06	Active wall plate	AMX, Kramer,Lightware	No.	1
1.07	Presentation Switcher	AMX, Kramer,Lightware	No.	1
1.08	Distribution Amplifier	AMX, Kramer,Lightware	No.	1
1.09	HD Base T twisted pair transmitter	AMX, Kramer,Lightware	Nos.	4
1.10	HD Base T twisted pair receiver	AMX, Kramer,Lightware	Nos.	5

Sl. No.	Description	Approved Make	UoM	Qty
1.14	VGA Audio Interface Cable	AMX, canare,Kramer	No.	1
1.15	HDMI Interface Cable	AMX, canare,Kramer	Nos.	13
1.16	Control Processor	AMX, Kramer	No.	1
2.00	<b>Audio System</b>			
2.09	Audio DSP	Polycom, QSC, Symetrix,RCF	No.	1
3.00	<b>Cables and accessories</b>			
3.02	Microphone bulk cable	Belden, Canare, Kramer	Meter	48
3.03	Shielded Cat6 cable	Crestron, Dlink,Kramer	Meter	200
3.04	Audio cable	Belden, Canare,Kramer	Meter	210
3.05	Serial control cable	Belden, Canare,Kramer	Meter	210

6. In Page No.10, (D)- Detailed Technical Specification - Sl.No: 1.04 - Professional display may be read as

Item Reference	1.04
Item Description	Professional Display
Approved Make/Brand	Christie, NEC, Panasonic, Sony, LG, Samsung
Minimum Performance Parameters.	
Screen Size (Diagonal)	Min 165 cm
Panel Resolution	Min 3840 x 2160
Aspect Ratio	16:09
Brightness	Min 500 Cd /m2
Viewing angle (H/V)	Min 178 degree
HDMI IN	Min 3 HDMI (HDMI 1.4 x 2, Hdmi 2.0 x1)
VGA IN	Min 1 VGA
USB IN	Min 3 (USB 3.0 x 2, USB 2.0 x1)
Control Port	Min 1 RS 232
Display port	DP x 1
HDMI Out	Min 1

Instead of	
Item Reference	1.04
Item Description	Professional Display
Approved Make/Brand	Christie, NEC, Panasonic
Minimum Performance Parameters.	
Screen Size (Diagonal)	Min 165 cm
Panel Resolution	Min 3840 x 2160
Aspect Ratio	16:09
Brightness	Min 500 Cd /m2
Viewing angle (H/V)	Min 178 degree
HDMI IN	Min 3 HDMI (HDMI 1.4 x 2, Hdmi 2.0 x1)
VGA IN	Min 1 VGA
USB IN	Min 3 (USB 3.0 x 2, USB 2.0 x1)
Control Port	Min 1 RS 232
Display port	DP x 1
HDMI Out	Min 1

7. In Page No.11, (D)- Detailed Technical Specification - Sl.No: 1.06 - Active wall plate may be read as

Item Reference	1.06
Item Description	Active Wall Plate
Approved Make/Brand	AMX, Kramer, Lightware, Extron
Minimum Performance Parameters.	

Distance Support	Up to 100 Meters
Switching	Auto Switching
EDID & HDCP	Should Supports EDID and HDCP transmission
Input	Min 1 HDMI and 1 VGA with audio 3.5mm Mini Jack
Output	Min 1 HDBase T on RJ-45 Connector.
Resolution	4K@60Hz (4:2:0) or higher and WUXGA
Data rate	10.2 Gbps or higher
Audio Embedding	Switcher should support audio embedding feature
Mounting Type	Wall mount Plate
Wall Plate	2 Gang Style wall plate
Environmental Regulation	ROHS, WEEE
<b>Instead of</b>	
Item Reference	<b>1.06</b>
Item Description	<b>Active Wall Plate</b>
Approved Make/Brand	<b>AMX, Kramer, Lightware</b>
Minimum Performance Parameters.	
Distance Support	Up to 100 Meters
Switching	Auto Switching
EDID & HDCP	Should Supports EDID and HDCP transmission
Input	Min 1 HDMI and 1 VGA with audio 3.5mm Mini Jack
Output	Min 1 HDBase T on RJ-45 Connector.
Resolution	4K@60Hz (4:2:0) or higher and WUXGA
Data rate	10.2 Gbps or higher
Audio Embedding	Switcher should support audio embedding feature
Mounting Type	Wall mount Plate
Wall Plate	2 Gang Style wall plate
Environmental Regulation	ROHS, WEEE

8. In Page No.11, (D)- Detailed Technical Specification - Sl.No: 1.07 - Presentation Switcher may be read as

Item Reference	<b>1.07</b>
Item Description	<b>Presentation Switcher</b>
Approved Make/Brand	<b>AMX, Kramer,Lightware, Extron</b>
Minimum Performance Parameters.	
Input	Min 4 HDMI, 2 VGA.
Output	Min 1 HDMI, Min 1 RJ-45
Distance support	Up to 70m
Control Ports	RS232
HDCP	HDCP Compliant
Switching	Auto Switching
Max Output Resolution	1920 x 1080P 60Hz
Network Interface controller	Min 1 LAN
<b>Instead of</b>	
Item Reference	1.07
Item Description	Presentation Switcher
Approved Make/Brand	AMX, Kramer,Lightware
Minimum Performance Parameters.	
Input	Min 4 HDMI, 2 VGA.
Output	Min 1 HDMI, Min 1 RJ-45

Distance support	Up to 70m
Control Ports	RS232
HDCP	HDCP Compliant
Switching	Auto Switching
Max Output Resolution	1920 x 1080P 60Hz
Network Interface controller	Min 1 LAN

9. In Page No.11, (D)- Detailed Technical Specification - Sl.No: 1.08 - Distribution Amplifier may be read as

Item Reference	1.08
Item Description	Distribution Amplifier
Approved Make/Brand	AMX, Kramer,Lightware, Extron
Minimum Performance Parameters.	
Input	Min 1 HDMI
Output	Min 4 HDMI
HDCP	HDCP Compliant
Max Data Rate	6.75Gbps
EDID	EDID Pass Through
<b>Instead of</b>	
Item Reference	1.08
Item Description	Distribution Amplifier
Approved Make/Brand	AMX, Kramer,Lightware
Minimum Performance Parameters.	
Input	Min 1 HDMI
Output	Min 4 HDMI
HDCP	HDCP Compliant
Max Data Rate	6.75Gbps
EDID	EDID Pass Through

10. In Page No.12, (D)- Detailed Technical Specification - Sl.No: 1.09 - HD Base T Twisted Pair Transmitter may be read as

Item Reference	1.09
Item Description	HD Base T Twisted Pair Transmitter
Approved Make/Brand	AMX, Kramer,Lightware, Extron
Minimum Performance Parameters.	
Distance Support	Distance support should be up to 40m
Video Resolution	4K at 60 Hz (4:2:0) 24 bpp or higher
EDID and HDCP	Supports EDID and HDCP Compliant
Input	Min 1 HDMI
Output	Min 1 RJ 45
Data Rate	Min 10.2 Gbps
Chroma Sampling	4:02:00
Control	Min 1 Bidirectional RS232
<b>Instead of</b>	
Item Reference	1.09
Item Description	HD Base T Twisted Pair Transmitter
Approved Make/Brand	AMX, Kramer,Lightware
Minimum Performance Parameters.	
Distance Support	Distance support should be up to 40m
Video Resolution	4K at 60 Hz (4:2:0) 24 bpp or higher

<b>EDID and HDCP</b>	Supports EDID and HDCP Compliant
<b>Input</b>	Min 1 HDMI
<b>Output</b>	Min 1 RJ 45
<b>Data Rate</b>	Min 10.2 Gbps
<b>Chroma Sampling</b>	4:02:00
<b>Control</b>	Min 1 Bidirectional RS232

11. In Page No.12, (D)- Detailed Technical Specification - Sl.No: 1.10 - HD Base T Twisted Pair Receiver may be read as

<b>Item Reference</b>	<b>1.10</b>
<b>Item Description</b>	<b>HD Base T Twisted Pair Receiver</b>
<b>Approved Make/Brand</b>	<b>AMX, Kramer,Lightware, Extron</b>
<b>Minimum Performance Parameters.</b>	
<b>Distance Support</b>	Distance support should be up to 40m
<b>Video Resolution</b>	up to 4K at 60 Hz (4:2:0) 24 bpp
<b>EDID and HDCP</b>	Supports EDID and HDCP Compliant
<b>Input</b>	Min 1 RJ 45
<b>Output</b>	Min 1 HDMI
<b>Data Rate</b>	Min 10.2 Gbps
<b>Chroma Sampling</b>	4:02:00
<b>Control</b>	Min 1 Bidirectional RS232
<b>Instead of</b>	
<b>Item Reference</b>	1.10
<b>Item Description</b>	HD Base T Twisted Pair Receiver
<b>Approved Make/Brand</b>	AMX, Kramer,Lightware
<b>Minimum Performance Parameters.</b>	
<b>Distance Support</b>	Distance support should be up to 40m
<b>Video Resolution</b>	up to 4K at 60 Hz (4:2:0) 24 bpp
<b>EDID and HDCP</b>	Supports EDID and HDCP Compliant
<b>Input</b>	Min 1 RJ 45
<b>Output</b>	Min 1 HDMI
<b>Data Rate</b>	Min 10.2 Gbps
<b>Chroma Sampling</b>	4:02:00
<b>Control</b>	Min 1 Bidirectional RS232

12. In Page No.13, (D)- Detailed Technical Specification - Sl.No: 1.14 - VGA Audio Interface Cable may be read as

<b>Item Reference</b>	<b>1.14</b>
<b>Item Description</b>	<b>VGA with Audio Cable</b>
<b>Approved Make/Brand</b>	<b>AMX, canare,Kramer, Extron</b>
<b>Minimum performance parameters</b>	
<b>Length</b>	180 cm
<b>Connector</b>	Terminated with high quality molded VGA connectors and 3.5 mm connectors for audio
<b>Instead of</b>	
<b>Item Reference</b>	1.14
<b>Item Description</b>	VGA with Audio Cable
<b>Approved Make/Brand</b>	AMX, canare,Kramer
<b>Minimum performance parameters</b>	
<b>Length</b>	180 cm
<b>Connector</b>	Terminated with high quality molded VGA connectors and 3.5 mm connectors for audio

13. In Page No.13, (D)- Detailed Technical Specification - Sl.No: 1.15 - HDMI Interface Cable may be read as

<b>Item Reference</b>	<b>1.15</b>
<b>Item Description</b>	<b>HDMI Interface Cable</b>
<b>Approved Make/Brand</b>	<b>AMX, canare,Kramer, Extron</b>
<b>Minimum performance parameters</b>	
<b>Length</b>	180 cm
<b>Resolution</b>	4K@60Hz (4:4:4) or higher, Deep Color, CEC,Dolby TrueHD,DTS-HD,Lip Sync.
<b>Instead of</b>	
<b>Item Reference</b>	1.15
<b>Item Description</b>	HDMI Interface Cable
<b>Approved Make/Brand</b>	AMX, canare,Kramer
<b>Minimum performance parameters</b>	
<b>Length</b>	180 cm
<b>Resolution</b>	4K@60Hz (4:4:4) or higher, Deep Color, CEC,Dolby TrueHD,DTS-HD,Lip Sync.

14. In Page No.14, (D)- Detailed Technical Specification - Sl.No: 1.16 - Control Processor may be read as

<b>Item Reference</b>	<b>1.16</b>
<b>Item Description</b>	<b>Control Processor</b>
<b>Approved Make/Brand</b>	<b>AMX, Kramer, Extron</b>
<b>Minimum performance parameters</b>	
<b>Bi Directional Ports</b>	8 RS-232, 8 GPI/O, 1 Ethernet, 1 Micro-USB.
<b>Inputs</b>	1 Built in IR
<b>Outputs</b>	8 IR Out and 8 Relays.
<b>Processor Speed</b>	1 GHz
<b>Memory</b>	512 MB RAM,4 GB Flash
<b>Instead of</b>	
<b>Item Reference</b>	1.16
<b>Item Description</b>	Control Processor
<b>Approved Make/Brand</b>	AMX, Kramer
<b>Minimum performance parameters</b>	
<b>Bi Directional Ports</b>	8 RS-232, 8 GPI/O, 1 Ethernet, 1 Micro-USB.
<b>Inputs</b>	1 Built in IR
<b>Outputs</b>	8 IR Out and 8 Relays.
<b>Processor Speed</b>	1 GHz
<b>Memory</b>	512 RAM,4 GB Flash

15. In Page No.15, (D)- Detailed Technical Specification - Sl.No: 1.19 - Ethernet Switch may be read as

<b>Item Reference</b>	<b>1.19</b>
<b>Item Description</b>	<b>Ethernet Switch</b>
<b>Approved Make/Brand</b>	<b>Cisco, Dlink, Netgear</b>
<b>Minimum performance parameters</b>	
<b>Switching Capacity</b>	<b>16 Gbps</b>
<b>Port Standards</b>	IEEE 802.3 10BASE-T, IEEE802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T
<b>Quality of Service</b>	Priority queues, Queue Handling Strict, Weighted round robin, Bandwidth control, IPV6 Traffic class.
<b>Ports</b>	8 Port Gigabit Ethernet
<b>POE Ports</b>	Min 8 Port
<b>Flash</b>	16 MB
<b>CPU Memory</b>	128 MB
<b>MAC Table</b>	Upto 16K MAC addresses
<b>Jumbo frames</b>	Frame sizes up to 9K bytes supported on 10/100 and Gigabit interfaces
<b>Dual Stack</b>	IPv4 and IPv6
<b>Instead of</b>	
<b>Item Reference</b>	<b>1.19</b>
<b>Item Description</b>	<b>Ethernet Switch</b>



Approved Make/Brand	Cisco, Dlink, Netgear
Minimum performance parameters	
Switching Capacity	40 Gbps
Port Standards	IEEE 802.3 10BASE-T, IEEE802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T
Quality of Service	Priority queues, Queue Handling Strict, Weighted round robin, Bandwidth control, IPV6 Traffic class.
Ports	8 Port Gigabit Ethernet
POE Ports	Min 8 Port
Flash	16 MB
CPU Memory	128 MB
MAC Table	Upto 16K MAC addresses
Jumbo frames	Frame sizes up to 9K bytes supported on 10/100 and Gigabit interfaces
Dual Stack	IPv4 and IPv6

16. In Page No.17, (D)- Detailed Technical Specification - Sl.No: 2.09 - Audio DSP may be read as

Item Reference	2.09
Item Description	Audio DSP
Approved Make/Brand	Polycom, QSC, Symetrix, RCF, Extron
Minimum performance parameters	
No of Mic / Line Input	Min 8 Input
Output	Min 8 output
Frequency Response	20 Hz – 20 kHz
Phantom Power	+48 VDC
Input THD	+21 dBu Sensitivity & +21 dBu Input <0.1%
Control	Lan Control
USB Inputs & Outputs	16 Bit, 4x4 Channels or higher
Ethernet Protocol	TCP, DHCP.
Ethernet Port	Min 2 RJ45 connectors
GPI x GPO	16 x16
Input Impedance	Min 5K ohms
Output Impedance	Min 220 Ohms
Safety Compliance	CE, c-UL, UL
Environmental Compliance	RoHS
<b>Instead of</b>	
Item Reference	2.09
Item Description	Audio DSP
Approved Make/Brand	Polycom, QSC, Symetrix, RCF
Minimum performance parameters	
No of Mic / Line Input	Min 8 Input
Output	Min 8 output
Frequency Response	20 Hz – 20 kHz
Phantom Power	+48 VDC
Input THD	+21 dBu Sensitivity & +21 dBu Input <0.1%
Control	Lan Control
USB Inputs & Outputs	16 Bit, 16X16 Channels
Ethernet Protocol	TCP, DHCP.
Ethernet Port	Min 2 RJ45 connectors
GPI x GPO	16 x16
Input Impedance	Min 5K ohms
Output Impedance	Min 220 Ohms
Safety Compliance	CE, c-UL, UL
Environmental Compliance	RoHS

17. In Page No.18, (D)- Detailed Technical Specification - Sl.No: 3.02 - Microphone Bulk Cable may be read as

Item Reference	3.02
Item Description	Microphone Cable
Approved Make/Brand	Belden, Canare, Kramer, Extron
Minimum performance parameters	
Conductor Gauge	24 AWG
Insulation / outer jacket material	PVC
Outer shield	Bare Copper
Voltage	100V RMS
No of pairs	1
<b>Instead of</b>	
Item Reference	3.02
Item Description	Microphone Cable
Approved Make/Brand	Belden, Canare, Kramer
Minimum performance parameters	
Conductor Gauge	24 AWG
Insulation / outer jacket material	PVC
Outer shield	Bare Copper
Voltage	100V RMS
No of pairs	1

18. In Page No.18, (D)- Detailed Technical Specification - Sl.No: 3.03 - Shielded Cat6 Cable may be read as

Item Reference	3.03
Item Description	Shielded Cat6 Cable
Approved Make/Brand	Crestron, Dlink,Kramer, Extron
Minimum performance parameters	
Structure	4 Pairs Shielded Twisted Pair screened with solid bare copper braiding (S/FTP) Cable
Conductor metal	23 AWG or better Solid Bare Copper
Shield individual pair	Aluminum Polyester Foil
Jacket material	PVC
Interconnection	Shield twisted pair cable with 23AWG or better copper conductor for network switches
Frequency	Min 250 MHz
Characteristics Impedance	Min 100Ω
Delay skew	Max 45nS
<b>Instead of</b>	
Item Reference	3.03
Item Description	Shielded Cat6 Cable
Approved Make/Brand	Crestron, Dlink,Kramer
Minimum performance parameters	
Structure	4 Pairs Shielded Twisted Pair screened with solid bare copper braiding (S/FTP) Cable
Conductor metal	23 AWG or better Solid Bare Copper
Shield individual pair	Aluminum Polyester Foil
Jacket material	PVC
Interconnection	Shield twisted pair cable with 23AWG or better copper conductor for network switches
Frequency	Min 250 MHz
Characteristics Impedance	Min 100Ω
Delay skew	Max 45nS

19. In Page No.18, (D)- Detailed Technical Specification - Sl.No: 3.04 - Audio Cable may be read as

Item Reference	3.04
Item Description	Audio Cable
Approved Make/Brand	Belden, Canare, Kramer, Extron
Minimum performance parameters	
Conductor	20 AWG tinned copper
No of conductor	4

Insulation	PP
Outer Jacket	PVC
<b>Instead of</b>	
Item Reference	3.04
Item Description	Audio Cable
Approved Make/Brand	Belden, Canare, Kramer
Minimum performance parameters	
Conductor	20 AWG tinned copper
No of conductor	4
Insulation	PP
Outer Jacket	PVC

20. In Page No.18, (D)- Detailed Technical Specification - Sl.No: 3.05 - Serial Control Cable may be read as

Item Reference	<b>3.05</b>
Item Description	<b>Serial Control Cable</b>
Approved Make/Brand	<b>Belden, Canare, Kramer, Extron</b>
Minimum performance parameters	
Conductor	20 AWG tinned copper
No of conductor	4
Insulation	PP
Outer Jacket	PVC
<b>Instead of</b>	
Item Reference	3.05
Item Description	Audio Cable
Approved Make/Brand	Belden, Canare, Kramer
Minimum performance parameters	
Conductor	20 AWG tinned copper
No of conductor	4
Insulation	PP
Outer Jacket	PVC

21. In Page No.31, Point No : 2 of Annexure –C 2.09- Audio DSP may be read as

Audio DSP			
Name of the Make/Brand and Model No		Make/Brand Name :	
		Model No	
Description		Compliance	Details of Catalogue/ Data Sheet Proof with Page No in the tender document.
		(Yes/ No)	
Minimum Performance Parameters.			
No of Mic / Line Input	Min 8 Input		
Output	Min 8 output		
Frequency Response	20 Hz – 20 kHz		
Phantom Power	+48 VDC		
Input THD	+21 dBu Sensitivity & +21 dBu Input <0.1%		
Control	Lan Control		
USB Inputs & Outputs	16 Bit, 4X4 Channels or higher		
Ethernet Protocol	TCP, DHCP.		
Ethernet Port	Min 2 RJ45 connectors		
GPI x GPO	16 x16		
Input Impedance	Min 5K ohms		
Output Impedance	Min 220 Ohms		
Safety Compliance	CE, c-UL, UL		
Environmental Compliance	RoHS		
<b>Instead of</b>			
<b>Audio DSP</b>			
Name of the Make/Brand and Model No		Make/Brand Name :	
		Model No	
Description		Compliance	Details of Catalogue/ Data Sheet Proof with Page No in
		(Yes/ No)	

			the tender document.
<b>Minimum Performance Parameters.</b>			
<b>No of Mic / Line Input</b>	Min 8 Input		
<b>Output</b>	Min 8 output		
<b>Frequency Response</b>	20 Hz – 20 kHz		
<b>Phantom Power</b>	+48 VDC		
<b>Input THD</b>	+21 dBu Sensitivity & +21 dBu Input <0.1%		
<b>Control</b>	Lan Control		
<b>USB Inputs &amp; Outputs</b>	16 Bit, 16x16 Channels		
<b>Ethernet Protocol</b>	TCP, DHCP.		
<b>Ethernet Port</b>	Min 2 RJ45 connectors		
<b>GPI x GPO</b>	16 x16		
<b>Input Impedance</b>	Min 5K ohms		
<b>Output Impedance</b>	Min 220 Ohms		
<b>Safety Compliance</b>	CE, c-UL, UL		
<b>Environmental Compliance</b>	RoHS		

22. In Page No.33, Point No : 2 of Annexure –C 3.04- Audio Cable may be read as

<b>Audio Cable</b>			
<b>Name of the Make/Brand and Model No</b>		<b>Make/Brand Name :</b>	
		<b>Model No</b>	
<b>Description</b>		<b>Compliance</b>	<b>Details of Catalogue/ Data Sheet Proof with Page No in the tender document.</b>
		<b>(Yes/ No)</b>	
<b>Minimum Performance Parameters.</b>			
<b>Conductor</b>	20 AWG tinned copper		
<b>No of conductor</b>	4		
<b>Insulation</b>	PP		
<b>Outer Jacket</b>	PVC		
<b>Instead of</b>			
<b>Audio/ Serial Control Cable</b>			
<b>Name of the Make/Brand and Model No</b>		<b>Make/Brand Name :</b>	
		<b>Model No</b>	
<b>Description</b>		<b>Compliance</b>	<b>Details of Catalogue/ Data Sheet Proof with Page No in the tender document.</b>
		<b>(Yes/ No)</b>	
<b>Minimum Performance Parameters.</b>			
<b>Conductor</b>	20 AWG tinned copper		
<b>No of conductor</b>	4		
<b>Insulation</b>	PP		
<b>Outer Jacket</b>	PVC		

23. In Page No.33, Point No : 2 of Annexure –C 3.04- Serial Control Cable may be read as

Serial Control Cable			
Name of the Make/Brand and Model No		Make/Brand Name :	
		Model No	
Description		Compliance	Details of Catalogue/ Data Sheet Proof with Page No in the tender document.
		(Yes/ No)	
<b>Minimum Performance Parameters.</b>			
<b>Conductor</b>	20 AWG tinned copper		
<b>No of conductor</b>	4		
<b>Insulation</b>	PP		
<b>Outer Jacket</b>	PVC		
Instead of			
Audio/ Serial Control Cable			
Name of the Make/Brand and Model No		Make/Brand Name :	
		Model No	
Description		Compliance	Details of Catalogue/ Data Sheet Proof with Page No in the tender document.
		(Yes/ No)	
<b>Minimum Performance Parameters.</b>			
<b>Conductor</b>	20 AWG tinned copper		
<b>No of conductor</b>	4		
<b>Insulation</b>	PP		
<b>Outer Jacket</b>	PVC		

24. In Annexure –C Technical Bid Compliance Statement for Bill of Material is added as 3.08 (In Pg 33)

Sl. No.	Description	Name of the Make/Brand	UoM	Qty
1.00	<b>Video System</b>			
1.01	Projector		No.	1
1.02	Projector mount		No.	1
1.03	Projection screen		No.	1
1.04	Professional display		Nos.	2
1.05	Wall mount bracket		Nos.	2
1.06	Active wall plate		No.	1
1.07	Presentation Switcher		No.	1
1.08	Distribution Amplifier		No.	1
1.09	HD Base T twisted pair transmitter		Nos.	4
1.10	HD Base T twisted pair receiver		Nos.	5
1.11	Tablet Monitor		No.	1
1.12	PC with dual HDMI		No.	1
1.13	Podium		No.	1
1.14	VGA Audio Interface Cable		No.	1
1.15	HDMI Interface Cable		Nos.	13
1.16	Control Processor		No.	1
1.17	I Pad 2017 - 32GB with Docking and Charging Station		No.	1
1.18	Wireless access point		No.	1
1.19	Ethernet Switch		No.	1
2.00	<b>Audio System</b>			
2.01	Gooseneck microphone system with Shock mount		Nos.	2
2.02	wireless handheld Microphone Set		Nos.	4
2.03	Wireless Lapel Microphone Set		No.	1
2.04	Antenna splitter		Nos.	2
2.05	Antenna Amplifier		Nos.	2
2.06	Antenna with Mounting Bracket		Nos	2
2.07	Antenna cable		No.	1
2.08	loud Speaker system with ceiling mount		Nos.	4
2.09	Audio DSP		No.	1
3.00	<b>Cables and accessories</b>			
3.01	Branded bulk cables, connectors and accessories.		Lot	1

Sl. No.	Description	Name of the Make/Brand	UoM	Qty
3.02	Microphone bulk cable		Meter	48
3.03	Shielded Cat6 cable		Meter	200
3.04	Audio/ Serial control cable		Meter	210
3.05	Floor Box with accessories		Nos.	2
3.06	Equipment Rack		Nos.	1
3.07	Design, Installation, Cabling, Termination and Coordination and Project Management		Lot	1

25. The last date, due date for receipt of tender mentioned in the tender document may be read as **10.12.2019 before 2.00 p.m instead of 03.12.2019 before 02.00 p.m.**

26. The date of opening of tender may be read as **11.12.2019 @4.00 p.m instead of 04.12.2019 @ 04.00 p.m.**

27. **Exemption in Earnest Money Deposit (EMD) and Performance Bank Guarantee :**

EMD exemption will be considered for MSE organization on production of valid certificate issued by competent authority.

All other conditions remains unchanged.

**Sd/-**  
**Deputy Registrar (Stores & Purchase)**