

## Bid Corrigendum

GEM/2025/B/5953910-C4

Following terms and conditions supersede all existing "Buyer added Bid Specific Terms and conditions" given in the bid document or any previous corrigendum. Prospective bidders are advised to bid as per following Terms and Conditions:

### Buyer Added Bid Specific Additional Terms and Conditions

1. **OPTION CLAUSE:** The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity up to 25% of the contracted quantity during the currency of the contract at the contracted rates. The delivery period of quantity shall commence from the last date of original delivery order and in cases where option clause is exercised during the extended delivery period the additional time shall commence from the last date of extended delivery period. The additional delivery time shall be  $(\text{Increased quantity} \div \text{Original quantity}) \times \text{Original delivery period (in days)}$ , subject to minimum of 30 days. If the original delivery period is less than 30 days, the additional time equals the original delivery period. The Purchaser may extend this calculated delivery duration up to the original delivery period while exercising the option clause. Bidders must comply with these terms.
2. Buyer Added text based ATC clauses

#### Corrigendum-1/Response to pre-bid queries:

The Corrigendum-1/Response to pre-bid queries are attached in ATC document.

### 1. Payment Milestones:

QCI will make payment to the vendor as per the following milestones:

S. No.	Milestone	Payment Schedule
1.	On successful sequential delivery* of materials at site	60%
2.	On successful Testing, commissioning, and User Acceptance including Go-Live up to the satisfaction of Client	35%
3.	Completion of Defects Liability Period of 12 months	5%

i. **\*Sequential delivery** means providing a phase wise installation of items in a well organised sequence, to be submitted after issuance of LOA. Non-sequential delivery of items will not make the vendor liable for payment.

- ii. Successful Bidder has to submit L2 schedule, comprising supply, installation, testing and commissioning including Go-live.
- iii. Payment shall be made based on the Joint measurement certificate against each Milestones submitted to be signed by vendor, PMC, and QCI authorised person. Measurements shall be conducted as per relevant IS codes and good engineering practices. The decision of QCI Authorized Person would be final and binding in this regard.
- iv. Payment shall be made after submission of invoices within 30 days of receipt of invoice complete in all respect.
- v. Incorrect Invoices, Under/Over Payment: In case an invoice is found to have been rendered incorrectly after payment, any underpayment or over payment will be recoverable by or from the vendor, as the case may be, and, without limiting recourse to other available means, may be offset against any amount subsequently due by QCI to the vendor under this contract.

2. **Performance Security:** The selected Bidder shall submit irrevocable Performance security, within 15 days from the Notification of award, for a value equivalent to **5% of the contract value**. The Performance security submitted in the form of Bank Guarantee shall contain a claim period of three months from the last date of validity. The bank guarantee shall be valid for the period of 14 months from the date of issuance of work order plus three (03) months of claim period. The selected Bidder shall be responsible for extending the validity date and claim period of the Performance Bank Guarantee as and when it is due on account of non-completion of the delivery and Warranty period.

The selected bidder can submit e-PBG OR physical copy of Performance Guarantee should be submitted at QCI-HO within 15 days from the notification of award. The selected bidder would be required to send SFMS code while creation of PBG to the IFSC code provided by QCI.

In case the selected bidder fails to submit a Performance Guarantee within the time stipulated, QCI at its discretion may cancel the order placed on the selected bidder without giving any notice. QCI shall invoke the performance guarantee in case the selected bidder fails to discharge their contractual obligations during the period or QCI incurs any loss due to bidder's negligence in carrying out the project implementation as per the agreed terms & conditions. The performance security shall be released within three (03) months of the successful completion of defects liability period of 12 months.

### 3. **Warranty:**

- i. The vendor must provide OEM Warranty certificates for the items as per the technical specifications/BOQ in the name of QCI for all the items.
- ii. The agency has to produce Manufacturer Test Certificates (MTC), Warranty Certificates/Invoices for material/equipment supplied for certification and approval. The warranty of all the items should be transferred to QCI as a part of the handover of the site.

- iii. The warranty period shall commence for a minimum period of **3 years** from the date of issuance of completion certificate.

3. Buyer uploaded ATC document [Click here to view the file.](#)

## Disclaimer

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. If any clause(s) is / are incorporated by the Buyer regarding following, the bid and resultant contracts shall be treated as null and void and such bids may be cancelled by GeM at any stage of bidding process without any notice:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process. (However, in bids for [attached categories](#), trials are allowed as per approved procurement policy of the buyer nodal Ministries)
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

\*This document shall overwrite all previous versions of Bid Specific Additional Terms and Conditions.

[This Bid is also governed by the General Terms and Conditions](#)



भारतीय गुणवत्ता परिषद्

द्वितीय तल, इंस्टीट्यूशन ऑफ इंजीनियर्स भवन,  
२, बहादुर शाह जफर मार्ग, नई दिल्ली - ११०००२

Quality Council of India

2nd Floor, Institution of Engineers Building,  
2, Bahadur Shah Zafar Marg, New Delhi - 110 002

**BUYER ADDED BID SPECIFIC TERMS AND CONDITIONS**

**Date: March 05, 2025**

**Name of the work: "Design, Engineering, Supply, Installation, Testing and Commissioning of AV systems at QCI  
Office, WTC, Nauroji Nagar, New Delhi"**

**GeM Bid No: GEM/2025/B/5953910**

The bid is governed by the terms and conditions in the following order of precedence (i.e. in case of same clause, the clause mentioned in Corrigendum 1 will supersede the clause mentioned in RFP)

- Corrigendum 1 and Response to pre-bid queries
- Original RFP



Date: March 05, 2025

**Corrigendum - Request for Proposal for Design, Engineering, Supply, Installation, Testing and Commissioning of AV systems at QCI Office, WTC, Nauroji Nagar, New Delhi**

**Corrigendum-1**

This is with reference to the GeM bid reference no. GEM/2025/B/5953910 and RFP ref. no. QCI/WTC/AV/0225/416 **“Request for Proposal for Design, Engineering, Supply, Installation, Testing and Commissioning of AV systems at QCI Office, WTC, Nauroji Nagar, New Delhi”**

Below are the changes in mentioned clauses issued vide this corrigendum notification:

S. No.	Item Number/Clause no./Page no.	Description/ Reference	Original Clause	Revised Clause (Deletion are indicated with a <b>strikethrough</b> and addition are highlighted by an <b>underline</b> )
1	Clause III sub clause no 4, Page no. 7	OEM/ Authorized resellers/ system integrators or suppliers	For resellers/suppliers: Proof of registration with OEM AND Proof of authorization from OEM/ Manufacturers to be submitted along with the bid.	For resellers/suppliers: Proof of registration with OEM AND Proof of authorization from OEM/ Manufacturers to be submitted along with the bid. <b><u>For Passive Item(s) like cabling &amp; mounting MAF may be exempted.</u></b>
2	Clause III sub clause no 4, Page no. 7	Eligibility Criteria: Standards/ Certifications/ Memberships	InfoComm International (AVIXA) Membership: The bidder should be an active member of InfoComm International (now AVIXA), demonstrating commitment to AV industry  Energy Star Certification: Bidder should be able to supply Energy Star certified AV equipment where applicable, demonstrating commitment to energy efficiency.	<del>InfoComm International (AVIXA) Membership: The bidder should be an active member of InfoComm International (now AVIXA), demonstrating commitment to AV industry</del>  Energy Star Certification/ <b><u>Bureau of Energy Efficiency (BEE)</u></b> : Bidder should be able to supply Energy Star / <b><u>BEE</u></b> certified AV equipment where applicable, demonstrating commitment to energy efficiency.
3	1.57, Page no. 39 and 54	Form 5: Certificate of Compliance of Technical Specifications/Bill of Quantities ANNEXURE-B: Format for Price Breakup	UL, CE, RoHS / WEEE	UL, CE, RoHS/ WEEE <b><u>or equivalent Indian standards or rules</u></b>
4	Clause no 24, Page no. 14	Earnest Money Deposit (EMD)/Bid Security	Bidders shall submit, along with their Bids, Bid Security (EMD) of INR 14 lakhs as per the details mentioned below: i. By demand draft in favour of Quality Council of India, payable at New Delhi, or ii. Deposit through RTGS/ NEFT	Bidders shall submit, along with their Bids, Bid Security (EMD) of INR 14 lakhs as per the details mentioned below: i. By demand draft in favour of Quality Council of India, payable at New Delhi, or ii. Deposit through RTGS/ NEFT iii. <b><u>EMD can also be submitted through Bank Guarantee. The format for the same is available in GeM Portal.</u></b>



S. No.	Item Number/Clause no./Page no.	Description/ Reference	Original Clause	Revised Clause (Deletion are indicated with a <b>strikethrough</b> and addition are highlighted by an <b>underline</b> )
5	Page no. 57	ANNEXURE-C: List of Preferred Makes/Manufactures of Materials - AV System	Note: The list of approved makes or materials serves as base guideline for the project and is not exhaustive. OEMs fulfilling the requirements as per the technical specifications without compromising quality standards, which is not listed above can participate in the bid.	Note: The list of <del>approved</del> <b>preferred</b> makes or materials serves as base guideline for the project and is not exhaustive. OEMs fulfilling the requirements as per the technical specifications without compromising quality standards, which is not listed in the makes list (Annexure-C) can participate in the bid.
6	Clause II, sub-clause 3 Page no. 6	Scope of Work and Deliverables	The list of approved makes or materials outlined in the RFP serves as base guideline for the project and is not exhaustive.	The list of <del>approved</del> <b>preferred</b> makes or materials outlined in the RFP serves as base guideline for the project and is not exhaustive.
7	Clause V, sub-clause 16 Page no. 11	Terms & Conditions: Materials and Samples	The materials / products used on the work shall be of approved make/brands out of list of approved makes given in the tender document.	The materials / products used on the work shall be of <del>approved</del> make/brands out of list of <del>approved</del> <b>preferred</b> makes given in the tender document.
8	1.1 Page no. 30 and 44	LED Video Wall Screen (Form 5: Certificate of Compliance of Technical Specifications/Bill of Quantities, and ANNEXURE-B: Format for Price Breakup)	Supply installation testing and commissioning of Direct View LED Video Wall Screen 136 LED Wall AIO screen with 1.58 mm pi Xel pitch and floor stand from same OEM in 169 aspect ratio with diecast aluminium cabinets Minimum Resolution Full HD by 1920 X1080 or better with controller inbuilt and sound of 30Watts Minimum inputs combination of 2 X HDMI 2.0 1 X DP 4 X USB Sound Out for speakers Rs232 by LAN for ethernet Ma X Brightness 600 nits or better with HDR Refresh rate 3840 Hz or better Contrast 10 0001 or better 160 X 160 Viewing Angle Colour Temperature 3000 to 10000 Adjustable or more Brightness Uniformity 97Percentage or better Inbuilt OS Windows by Android by Tizen by WebOS with inbuilt speakers remote controller Standby power mode supported to save energy and Ma X load should not be more than 1.5KW with Plug and play power cable Smart features like signedge inbuilt wireless mirroring etc with mounting arrangemnet etc all complete as required	Supply installation testing and commissioning of Direct View LED Video Wall Screen 136 LED Wall AIO screen with 1.58 mm <u>or less pixel pitch</u> and floor stand from same OEM in 169 aspect ratio with diecast aluminium cabinets Minimum Resolution Full HD by 1920 X1080 or better with controller inbuilt and sound of <del>30Watts</del> <b>18 Watts</b> Minimum inputs combination of 2 X HDMI 2.0 1 X DP 4 X USB Sound Out for speakers Rs232 by LAN for ethernet Ma X Brightness 600 nits or better with HDR Refresh rate 3840 Hz or better Contrast 10 0001 or better 160 X 160 Viewing Angle Colour Temperature 3000 to 10000 Adjustable or more Brightness Uniformity 97Percentage or better Inbuilt OS Windows by Android by Tizen by WebOS with inbuilt speakers remote controller Standby power mode supported to save energy and Ma X load should not be more than 1.5KW with Plug and play power cable Smart features like sign-edge inbuilt wireless mirroring etc with mounting arrangement etc all complete as required

9	1.29 Page no. 35 and 49	Round Ceiling Mounted Beamforming Microphone Array (Form 5: Certificate of Compliance of Technical Specifications/Bill of Quantities, and ANNEXURE-B: Format for Price Breakup)	Supply installation testing and commissioning of Round Ceiling Mounted Beamforming Microphone Array shall consist of 15 pre polarized condenser microphone capsules shall use beamforming technology that automatically focuses on whoever is speaking in the room and always follows the person around the room microphone array shall have a Dante interface for digital audio output supporting both single cable PoE plus Control plus Dante and split mode cabling PoE plus Ctrl by Dante on a second RJ45 port Microphone sensitivity shall be 0 dBV by Pa 1020 mV by Pa Maximum sound pressure level shall be 98 dB SPL Dynamic range shall be 81 dB A including a flush mount installation kit etc all complete. Approved Make Sennhieser by Shure by Clock Audio	Supply installation testing and commissioning of Round Ceiling Mounted Beamforming Microphone Array shall consist of 15 pre polarized condenser microphone capsules shall use beamforming technology that automatically focuses on whoever is speaking in the room and always follows the person around the room microphone array shall have a Dante interface for digital audio output supporting both single cable PoE plus Control plus Dante <del>and split mode cabling PoE plus Ctrl by Dante on a second RJ45 port</del> Microphone sensitivity shall be 0 dBV by Pa 1020 mV by Pa Maximum sound pressure level shall be 98 dB SPL Dynamic range shall be 81 dB A including a flush mount installation kit etc all complete. <del>Approved Make Sennhieser by Shure by Clock Audio</del>
10	1.30 Page no. 35 and 49	Ceiling microphone with automatic dynamic Beamforming technology (Form 5: Certificate of Compliance of Technical Specifications/Bill of Quantities, and ANNEXURE-B: Format for Price Breakup)	Supply installation testing and commissioning of Ceiling microphone with automatic dynamic Beamforming technology The beam will automatically detect the position of the person speaking and will follow the person around the room at all times It should have 2 X Dante digital audio Redundancy Analog audio out Phoeni X 3 pin and Ethernet for Control and PoE connectivity ports The coverage of the ceiling microphone should be min 800 square feet or more It should have a true voice lift feature to increase audio intelligibility above the ambient noise floor It should support IT industry standards like IEEE 802 1 X It can be controlled through software that can control and monitor the microphone in any network It should have min 100 dB SPL 5ms latency and min 90dBA or higher dynamic range High precision audio settings for ma Ximum control setting to e Xclude min 5 and prioritize the areas of the room It should certified from Microsoft Teams and Zoom Video conferencing applications It should have UL 62368 certification including UL 2043	Supply installation testing and commissioning of Ceiling microphone with automatic dynamic Beamforming technology The beam will automatically detect the position of the person speaking and will follow the person around the room at all times It should have <del>2</del> <u>1</u> X Dante digital audio and Ethernet for Control and PoE connectivity ports The coverage of the ceiling microphone should be min 800 square feet or more It should have a true voice lift feature to increase audio intelligibility above the ambient noise floor It should support IT industry standards like IEEE 802 1 X It can be controlled through software that can control and monitor the microphone in any network It should have min 100 dB SPL 5ms latency and min 90dBA or higher dynamic range High precision audio settings for ma Ximum control setting to e Xclude min 5 and prioritize the areas of the room It should certified from Microsoft Teams and Zoom Video conferencing applications It should have including UL 2043 testing and compliance and safety certifications etc all complete as required

			testing and compliance and safety certifications etc all complete as required	
11	1.31 Page no. 35 and 49	Digital Wireless UHF handheld microphone set (Form 5: Certificate of Compliance of Technical Specifications/Bill of Quantities, and ANNEXURE-B: Format for Price Breakup)	Supply installation testing and commissioning of Digital Wireless UHF handheld microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2 240 selectable frequencies for fine tuning It should have auto scan feature for efficient connections to reduce time and effort It should have a minimum 100 meter transmission range It should have a Cardioid pick up pattern Sound pressure level SPL 150 dB or more System Latency 1 9 ms Dynamic range 130 dB and frequency response 20Hz to 20000 Hz The microphone system can be controlled through ios by Android applications via bluetooth It should have 12 hours of operation life and more etc all complete as required	Supply installation testing and commissioning of Digital Wireless UHF handheld microphone set with Rack receiver having <del>56</del> <b>44</b> MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with It should have auto scan feature for efficient connections to reduce time and effort It should have a minimum 100 meter transmission range It should have a Cardioid pick up pattern Sound pressure level SPL 150 Db <del>or more</del> <b>or dynamic range of 118 dB</b> System Latency 1.9 ms Dynamic range 130 dB and frequency response 20Hz 20000 Hz. The microphone system can be controlled through ios by Android applications via bluetooth It should have 12 hours of operation life and more etc all complete as required
12	1.32 Page no. 35 and 50	Digital Wireless UHF lapel microphone (Form 5: Certificate of Compliance of Technical Specifications/Bill of Quantities, and ANNEXURE-B: Format for Price Breakup)	Supply installation testing and commissioning of Digital Wireless UHF lapel microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2 240 selectable frequencies for fine tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have min 100-meter transmission range. It should have omni directional pick up pattern Sound pressure level (SPL) 130 dB or more. System Latency 1 9 ms Dynamic range 130 dB and frequency response 20Hz 20000 Hz. The microphone system can be controlled through ios by Android applications via bluetooth It should have 12 hours of operation life and more etc all complete as required	Supply installation testing and commissioning of Digital Wireless UHF lapel microphone set with Rack receiver having <del>56</del> <b>44</b> MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along It should have auto scan feature for efficient connections to reduce time and effort. It should have min 100-meter transmission range. It should have omni directional pick up pattern Sound pressure level (SPL) 130 dB <del>or more</del> <b>or dynamic range of 118 dB</b> . System Latency 1 9 ms Dynamic range 130 dB and frequency response 20Hz 20000 Hz. The microphone system can be controlled through ios by Android applications via Bluetooth. It should have 12 hours of operation life and more etc all complete as required
13	1.33 Page no. 36 and 50	Digital Wireless UHF Headset microphone	Supply installation testing and commissioning of Digital Wireless UHF Headset microphone set with Rack receiver having 56 MHz or higher of switching	Supply installation testing and commissioning of Digital Wireless UHF Headset microphone set with Rack receiver having <del>56</del> <b>44</b> MHz or higher of switching bandwidth and

		(Form 5: Certificate of Compliance of Technical Specifications/Bill of Quantities, and ANNEXURE-B: Format for Price Breakup)	bandwidth and equidistant spacing enables up to 90 channels or more along with 2 240 selectable frequencies for fine tuning It should have auto scan feature for efficient connections to reduce time and effort It should have min 100 meter transmission range It should have cardioid pick up pattern Sound pressure level SPL 150 dB or more System Latency 1 9 ms Dynamic range 130 dB and frequency response 20Hz 20000 Hz The microphone system can be controlled through ios by Android applications via bluetooth It should have 12 hours of operation life and more etc all complete as required	equidistant spacing enables up to 90 channels or more. It should have auto scan feature for efficient connections to reduce time and effort It should have min 100 meter transmission range It should have cardioid pick up pattern Sound pressure level SPL 150 dB <del>or more</del> <b>or dynamic range of 118 dB.</b> System Latency 1.9 ms Dynamic range 130 dB and frequency response 20Hz-20000 Hz. The microphone system can be controlled through ios by Android applications via Bluetooth. It should have 12 hours of operation life and more etc all complete as required
14	1.34 Page no. 36 and 50	Active Antenna Splitter (Form 5: Certificate of Compliance of Technical Specifications/Bill of Quantities, and ANNEXURE-B: Format for Price Breakup)	Supply installation testing and commissioning of Active Antenna Splitter with 2 X 14 or 1 X 18 active connections which work on 56 MHz Bandwidth and allow for up to 90 channels. Supports Mobile App streamlines setup and operation and eliminates complicated menus Frequency range 470 between 694 MHz along with Automated setup creates reliable connections with minimal time and effort etc all complete as required	Supply installation testing and commissioning of Active Antenna Splitter with 2 X 14 or 1 X 18 active connections <del>which work on 56 MHz Bandwidth and allow for up to 90 channels.</del> Supports Mobile App streamlines setup and operation and eliminates complicated menus. Frequency range 470 between 694 MHz along with Automated setup creates reliable connections with minimal time and effort etc all complete as required
15	1.35 Page no. 36 and 50	Antenna booster (Form 5: Certificate of Compliance of Technical Specifications/Bill of Quantities, and ANNEXURE-B: Format for Price Breakup)	Supply installation testing and commissioning of Antenna booster which work on 56 MHz Bandwidth and allow for up to 90 channels Supports Mobile App streamlines setup and operation and eliminates complicated menus Frequency range 470 between 694 MHz along with Automated setup creates reliable connections with minimal time and effort etc all complete as required	Supply installation testing and commissioning of Antenna booster which <del>work on 56 MHz Bandwidth and allow for up to 90 channels</del> <b>Should be as per microphones supplied by the OEM.</b> Supports Mobile App streamlines setup and operation and eliminates complicated menus Frequency range 470 between 694 MHz along with Automated setup creates reliable connections with minimal time and effort etc all complete as required
16	1.38 Page no. 36 and 51	Charging set with USB charge (Form 5: Certificate of Compliance of Technical Specifications/Bill of Quantities, and ANNEXURE-B: Format for Price Breakup)	Supply installation testing and commissioning of Charging set with USB charger and 2 rechargeable battery packs for handheld and bodypack transmitter. It should charge 100Percentage battery power in ma X 3 hours charging time Maximum operating time of 12 hours. Stackable and charging is through USB C etc all complete etc all complete as required	Supply installation testing and commissioning of Charging set with USB charger and 2 rechargeable battery packs for handheld and bodypack transmitter. It should charge 100Percentage battery power in ma X 3 hours charging time Maximum operating time of 12 hours <del>Stackable and charging is through USB C etc all complete etc all complete as required</del> etc all complete as required



17	1.39 Page no. 36 and 51	40 CM Gooseneck Shotgun Microphone (Form 5: Certificate of Compliance of Technical Specifications/Bill of Quantities, and ANNEXURE-B: Format for Price Breakup)	Supply installation testing and commissioning of 40 CM Gooseneck Shotgun Microphone with Hyper Cardioid pick up pattern Frequency Response 40 Hz between 20 kHz Nominal impedance 50 Ohm Sensitivity 18 mV by Pa Equivalent noise level 23 dB A with a table stand base with a programmable microphone button Toggle on by off PTM PTT and permanent on and a bi color LED ring for status indication along with XLR 3 connector etc all complete as required	Supply installation testing and commissioning of 40 CM Gooseneck Shotgun Microphone with Hyper Cardioid pick up pattern Frequency Response <del>40 Hz between 20 kHz</del> <b>50 Hz between 17 kHz</b> Nominal impedance 50 Ohm Sensitivity <del>18</del> <b>17</b> mV by Pa <b>or more</b> Equivalent noise level 23 dB A with a table stand base with a programmable microphone button Toggle on by off PTM PTT and permanent on and a bi-color LED ring for status indication along with XLR 3 connector etc all complete as required
18	1.40 Page no. 37 and 51	Wireless Access Point (Form 5: Certificate of Compliance of Technical Specifications/Bill of Quantities, and ANNEXURE-B: Format for Price Breakup)	Supply installation testing and commissioning of Wireless Access Point supports the following functions and capabilities Based on standard WiFi5 standard IEEE802 11ac Clean channel manager that scans for the optimal channel use Operates in the limited access DFS channels ma Ximizing the available spectrum Support up to 128 or more wireless devices 3 X 2 MIMO antenna design with diversity to mitigate multipath effect resulting in robust wireless link Omni directional radiation pattern with range of 40m or more Highly secure by using WPA2 enterprise encryption Browser based configuration and monitoring software included Device discovery by physical button on WAP or via integrated web based software Self healing channel switching seamlessly switches to another channel when interference encountered or radar is detected on DFS channel Battery remaining meeting time visualization and low battery warning Audio routing for e Xternal processing or distance conferencing Camera protocols providing device information to integrate 3rd party camera control systems Mi X Minus mode Dante port 1 X Dante port 8 X 8 channels Balanced analog IN and OUT Recording capabilities internal 4GB or e Xternal storage upto 500GB and file download MP3 Number of open microphones interpretation channels 6 or more Latency 16 ms Audio 48 kHz by 24 bit Frequency response 20 20 kHz THD 22	Supply installation testing and commissioning of Wireless Access Point supports the following functions and capabilities Based on standard WiFi5 standard IEEE802 11ac Clean channel manager that scans for the optimal channel use Operates in the limited access DFS channels ma Ximizing the available spectrum Support up to <del>128</del> <b>125</b> or more wireless devices Omni directional radiation pattern with range of 40m or more Highly secure by using WPA2 enterprise encryption Browser based configuration and monitoring software included Device discovery by physical button on WAP or via integrated web based software Self-healing channel switching seamlessly switches to another channel when interference encountered or radar is detected on DFS channel Battery remaining meeting time visualization and low battery warning Audio routing for e Xternal processing or distance conferencing Camera protocols providing device information to integrate 3rd party camera control systems Mi X Minus mode Dante port 1 X Dante port 8 X 8 channels Balanced analog IN and OUT Recording capabilities internal 4GB or e Xternal storage upto 500GB and file download MP3 Number of open microphones channels 6 or more Latency 16 ms Audio 48 kHz by 24 bit Frequency response 20 20 kHz THD 22-22000 Hz < 0.02 Percentage Dynamic range greater than 90 dB Signal to noise ratio greater than 95 dBA RF frequency bands 2 4 Ghz by 5 GHz or better Multi-purpose mounting plate



			22000 Hz < 0.02 Percentage Dynamic range greater than 90 dB Signal to noise ratio greater than 95 dBA RF frequency bands 2.4 GHz by 5 GHz or better Multi-purpose mounting plate Certification CE PoE plus power adapter comes with power plug set etc all complete as required	Certification CE PoE plus power adapter comes with power plug set etc all complete as required
19	1.41 Page no. 37 and 51	Tabletop wireless conference unit (Form 5: Certificate of Compliance of Technical Specifications/Bill of Quantities, and ANNEXURE-B: Format for Price Breakup)	Supply installation testing and commissioning of Tabletop wireless conference unit for Chairman by Delegate with removable microphone capability Multifunctional button for Chairman by Delegate Button for request to speak and priority functionality when unit is configured as chairperson or dual delegate by two request to speak functions button compatibility Built in high quality loudspeaker minimum 1W or better Frequency Response 200 20 000 Hz or better Speaker shall automatically muted when the microphone is active to prevent acoustic feedback Unit provides information used by the clean channel manager for frequency coordination and interference avoidance Dual antenna for optimized signal reception even in challenging and high RF reflective environments Supports WIFI5 WPA2 enterprise encryption Push and Lock USB C type microphone connector Dual 3.5 mm stereo jack sockets for headphones with single volume control Hot swap capable dual battery compartment Option for power the units via USB C adapter Rechargeable lithium Ion battery with long hours backup of 12hrs on single charge included Certification CE; BIS etc all complete as required	Supply installation testing and commissioning of Tabletop wireless conference unit for Chairman by Delegate with removable microphone capability Multifunctional button for Chairman by Delegate Button for request to speak and priority functionality when unit is configured as chairperson or dual delegate by two request to speak functions button compatibility Built in high quality loudspeaker minimum 1W or better Frequency Response 200 20,000 Hz or better Speaker shall automatically muted when the microphone is active to prevent acoustic feedback Unit provides information used by the clean channel manager for frequency coordination and interference avoidance Dual antenna <u>or in-built antenna</u> for optimized signal reception even in challenging and high RF reflective environments Supports WIFI5 WPA2 enterprise encryption Push and Lock USB C type microphone connector <u>or as per OEM</u> Dual 3.5 mm stereo jack sockets for headphones with single volume control Option for power the units via USB C adapter Rechargeable lithium Ion battery with long hours backup of 11hrs on single charge included Certification CE; BIS etc all complete as required
20	1.42 Page no. 36 and 52	Short Stem Removable 98MM (Form 5: Certificate of Compliance of Technical Specifications/Bill of Quantities, and ANNEXURE-B: Format for Price Breakup)	Supply installation testing and commissioning of Short Stem Removable 98MM microphone is equipped with USB C based push and lock connector Microphone Size 97 × 33 × 33 mm Polar Pattern Cardioid Ma X SPL at the rate 1kHz 105 dB SPL or better Signal to noise ratio referred to 1 Pa 74 dB or better Sensitivity at the rate 1 kHz 35 dBV by Pa or better Frequency response 125 to	Supply installation testing and commissioning of Short Stem Removable 98MM or more microphone is equipped with USB C based push and lock connector or as per OEM, Microphone Size <u>Minimum Height 100 mm</u> Polar Pattern Cardioid Ma X SPL at the rate 1kHz 105 B SPL or better Signal to noise ratio referred to 1 Pa 68dB or better Sensitivity at the rate 1 kHz 35 dBV by Pa or better



भारतीय गुणवत्ता परिषद्

द्वितीय तल, इंस्टीट्यूशन ऑफ इंजीनियर्स भवन,  
२, बहादुर शाह जफर मार्ग, नई दिल्ली - ११०००२

Quality Council of India

2nd Floor, Institution of Engineers Building.

2, Bahadur Shah Zafar Marg, New Delhi - 110 002

			15000 Hz or better Microphone with Ring Indicator to light up Red when active and Green when in Request USB C based microphone connector Connection Push and Lock Certification CE etc all complete	Frequency response 125 to 15000 Hz or better Microphone with Ring Indicator to light up Red when active and Green when in Request USB C based microphone connector Connection <u>or as per OEM</u> Push and Lock Certification CE etc all complete
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क्यूसीआई गुणवत्ता को बढ़ावा देने एवं राष्ट्रीय प्रत्यायन संरचना को स्थापित और संचालित करने के लिए भारत सरकार द्वारा स्थापित एक स्वायत्त संस्था है।

QCI is an autonomous body, setup by Government of India, to establish & operate national accreditation structure and promote quality

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Response to Pre-bid queries

S. No.	BoQ Item Number/ Clause no./Page no.	BoQ Item Title/Clause	BoQ Item Description/Original clause	Changes Required/Clarifications requested Remarks		QCI response to pre-bid queries
1	29	Round Ceiling Mounted Beamforming Microphone Array	Supply installation testing and commissioning of Round Ceiling Mounted Beamforming Microphone Array shall consist of 15 pre polarized condenser microphone capsules shall use beamforming technology that automatically focuses on whoever is speaking in the room and always follows the person around the room microphone array shall have a Dante interface for digital audio output supporting both single cable PoE plus Control plus Dante and split mode cabling PoE plus Ctrl by Dante on a second RJ45 port Microphone sensitivity shall be 0 dBV by Pa 1020 mV by Pa Maximum sound pressure level shall be 98 dB SPL Dynamic range shall be 81 dB A including a flush mount installation kit etc all complete Approved Make Sennhieser by Shure by Clock Audio	Supply installation testing and commissioning of Round (or as per OEM) Ceiling Mounted Beamforming Microphone Array shall consist of 15 pre polarized condenser microphone capsules shall use beamforming technology or automatic coverage technology that automatically focuses whoever is speaking in the room and always follows the person around the room; microphone array shall have a Dante interface for digital audio output supporting both single cable PoE plus Control plus Dante and (split mode cabling PoE plus Ctrl by Dante on a second RJ45 port) Microphone sensitivity shall be 0 dBV by Pa 1020 mV by Pa; Maximum sound pressure level shall be 95 dB SPL Dynamic range shall be 75 dB A; including a flush mount installation kit etc all complete:- Approved Make Sennhieser by Shure by Clock Audio	Highlighted in red one should be removed. Changing minor specifications will allow us to participate, that too without hampering the overall application.	Please refer to Corrigendum-1
			Cabling & Power- Single cable mode: PoE+ (Power, Control, Dante) - Split mode: PoE+ & Control on one RJ45 port, Dante on second RJ45 port Microphone Sensitivity 0 dBV/Pa (1.020 V/Pa)	- Single cable mode: PoE+ providing power, control, and Dante audio	Please amend for the same	
				Not required	Please amend for the same	
			Microphone Sensitivity 0 dBV/Pa (1.020 V/Pa)	Sensitivity at 1 kHz -1.74 dBFS/Pa	Please amend for the same	
			Maximum Sound Pressure Level (SPL) 98 dB SPL	Maximum SPL Relative to 0 dBFS overload 95.74 Dbspl	Please amend for the same	
			Dynamic Range 81 dB (A-weighted)	Dynamic Range 77.5 dB	Compliance	



S. No.	BoQ Item Number/ Clause no./Page no.	BoQ Item Title/Clause	BoQ Item Description/Original clause	Changes Required/Clarifications requested Remarks		QCI response to pre-bid queries
2	30	Ceiling microphone with automatic dynamic Beamforming technology	Supply installation testing and commissioning of Ceiling microphone with automatic dynamic Beamforming technology The beam will automatically detect the position of the person speaking and will follow the person around the room at all times It should have 2 X Dante digital audio Redundancy Analog audio out Phoenix X 3 pin and Ethernet for Control and PoE connectivity ports The coverage of the ceiling microphone should be min 800 square feet or more It should have a true voice lift feature to increase audio intelligibility above the ambient noise floor It should support IT industry standards like IEEE 802.1X It can be controlled through software that can control and monitor the microphone in any network It should have min 100 dB SPL 5ms latency and min 90dBA or higher dynamic range High precision audio settings for maxium control setting to exclude min 5 and prioritize the areas of the room It should be certified from Microsoft Teams and Zoom Video conferencing applications It should have UL 62368 certification including UL 2043 testing and compliance and safety certifications etc all complete as required	Supply installation testing and commissioning of Ceiling microphone with automatic dynamic Beamforming technology automatic coverage technology. The beam will automatically detect the position of the person speaking and will follow the person around the room at all times. It should have 1 X Dante digital audio <b>Redundancy Analog audio out Phoenix X 3 pin</b> and Ethernet for Control and PoE connectivity ports. The coverage of the ceiling microphone should be min 800 square feet or more. It should have a <b>true</b> voice lift feature to increase audio intelligibility above the ambient noise floor It should support IT industry standards like IEEE 802.1X It can be controlled through software that can control and monitor the microphone in any network. It should have min 95.00 dB SPL; 15ms latency and min 77.5 dBA or higher dynamic range High precision audio settings for maxium control setting to exclude min 5 and prioritize the areas of the room It should be certified from Microsoft Teams and Zoom Video conferencing applications It should have <b>UL 62368 certification</b> including UL 2043 testing and compliance and safety certifications etc all complete as required	Highlighted in red one should be removed. Changing minor specifications will allow us to participate, that too without hampering the overall application.	Please refer to Corrigendum-1
			Dante Digital Audio Redundancy 2x Dante digital audio redundancy.	Single Dante Only	Please amend for the same	
			Analog Audio Output Analog audio out via Phoenix 3-pin connector.	N/A	Please amend for the same	
			Audio Specifications Minimum 100 dB SPL, 5ms latency, and 90 dBA or higher dynamic range.	95.74 Db SPL Dynamic Range 77.5 dB	Please amend for the same	
			Safety Certification UL 62368 certification, including UL 2043 testing and compliance.	MXA920-S is UL2043 rated (suitable for air handling spaces); UL 62368 certification not explicitly mentioned.	Compliance	



S. No.	BoQ Item Number/ Clause no./Page no.	BoQ Item Title/Clause	BoQ Item Description/Original clause	Changes Required/Clarifications requested Remarks		QCI response to pre-bid queries
3	31	Digital Wireless UHF handheld microphone set	Supply installation testing and commissioning of Digital Wireless UHF handheld microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2 240 selectable frequencies for fine tuning It should have auto scan feature for efficient connections to reduce time and effort It should have a minimum 100 meter transmission range It should have a Cardioid pick up pattern Sound pressure level SPL 150 dB or more System Latency 1 9 ms Dynamic range 130 dB and frequency response 20Hz 20000 Hz The microphone system can be controlled through ios by Android applications via bluetooth It should have 12 hours of operation life and more etc all complete as required	Supply installation testing and commissioning of Digital Wireless UHF handheld microphone set with Rack receiver having 44 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2 240 selectable frequencies for fine tuning It should have auto scan feature for efficient connections to reduce time and effort It should have a minimum 100 meter transmission range It should have a Cardioid pick up pattern Sound pressure level SPL 150 dB or <u>dynamic range of 118 dB</u> more System Latency 3.2 ms Dynamic range 118 dB and frequency response 20Hz 20000 Hz The microphone system can be controlled through ios by Android applications via bluetooth or RJ45 It should have <u>9</u> hours of operation life and more etc all complete as required	Highlighted in red one should be removed. Changing minor specifications will allow us to participate, that too without hampering the overall application.	Please refer to Corrigendum-1
			Switching Bandwidth≥56 MHz	44 MHz (region dependent)	Please amend for the same	
			Selectable Frequencies2240	Not specified	Please amend for the same	
			Sound Pressure Level (SPL)≥150 dB	147	Please amend for the same	
			System Latency≤1.9 ms	Latency 3.2 ms	Please amend for the same	
			Dynamic Range≥130 dB	118 dB	Please amend for the same	
			Operation Time≥12 hours	Up to 8 hours with 2 AA batteries; optional rechargeable battery available	Please amend for the same	



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4	32	Digital Wireless UHF lapel microphone	Supply installation testing and commissioning of Digital Wireless UHF lapel microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2 240 selectable frequencies for fine tuning It should have auto scan feature for efficient connections to reduce time and effort It should have min 100 meter transmission range It should have omni directional pick up pattern Sound pressure level SPL 130 dB or more System Latency 1.9 ms Dynamic range 130 dB and frequency response 20Hz 20000 Hz The microphone system can be controlled through ios by Android applications via bluetooth It should have 12 hours of operation life and more etc all complete as required	Supply installation testing and commissioning of Digital Wireless UHF lapel microphone set with Rack receiver having 44 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2 240 selectable frequencies for fine tuning It should have auto scan feature for efficient connections to reduce time and effort It should have a minimum 100 meter transmission range It should have a omni directional pick up pattern; System Latency 3.2 ms Dynamic range 118 dB and frequency response 20Hz-20000 Hz The microphone system can be controlled through ios by Android applications via bluetooth or RJ45 It should have 9 hours of operation life and more etc all complete as required	Highlighted in red one should be removed. Changing minor specifications will allow us to participate, that too without hampering the overall application.	Please refer to Corrigendum-1
			Switching Bandwidth≥56 MHz	44 MHz (region dependent)	Please amend for the same	
			Selectable Frequencies2240	Not specified	Please amend for the same	
			System Latency≤1.9 ms	Latency 3.2 ms	Please amend for the same	
			Dynamic Range≥130 dB	118 dB	Please amend for the same	
			Operation Time≥12 hours	Up to 8 hours with 2 AA batteries; optional rechargeable battery available	Compliance	



S. No.	BoQ Item Number/ Clause no./Page no.	BoQ Item Title/Clause	BoQ Item Description/Original clause	Changes Required/Clarifications requested Remarks		QCI response to pre-bid queries
5	33	Digital Wireless UHF Headset microphone	Supply installation testing and commissioning of Digital Wireless UHF Headset microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2 240 selectable frequencies for fine tuning It should have auto scan feature for efficient connections to reduce time and effort It should have min 100 meter transmission range It should have cardioid pick up pattern Sound pressure level SPL 150 dB or more System Latency 1.9 ms Dynamic range 130 dB and frequency response 20Hz 20000 Hz The microphone system can be controlled through ios by Android applications via bluetooth It should have 12 hours of operation life and more etc all complete as required	Supply installation testing and commissioning of Digital Wireless UHF headset microphone set with Rack receiver having 44 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with <b>2 240 selectable frequencies for fine tuning</b> It should have auto scan feature for efficient connections to reduce time and effort It should have a minimum 100 meter transmission range It should have a Cardioid pick up pattern Sound pressure level SPL 150 dB or <u>dynamic range of 118 dB</u> more System Latency 3.2 ms Dynamic range 118 dB and frequency response 20Hz 20000 Hz The microphone system can be controlled through ios by Android applications via bluetooth or RJ45 It should have <u>9</u> hours of operation life and more etc all complete as required	Highlighted in red one should be removed. Changing minor specifications will allow us to participate, that too without hampering the overall application.	Please refer to Corrigendum-1
			Switching Bandwidth≥56 MHz	44 MHz (region dependent)	Please amend for the same	
			Selectable Frequencies2240	Not specified	Please amend for the same	
			System Latency≤1.9 ms	Approximately 3.2 ms	Please amend for the same	
			Dynamic Range≥130 dB	118 dB	Please amend for the same	
			Operation Time≥12 hours	Up to 8 hours with 2 AA batteries; optional rechargeable battery available	Compliance	
6	34	Active Antenna Splitter	Supply installation testing and commissioning of Active Antenna Splitter with 2 X 14 or 1 X 18 active connections which work on 56 MHz Bandwidth and allow for up to 90 channels Supports Mobile App streamlines setup and operation and eliminates complicated menus Frequency range 470 between 694 MHz along with Automated setup creates reliable connections with minimal time and effort etc all complete as required	Supply installation testing and commissioning of Active Antenna Splitter with 2 X 1:4 or 1 X 1:8 active connections which work on <b>56 MHz Bandwidth</b> and <b>allow for up to 90 channels</b> Supports Mobile App streamlines setup and operation and eliminates complicated menus Frequency range 470 between 694 MHz along with Automated setup creates reliable connections with minimal time and effort etc all complete as required	Highlighted in red one should be removed. Changing minor specifications will allow us to participate, that too without hampering the overall application.	Please refer to Corrigendum-1



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7	35	Antenna booster	Supply installation testing and commissioning of Antenna booster which work on 56 MHz Bandwidth and allow for up to 90 channels Supports Mobile App streamlines setup and operation and eliminates complicated menus Frequency range 470 between 694 MHz along with Automated setup creates reliable connections with minimal time and effort etc all complete as required	Supply installation testing and commissioning of Antenna booster which work on <b>56 MHz Bandwidth and allow for up to 90 channels</b> (Should be as per microphones supplied by the OEM) Supports Mobile App streamlines setup and operation and eliminates complicated menus Frequency range 470 between 694 MHz along with Automated setup creates reliable connections with minimal time and effort etc all complete as required	Highlighted in red one should be removed. Changing minor specifications will allow us to participate, that too without hampering the overall application.	Please refer to Corrigendum-1
			Switching Bandwidth56 MHz or higher	Boost the Signal	Receiver Specs	
			Channel SupportUp to 90 channels	Depend upon Receiver	Receiver Controlled via App	
			Mobile App SupportRequired	N/A	Antenna Splitter Property	
			Frequency Range470–694 MHz	470–902 MHz	Manually Boost the Signal	
			Automated SetupRequired	Manual		
	36	Passive directional antenna	TypePassive Directional Antenna	Passive Directional Antenna	YES	Please refer to Corrigendum-1
			MountingBuilt-in 5/8" and 3/8" threads for easy mic stand mounting	5/8"-27 thread mount for microphone stand mounting	YES	
			Frequency Range470–694 MHz	470–952 MHz	Please amend for the same	
			Front-to-Back RatioGreater than 14 dB	Not specified	Please amend for the same	
8	38	Charging set with USB charge	Supply installation testing and commissioning of Charging set with USB charger and 2 rechargeable battery packs for handheld and bodypack transmitter It should charge 100Percentage battery power in ma X 3 hours charging time Ma Ximum operating time of 12 hours Stackable and charging is through USB C etc all complete etc all complete as required	Supply installation testing and commissioning of Charging set with USB or OEM standard charger and 2 rechargeable battery packs for handheld and bodypack transmitter It should charge 100 Percentage battery power in ma X 3 hours charging time Ma Ximum operating time of 9 hours <b>Stackable and charging is through USB C etc all complete</b> etc all complete as required	Highlighted in red one should be removed. Changing minor specifications will allow us to participate, that too without hampering the overall application.	Please refer to Corrigendum-1
			Operating TimeMinimum 12 hours	8 Hours	Please amend for the same	
			Charging InterfaceUSB-C	N/A		



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9	39	40 CM Gooseneck Shotgun Microphone	Supply installation testing and commissioning of 40 CM Gooseneck Shotgun Microphone with Hyper Cardioid pick up pattern Frequency Response 40 Hz between 20 kHz Nominal impedance 50 Ohm Sensitivity 18 mV by Pa Equivalent noise level 23 dB A with a table stand base with a programmable microphone button Toggle on by off PTM PTT and permanent on and a bi color LED ring for status indication along with XLR 3 connector etc all complete as required	Supply installation testing and commissioning of 40 CM Gooseneck Shotgun Microphone with Hyper Cardioid or Cardioid pick up pattern Frequency Response 50 Hz between 17 kHz Nominal impedance 150 Ohm Sensitivity 17.8mV by Pa Equivalent noise level 29 dB A with a table stand base with a programmable microphone button Toggle on by off PTM PTT and permanent on and a red color LED ring for status indication along with XLR 3 connector etc all complete as required	Changing minor specifications will allow us to participate, that too without hampering the overall application.	Please refer to Corrigendum-1
			Microphone Length 40 cm	45.7 cm (18 inches)	Please amend for the same	
			Polar Pattern Hypercardioid	Cardioid	Please amend for the same	
			Frequency Response 40 Hz – 20 kHz	50 Hz – 17 kHz	Please amend for the same	
			Nominal Impedance 50 Ω	180 Ω	Please amend for the same	
			Sensitivity 18 mV/Pa	17.8 mV/Pa		



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10	40	Wireless Access Point	Supply installation testing and commissioning of Wireless Access Point supports the following functions and capabilities Based on standard WiFi5 standard IEEE802 11ac Clean channel manager that scans for the optimal channel use Operates in the limited access DFS channels ma Ximizing the available spectrum Support upto 128 or more wireless devices 3 X 2 MIMO antenna design with diversity to mitigate multipath effect resulting in robust wireless link Omni directional radiation pattern with range of 40m or more Highly secure by using WPA2 enterprise encryption Browser based configuration and monitoring software included Device discovery by physical button on WAP or via integrated web based software Self healing channel switching seamlessly switches to another channel when interference encountered or radar is detected on DFS channel Battery remaining meeting time visualization and low battery warning Audio routing for e Xternal processing or distance conferencing Camera protocols providing device information to integrate 3rd party camera control systems Mi X Minus mode Dante port 1 X Dante port 8 X 8 channels Balanced analog IN and OUT Recording capabilities internal 4GB or e Xternal storage upto 500GB and file download MP3 Number of open microphones interpretation channels 6 or more Latency 16 ms Audio 48 kHz by 24 bit Frequency response 20 20 kHz THD 22-22000 Hz < 0 02 Percentage Dynamic range greater than 90 dB Signal to noise ratio greater than 95 dBA RF frequency bands 2 4 Ghz by 5 GHz or better Multi purpose mounting plate Certification CE PoE plus power adapter comes with power plug set etc all complete as required	Supply installation testing and commissioning of Wireless Access Point supports the following functions and capabilities Based on standard WiFi5 standard IEEE802 11ac Clean channel manager that scans for the optimal channel use Operates in the limited access DFS channels ma Ximizing the available spectrum Support upto <u>125</u> or more wireless devices <b>3 X 2 MIMO antenna design with diversity to mitigate multipath effect resulting in robust wireless link</b> Omni directional radiation pattern with range of 40m or more Highly secure by using WPA2 enterprise or <u>AES 128</u> encryption; Browser based configuration and monitoring software included Device discovery by physical button on WAP or via integrated web based software Self healing channel switching seamlessly switches to another channel when interference encountered or radar is detected on DFS channel Battery remaining meeting time visualization and low battery warning Audio routing for e Xternal processing or distance conferencing Camera protocols providing device information to integrate 3rd party camera control systems Mi X Minus mode Dante port 1 X Dante port 8 X 8 channels; Balanced analog IN and OUT Recording capabilities internal or external 4GB or external storage upto 500GB <b>and file download MP3</b> Number of open microphones <b>interpretation</b> channels 6 or more Latency 16 ms Audio 48 kHz by 24 bit Frequency response 20 20 kHz THD 22 22000 Hz < 0 02 Percentage Dynamic range greater than 90 dB Signal to noise ratio greater than 95 dBA RF frequency bands 2 4 Ghz by 5 GHz or better Multi purpose mounting plate Certification CE PoE plus power adapter comes with power plug set etc all complete as required	Highlighted in red one should be removed. Changing minor specifications will allow us to participate, that too without hampering the overall application.	Please refer to Corrigendum-1
			Device SupportSupports up to 128 or more wireless devices	Controls up to 125 MXCW640 wireless conference units	Please amend for the same	
			Antenna Design3x2 MIMO with diversity	Not specified	Please amend for the same	



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			SecurityWPA2 Enterprise encryption	AES-128 encryption for enhanced privacy	Please amend for the same	
			Battery MonitoringVisualization of remaining meeting time and low battery warning	Not specified	Please amend for the same	
			Recording CapabilitiesInternal (4GB) or external (up to 500GB) storage with MP3 download	N/A	YES	
			Interpretation Channels6 or more open microphones	Maximum number of active microphones: 8	Please amend for the same	
			SNR>95 dBA	NA	Compliance	
11	41	Tabletop wireless conference unit	Supply installation testing and commissioning of Tabletop wireless conference unit for Chairman by Delegate with removable microphone capability Multifunctional button for Chairman by Delegate Button for request to speak and priority functionality when unit is configured as chairperson or dual delegate by two request to speak functions button compatibility Built in high quality loudspeaker minimum 1W or better Frequency Response 200 20 000 Hz or better Speaker shall automatically muted when the microphone is active to prevent acoustic feedback Unit provides information used by the clean channel manager for frequency coordination and interference avoidance Dual antenna for optimized signal reception even in challenging and high RF reflective environments Supports WIFI5 WPA2 enterprise encryption Push and Lock USB C type microphone connector Dual 3 5 mm stereo jack sockets for headphones with single volume control Hot swap capable dual battery compartment Option for power the units via USB C adapter Rechargeable lithium Ion battery with long hours backup of 12hrs on single charge included Certification CE; BIS etc all complete as required	Supply installation testing and commissioning of Tabletop wireless conference unit for Chairman by Delegate with removable microphone capability Multifunctional button for Chairman by Delegate Button for request to speak and priority functionality when unit is configured as chairperson or dual delegate by two request to speak functions button compatibility Built in high quality loudspeaker minimum 1W or better Frequency Response 200 20 000 Hz or better Speaker shall automatically muted when the microphone is active to prevent acoustic feedback Unit provides information used by the clean channel manager for frequency coordination and interference avoidance Dual antenna <u>or in-built antenna</u> for optimized signal reception even in challenging and high RF reflective environments Supports WIFI5 WPA2 enterprise encryption <u>or AES 128</u> Push and Lock USB C type microphone connector <u>or as per OEM</u> Dual 3 5 mm stereo jack sockets for headphones with single volume control <b>Hot swap capable dual battery compartment</b> Option for power the units via USB C adapter Rechargeable lithium Ion battery with long hours backup of <u>11hrs</u> on single charge included Certification CE; BIS etc all complete as required	Highlighted in red one should be removed. Changing minor specifications will allow us to participate, that too without hampering the overall application.	Please refer to Corrigendum-1
			Antenna SystemDual antenna for optimized signal reception	N/A	YES	
			Wireless StandardWi-Fi 5 (IEEE 802.11ac)	Supports 2.4 GHz / 5 GHz Wi-Fi operation		
			SecurityWPA2 Enterprise encryption	AES-128 encryption for secure communication	Please amend for the same	



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			Microphone ConnectorPush & Lock USB-C type	Modular gooseneck microphone connection (Shure MXC-series)	YES	
			Headphone OutputDual 3.5mm stereo jack sockets with single volume control	Dual headphone outputs with individual volume control	YES	
			Battery SystemHot-swappable dual battery compartment	Supports Shure SB930 rechargeable battery (hot-swappable)	RECHARGABLE BATTERY	
			Power OptionsUSB-C adapter power option	Supports PoE power or rechargeable battery, but no USB-C input	Please amend for the same	
			Battery Backup12 hours minimum	Up to 11 hours (may vary by usage)		
			CertificationsCE, BIS, etc.	CE-certified		
12	42	Short Stem Removable 98MM	Supply installation testing and commissioning of Short Stem Removable 98MM microphone is equipped with USB C based push and lock connector Microphone Size 97 × 33 × 33 mm Polar Pattern Cardioid Ma X SPL at the rate 1kHz 105 dB SPL or better Signal to noise ratio referred to 1 Pa 74 dB or better Sensitivity at the rate 1 kHz 35 dBV by Pa or better Frequency response 125 to 15000 Hz or better Microphone with Ring Indicator to light up Red when active and Green when in Request USB C based microphone connector Connection Push and Lock Certification CE etc all complete	Supply installation testing and commissioning of Short Stem Removable 98MM or more microphone is equipped with USB C based push and lock connector or as per OEM, <b>Microphone Size 97 × 33 × 33 mm</b> Polar Pattern Cardioid Ma X SPL at the rate 1kHz 105 B SPL or better Signal to noise ratio referred to 1 Pa <b>68dB</b> or better Sensitivity at the rate 1 kHz 35 dBV by Pa or better Frequency response 125 to 15000 Hz or better Microphone with Ring Indicator to light up Red when active and Green when in Request USB C based microphone connector Connection <u>or as per OEM</u> Push and Lock Certification CE etc all complete	Highlighted in red one should be removed. Changing minor specifications will allow us to participate, that too without hampering the overall application.	Please refer to Corrigendum-1
			Microphone TypeShort Stem Removable 98mm Microphone	Removable short-stem gooseneck microphone	Please amend for the same	
			Connector TypeUSB-C push and lock	NO	Please amend for the same	
			Microphone Size97 × 33 × 33 mm	NO		



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13	43	Audio License	Supply installation testing and commissioning of Advanced Audio License with the following functions and capabilities Create new custom configurations Activate a prepared audio configuration Edit duplicate and delete a configuration Switch between existing configurations Visualize the various routing groups as a matrix Set routing options Manage all inputs and outputs au Xiliary and Dante levels Set mi X minus and number of mi X minus groups Route translation channels to Dante Select microphones or loudspeakers as always active for user input and output groups in complete	Supply installation testing and commissioning of Short Stem Removable 98MM microphone is equipped with USB C based push and lock connector Microphone Size 97 × 33 × 33 mm Polar Pattern Cardioid Ma X SPL at the rate 1kHz 105 dB SPL or better Signal to noise ratio referred to 1 Pa 74 dB or better Sensitivity at the rate 1 kHz 35 dBV by Pa or better Frequency response 125 to 15000 Hz or better Microphone with Ring Indicator to light up Red when active and Green when in Request USB C based microphone connector Connection Push and Lock Certification CE etc all complete		No Changes <b>RFP conditions shall remain unchanged</b>
14	1	LED Video Wall Screen	Supply installation testing and commissioning of Direct View LED Video Wall Screen 136 LED Wall AIO screen with 1.58 mm pitch and floor stand from same OEM in 16:9 aspect ratio with diecast aluminium cabinets Minimum Resolution Full HD by 1920 X1080 or better with controller inbuilt and sound of 30Watts Minimum inputs combination of 2 X HDMI 2.0 1 X DP 4 X USB Sound Out for speakers Rs232 by LAN for ethernet Ma X Brightness 600 nits or better with HDR Refresh rate 3840 Hz or better Contrast 10 000:1 or better 160 X 160 Viewing Angle Colour Temperature 3000 to 10000 Adjustable or more Brightness Uniformity 97Percentage or better Inbuilt OS Windows by Android by Tizen by WebOS with inbuilt speakers remote controller Standby power mode supported to save energy and Ma X load should not be more than 1.5KW with Plug and play power cable Smart features like signedge inbuilt wireless mirroring etc with mounting arrangement etc all complete as required	Direct View LED Video Wall Screen 136 LED Wall AIO screen with 1.56 (+/-5%) mm pixel pitch , Brightness 500 nits or more , Speakers Built-in (9 W + 9 W), Color Temperature 3,200 - 9,300 K or more,	Yes	Please refer to Corrigendum-1



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27	Clause no 4 ,page no 7	Eligibility Criteria	Standards/Certifications/Memberships InfoComm International (AVIXA) Membership: The bidder should be an active member of InfoComm International (now AVIXA), demonstrating commitment to AV industry	We intent to participate in your valuable tender as prospective bidder we would request you to remove this Infocomm international membership is not asked in any of Domestic tender it is restricting us to participate in your valuable tender, hence we would request you to remove this certification	Request to remove the certification for larger participation.	Please refer to Corrigendum-1
28	Clause no 24 page no. 14	Clause no 24 page no. 14	Earnest Money Deposit (EMD)/Bid Security: Bidders shall submit, along with their Bids, Bid Security (EMD) of INR 14 lakhs	We would request to accept EMD in the form of Bank Guarantee in lieu of demand draft Or Deposit through RTGS/NEFT	Kindly amend the EMD clause allow to Bank Guarantee in lieu of demand draft Or Deposit through RTGS /NEFT. For larger participation	Please refer to Corrigendum-1
29	Page 9 V. TERMS AND CONDITIONS "Contract duration"	Page 9 V. TERMS AND CONDITIONS "Contract duration"	comprising 2 calendar months for supply and installation	Extension of Delivery & Installation period 3 calendar Months	considering the quantum of work and collaboration required for the SITC for quality work, we request to kindly reconsider and extend the delivery period to 90 Calendar days	RFP conditions remain unchanged.
30	Page 11 V. TERMS AND CONDITIONS "Contract duration"	Page 11 V. TERMS AND CONDITIONS "Contract duration"	Warranty is of 3 Years after completion of work.	Please clarify DLP period	DLP Months and warranty is 3 years	DLP period shall commence from the date of issuance of completion certificate and will be for a period of 12 months. Warranty will also commence from the date of issuance of completion certificate for a period of 3 years, which will cover the DLP period of 12 months.
31	Page NO 7 Standards	Page NO 7 Standards/ Certification	ISO 45001 or higher,	Is 45001 mandatory?	As per ISO Standards ISO 27001 supersedes the other mentioned certificates hence	RFP conditions remain unchanged.



S. No.	BoQ Item Number/ Clause no./Page no.	BoQ Item Title/Clause	BoQ Item Description/Original clause	Changes Required/Clarifications requested Remarks		QCI response to pre-bid queries
	/Certifications/ Memberships	s/ Memberships			only ISO 27001 can be accepted.	
32	Page 14 Clause 25 of TERMS AND CONDITIONS Exemption of EMD for MSEs/ Startups applicant	Page 14 Clause 25 of TERMS AND CONDITIONS Exemption of EMD for MSEs/ Startups applicant	"Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) and Startups as recognized by Department for Promotion of Industry and Internal Trade (DPIIT)" are exempted from submission of EMD (Bid security) in this tender	Clarification Regarding EMD Exemption	As per our understanding MSEs with DPIIT Certificate are exempted from EMD	Micro and Small Enterprises with major activity as Services or Manufacturing, and Startups recognised by DPIIT are exempted from payment of EMD. PI refer Sub-Clause 25: Exemption of EMD for MSEs/ Startups applicant under Clause V. TERMS AND CONDITIONS
33	-	General Query	--	Since many of items are passive items so as per our understanding MAF is not required all such kind of items	Please confirm	For Passive Item Like cabling & Mounting MAF may be Exempted.
34	Page no. 57	In ATC: Annexure C,	-	you have shared the product OEM. Kindly confirm if we can opt for an equivalent OEM instead since Many of the manufacturers listed are from other countries.	Kindly confirm	Can participate. Kindly refer Clause II - SCOPE OF WORK AND DELIVERABLES of the RFP.

**Reference No. QCI/WTC/AV/0225/416**

**Request for Proposal  
for  
Design, Engineering, Supply, Installation, Testing and Commissioning of  
AV systems at QCI Office, WTC, Nauroji Nagar, New Delhi**



Quality Council of India (QCI),  
2<sup>nd</sup> Floor, Institution of Engineers Building  
2, Bahadur Shah Zafar Marg, New Delhi – 110002  
T: +91-11-23378056 / 57; F: +91-11-23378678  
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## Tender Notice

1. Quality Council of India invites proposals for **“Design, Engineering, Supply, Installation, Testing and Commissioning of AV systems at QCI Office, WTC, Nauroji Nagar, New Delhi”**.
2. The content of this RFP enlists the requirements of Quality Council of India. It includes the Bidding Terms & Conditions which details out all that may be needed by the potential bidders to understand the financial terms and bidding process and explain the contractual terms & Conditions that the Quality Council of India wishes to specify at this stage.
3. The prospective Bidders are invited to submit a “Technical Bid” and “Financial Bid” for the package. Methodology for submission of Bid has been detailed hereunder in this document. The Bidder is expected to examine all instructions, forms, terms, conditions, specifications and other information in the bidding documents. Failure to furnish all information required as per the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidder’s risk and may result in rejection of its bid. The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the QCI shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process. After the submission of the proposal according to the instructions provided in the sections below, the bids will be evaluated through a two-bid system.
4. The Documents to be submitted:
  - A. The “Technical Bid” shall contain the following:
    - i. Duly filled, signed and stamped Form-1, 2, 3, 4, 5, and 6 attached under Annexure-A
    - ii. EMD details (Bid security as per RFP)
    - iii. List of supporting documents as mentioned in Clause III: Eligibility Criteria.
    - iv. Bid Specific Manufacturer’ s Authorization Form (MAF) from OEMs as per **Form 6 of Annexure A**.
    - v. Item compliance sheet to be signed by authorised signatory – **no price/rate shall be mentioned in the item compliance sheet/Non-compliance to this will be liable for rejection.**
    - vi. Any other details that the bidder may like to provide.
  - B. The “Financial Bid” shall contain the following:
    - i. The bidder should submit the proposal as per the Annexure B through online mode only in relevant sections in GeM Portal (<https://gem.gov.in>)
    - ii. Taxes should be included in the above proposal.
5. The bidder shall submit the proposals online through GeM Portal (<https://gem.gov.in>) as per the date and time mentioned in the GeM portal. It is the responsibility of the bidder to submit the bid before the last date and time on the online portal, and QCI shall not be responsible for any delay due to any of the technical/server issues.
6. The bidder shall submit the Proposal in the form and manner specified in this RFP. Bid proposals received in the manual form at the QCI’s Office address will not be accepted.

Note –

1. The Technical bid should not include any information related to the Financial Bid. If any information related to the Financial Bid is contained in the Technical Part the Bid, the bid shall be declared non-responsive.
2. The bidder shall furnish a letter of bid for financial part, mentioning the total price, applicable taxes and duties, any commission/ hidden charges, discounts, etc.
3. Joint Ventures/Consortium participation are not allowed in this bid.

## Tender Summary

S. No.	Item	Details
1	Project Scope	Design, Engineering, Supply, Installation, Testing and Commissioning of AV systems at QCI Office, WTC, Nauroji Nagar, New Delhi
2	Pre-Bid meeting	As per GeM portal
3	Contract Duration	<ul style="list-style-type: none"> <li>• Delivery of items at site: 45 days</li> <li>• Installation, Testing and Commissioning: 15 days</li> </ul> <b>Total Contract Period: 60 days (SITC) + 12 months DLP</b>
4	Defects Liability Period	12 Calendar Months
5	Type of Bid	Two Packet Bid
6	Earnest Money Deposit	₹ 14 lakhs
7	Last Date for Submission of Bid	As per GeM portal
8	Performance Security	5% of the contract value
9	Pre-bid Queries	To be submitted to <a href="mailto:procurement@qcin.org">procurement@qcin.org</a> as per format given in Annexure-A within 1 day from the date of conducting of pre-bid meeting.
10	Bid validity	120 days from the date of closing of bid

## I. INTRODUCTION

### Quality Council of India (QCI)

The Quality Council of India (QCI) is a pioneering experiment of the Government of India in setting up organizations in partnership with the Indian industry. The mandate of QCI is to lead nationwide quality movement in India by involving all stakeholders for emphasis on adherence to quality standards in all spheres of activities primarily for promoting and protecting interests of the nation and its citizens. To achieve this, QCI is playing a pivotal role in propagating, adoption and adherence to quality standards in all important spheres of activities including education, healthcare, environment protection, governance, social sectors, infrastructure sector and such other areas of organized activities that have significant bearing in improving the quality of life and well-being of the citizens of India.

To achieve this, QCI is playing a pivotal role in propagating, adoption and adherence to quality standards in all important spheres of activities including education, healthcare, environment protection, governance, social sectors, infrastructure sector and such other areas of organized activities that have significant bearing in improving the quality of life and well-being of the citizens of India.

It functions through its five constituent Boards and Project Implementation Divisions to establish National Accreditation Programme and Third-Party Assessment models with an aim to improve the quality ecosystem of the nation.

## II. SCOPE OF WORK AND DELIVERABLES

The scope of work covered in this tender shall be as per the BOQ, specifications, drawings, instructions, orders issued to the vendor from time to time during the execution of work. The total area where the work needs to be undertaken is 67,868 sq. ft. approx.

Floor	Carpet Area
QCI Office	(sq. ft.)
Tower K – 1 <sup>st</sup> floor	Approx. 17,991
Tower K - 2 <sup>nd</sup> floor	Approx. 17,991
Tower J - 2 <sup>nd</sup> floor	Approx. 21,592
Tower J - 3 <sup>rd</sup> floor	Approx. 10,294

- 1. The Contract Period:** The contract will be valid for a total of **14 calendar months**, comprising of **2 calendar months** for supply and installation, followed by **12-calendar months for defects liability period**. The contract period may be extended, subject to satisfactory performance of the vendor on the same terms & conditions and the requirements of QCI.
- 2. Defects Liability Period:** The Defect Liability Period shall be **12 calendar months** starting from the date of issuance of the Completion Certificate. The Vendor shall promptly rectify/repair/replace all defects and deficiencies observed by the QCI Authorised Person during the Defects Liability Period within a period of 7 (seven) business days from the date of notice issued by QCI Authorised Person. The costs of rectify/repair/replace of all defects shall be borne solely by the Vendor. If the vendor fails to rectify/repair/replace the defect(s) deficiency(ies), within the specified time as above, the work should be redone or rectified through another agency, or departmentally by employing skilled labourers, at the vendor's cost. However, the penalty shall be imposed not to adhere the specified time for rectification/repair/replacement of the defect @ 1.5 times of the total cost incurred for the rectification/repair/replacement of the work/defect and the same shall be deducted from the final bill.
- 3.** All bidders, whether Original Equipment Manufacturers (OEMs), authorized resellers, or local suppliers, must strictly adhere to the specifications detailed in the technical specifications section of the RFP. Any deviation from these specifications will not be acceptable. The list of approved makes or materials outlined in the RFP serves as base guideline for the project and is not exhaustive.

OEMs fulfilling the requirements as per the technical specifications and equivalent quality standards, which is not listed above can participate in the bid. However, QCI reserves the right to choose any of the mentioned makes or any other preferred equivalent makes.

4. Upon receipt of drawings after award of work, Vendor shall prepare shop drawings wherever necessary and get it approved by the Authorised QCI representative prior to execution of work.

### III. ELIGIBILITY CRITERIA

S. No.	Basic Requirements	Specific Requirements	Documents Required
1	Legal Entity	The Bidder(s) interested in participating in the Selection Process must be a duly registered legal entity in India, under any one of the following categories: - <ul style="list-style-type: none"> <li>A Limited Liability Partnership ("LLP") registered under the LLP Act, 2008;</li> <li>an Indian Company ("Company") registered under the Companies Act, 1956/ 2013;</li> <li>a "Partnership Firm" registered under the Indian Partnership Act, 1932;</li> </ul>	Registration documents of the Bidder as a company/firm or any legal entity along with: <ol style="list-style-type: none"> <li>Incorporation Certificate of the company</li> <li>PAN Card of the registered legal entity</li> <li>Certified copy of registered Partnership Deed; copy of Statement filed in the Register of Firms disclosing names, addresses and relevant details of ALL partners of the Partnership Firm</li> <li>MSME Certificate (for MSME firms)</li> </ol> Any other supporting document, as may be required
2	Statutory Registration	Applicants must possess EPF, ESI, Service Tax and Valid GST Registrations.	Copies of EPF, ESI, GST registration to be submitted along with the bid.
3	OEM/Authorized resellers/system integrators or suppliers	Bidder should be Original Equipment Manufacturers (OEMs) & Manufacturers, or Authorized resellers / suppliers of the Manufacturers.	<ol style="list-style-type: none"> <li>For resellers/suppliers: Proof of registration with OEM AND Proof of authorization from OEM/ Manufacturers to be submitted along with the bid.</li> <li>For OEMs: Declaration of being an OEM</li> </ol>
4	Standards/Certifications/ Memberships	Bidder should possess the following certifications/memberships: <ol style="list-style-type: none"> <li><b>ISO Certifications:</b> Bidder should hold valid certifications of ISO 9001, ISO 14001, ISO 45001 or higher, AND</li> <li><b>InfoComm International (AVIXA) Membership:</b> The bidder should be an active</li> </ol>	<ol style="list-style-type: none"> <li>Copies of valid <b>ISO</b> certificates issued by an accredited certification body.</li> <li>A current membership certificate or letter from <b>AVIXA</b> confirming active membership status, or a screenshot of the company's member profile from the AVIXA website.</li> </ol>

		<p>member of InfoComm International (now AVIXA), demonstrating commitment to AV industry standards and best practices, and</p> <p><b>3. Energy Star Certification:</b> Bidder should be able to supply Energy Star certified AV equipment where applicable, demonstrating commitment to energy efficiency.</p>	<p>iii. A letter of commitment stating the bidder's ability and intention to supply <b>Energy Star</b> certified equipment where applicable, or Product catalogues or specification sheets highlighting Energy Star certified AV equipment that the bidder intends to use in the project.</p>
5	Financial Turnover and Net worth	<ul style="list-style-type: none"> <li>The bidding entity must have minimum average annual turnover of ₹ 25 crores or more in the last three financial years (i.e., 2021-22, 2022-23 and 2023-24).</li> <li>Bidder should have positive net worth as on 31st March 2024</li> </ul> <p><b><i>*The Turnover values displayed above shall prevail and supersede the turnover value displayed in the GeM Bid.</i></b></p>	<p>i. Audited Financial Statements of FYs 2021-22, 2022-23 and 2023-24; or</p> <p>ii. Turnover certificate by CA (original) with FRN Number and UDIN Number for FYs 2021-22, 2022-23 and 2023-24, AND</p> <p>iii. Certificate by CA (original) with FRN Number and UDIN Number showcasing positive net worth as on 31<sup>st</sup> March 2024</p>
6	Existence of firm in similar projects	The bidder should be in the business of implementing AV & Video Conferencing Solution for at least <b>05 (Five) years</b> as on Proposal Due Date.	Copies of letter of award/ work order/ experience certificate of similar projects OR CA certified certificate depicting the experience of the firm in the last 5 years.
7	Project Experience	<p>The Bidder must have successfully completed/executed <i>Similar services*</i> related to supply and installation of AV items with any Central / State Govt Organization / PSU / Statutory / Autonomous Organization / Public Listed Company/ Private organizations of repute in the preceding <b>five</b> financial years (i.e. 2019-20, 2020-21, 2021-22, 2022-23 and 2023-24) for work order value of:</p> <ul style="list-style-type: none"> <li>at least 03 (three) completed projects/</li> </ul>	Copies of Work Orders/ Letter of Awards/ Contract / Work Completion Certificates issued by Client on client's letterhead, signed and stamped.

		<p>contracts with each project/ contract having a minimum contract value of <b>₹ 2.64 crores</b> or more, OR</p> <ul style="list-style-type: none"> <li>at least <b>02 (two)</b> completed projects/ contracts with each project/ contract having a minimum contract value of <b>₹ 3.3 crores</b> or more, OR</li> <li>at least <b>01 (one)</b> completed project/ contract with each project/ contract having a minimum contract value of <b>₹ 5.5 crores</b> or more</li> </ul> <p>*The definition of “Similar Services” for the above stated work is as below: Similar services mean <b>contracts involving the Design, Supply, Installation, Testing and Commissioning of Integrated Audio-Visual Systems for Corporate Environments</b></p>	
8	Local content declaration	Bidder should be Class-I or Class-II Local supplier as per MII order compliance.	Bidder to submit local content declaration on their letterhead signed and stamped for this bid.
9	Non-Blacklisting declaration	The bidder shall not have been blacklisted by any central or state government agency, PSU etc. in the last 5 years preceding the proposal due date.	As per format in <b>Form 4 of Annexure-A</b> signed and stamped on company letterhead.

#### IV. METHOD OF EVALUATION

- The evaluation will be based on two- bid system for award for work to the successful bidder.
- In evaluation first eligibility of the bidders will be examined as technical bid evaluation.
- Only technically qualified bidders will be considered for opening and evaluation of price bid.
- The final evaluation will be based on Lowest Cost System (LCS).

#### V. TERMS AND CONDITIONS

- Contract duration:** The contract will be valid for a total of 14 calendar months, comprising 2 calendar months for supply and installation, followed by a 12-calendar month for defects liability period. The contract period may be extended, subject to satisfactory performance of the vendor on the same terms & conditions and the requirements of QCI.

2. The QCI reserves the right to reject any or all the tenders received without assigning any reason. The acceptance of a tender shall be effective w.e.f. the date on which the letter of intent of acceptance of the tender is put in the communication by the QCI.
3. **Mobilization of Men, Materials and Machinery:** All expenses towards mobilization at site and de-mobilization including bringing in equipment, work force, materials, dismantling the equipment, clearing the site etc. shall be deemed to be included in price quoted and no separate payment on account of such expenses shall be entertained.
4. The rates quoted by the tenderer shall be firm and fixed for the entire period of completion and till handing over of the work. No revision to rates or any escalation shall be allowed on account of any increase in price of materials, labour, POL and overheads etc or any other statutory increase during the entire contract period.
5. **Technical Staff for Work:** The vendor shall employ at his own cost the adequate number of technical and other staff during the execution of this work depending upon the requirement of work.
6. **Training of personnel:** After Go-live of the deliverables as per the RFP, vendor is required to impart training to the nominated personnel of QCI along with submission of presentation report, separately for the IT Team and End Users. The training will be comprising of two stages:
  - a) **Training for the IT team:** This training is likely more technical and in-depth, focusing on:
    - System architecture and infrastructure.
    - Hardware and software components.
    - Network configuration and integration.
    - Troubleshooting and maintenance procedures.
    - Security protocols and best practices.
    - System administration and management tools.
  - b) **Training for end users of all installed systems:** This training is typically more user-oriented, covering:
    - Basic operation of AV equipment (e.g., displays, microphones, cameras etc.).
    - How to start and join meetings or presentations.
    - Using collaboration software and tools.
    - Basic troubleshooting for common issues.
    - Best practices for optimal system use.
    - Any specific features or workflows relevant to QCI.
7. **Employment of Personnel:** The vendor shall employ only Indian Nationals as his representatives, servants and workmen after verifying their antecedents and loyalty. He shall ensure that no personal of doubtful antecedents and any other nationality in any way is associated with the works. Vendor will need to submit an undertaking to this effect before start of works. QCI shall have full power and without giving any reason to the vendor, to immediately remove any representative, agent, servant and workmen or employee on account of misconduct negligence or incompetence or whose continued employment may in their opinion be undesirable. The vendor shall not be allowed any compensation on this account.
8. **No Idle Charges towards Labour or P&M etc.:** No idle charges or compensation shall be paid for idling of the vendor's labour, staff or P&M etc. on any ground or due to any reason whatsoever. QCI will not entertain any claim in the respect.

9. **Work to be executed in accordance with Specifications, Drawings, Orders etc.:** The vendor shall execute the whole and every part of the work in the most substantial and workman like manner both as regard materials and otherwise in every respect in strict accordance with the specification. The vendor shall also conform exactly, fully and faithfully to the design, drawings and instructions issued in respect to the work assigned by the QCI Authorised Person.
10. **Schedule of Rates:** The quantities shown against the various items of work are only approximate quantities which may vary as per the actual requirement / measurement at site.
11. **Materials and Samples:** The materials / products used on the work shall be of approved make/brands out of list of approved makes given in the tender document. In exceptional circumstances, or in case if any items whose make is not listed, QCI Authorised Person may allow alternate equivalent makes / brands of products / materials, the replaced/alternate materials used shall have same or richer specifications to the original materials and compatible to the work at his sole discretion. However, the vendor has to submit the request to QCI at least 7 days in advance for the same. The final choice of brand/ make shall remain with the QCI Authorised Person, whose decision in the matter shall be final and binding and nothing extra on this account shall be payable to the vendor.
12. **Warranty:**
- i. The vendor must provide OEM Warranty certificates for the items as per the technical specifications/BOQ in the name of QCI for all the items.
  - ii. The agency has to produce Manufacturer Test Certificates (MTC), Warranty Certificates/Invoices for material/equipment supplied for certification and approval. The warranty of all the items should be transferred to QCI as a part of the handover of the site.
  - iii. The warranty period shall commence for a minimum period of **3 years** from the date of issuance of completion certificate.
13. **Care of Works:** From the commencement to the completion of the works including handing over to the QCI, the vendor shall take full responsibility for the care thereof and all temporary works and in case any damage loss or injury shall happen to the works or to any part thereof or to any temporary works due to lack of precaution / negligence on part of vendor, the same shall be made good at his own cost.
- i. Care shall be taken by the vendor during execution of the work to avoid damage to the building and adjacent buildings.
  - ii. They shall also be responsible for repairing all such damages and restoring the same to the original finish at their cost.
  - iii. They shall also remove all unwanted and waste materials arising out of the execution of work from the site from time to time.
14. **Compensation for Delay and Remedies:** If the vendor fails to maintain the required progress in terms of relevant clause of contract, to complete the work and clear the site on or before the Completion date or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to the Govt. on account of such breach, pay as agreed compensation the amount calculated at the rate stipulated below or such amount as the QCI Authorised Person (whose decision in writing shall be final and binding) may decide on the amount of tendered value of the work for every complete day /week (as applicable) that the progress work remains incomplete.

15. **Defects Liability Period:** The vendor shall be responsible for the rectification of defects in the works for a period of **12 calendar months** from the date of taking over of the works by the QCI. Any defects discovered and brought to the notice of the vendor shall be attended to and rectified, by the vendor at his own cost and expense.

**The scope of the defect liability will be as under (as applicable):**

S. No	SLA Parameters	Description	Response Time
1	Duration	Defect Liability Period duration	12 months from successful commissioning and handover
2	Remote Support	Off-site assistance for issue resolution	24/7 for critical and high priority issues on immediate basis
3	On-site Support	Physical presence for issue resolution	Within 24 hours when required
4	Critical Issues	Severe problems affecting core business operations	Within 2 hours (onsite) Immediate (Remote)
5	High Priority Issues	Significant issues impacting multiple users or departments	Within 4 hours (onsite) 1hour (Remote)
6	Medium Priority Issues	Issues affecting a limited number of users or non-critical functions	Within 8 business hours (onsite) 02 hours (Remote)
7	Low Priority Issues	Minor issues with minimal impact on operations	Within 24 business hours
8	Preventive Maintenance	Regular system checks and updates	Quarterly
9	Spare Parts Availability	Provision of critical replacement components	Within 24 hours
10	Documentation	Recording of all changes, fixes, and updates	Monthly reports
11	Escalation Matrix	Defined process for issue escalation	Immediate access to contact details
12	Penalty Clause	Financial consequences for SLA breaches	As per agreed terms
13	Review Meetings	Assessment of SLA performance and system health	Monthly
14	End of Period Inspection	Final comprehensive system check	One month before end of defect liability period

**Note:** The above list is illustrative for works, however the same is not exhaustive and the decision of QCI Authorized Person would be final and binding in this regard.

16. **Precautions to avoid any nuisance to the neighbourhood / surrounding:** All the necessary precautions will need to be taken during the implementation of the project (either during day or night), to avoid any nuisance or any harm causing to the neighbourhood/surrounding areas of proposed construction site. No complaint should arise by the neighbourhood /occupiers of other office in the building, during the development work by vendor or any of the persons directly or indirectly related to the site work. In case of any such conditions the vendor shall be fully responsible for the consequences & settlement.
17. **Fair Wage Clause:** The vendor shall not pay less than fair wages/minimum wages to labourers engaged by him on the work as revised from time to time by the Government.
18. **Safety of Workers:** Ensuring safety of workers at time of execution of work shall be the responsibility of the bidder. QCI has no obligation or responsibility towards any individual in any such case or situations. The bidder must have and maintain valid and keep in force insurance policies accidents, public liability, professional indemnity, worker's compensation required by law.

The bidder shall provide personal protective equipment like helmet, face shield, gloves, safety shoes, etc., of standard make acceptable, to all the employees at their cost.

19. **Technical Data sheet:** Before initiation of inspection of material, the vendor should submit a Technical Data sheet for approval of QCI Authorised person.
20. **Authenticity of Equipment:** The selected bidder shall certify that the supplied goods are brand new, genuine/ authentic, not refurbished, conform to the description and quality as specified in this bidding document and are free from defects in material, workmanship and service. If during the contract period, the said goods be discovered counterfeit/ unauthentic or not to conform to the description and quality aforesaid or have determined (and the decision of the QCI Authorised person in that behalf will be final and conclusive), notwithstanding the fact that the QCI may have inspected and/ or approved the said goods, the QCI will be entitled to reject the said goods or such portion thereof as may be discovered not to conform to the said description and quality. The selected bidder shall, if so called upon to do, replace the goods etc., or such portion thereof as is rejected by QCI Authorised person, otherwise the selected bidder shall pay such damage as may arise by the reason of the breach of the condition herein contained. Nothing herein contained shall prejudice any other right of the QCI Authorised person in that behalf under this contract or otherwise. Goods accepted by the QCI in terms of the contract shall in no way dilute QCI's right to reject the same later or deduct equivalent value (market value) of product, if found deficient in terms of this clause of the contract.
21. **Withdrawal of Work from the Vendor:** If QCI, shall at any time and for any reasons, whatever, including inability to maintain pro rata progress, think any portion of the work should not be executed or should be withdrawn from the vendor, he may by notice in writing within 7 days to that effect, require the Vendor not to execute the portion of the work specified in the notice, or may withdraw from the Vendor the portion of work, so specified, and the Vendor shall not be entitled to any compensation, by reason of such portion of work having been withdrawn from him. The QCI Authorised Person may supplement the work by engaging another agency to execute such portion of the work at the risk and cost of the original vendor without prejudice to his rights. He shall also be competent to levy penalty for delay in progress. The recovery of excess cost shall be made good from the bills or any other claims and shall not be deferred.
22. **Force Majeure:** Any delay in or failure of the performance of either party hereto shall not constitute default hereunder to give rise to any claims for damages, if any to the Extent such delay or failure of performance is caused by occurrences such as acts of God or the public enemy, expropriation, compliance with any order or request of Government authorities, acts of war, rebellions, sabotage fire, floods, illegal strikes, pandemic, epidemic or riots (otherwise than among the vendors employees). Only extension of time shall be considered for Force Majeure conditions as accepted by QCI. No adjustment in contract price shall be allowed for reasons of force majeure.

Force Majeure shall not include:

- i. any event which is caused by the negligence or intentional action of a Party or by or of such Party's agents or employees, nor
- ii. any event which a diligent Party could reasonably have been expected both to take into account at the time of the signing of the Contract and avoid or overcome with utmost persistent effort in the carrying out of its obligations hereunder.
- iii. Insufficiency of funds or manpower or inability to make any payment required for execution of services under this Contract.

23. The contract will be awarded to the bidder whose proposal conforms to the terms of the RFP and is, in the opinion of QCI, the most advantageous and represents the best value of the assignment, price and other factors considered. QCI reserves the right to negotiate with the most competitive bidder if required.

24. **Earnest Money Deposit (EMD)/ Bid Security:** Bidders shall submit, along with their Bids, Bid Security (EMD) of **INR 14 lakhs** as per the details mentioned below:

- i. By demand draft in favour of Quality Council of India, payable at New Delhi, or
- ii. Deposit through RTGS/ NEFT as detail under\*\*: -

\*\*For payment of EMD through Bank transfer:

<b>Name of the Bank</b>	ICICI Bank, Gurgaon Millennium Plaza Branch
<b>Name of the Account</b>	Quality Council of India
<b>Saving Bank Account</b>	739301000237
<b>IFSC Code</b>	ICIC0007393

**Note:**

- i. NO CHEQUES WILL BE ACCEPTED. The applicant whose EMD has been deposited by NEFT/RTGS, must enclose the transaction details/ evidence along with their technical bid, otherwise the bid will be rejected.
  - ii. Bid security in any other form will not be entertained.
  - iii. No interest will be payable to the Bidder on the amount of the EMD. Unsuccessful Bidder's EMD will be discharged/ returned as promptly as possible, but not later than 30 days of completion of the process.
  - iv. In case bid is submitted without the bid security then QCI reserves the right to reject the bid without providing opportunity for any further correspondence to the bidder concerned. The EMD may be forfeited:
    - If a bidder withdraws its bid during the period of bid validity.
    - Bidder does not respond to requests for clarification of its Proposal.
    - Bidder fails to provide required information during the evaluation process or is found to be nonresponsive.
    - In case of a successful bidder, if the bidder fails to sign the contract in accordance with this RFP.
25. **Exemption of EMD for MSEs/ Startups applicant:** "Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME), and Startups as recognized by Department for Promotion of Industry and Internal Trade (DPIIT)" are exempted from submission of EMD (Bid security) in this tender. Bidders claiming exemption of EMD under this rule (170 of GFR) are however required to submit a signed **Bid security declaration** accepting that if they withdraw or modify their Bids during the period of validity, or if they are awarded the contract and they fail to sign the contract, or to submit a performance security before the deadline defined in the request for bids document, they will be suspended for the period of 24 months from being eligible to submit Bids for tenders with QCI. Scan copy of the signed documents related to exemption of EMD along with Bid Security Declaration shall be submitted at the time of submission of bid.

**Note: MSEs with trading as major activity will not be allowed exemption for payment of EMD.**

26. **EMD Refund:**

- **For Unsuccessful Bidders:** The EMD of all unsuccessful bidders would be refunded without interest by QCI on finalization of the bid in all respects by the successful bidders within 45 days after finalization of tender.
- **For Successful Bidders:** The EMD of successful bidders would be returned within 30 days, without any interest, upon submission of Performance Bank Guarantee by the successful bidders within the stipulated timeline.
- Bid submitted without EMD (except for exempted categories) shall be treated as non-responsive and will be liable for rejection.

27. **Performance Security:** The selected Bidder shall submit irrevocable Performance security, within 15 days from the Notification of award, for a value equivalent to **5% of the contract value**. The Performance security submitted in the form of Bank Guarantee shall contain a claim period of three months from the last date of validity. The bank guarantee shall be valid for the period of 14 months from the date of issuance of work order plus three (03) months of claim period. The selected Bidder shall be responsible for extending the validity date and claim period of the Performance Bank Guarantee as and when it is due on account of non-completion of the delivery and Warranty period.

The selected bidder can submit e-PBG OR physical copy of Performance Guarantee should be submitted at QCI-HO within 15 days from the notification of award. The selected bidder would be required to send SFMS code while creation of PBG to the IFSC code provided by QCI.

In case the selected bidder fails to submit a Performance Guarantee within the time stipulated, QCI at its discretion may cancel the order placed on the selected bidder without giving any notice. QCI shall invoke the performance guarantee in case the selected bidder fails to discharge their contractual obligations during the period or QCI incurs any loss due to bidder's negligence in carrying out the project implementation as per the agreed terms & conditions. The performance security shall be released within three (03) months of the successful completion of defects liability period of 12 months.

28. **Ethics:** QCI expects all operators, shortlisted bidder(s) and other stakeholders to show highest ethical standards during the course of the assignment especially during on-ground work. If any complaints/information regarding any incident of malpractices (such as bribery, seeking monetary or non-monetary favor/gifts) are brought to the notice, the shortlisted bidder(s) shall take the necessary action (to the extent of expulsion/removal) as per their organization rules and laws applicable at that time. QCI is absolved of any liability/claim arising out of any such situations.
29. **Amendments to RFP:** At any time prior to the last date for receipt of applications, QCI may for any reason, whether at its own initiative or in response to a clarification requested by a prospective applicant, modify the RFP document by an amendment by issuing Corrigendum/Addendum. The same shall be published in QCI website. In order to provide prospective applicants reasonable time to take the proposed amendments into account while preparing their proposals, QCI may at its discretion extend the last date for the receipt of proposals and/or make other changes in the requirements set out in the RFP. Any such amendment shall be communicated to the vendors.
30. **Amendment to work:** Any amendments to the scope of work under this RFP must be proposed in writing by either party, and shall be subject to mutual agreement, documented through a formal written amendment or change order signed by QCI authorized person. Amendments may result in adjustments to the project schedule, costs, and responsibilities, which shall be explicitly defined in the amendment document.

31. **Insurance:** The vendor shall obtain and maintain a comprehensive insurance policy at their own cost, covering all risks associated with the execution of the work, including but not limited to loss or damage to equipment, materials, and the worksite, as well as third-party liabilities, injuries to personnel, and damage to property arising from the performance of the contract. The insurance policy shall remain valid throughout the duration of the contract and shall be obtained from a reputable and authorized insurance provider. The vendor shall provide proof of such insurance to the client prior to commencing work and ensure that the policy includes the client as a beneficiary or co-insured, as applicable. Any lapse, cancellation, or modification of the policy without prior written consent of the client shall be deemed a breach of the contract. Goods supplied under the Contract shall be fully insured against loss by theft, destruction or damage incidental to manufacture or acquisition, transportation, storage, fire, flood, under exposure to weather and delivery at the designated project locations, in accordance with the applicable terms. The insurance charges will be borne by the vendor and QCI will not be required to pay such charges if incurred. The goods will be delivered and stored at the destination in perfect condition.
32. **Plant, Machinery & Job facility Area:** The vendor will have to make his own arrangement for storage of materials, plants, equipment's, machineries to be used in the execution of this work well in time after award of the contract, at his own cost.
33. **Confidentiality:** The bidder(s) must not divulge any confidential information and ensure that reasonable steps are taken to provide for the safe custody of any and confidential information in its possession and to prevent unauthorized access thereto or use thereof. The shortlisted bidder(s) must not, without the prior written consent of QCI, disclose any confidential information of QCI or any government department or relating to any ministry or any other party. In giving written consent to the disclosure of confidential information, QCI may impose such conditions as it thinks fit, and the bidder must comply with these conditions. Confidentiality clause shall survive for a period of one year after the termination of contract or contract expiry period.
34. No part of this document including the Annexure can be reproduced in any form or by any means, disclosed or distributed to any person without prior written consent of QCI, except to the extent required for submitting the bid and no more. The information contained in this document is only disclosed for the purposes of enabling potential Vendors to submit a proposal to QCI. This document should not therefore be used for any other purpose. This document contains proprietary information furnished for evaluation purposes only; except with the written permission of the QCI, such information may not be published, disclosed, or used for any other purpose. The bidding firms acknowledge and agree that this document and all portions thereof, including, but not limited to, any copyright, trade secret and other intellectual property rights relating thereto, are and at all times shall remain the sole property of QCI. The title and full ownership rights in the information contained herein and all portions thereof are reserved to and at all times shall remain with QCI. Vendors must agree to take utmost care in protecting the proprietary and confidential nature of the information contained herein.

35. **Payment Milestones:**

QCI will make payment to the vendor as per the following milestones:

S. No.	Milestone	Payment Schedule
1.	On successful sequential delivery* of materials at site	60%
2.	On successful Testing, commissioning, and User Acceptance including Go-Live up to the satisfaction of Client	35%
3.	Completion of Defects Liability Period of 12 months	5%

- i. **\*Sequential delivery** means providing a phase wise installation of items in a well organised sequence, to be submitted after issuance of LOA. Non-sequential delivery of items will not make the vendor liable for payment.
  - ii. Successful Bidder has to submit L2 schedule, comprising supply, installation, testing and commissioning including Go-live.
  - iii. Payment shall be made based on the Joint measurement certificate against each Milestones submitted to be signed by vendor, PMC, and QCI authorised person. Measurements shall be conducted as per relevant IS codes and good engineering practices. The decision of QCI Authorized Person would be final and binding in this regard.
  - iv. Payment shall be made after submission of invoices within 30 days of receipt of invoice complete in all respect.
  - v. Incorrect Invoices, Under/Over Payment: In case an invoice is found to have been rendered incorrectly after payment, any underpayment or overpayment will be recoverable by or from the vendor, as the case may be, and, without limiting recourse to other available means, may be offset against any amount subsequently due by QCI to the vendor under this contract.
36. **Penalty:** Penalty may be imposed on non-performance/ violation of any of the terms and conditions mentioned in this RFP. The quantum of such penalty shall be as decided by the committee of officials (constituted by QCI). The following shall be the treatment in case of damages and delays:
- i. Any damage to the building or to any equipment which might result during the repair shall be repaired by the Vendor.
  - ii. If the job is not completed within the stipulated time penalty amount @ 1% (of the contract value) per week or part thereof, subject to cap of 10% of total contract value will be applicable on the vendor, provided such delay is not attributable to QCI.
- The work must be completed as stipulated in the acceptance of the tender should be deemed to be the essence of the contract and delivery must be completed no later than the dates specified therein. Extension will not be given except in exceptional circumstances. However, if the work is completed after expiry of the contracted completion period without prior concurrence of QCI, such delivery will not deprive QCI of the right to recover liquidated damages.
37. QCI, by issuance of this RFP does not necessarily indicate or imply that the project will be commenced. The Vendor will absolve QCI of all responsibilities if the project does not start within a stipulated timeframe. QCI reserves the right to withdraw this assignment any time without prior consultation or intimation to the Vendors.
38. The Vendor shall not make any alteration / changes in the bid after the closing time and date. Unsolicited correspondence from the Vendor will not be entertained.

39. If at any stage of the tendering process or during the carrying out of the agreement any suppression / misrepresentation of such information is brought to the knowledge of QCI, QCI shall have right to reject the bid or terminate the agreement, as the case may be, without any compensation to the Vendor.
40. The Vendor shall be deemed to have complied with all clauses in this RFP. Evaluation shall be carried out on the available information in the bid.
41. The firms / agencies submitting their proposals would be responsible for all of its expenses, costs and risks incurred towards preparation and submission of their proposals, attending any pre-proposal meeting and visiting the site or any other location in connection therewith. QCI shall, in no case, be responsible or liable for any such costs whatsoever, regardless of the outcome of the process.
42. The proposals submitted by the firms/agencies shall remain valid for a period of 120 days after the closing date (deadline) for submission of proposals prescribed in this document.
43. During evaluation, QCI may, at its discretion, ask the respondents for clarifications on their proposals. The firms/agencies are required to respond within the time frame prescribed by QCI.
44. At any time prior to deadline for submission of proposals, QCI may for any reason, modify the RFP document by issuance of Corrigendum/ Addendum and shall be notified through GeM Portal as well as QCI website, and such amendments shall be binding on bidders.
45. QCI may at its sole discretion and at any time during the evaluation of proposal, disqualify any respondent, if the firm:
- i. Submitted the proposal after the response deadline
  - ii. Made misleading or false representations in the forms, statements and attachments submitted in proof of the eligibility requirements
  - iii. Exhibited a record of poor performance such as abandoning works, not properly completing the contractual obligations, inordinately delaying completion or financial failures, etc. in any project in the preceding three years
  - iv. Submitted a proposal that is not accompanied by required documentation or is non-responsive, failed to provide clarifications related thereto, when sought
  - v. Submitted more than one proposal
  - vi. Was declared ineligible by the Government of India/State/UT Government for corrupt and fraudulent practices.
46. **Obligation:** The vendor,
- i. must at all times comply with
    - a. all Applicable Laws; and
    - b. without limiting, all applicable anti-bribery, anti-corruption, anti-money laundering, trade sanctions and export control, modern slavery (including without limitation forced or compulsory labour, child labour, physical abuse, and withholding of identity papers), equal opportunity, anti-discrimination, health and safety, and environmental laws, rules, and regulations ("Compliance Laws");
  - ii. shall ensure that any and all notices and instructions issued by QCI or state/Centre government in relation to any Applicable Laws are obeyed by its personnel and any visitors to the Site;
  - iii. warrants that it and its officers and its current and historical Affiliates have never materially violated any Compliance Laws, nor been the subject of any government indictment, nor had

- any fines, penalties or settlement agreements with any government agency in the past five years that resulted in material financial costs, or negatively affected its ability to operate;
- iv. must at all times have due diligence procedures for its operations as well as for participants in its supply chains adequate to ensure that there is no modern slavery or human trafficking in it or its supply chains;
  - v. must not engage any third party that at any time engages in modern slavery;
  - vi. must not provide work environments that are unsafe or unhealthy for anyone;
  - vii. must minimize adverse effects on the community, environment, and natural resources;
  - viii. must notify QCI as soon as it becomes aware of any actual or suspected bribery, corruption, money laundering, slavery, human trafficking, discrimination, or breach of health and safety or environmental laws, in its own operations or supply chain;
  - ix. must endeavour to maintain records tracing the supply chain of all goods and services provided under this Agreement and make immediately available to QCI upon its request all such records.
  - x. Must intimate QCI Authorised Person before proceeding for any drilling/breaking of existing structures and take prior approval before proceeding.
  - xi. All the cost related to temporary arrangement of Electricity and Water required for construction till successful completion of the project (even in case of bill generated from meter reading) shall be borne by the Vendor only and ensuring proper health, safety and environmental compliances and deemed to be included in the Contract value.
  - xii. The vendor shall ensure a healthy and cordial work environment and ensure proper coordination with the QCI Authorised Person /sub vendor and other stakeholders with utmost integrity without indulging in arguments/ fights over sharing of project components amongst each other.
47. **Sustainability:** The vendor will,
- i. endeavour to embed appropriate sustainability practices in its business and supply chain policies and procedures;
  - ii. promote age, racial, cultural, disability, gender and religious diversity and inclusivity of employees across its business and its supply chain, except where law prohibits;
  - iii. adopt carbon reduction principles for its business and obtain similar commitments from its service vendors, subvendors, agents and distributors;
  - iv. adopt approaches to maximize positive social impacts of its practices such as buying locally, promoting skills development through apprenticeships, employee training and promotion and offering employment opportunities to the local community; and
  - v. pay all employees, as a minimum, the national or local minimum wage as required by law or regulations.
48. **Audit and Access:** QCI (or their authorised representative) may conduct audits relevant to the performance of the vendors' obligations under this Agreement. Audits may be conducted of:
- i. the Vendor's operational practices and procedures as they relate to this Agreement, including security procedures;
  - ii. the accuracy of the Vendor's invoices and reports in relation to the provision of the Services; the Vendor's compliance obligations as stated above;
  - iii. the Vendor's compliance with its confidentiality, privacy and security obligations under this Agreement;
  - iv. Work Product (including books and records) in the possession of the Vendor relevant to this Agreement; and

- v. Access any other matters determined by QCI to be relevant to the agreement. QCI (or their authorised representative) may, at reasonable times and on giving reasonable notice to the Vendor, and to the extent relevant to the performance of this Agreement:
  - a. access the premises of the Vendor;
  - b. require the provision by the Vendor, its personnel or sub-vendors, of records and information in a data format and storage medium accessible by QCI;
  - c. inspect and copy Work Product (including original documentation, books and records), however stored, in the custody or under the control of the Vendor, its personnel or sub-vendors; and require any other reasonable assistance from the Vendor or its personnel in respect of an audit relevant to the performance of the Vendor's obligations under this Agreement.
  - d. The Vendor must provide access to and reasonable assistance requested to use its computer hardware and software to the extent necessary for QCI to exercise its rights under this clause.
- 49. **Energy, Water and Waste Monitoring:** Waste material, scrap, off-cuts, or packaging shall not be removed from site by any vendor or supplier unless weighted and recorded. Energy, Water and Waste monitoring shall be recorded by the relative consuming or disposing vendor or supplier, with the main vendor or lead vendor responsible for information collation, including values being tallied and reported during regular construction meetings and recorded in construction meeting minutes.
- 50. **Forced Labour and Child Labour:** The vendor should strive to prevent the following behaviour anywhere in our business or supply chain:
  - i. Forced labour, whether in the form of trafficking of any kind, slavery, indentured labour, bonded labour or prison labour
  - ii. Confiscating, retaining or withholding worker identity documents or other valuable items, including work permits and travel documentation to bind workers to employment or restrict their freedom of movement
  - iii. Charging workers fees for recruitment, including costs associated with travel, processing official documents and work visas in both home and host countries
  - iv. Requiring workers to lodge deposits or security payments
  - v. Failure to comply with minimum working age laws and requirements, including the general use of child labour
  - vi. Imposing compulsory overtime hours for workers, except as permitted by applicable law.
- 51. **Unacceptable Working Conditions and Safety Risk:** The vendor should not permit these activities in our business or supply chain:
  - i. Paying workers below just and favourable wage rates and subjecting them to inhumane conditions
  - ii. Requiring workers to work more than the maximum hours of daily labour set by national or applicable local laws and forcing workers to work overtime for insufficient compensation
  - iii. Unreasonably exposing workers to threats to their health, safety and security
  - iv. Engaging in physical discipline or abuse, intimidation, sexual, gender-based or other harassment and verbal abuse.
- 52. **Discrimination and Prejudice:** The vendor should not permit the following:
  - i. Discriminating against individuals or vulnerable segments of society (including minority groups), whether that discrimination is based on race, colour, gender, sexual orientation, religion, disability or otherwise.

- ii. Mistreating or limiting the rights of minority groups, including women.
53. **Freedom of Association:** The vendor should not prevent workers from freely joining or participating in a workers' association or union in accordance with national or local laws.
54. **Incident reporting and investigation:**
- i. 1 hour from the time of the occurrence of incident.
  - ii. Vendor shall ensure all incidents are reported to QCI in the prescribed format.
  - iii. Vendor shall at no time delay the injured from treatment, the personnel must be taken to site paramedic or to the nearest hospital without any delay.
  - iv. Vendor shall immediately start investigation of the incident immediately after the occurrence of the incident and shall submit the report to QCI within 5 working days.
  - v. Vendor shall ensure; statutory agencies are kept informed as per the requirements of the applicable law.
55. **Worker engagement & motivation:**
- i. QCI encourages all workers including engineers to perform 10-minute body exercises before start of the work every day.
  - ii. All Vendors shall conduct safety motivation program at least once a month, all projects shall have an earmarked budget to conduct such event.
  - iii. QCI encourages rewarding workers who has practiced safe practices and recognize them by way of simple giveaways.
  - iv. All engineers shall develop the habit of appreciating the safe work practices adopted by workers, quick appreciation on the spot is advisable.
  - v. Workers including engineers at construction site shall develop the culture of intervening immediately in case of any imminent threat to life and limb of an individual, this irrespective of the Vendor packages.
56. **Communication and Consultation:**
- i. Every works in-charge shall explain the safe work method statements during the toolbox talk.
  - ii. No work shall be started without trade wise toolbox talk.
  - iii. No worker shall be involuntarily subjected to perform a task that the person feels it is unsafe to perform, worker be given a right to reject to perform an unsafe task.
  - iv. Every project manager shall conduct at safety committee meeting once a week along with all Vendors to and assess safety performance on weekly basis.
  - v. Every project manager shall conduct at least one safety committee meeting once a month and include equal number of engineers and workers from each Vendors.
  - vi. Safe work method statements shall be made available to all workers at a communication board commonly accessible to all workers.
  - vii. Material safety data sheets be made available for all chemicals at common communication board accessible to all concerned.
  - viii. Vendors shall install adequate number of posters and signs to caution workers of imminent hazards.

57. **Penalty applicable for Safety lapses:** If the vendor does not adhere to the QCI Authorised Person safety regulations, penalty will be imposed as per the following table:

No	Offence	Charge to Company for each H&S breach
1	Smoking in an unauthorized area or consumption of alcohol or use of illegal substances	Rs 2,500
2	Burning of waste or smoldering of combustible materials on site other than for heat treatment processes required for the execution of the Works	Rs 2,500
3	Failure to wear personal protective equipment (PPE) egsafety helmets, safety boots, goggles, respirator, ear plugs, safety belts, which shall include failure to anchor belt to a secure structure Where any site operation requires the use of PPE then all workmen must use the required PPE eg grinding, welding, burning, unloading hazardous materials etc.	1. Rs 2,500 per worker when lack of enforcement of the usage of PPE by the Vendor is observed Or 2. Rs 10,000 where issuance of the required PPE by the Vendor is not carried out.
4	Failure to attend general safety induction course conducted by the Project Manager	1. Rs 2,500 per worker for not attending the course and 2. Workers to attend course within 2 working days or be dismissed.
5	Failure by Engineers to attend a notified site safety meeting	Rs 2,500 per employee +Rs 10,000 per company
6	Failure to submit, within the specified time to the employer, safety supervisor reports which shall include other relevant statutory reports like the tool box briefing, records, weekly labour return, issuance of personal protective equipment records, safety data sheets of toxic and harmful material and other related certificates	Rs 2,500
7	Failure to submit a written report for an accident and / or other dangerous occurrence, to the employer within 24 hours of its occurrence	Rs 10,000
8	Damage to or misuse of the Employer's property	1. Rs 10,000 2. In addition, the Vendor to rectify / replace the same at his risk and cost.
9	Failure to maintain work area, facility storage and preparation yard, officer premises and workers changing and rest area in a clean and orderly state and free from Health and Fire hazards	1. Rs 10,000 2. In addition, the Vendor shall clean up the disorderly and untidy areas within 3 days at his risk and cost.
10	Obstruction of passageways, entrances, doorways, stairs, access to firefighting equipment etc or the erection of unsafe accesses and crossings	Rs 10,000
11	Use of equipment that has not been examined by an approved person as required under the relevant regulations	Rs 10,000
12	Using defective or uncertified slings for lifting operations	Rs 10,000

58. **Handing Over Schedule:** On completion of all items of work as per contract, the Vendor shall hand over the works to QCI as per the format specified by PMC/QCI along with supporting documents. The handing over of the completed works in all respect to QCI (officially in writing)

shall be the responsibility of the Vendor. The defect liability period will commence from the date of handing/taking over to the QCI. The process of handing over shall be as under:

- i. In advance of the stipulated date of completion, joint inspection shall be carried out with Design Consultant, PMC and QCI Authorized Person and all the defects, deficiencies shall be noted and a time bound programme to be made for rectifying all the defects and deficiencies. After rectifying all defects, deficiencies at its own cost up to the satisfactions of Design Consultant, PMC and QCI Authorized Person, the vendor shall handover the building premises to QCI.
- ii. The Vendor shall remove at his own cost all surplus materials, debris, material waste, etc before handing over to QCI. If it is felt that the Vendor is not responding to rectify the defects urgently and the QCI is suffering in using the assets created due to default of the contract, QCI shall be entitled to get the defects rectified at the risk and cost of the Vendor at any time after expiry of 24 hours' notice issued to the Vendor.

59. **Other Conditions:**

- i. Other vendors working at site will also simultaneously execute the work. The vendor shall offer necessary cooperation to other vendors wherever required.
- ii. Any malva / building rubbish generated is to be removed from the site within 24 hours.
- iii. Engineer/Supervisor shall carry mobile telephone (s) to enable the QCI Authorized person to have easy and quick communication. **Nothing extra shall be paid to the vendor** on this account and his **quoted rates** for various items under this contract will be **inclusive of this obligation**.
- iv. The staff employed by the vendor should be well behaved and any complaint of misbehaviour shall be taken very seriously and such staff will have to be removed by the vendor immediately from the site.
- v. The dismantled materials shall be taken away and disposed off by the vendor at his cost. **Nothing extra shall be paid to the vendor**.
- vi. The vendor shall make all safety arrangements required for the labour engaged by him at his cost. All consequences due to negligence on behalf of security / safety or otherwise shall be on the vendor. The QCI shall not be responsible for any mishap, injury, accident or death of the vendor's staff. No claim in this regard shall be entertained / accepted by the QCI.
- vii. The vendor shall be responsible for the watch and ward / guard of the buildings, till the building is physically handed over to the QCI. No extra payment shall be made on this account.
- viii. The Vendor shall make all necessary arrangements for protecting from rains, fog or likewise extreme weather conditions, the work already executed and for carrying out the further work, during monsoon including providing and fixing temporary shelters, protections etc. **Nothing extra shall be payable** on this account. Also, no claims for hindrance shall be entertained on this account.

60. **Quality Assurance**

- i. The proposed building is a prestigious project of QCI and quality of work is of paramount importance. Vendor shall have to engage well-experienced skilled labour and deploy modern T&P and other equipment to execute the work.
- ii. The vendor shall ensure quality construction in a planned and time bound manner. Any sub-standard material/work beyond set out tolerance limit **shall be summarily rejected** by the QCI Authorized person & vendor shall be bound to replace/ remove such sub-standard/defective work immediately. If any material, even though approved by QCI

Authorized person is found defective or not conforming to specifications shall be replaced/removed by the vendor **at his own risk & cost.**

- iii. The vendor shall submit, a detailed and complete method statement for the execution, testing and Quality Assurance of works. All the materials to be used in the work, to give the finished work complete in all respects, shall comply with the requirements of the specifications and shall pass all the tests required as per specifications as applicable or such specifications / standards as directed by the QCI Authorized person. However, keeping the Quality Assurance in mind, the Vendor shall submit, on request from the QCI Authorized person, his own Quality Assurance procedures for basic materials and such items, to be followed during the execution of the work, QCI Authorized person.
  - iv. All materials and fittings brought by the vendor to the site for use shall conform to the samples approved by the QCI Authorized Person which shall be preserved till the completion of the work. If a particular brand of material is specified in the item of work in Schedule of Quantity, the same shall be used after getting the same approved from QCI Authorized person. Wherever brand/quality of material is not specified in the item of work, the vendor shall submit the samples as per suggested list of brand names given in the tender document for approval of QCI Authorized person. For all other items, materials and fittings of ISI Marked shall be used with the approval of QCI Authorized person.
61. **Non-Tender items / Rates for extra items of works:** Any item of work carried out by the Vendor on the instructions of the QCI Authorized person which is not included in the accepted schedules of rates shall be executed at the rates of L1 quotation taken from the rate analysis conducted by QCI.
62. **Disclaimer:** QCI shall not be responsible for any late receipt of applications for any reasons whatsoever. The applications received late will not be considered.  
QCI reserves the right
- i. To reject any/all applications without assigning any reasons thereof.
  - ii. To relax or waive any of the conditions stipulated in this document as deemed necessary in the best interest of the QCI without assigning any reasons thereof.
  - iii. To include any other item in the Scope of work at any time after consultation with applicants or otherwise
  - iv. To adopt method deemed fit to evaluate the proposals
  - vi. To select multiple Vendors for the project for allocation of work in different areas if it meets the essential criteria for qualification.

## VI. SUBMISSION OF PROPOSALS

The intending bidder is expected to prepare proposals covering the following aspects:

**A. Technical Bid:** The "Technical Bid" shall contain the following:

- 1. Duly filled, signed and stamped Form-1, 2, 3, 4, 5, and 6 attached under Annexure-A
- 2. EMD details (Bid security as per RFP)
- 3. List of supporting documents as mentioned in **Clause III: Eligibility Criteria.**
- 4. Bid Specific Manufacturer' s Authorization Form (MAF) from OEMs as per **Form 6 of Annexure A.**
- 5. Item compliance sheet to be signed by authorised signatory – no price/rate shall be mentioned in the item compliance sheet/BOQ. Non-compliance to this will be liable for rejection.
- 6. Any other details that the bidder may like to provide.

**B. Financial Bid:** The “Financial Bid” shall contain the following:

1. The bidder should submit the proposal as per the forms in Annexure B through online mode only in relevant sections in GeM Portal (<https://gem.gov.in>)
2. Taxes should be included in the above proposal.

**C. Submission Guidelines:**

1. The Technical bid should not include any information related to the Financial Bid. If any information related to the Financial Bid is contained in the Technical Part of the Bid, the bid shall be declared non-responsive.
2. The bidder shall furnish a letter of bid for financial part, mentioning the total price, applicable taxes and duties, any commission/ hidden charges, discount.
3. Joint Ventures/Consortium participation are not allowed in this bid.
4. The Applicants shall submit the proposals online through GeM Portal (<https://gem.gov.in>) as per the date and time mentioned on the GeM portal. It is the responsibility of the Applicant to submit the bid before the last date and time on the online portal, and QCI shall not be responsible for any delay due to any of the technical/server issues.
5. The Applicant shall submit the Proposal in the form and manner specified in this RFP. Bid proposals received in the physical form at the client’s address will not be accepted.

For any queries, you may contact the below:  
Procurement Team, QCI

Email id: [procurement@qcin.org](mailto:procurement@qcin.org)

**ANNEXURE – A**

**Form 1: Covering letter with the Proposal in response to RFP Notice**

(To be submitted on the Letterhead of the responding firm)

To,

Deputy Director (Accounts),  
Quality Council of India,  
Institution of Engineers Building,  
2<sup>nd</sup> Floor, 2, Bahadur Shah Zafar Marg,  
New Delhi-110002

Subject: Submission of proposal in response to the RFP for **“Design, Engineering, Supply, Installation, Testing and Commissioning of AV systems at QCI Office, WTC, Nauroji Nagar, New Delhi”**.

Dear Sir,

1. Having examined the RFP document, we, the undersigned, herewith submit our proposal in response to your RFP dated <dd/mm/yy> for **“Design, Engineering, Supply, Installation, Testing and Commissioning of AV systems at QCI Office, WTC, Nauroji Nagar, New Delhi”**, in full conformity with the said RFP document.
2. We undertake, if our proposal is accepted, to adhere to assign a team dedicate to this project.
3. We have read the provisions of RFP and confirm that these are acceptable to us. We further declare that additional conditions, variations, deviations, if any, found in our proposal shall not be given effect to.
4. We undertake, if our proposal is accepted, to adhere to the scope of engagement or such modified plan as may subsequently be mutually agreed between us and QCI or its appointed representatives.
5. We agree to unconditionally accept all the terms and conditions set out in the RFP document and also agree to abide by this bid response for a maximum period of 120 days from the date fixed for bid opening and it shall remain binding upon us with full force and virtue, until within this period a formal contract is prepared and executed, this bid response, together with your written acceptance thereof in your notification of award, shall constitute a binding contract between us and QCI.
6. We affirm that the information contained in this proposal or any part thereof, including its exhibits, schedules, and other documents and instruments delivered or to be delivered to through this proposal is true, accurate, and complete.
7. This proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead the QCI as to any material fact. We agree that QCI is not bound to accept the lowest or any bid response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/ service specified in the bid response without assigning any reason whatsoever.
8. We confirm that we have not been blacklisted by any central or state government agency, PSU etc. in the last 5 years preceding the Proposal Due Date.

It is hereby confirmed that I/We are entitled to act on behalf of our corporation/company/ firm/organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Dated this Day of (Year)

(Signature) (In the capacity of)

Duly authorized to sign the Bid Response for and on behalf of:

(Name and Address of Company) Seal/Stamp of Bidder

### Form 2: Relevant Project Experience for completed projects

#### Completed Projects:

S. No.	Area/ Location	Client name	Name and Size of the project	Executed Contract Value	Completion date	Nature of works

### Form 3: Details of the responding firm

Section No.	S. No.	Particular	Detail
I	<b>COMPANY PROFILE:</b>		
	1.	Name of the Organization * (As appearing on PAN Card)	
	2.	Registered Office Address *	
	3.	<b>SPOC for the bid submitted:</b>	
		Name:	
		Mobile no.:	
		Email Address:	
	4.	<b>Address for Billing Office*</b>	
		Name of Contact Person *	
		Contact No. *	
		Mobile No.	
		E mail ID *	
	5.	<b>Name of Contact Person (Finance &amp; Accounts) *</b>	
		Contact no.	
		Mobile no.	
		E mail ID *	

II	<b>STATUTORY DETAILS:</b>		
	1.	<b>GST Details: -</b>	
		Whether Registered Assessee (Yes or No)	
		<b>If Yes: -</b>	
		GSTIN Number # *	
		Type of Assessee	
	2.	<b>MSME</b>	

		Whether Registered under MSME (Yes or No) *	
		If Yes: -	
		MSME UDYAM Registration No. and validity date # *	
	3.	Permanent Income Tax No. (PAN) #	
	4.	<b>NATURE OF ENTITY: *</b> PROPRIETOR/PARTNERSHIP/ LPP/ PRIVATE LIMITED /PUBLIC LIMITED/GOVERNMENT	
	5.	<b>WHETHER FUNCTIONING IN A SPECIAL ECONOMIC ZONE. (SEZ) (Yes/ No) *</b>	

III	<b>BANK DETAILS: -</b>		
		Name of Bank	
		Address of Bank	
		Bank Account No.	
		IFSC Code	
		SWIFT CODE (If party's billing address is outside India)	

**Declaration by Director/ Proprietor/ Partner:**

I/We declare that the information furnished above are correct to the best of my/our knowledge /  
belief. I/We undertake to inform you of any change in above particulars at the earliest.

**Form 4: Format for Non-Blacklisting Undertaking**

(To be submitted on the Letterhead of the responding firm)

To,  
Deputy Director (Finance & Accounts),  
Quality Council of India,  
Institution of Engineers Building,  
2nd Floor, 2, Bahadur Shah Zafar Marg,  
New Delhi-110002

**Subject:** Non-Blacklisting declaration in connection with RFP Ref. No. \_\_\_\_\_ dated\_\_\_\_\_ for \_\_\_\_\_

Dear Sir,

This is to notify you that our Firm/Company/Organisation \_\_\_\_\_ intends to submit proposal in response to invitation for Tender Ref. No. \_\_\_\_\_ for <>. In accordance with the above, we declare that:

- a. We are not involved in any major litigation that may have an impact of affecting or compromising the delivery of services as required under this agreement
- b. We are not blacklisted by any Central/ State Government/ agency of Central/ State Government of India or any other country in the world/ Public Sector Undertaking/ any Regulatory Authorities in India or any other country in the world for any kind of fraudulent activities in the last 5 years preceding the Proposal Due Date

Dated this Day of (Year)

(Signature) (In the capacity of)

Duly authorized to sign the Proposal Response for and on behalf of:

(Name and Address of Company) Seal/Stamp of Bidder

**Form 5: Certificate of Compliance of Technical Specifications/Bill of Quantities**

S. NO.	DESCRIPTION	UNIT	QUANTITY	COMPLIANCE (YES/NO)
1.1	Supply, installation, testing & commissioning of Direct View LED Video Wall Screen, 136" LED Wall AIO screen with 1.58 mm pixel pitch and floor stand from same OEM in 16:9 aspect ratio with diecast aluminium cabinets, Minimum Resolution Full HD/1920x1080 or better, with controller inbuilt and sound of 30Watts Minimum inputs combination of 2 x HDMI 2.0, 1 x DP, 4 x USB, Sound Out for speakers, RS232/LAN for ethernet, Max Brightness 600 nits or better with HDR, Refresh rate 3840 Hz or better, Contrast 10,000:1 or better, 160 x 160 Viewing Angle, Colour Temperature 3000 to 10000 Adjustable or more, Brightness Uniformity 97% or better, Inbuilt OS Windows/ Android/ Tizen/WebOS with inbuilt speakers, remote controller, Standby power mode supported to save energy and Max load should not be more than 1.5KW with Plug & play power cable. Smart features like signedge inbuilt, wireless mirroring etc with mounting arrangement etc all complete as required.	Set	2	
1.2	Supply, installation, testing & commissioning of 98" Professional Ultra HD Display Panel, 4K UHD (3840 X 2160) Resolution, Brightness 600 Cd / m2 or more, Android 11.0 based SOC with Quad Core Processor, 4GB RAM, 32GB Memory, Interface: 2 HDMI 2.0 or more inputs, 1 DisplayPort 1.2 or more input, 1 USB 3.0 or more, 1 USB 2.0 or more, Ethernet, RS232, 1 Audio Out, Digital Audio Out, 1 HDMI 2.0 Out, 24W or more built-in Speaker, 24/7 operation, RS232 and LAN Control, OSD and UI rotation, USB Auto play function, Multi functional USB Type C (for Audio, Video, Network, Microphone, 65W charging, Camera connectivity), Wireless Screen sharing with Airplay, Miracast and Mirroring, PIP/PBP support, Landscape and Portrait mode, Instant mobile content transfer, OPS Slot available, BIS Certified etc all complete as required.	Each	1	
1.3	Supply, installation, testing & commissioning of 85" Professional Ultra HD Display Panel, 4K UHD (3840 X 2160) Resolution, Brightness 500 Cd / m2 or more, Android 11.0 based SOC with Quad Core Processor, 4GB RAM, 32GB Memory, Interface: 2 HDMI 2.0 or more inputs, 1 DisplayPort 1.2 or more input, 1 USB 3.0 or more, 1 USB 2.0 or more, Ethernet, RS232, 1 Audio Out, Digital Audio Out, 1 HDMI 2.0 Out, 24W or more built-in Speaker, 24/7 operation, RS232 and LAN Control, OSD and UI rotation, USB Auto play function, Multi functional USB Type C (for Audio, Video, Network, Microphone, 65W charging, Camera connectivity), Wireless Screen sharing with Airplay, Miracast and Mirroring, PIP/PBP support, Landscape and Portrait mode, Instant mobile content transfer, OPS Slot available, BIS Certified etc all complete as required.	Each	1	
1.4	Supply, installation, testing & commissioning of 75" Professional Ultra HD Display Panel, 4K UHD (3840 X 2160) Resolution, Brightness 500 Cd / m2 or more, Android 11.0 based SOC with Quad Core Processor, 4GB RAM, 32GB Memory, Interface: 2 HDMI 2.0 or more inputs, 1 DisplayPort 1.2 or more input, 1 USB 3.0 or more, 1 USB 2.0 or more, Ethernet, RS232, 1 Audio Out, Digital Audio Out, 1 HDMI 2.0 Out, 24W or more built-in Speaker, 24/7 operation, RS232 and LAN Control, OSD and UI rotation, USB Auto play function, Multi functional USB Type C (for Audio, Video, Network, Microphone, 65W charging, Camera connectivity), Wireless Screen sharing with Airplay, Miracast and Mirroring, PIP/PBP support, Landscape and Portrait mode, Instant mobile content transfer, OPS Slot available, BIS Certified etc all complete as required.	Each	1	

1.5	Supply, installation, testing & commissioning of 65" Professional Ultra HD Display Panel, 4K UHD (3840 X 2160) Resolution, Brightness 500 Cd / m2 or more, Android 11.0 based SOC with Quad Core Processor, 4GB RAM, 32GB Memory, Interface: 2 HDMI 2.0 or more inputs, 1 DisplayPort 1.2 or more input, 1 USB 3.0 or more , 1 USB 2.0 or more, Ethernet, RS232, 1 Audio Out, Digital Audio Out, 1 HDMI 2.0 Out, 24W or more built-in Speaker, 24/7 operation, RS232 and LAN Control, OSD and UI rotation, USB Auto play function, Multi functional USB Type C (for Audio, Video, Network, Microphone, 65W charging, Camera connectivity), Wireless Screen sharing with Airplay, Miracast and Mirroring, PIP/PBP support, Landscape and Portrait mode, Instant mobile content transfer, OPS Slot available, BIS Certified etc all complete as required.	Each	4	
1.6	Supply, installation, testing & commissioning of 55" Professional Ultra HD Display Panel, 4K UHD (3840 X 2160) Resolution, Brightness 500 Cd / m2 or more, Android 11.0 based SOC with Quad Core Processor, 4GB RAM, 32GB Memory, Interface: 2 HDMI 2.0 or more inputs, 1 DisplayPort 1.2 or more input, 1 USB 3.0 or more , 1 USB 2.0 or more, Ethernet, RS232, 1 Audio Out, Digital Audio Out, 1 HDMI 2.0 Out, 24W or more built-in Speaker, 24/7 operation, RS232 and LAN Control, OSD and UI rotation, USB Auto play function, Multi functional USB Type C (for Audio, Video, Network, Microphone, 65W charging, Camera connectivity), Wireless Screen sharing with Airplay, Miracast and Mirroring, PIP/PBP support, Landscape and Portrait mode, Instant mobile content transfer, OPS Slot available, BIS Certified etc all complete as required.	Each	13	
1.7	Supply, installation, testing & commissioning of 43" Professional Ultra HD Display Panel, 4K UHD (3840 X 2160) Resolution, Brightness 500 Cd / m2 or more, Android 11.0 based SOC with Quad Core Processor, 4GB RAM, 32GB Memory, Interface: 2 HDMI 2.0 or more inputs, 1 DisplayPort 1.2 or more input, 1 USB 3.0 or more , 1 USB 2.0 or more, Ethernet, RS232, 1 Audio Out, Digital Audio Out, 1 HDMI 2.0 Out, 24W or more built-in Speaker, 24/7 operation, RS232 and LAN Control, OSD and UI rotation, USB Auto play function, Multi functional USB Type C (for Audio, Video, Network, Microphone, 65W charging, Camera connectivity), Wireless Screen sharing with Airplay, Miracast and Mirroring, PIP/PBP support, Landscape and Portrait mode, Instant mobile content transfer, OPS Slot available, BIS Certified etc all complete as required.	Each	1	
1.8	Supply, installation, testing & commissioning of 65" Multi touch Interactive display with built in SOC with 1.9 Ghz Quad core processor, Android 13.0, 4 GB RAM, 32 GB Memory, Brightness 450 Cd/m2 or more, 3 mm 7 MOHS tempered glass, 5 GHz Wifi built in, Interface: 3 HDMI Input, 1 HDMI Out, 4 USB A 3.0, 1 USB 2.0, 1 USB Type C 3.0, Ethernet, RS232, Audio Out, Audio In, 1 VGA input, 2 x 20W front facing speakers, 40 point touch for Windows, 10 point touch for Android, OPS Slot, Built-in white board, Writing, Pen, Palm Eraser, Save, Screen Capture, Storage and Tool Bar. Supports 3rd party applications, recording feature, USB WEB Cam Compatible, Support PPT, Word, PDF, Image, Video Play, 2 x touch pen, Compatible with Device Management Software BIS Certified etc all complete as required.	Each	10	
1.9	Supply, installation, testing & commissioning of 75" Multi touch Interactive display with built in SOC with 1.9 Ghz Quad core processor, Android 13.0, 4 GB RAM, 32 GB Memory, Brightness 450 Cd/m2 or more, 3 mm 7 MOHS tempered glass, 5 GHz Wifi built in, Interface: 3 HDMI Input, 1 HDMI Out, 4 USB A 3.0, 1 USB 2.0, 1 USB Type C 3.0, Ethernet, RS232, Audio Out, Audio In, 1 VGA input, 2 x 20W front facing speakers, 40 point touch for Windows, 10 point touch for Android, OPS Slot, Built-in white board, Writing, Pen, Palm Eraser, Save, Screen Capture, Storage and Tool Bar. Supports 3rd party applications, recording feature, USB WEB Cam Compatible, Support PPT, Word, PDF, Image, Video Play, 2 x touch pen, Compatible with Device Management Software BIS Certified etc all complete	Each	2	

1.10	Supply, installation, testing & commissioning of Fixed Wall Mount, capable of holding up to 75 kg and supports 32" to 90" displays, VESA Compliant etc all complete as required.	Each	56	
1.11	Supply, installation, testing & commissioning of Fixed Wall Mount, capable of holding up to 110 kg and supports 75" to 98" displays, VESA Compliant etc all complete as required.	Each	1	
1.12	Supply, installation, testing & commissioning of Adjustable Drop Universal Flat Screen Ceiling Mount with of 625mm - 950mm adjustable drop, Screen size: up to 65", Max load: 50kg, Tilt adjustment: +/-15° etc all complete as required.	Each	1	
1.13	Supply, installation, testing & commissioning of Floor Mount Trolley, Universal in design to fit 65" to 98" displays, can hold weight up to 120 kg, VESA compliant etc all complete	Each	1	
1.14	Supply, installation, testing & commissioning of Cable Cubby Type 1 with flip top having 2 Universal Power, 2 USB Charge with 1 Ethernet Cable / Connector, 1 Telephone Cable / Voice Connector, Spring Type Cable Retractor for 1 HDMI, 1 USB, and 1 USB-C to with 1 to 1.5 meter Cable for device usages at table spring type all complete as required.	Each	13	
1.15	Supply, installation, testing & commissioning of Cable Cubby Type 2 with flip top, cover and multi-format cables, 2 Universal Power, 2 USB Charger, 1 HDMI, 1 USB-C, 1 Ethernet Cable, 1 Telephone Cable / Voice Connector, made of steel and aluminium etc all complete	Each	58	
1.16	Supply, installation, testing & commissioning of Wooden lectern with Dual wired microphone connectivity, 25" table top, with reading lamps, Cable management, Large reading surface as required with cables & connectors as required etc. all complete etc all complete as required.	Each	1	
1.17	Supply, installation, testing & commissioning of Room Scheduler Display: 10 Inch Multi-Touch display, PoE+ Powered, portrait, landscape, and table-top Mounting, with Android SoC processor. Native and web apps, Resolution 1280 x 800 Pixels with Book directly on the screen, Book in your normal calendar software, Option to see all the details including room status, future schedule, and bookings, Book as usual - via Outlook or Google Calendar, via the cloud, by using your smartphone/tablet, or directly on the screen outside of the meeting room or at the reception, Supports MS Exchange Server, No custom changes are required in the organization's calendar configurations, Customise colors, logos, backgrounds, and components. Option to easily customize access control and interactivity. Use as read-only displays or fully interactive ones, Highly secure on-prem deployment with no data transmission to our cloud or servers etc all complete as required.	Each	31	
1.18	Supply, installation, testing & commissioning of Wireless presentation module, Native protocols: Airplay, Google Cast, Miracast, Maximum number of simultaneous connections (with Buttons and/or App): 32, Local view, Management and reporting, Frequency band: 2.4 GHZ and 5 GHz, LAN & WiFi, 4K UHD output, USB-A and USB-C port, 100% secure, encrypted and cloud-managed with Two buttons, no cables, no software to download needed etc all complete	Each	6	

1.19	Supply, installation, testing & commissioning of 4K Network PTZ Conference camera with minimum 12x optical zoom & 80-degree horizontal coverage. Low Noise CMOS 4K image sensor with User-configurable resolution and quality for IP streams (up to 1080p). HDMI resolutions up to 4K30 or better and SDI-3G resolution up to 1080p60 or better. Image rotation controls to allow for inverted mounting using ceiling bracket. Minimum Illumination - 0.5 Lux @ (F1.8, AGC ON) or better, Horizontal Rotation Range - $\pm 170^\circ$ , Vertical Rotation Range - $-30^\circ$ to $+90^\circ$ or better, White Balance controls- Auto, indoor, outdoor, one-push, manual, specified color temperature or better. Camera should be able to transmit video via network to USB endpoint connected for video conferencing. Power – PoE & AUX. <b>Voice tracking facility by integration with Tabletop wireless conference unit for Chairman/Delegate and Ceiling Array microphones</b> Shall include wall mounting bracket included etc all complete as required.	Each	1	
1.20	Supply, installation, testing & commissioning of 4K Network PTZ Conference camera with minimum 20x optical zoom & 60-degree horizontal coverage. Low Noise CMOS 4K image sensor with User-configurable resolution and quality for IP streams (up to 1080p). HDMI resolutions up to 4K30 or better and SDI-3G resolution up to 1080p60 or better. Image rotation controls to allow for inverted mounting using ceiling bracket. Minimum Illumination - 0.5 Lux @ (F1.8, AGC ON) or better, Horizontal Rotation Range - $\pm 170^\circ$ , Vertical Rotation Range - $-30^\circ$ to $+90^\circ$ or better, White Balance controls- Auto, indoor, outdoor, one-push, manual, specified color temperature or better. Camera should be able to transmit video via network to USB endpoint connected for video conferencing. Power – PoE & AUX. <b>Voice tracking facility by integration with Tabletop wireless conference unit for Chairman/Delegate and Ceiling Array microphones</b> Shall include wall mounting bracket included etc all complete as required.	Each	5	
1.21	Supply, installation, testing & commissioning of HD Visual Communications System, SIP, H.323, Enabling High-Definition Web Conferences, Video Compression Method: H.261 (mainstream only), H.263, H.263+, H.263++ (reception only), H.264 High Profile, H.264 Baseline Profile, Video Input: 1 HDMI, 1 PC, Video output: 2 HDMI, IP mode, NAT Traversal mode, IP / NAT Traversal mode etc all complete as required.	Each	1	
1.22	Supply, installation, testing & commissioning of Intel Celeron Mini-PC, Windows 10 IOT License, One time Up to 4 users wireless screen shares & Quad-view Support/ Preinstalled suite of Video conferencing apps / 720p Camera Support / Single Display Support/ Online dashboard support with wireless keyboard and mouse etc all complete as required.	Each	2	
1.23	Supply, installation, testing & commissioning of Universal Switcher with HDMI and USB-C connectivity Type 1, 1 HDMI Inputs, 1 USB-C connectivity (4K Video, Audio, Data, Power charge), 1 HDMI Outputs, 4 USB-A 3.0 Connection (for USB Devices), 1 USB-B 3.0 Connection (for PC hosts), USB host switching, Analog audio de-embedding, Charging via USB-C up to 60w, Supports HDMI 4K signal formats (4K UHD @60Hz RGB 4:4:4, up to 18 Gbps), DP Alt Mode, HDMI 2.0, HDMI 1.x, DVI Signal Support, HDCP 1.x, HDCP 2.2 support (Combination of same make devices are allowed to achieve given specification) etc all complete as required.	Each	20	

1.24	Supply, installation, testing & commissioning of Universal Switcher with HDMI and USB-C connectivity Type 2, 2 HDMI Inputs, 2 USB-C connectivity (4K Video, Audio, Data, Power charge), 2 HDMI Outputs, 4 USB-A 3.0 Connection (for USB Devices), 2 USB-B 3.0 Connection (for PC hosts), USB host switching, Analog audio de-embedding, Charging via USB-C up to 60w, Supports HDMI 4K signal formats (4K UHD @60Hz RGB 4:4:4, up to 18 Gbps), DP Alt Mode, HDMI 2.0, HDMI 1.x, DVI Signal Support, HDCP 1.x, HDCP 2.2 support (Combination of same make devices are allowed to achieve given specification) etc all complete	Each	13	
1.25	Supply, installation, testing & commissioning of 8 Inputs and 8 Outputs HDMI 2.0 Compatible Full 4K Matrix Switcher, Supports HDMI 4K signal formats (4K UHD @60Hz RGB 4:4:4, up to 18 Gbps), HDCP 2.2 and HDCP 1.4 compliant with cross conversion capabilities, HDMI 2.0, HDMI 1.4 and DVI 1.0 compliant, HDR and Low Latency Dolby Vision support, High bitrate Audio Support including Dolby Atmos, TrueHD, DTS-HD, Audio de-embedding, Advanced EDID Management, Fully non-blocking switching architecture etc all complete as required.	Each	2	
1.26	Supply, installation, testing & commissioning of AVX (non-switchable) HDMI 2.0 Extender (Transmitter / Reciever): Supports HDMI 4K signal formats (4K UHD @60Hz RGB 4:4:4, up to 18 Gbps), Signal Type: HDMI 2.0, HDMI 1.x, DVI, Maximum data rate: 18 Gbps, Bi-directional PoC remote powering, Extends HDMI 2.0, audio, Ethernet, RS-232 up to 100m over one CATx cable, HDR and Low Latency Dolby Vision support, Bi-directional RS-232 extension (pass-through), HDCP 2.3 compliant (transparent pass-through), Ethernet extension etc all complete	Each	18	
1.27	Supply, installation, testing & commissioning of Unified Communication Bar (All in One) with BYOD Type 1, Built-in dante integration, Should have Built-In DSP which automatically optimizes room acoustics, Integrated Beamforming microphone, 6 Nos. of MEMS capsules with pickup range of 4.5 m or more, Should have 4K ePTZ camera, 5x digital zoom with automatic framing and person tiling feature, Built-in Class D amplifier with 4 Nos. of 40 W full range speaker, Should have 2 HDMI, 1 USB Type-C (3.1), 1 USB Type-A (3.1), Dual Ethernet ports, Bluetooth 5.1 and IEEE 802.11a / b / g / n / ac Wi-fi standard, Zooms and Teams certified, High-precision audio settings for maximum control, setting to exclude (min 3) and prioritize the areas of the room, <b>which automatically focus on the person speaking in the room, One Priority Zone and up to three Exclusion Zones shall be adjustable</b> , should be controlled through centralized monitoring software along with IR remote control and mounting kit etc all complete as required.	Each	14	
1.28	Supply, installation, testing & commissioning of Unified communication bar with BYOD Type 2, Built-in dante integration, Should have Built-In DSP which automatically optimizes room acoustics, Integrated Beamforming microphone, 4 Nos. of MEMS capsules with pickup range of 3.5 m or more, Should have 4K ePTZ camera, 3x digital zoom with automatic framing and person tiling feature, Built-in Class D amplifier with 2 Nos. of 20W full range speaker, should have 1 x HDMI, 1 x USB Type-C(3.1), 1 x USB Type-A(3.1), 1 x1000/100/10 Mbit/s (RJ45) ethernet ports, POE powered, 5.1 bluetooth and IEEE 802.11a /b /g /n /ac Wi-fi standard, Zooms and Teams certified, High-precision audio settings for maximum control, setting to exclude (min 3) and prioritize the areas of the room, should be controlled through centralized monitoring software along with IR remote control and mounting kit, <b>which automatically focus on the person speaking in the room, One Priority Zone</b> and should be controlled through centralized monitoring software along with IR remote control and mounting kit etc all complete as required.	Each	2	

1.29	Supply, installation, testing & commissioning of Round Ceiling Mounted Beamforming Microphone Array, shall consist of 15 pre-polarized condenser microphone capsules, shall use beamforming technology that automatically focuses on whoever is speaking in the room and always follows the person around the room, microphone array shall have a Dante interface for digital audio output, supporting both single-cable (PoE + Control + Dante) and split mode cabling (PoE + Ctrl / Dante) on a second RJ45 port, Microphone sensitivity shall be 0 dBV/Pa (1020 mV/Pa). Maximum sound pressure level shall be 98 dB SPL, Dynamic range shall be 81 dB(A), including a flush-mount installation kit etc all complete Approved Make: Sennhieser / Shure / Clock Audio	Each	2	
1.30	Supply, installation, testing & commissioning of Ceiling microphone with automatic dynamic Beamforming technology, the beam will automatically detect the position of the person speaking and will follow the person around the room at all times. It should have 2 x Dante digital audio (Redundancy), Analog audio out (Phoenix 3-pin), and Ethernet for Control and PoE connectivity ports. The coverage of the ceiling microphone should be min 800 square feet or more. It should have a true voice lift feature to increase audio intelligibility above the ambient noise floor. It should support IT industry standards like IEEE 802.1x. It can be controlled through software that can control and monitor the microphone in any network. It should have min 100 dB SPL, 5ms latency, and min 90dBA or higher dynamic range. High-precision audio settings for maximum control, setting to exclude (min 5) and prioritize the areas of the room. It should be certified from Microsoft Teams and Zoom Video conferencing applications. It should have UL 62368 certification (including UL 2043 testing and compliance) and safety certifications etc. all complete as required.	Each	6	
1.31	Supply, installation, testing & commissioning of Digital Wireless UHF handheld microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine-tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have a minimum 100 meter transmission range. It should have a Cardioid pick-up pattern, Sound pressure level (SPL) : 150 dB or more, System Latency : 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through ios / Android applications via bluetooth. It should have 12 hours of operation life and more etc all complete as required.	Each	3	
1.32	Supply, installation, testing & commissioning of Digital Wireless UHF lapel microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have min 100-meter transmission range. It should have omni-directional pick-up pattern, Sound pressure level (SPL) : 130 dB or more, System Latency : 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through iOS / Android applications via Bluetooth. It should have 12 hours of operation life and more etc. all complete as required.	Each	3	

1.33	Supply, installation, testing & commissioning of Digital Wireless UHF Headset microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have min 100-meter transmission range. It should have cardioid pick-up pattern, Sound pressure level (SPL): 150 dB or more, System Latency : 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through iOS / Android applications via bluetooth. It should have 12 hours of operation life and more etc. all complete as required.	Each	2	
1.34	Supply, installation, testing & commissioning of Active Antenna Splitter with 2 x 1:4 or 1 x 1:8 active connections, which work on 56 MHz Bandwidth and allow for up to 90 channels, Supports Mobile App streamlines setup and operation and eliminates complicated menus, Frequency range: 470 – 694 MHz, along with Automated setup creates reliable connections with minimal time and effort etc all complete as required.	Each	2	
1.35	Supply, installation, testing & commissioning of Antenna booster which work on 56 MHz Bandwidth and allow for up to 90 channels, Supports Mobile App streamlines setup and operation and eliminates complicated menus, Frequency range: 470 – 694 MHz, along with Automated setup creates reliable connections with minimal time and effort etc all complete as required.	Each	4	
1.36	Supply, installation, testing & commissioning of Passive directional antenna, Built-in $\frac{5}{8}$ " and $\frac{3}{8}$ " threads allow for easy mic stand mounting, Frequency range 470 – 1075 MHz, Apex angle (-3 dB) approx. 100°, Front-to-back ratio > 14 dB, Gain typ. 5 dBi and Impedance 50 $\Omega$ with Mounting plate for antenna etc all complete as required.	Each	4	
1.37	Supply, installation, testing & commissioning of 2x 2-way antenna splitter, passive etc. all complete as required.	Each	2	
1.38	Supply, installation, testing & commissioning of Charging set with USB charger and 2 rechargeable battery packs for handheld and bodypack transmitter. It should charge 100% battery power in max. 3 hours charging time. Maximum operating time of 12 hours. Stackable and charging is through USB-C etc all complete etc all complete as required.	Each	3	
1.39	Supply, installation, testing & commissioning of 40 CM Gooseneck Shotgun Microphone with Hyper Cardioid pick-up pattern, Frequency Response: 40 Hz – 20 kHz, Nominal impedance: 50 Ohm, Sensitivity: 18 mV/Pa, Equivalent noise level: 23 dB (A) with a table stand base with a programmable microphone button (Toggle on/off, PTM, PTT, and permanent on) and a bi-color LED ring for status indication along with XLR-3 connector etc all complete as required.	Each	2	

1.40	Supply, installation, testing & commissioning of Wireless Access Point supports the following functions and capabilities, Based on standard WiFi5 standard, IEEE802.11ac, Clean channel manager that scans for the optimal channel use, Operates in the limited access DFS channels maximizing the available spectrum, Support upto 128 or more wireless devices, 3 x 2 MIMO antenna design with diversity to mitigate multipath effect resulting in robust wireless link, Omni directional radiation pattern with range of 40m or more, Highly secure by using WPA2 enterprise encryption, Browser based configuration and monitoring software included, Device discovery by physical button on WAP or via integrated web-based software, Self healing channel switching seamlessly switches to another channel when interference encountered or radar is detected on DFS channel, Battery remaining meeting time visualization and low battery warning, Audio routing for external processing or distance conferencing, Camera protocols providing device information to integrate 3rd party camera control systems, Mix-Minus mode, Dante port: 1 x Dante port (8 x 8 channels), Balanced analog IN and OUT, Recording capabilities: internal (4GB) or external storage (upto 500GB) and file download (MP3), Number of open microphones, interpretation channels: 6 or more, Latency : 16 ms, Audio: 48 kHz / 24 bit, Frequency response: 20 - 20 kHz, THD (22 - 22000 Hz): < 0.02 %, Dynamic range: > 90 dB, Signal to noise ratio: > 95 dBA, RF frequency bands: 2.4 Ghz / 5 GHz or better, Multi-purpose mounting plate, Certification: CE, PoE+ power adapter comes with power plug set etc all complete as required.	Each	1	
1.41	Supply, installation, testing & commissioning of Tabletop wireless conference unit for Chairman/Delegate with removable microphone capability, Multifunctional button for Chairman / Delegate, Button for request-to-speak and priority functionality when unit is configured as chairperson or dual delegate/two request-to-speak functions button compatibility, Built-in high-quality loudspeaker, minimum 1W or better, Frequency Response: 200-20,000 Hz or better, Speaker shall automatically muted when the microphone is active, to prevent acoustic feedback, Unit provides information used by the clean channel manager for frequency coordination and interference avoidance, Dual antenna for optimized signal reception even in challenging and high RF reflective environments, Supports WiFi5, WPA2 enterprise encryption, Push & Lock USB-C type microphone connector, Dual 3.5 mm stereo jack sockets for headphones with single volume control, Hot swap capable dual battery compartment, Option for power the units via USB-C adapter, Rechargeable lithium Ion battery with long hours backup of 12hrs on single charge (included), Certification: CE; BIS etc all complete as required.	Each	25	
1.42	Supply, installation, testing & commissioning of Short Stem Removable 98MM microphone is equipped with USB C-based push and lock connector, Microphone Size: 97 × 33 × 33 mm, Polar Pattern: Cardioid, Max SPL @ 1kHz: 105 dB SPL or better, Signal-to-noise ratio referred to 1 Pa: 74 dB or better, Sensitivity @ 1 kHz : -35 dBV/Pa or better, Frequency response: 125 to 15000 Hz or better, Microphone with Ring Indicator to light up Red when active and Green when in Request, USB-C-based microphone connector, Connection: Push & Lock, Certification: CE etc all complete	Each	25	

1.43	Supply, installation, testing & commissioning of Advanced Audio License with the following functions and capabilities, Create new custom configurations, Activate a prepared audio configuration, Edit, duplicate and delete a configuration, Switch between existing configurations, Visualize the various routing groups as a matrix, Set routing options, Manage all inputs and outputs (auxiliary and Dante levels), Set mix minus and number of mix minus groups, Route translation channels to Dante, Select microphones or loudspeakers as always active for user input and output groups in customs configurations, Set dynamics for all in-room delegates and Interpreter etc all complete as required.	Each	1	
1.44	Supply, installation, testing & commissioning of Charging station: 10 or more battery slots with charge process indication at a time - Charging time to full charge of only 2h, LAN port. Rack mountable, 1U rack space, Smart battery monitoring, Built-in web based software with upgrade capabilities etc all complete	Each	3	
1.45	Supply, installation, testing & commissioning of Open Architecture Digital Signal Processor type 1 with 4 Mic/Line Input with Phantom Power and 4 Line Outputs. GPIO Ports - 8x8 or better. AEC channels - 8 or more with 200ms tail length, Minimum 8x8 Dante channels and support for up to 64x64 Network audio channels via Dante / AES67 or similar protocol, SIP Softphone integration for Audio conferencing, USB-B & C port supporting AV USB Bridging for software or web-based conferencing applications emulating USB Audio (Speakerphone) and USB Video (Camera) driver. 24 bit-A/D-D/A converters or better, 48 kHz Sample rate or better, Input frequency response of 20 Hz to 20 kHz or better, Input dynamic range > 109 dB or better. RS232 Ports - 2 or more etc all complete as required.	Each	1	
1.46	Supply, installation, testing & commissioning of Open Architecture Digital Signal Processor Type 2 with minimum 12 Mic/Line inputs and 12 Line outputs. Shall support phantom power on each microphone input. AEC channels - 16 or more with 200ms tail length for Analog and Networked Microphones. Minimum 32x32 Dante channels and support for up to 128x128 Network audio channels via Dante /AES67 or similar protocol. POTS and SIP Softphone integration for Audio conferencing. USB-B port supporting AV USB Bridging for software or web-based conferencing applications emulating USB Audio (Speakerphone) and USB Video (Camera) driver. 24 bit-A/D-D/A converters or better, 48 kHz Sample rate or better, Input frequency response of 20 Hz to 20 kHz or better, Input dynamic range > 109 or better etc all complete	Each	1	
1.47	Supply, installation, testing & commissioning of Open Architecture flexible chassis based Digital Signal Processor with 8 onboard I/O card slots , AV-to-USB Bridging solution and onboard acoustic echo cancellation (AEC) processing. Audio I/O Capacity- 8 audio I/O card slots - accommodates up to 128x128 total onboard I/O channels, 256 x 256 Network Channel Capacity, 64 AEC Channel Capacity at 200 ms tail length, In-built 16 Multi-track Player capacity & expandable to 128 tracks, 6 GB on board default Media drive capacity. Front Panel monochrome OLED with capacitive touch buttons for settings. Control and integrate external devices using TCP/IP, RS232 and GPIO, with 8 Mic / Line Analog Input on Card, 8 Analog Line Output on Card, Dante Audio Bridge Card with 64x64 channels at 48 kHz from any Dante edge network, Analog Telephony Card, I/O-USB Bridge etc all complete as required.	Each	1	
1.48	Supply, installation, testing & commissioning of Hardware or Software based control system with required ports to control the devices mentioned in BOQ with perpetual licenses to connect Wall/Table mount touch screen controllers and iOS and Windows devices as wireless touch controller etc all complete as required.	Each	2	

1.49	Supply, installation, testing & commissioning of Network I/O Expander, 4 bi-directional RS232 serial ports, One port includes RS422 and RS485 compatibility, Power over Ethernet (PoE) capable, Daisy-chain up to four expanders on a single network run etc all complete as required.	Each	2	
1.50	Supply, installation, testing & commissioning of 5" High Definition, Projective capacitive Multi-touch Touch Screen Controller with 24-bit color display. Viewable Screen Dimensions (diagonal) – 5-inch, Resolution - 1280 × 720, Brightness - 450 Nits, Aspect ratio – 16:9, Power – PoE, Mounting – Wall and Tabletop, Orientation - Vertical / horizontal. etc all complete as required.	Each	1	
1.51	Supply, installation, testing & commissioning of 10" High Definition, Multi-touch Touch Screen Controller with 24-bit color display. Viewable Screen Dimensions (diagonal) – 10.07-inch, Resolution - 1920 × 1200, Brightness - 380 Nits, Aspect ratio – 16:10, Power – PoE, Mounting – Wall and Tabletop, Orientation - Vertical / horizontal. Configurable LEDs on both sides. Sensors - Ambient Light Sensor, Proximity Detection etc all complete as required.	Each	2	
1.52	Supply, installation, testing & commissioning of 8x1G PoE+ 120W 2x1G RJ45 and 2xSFP Managed Switch etc all complete as required.	Each	1	
1.53	Supply, installation, testing & commissioning of 24x1G PoE+ 370W 2x1G RJ45 and 4xSFP Managed Switch etc all complete as required.	Each	1	
1.54	Supply, installation, testing & commissioning of Column Surface-Mount Loudspeaker: Transducer 16 x 2.75 inch weather treated paper cone woofer or better. Frequency Range 90 Hz – 17 kHz or better, Rated Power 200 watts (rms) or better. Sensitivity 89 dB (Narrow) 88 dB (Wide) Mode or better, Coverage 160 x 15 (Narrow) / 30 (Wide) degrees or better, Transformer Taps (70V / 100V): 120 / 60 / 30 Watt or better. Ingress Protection IP54 or better, Powder coated aluminum enclosure or similar. Powder coated aluminum grille or similar. Pan-Tilt mounting bracket should be included etc all complete as required.	Each	2	
1.55	Supply, installation, testing & commissioning of 6.5 inch Two Way Pendant-Mount Loudspeaker: Rated noise power 60 watts or more, Frequency Range 55 Hz – 20 kHz, Sensitivity 88 dB or more, Rated coverage 135° conical DMT, Maximum continuous SPL 106 dB or more, Maximum peak SPL 112 dB or more, Transformer Taps (70V / 100V): 60 / 30 / 15 Watt or better, IP-34 or more Ingress protection, Included mounting hardware: 3 Meter Two quick-link cable assemblies, two slip-lock fasteners, locking euro-block connector, sealable input cover and screws, snap-fit magnetic grille etc all complete	Each	8	
1.56	Supply, installation, testing & commissioning of Two-way, Ceiling-mount loudspeaker with back can. Continuous Power - minimum 30 Watts or better, Sensitivity- minimum 89 dB SPL or better, Coverage Angle -110° or less, Maximum Peak SPL - minimum 110 dB or better, Rated Impedance - 8 Ohms. Transformer Tapping - 70V/100V(30,15,7.5watts) or better. Transducers - LF - minimum 6.5-inch or better, HF- .86-inch coaxially mounted with LF or better, should include OEM supplied mounting brackets etc. all complete as required.	Each	16	
1.57	Supply, installation, testing & commissioning of 8 Channel Class D Amplifier, 200. Watt at 4 Ω, 8 Ω, 70 V or 100 V on each channel, FlexAmp Technology allows each pair of amplifier channels to deliver up to 400 W total power, in any ratio, Frequency response at 8 Ω 20 Hz – 20 kHz +/- 0.5 dB, Signal to Noise > 103 dB, Input impedance >10k, balanced or unbalanced, UL, CE, RoHS / WEEE compliant etc. all complete as required.	Each	1	

1.58	Supply, installation, testing & commissioning of Quad Channel Class-D amplifier. Per Channel Power 60W @8Ω/4Ω or better. Support for 70V/100V or more. Power Sharing or Bridge/Parallel modes for better power distribution. Frequency Response- 20 Hz – 20 kHz or better. Signal to Noise ratio -> 103 dB or better, Input impedance - >10k, balanced or unbalanced or better, Front and Rear panel indicators for Power, signal (per channel), limit / mute / protect etc. or better. Better to have Remote standby and Power saving features - Auto-standby etc. all complete as required.	Each	3	
1.59	Supply, installation, testing & commissioning of 1 Meter Premium High-Speed HDMI 2.0b flexy cable, Bandwidth up to 18Gbps, Up to 4096 x 2160 @ 60Hz at RGB 4:4:4 video resolution, Support High Dynamic Range (HDR10), Dolby Vision and Hybrid log-gamma (HLG) video, Consumer Electronics Control (CEC), Audio Return Channel (ARC) and HDMI Ethernet Channel (HEC) etc. all complete as required.	Each	34	
1.60	Supply, installation, testing & commissioning of 2 Meter Premium High-Speed HDMI 2.0b flexy cable, Bandwidth up to 18Gbps, Up to 4096 x 2160 @ 60Hz at RGB 4:4:4 video resolution, Support High Dynamic Range (HDR10), Dolby Vision and Hybrid log-gamma (HLG) video, Consumer Electronics Control (CEC), Audio Return Channel (ARC) and HDMI Ethernet Channel (HEC) etc. all complete	Each	40	
1.61	Supply, installation, testing & commissioning of 3 Meter Premium High Speed HDMI 2.0b flexy cable, Bandwidth up to 18Gbps, Up to 4096 x 2160 @ 60Hz at RGB 4:4:4 video resolution, Support High Dynamic Range (HDR10), Dolby Vision and Hybrid log-gamma (HLG) video, Consumer Electronics Control (CEC), Audio Return Channel (ARC) and HDMI Ethernet Channel (HEC) etc all complete as required.	Each	3	
1.62	Supply, installation, testing & commissioning of 5 Meter Premium High Speed HDMI 2.0b Premium cable, Bandwidth up to 18Gbps, Up to 4096 x 2160 @ 60Hz at RGB 4:4:4 video resolution, Support High Dynamic Range (HDR10), Dolby Vision and Hybrid log-gamma (HLG) video, Consumer Electronics Control (CEC), Audio Return Channel (ARC) and HDMI Ethernet Channel (HEC) etc all complete as required.	Each	33	
1.63	Supply, installation, testing & commissioning of 10 Meter Premium High-Speed HDMI 2.0b Hybrid Optical Active Cable, Bandwidth up to 18Gbps, Up to 4096 x 2160 @ 60 Hz at RGB 4:4:4 video resolution, Supports EDID, HDCP2.2, HDR, CEC, ARC etc all complete as required.	Each	17	
1.64	Supply, installation, testing & commissioning of 15 Meter Premium High-Speed HDMI 2.0b Hybrid Optical Active Cable, Bandwidth up to 18Gbps, Up to 4096 x 2160 @ 60 Hz at RGB 4:4:4 video resolution, Supports EDID, HDCP2.2, HDR, CEC, ARC etc all complete as required.	Each	3	
1.65	Supply, installation, testing & commissioning of 2 Meter Full-featured Type-C ProAV cable 4K Video; USB 2.0 & 3.2 Gen 2x2 Data; 100W/5A PD Charging, 4 Lane Displayport Alt mode (4K60FPS Video and Audio), USB3.2 Gen 2x2 20Gbps (10Gbps/lane) "SuperSpeedPlus" (4K Webcam, SSD storage) etc all complete	Each	27	
1.66	Supply, installation, testing & commissioning of 10 Meter HUSB 3.1 Gen1 SuperSpeed Active Extension Cable TypeA/male to TypeA/female, Native USB2/USB1 and USB3 extension, Supporting peripherals via USB 2.0 up to 480 Mbps (Mouse, Keyboard, Thumb Drive, Speakerphone and Webcam), Plug and play compatible with PC, Mac, and Linux etc all complete as required.	Each	18	
1.67	Supply, installation, testing & commissioning of 4 x 4 USB 3.2 Gen 1 Industrial Hub Switch etc all complete as required.	Each	5	

1.68	Supply, installation, testing & commissioning of Microphone Cable, 2 Conductor 22 AWG Tinned Copper, PE Insulation, 85% Tinned Copper Braid Shield, Cotton Braid, PVC Jacket (as per actual) etc all complete as required.	Meter	250	
1.69	SITC 2 Conductor 14 AWG Speaker Cable, stranded Bare copper conductors, PVC / Nylon insulation, PVC jacket (as per actual) etc all complete	Meter	500	
1.70	SITC 2 Conductor Cat 6 STP Cable (as per actual) etc all complete as required.	Meter	965	
1.71	Supply, installation, testing & commissioning of Connector and Accessories (such as USB Patch cord cable, USB-HUB, USB-C to HDMI Adaptor etc) etc all complete as required.	Each	19	
1.72	Supply, installation, testing & commissioning of Rack Structure 24 U Air Cooled AV Equipment Rack with 4 Nos. of Vertical Power Strips, Cantilever Selves, Cable routing perforations, 4 No. of Spin Wheels etc all complete as required.	Each	2	
1.73	Supply, installation, testing & commissioning of Content Management System (CMS) for digital signage (Per display): On-premise / Cloud-based, Intuitive dashboard for content scheduling, layout design, and performance monitoring, Ability to manage a single display or a network of displays from a centralized system, Support for a growing number of displays without performance degradation, Media Format Support: Video: MP4, MOV, AVI, WMV, Images: JPEG, PNG, BMP, HTML5 and animations, Divide each display into multiple regions to show different types of content (e.g., video in one zone, news ticker in another), Dynamic Content Support, Time-based scheduling: Daily, weekly, or monthly schedules, Event-based scheduling: Content triggered by specific conditions (e.g., time of day or audience proximity), Drag-and-drop functionality to arrange and update playlists for individual displays, Automatic content scaling to fit display size, Push content via the internet, LAN, or local storage, Displays can continue running pre-downloaded content without an active connection, Keep detailed logs of when and where content was displayed etc all complete as required.	Each	9	
1.74	Only Installation, testing & commissioning of Professional HD Display Available with QCI of Multiple Sizes Between 75" to 43 " etc all complete as required.	Each	30	

Dated this Day of (Year)

(Signature) (In the capacity of)

Duly authorized to sign the Bid Response for and on behalf of:

(Name and Address of Company) Seal/Stamp of Bidder

**Form 6: Performa for Manufacturer Authorisation form (MAF)**

Dated: .....

To,  
Quality Council of India,  
Institution of Engineers Building,  
2nd Floor, 2, Bahadur Shah Zafar Marg,  
New Delhi - 110002, India

Subject: Manufacturer Authorisation form (MAF) to M/s ..... for.....

Ref: GeM Bid No..... dated .....

Dear Sir,

We, M/s....., are established and reputed manufacturer and service provider of..... (Product details), having our registered office at.....We hereby authorise M/s ..... (Bidder name), Office..... to participate in bid and subsequently upon award of the bid to execute the Supply and Installation & Commissioning of our range of products against your above said bid.

Thanking you,  
Best regards,

Authorised Signatory

**Format for Pre-bid query form**

S. No.	Clause no., Page no.	Original clause in RFP document	The point on which Clarification required	Reason for amendment (if any)

Bidders are required to submit their queries as per the above format on their letter head duly signed and also share the word file of the above to the [procurement@qcin.org](mailto:procurement@qcin.org) within 1 day from the date of conducting of pre-bid meeting.

### ANNEXURE-B: Format for Price Breakup

S. No.	Description	Unit	Qty	Rate Quoted (In INR)	Amount (in INR)
1.1	Supply, installation, testing & commissioning of Direct View LED Video Wall Screen, 136" LED Wall AIO screen with 1.58 mm pixel pitch and floor stand from same OEM in 16:9 aspect ratio with diecast aluminium cabinets, Minimum Resolution Full HD/1920x1080 or better, with controller inbuilt and sound of 30Watts Minimum inputs combination of 2 x HDMI 2.0, 1 x DP, 4 x USB, Sound Out for speakers, Rs232/LAN for ethernet, Max Brightness 600 nits or better with HDR, Refresh rate 3840 Hz or better, Contrast 10,000:1 or better, , 160 x 160 Viewing Angle, Colour Temperature 3000 to 10000 Adjustable or more, Brightness Uniformity 97% or better, Inbuilt OS Windows/ Android/ Tizen/WebOS with inbuilt speakers, remote controller, Standby power mode supported to save energy and Max load should not be more than 1.5KW with Plug & play power cable. Smart features like sign -edge inbuilt, wireless mirroring etc. with mounting arrangement etc all complete as required.	Set	2		
1.2	Supply, installation, testing & commissioning of 98" Professional Ultra HD Display Panel, 4K UHD (3840 X 2160) Resolution, Brightness 600 Cd / m2 or more, Android 11.0 based SOC with Quad Core Processor, 4GB RAM, 32GB Memory, Interface: 2 HDMI 2.0 or more inputs, 1 DisplayPort 1.2 or more input, 1 USB 3.0 or more, 1 USB 2.0 or more, Ethernet, RS232, 1 Audio Out, Digital Audio Out, 1 HDMI 2.0 Out, 24W or more built-in Speaker, 24/7 operation, RS232 and LAN Control, OSD and UI rotation, USB Auto play function, Multifunctional USB Type C (for Audio, Video, Network, Microphone, 65W charging, Camera connectivity), Wireless Screen sharing with Airplay, Miracast and Mirroring, PIP/PBP support, Landscape and Portrait mode, Instant mobile content transfer, OPS Slot available, BIS Certified etc all complete as required.	Each	1		
1.3	Supply, installation, testing & commissioning of 85" Professional Ultra HD Display Panel, 4K UHD (3840 X 2160) Resolution, Brightness 500 Cd / m2 or more, Android 11.0 based SOC with Quad Core Processor, 4GB RAM, 32GB Memory, Interface: 2 HDMI 2.0 or more inputs, 1 DisplayPort 1.2 or more input, 1 USB 3.0 or more, 1 USB 2.0 or more, Ethernet, RS232, 1 Audio Out, Digital Audio Out, 1 HDMI 2.0 Out, 24W or more built-in Speaker, 24/7 operation, RS232 and LAN Control, OSD and UI rotation, USB Auto play function, Multifunctional USB Type C (for Audio, Video, Network, Microphone, 65W charging, Camera connectivity), Wireless Screen sharing with Airplay, Miracast and Mirroring, PIP/PBP support, Landscape and Portrait mode, Instant mobile content transfer, OPS Slot available, BIS Certified etc all complete as required.	Each	1		
1.4	Supply, installation, testing & commissioning of 75" Professional Ultra HD Display Panel, 4K UHD (3840 X 2160) Resolution, Brightness 500 Cd / m2 or more, Android 11.0 based SOC with Quad Core Processor, 4GB RAM, 32GB Memory, Interface: 2 HDMI 2.0 or more inputs, 1 DisplayPort 1.2 or more input, 1 USB 3.0 or more, 1 USB 2.0 or more, Ethernet, RS232, 1 Audio Out, Digital Audio Out, 1 HDMI 2.0 Out, 24W or more built-in Speaker, 24/7 operation, RS232 and LAN Control, OSD and UI rotation, USB Auto play function, Multifunctional USB Type C (for Audio, Video, Network, Microphone, 65W charging, Camera connectivity), Wireless Screen sharing with Airplay, Miracast and Mirroring, PIP/PBP support, Landscape and Portrait mode,	Each	1		

	Instant mobile content transfer, OPS Slot available, BIS Certified etc all complete as required.				
1.5	Supply, installation, testing & commissioning of 65" Professional Ultra HD Display Panel, 4K UHD (3840 X 2160) Resolution, Brightness 500 Cd / m2 or more, Android 11.0 based SOC with Quad Core Processor, 4GB RAM, 32GB Memory, Interface: 2 HDMI 2.0 or more inputs, 1 DisplayPort 1.2 or more input, 1 USB 3.0 or more , 1 USB 2.0 or more, Ethernet, RS232, 1 Audio Out, Digital Audio Out, 1 HDMI 2.0 Out, 24W or more built-in Speaker, 24/7 operation, RS232 and LAN Control, OSD and UI rotation, USB Auto play function, Multifunctional USB Type C (for Audio, Video, Network, Microphone, 65W charging, Camera connectivity), Wireless Screen sharing with Airplay, Miracast and Mirroring, PIP/PBP support, Landscape and Portrait mode, Instant mobile content transfer, OPS Slot available, BIS Certified etc all complete as required.	Each	4		
1.6	Supply, installation, testing & commissioning of 55" Professional Ultra HD Display Panel, 4K UHD (3840 X 2160) Resolution, Brightness 500 Cd / m2 or more, Android 11.0 based SOC with Quad Core Processor, 4GB RAM, 32GB Memory, Interface: 2 HDMI 2.0 or more inputs, 1 DisplayPort 1.2 or more input, 1 USB 3.0 or more , 1 USB 2.0 or more, Ethernet, RS232, 1 Audio Out, Digital Audio Out, 1 HDMI 2.0 Out, 24W or more built-in Speaker, 24/7 operation, RS232 and LAN Control, OSD and UI rotation, USB Auto play function, Multifunctional USB Type C (for Audio, Video, Network, Microphone, 65W charging, Camera connectivity), Wireless Screen sharing with Airplay, Miracast and Mirroring, PIP/PBP support, Landscape and Portrait mode, Instant mobile content transfer, OPS Slot available, BIS Certified etc all complete as required.	Each	13		
1.7	Supply, installation, testing & commissioning of 43" Professional Ultra HD Display Panel, 4K UHD (3840 X 2160) Resolution, Brightness 500 Cd / m2 or more, Android 11.0 based SOC with Quad Core Processor, 4GB RAM, 32GB Memory, Interface: 2 HDMI 2.0 or more inputs, 1 DisplayPort 1.2 or more input, 1 USB 3.0 or more , 1 USB 2.0 or more, Ethernet, RS232, 1 Audio Out, Digital Audio Out, 1 HDMI 2.0 Out, 24W or more built-in Speaker, 24/7 operation, RS232 and LAN Control, OSD and UI rotation, USB Auto play function, Multifunctional USB Type C (for Audio, Video, Network, Microphone, 65W charging, Camera connectivity), Wireless Screen sharing with Airplay, Miracast and Mirroring, PIP/PBP support, Landscape and Portrait mode, Instant mobile content transfer, OPS Slot available, BIS Certified etc all complete as required.	Each	1		
1.8	Supply, installation, testing & commissioning of 65" Multi touch Interactive display with built in SOC with 1.9 Ghz Quad core processor, Android 13.0, 4 GB RAM, 32 GB Memory, Brightness 450 Cd/m2 or more, 3 mm 7 MOHS tempered glass, 5 GHz Wifi built in, Interface: 3 HDMI Input, 1 HDMI Out, 4 USB A 3.0, 1 USB 2.0, 1 USB Type C 3.0, Ethernet, RS232, Audio Out, Audio In, 1 VGA input, 2 x 20W front facing speakers, 40 point touch for Windows, 10 point touch for Android, OPS Slot, Built- in white board, Writing, Pen, Palm Eraser, Save, Screen Capture, Storage and Tool Bar. Supports 3rd party applications, recording feature, USB WEB Cam Compatible, Support PPT, Word, PDF, Image, Video Play, 2 x touch pen, Compatible with Device Management Software BIS Certified etc all complete as required.	Each	10		
1.9	Supply, installation, testing & commissioning of 75" Multi touch Interactive display with built in SOC with 1.9 Ghz Quad core processor, Android 13.0, 4 GB RAM, 32 GB Memory, Brightness 450 Cd/m2 or more, 3 mm 7 MOHS tempered glass, 5 GHz Wifi built in, Interface: 3 HDMI Input, 1 HDMI Out, 4	Each	2		

	USB A 3.0, 1 USB 2.0, 1 USB Type C 3.0, Ethernet, RS232, Audio Out, Audio In, 1 VGA input, 2 x 20W front facing speakers, 40 point touch for Windows, 10 point touch for Android, OPS Slot, Built- in white board, Writing, Pen, Palm Eraser, Save, Screen Capture, Storage and Tool Bar. Supports 3rd party applications, recording feature, USB WEB Cam Compatible, Support PPT, Word, PDF, Image, Video Play, 2 x touch pen, Compatible with Device Management Software BIS Certified etc all complete				
1.10	Supply, installation, testing & commissioning of Fixed Wall Mount, capable of holding up to 75 kg and supports 32" to 90" displays, VESA Compliant etc all complete as required.	Each	56		
1.11	Supply, installation, testing & commissioning of Fixed Wall Mount, capable of holding up to 110 kg and supports 75" to 98" displays, VESA Compliant etc all complete as required.	Each	1		
1.12	Supply, installation, testing & commissioning of Adjustable Drop Universal Flat Screen Ceiling Mount with of 625mm - 950mm adjustable drop, Screen size: up to 65", Max load: 50kg, Tilt adjustment: +/-15° etc all complete as required.	Each	1		
1.13	Supply, installation, testing & commissioning of Floor Mount Trolley, Universal in design to fit 65" to 98" displays, can hold weight up to 120 kg, VESA compliant etc all complete	Each	1		
1.14	Supply, installation, testing & commissioning of Cable Cubby Type 1 with flip top having 2 Universal Power, 2 USB Charge with 1 Ethernet Cable / Connector, 1 Telephone Cable / Voice Connector, Spring Type Cable Retractor for 1 HDMI, 1 USB, and 1 USB-C to with 1 to 1.5-meter Cable for device usages at table spring type all complete as required.	Each	13		
1.15	Supply, installation, testing & commissioning of Cable Cubby Type 2 with flip top, cover and multi-format cables, 2 Universal Power, 2 USB Charger, 1 HDMI, 1 USB-C, 1 Ethernet Cable, 1 Telephone Cable / Voice Connector, made of steel and aluminium etc all complete	Each	58		
1.16	Supply, installation, testing & commissioning of Wooden lectern with Dual wired microphone connectivity, 25" table top, with reading lamps, Cable management, Large reading surface as required with cables & connectors as required etc. all complete etc all complete as required.	Each	1		
1.17	Supply, installation, testing & commissioning of Room Scheduler Display: 10 Inch Multi-Touch display, PoE+ Powered, portrait, landscape, and table-top Mounting, with Android SoC processor. Native and web apps, Resolution 1280 x 800 Pixels with Book directly on the screen, Book in your normal calendar software, Option to see all the details including room status, future schedule, and bookings, Book as usual - via Outlook or Google Calendar, via the cloud, by using your smartphone/tablet, or directly on the screen outside of the meeting room or at the reception, Supports MS Exchange Server, No custom changes are required in the organization's calendar configurations, Customise colors, logos, backgrounds, and components. Option to easily customize access control and interactivity. Use as read-only displays or fully interactive ones, Highly secure on-prem deployment with no data transmission to our cloud or servers etc all complete as required.	Each	31		

1.18	Supply, installation, testing & commissioning of Wireless presentation module, Native protocols: Airplay, Google Cast, Miracast, Maximum number of simultaneous connections (with Buttons and/or App): 32, Local view, Management and reporting, Frequency band: 2.4 GHZ and 5 GHz, LAN & WiFi, 4K UHD output, USB-A and USB-C port, 100% secure, encrypted and cloud-managed with Two buttons, no cables, no software to download needed etc all complete	Each	6		
1.19	Supply, installation, testing & commissioning of 4K Network PTZ Conference camera with minimum 12x optical zoom & 80-degree horizontal coverage. Low Noise CMOS 4K image sensor with User-configurable resolution and quality for IP streams (up to 1080p). HDMI resolutions up to 4K30 or better and SDI-3G resolution up to 1080p60 or better. Image rotation controls to allow for inverted mounting using ceiling bracket. Minimum Illumination - 0.5 Lux @ (F1.8, AGC ON) or better, Horizontal Rotation Range - $\pm 170^\circ$ , Vertical Rotation Range - $-30^\circ$ to $+90^\circ$ or better, White Balance controls- Auto, indoor, outdoor, one-push, manual, specified color temperature or better. Camera should be able to transmit video via network to USB endpoint connected for video conferencing. Power – PoE & AUX. <b>Voice tracking facility by integration with Tabletop wireless conference unit for Chairman/Delegate and Ceiling Array microphones</b> Shall include wall mounting bracket included etc. all complete as required.	Each	1		
1.20	Supply, installation, testing & commissioning of 4K Network PTZ Conference camera with minimum 20x optical zoom & 60-degree horizontal coverage. Low Noise CMOS 4K image sensor with User-configurable resolution and quality for IP streams (up to 1080p). HDMI resolutions up to 4K30 or better and SDI-3G resolution up to 1080p60 or better. Image rotation controls to allow for inverted mounting using ceiling bracket. Minimum Illumination - 0.5 Lux @ (F1.8, AGC ON) or better, Horizontal Rotation Range - $\pm 170^\circ$ , Vertical Rotation Range - $-30^\circ$ to $+90^\circ$ or better, White Balance controls- Auto, indoor, outdoor, one-push, manual, specified color temperature or better. Camera should be able to transmit video via network to USB endpoint connected for video conferencing. Power – PoE & AUX. <b>Voice tracking facility by integration with Tabletop wireless conference unit for Chairman/Delegate and Ceiling Array microphones</b> Shall include wall mounting bracket included etc all complete as required.	Each	5		
1.21	Supply, installation, testing & commissioning of HD Visual Communications System, SIP, H.323, Enabling High-Definition Web Conferences, Video Compression Method: H.261 (mainstream only), H.263, H.263+, H.263++ (reception only), H.264 High Profile, H.264 Baseline Profile, Video Input: 1 HDMI, 1 PC, Video output: 2 HDMI, IP mode, NAT Traversal mode, IP / NAT Traversal mode etc all complete as required.	Each	1		
1.22	Supply, installation, testing & commissioning of Intel Celeron Mini-PC, Windows 10 IOT License, One-time Up to 4 users wireless screen shares & Quad-view Support/ Preinstalled suite of Video conferencing apps / 720p Camera Support / Single Display Support/ Online dashboard support with wireless keyboard and mouse etc all complete as required.	Each	2		

1.23	Supply, installation, testing & commissioning of Universal Switcher with HDMI and USB-C connectivity Type 1, 1 HDMI Inputs, 1 USB-C connectivity (4K Video, Audio, Data, Power charge), 1 HDMI Outputs, 4 USB-A 3.0 Connection (for USB Devices), 1 USB-B 3.0 Connection (for PC hosts), USB host switching, Analog audio de-embedding, Charging via USB-C up to 60w, Supports HDMI 4K signal formats (4K UHD @60Hz RGB 4:4:4, up to 18 Gbps), DP Alt Mode, HDMI 2.0, HDMI 1.x, DVI Signal Support, HDCP 1.x, HDCP 2.2 support (Combination of same make devices are allowed to achieve given specification) etc all complete as required.	Each	20		
1.24	Supply, installation, testing & commissioning of Universal Switcher with HDMI and USB-C connectivity Type 2, 2 HDMI Inputs, 2 USB-C connectivity (4K Video, Audio, Data, Power charge), 2 HDMI Outputs, 4 USB-A 3.0 Connection (for USB Devices), 2 USB-B 3.0 Connection (for PC hosts), USB host switching, Analog audio de-embedding, Charging via USB-C up to 60w, Supports HDMI 4K signal formats (4K UHD @60Hz RGB 4:4:4, up to 18 Gbps), DP Alt Mode, HDMI 2.0, HDMI 1.x, DVI Signal Support, HDCP 1.x, HDCP 2.2 support (Combination of same make devices are allowed to achieve given specification) etc all complete	Each	13		
1.25	Supply, installation, testing & commissioning of 8 Inputs and 8 Outputs HDMI 2.0 Compatible Full 4K Matrix Switcher, Supports HDMI 4K signal formats (4K UHD @60Hz RGB 4:4:4, up to 18 Gbps), HDCP 2.2 and HDCP 1.4 compliant with cross conversion capabilities, HDMI 2.0, HDMI 1.4 and DVI 1.0 compliant, HDR and Low Latency Dolby Vision support, High bitrate Audio Support including Dolby Atmos, TrueHD, DTS-HD, Audio de-embedding, Advanced EDID Management, Fully non-blocking switching architecture etc all complete as required.	Each	2		
1.26	Supply, installation, testing & commissioning of AVX (non-switchable) HDMI 2.0 Extender (Transmitter / Receiver): Supports HDMI 4K signal formats (4K UHD @60Hz RGB 4:4:4, up to 18 Gbps), Signal Type: HDMI 2.0, HDMI 1.x, DVI, Maximum data rate: 18 Gbps, Bi-directional PoC remote powering, Extends HDMI 2.0, audio, Ethernet, RS-232 up to 100m over one CATx cable, HDR and Low Latency Dolby Vision support, Bi-directional RS-232 extension (pass-through), HDCP 2.3 compliant (transparent pass-through), Ethernet extension etc all complete	Each	18		
1.27	Supply, installation, testing & commissioning of Unified Communication Bar (All in One) with BYOD Type 1, Built-in dante integration, Should have Built-In DSP which automatically optimizes room acoustics, Integrated Beamforming microphone, 6 Nos. of MEMS capsules with pickup range of 4.5 m or more, Should have 4K ePTZ camera, 5x digital zoom with automatic framing and person tiling feature, Built-in Class D amplifier with 4 Nos. of 40 W full range speaker, Should have 2 HDMI, 1 USB Type-C (3.1), 1 USB Type-A (3.1), Dual Ethernet ports, Bluetooth 5.1 and IEEE 802.11a / b / g / n / ac Wi-fi standard, Zooms and Teams certified, High-precision audio settings for maximum control, setting to exclude (min 3) and prioritize the areas of the room, <b>which automatically focus on the person speaking in the room, One Priority Zone and up to three Exclusion Zones shall be adjustable</b> , should be controlled through centralized monitoring software along with IR remote control and mounting kit etc all complete as required.	Each	14		

1.28	Supply, installation, testing & commissioning of Unified communication bar with BYOD Type 2, Built-in dante integration, Should have Built-In DSP which automatically optimizes room acoustics, Integrated Beamforming microphone, 4 Nos. of MEMS capsules with pickup range of 3.5 m or more, Should have 4K ePTZ camera, 3x digital zoom with automatic framing and person tiling feature, Built-in Class D amplifier with 2 Nos. of 20W full range speaker, should have 1 x HDMI, 1 x USB Type-C(3.1), 1 x USB Type-A(3.1), 1 x1000/100/10 Mbit/s (RJ45) ethernet ports, POE powered, 5.1 bluetooth and IEEE 802.11a /b /g /n /ac Wi-fi standard, Zooms and Teams certified, High-precision audio settings for maximum control, setting to exclude (min 3) and prioritize the areas of the room, should be controlled through centralized monitoring software along with IR remote control and mounting kit, which <b>automatically focus on the person speaking in the room, One Priority Zone</b> and should be controlled through centralized monitoring software along with IR remote control and mounting kit etc all complete as required.	Each	2		
1.29	Supply, installation, testing & commissioning of Round Ceiling Mounted Beamforming Microphone Array, shall consist of 15 pre-polarizing condenser microphone capsules, shall use beamforming technology that automatically focuses on whoever is speaking in the room and always follows the person around the room, microphone array shall have a Dante interface for digital audio output, supporting both single-cable (PoE + Control + Dante) and split mode cabling (PoE + Ctrl / Dante) on a second RJ45 port, Microphone sensitivity shall be 0 dBV/Pa (1020 mV/Pa). Maximum sound pressure level shall be 98 dB SPL, Dynamic range shall be 81 dB(A), including a flush-mount installation kit etc all complete Approved Make: Sennhieser / Shure / Clock Audio	Each	2		
1.30	Supply, installation, testing & commissioning of Ceiling microphone with automatic dynamic Beamforming technology, the beam will automatically detect the position of the person speaking and will follow the person around the room at all times. It should have 2 x Dante digital audio (Redundancy), Analog audio out (Phoenix 3-pin), and Ethernet for Control and PoE connectivity ports. The coverage of the ceiling microphone should be min 800 square feet or more. It should have a true voice lift feature to increase audio intelligibility above the ambient noise floor. It should support IT industry standards like IEEE 802.1x. It can be controlled through software that can control and monitor the microphone in any network. It should have min 100 dB SPL, 5ms latency, and min 90dBA or higher dynamic range. High-precision audio settings for maximum control, setting to exclude (min 5) and prioritize the areas of the room. It should be certified from Microsoft Teams and Zoom Video conferencing applications. It should have UL 62368 certification (including UL 2043 testing and compliance) and safety certifications etc all complete as required.	Each	6		
1.31	Supply, installation, testing & commissioning of Digital Wireless UHF handheld microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine-tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have a minimum 100-meter transmission range. It should have a Cardioid pick-up pattern, Sound pressure level (SPL): 150 dB or more, System Latency: 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through iOS / Android applications via	Each	3		

	bluetooth. It should have 12 hours of operation life and more etc all complete as required.				
1.32	Supply, installation, testing & commissioning of Digital Wireless UHF lapel microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have min 100-meter transmission range. It should have omni-directional pick-up pattern, Sound pressure level (SPL): 130 dB or more, System Latency: 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through iOS / Android applications via bluetooth. It should have 12 hours of operation life and more etc all complete as required.	Each	3		
1.33	Supply, installation, testing & commissioning of Digital Wireless UHF Headset microphone set with Rack receiver having 56 MHz or higher of switching bandwidth and equidistant spacing enables up to 90 channels or more along with 2,240 selectable frequencies for fine tuning. It should have auto scan feature for efficient connections to reduce time and effort. It should have min 100-meter transmission range. It should have cardioid pick-up pattern, Sound pressure level (SPL): 150 dB or more, System Latency: 1.9 ms, Dynamic range: 130 dB and frequency response: 20Hz- 20000 Hz. The microphone system can be controlled through iOS / Android applications via bluetooth. It should have 12 hours of operation life and more etc all complete as required.	Each	2		
1.34	Supply, installation, testing & commissioning of Active Antenna Splitter with 2 x 1:4 or 1 x 1:8 active connections, which work on 56 MHz Bandwidth and allow for up to 90 channels, Supports Mobile App streamlines setup and operation and eliminates complicated menus, Frequency range: 470 – 694 MHz, along with Automated setup creates reliable connections with minimal time and effort etc all complete as required.	Each	2		
1.35	Supply, installation, testing & commissioning of Antenna booster which work on 56 MHz Bandwidth and allow for up to 90 channels, Supports Mobile App streamlines setup and operation and eliminates complicated menus, Frequency range: 470 – 694 MHz, along with Automated setup creates reliable connections with minimal time and effort etc all complete as required.	Each	4		
1.36	Supply, installation, testing & commissioning of Passive directional antenna, Built-in ⅝" and ⅜" threads allow for easy mic stand mounting, Frequency range 470 – 1075 MHz, Apex angle (-3 dB) approx. 100°, Front-to-back ratio > 14 dB, Gain typ. 5 dBi and Impedance 50 Ω with Mounting plate for antenna etc all complete as required.	Each	4		
1.37	Supply, installation, testing & commissioning of 2x 2-way antenna splitter, passive etc all complete as required.	Each	2		

1.38	Supply, installation, testing & commissioning of Charging set with USB charger and 2 rechargeable battery packs for handheld and bodypack transmitter. It should charge 100% battery power in max. 3 hours charging time. Maximum operating time of 12 hours. Stackable and charging is through USB-C etc all complete etc all complete as required.	Each	3		
1.39	Supply, installation, testing & commissioning of 40 CM Gooseneck Shotgun Microphone with Hyper Cardioid pick-up pattern, Frequency Response: 40 Hz – 20 kHz, Nominal impedance: 50 Ohm, Sensitivity: 18 mV/Pa, Equivalent noise level: 23 dB (A) with a table stand base with a programmable microphone button (Toggle on/off, PTM, PTT, and permanent on) and a bi-color LED ring for status indication along with XLR-3 connector etc all complete as required.	Each	2		
1.40	Supply, installation, testing & commissioning of Wireless Access Point supports the following functions and capabilities, Based on standard WiFi5 standard, IEEE802.11ac, Clean channel manager that scans for the optimal channel use, Operates in the limited access DFS channels maximizing the available spectrum, Support upto 128 or more wireless devices, 3 x 2 MIMO antenna design with diversity to mitigate multipath effect resulting in robust wireless link, Omni directional radiation pattern with range of 40m or more, Highly secure by using WPA2 enterprise encryption, Browser based configuration and monitoring software included, Device discovery by physical button on WAP or via integrated web-based software, Self healing channel switching seamlessly switches to another channel when interference encountered or radar is detected on DFS channel, Battery remaining meeting time visualization and low battery warning, Audio routing for external processing or distance conferencing, Camera protocols providing device information to integrate 3rd party camera control systems, Mix-Minus mode, Dante port: 1 x Dante port (8 x 8 channels), Balanced analog IN and OUT, Recording capabilities: internal (4GB) or external storage (upto 500GB) and file download (MP3), Number of open microphones, interpretation channels: 6 or more, Latency : 16 ms, Audio: 48 kHz / 24 bit, Frequency response: 20 - 20 kHz, THD (22 - 22000 Hz): < 0.02 %, Dynamic range: > 90 dB, Signal to noise ratio: > 95 dBA, RF frequency bands: 2.4 Ghz / 5 GHz or better, Multi-purpose mounting plate, Certification: CE, PoE+ power adapter comes with power plug set etc all complete as required.	Each	1		
1.41	Supply, installation, testing & commissioning of Tabletop wireless conference unit for Chairman/Delegate with removable microphone capability, Multifunctional button for Chairman / Delegate, Button for request-to-speak and priority functionality when unit is configured as chairperson or dual delegate/two request-to-speak functions button compatibility, Built-in high-quality loudspeaker, minimum 1W or better, Frequency Response: 200-20,000 Hz or better, Speaker shall automatically muted when the microphone is active, to prevent acoustic feedback, Unit provides information used by the clean channel manager for frequency coordination and interference avoidance, Dual antenna for optimized signal reception even in challenging and high RF reflective environments, Supports WiFi5, WPA2 enterprise encryption, Push & Lock USB-C type microphone connector, Dual 3.5 mm stereo jack sockets for headphones with single volume control, Hot swap capable dual battery compartment, Option for power the units via USB-C adapter, Rechargeable lithium Ion battery with long hours backup of 12hrs on single charge (included), Certification: CE; BIS etc all complete as required.	Each	25		

1.42	Supply, installation, testing & commissioning of Short Stem Removable 98MM microphone is equipped with USB C-based push and lock connector, Microphone Size: 97 × 33 × 33 mm, Polar Pattern: Cardioid, Max SPL @ 1kHz: 105 dB SPL or better, Signal-to-noise ratio referred to 1 Pa: 74 dB or better, Sensitivity @ 1 kHz : -35 dBV/Pa or better, Frequency response: 125 to 15000 Hz or better, Microphone with Ring Indicator to light up Red when active and Green when in Request, USB-C-based microphone connector, Connection: Push & Lock, Certification: CE etc all complete	Each	25		
1.43	Supply, installation, testing & commissioning of Advanced Audio License with the following functions and capabilities, Create new custom configurations, Activate a prepared audio configuration, Edit, duplicate and delete a configuration, Switch between existing configurations, Visualize the various routing groups as a matrix, Set routing options, Manage all inputs and outputs (auxiliary and Dante levels), Set mix minus and number of mix minus groups, Route translation channels to Dante, Select microphones or loudspeakers as always active for user input and output groups in customs configurations, Set dynamics for all in-room delegates and Interpreter etc all complete as required.	Each	1		
1.44	Supply, installation, testing & commissioning of Charging station: 10 or more battery slots with charge process indication at a time - Charging time to full charge of only 2h, LAN port. Rack mountable, 1U rack space, Smart battery monitoring, Built-in web based software with upgrade capabilities etc all complete	Each	3		
1.45	Supply, installation, testing & commissioning of Open Architecture Digital Signal Processor type 1 with 4 Mic/Line Input with Phantom Power and 4 Line Outputs. GPIO Ports - 8x8 or better. AEC channels - 8 or more with 200ms tail length, Minimum 8x8 Dante channels and support for up to 64x64 Network audio channels via Dante / AES67 or similar protocol, SIP Softphone integration for Audio conferencing, USB-B & C port supporting AV USB Bridging for software or web-based conferencing applications emulating USB Audio (Speakerphone) and USB Video (Camera) driver. 24 bit-A/D-D/A converters or better, 48 kHz Sample rate or better, Input frequency response of 20 Hz to 20 kHz or better, Input dynamic range > 109 dB or better. RS232 Ports - 2 or more etc all complete as required.	Each	1		
1.46	Supply, installation, testing & commissioning of Open Architecture Digital Signal Processor Type 2 with minimum 12 Mic/Line inputs and 12 Line outputs. Shall support phantom power on each microphone input. AEC channels - 16 or more with 200ms tail length for Analog and Networked Microphones. Minimum 32x32 Dante channels and support for up to 128x128 Network audio channels via Dante /AES67 or similar protocol. POTS and SIP Softphone integration for Audio conferencing. USB-B port supporting AV USB Bridging for software or web-based conferencing applications emulating USB Audio (Speakerphone) and USB Video (Camera) driver. 24 bit-A/D-D/A converters or better, 48 kHz Sample rate or better, Input frequency response of 20 Hz to 20 kHz or better, Input dynamic range > 109 or better etc all complete	Each	1		

1.47	Supply, installation, testing & commissioning of Open Architecture flexible chassis based Digital Signal Processor with 8 onboard I/O card slots, AV-to-USB Bridging solution and onboard acoustic echo cancellation (AEC) processing. Audio I/O Capacity- 8 audio I/O card slots - accommodates up to 128x128 total onboard I/O channels, 256 x 256 Network Channel Capacity, 64 AEC Channel Capacity at 200 ms tail length, In-built 16 Multi-track Player capacity & expandable to 128 tracks, 6 GB on board default Media drive capacity. Front Panel monochrome OLED with capacitive touch buttons for settings. Control and integrate external devices using TCP/IP, RS232 and GPIO, with 8 Mic / Line Analog Input on Card, 8 Analog Line Output on Card, Dante Audio Bridge Card with 64x64 channels at 48 kHz from any Dante edge network, Analog Telephony Card, I/O-USB Bridge etc all complete as required.	Each	1		
1.48	Supply, installation, testing & commissioning of Hardware or Software based control system with required ports to control the devices mentioned in BOQ with perpetual licenses to connect Wall/Table mount touch screen controllers and iOS and Windows devices as wireless touch controller etc all complete as required.	Each	2		
1.49	Supply, installation, testing & commissioning of Network I/O Expander, 4 bi-directional RS232 serial ports, One port includes RS422 and RS485 compatibility, Power over Ethernet (PoE) capable, Daisy-chain up to four expanders on a single network run etc all complete as required.	Each	2		
1.50	Supply, installation, testing & commissioning of 5" High Definition, Projective capacitive Multi-touch Touch Screen Controller with 24-bit color display. Viewable Screen Dimensions (diagonal) – 5-inch, Resolution - 1280 × 720, Brightness - 450 Nits, Aspect ratio – 16:9, Power – PoE, Mounting – Wall and Tabletop, Orientation - Vertical / horizontal. etc all complete as required.	Each	1		
1.51	Supply, installation, testing & commissioning of 10" High Definition, Multi-touch Touch Screen Controller with 24-bit color display. Viewable Screen Dimensions (diagonal) – 10.07-inch, Resolution - 1920 × 1200, Brightness - 380 Nits, Aspect ratio – 16:10, Power – PoE, Mounting – Wall and Tabletop, Orientation - Vertical / horizontal. Configurable LEDs on both sides. Sensors - Ambient Light Sensor, Proximity Detection etc all complete as required.	Each	2		
1.52	Supply, installation, testing & commissioning of 8x1G PoE+ 120W 2x1G RJ45 and 2xSFP Managed Switch etc all complete as required.	Each	1		
1.53	Supply, installation, testing & commissioning of 24x1G PoE+ 370W 2x1G RJ45 and 4xSFP Managed Switch etc all complete as required.	Each	1		
1.54	Supply, installation, testing & commissioning of Column Surface-Mount Loudspeaker: Transducer 16 x 2.75 inch weather treated paper cone woofer or better. Frequency Range 90 Hz – 17 kHz or better, Rated Power 200 watts (rms) or better. Sensitivity 89 dB (Narrow) 88 dB (Wide) Mode or better, Coverage 160 x 15 (Narrow) / 30 (Wide) degrees or better, Transformer Taps (70V / 100V): 120 / 60 / 30 Watt or better. Ingress Protection IP54 or better, Powder coated aluminum enclosure or similar. Powder coated aluminum grille or similar. Pan-Tilt mounting bracket should be included etc all complete as required.	Each	2		

1.55	Supply, installation, testing & commissioning of 6.5 inch Two Way Pendant-Mount Loudspeaker: Rated noise power 60 watts or more, Frequency Range 55 Hz – 20 kHz, Sensitivity 88 dB or more, Rated coverage 135° conical DMT, Maximum continuous SPL 106 dB or more, Maximum peak SPL 112 dB or more, Transformer Taps (70V / 100V): 60 / 30 / 15 Watt or better, IP-34 or more Ingress protection, Included mounting hardware: 3 Meter Two quick-link cable assemblies, two slip-lock fasteners, locking euro-block connector, sealable input cover and screws, snap-fit magnetic grille etc all complete	Each	8		
1.56	Supply, installation, testing & commissioning of Two-way, Ceiling-mount loudspeaker with back can. Continuous Power - minimum 30 Watts or better, Sensitivity- minimum 89 dB SPL or better, Coverage Angle -110° or less, Maximum Peak SPL - minimum 110 dB or better, Rated Impedance - 8 Ohms. Transformer Tapping - 70V/100V(30,15,7.5watts) or better. Transducers - LF - minimum 6.5-inch or better, HF- .86-inch coaxially mounted with LF or better, Should include OEM supplied mounting brackets etc all complete as required.	Each	16		
1.57	Supply, installation, testing & commissioning of 8 Channel Class D Amplifier, 200. Watt at 4 $\Omega$ , 8 $\Omega$ , 70 V or 100 V on each channel, FlexAmp Technology allows each pair of amplifier channels to deliver up to 400 W total power, in any ratio, Frequency response at 8 $\Omega$ 20 Hz – 20 kHz +/- 0.5 dB, Signal to Noise > 103 dB, Input impedance >10k, balanced or unbalanced, UL, CE, RoHS / WEEE compliant etc all complete as required.	Each	1		
1.58	Supply, installation, testing & commissioning of Quad Channel Class-D amplifier. Per Channel Power 60W @8 $\Omega$ /4 $\Omega$ or better. Support for 70V/100V or more. Power Sharing or Bridge/Parallel modes for better power distribution. Frequency Response- 20 Hz – 20 kHz or better. Signal to Noise ratio -> 103 dB or better, Input impedance - >10k, balanced or unbalanced or better, Front and Rear panel indicators for Power, signal (per channel), limit / mute / protect etc. or better. Better to have Remote standby and Power saving features - Auto-standby etc all complete as required.	Each	3		
1.59	Supply, installation, testing & commissioning of 1 Meter Premium High Speed HDMI 2.0b flexy cable, Bandwidth up to 18Gbps, Up to 4096 x 2160 @ 60Hz at RGB 4:4:4 video resolution, Support High Dynamic Range (HDR10), Dolby Vision and Hybrid log-gamma (HLG) video, Consumer Electronics Control (CEC), Audio Return Channel (ARC) and HDMI Ethernet Channel (HEC) etc all complete as required.	Each	34		
1.60	Supply, installation, testing & commissioning of 2 Meter Premium High Speed HDMI 2.0b flexy cable, Bandwidth up to 18Gbps, Up to 4096 x 2160 @ 60Hz at RGB 4:4:4 video resolution, Support High Dynamic Range (HDR10), Dolby Vision and Hybrid log-gamma (HLG) video, Consumer Electronics Control (CEC), Audio Return Channel (ARC) and HDMI Ethernet Channel (HEC) etc all complete	Each	40		
1.61	Supply, installation, testing & commissioning of 3 Meter Premium High Speed HDMI 2.0b flexy cable, Bandwidth up to 18Gbps, Up to 4096 x 2160 @ 60Hz at RGB 4:4:4 video resolution, Support High Dynamic Range (HDR10), Dolby Vision and Hybrid log-gamma (HLG) video, Consumer Electronics Control (CEC), Audio Return Channel (ARC) and HDMI Ethernet Channel (HEC) etc all complete as required.	Each	3		
1.62	Supply, installation, testing & commissioning of 5 Meter Premium High Speed HDMI 2.0b Premium cable, Bandwidth up to 18Gbps, Up to 4096 x 2160 @ 60Hz at RGB 4:4:4 video resolution, Support High Dynamic Range (HDR10), Dolby Vision and Hybrid log-gamma (HLG) video, Consumer Electronics Control (CEC), Audio Return Channel (ARC) and HDMI Ethernet Channel (HEC) etc all complete as required.	Each	33		

1.63	Supply, installation, testing & commissioning of 10 Meter Premium High-Speed HDMI 2.0b Hybrid Optical Active Cable, Bandwidth up to 18Gbps, Up to 4096 x 2160 @ 60 Hz at RGB 4:4:4 video resolution, Supports EDID, HDCP2.2, HDR, CEC, ARC etc all complete as required.	Each	17		
1.64	Supply, installation, testing & commissioning of 15 Meter Premium High-Speed HDMI 2.0b Hybrid Optical Active Cable, Bandwidth up to 18Gbps, Up to 4096 x 2160 @ 60 Hz at RGB 4:4:4 video resolution, Supports EDID, HDCP2.2, HDR, CEC, ARC etc all complete as required.	Each	3		
1.65	Supply, installation, testing & commissioning of 2 Meter Full-featured Type-C ProAV cable 4K Video; USB 2.0 & 3.2 Gen 2x2 Data; 100W/5A PD Charging, 4 Lane Displayport Alt mode (4K60FPS Video and Audio), USB3.2 Gen 2x2 20Gbps (10Gbps/lane) "SuperSpeedPlus" (4K Webcam, SSD storage) etc all complete	Each	27		
1.66	Supply, installation, testing & commissioning of 10 Meter HUSB 3.1 Gen1 SuperSpeed Active Extension Cable TypeA/male to TypeA/female, Native USB2/USB1 and USB3 extension, Supporting peripherals via USB 2.0 up to 480 Mbps (Mouse, Keyboard, Thumb Drive, Speakerphone and Webcam), Plug and play compatible with PC, Mac, and Linux etc all complete as required.	Each	18		
1.67	Supply, installation, testing & commissioning of 4 x 4 USB 3.2 Gen 1 Industrial Hub Switch etc all complete as required.	Each	5		
1.68	Supply, installation, testing & commissioning of Microphone Cable, 2 Conductor 22 AWG Tinned Copper, PE Insulation, 85% Tinned Copper Braid Shield, Cotton Braid, PVC Jacket (as per actual) etc all complete as required.	Meter	250		
1.69	SITC 2 Conductor 14 AWG Speaker Cable, stranded Bare copper conductors, PVC / Nylon insulation, PVC jacket (as per actual) etc all complete	Meter	500		
1.70	SITC 2 Conductor Cat 6 STP Cable (as per actual) etc all complete as required.	Meter	965		
1.71	Supply, installation, testing & commissioning of Connector and Accessories (such as USB Patch cord cable, USB-HUB, USB-C to HDMI Adaptor etc) etc all complete as required.	Each	19		
1.72	Supply, installation, testing & commissioning of Rack Structure 24 U Air Cooled AV Equipment Rack with 4 Nos. of Vertical Power Strips, Cantilever Selves, Cable routing perforations, 4 No. of Spin Wheels etc all complete as required.	Each	2		
1.73	Supply, installation, testing & commissioning of Content Management System (CMS) for digital signage (Per display): On-premise / Cloud-based, Intuitive dashboard for content scheduling, layout design, and performance monitoring, Ability to manage a single display or a network of displays from a centralized system, Support for a growing number of displays without performance degradation, Media Format Support: Video: MP4, MOV, AVI, WMV, Images: JPEG, PNG, BMP, HTML5 and animations, Divide each display into multiple regions to show different types of content (e.g., video in one zone, news ticker in another), Dynamic Content Support, Time-based scheduling: Daily, weekly, or monthly schedules, Event-based scheduling: Content triggered by specific conditions (e.g., time of day or audience proximity), Drag-and-drop functionality to arrange and update playlists for individual displays, Automatic content scaling to fit display size, Push content via the internet, LAN, or local storage, Displays can continue running pre-downloaded content without an active connection, Keep detailed logs of when and where content was displayed etc all complete as required.	Each	9		

1.74	Only Installation, testing & commissioning of Professional HD Display Available with QCI of Multiple Sizes Between 75" to 43 " etc all complete as required.	Each	30		
	<b>SUBTOTAL (A) (INR)</b>				
	<b>GST @..... % on A (B) (INR)</b>				
	<b>GRAND TOTAL (A+B)</b> <b>(The grand total value should match with the offered price in GeM Portal)</b>				

**Note:**

**A. EXCLUSIONS:**

- 1) Civil works shall not form any part of this bill including foundations, core cuts and any other kind of cut-outs in any structural component etc.
- 2) Any kind of automation works.
- 3) Incoming lines for data, telephone etc.

**B. RATES:**

- 1) The final amount should be inclusive of all taxes and duties.
- 2) The rates shall be prepared in conjunction and with reference to the contents of Specification & Drawings.
- 3) The rates quoted shall also include for providing any temporary work or preparatory work required to execute the particular items of work.
- 4) The unit prices stated hereunder shall be deemed to include, but not be limited to the following:
  - a. Site management and supervision, labour and all costs in connection therewith, including the cost of overtime as necessary.
  - b. The supply, fabrication and supervision during installation of all goods and all costs in connection therewith.
  - c. Delivery as appropriate.
  - d. Paint, tools, equipment and all cost in connection therewith site facilities and all other costs from items that are necessary to execute the Work.
  - e. Waste of labour & material
  - f. Mobilization costs, overhead costs and profit.
  - g. Major civil works shall not form any part of this contract including foundations.
- 5) The rates for each item of work included in the schedule of quantities shall unless expressed stated otherwise, include cost of all equipment, ancillary equipment, fixing material, accessories, tools, plants, transport, labour and incidentals required for the completion of the work as called for in the item and as per Specification and drawings.

### ANNEXURE-C: List of Preferred Makes/Manufactures of Materials - AV System

S. No.	ITEM DESCRIPTION	PROPOSED MAKE		
1)	Direct View LED Video Wall Screen	Samsung	LG	Panasonic
2)	Professional Ultra HD Display Panel	Samsung	LG	Panasonic
3)	Multi touch Interactive display	Samsung	LG	Panasonic
4)	Wall, Ceiling & Floor Mount	Logic / Lumi / Chief / Btech		
5)	Cable Cubby- Type -2	Logic	Magnum	Altenix
6)	Cable Cubby (Retractable Type) Type-1	Kramer	Extron	Altenix
7)	Room Scheduler Display	Evoko	Philips	ElhiTech
8)	Wireless presentation module	Braco	Extron	Wolfvision
9)	4K Network PTZ Conference camera	QSC	Vaddio	Lumens
10)	HD Visual Communications System	Poly	Cisco	Avaya
11)	Mini-PC	Zoapi	Dell	HP
12)	Universal Switcher, HDMI Switcher	Extron	Lightware	Crestron
13)	HDMI 2.0 Extender	Extron	Lightware	Crestron
14)	Unified Communication Bar (All in One)	Sennhieser	Neat	Kramer
15)	Round Ceiling Mounted Beamforming Microphone	Sennhieser	Shure	Clock Audio
16)	Digital Wireless microphone set	Sennhieser	Shure	Clock Audio
17)	Active Antenna Splitter	Sennhieser	Shure	Clock Audio
18)	Antenna booster	Sennhieser	Shure	Clock Audio
19)	Passive directional antenna	Sennhieser	Shure	Clock Audio
20)	Gooseneck Shotgun Microphone	Sennhieser	Shure	Clock Audio
21)	Wireless Access Point	Televic	Sennhieser	Shure
22)	Tabletop wireless conference unit	Televic	Sennhieser	Shure
23)	Short Stem Removable Microphone	Televic	Sennhieser	Shure
24)	Advanced Audio License	Televic	Sennhieser	Shure
25)	Charging station	Televic	Sennhieser	Shure
26)	Digital Signal Processor	QSC	Biamp	Extron
27)	Hardware or Software based control system	QSC	Biamp	Extron
28)	Network I/O Expander	QSC	Biamp	Extron
29)	Touch Screen Controller	QSC	Biamp	Extron
30)	Managed Switch	HP / Cisco /Netgear/Ruckus		
31)	Loudspeaker & Amplifier	QSC	Biamp	Bose
32)	HDMI 2.0b & USB-C Pro AV cable	Lighaware	Extron	Belden
33)	USB Active Extension Cable	Lighaware	Extron	Belden
34)	Microphone, Speaker and Cat 6 STP Cable	Belden	Sommer	Canare
35)	Rack Structure	Valrack	Netrack	President

**Note:**

- The list of approved makes or materials serves as base guideline for the project and is not exhaustive. OEMs fulfilling the requirements as per the technical specifications without compromising quality standards, which is not listed above can participate in the bid. However, QCI reserves the right to choose any of the mentioned makes or any other preferred equivalent makes.