

H.P. STATE ELECTRONICS DEVELOPMENT CORPORATION LTD.
(A Unit of H.P. Government Undertaking)



**e-Tender
for
Rate Contract for Peripherals for Digital Communication,
Collaboration and Learning**

E-Tender No: **SEDC/RC/DigiComm/2K23-5957**

H.P. STATE ELECTRONICS DEVELOPMENT CORPORATION LTD.,
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Website: www.hpsedc.in, tender document can also be downloaded from <https://hptenders.gov.in>

06/08/2024

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SECTION-I
INVITATION FOR E-BIDS

E-TENDER NO: SEDC/RC/DigiComm/2K23-5957

Note:

The Press e-Tender Notice published on 06/08/2024 in following daily Newspapers for inviting e-Tenders for Rate Contract for Peripherals for Digital Communication, Collaboration and Learning during warranty period and post warranty period. In case there is any decrease/ increase in prices, HPSEDC may asked the bidders to submit revised quotes in sealed envelopes. The rates finalised in this tender will also be considered for General Rate Contract of equipment and will be valid for two years. The tender notice will be published in the following new papers.

1. Punjab Kesari (Chandigarh/ Delhi Edition)
2. Indian Express (Chandigarh/ Delhi Edition)

The detailed e-Tender document contained in following sections has been prepared to elaborate all techno-commercial conditions of this tender. In case of any discrepancy between the Press Advertisement and detailed provisions of this Tender Document, the latter will prevail. For any further changes (if any, based on feedback/ queries from any quarter and pre-bid meeting) in this tender document, please see its updated version/corrigendum on www.hpsedc.in and <https://hptenders.gov.in>.

A) e-Tenders are invited by the undersigned from eligible bidders, i.e., Original Equipment Manufacturers (O.E.M.)/ Principal National Distributors/ Country Channel Partners in India (in case of imported equipment)/ Large Scale Systems Integrator duly authorised by the manufacturer for these Hardware Equipment as per technical specifications in Annexure-I and providing after sale support during warranty period.

GIST OF IMPORTANT GENERAL CONDITIONS

- 1) The tender has been floated for finalizing the rate contract for Peripherals for Digital Communication, collaboration and learning as per specifications mentioned in Annexure-I. The rate will be finalised for all the components involved in the specified hardware, where the bidder has quoted lowest (L1) rate item wise. **Only L1 rates** will be conveyed and accordingly purchase orders would be placed for only L1 bidder. However, since the equipment is to be procured and supplied so reasonability of the rates would be ascertained by the tender committee w.r.t. other tenders/ rate contracts in the market. Bidders have to ensure that the **rates quoted for this tender/ rate contract are better** (or at least equal) than the rates in other rate contracts/ government supplies or open market anywhere else in the country.
- 2) The rates, as discovered through this RFP, shall also be considered for Rate Contract, valid for two years. The terms and conditions of the Rate Contract shall be same as per this tender document.
- 3) After finalizing the L1 rate contract, other bidder(s) may be given opportunity to match the prices of L1 bidder for rate contract, if tender committee deems fit to ensure healthy competition and timely supply of hardware. Therefore, bidders are advised to quote their best rates.
- 4) Unless otherwise specified for a part of the order, the supplies should be completed within **8-10 weeks** from the date of placing the supply order except for snowbound/ tribal areas, where delivery can be made within 10-12 weeks. Delivery is to be made FOR destination i.e. anywhere in the State of Himachal Pradesh and Installation has to be completed within **one week** after supply of material. In Remote and snowbound areas delivery may be done at nearest district head quarter, in case the area is cut-off for the time being. The Managing Director, HPSEDC reserves the right to extend the delivery period based on the request of the supplier, wherever required.
- 5) The committee reserves the right to negotiate the rates with L1 bidder to bring them to a reasonable level based on the best prices offered by other bidders and current market rates.
- 6) If the bidder quotes/ reduces, its price to render similar goods, works or services at a price lower than any tender/ rate contract price to anyone in the Country at any time during the currency of this tender, the price shall be automatically reduced with effect from the date of reducing or quoting lower price, for all delivery of the subject matter of procurement under this tender shall be amended, accordingly. The tender holder shall furnish the certificate to the HPSEDC that the provisions of this clause have been complied with in respect of

supplies made or billed for upto the date of this certificate. On the conclusion of the tender the successful bidder shall furnish a certificate that the provision of this clause has been complied with during the period of tender/ rate contract.

- 7) Any prospective bidder can procure the Tender Document from the “H.P. STATE ELECTRONICS DEVELOPMENT CORPORATION LTD., FIRST FLOOR, I.T. BHAWAN, MEHLI, SHIMLA-171013, (H.P)”. Tender can also be downloaded from website <http://www.hpsedc.in> and <https://hptender.gov.in>.

The tender document will be available on all working days upto last date of bids submission on payment of Rs.5000/- (Rupees Five Thousand only) non-refundable, by demand draft in favour of “HP State Electronics Development Corporation Ltd., Shimla” payable at Shimla. If the tender document is downloaded from the website, the tender fee will have to be deposited along with the bid as a separate bank draft. E-tenders will be uploaded on HP Government e-Procurement portal <https://hptenders.gov.in> as well on HPSEDC website www.hpsedc.in. Interested bidder can participate for all or any of the category of equipments/items by procuring a single tender (i.e no separate tender cost has to be paid for each category of items).

3.)SCHEDULE OF THE TENDER PROCESS:

S. No.	Information	Details
1.	RFP No. and Date	No: SEDC/RC/DigiComm/2K23-5957 Date: 06/08/2024
2.	Pre-Bid Meeting	Pre-Bid meeting already held on 06/10/2023 at 11:30AM through video conference.
3.	Price of Tender Document	Rs. 5000/- online through HP Govt. e-Procurement Portal
4.	Earnest Money Deposit	Rs.5,00,000/- online through HP Govt. e-Procurement Portal
5.	Bid validity period	180 days from the last date (deadline) for submission of e-Tenders.
6.	Bid submission start date	16/08/2024, (11:00 AM)
7.	Bid submission End date	30/08/2024 (02:30 PM)
8.	Opening of e-Tenders Bids	31/08/2024 (2:30 PM)
9.	Tender Download Site	www.hpsedc.in & https://hptenders.gov.in
10.	Venue	H.P. State Electronics Development Corporation Ltd., 1 st Floor, I.T. Bhawan, Mehli, Shimla-171013, H.P.

- (i) Eligibility-cum-Technical Bids shall be opened initially and eligibility documents will be evaluated.
(ii) Thereafter Technical Bids of Eligible Bidders shall be evaluated.

(iii) Commercial Bids of Eligible and Technically qualified bidders will be opened thereafter.

*** Any corrigendum, modifications, changes related to this tender before the day of bid submission shall be notified on website www.hpsedc.in or <https://hptenders.gov.in> only.*

- 4)** Notwithstanding anything else contained to the contrary in this Tender Document, the Managing Director, H.P. State Electronics Development Corporation Ltd., Shimla reserves the right to cancel/withdraw/ modify fully or partially the “Invitation for Bids” or to reject one or more of the bids without assigning any reason and shall bear no liability whatsoever consequent upon such a decision.

5. INSTRUCTIONS TO BIDDERS FOR ELECTRONIC TENDERING SYSTEM

5.1 Registration of bidders on e-Procurement Portal: -

All the bidders intending to participate in the tender processed online are required to get registered on the centralized e-Procurement Portal i.e. <https://www.hptenders.gov.in>. Please visit this website for more details. In case of any problem in registration, please contact on toll free No. 1800-3070-2232

5.2 Obtaining a Digital Certificate:

- 5.2.1 The Bids submitted online should be encrypted and signed electronically with a Digital Certificate to establish the identity of the bidder bidding online. These Digital Certificates are issued by an Approved Certifying Authority, by the Controller of Certifying Authorities, Government of India.
- 5.2.2 The bidders may obtain Class-II or III digital signature certificate from any Certifying Authority or Sub-certifying Authority authorized by the Controller of Certifying Authorities or may obtain information and application format and documents required for the issue of digital certificate from:
- 5.2.3 Bid for a particular tender must be submitted online using the digital certificate (Encryption & Signing), which is used to encrypt and sign the data during of bid preparation stage. In case, during the process of a particular tender, the user loses his digital certificate (due to virus attack, hardware problem, operating system or any other problem) he will not be able to submit the bid online. Hence, the users are advised to keep a backup of the certificate and also keep the copies at safe place under proper security (for its use in case of emergencies).
- 5.2.4 In case of online tendering, if the digital certificate issued to the authorized user of a firm is used for signing and submitting a bid, it will be considered equivalent to a no objection certificate/power of attorney /lawful authorization to that User. The firm has to authorize a specific individual through an authorization certificate signed by all partners to use the digital certificate as per Indian Information Technology Act 2000.
Unless the certificates are revoked, it will be assumed to represent adequate authority of the user to bid on behalf of the company/firm in the department tenders as per Information Technology Act 2000. The digital signature of this authorized user will be binding on the firm.
- 5.2.5 In case of any change in the authorization, it shall be the responsibility of management/ partners of the company/firm to inform the certifying authority about the change and to obtain the digital signatures of the new person / user on behalf of the firm / company. The procedure for application of a digital certificate however will remain the same for the new user.
- 5.2.6 The same procedure holds true for the authorized users in a private/public limited company. In this case, the authorization certificate will have to be signed by the directors of the company.
- 5.2.7 Pre-requisites for online bidding:

In order to bid online on the portal <https://www.hptenders.gov.in>, the user machine must be updated with the latest Java & DC setup. The link for downloading latest java applet & DC setup are available on the Home page of the e-tendering Portal.

5.3 Online Viewing of Detailed Notice Inviting Tenders (N.I.T.) :

The bidders can view the detailed N.I.T and the time schedule (Key Dates) for all the tenders floated through the single portal e-Procurement system on the Home Page at <https://www.hptenders.gov.in>

5.4 Download of Tender Documents:

The tender documents can be downloaded free of cost from the e-Procurement portal <https://www.hptenders.gov.in> and www.hpsedc.gov.in.

5.5 Key Dates:

The bidders are strictly advised to follow dates and times as indicated in the online Notice Inviting Tenders. The date and time shall be binding on all bidders. All online activities are time tracked and the system enforces time locks that ensure that no activity or transaction can take place outside the start and end dates and the time of the stage as defined in the online Notice Inviting Tenders.

5.6 Bid Preparation (Qualification & Financial)

- 5.6.1 Payment of Tender Document Fee & EMD of online Bids: The payment for Tender document fee and EMD can be made as mentioned in Section 3, at Sr. No. 1 and 2 of the Table.
- 5.6.2 The bidders shall upload their eligibility and technical offer containing documents, qualifying criteria, technical specifications, schedule of deliveries, and all other terms and conditions except the rates (price bid).
- 5.6.3 The bidders shall quote the prices in price bid format only.
- 5.6.4 If bidder fails to complete the Online Bid Preparation at Submission stage on the stipulated date and time, his/hers bid will be considered as bid not submitted, and hence not appear during tender opening stage.
- 5.6.5 Bidders participating in online tenders shall check the validity of his/her Digital Signature Certificate before participating in the online Tenders at the portal <https://www.hptenders.gov.in>.
- 5.6.6 For help manual please refer to the 'Home Page' of the e-Procurement website at <https://www.hptenders.gov.in>., and click on the available link 'How to .. ?' to download the file.

5.6.7 Post registration, bidder shall proceed for bidding by using both his digital certificates (one each for encryption and signing). Bidder shall proceed to select the tender he is interested in.

NB: Any changes/corrigendum/revised tender related to this Tender Document will be published on our website www.hpsedc.in and <https://hptenders.gov.in>. Therefore, prospective bidders are requested to see the updates on these websites regularly.

SECTION 2
INSTRUCTIONS TO BIDDERS
A-INTRODUCTION

2.1. Eligible Bidders

Sr. No.	Pre- Qualification Criteria	Required details to be accompanying the Bid document
1.	The Bidder should be registered under the Indian Companies Act, 1956 and should be in existence for not less than preceding 5 years in the relevant field. Proprietors/ Partnership Firms should have valid Government licence and GSTN.	Memorandum of Association (MoA), Articles of Association (AoA) of bidder/ Proprietor and detailed profile of the Company/ Firm/ Government License and GSTN for proprietors
2.	(i) Tender Document Fee in favour of Managing Director, H.P. State Electronics Development Corporation, I.T. Bhawan, Mehli, Shimla-13. (ii) Earnest Money Deposit (EMD) in the shape of Demand Draft/ Bank Guarantee valid for 180 days in favour of Managing Director, H.P. State Electronics Development Corporation, I.T. Bhawan, Mehli, Shimla-13.	(i) Demand Draft (DD) of Rs. 5000/- (Rupees Five Thousand only) (ii) Earnest Money (Rs. 5,00,000/-) Deposit (EMD) as mentioned in clause 2.10
3.	The Bidder should have a valid GST Number, PAN Number.	Relevant Registration Certificates (copies to be enclosed)
4.	A Bidder should be Original Equipment Manufacturer (OEM) or Authorised Principal National Distributor/ Importer/ System integrator duly authorised by the OEM (Original Equipment Manufacturer) of the required equipments respectively. It will, however be, preferred that the Original Equipment Manufacturers (O.E.M.) quotes directly.	Authorization letter from OEM in format given at Proforma-A, in case OEM not bidding directly.
5.	A Bidder quoting for Peripherals for Digital Communication, collaboration and learning: (i) The OEM or its bidder must have supplied minimum 500 number of Peripherals for Digital Communication, collaboration and learning/ similar equipment(s) in the last three years in Government/Semi Govt./ PSUs/ Autonomous bodies of Central/ State Govt. (ii) OEM should have established office in India for more than 10 Years.	(i) Copies of supply orders/ satisfactory reports of last three years are to be provided and Proforma-“C” (ii) Valid Certificate of Incorporation is to be submitted with technical bid documents.
6.	The average annual turnover of the OEM, whose equipment's/ systems/ Items are sought to be supplied should Rs.200 Crores during last 3 years as per audited balance sheets/Annual reports of accounts.	Audited Balance sheets from company Statutory Auditor/ CA from OEM & financial data of the last three years in the format given in Proforma 'B'
7.	The average annual turnover of the bidders should be Rs. 4 Crores (Rs. Four Crores) during last 3 years as per audited	Audited Balance sheets from company Statutory Auditor/ CA

	balance sheets.	from OEM and Bidder & financial data of the last three years in the format given in Proforma 'B'
8.	The bidder should either have positive Net worth in last three years or should be a profit-making Company/ firm in any two years during the immediately preceding last 3 financial years as per audited balance sheets.	Supporting financial documents/Balance sheet/certificate from company's Statutory Auditor/ CA.
9.	The OEM/ bidder should have ISO 9001:2008, relevant BIS or any other equivalent or better-quality certification;	Certificate of each type from the certifying organizations.
10.	OEM Toll Free Help-desk facilities should be already available during working hours (9 to 6 PM and from Monday to Saturday). The bidder and OEM should have its own website having product related information (for OEM) and support related information (for both bidder and OEM). The OEM should have its registered office in India. Copy of registration certificate to be attached.	Contact information and availability hour's details. Provide detail of web linkages.
11.	The Bidder should not have been declared ineligible at the time of bid submission and at the time of placing of supply order due to corrupt and fraudulent practices with any of the departments of the Central, State Governments Deptt. and PSUs of Central/ State Govt.	Certificate from the authorized signatory prescribed in Form-E.
12.	The bidder should have submitted the declaration of acceptance of terms and conditions of this RFP as per Form D	Declaration from Authorized Signatory as per Form D of this RFP
13.	The Bidder should already have reasonable support base in this region. The Purchaser's discretion regarding reasonableness of support base shall be final. It is clarified that this clause pertains to only the existing level of support. The actual support required to implement this arrangement has been described in the relevant section.	Supporting documents/ certificate from company's authorised signatory.

Note: -

Purchase Preference for Local Micro and Small-Scale units/ Startup Enterprises of the state: -

The following purchase preference ratio shall be applicable to the Local Micro and Small-Scale Units of State and Local Micro and Small-Scale categories under H.P. State Startup Scheme: -

1. Local Micro and Small-Scale Units of State of H.P. =15%
2. Local Micro and Small-Scale categories under H.P. State, Startup Scheme=15%

Total Purchase Preference =30%)

Provided that if Startup Enterprises will not be available, then 30% purchase preference shall automatically be given to Local Micro & Small-Scale Unit and vice versa as the case may be.

Exemption, if any in evaluation criteria or any other terms & conditions of this document, will be as per Notification No. 4-Ind/SP/Misc/F/6-10/4/80-Vol-V dated 16.05.2020 issued

by Controller of Stores Himachal Pradesh or any other orders issued by Govt. of Himachal Pradesh in case the committee deems it fit.

It is reiterated that Purchaser's decision regarding Bidder's eligibility will be final and binding on all the Bidders.

The Bidder can choose to have a separate Authorised Service Provider (ASP). There is no turnover criterion for the ASP, but it should provide the first level of OEM's support which is fully backed up by the O.E.M. by means of a written understanding regarding maintenance. However, the Purchaser shall have the final discretion in this regard and can even ask for a trilateral agreement with the Bidder and the OEM in such cases to ensure timely delivery and maintenance.

If the bidder happens to be a System Integrator (SI), should have a sustained relationship with the O.E.M. in the past. The Bidder (or his OEM) must be able to establish his capability to execute the order(s) by showing satisfactory/ timely delivery, where similar numbers of equipment(s) and its allied accessories are involved.

2.2 Cost of Bidding:

2.2.1 The Bidder shall bear all costs associated with the preparation and submission of its bid and H.P. State Electronics Development Corporation Ltd., Shimla (hereinafter referred to as the 'Purchaser' or "HPSEDC" in short) will in no case be responsible or liable for these costs, whether or not the Bid is finally accepted.

B- TENDER DOCUMENT

2.3 Contents of Tender Document:

2.3.1 This Tender Document comprises of the following Parts/ Sections.

Section-1 : Invitation for e-Bids

Section-2 : Instructions to Bidders

Section-3 : General Conditions of The Tender & Contract

Section-4 : Technical Specifications and Maintenance Conditions

Section-5 : Technical Specifications & Annexures.

2.4 The Bidder is expected to examine the Tender Document carefully. Failure to furnish all information required as per the Tender Document may result in the rejection of the Bid.

2.5 Clarification regarding Tender Document:

2.5.1 The clarifications/ changes in tender document/ corrigendum can be uploaded upto 3 days before the bid-submission date.

2.6 Amendment of Bids:

2.6.1 Bids once submitted cannot be amended. However, in some circumstances (such as major anomaly in the technical specifications having a major impact on pricing), the Purchaser may decide to take fresh bids from all the Bidders before actually opening of the Commercial Bids.

2.6.2 In order to afford prospective Bidders reasonable time to make amendment in their bids, the Purchaser may, at his discretion, extend the deadline for the submission of bids. However, no such request in this regard shall be binding on the Purchaser.

C - PREPARATION OF BIDS

2.7 Language of Bid & Correspondence:

2.7.1 The Bid will be prepared by the Bidder in English language only. All the documents relating to the Bid (including brochures) supplied by the Bidder should also be in English and the correspondence between the Bidder & Purchaser will be in English Language only. The correspondence by Fax / E-mail must be subsequently confirmed by a duly signed copy (unless already signed digitally).

2.8 Documents comprising of Bid:

The Bidder will prepare the bid in two parts.

I. FEE-ELIGIBILITY CLAIM-CUM-TECHNICAL BID:

In support of his eligibility cum technical bid, a Bidder must submit/upload the relevant documents strictly in accordance with Proforma B marked with page numbers on e-portal <https://hptenders.gov.in>.

Packet-I (Fee/other Eligibility Documents/Technical) (to be uploaded in Packet-1 on e-procurement portal)

II. COMMERCIAL BID:

Commercial Bids of only eligible and technically qualified bidders will be opened as per the date notified by the purchaser on its website (www.hpsedc.in and <https://hptender.gov.in>). Those technically qualified bidders which have also deposited the tender cost and Bid Security shall be termed as Substantially Responsive (i.e. eligible and technically qualified and have also deposited Bid Security & tender cost). The Tender Committee's determination of a Bid's responsiveness is to be based on the contents of the Bid itself and not on any extrinsic evidence. However, while determining the responsiveness of various Bidders, the Tender Committee may waive off any minor infirmity, which does not constitute a material deviation. The decision of the Tender Committee in this regard shall be final.

The bidder has to submit their Commercial Bids online as per BOQ in Packet-2 on the e-procurement portal.

(i) Sample BOQ / Price Bid will be as per Schedule I.

2.9 Bid Currencies:

2.9.1 Prices shall be quoted in Indian Rupees.

2.9.2 The contract price shall be paid in Indian Rupees.

2.10 Bid Security:

2.10.1 The Bidder shall furnish Bid security, as part of its bid as mentioned hereunder. Any bid submitted without bid security or with the lesser bid amount, as indicated below may be rejected being non-responsive.

Sr. No.	Equipment types	EMD/ Bid security amount in Rupees.
1.	Peripherals for Digital Communication, collaboration and learning	Rs. 5,00,000/- (Rupees five lakh only)

2.10.2 The Bid Security is required to protect the Purchaser against the risk of Bidder's conduct which may require forfeiture of security pursuant to Para 2.10.8.

2.10.3. The Bid Security shall be submitted online through HP Govt. e-Procurement Portal i.e. <https://hptender.gov.in>.

2.10.4 Any bid not secured in accordance with Para 2.10.1 and 2.10.3 will be rejected by the Purchaser.

- 2.10.5 Unsuccessful Bidders' Bid Security will be refunded as promptly as possible.
- 2.10.6 The successful Bidder's bid-security will be discharged upon the Bidders executing the contract and furnishing the performance security in accordance with Para 3.5.1.
- 2.10.7 No interest will be payable by the Purchaser on the above-mentioned Bid Security.
- 2.10.8 The Bid Security may be forfeited:
- 1.If a Bidder withdraws its bid during the period of bid validity specified by the bidder and required by the Purchaser.
 - 2.During the tendering process, if a Bidder indulges in any such activity as would jeopardise or unnecessarily delay the tender process. The decision of the Purchaser regarding forfeiture of the Bid Security/EMD shall be final & shall not be called upon question under any circumstances.
 - 3.In the case of a successful Bidder, if the Bidder fails,
 - (i)to sign the contract by raising issues contrary to the provisions of the RFP or the Bid or undertakings given during evaluation of bids, or
 - (ii)to furnish Performance Security or
 - (iii)Violates any of such important conditions of this tender document or indulges in any such activity as would jeopardise the interest of the Purchaser. The decision of the Purchaser regarding forfeiture of the Bid Security shall be final & shall not be called upon question under any circumstances.
- 2.11 Period of validity of Bids:
- 2.11.1For the purpose of placing the order, the Bids shall remain valid for at least 120 days after the date of bid opening. A bid valid for a shorter period may be rejected by the Purchaser as being non-responsive. During the period of validity of Bids, the rates quoted shall not change. However, in case of general fall in prices of a product in the IT/ Electronics Industry before despatch of goods, such a reduction shall be passed on to the Purchaser after mutual negotiations.
- 2.11.2In exceptional circumstances, the Purchaser may ask for extension of the period of validity and such a request shall be binding on the Bidder. The Purchaser's request and the response to such a request by various Bidders shall be in writing.

A Bidder agreeing to such an extension will not be permitted to increase its rates.

D-SUBMISSION OF BIDS

2.12 Submission of Bids:

2.12.1 Bidder(s) shall submit their bids only on online e-procurement portal www.hptenders.gov.in. All the instructions regarding e-bids submission are also available on www.hptenders.gov.in.

2.13. Deadline for Submission of Bids:

2.13.1 Bids will be online submitted/uploaded on e-procurement portal <https://hptenders.gov.in> on or before the deadline mentioned on the e-portal.

2.13.2 The Purchaser may, at its discretion, extend this deadline as per Para 2.6.2. The Purchaser may also extend this deadline for any other administrative reason.

2.14. Bids not submitted online:

2.14.1 Any bid not submitted/uploaded through e-portal will not be received by the Purchaser after the deadline for submission of bids prescribed by the Purchaser, as per clause 2.13.1 or 2.13.2, will be rejected.

2.15 Modification and withdrawal of Bids:

2.15.1 E-bids can be modified upto last date & time has not been closed by e-procurement system.

2.15.2 E-Bids cannot be withdrawn in the interval after its submission of bids and before the expiry of Bid's validity specified by the Purchaser. Withdrawal of Bid during this interval may result in the forfeiture of Bidder's Bid security pursuant to clause 2.10.8.

E-BID OPENING AND EVALUATION

2.16. Opening of bids by Purchaser:

- 2.16.1 The e-Bids shall be opened on the date and time already described in the tender/e-portal or on any other later day and time fixed as per Para 2.6.2 or other enabling provisions in this behalf, in H.P State Electronics Development Corporation Ltd, First Floor, IT Bhawan, Mehli, Shimla-13 (H.P.) in the presence of representatives of the Bidders who may choose to attend the proceedings. The representatives of Bidders will sign a register in evidence of their presence.
- 2.16.2 In order to assist in the examination, evaluation and comparison of Bids, the Purchaser may at its discretion ask the Bidder for a clarification regarding its Bid. The clarification shall be given in writing, but no change in the price or substance of the Bid shall be sought, offered or permitted.
- 2.16.3 In the first instance, Eligibility bid documents uploaded on the e-portal will be opened and evaluated for eligibility of each Bidder will be ascertained. Technical Bids of only those Bidders shall be evaluated who are found to be eligible as per the criteria laid down in para 2.2.1/ 2.8 (I) and submitted bid security and tender cost as per Para 2.10. In doubtful cases (where further documents or clarification are required to establish eligibility), the Purchaser in its discretion, may decide to open/evaluate Technical Bid. However, such Bids can be rejected subsequently, if it is found that the bidder has claimed eligibility on false grounds.
- 2.16.4 The Technical e-Bids of only the Eligible Bidders will be opened and the contents (particularly Fact Sheets) will be announced/ displayed in the presence of all Bidders or their representatives.
- 2.16.5. Scrutiny of Technical Bid:
The product proposed in the bid document of only eligible bidders will be evaluated as per the requirements specified in the RFP/ Tender Document. The "Fact Sheets" submitted by the Bidders shall be compared against the Product Catalogue and authenticated circulars regarding latest changes in the specifications. It will thus be ascertained whether the product offered by the Bidder matches with the minimum requirement of the Purchaser as given in the Technical Specifications in this Tender Document. In case of a doubt the Purchaser may require the bidder to produce the quoted equipment for physical

inspection and demonstration, so that components could be seen to ascertain the veracity of the Bidder's claim about specifications.

The Tender Committee may undertake oral and or written clarifications with the bidders. The primary function of clarifications in the evaluation process is to clarify ambiguities and uncertainties arising out of the evaluation of the bid documents. The financial bids of only eligible and technically qualified bidders will be opened for further processing. It is, however, clarified that subject to other provisions of this document, every bidder will have to fulfil the minimum technical specifications laid down in this document for being qualified technically. In order to assist in the examination, evaluation and comparison of Bids, the Tender Committee may at its discretion ask the Bidder for a clarification regarding its Bid. The clarification shall be given in writing immediately, but no change in the price shall be sought, offered or permitted. The Technical e-Bids of only the Eligible Bidders will be opened and the contents (particularly Fact Sheets) will be announced in the presence of all Bidders or their representatives. An open discussion regarding technical parameters quoted by various Bidders may also take place, if required. The Compliance/ Deviation statement submitted by the Bidders shall be compared against the Product Catalogues and authenticated circulars regarding latest changes in the specifications. It will thus be ascertained whether the product offered by the Bidder matches with the minimum requirement as given in the Technical Specifications in this Tender Document. The Financial Bids of only those eligible and technically qualified bidders will be opened who also fulfil minimum technical requirements mentioned in this document. However, the Tender Committee reserves the right of giving minor relaxation, if a particular Bidder is not able to exactly match the specifications given in the Tender Document, provided that such a minor deficiency does not substantially reduce the performance level and is suitably compensated by some extra feature in the product. The decision of the Tender Committee about giving minor relaxation shall be final and shall not be called upon question under any circumstances.

The commercial Bids of only those bidders will be opened who fulfils the minimum technical requirements of the purchaser and are found substantially responsive as per Para 2.8 (II) read in conjunction with other relevant

clauses/Forms. However, the Purchaser reserves the right of giving minor relaxation, if a particular Bidder is not able to exactly match the specifications given in the document, provided that such a minor deficiency does not substantially reduce the performance level and is suitably compensated by some extra feature in the product. Therefore, all Bidders must indicate in the Fact Sheets, deviations, if any, extra features offered by them. The decision of the Purchaser about giving minor relaxation shall be final and shall not be called upon question under any circumstances.

The evaluation committee, if so desire may ask for the demonstration of the quoted solution/products, for which sufficient time will be given for arranging demonstration.

2.16.6. Opening of Bid Security:

The document containing bid security will be opened and checked at the time of determining eligibility of the bidders at the time of eligibility bid opening.

2.16.7. Opening of Commercial Bids of substantially Responsive Bidders:

The Commercial Bids of only those Bidders will be opened who are found substantially responsive. A Substantially Responsive Bidder is one which conforms to all the stipulations of para 2.8 (II and III) read with para 2.16.6 above. The Purchaser's determination of a Bid's responsiveness is to be based on the contents of the Bid itself and not on any extrinsic evidence. However, while determining the responsiveness of various Bidders the Purchaser may waive off any minor infirmity, which does not constitute a material deviation. The decision of the Purchaser in this regard shall be final.

2.16.8 A Bid determined as not substantially responsive will be rejected by the Purchaser. Such a Bid will not be normally allowed to be made responsive subsequently by way of correction/ modification.

2.17. Evaluation and Comparison of Commercial Bids:

2.17.1 The comparison of Commercial Bids shall be done as follows:

2.17.2 Bid Comparison:

The Bidders are required to complete their Commercial Bid/ BOQ in Schedule-I. Initial evaluation/ comparison of items within a Category given in the Tender Document will be done as per clause 2.17.3.

2.17.3. Item Rate:

Item Rate for each item for all will be calculated as under;

Item Rate = FOR Destination Unit Price of the Item under a category including installation charges (if any) with three years' warranty inclusive GST of the Item in a Category.

Note 1:

The Bidder shall not quote prices subject to certain conditions. Bids containing any conditional prices may be rejected or the Purchaser may take a final decision in its discretion about such conditionality.

2.17.4 In the procurements of goods, the following procedure shall be followed:

- (i) Among all qualified bids, the lowest bid will be termed as L1. If L-1 is from a local supplier, the contract for full quantity will be awarded to L1.
- (ii) If L-1 bid is not from a local supplier, 50% of the order quantity shall be awarded to L-1.

2.17.5 Thereafter, the lowest bidder among the local suppliers, will be invited to match the L-1 price for the remaining 50% quantity subject to the local supplier's quoted price falling within the margin of @5% and contract for that quantity shall be awarded to such local supplier subject to matching the L-1 price. In case such lowest eligible local supplier fails to match the L-1 price or accepts less than the offered quantity, the next higher local supplier within the margin of @5% shall be invited to match the L-1 price for remaining quantity and so on, and contract shall be awarded accordingly.

2.17.6 In case some quantity is still left uncovered on local suppliers, then such balance quantity may also be ordered on the L1 bidder.

2.18. RANKING OF BIDDERS:

2.18.1 Bidders will be ranked in the inverse order of Item Rate in the Category. The criterion for selection of lowest Bidder (L1) for individual items in all categories.

2.18.2 Reduction in Statutory Duties and Levies:

If any reduction in taxes takes place after opening the commercial bids, but before despatch of goods; the Successful Bidder shall pass on the proportional benefit to the Purchaser. However, if any such reduction takes place after the opening of bids but before the finalisation of tender, revised sealed commercial bids shall be taken.

2.19. NEGOTIATIONS:

- 2.19.1 The Purchaser may finalise the Tender & award the Contract without any negotiations, if it is satisfied with reasonableness & workability of the lowest offers. Therefore, the bidders are advised to quote lowest possible rates in the first instance only. In case of negotiation, that shall be held with Lowest Ranked (L1) bidder only for a particular item in the Category. The purchaser has the discretion to have rate contract for more than one eligible and technically qualified bidders.
- 2.19.2 During the negotiations a revised offer will be taken from the representative of the Bidder by way of sealed bids. This revised offer will replace/supersede the earlier Technical & Commercial Bid, provided that the original offer (i.e. Technical/ Commercial) will not be allowed to be changed to the detriment of the Purchaser, as far as rates of every individual item & terms/ conditions are concerned. Therefore, the Bidders are advised to send sufficiently senior representatives (who can take spot decisions) for negotiations.
- 2.19.4 During the negotiations on prices & other related terms/conditions, prevalent worldwide street-prices of such product, prices finalised in bids of similar size on GEM portal/Other State Government Rate Contract etc. will be kept in mind. The scope of negotiations may also include precise *modus-operandi* of after-sales service, mode of delivery, system integration and price of add-ons & consumables etc.
- 2.19.5 During the negotiations, the Purchaser may even go in for marginally higher or lower configurations as per its absolute discretion.
- 2.19.6 After this final ranking is done based on negotiated prices, award of rate contract will be made to the lowest Bidder, subject to post qualification in Para 2.20 below.

F - AWARD OF CONTRACT

2.20 Post Qualification:

2.20.1 HPSEDC will devise a performance criterion in consultation with successful bidders which will include online after sales feedback from the Government departments. The lowest Bidder can be denied the right of continuing with the contract, if the equipment being supplied by him, fails the standard performance criteria. In such an event, the next lowest bidder (L-2) shall be considered.

2.21 Purchaser's right to vary Quantities:

2.21.1 The Purchaser reserves the right to place the supply received from various Government departments/ Govt. Institutions/ Autonomous bodies on the approved vendors during the currency of the rate contract.

2.22 Purchaser's Right to accept any Bid and to reject any or all Bids:

2.22.1 Notwithstanding anything else contained to contrary in this Tender Document, The Purchaser reserves the right to accept or reject any Bid or to annul the bidding process fully or partially or modifying the same and to reject all Bids at any time prior to the award of Contract, without incurring any liabilities in this regard.

2.23 Notification of Award/Rate Contract:

2.23.1 Prior to the expiry of the period of Bid validity, the Purchaser will notify the successful Bidder in writing by speed post or Fax or email that his Bid has been accepted.

2.23.2 The liability of the supplier(s) to deliver the Goods and perform the services will commence from the "date of Notification of Award/Rate Contract". The Delivery Period shall be counted from the date of 'Placing the Supply Order'. The "date of delivery" shall be the date on which the equipment / material is received at the destinations.

2.23.3 Upon the successful Bidders' furnishing of performance security, the purchaser will promptly notify each unsuccessful Bidder and will refund his Bid Security.

2.24 Signing of Contract:

2.24.1 After the Purchaser notifies the successful Bidder(s) that his 'Bid' has been accepted, the Purchaser will sign an agreement (described as Contract herein after) within 10 days with the successful Bidder on mutually agreed terms for efficacious implementation of the order.

2.24.2 The Purchaser's liability of taking the goods from the selected supplier(s) shall commence only from date of signing the date of the Contract.

SECTION-3

GENERAL CONDITIONS OF THE TENDER & CONTRACT

3.1 Definitions:

3.1.1 In this part, the following interpretation of terms shall be taken:

- (a) "The Contract" means an agreement regarding supply of the goods & provision of services entered into between the HPSEDC and the Supplier, as recorded in the Contract Form signed by the parties, including all appendices thereto and all documents incorporated by reference therein.
- (b) "The Contract Price" means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations.
- (c) "The Goods" means all the equipment and/or other material, which the Supplier is required to supply to the Purchaser under the Contract.
- (d) "Services" mean services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, training, maintenance and other such obligations of the Supplier covered under the Contract.
- (e) "The Purchaser" means the H.P. State Electronics Dev. Corporation Ltd" or "HPSEDC" in short.
- (f) "The Supplier", means short listed Bidder supplying the goods and services under this Contract.
- (g) "End User" means various Government Departments, Boards, and Corporation etc. in the State of Himachal Pradesh.

Note: The aforesaid definitions will be valid with respect to one or more Suppliers short-listed to execute the Project. Services to be executed by each Supplier have been explained in detail in this Tender Document.

3.2. Application:

- 3.2.1 These General Conditions shall apply to the extent that these are not superseded specific by provisions in other parts of this tender document. A detailed Contract agreement shall be signed after the order is placed. Detailed provisions of such a contract-agreement shall have an over-riding effect vis-a-vis this Tender Document.

3.3 Standards:

3.3.1 The goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications and the latest improvements incorporated after the finalisation of contract, but before the dispatch.

3.4 Patent Rights of the Goods:

3.4.1 The Supplier shall indemnify the Purchaser against all third party claims of infringement of patent, trademark or industrial design rights arising from use of the goods or any part thereof in India.

3.5 Performance Security:

3.5.1 Performance Security for delivery/ installation and maintenance during warranty period.

3.5.2 Within 10 days of 'Notification of Award', the successful bidder/ Supplier shall initially furnish a 3% Performance Bank Guarantee of total order value valid for 39 months to safeguard the purchaser against timely delivery/installation and maintenance of ordered equipments during the currency of the contract.

(1) In case supply orders increases the above-mentioned quantity then 3% amount of each supply order will be deducted as PBG from due payment from bidder & same will be released after expiry of the warranty period or bidder has an option to submit additional PBG against the supply order.

(3) EMD of successful bidder(s) will only be released after signing of agreement and submission of PBG.

3.5.3 The proceeds of the Performance Bank Guarantee/ additional Performance Bank Guarantee as Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete his obligations under the Contract. The Purchaser may claim such compensation in addition to initiating any other legal proceedings.

3.5.4 The Performance Bank Guarantee shall be given in one of the following forms:

An irrevocable and unconditional Bank Guarantee in favour of the Purchaser issued by a Nationalised/schedule bank in a format given by the Purchaser. This Bank Guarantee should be of a sufficient duration to cover the risk of the Purchaser.

3.5.5 The Performance Bank Guarantee, regarding delivery & installation will be discharged by the Purchaser and returned to the Supplier not later than 30 days following the date of completion of the Supplier's performance related obligations,

under the Contract (excluding after sales maintenance for which separate performance guarantee has been taken).

3.6 Inspections and Tests:

- 3.6.1 The Purchaser or its representative shall have the right (if it so desires) to test the goods to ascertain their conformity to the specifications. The Purchaser shall notify to the Supplier in writing of the identity of the representative deputed for this purpose & nature of tests that may be conducted (if found necessary) for benchmarking.
- 3.6.2 The inspections and tests may be conducted in the factory premises of the Supplier. All reasonable facilities and assistance including access to drawings and production data shall be furnished to the inspecting officers at no charge to the Purchaser. The Contractor shall inform the Purchaser in advance the time of starting of manufacture and the progress of manufacture of the equipments offered by him so that arrangements can be made for inspection at the premises, if so desired by the purchaser.
- 3.6.3 Should any inspected or tested Goods fail to conform to the Specifications, the Purchaser may reject them and the Supplier shall either replace the rejected goods or make all alterations necessary to meet specification requirements to the Purchaser.
- 3.6.4 If the Purchaser decides to conduct the inspection at supplier's premises as per clause 3.6.1 to 3.6.3, no material being furnished against this specification shall be dispatched until inspected and approved by the Purchaser/ or his representative. Such inspection and approval will not relieve the Contractor of full responsibility for furnishing equipment conforming to the specifications nor will it prejudice any claim, right or privilege which the Purchaser may have on account of any loss sustained by it due to defective or unsatisfactory equipment supplied by the contractor. Should the inspection be waived off by the Purchaser, such waiver shall not relieve the contractor in any way from his contractual obligations.
- 3.6.5 The sample of the proposed Equipment, if desired by the purchaser, to be supplied for approval/testing.
- 3.6.6 Bidder has to provide the required drivers etc. if essentially required for the quoted equipment/peripherals being supplied.
- 3.6.8 Bidder has to provide necessary support by providing required drivers for connecting the hardware devices being used at the user site. All these drivers

should be freely available on the OEM website for which necessary links may be provided.

3.6.9 Bidder has to install the patches/upgrades during warranty period at no extra cost.

3.6.10 GUI tools for configuring devices.

3.6.12 Bidder should provide service maintenance of System Software / driver software up-gradations, installing patches etc., at no extra cost during the warranty period.

3.6.13 All drivers' patches required at site are to be arranged by the supplier and should be available on the website of the respective OEM.

3.6.14 The Supplier of software items shall depute its technical person, if end user is facing problem in installation/working of software. On-line support will be made available without any charges to end user.

3.7 Packing Delivery & Documentation:

3.7.1 The supplier shall provide such packing as is required to prevent damage or deterioration of the goods during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitations, rough handling during transit and exposure to extreme temperatures and precipitation during transit and open storage. The Supplier shall be responsible for any defect in packing.

3.7.2 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as will be specifically provided for in the contract.

3.7.3 Delivery of the goods and associated documentation will be done in such manner as may be prescribed by the Purchaser in the Contract.

3.8 Insurance:

3.8.1 The Goods supplied under the Contract shall be fully insured against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery.

3.8.2 The supplier will indemnify the Purchaser from all responsibility of compensation etc. caused by third party injury including death while he is discharging his duties under the contract.

3.9 Transportation:

3.9.1 The entire cost of carriage/transportation from the port of discharge to the destination shall be borne by the Supplier.

3.9.2 Where the Supplier is required to affect delivery to some other address within

Himachal Pradesh, the supplier shall be required to meet all transport and storage expenses until delivery is completed.

3.10 Literature and Instruction:

3.10.1 Each supplied equipment(s) packing box must contain copy of illustrated literature and instruction books regarding the installation, handling, maintenance and use of the Goods at each station shall be supplied by the supplier as part of the Contract price before dispatch of the first assignment.

3.11 Payment:

3.11.1 **First Instalment:** First Instalment shall be paid after delivery of the Goods at the prescribed destinations. Amount of 1st instalment shall be regulated in such a manner that the total payment after delivery is 85% of the order value. A claim for first instalment shall be staked by the Supplier, when he has supplied adequate number of machines. The first installment of 85% will be paid only after receipt of duly acknowledged delivery challans & invoice, as required by the Purchaser.

3.11.2 **Second Instalment:** Remaining amount of 15% of the order value shall be paid after satisfactory installation of equipments and execution of Performance Guarantee for proper maintenance during warranty period as mentioned at Clause 3.5. If the installation is delayed beyond 45 days on account of site not being ready (or any other reasons entirely attributable to the Purchaser) or any other reason attributable to the Purchaser, $\frac{2}{3}$ of the second instalment (i.e., 10% of the order value) shall be released to the Supplier subject to submission of site not ready (SNR) report from concerned department. In such an unlikely event of the site not being ready, the remaining amount $\frac{1}{3}$ of the second instalment (i.e., 5% of order value) will be released after submission of successful installation reports of the ordered equipment(s) duly signed by the competent authority of the department(s).

Note: *First instalment shall be released only on production of bill supported by delivery challan by the Supplier. Any bill supported by requisite documents will be processed within 15 days and objections, if any, will be conveyed in one go within this period. If the claim is found in order, the payment will be made within 2 weeks from the date of submission of such bills alongwith required documents. In case of Site is not ready for installation Second Instalment of 10% payment will be released after submission of SNR reports from the concerned department.*

3.12 Prices:

3.12.1 Subject to the provision to Rule 2.11.1, the prices charged by the Supplier for Goods delivered and services performed under the Contract shall not vary from the prices quoted by the Supplier in his Bid. But in case of global or national fall in prices of a product in IT/ Electronics industry due to a change in Government Policy or otherwise, such a reduction shall be passed on to the Purchaser after mutual negotiations.

3.12.2 There shall be no effect of the exchange rate variation etc., on the rates to be quoted by the Vendor during one-year period. However, if rates will increase/decrease, HPSEDC will call techno-commercial bids from the empanelled bidders on requests received from them.

3.13 Modification in the Order:

3.13.1 The Purchaser may at any time, by written order given to the Supplier make changes within the general scope of the Contract in anyone or more of the following:

- (a) The specifications of the Goods
- (b) The method of shipment or packing
- (c) The service to be provided by the Supplier
- (d) Quantity of goods
- (e) Any other change that the purchaser may deem fit

3.13.2 If any such change causes an increase or decrease in the cost of, or the time required for the Supplier's performance of any part of the work under the Contract, an equitable adjustment shall be made in the Contract price or delivery Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be put forth within 30 days from the date of the Supplier's receipt of the Purchaser's change order.

3.14 Subcontract:

3.14.1 The Supplier shall not assign in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.

3.14.2 The Supplier shall notify the Purchaser, in advance in writing, of all sub-Contracts awarded under the Contract if not already specified in his bid. Such notification, in his original bid or later (even if with prior approval of Purchaser) shall not relieve the Supplier of any liability or obligations under the Contract.

3.14.3 Subcontracts must comply with the provisions of the clause 2.3.

3.15 Delays in the Supplier's Performance:

- 3.15.1 Delivery of the goods and the performance of services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser in the Contract.
- 3.15.2 Any unjustifiable delay by the Supplier in the performance of his delivery obligation may render the Supplier liable to any or all the following:
- (i) forfeiture of its performance security,
 - (ii) imposition of liquidated damages @Rs 50/- per day per Peripherals for Digital Communication, collaboration and learning of the unfulfilled order. The maximum penalty will not exceed 10% of the equipment cost.
 - (iii) termination of the contract and risk purchase at Supplier's risk
 - (iv) initiation of any other legal proceedings.
- 3.15.3 The Supplier will strictly adhere to the time-schedule for the performance of Contract. However, the Purchaser can relax this time limit in force majeure conditions.

3.16 Termination for Default:

- 3.16.1 The Purchaser may without prejudice to any other remedy for breach of contract, (including forfeiture of Performance Security) by written notice of default sent to the supplier, terminate the Contract in whole or in part after sending a notice to the Supplier in this regard.
- (a)** if the Supplier fails to deliver any or all of the goods within the time period(s) specified in the Contract, or any extension thereof granted by the Purchaser pursuant to clause 2.11.2, or
 - (b)** if the Supplier fails to perform any other obligation under the Contract.
- 3.16.2 In the event the Purchaser terminates the Contract in whole or in part, he may procure, upon such terms in such manner, as it deems appropriate, goods similar to those undelivered, and the Supplier shall be liable to pay excess cost of such similar goods to the Purchaser. This liability will be in addition to forfeiture of performance guarantee and any other legal proceedings, which the Purchaser may initiate as per Para 3.15.2.

3.17 Force Majeure:

- 3.17.1 Notwithstanding the provisions of the clauses 3.15 and 3.16, the Supplier shall not be liable for forfeiture of its performance security or termination for default, or

payment of any damages, if and to the extent that his delay in performance under the Contract is the result of an event of Force Majeure.

3.17.2 For purpose of this clause, Force Majeure means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Purchaser either in its sovereign or contractual capacity, war, revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

3.17.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing or such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract, as far as reasonably practical, and shall seek all reasonable alternative means for performance, not prevented by the *Force Majeure* event.

3.18 Taxes and Duties:

3.18.1 Supplier shall be entirely responsible for payment of all taxes, duties and levies, imposed up to/until the delivery point specified in the Contract. If there is a reduction in any of the statutory duties and levies before the despatch of goods, the benefit of the same will be passed on to the Purchaser.

3.19 Limitation of Liability:

The liability of the supplier in respect of all claims under this tender including penalty for delay in delivery, services, liquidity damages etc. shall not exceed the aggregate value of the goods and services supplied under this tender. Either party shall not be liable for any claim made for any indirect, consequential or incidental losses and indirect damages, costs or other expenses related thereto.

3.20 Arbitration:

All disputes, differences, claims and demands arising under this tender shall be referred to arbitration of a sole arbitrator to be appointed with mutual consent of both the parties. All arbitration will be held in Shimla. If the parties cannot agree on the appointment of the Arbitrator within a period of one month from the notification by one party to the other of existence of any dispute and need for appointment of an arbitrator. Further action will be taken in accordance with the provisions of the Arbitration and Conciliation Act, 1996 and the award made under this tender shall be final and binding upon the parties hereto, subject to legal remedies available under the law.

SECTION-4

TECHNICAL SPECIFICATIONS AND MAINTENANCE CONDITIONS

4.1. SCOPE OF THE TENDER:

The successful Bidder(s) will provide the following services:

(i) Manufacture /Import (ii) Testing (iii) Supply (iv) Installation (v) After Sales Service during warranty and Annual Maintenance period.

(i) Manufacture/Import.

The OEM/ Bidder can manufacture the Goods in India or import the same (in full or in parts) from any part of the world.

(ii) Testing.

Testing/ Benchmarking as per requirement of the Purchaser and in such manner and for such size of sample as may be prescribed subsequently may be got done as a part of the Contract.

(iii) Supply

The Goods need to be supplied F.O.R. as per the list of destinations to be supplied at the time of signing the Contract.

(iv) Installation and Commissioning of equipment(s): The successful bidder of respective equipments will do installation and ensure that the equipment supplied works/run properly.

(v) After-Sales-Services

The Supplier will open Own/Authorised Service Centres at least in four locations (Shimla, Mandi, Kangra and Hamirpur) in Himachal Pradesh for the maintenance of equipment(s) supplied under this tender. Similarly, the supplier shall keep equipments as spare (as finalised of RC to be mutually decided), to provide immediate replacement, with the service centre during the warranty period. It will be desirable that minor functional problems of these equipments are taken care of by the service centre only. In case of major & specific problems, respective vendors will have to rectify the defect within the time-limits prescribed in Para 4.2.2 below, otherwise must have to replace with the new one.

4.2 AFTER SALES SERVICES:

4.2.1 Comprehensive Warranty:

The Supplier shall provide Comprehensive OEM warranty (including labour and spares) for 36 calendar months. The warranty shall cover the System Software, Labour and all the hardware parts including updation/ upgradation (free of cost) of the Operating System. An undertaking to this effect shall be given by the Bidder in the Fact Sheets. The supplier of Items shall ensure genuine add-ons items & consumables for the items sold in the state for their own brand.

4.2.2 Service Centre:

The Service Centres in the State shall be manned by qualified Engineers as per Clause 4.1(v) above and one call coordinator. It will be equipped, with sufficient inventory of spares as per ABC Analysis. The supplier will provide prompt after sales support and shall attend any complaint not later than 24 hours. The minor and major defects shall be rectified not later than 36 hours and 60 hours respectively. If defect is not rectified within the time stipulated as above penalty as prescribed by the Purchaser will be imposed. However, the penalty in such instances shall not exceed 10% of the equipments cost against a non-attendance/ non-rectification of defects against a service call. The exact quantum of penalty per day shall be @ Rs. 50 per day. During the warranty period, this penal clause will be enforced by ensuring that the supplier gives a Performance Security by way of Bank Guarantee to the Purchaser.

4.2.3 Inventory of Spares:

An ABC analysis of inventory of spares shall be done by the Purchaser in consultation with the supplier to ensure that all critical spares/ components apart from the 1% inventory of new equipments for replacement purposes (if equipment are beyond repair within 24 hours) are available with the Service Centres in sufficient quantity.

4.2.4 The amount of non-delivery of products as mentioned in Clause No. 3.15: **Delays in the Supplier's Performance** and Clause No. **4.2: After Sale Services** or any other recoverable amount from bidder(s) may be adjusted/ recovered or set-off against any sum payable to the bidder against any other contract with HPSEDC or with State Government. The amount shown against that shall be withheld to be adjusted against the compensation

levied as mentioned above. Recovering or deducting of this amount on failure of delivery/ delay in delivery or not providing services in time bound manner, shall be automatic deducted without any notice to the concerned bidder.

The Managing Director, HPSEDC, will reserve the right to relax/ decrease the penalties or release recovered amount without giving any interest to the bidder(s), after receiving justified/ reasonable reasons from the bidder(s).

4.3 TECHNICAL SPECIFICATIONS:

4.3.1 The Technical Specifications have been given in Annexure-I in Section-5. These specifications should be carefully studied by the Bidder, so that the product could be technically evaluated as per the Purchaser's requirement.

4.4. FACT SHEETS:

- (i) Fact Sheets as per Annexure-I Section 5 are to be filled in by the bidders as part of the Bid. These Fact Sheets should be complete in all respects and should be free from errors and omissions. All required parameters must be replied to in affirmative/ negative. In case of any difference between fact sheets (in Section – 4) and the specifications given in Annexure - I of Section - 5, the latter shall prevail.
- (ii) The Bidder shall also supply along with the Bid all brochures and authenticated bulletins carrying latest changes covering the technical aspects of each item appearing in schedule of requirement intended to be supplied by the Bidder. For the purpose of establishing latest changes, print-outs down loaded from INTERNET (& duly authenticated) may be acceptable.

5. Acceptance Testing After Notification of Award:

- i. The Purchaser may conduct benchmarking & acceptance test, which could involve operation of complete system for at least two consecutive days. The Supplier(s) will provide full assistance in this regard. Partial delivery/ installation/ testing of hardware/ system software will not be permissible for acceptance/ payment. The criteria for benchmarking/ acceptance will be conveyed separately.

PROFORMA- A
(Declaration by the O.E.M.)
[Para 2.8(I)(ii)]

To Date:

The Managing Director,
H.P. State Electronics Development Corporation Ltd.,
1st Floor, IT Bhawan, Mehli, Shimla- 171013.

Subject: Authorisation to a distributor for tender No: **SEDC/RC/DigiComm/2K23-5957**

Dear Sir,

Please refer to your Notice Inviting Tenders for procurement of Peripherals for Digital Communication, collaboration and learning published in “The Indian Express” and “Punjab Kesari”.

M/s _____ (Bidder), who is our reliable distributor for the last _____ years, is hereby authorised to quote on our behalf for this prestigious tender. M/s _____ (Bidder) is likely to continue as our business partner during years to come. We undertake the following regarding the supply of these equipments/ peripherals etc.

1. The Machines supplied in this tender shall be manufactured by us as per the specifications required by the Purchaser. M/s _____ (Bidder) shall not be allowed to do any hardware integration on our equipment.
2. It will be ensured that in the event of being awarded the contract, the Peripherals for Digital Communication, collaboration and learning will be delivered by M/s _____ (Bidder) & maintained by M/s _____ (ASP) properly as per the conditions of the contract. For this purpose, we shall provide M/S _____ necessary technical support including technical updates, & spares to the ASP. If M/s _____ fails to maintain the equipments for any reason what-so-ever, we shall make alternative arrangements for proper maintenance of these equipment(s) during the warranty period. During the period of 3 years’ warranty, we shall provide full support back up to the Bidder/ASP. On the whole, it shall be ensured that the clauses regarding service and maintenance of Machines do not get diluted in implementation due to non-availability of spares and lack of technical inputs from our side even during AMC/extended warranty period.
3. If due to any reason whatsoever, the tie up between our Company & M/s _____ (Bidder) or M/s _____ (ASP) breaks down subsequently, we shall make necessary alternatives arrangements for honouring the terms of the contract.

Yours very truly,

Name : _____
Designation : _____
Company : _____

PROFORMA-B
[Para 2.8 (II)(i)]

I. Financial Parameters

1. Net worth as on 31-03-21, 31-03-22 & 31-03-2023
2. (PBT) Profit before taxes for the last three years.
3. (PAT) Profit after taxes for the last three years.
4. Income Tax Return for the last three years.
5. Equity Base
6. Premier contributors to Equity including Promoter's Contribution.
7. Turn-over during the last 3 financial years.

II. Growth Profile

- (i) Percentage increase in
t/o from 2019-20 to 2020-2021
- (ii) Percentage increase in
t/o from 2020-2021 to 2021-22
- (iii) Percentage increase in
t/o from 2021-22 to 2022-23

III. Installation Base and Regional Spread

III. Customer Support and Service.

- (i) Number of engineers and their qualification

Sr. No.	Qualification	Numbers (\$)	Experience	Break Up	Special Attributes *
1.	B.Tech and above				
2.	Diploma Holders				
3.	Others				

- (ii) Inventory of critical components maintained at _____
 - Give special attributes such as Microsoft Certified etc.
 - \$ Indicate number of Engineers in Himachal Pradesh / Chandigarh

PROFORMA-C
[Para 2.8(II)(ii)]

(i) DETAILS OF EQUIPMENTS BASE SUPPLIED DURING THE LAST 3 YEARS.

Sr. No.	Organisation (\$)	Number of Peripherals for Digital Communication, collaboration and learning supplied and installed	Value	Date of Order	Current Status
1.					
2.					
3.					
4.					
		<Total>	<Total>		

* Give latest position regarding installation and arrangement for after sales support.

\$ Give telephone/ fax No./email-id and address of the contact persons

(ii) Certificate from five prominent Government/Semi Govt./PSUs/Autonomous bodies of Centre/State Govt. institutions, duly signed and stamped by the authorized officers of the end user department clearly indicating name, address and contact number regarding satisfactory supply, installation and after sale support during warranty period.

Sr. No.	Name, Address, Contact Number of the End user deptt.	Number of Peripherals for Digital Communication, collaboration and learning supplied installed	Supplied/ Installed (Yes/No)	Date of Supply/ Installation
1.				
2.				
3.				
4.				

FORM-D

DECLARATION REGARDING ACCEPTANCE OF TERMS & CONDITIONS CONTAINED
IN THE TENDER DOCUMENT

To

The Managing Director,
H.P. State Electronics Development Corporation Ltd.,
1st Floor, IT Bhawan, Mehli, Shimla-171013.

Sir,

I have carefully gone through the Terms & Conditions contained in the Tender Document [No.: **SEDC/RC/DigiComm/2K23-5957**] regarding procurement Peripherals for Digital Communication, collaboration and learning for Rate Contract by HPSEDC. I declare that all the provisions of this Tender Document contained in Section-1 to Section-5 and subsequent corrigendum(s)/clarifications issued from time to time are acceptable to my Company/firm. I further certify that I am an authorised signatory of my company and am, therefore, competent to make this declaration.

Yours very truly,

Name: _____

Designation: _____

Company: _____

Address: _____

Contact No:

Email-id:

FORM-E

DECLARATION REGARDING PAST PERFORMANCE

To

The Managing Director,
H.P. State Electronics Development Corporation Ltd.,
1st Floor, IT Bhawan, Mehli, Shimla-13.

Sir,

I have carefully gone through the Terms & Conditions contained in the Tender Document [No. *SEDC/RC/DigiComm/2K23-5957*] regarding rate contract of Peripherals for Digital Communication, collaboration and learning by HPSEDC. I hereby declare that my company has not been debarred/black listed by any Government / Semi Government organizations for quality/ service products nor is there any pending dispute regarding short shipment/ installation/service. I further certify that I am an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours truly,

Name: _____

Designation: _____

Company: _____

Address: _____

Contact No:

Email-id:

SCHEDULE - I

SAMPLE OF PRICE SCHEDULE/BOQ

(to be completed by bidder as per the format available on e-procurement portal

<https://hptenders.gov.in>)

PRICE SCHEDULE (DOMESTIC TENDERS - RATES ARE TO GIVEN IN RUPEES (INR) ONLY) (This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)									
Sl. No.	Item Description	Qty	BASIC RATE with installation (if any) and three years warranty In Figures To be entered by the Bidder in Rs. P	GST Amount in percentage (%)	GST amount in Rupees Rs. P	Unit Price with GST Rs. P	TOTAL AMOUNT Without Taxes with three-year warranty Rs. P	Gross Bid Value Inclusive installation and Taxes (for three-year onsite OEM warranty) Rs. P	TOTAL AMOUNT In Words
1.	Item No. 1: Camera with 10x Optical Zoom that works with Google Meet, Skype, Microsoft Teams, Cisco Webex, Bluejeans etc.	1							
2.	Item No. 2: Camera with 5x Optical Zoom that works with Google Meet, Skype, Microsoft Teams, Cisco Webex, Bluejeans etc.	1							
3.	Item No. 3: Camera with 2x Optical Zoom that works with Google Meet, Skype, Microsoft Teams, Cisco Webex, Bluejeans etc.	1							
4.	Item No. 4: Additional MIC	1							
5.	Item No.5: USB based Conferencing System	1							
6.	Item No. 6: GoPro Hero 10 Item No. 6: Integrated conferencing device with inbuilt battery backup to be used with Laptop / Desktop	1							
7.	Item No. 7: Sliding screen with Diagonal 55 inch or Higher	1							
8.	Item No. 8: Sliding screen with Diagonal 65 inch or Higher	1							
9.	Item No. 9: Sliding screen with Diagonal 75 inch or Higher	1							

10.	Item No 10: Kiosk 21.5 Inch Touch screen	I							
11.	Item No. 11: 55 Inch Vertical Kiosk screen	I							
12.	Item No. 12: ADD on Accessories	I							
13.	Item No. 13: ADD on Accessories	I							
14.	Item No. 14: ADD on Accessories	I							
15.	Item No. 15: All in One Integrated Display with Integrated VC Codec and Web Camera	I							
16.	Item No. 16: LED Smart TVs 32" Commercial Display	I							
17.	Item No. 17: LED Smart TVs 43" Commercial Display	I							
18.	Item No. 18: Micro Computer with Intel Quad-Core i7	I							
19.	Item No. 19: Micro Computer with Intel Quad-Core i5	I							
20.	Item No. 20: Micro Computer with Intel Quad-Core i3	I							
21.	Item No. 21: Video Conferencing (Option 1)	I							
22.	Item No. 22: Video Conferencing (Option 2)	I							
23.	Item No. 23: Speaker (Option 1)	I							
24.	Item No. 24: Speaker (Option 2)	I							
25.	Item No. 25: Speaker (Option 3)	I							
26.	Item No. 26: Camera (Option 4)	I							
27.	Item No. 27: Speakerphone	I							
28.	Item No. 28: Micro PC (i7)	I							

29.	Item No. 29: Movable stand for Mounting Digital Display	1							
30.	Item No. 30: Small Form Factor (i7/ Ryzen 7)	1							
31.	Item No. 31: Small Form Factor (i5/ Ryzen 5)	1							
32.	Item No. 32: Small Form Factor (i3/ Ryzen 3)	1							
33.	Item No. 33: Sliding Screen with Diagonal 85 inch or Higher	1							
34.	Item No. 34: Sliding Screen with Diagonal 98 inch or Higher	1							
35.	Item No. 35: Sliding Screen with Diagonal 110 inch or Higher	1							
36.	Item No. 36: Integrated USB all-in-one conferencing device for 20+ seater	1							
37.	Item No. 37: DOCK (Speaker Phone and Mic)	1							
38.	Item No. 38: Integrated USB all-in-one conferencing device for 4-5 seater	1							
39.	Item No. 39: Integrated USB all-in-one conferencing device	1							
40.	Item No. 40: Integrated USB all-in-one conferencing device	1							
41.	Item No. 41: Integrated USB all-in-one Conferencing device for 8+ Seater	1							
42.	Item No. 42a: Sliding screen with safety lockable enclosure 55"	1							
43.	Item No. 42b: Sliding screen with safety lockable enclosure 65"	1							
44.	Item No. 42c: Sliding screen with safety lockable enclosure 75"	1							
45.	Item No. 42d: Sliding screen with safety lockable enclosure 85"	1							
46.	Item No. 42e: Sliding screen with safety lockable enclosure 98"	1							
47.	Item No. 42f: Sliding screen with safety lockable enclosure 110"	1							
48.	Item No. 43: Micro PC (i3)	1							
49.	Item No. 44: Micro PC (i5)	1							

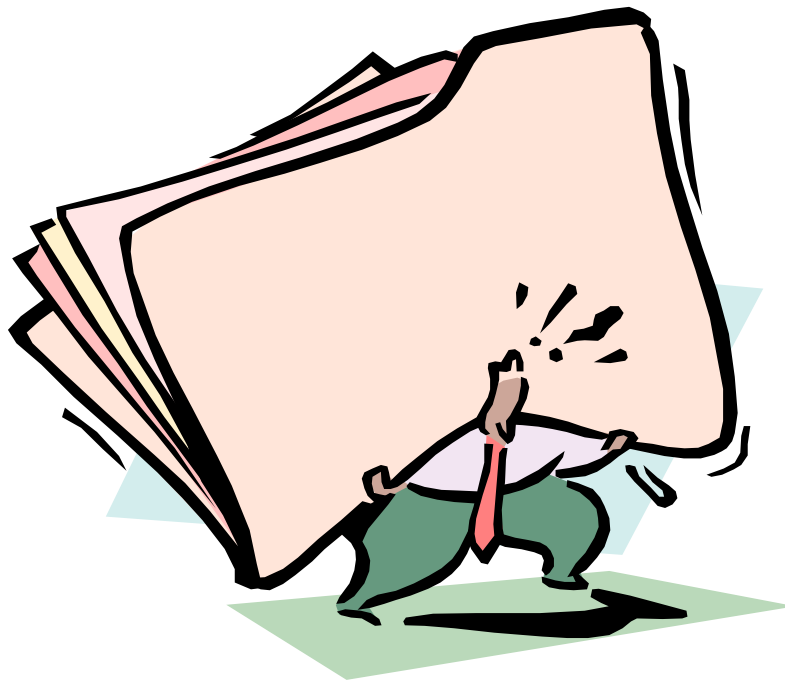
50.	Item No. 45: Interactive panel with Diagonal 55 inch	I							
51.	Item No. 46: Interactive Panel with Diagonal 65 inch	I							
52.	Item No. 47: Interactive Panel with Diagonal 75 inch	I							
53.	Item No. 48: Interactive Panel with Diagonal 86 inch	I							
54.	Item No. 49: Web cam with speaker phone (Desktop based VC)	I							
55.	Item No. 50: Personal Video Bar	I							
56.	Item No. 51: All-in-One USB Video Bar for Huddle Room that works with any standard software based VC client	I							
57.	Item No. 52 : USB Based PTZ Camera and speakerphone for Large Size Room	I							
58.	Item No. 53 : Room Based - All-in-One VC Endpoint	I							
59.	Item No. 54 : Room Based VC Endpoint	I							
60.	Item No. 55.:Wireless Presenter	I							
61.	Item No. 56: Webcamera with integrated Dual Stereo microphones	I							
62.	Item No. 57 : Webcamera with integrated Dual Stereo microphones	I							
63.	Item No. 58 : Webcamera with integrated Dual Stereo microphones	I							
64.	Item No. 59 : Audio Podium	I							
65.	Item No. 60 : Digital Podium	I							
Total in Figures							0.00	0.00	INR Zero Only
Quoted Rate in Words		INR Zero Only							

SECTION- 5
TECHNICAL SPECIFICATIONS

ANNEXURES

Tender Document No:

SEDC/RC/DigiComm/2K23-5957



NB: Final specifications uploaded after pre-bid meeting. Please visit our web-sites www.hpsedc.in & <https://hptenders.gov.in> for latest amendments or notices in reference to this tender.

ANNEXURE-I

SECTION – V

TECHNCIAL SPECIFICATIONS ANNEXURES

The specification mentioned hereunder are bare minimum requirement. Bidders are encouraged to offer better specifications in this bid or subsequently during the period of rate contract. **The onsite warranty of all these equipment(s) should be three years.**

Item No. 1: Camera with 10x Optical Zoom that works with Google Meet, Skype, Microsoft Teams, Cisco Webex, Bluejeans etc.

Sr. No.	Features	Description	Compliance Yes/No Model No.
1.	Camera	4K at 30 fps and 1080p, 720p at 60 fps	
2.	Pan, Tilt, Zoom	Pan: $\pm 90^\circ$ Tilt: $\pm 30^\circ$ 10x Optical Zoom or better	
3.	Camera Control	Automatically moves and adjusts the lens to comfortably frame meeting participants in rooms	
4.	Field of View	Min. 70° field of view	
5.	MIC	Mic: Omni directional microphones (at least 2 inbuilt microphones in one MIC set) with Pickup range: 12 ft diameter, Mute button with LED status indicator, Extend reach of MIC by connecting up to 1 additional MICs using inbuilt/ external Hub to be supplied with MIC, Acoustic Echo Cancellation, Background noise suppression, Facility to extend MIC from Camera over Ethernet cable Or Omni directional microphones (at least 2 inbuilt microphones in one MIC/ Speakerphone set) with Pickup range from 12ft to 20ft diameter either with one mic or by connecting up to 1 additional MIC/ Speakerphone using inbuilt/ external Hub to be supplied with MIC/ Speakerphone. Mute button with LED status indicator, Acoustic Echo Cancellation, Background noise suppression Facility to extend MIC/ Speakerphone from Camera over Ethernet/USB	

		cable	
6.	Interface	HDMI/ USB	
7.	Speaker	System should be supplied with inbuilt or external speakerphone from day one.	
8.	Accessories	Accessories: Remote Control, Power cables, All necessary 4k/ 1080p capable data cables (HDMI/ USB – 1.5 m length) to connect Camera to PC, standard MIC cable – 2.5 m length and Ethernet cable – 5 m length to extend length of MIC (if applicable), Necessary mounting brackets for Camera, MIC	
9.	OS Support	Windows 11, Mac OS X 10.10 or higher, Chrome OS	
10.	Warranty	Three years onsite warranty	

Item No. 2: Camera with 5x Optical Zoom that works with Google Meet, Skype, Microsoft Teams, Cisco Webex, Bluejeans etc.

Sr. No.	Features	Description	Compliance Yes/No Model No.
1.	Camera	4K at 30 fps/ 1080p, 720p at 60 fps	
2.	Pan, Tilt, Zoom	Pan: $\pm 90^\circ$ Tilt: $\pm 30^\circ$ 5x Optical Zoom or better	
3.	Camera Control	Automatically moves and adjusts the lens to comfortably frame meeting participants in rooms	
4.	Field of View	Min. 70° field of view	
5.	MIC	Mic: Omni directional microphones (at least 2 inbuilt microphones in one MIC set) with Pickup range: 12 ft diameter, Mute button with LED status indicator, Extend reach of MIC by connecting up to 1 additional MICs using inbuilt/ external Hub to be supplied with MIC, Acoustic Echo Cancellation, Background noise suppression, Facility to extend MIC from Camera over Ethernet cable Or Omni directional microphones (at least 2 inbuilt microphones in one MIC/Speakerphone set) with Pickup range from 12ft to 20ft diameter either with one mic or by connecting up to 1 additional MIC/Speakerphone using inbuilt/ external Hub to be supplied with MIC/Speakerphone. Mute button with LED status indicator, Acoustic Echo Cancellation, Background noise suppression Facility to extend MIC/Speakerphone from Camera over Ethernet/USB cable	
6.	Interface	HDMI/ USB	
7.	Speaker	System should be supplied with inbuilt or external speakerphone from day one.	

8.	Accessories	Accessories: Remote Control, Power cables, All necessary 4k/ 1080p capable data cables (HDMI/ USB – 1.5 m length) to connect Camera to PC, standard MIC cable – 2.5 m length and Ethernet cable – 5 m length to extend length of MIC (if applicable), Necessary mounting brackets for Camera, MIC	
9.	OS Support	Windows 11, Mac OS X 10.10 or higher, Chrome OS	
10.	Warranty	Three years onsite warranty	

Item No. 3: Camera with 2x Optical Zoom that works with Google Meet, Skype, Microsoft Teams, Cisco Webex, Bluejeans etc.

Sr. No.	Features	Description	Compliance Yes/No Model No.
1.	Camera	4K at 30 fps and 1080p, 720p at 60 fps	
2.	Pan, Tilt, Zoom	Pan: ± 90° Tilt: ± 30° 2x Optical Zoom or better	
3.	Camera Control	Automatically moves and adjusts the lens to comfortably frame meeting participants in rooms	
4.	Field of View	Min. 70° field of view	
5.	MIC	Mic: Omni directional microphones (at least 2 inbuilt microphones in one MIC set) with Pickup range: 12 ft diameter, Mute button with LED status indicator, Extend reach of MIC by connecting up to 1 additional MICs using inbuilt/ external Hub to be supplied with MIC, Acoustic Echo Cancellation, Background noise suppression, Facility to extend MIC from Camera over Ethernet cable Or Omni directional microphones (at least 2 inbuilt microphones in one MIC/ Speakerphone set) with Pickup range from 12ft to 20ft diameter either with one mic or by connecting up to 1 additional MIC/ Speakerphone using inbuilt/ external Hub to be supplied with MIC/ Speakerphone. Mute button with LED status indicator, Acoustic Echo Cancellation, Background noise suppression Facility to extend MIC/ Speakerphone from Camera over Ethernet/USB cable	
6.	Interface	HDMI/ USB	
7.	Speaker	System should be supplied with inbuilt or external speakerphone from day one.	
8.	Accessories	Accessories: Remote Control, Power cables, All	

		necessary 4k/ 1080p capable data cables (HDMI/ USB – 1.5 m length) to connect Camera to PC, standard MIC cable – 2.5 m length and Ethernet cable – 5 m length to extend length of MIC (if applicable), Necessary mounting brackets for Camera, MIC	
9.	OS Support	Windows 11, Mac OS X 10.10 or higher, Chrome OS	
10.	Warranty	Three years onsite warranty	

Item No. 4: Additional MIC

1	Additional MIC	To extend coverage of MIC, mentioned at Item No. 6 above, further by attaching one more MIC using inbuilt/ external Hub to be supplied with MIC, Standard MIC cable – 2.5 m length, Necessary mounting brackets for MIC	
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Item No.5: USB based Conferencing System

Sr. No.	Description	Compliance Yes/No <i>Model No.</i>
1.	Output: H.265, H.264, YUY2, MJPEG, PTZ Camera, Optical Resolution: 2 MP (1080p30fps or above), Sensor size: 1/2.8" CMOS, SNR >55dB, USB Connectivity, 90° ± 10° FOV or more, Autofocus, 10x Optical zoom, Motorized 240- Degree Pan, 120-degree tilt, 5 or more preset.	
2.	System should be supplied with 4 microphones from day one with each having four directional microphones /Omnidirectional, AEC and expandable to 6 microphones without any external device. Distortion: <5 % from 200Hz, Frequency response: 100Hz – 11KHz, Sensitivity: -28dB +/-3dB	
3.	Sensitivity: 83dBSPL +/-3dB at 1W/1M, Max output: 91dBSPL, Frequency response: 120Hz – 14KHz, full duplex, LED / LCD Indication on speaker and microphone for streaming, mute, hold and Bluetooth pairing, Caller ID, duration and other function so that user is aware about the status of the device.	
4.	All necessary cables for all the components, Cable manager, power adaptors, regional plugs, quick start guide along with the wall-mounting bracket should be supplied by the same OEM. Remote control to manage Camera (Pan, Tilt, Zoom, Preset), Speakerphone (volume +/-) and	

	Microphone (mute /unmute). All cables (HDMI, Mic etc) shall be provided and should be minimum 3m. System should operate from -10 to 50-degree Celsius and certificate for the same to be furnished.	
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Item No. 6: Integrated conferencing device with inbuilt battery backup to be used with Laptop / Desktop.

Sr. No.	Description	Compliance Yes/No Model No.
1	Basic Requirement Complete camera, speakerphone, remote control, microphone and battery should be an integrated single OEM solution for ease of use and seamless experience.	
2	Camera 1080p30fps, onboard H.264, Output: H.264, MJPEG, Sensor size: 1/3" CMOS or better, USB 2.0 or higher for connectivity, with remote control/Touch Panel, zoom: 4x or better, with 90° FOV or better, autofocus	
4	Integrated Microphones Two inbuilt directional microphones supporting 9-foot or more with mute/unmute option from device as well as remote control/touch panel with LED Indication	
5	Other System should be designed such a way that preferably single USB cable (for camera, speakerphone and microphone) with 6ft of minimum length is connected to end device (laptop, Mac, Codec, desktop and thin client), Dockable Remote Control/ Touch panel to manage Camera, Speakerphone (volume +/-) and Microphone (mute/unmute) from 10 ft or more.	
6	Warranty Three years onsite warranty.	

Item No. 7: Sliding screen with Diagonal 55 inch or Higher

Sr. No.	Description	Compliance Yes/No Model No.
1.	Resolution	3840 X 2160 or higher
2.	Contrast Ratio	1100:1 or higher
3.	Brightness	350 cd/m2 or higher
4.	Response time	10ms or better
5.	Input/ Output Ports	HDMI x 2 or better, LAN Port, USB X 1 or better
6.	Audio	Inbuilt 2x10 Watts RMS or better
7.	16X7 operation	The display shall be suitable for 16X7 operation
11.	Network Mode	Wired: LAN, Wireless: WIFI
12.	Light Life	30,000 Hrs or better
13.	Antiglare Coating	Yes

14.	Touch Interface	Touch sensitive as well as pen driven	
15.	Touch Technology	Infrared optical/ Capacitive	
16.	Number of Touch Points (Number)	10 Points or higher IR Multi-Touch Touch Interface	
17.	Provision for wall mounting	Yes	
18.	Number of electronic pen or stylus to be supplied with the board (Nos)	2 with magnetic pen holder	
19.	Installation Kit, connecting cables to be supplied along with the Panel	Yes, VGA (5m x 1), HDMI (1.5m x 2)	
20.	Certification Required	Mandatory Certifications: BIS Desired Certifications: UL, FCC or more	
21.	Warranty	Three years onsite warranty.	

Item No. 8: Sliding screen with Diagonal 65 inch or Higher

Sr. No.	Description	Compliance Yes/No	Model No.
1.	Resolution	3840 X 2160 or higher	
2.	Contrast Ratio	1100:1 or higher	
3.	Brightness	350 cd/m2 or higher	
4.	Response time	10ms or better	
5.	Input/ Output Ports	HDMI x 2 or better, LAN Port, USB X 1 or better	
6.	Audio	Inbuilt 2x10 Watts RMS or better	
7.	16X7 operation	The display shall be suitable for 16X7 operation	
8.	Network Mode	Wired: LAN, Wireless: WIFI	
11.	Light Life	30,000 Hrs or better	
12.	Antiglare Coating	Yes	
13.	Touch Interface	Touch sensitive as well as pen driven	
14.	Touch Technology	Infrared optical/ Capacitive	
15.	Number of Touch Points (Number)	10 Points or higher IR Multi-Touch Touch Interface	
16.	Provision for wall mounting	Yes	
17.	Number of electronic pen or stylus to be supplied with the board (Nos)	2 with magnetic pen holder	
18.	Installation Kit, connecting cables to be	Yes, VGA (5m x 1), HDMI (1.5m x 2)	

	supplied along with the Panel		
19.	Certification Required	Mandatory Certifications: BIS Desired Certifications: UL, FCC or more	
20.	Warranty	Three years onsite warranty.	

Item No. 9: Sliding screen with Diagonal 75 inch or Higher

Sr. No.	Description		Compliance Yes/No Model No.
1.	Resolution	3840 X 2160 or higher	
2.	Contrast Ratio	1100:1 or higher	
3.	Brightness	350 cd/m2 or higher	
4.	Response time	10ms or better	
5.	Input/ Output Ports	HDMI x 2 or better, LAN Port, USB X 1 or better	
6.	Audio	Inbuilt 2x10 Watts RMS or better	
7.	16X7 operation	The display shall be suitable for 16X7 operation	
8.	Network Mode	Wired: LAN, Wireless: WIFI	
11.	Light Life	30,000 Hrs or better	
12.	Antiglare Coating	Yes	
13.	Touch Interface	Touch sensitive as well as pen driven	
14.	Touch Technology	Infrared optical/ Capacitive	
15.	Number of Touch Points (Number)	10 Points or higher IR Multi-Touch Touch Interface	
16.	Provision for wall mounting	Yes	
17.	Number of electronic pen or stylus to be supplied with the board (Nos)	2 with magnetic pen holder	
18.	Installation Kit, connecting cables to be supplied along with the Panel	Yes, VGA (5m x 1), HDMI (1.5m x 2)	
19.	Certification Required	Mandatory Certifications: BIS Desired Certifications: UL, FCC or more	
20.	Warranty	Three years onsite warranty.	

Item No 10: Kiosk 21.5 Inch Touch screen

Sr. No.	Specifications for Kiosk 21.5 Inch Touch screen		Compliance Yes/No Model No.
1.	Touch Interface	EMR	
2.	Panel size	21.5"	
3.	Brightness	350 cd/m2	
4.	Contrast ratio	1100:1	
5.	Response time	6ms	
6.	Color	16.7M	
7.	LAN interface	x1	
8.	USB	x2	
9.	Digital Signage Software	Built-in	
10.	Speakers	10 watt Built In	
11.	Optimum Resolution	1920X1080p@60Hz	
12.	Media player	Dual Core, 4GB, 500 GB, Window 10 Pro	
13.	Mount	Floor Mount on 1.6 mm sheet screw less Chassis	

Item No. 11: 55 Inch Vertical Kiosk screen

Sr. No.	Specifications for 55 Inch Vertical Kiosk screen		Compliance Yes/No Model No.
1.	Kiosk Type	Vertical, Floor Standing, Toughened Glass, Black Color	
2.	Panel size	55"	
3.	Brightness	350 cd/m ² or higher	
4.	Contrast ratio	1100:1	
5.	Response time	8.5 ms or better	
6.	Color	16.7M	
7.	LAN interface	x1	
8.	USB	X1 or better	
9.	Digital Signage Software	Built-in	
10.	Speakers	10 watt Built In	
11.	Optimum Resolution	1920X1080p@60Hz	
12.	Media player	Quad Core Processor, built in 3 GB RAM,	

		16 GB ROM, Android OS Software, Built in Smart Management Software	
13.	Mount	Floor Mount, screw less Chassis	
14.	Warranty	3 Years comprehensive onsite	

Item No. 12 to 14: ADD on Accessories

Item. No.	Description		Compliance Yes/No Model No.
12	OPS (Core i3)	Intel i3 12th Generation processor or higher, 8GB RAM, 512GB NVME SSD, Wireless Keyboard & Mouse, Windows 11 SL Preloaded, HDMI 2.0, VGA-out, and Display out ports, High-speed 3.0 USB ports for connection to pen drives, external hard drives and flash drives, Rugged steel chassis for extra strength and integrity.	
13	OPS (Core i5)	Intel i5 12th Generation processor or higher, 8GB RAM, 512GB NVME SSD, Wireless Keyboard & Mouse, Windows 11 SL Preloaded, HDMI 2.0, VGA-out, and Display out ports, High-speed 3.0 USB ports for connection to pen drives, external hard drives and flash drives, Rugged steel chassis for extra strength and integrity	
14	OPS (Core i7)	Intel i7 12th Generation processor or higher, 8GB RAM, 512GB NVME SSD, Wireless Keyboard & Mouse, Windows 1 SL Preloaded, HDMI 2.0, VGA-out, and Display out ports, High-speed 3.0 USB ports for connection to pen drives, external hard drives and flash drives, Rugged steel chassis for extra strength and integrity	

Item No. 15: All in One Integrated Display with Integrated VC Codec and Web Camera

Item. No.	Description		Compliance Yes/No Model No.
15	25 inch or higher 4K LED/ LCD/ TFT screen	Integrated system with at least 25 inch or higher 4K LED/LCD/TFT screen, 4K Camera, Mics and speakers for wide band audio output. The Codec should be a part of the unit. LED/LCD/TFT screen should be a touch screen to provide a touch interface to the user. It should be possible to use camera, microphone and speakers with any SW client	

		<p>(without using units Codec Functionalities) Must have the following touch buttons for ease of use</p> <ol style="list-style-type: none"> 1. Mute/Unmute 2. Volume Increase/Decrease <p>System should support Video stream upto Full HD 1080p30 and Content stream upto 4K 2160p15, Touch forwarding capabilities via USB – C, support minimum H.264, H.239 and BFCP for resolutions upto 1080p, 802.11a/b/g/n/ac 2.4 GHz and 5 GHz</p> <p>Camera: Should be 4K Ultra HD camera with privacy shutter, $\pm 70^0$ horizontal Field of View, $\pm 30^0$ vertical field of view, Automatic focus, brightness and white balance, Camera on LED indicator, Automatic Tilt Adjustment</p>	
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Item No. 16: LED Smart TVs 32” Commercial Display

Sr. No.	Description	Minimum Specifications required	Compliance Yes/No Model No.
1.	Size	32" LED display	
2.	Resolution	1920 x 1080 Full HD	
3.	Brightness	350 cd/m ² or higher	
4.	Connectivity	2 X HDMI in, 1 X USB 2.0, 1 X RJ45, built-in Wi-Fi, Screen mirroring	
5.	Viewing Angle	178 degree (H) & 178 degree (V)	
6.	Audio Output RMS/ Speaker	10 watts X 2 or better	
7.	Certification	BIS	
8.	Accessories	Power Cord, IR Remote control (with battery), 2mtr HDMI Cable for PC connectivity and Wall Mount Kit, table mount	
9.	Warranty	3 Years comprehensive onsite	

Item No. 17: LED Smart TVs 43” Commercial Display

Sr. No.	Description	Minimum Specifications required	Compliance Yes/No Model No.
1.	Size	43” LED display	

2.	Resolution	3840 x 2160 (4K)	
3.	Brightness	350 cd/m ² or higher	
4.	Connectivity	2 X HDMI in, 1 X USB 2.0, 1 X RJ45, built-in Wi-Fi, Screen mirroring	
5.	Viewing Angle	178 degree (H) & 178 degree (V)	
6.	Audio Output RMS/ Speaker	10 watts X 2 or better	
7.	Certification	BIS	
8.	Accessories	Power Cord, IR Remote control (with battery), 2 mtr HDMI Cable for PC connectivity and Wall Mount Kit, table mount	
9.	Warranty	3 Years comprehensive onsite	

Item No. 18: Micro Computer with Intel Quad-Core i7

S. N.	Parameter	Requirement	Compliance Yes/ No Model No.
1.	Processor	12th Generation or higher Intel Quad Core i7 or higher Processor	
2.	RAM	16 GB DDR4 RAM	
3.	Storage	512GB Solid State Drive (SSD)	
4.	Ports and accessories	WiFi (802.11ac), Bluetooth 5.0, Gigabit Ethernet, 4k Support, Dual Monitor Capable, 1 x HDMI 2.0 or better, 2x DisplayPort 1.2 or better, 4 x USB (2x USB 3.1 or better, 2 x Gen 2 Type-C) Headphone/ Microphone Combo Jack	
5.	Keyboard and Mouse	Wireless Keyboard & Mouse	
6.	Operating System	Pre-Installed Windows 11 Prof 64 Bit OS	
7.	Warranty	Three Years onsite warranty	

Item No. 19: Micro Computer with Intel Quad-Core i5

S. N.	Parameter	Requirement	Compliance Yes/ No Model No.
8.	Processor	12th Generation or higher Intel Quad Core i5 or higher Processor	
9.	RAM	16 GB DDR4 RAM	
10.	Storage	512GB Solid State Drive (SSD)	
11.	Ports and accessories	WiFi (802.11ac), Bluetooth 5.0, Gigabit Ethernet, 4k Support, Dual Monitor Capable, 1 x HDMI 2.0 or better, 2x DisplayPort 1.2 or better, 4 x USB (2x USB 3.1 or better, 2 x Gen 2 Type-C) Headphone/ Microphone Combo Jack	
12.	Keyboard and	Wireless Keyboard & Mouse	

	Mouse		
13.	Operating System	Pre-Installed Windows 11 Prof 64 Bit OS	
14.	Warranty	Three Years onsite warranty	

Item No. 20: Micro Computer with Intel Quad-Core i3

S. N.	Parameter	Requirement	Compliance Yes/ No Model No.
15.	Processor	12th Generation or higher Intel Quad Core i3 or higher Processor	
16.	RAM	16 GB DDR4 RAM	
17.	Storage	512GB Solid State Drive (SSD)	
18.	Ports and accessories	WiFi (802.11ac), Bluetooth 5.0, Gigabit Ethernet, 4k Support, Dual Monitor Capable, 1 x HDMI 2.0 or better, 2x DisplayPort 1.2 or better, 4 x USB (2x USB 3.1 or better, 2 x Gen 2 Type-C) Headphone/ Microphone Combo Jack	
19.	Keyboard and Mouse	Wireless Keyboard & Mouse	
20.	Operating System	Pre-Installed Windows 11 Prof 64 Bit OS	
21.	Warranty	Three Years onsite warranty	

Item No. 21: Video Conferencing (Option 1)			Compliance Yes/ No Model No.
S. No.	Particulars	Minimum Specifications	
1	Communications	IP: H.323, SIP (RFC 3261) Bit rate: H.323, SIP: up to 4Mbps or higher	
2	Video	Minimum 2 simultaneous channels for camera and content	
3	Video Protocols	H.264 Dual: H.239 (H.323); BFCP (SIP) H.263+ support with resolutions up to 4CIF@15fps or better	
4	Live Video Encoding Format	1920 x 1080p @ 25, 30fps 1280 x 720p @ 25, 30fps 1024 x 576p @ 25, 30fps: w576p 848 x 480p @ 25, 30fps: w480p 768 x 448p @ 25, 30fps: w448p 704 x 576p @ 25, 30fps: 4CIF 704 x 480p @ 25, 30fps: 4SIF 624 x 352p @ 25, 30fps: w352p	

Item No. 21: Video Conferencing (Option 1)			Compliance Yes/ No Model No.
S. No.	Particulars	Minimum Specifications	
		576 x 336p @ 25, 30fps 512 x 288p @ 25, 30fps: wCIF 416 x 240p @ 25, 30fps: w240p 400 x 224p @ 25, 30fps 352 x 288p @ 25, 30fps: CIF 352 x 240p @ 25, 30fps: SIF	
5	Camera	Sensor: 4kp30 or better Video resolution: 1080p30 or better Horizontal Field of View: 90° ± 10% or better Vertical Field of View: 50° ± 10% or better Up to 10 web managed presets or better Up to 10 GUI managed presets or better Speaker Auto User Framing/ Speaker Auto-Tracking Mode	
6	Video Input	Live video with audio from built in camera up to 1920x1080p30fps or better or 1xHDMI supporting 1080p30fps or better	
7	Video Output	1x HDMI @ 3840 x 2160 @ 25, 30fps; 1920 x 1080 @ 25, 30fps; 1280 x 720 @ 25, 30fps	
8	Audio Features	Acoustic echo cancellation Audio error concealment Automatic Gain Control (AGC) Automatic noise suppression	
9	Audio Protocols	G.711/ G.719/ G.728/ G.729 (A/B)/ G.722, G.722.1/ G.722.1 Annex C/ Opus	
10	Microphone	Microphone array with 4mics or higher	
11	Audio Inputs	1xHDMI	
12	Audio Outputs	1xHDMI	
13	Content Sharing / Web Collaboration Features	HDMI presentation at 1080p30fps or better Optional AV grabber connected to the USB port	
14	Content Sharing / Web Collaboration Protocols	Dual video: H.239 (H.323); BFCP (SIP)	
15	USB Ports	1 x USB-C/ 1 x USB3/ USB 2.0	
16	Network Features	IPv4 and IPv6 simultaneous support	

Item No. 21: Video Conferencing (Option 1)			Compliance Yes/ No Model No.
S. No.	Particulars	Minimum Specifications	
		QoS support: IP Precedence IP Type of Service (ToS) Bandwidth adaptation over unmanaged networks	
17	IP Adaptive Packet Management	Flow control Packet Loss based down-speeding Packet Loss recovery policies	
18	Network Protocols	DHCP, DNS, HTTP, HTTPS, RTP/RTCP, SNTP, TCP/IP, TELNET, TFTP, 802.1q, 802.1p and 802.1x	
19	Network Interfaces	10/100/1000 Base-T full-duplex (RJ-45) Wi-Fi (802.11a/b/g/n)	
20	User Interface	Touch panel	
21	Directory Service & Address Book	LDAP Client (H.350) or better	
22	Firewall Traversal	Auto NAT discovery HTTP or better and STUN H.460.18, H.460.19 or better	
23	Security Features	Embedded encryption with 128 bit or higher encryption standards H.323 security per H.235v3/ Annex D SIP security per SRTP and TLS 1.2 Web access via HTTPS Selective enable / disable of IP features White list support	
24	Web Management	Accessible with Internet Explorer 8.0+, Firefox 3.6+, Safari 5.0+, Chrome 11.0+, Opera 11+ Automatic Firmware Upgrade through Cloud/Manual	
25	Power Supply	100-240VAC, 50-60Hz, 2.5A max. Optional: PoE+ IEEE 802.3at.	
26	Interoperability	Calendar integration for third party cloud like Zoom/ WebEx	
27	Warranty	Three years onsite warranty	

Item No. 22: Video Conferencing (Option 2)			Compliance Yes/ No Model No.
S. No.	Particulars	Minimum Specifications	
1	Communications	IP: H.323, SIP (RFC 3261)	

Item No. 22: Video Conferencing (Option 2)			Compliance Yes/ No Model No.
S. No.	Particulars	Minimum Specifications	
		Bit rate: H.323, SIP: up to 4Mbps or higher MCU compatibility: H.243, H.231	
2	Video	Minimum 2 simultaneous channels for camera and content	
3	Video Protocols	H.264, H.264 High Profile Dual: H.239 (H.323); BFCP (SIP) or better SVC (Scalable Video Coding) H.263+ support with resolutions up to 4CIF@15fps or better RFC2429 support RTMP support for video streaming	
4	Live Video Encoding Format	1920 x 1080p @ 25, 30fps 1280 x 720p @ 25, 30fps 1024 x 576p @ 25, 30fps: w576p 848 x 480p @ 25, 30fps: w480p 768 x 448p @ 25, 30fps: w448p 704 x 576p @ 25, 30fps: 4CIF 704 x 480p @ 25, 30fps: 4SIF 624 x 352p @ 25, 30fps: w352p 576 x 336p @ 25, 30fps 512 x 288p @ 25, 30fps: wCIF 416 x 240p @ 25, 30fps: w240p 400 x 224p @ 25, 30fps 352 x 288p @ 25, 30fps: CIF 352 x 240p @ 25, 30fps: SIF	
5	Camera	Sensor: 4kp30 or better Video resolution: 1080p30 or better Horizontal Field of View: 90° ± 10% or better Vertical Field of View: 50° ± 10% or better Digital zoom: 5x or better Up to 100 web managed presets or better Up to 10 GUI managed presets or better Speaker Auto-Tracking Mode and Auto-Tracking Mode using third party Apps	
6	Video Input	Live video from built in camera up to 1920 x 1080p30fps or better Or 1xHDMI supporting 1080p30fps or better Wireless presentation with Screen Link up	

Item No. 22: Video Conferencing (Option 2)			Compliance Yes/ No Model No.
S. No.	Particulars	Minimum Specifications	
		to 1920 x 1080p15fps or better	
7	Video Output	1x HDMI @ 3840 x 2160 @ 25, 30fps or better 1920 x 1080 @ 25, 30fps or better 1280 x 720 @ 25, 30fps or better	
8	Audio Features	Acoustic echo cancellation Audio error concealment Automatic Gain Control (AGC) Automatic noise suppression	
9	Audio Protocols	G.711, G.719, G.728 and G.729 A/B, G.722, G.722.1, G.722.1 Annex C, Opus	
10	Microphone	Microphone array with 4mics or higher	
11	Audio Inputs	Bluetooth	
12	Audio Outputs	1 x HDMI, Bluetooth	
13	Content Sharing / Web Collaboration Features	Wireless presentation up to 1080p15fps or better Content presentation via Android Apps and USB key Content sharing up to 1080p15fps or better through HDMI using AV grabber connected to the USB port (optional)	
14	Content Sharing / Web Collaboration Protocols	Dual video: H.239 (H.323); BFCP (SIP)	
15	USB Ports	USB Ports- 2 x USB-3	
16	Network Features	IPv4 and IPv6 simultaneous support QoS support: IP Precedence IP Type of Service (ToS) Bandwidth adaptation over unmanaged networks	
17	IP Adaptive Packet Management	Flow control Packet Loss based down-speeding Packet Loss recovery policies	
18	Network Protocols	DHCP, DNS, HTTP, HTTPS, RTP/ RTCP, SNTP, TCP/IP, TELNET, TFTP, 802.1q,802.1p and 802.1x	
19	Network Interfaces	10/100/1000 Base-T full-duplex (RJ-45) Wi-Fi (802.11a/b/g/n, 802.11ac, Hotspot)	
20	User Interface	Infrared remote control API for endpoint control Touch Screen Monitor control support	

Item No. 22: Video Conferencing (Option 2)			Compliance Yes/ No Model No.
S. No.	Particulars	Minimum Specifications	
21	Directory Service & Address Book	LDAP Client (H.350)	
22	Firewall Traversal	Auto NAT discovery HTTP and STUN H.460.18, H.460.19	
23	Security Features	Embedded encryption with 128 bit or higher encryption standards H.323 security per H.235v3/ Annex D SIP security per SRTP and TLS 1.2 Enciphering up to AES-256 SIP “Digest” authentication (MD5) or better RTP media enciphering with AES-256 or better Public-Key including Diffie-Hellman (2048 bits) or better RSA (up to 4096 bits) Cryptographic hash (up to SHA-512) Web access via HTTPS or better Selective enable/ disable of IP features White list support	
24	Meeting Recording	USB key/ disk recording In call and out call Supported disks with file system FAT32, EXT2, EXT3, EXT4 or better Recorded file resolution 720p25 or better File transfer to remote FTP server Digital signature for recorded files	
25	Web Management	Accessible with Internet Explorer8.0+, Firefox 3.6+, Safari 5.0+, Chrome 11.0+, Opera 11+ Automatic Firmware Upgrade through Cloud/Manual	
26	Power Supply	100-240VAC, 50-60Hz, 2.5A max. Optional: PoE+ IEEE 802.3at. Isolated PoE splitter with output DC voltage +5,25V@3A (15,75W) or better	
27	Interoperability	Calendar integration for third party cloud like Zoom, WebEx or any other Broadsoft 22.0+, Cisco, Polycom, Cisco Webex (via SIP gateway), Blue Jeans, Zoom, Hangouts or any other	
28	Warranty	Three years onsite warranty	

Item No. 23: Speaker (Option 1)			Compliance Yes/ No Model No.
S. No.	Particulars	Minimum Specifications	
1	Speaker frequency response	140 Hz to 16 kHz	
2	Speaker Volume levels	Adjustable to 85 dBA at 0.5 meter or better	
3	Microphones	Omni-directional microphone, 360-degree coverage Supports wideband and narrowband speech	
4	Microphone frequency response	50 Hz to 8 kHz	
5	Auxiliary audio output	3.5mm jack/USB & Bluetooth	
6	Auxiliary audio output frequency response	20 Hz to 20 kHz	
7	Audio Quality	HIFI, Digital Signal Processing (DSP), Wideband audio	
8	USB and Bluetooth connectivity	Yes	
9	Battery life	12 hours or above	
10	Audio enhancements	Acoustic Echo Canceller, Noise Reduction, Automatic Gain Control	
11	Equalizer	Dynamic	
12	Touch controls	Yes	
13	Headphone jack	Yes	
14	Battery charge	Via USB and AC adaptor	
15	Warranty	Three years onsite warranty	

Item No. 24: Speaker (Option 2)			Compliance Yes/ No Model No.
S. No.	Particulars	Minimum Specifications	
1	Speaker frequency response	140 Hz to 16 kHz	
2	Speaker Volume levels	Adjustable to 85 dBA at 0.5 meter or better	
3	Microphones	Omni-directional microphone, 360-degree coverage Supports wideband and narrowband speech	

Item No. 24: Speaker (Option 2)			Compliance Yes/ No Model No.
S. No.	Particulars	Minimum Specifications	
4	Microphone frequency response	50 Hz to 8 kHz	
5	Auxiliary audio output	3.5mm jack/USB & Bluetooth	
6	Auxiliary audio output frequency response	20 Hz to 20 kHz	
7	Audio Quality	HIFI, Digital Signal Processing (DSP), Wideband audio	
8	USB and Bluetooth connectivity	Yes	
9	Battery life	12 hours or above	
10	Audio enhancements	Acoustic Echo Canceller, Noise Reduction, Automatic Gain Control	
11	Equalizer	Dynamic	
12	Touch controls	Yes	
13	Headphone jack	Yes	
14	Battery charge	Via USB and AC adaptor	
15	Separate answer and end buttons	Yes	
16	Visual incoming call indicator	Yes	
17	Warranty	Three years onsite warranty	

Item No. 25: Speaker (Option 3)			Compliance Yes/ No Model No.
S. No.	Particulars	Minimum Specifications	
1	Speaker frequency response	50 Hz to 24 kHz	
2	Speaker Volume levels	Adjustable to 85 dBA at 0.5 meter or better	
3	Microphones	Omni-directional microphone, 360-degree coverage Supports wideband and narrowband speech	
4	Microphone frequency response	50 Hz to 7 kHz	
5	Auxiliary audio output	3.5mm jack/USB & Bluetooth	
6	Auxiliary audio output frequency response	20 Hz to 20 kHz	

Item No. 25: Speaker (Option 3)			Compliance Yes/ No Model No.
S. No.	Particulars	Minimum Specifications	
7	Audio Quality	HIFI, Digital Signal Processing (DSP), Wideband audio	
8	USB and Bluetooth connectivity	Yes	
9	Battery life	12 hours or above	
10	Audio enhancements	Echo Cancellation, Full-Duplex (FDX)	
11	Equalizer	Dynamic	
12	Touch controls	Yes	
13	Separate answer and end buttons	Yes	
14	Visual incoming call indicator	Yes	
16	Battery charge	Via USB and AC adaptor	
17	Display	LCD with Touchscreen	
18	Warranty	Three years onsite warranty	

Item No 26: Micro PC (i3)

Particulars	Minimum Specifications	Compliance Yes/ No Model No.
Micro PC (i3)	Intel i3 12th Generation processor or higher, 8GB RAM, 512GB NVME SSD, Wireless Keyboard & Mouse, Windows 11 SL Preloaded, HDMI 2.0, VGA-out, and Display out ports, High-speed 3.0 USB ports for connection to pen drives, external hard drives and flash drives, Rugged steel chassis for extra strength and integrity.	

Item No 27: Micro PC (i5)

Particulars	Minimum Specifications	Compliance Yes/ No Model No.
Micro PC (i5)	Intel i5 12th Generation processor or higher, 8GB RAM, 512GB NVME SSD, Wireless Keyboard & Mouse, Windows 11 SL Preloaded, HDMI 2.0, VGA-out, and Display out ports, High-speed 3.0 USB ports for connection to pen drives, external hard drives and flash drives, Rugged steel chassis for extra strength and integrity	

Item No 28: Micro PC (i7)

Particulars	Minimum Specifications	Compliance Yes/ No Model No.
Micro PC (i7)	Intel i7 12th Generation processor or higher, 8GB RAM, 512GB NVME SSD, Wireless Keyboard & Mouse, Windows 1 SL Preloaded, HDMI 2.0, VGA-out, and Display out ports, High-speed 3.0 USB ports for connection to pen drives, external hard drives and flash drives, Rugged steel chassis for extra strength and integrity	

Item No 29: Movable stand for Mounting Digital display

Particulars	Minimum Specifications	Compliance Yes/ No Model No.
Movable stand for Mounting Digital display	Floor Stand with Moving Wheels, Suitable from Displays sizes 55", 65", 75", 86", 98", maximum weight Load 150 Kg, Base rack and Accessories rack built in	

Item No 30: Small Form Factor (i7/ Ryzen 7)

Sr. No	Description		Compliance Yes/No Model No.
1.	Generation	Intel 12th Generation or Higher / AMD 5000 Series or Higher	
2.	Model	Ryzen 7 5700G / Core i7 -12700	

Item No 31: Small Form Factor (i5/ Ryzen 5)

Sr. No	Description		Compliance Yes/No Model No.
1.	Generation	Intel 12th Generation or Higher / AMD 5000 Series or Higher	
2.	Model	Ryzen 5 5600G / Core i5 -12600	

Item No 32: Small Form Factor (i3/ Ryzen 3)

Sr. No	Description		Compliance Yes/No Model No.
1.	Generation	Intel 12th Generation or Higher / AMD 5000 Series or Higher	
2.	Model	Ryzen 3 5300G / Core i3 -12100	

Item No 33: Screen with Diagonal 85 inch or Higher

Sr. No	Description		Compliance Yes/No Model No.
1.	Panel Size	85" or Higher	
2.	Display Area (mm)	Minimum 1900(H) x 1050(V) or better	
3.	Aspect Ratio	16:9	
4.	Native Resolution	4K 60hz	
5.	Brightness	350 cd/m2 or higher	
6.	Contrast Ratio	1100:1 or higher	
7.	Response Time	10ms or Better	
8.	Viewing Angles	H = 178, V = 178 typ.	
9.	Light Life	Minimum 30,000 hrs of Higher	
10.	Antiglare Coating	Yes	
11.	Touch Interface	Touch sensitive as well as pen driven	
12.	Touch Technology	Infrared optical/ Capacitive	
13.	Number of Touch Points (Number)	10 Points or higher IR Multi-Touch Touch Interface	
14.	Provision for wall mounting	Yes	
15.	Number of electronic pen or stylus to be supplied with the board (Nos)	2 with magnetic pen holder	
16.	Installation Kit, connecting cables to be supplied along with the Panel	Yes, VGA (5m x 1), HDMI (1.5m x 2)	
17.	Certification Required	Mandatory Certifications: BIS, FCC Desired Certifications: UL or more	
18.	Warranty	Three years onsite warranty.	
19.	OPS Specification	4K OPS module with Intel core i5 or better, 11th generation or better, 8 GB RAM 256GB NVME SSD or better, Window 11 Professional.	

Item No 34: Screen with Diagonal 98 inch or Higher

Sr. No.	Description		Compliance Yes/No Model No.
1.	Panel Size	98" or Higher	
2.	Display Area (mm)	Minimum 2170(H) x 1230(V) or better	
3.	Aspect Ratio	16:9	
4.	Native Resolution	4K 60hz	

5.	Brightness	350 cd/m2 or higher	
6.	Contrast Ratio	1100:1 or higher	
7.	Response Time	10ms or Better	
8.	Viewing Angles	H = 178, V = 178 typ.	
9.	Light Life	Minimum 30,000 hrs of Higher	
10.	Antiglare Coating	Yes	
	Touch Interface	Touch sensitive as well as pen driven	
11.	Touch Technology	Infrared optical/ Capacitive	
12.	Number of Touch Points (Number)	10 Points or higher IR Multi-Touch Touch Interface	
13.	Provision for wall mounting	Yes	
14.	Number of electronic pen or stylus to be supplied with the board (Nos)	2 with magnetic pen holder	
15.	Installation Kit, connecting cables to be supplied along with the Panel	Yes, VGA (5m x 1), HDMI (1.5m x 2)	
16.	Certification Required	Mandatory Certifications: BIS, FCC Desired Certifications: UL or more	
17.	Warranty	Three years onsite warranty.	
18.	OPS Specification	4K OPS module with Intel core i5 or better, 11th generation or better, 8 GB RAM 256GB NVME SSD or better, Window 11 Professional.	

Item No 35: Screen with Diagonal 110 inch or Higher

Sr. No.	Description	Compliance Yes/No	Model No.
1.	Display	Sliding screen with LED technology Safety Lockable enclosure with movable white boards	
2.	Panel Size	110" or Higher	
3.	Display Area (mm)	109.4" diagonal or better	
4.	Aspect Ratio	16:9	
5.	Native Resolution	4K 60hz	
6.	Brightness	350 cd/m2 or higher	
7.	Contrast Ratio	1100:1 or higher	
8.	Response Time	10ms or Better	

9.	Viewing Angles	H = 178, V = 178 typ.	
10.	Light Life	Minimum 50,000 hrs of Higher	
11.	Antiglare Coating	Yes	
12.	Touch Interface	Touch sensitive as well as pen driven	
13.	Touch Technology	Infrared optical/ Capacitive	
14.	Number of Touch Points (Number)	10 Points or higher IR Multi-Touch Touch Interface	
15.	Provision for wall mounting	Yes	
16.	Number of electronic pen or stylus to be supplied with the board (Nos)	2 with magnetic pen holder	
17.	Installation Kit, connecting cables to be supplied along with the Panel	Yes, VGA (5m x 1), HDMI (1.5m x 2)	
18.	Certification Required	Mandatory Certifications: BIS, FCC Desired Certifications: UL or more	
19.	Warranty	Three years onsite warranty	
20.	OPS Specification	4K OPS module with Intel core i5 or better, 11th generation or better, 8 GB RAM 256GB NVME SSD or better, Window 11 Professional.	

Item No 36: Integrated USB all-in-one conferencing device for 20+ seater

Item Description		Compliance Yes/No Model No.
Camera	Camera should be plug and play and should comply with UVC 1.1 standards for processing of video.	
	Output: YUY2, MJPEG.	
	Optical Resolution: 8 MP (4K (3840×2160)30fps, 1080P60fps, 720p30fps & 60fps).	
	Sensor size: 1/2.5" CMOS	
	Port: USB 3.0 for end device connectivity.	
	SNR >= 38dB	
	FOV: Diagonal 90°, Horizontal 83°and vertical 52°or above.	
	Aperture: F2.0 ~ 3.1	
	Focal length Wide: 3.725mm, Tele: 17.88mm	
	Should support autofocus.	
	Smooth Motorized pan, tilt and zoom from remote control	
	It should also be possible for user to control camera via simple software application in PC & Mac.	
	Should support FECC: Far End camera control.	
	Zoom: 5x optical and 10x digital or better	

	Camera Control: Standard VISCA / Mini din 6 pin or equivalent	
	+/-90° Pan range, +50°/-90° tilt range	
	Minimum illumination: 80 lux	
	Preset: 3 or above	
	Camera should have option to mount on Tripod stand if required.	
	To be supplied with required power adaptor, regional plugs, cables minimum 3mts and mounting bracket.	
Microphone	System should be supplied with 2 microphones from day one and have the ability to connect another similar 5 microphones if required in future without any external device.	
	Pickup range: 15 ft / 4.5m diameter or more	
	Each microphone should have four omnidirectional microphones forming eight acoustic beams	
	Should have AEC (Acoustic Echo Cancellation)	
	Should have VAD (Voice Activity Detector) to cut unwanted voice.	
	Should have background noise suppression	
	Should have mute button with LED status indicator	
	Frequency response: 90Hz – 16kHz	
	Sensitivity: >-27dB +/-1dB @ 1Pa	
	It should be possible to extend single or multiple microphones upto 50mtrs.	
	Microphone data rate: 48 kHz	
Speaker	System should be supplied with Two speakerphone from day one	
	Speaker should take power from the integrated Unit only to avoid multiple cables or power sources.	
	Should have High-performance 3" (76mm) driver.	
	Speaker should have the option to be mounted on wall.	
	Speaker volume 95dB SPL @1W, 100dB SPL @7.5W, both +/-2dB at ½ meter	
	Sensitivity: 95+/-2dB SPL at ½ meter	
	Distortion: 200Hz–300Hz < 2.5%, 300Hz–10kHz < 1%@7.5W	
Speaker sampling rate: 48 kHz		
Other	System should have the option to connect 2 display devices in the room.	
	System should give the option to connect any video source via HDMI / VGA on the table side and carry it to the display device upto 50mts	
Cable Management and ambience	System should be supplied with 3mts of minimum length cable to connected end device (laptop, Mac, Codec, desktop and thin client)	
	All necessary cables for all the components, power adaptors, regional plugs, quick start guide along with the mounting bracket should be supplied by the OEM.	

Remote Control	Type: RF / Bluetooth with removable / replaceable batteries to ensure it don't require line of sight in conference room.	
	System should be supplied with all-in-one remote control to manage Camera (Pan, Tilt, Zoom, Preset, block/ mute video).	
	Range 8.5 mts or more	
Warranty	Three years comprehensive onsite warranty	

Item No 37: DOCK (Speaker phone and Mic)

Item Description		Compliance Yes/No Model No.
General Requirement	All in one system with speaker, microphone, touch controls, Display output and other I/O ports for adding various accessories to the laptop / PC or compute device.	
System Requirements	System should be compatible with Windows, iOS, Chrome or Android Bluetooth enabled devices. System with required 3rd party application should integrate with MS office 365 Or Google calender and provide one-touch to join meeting experience and customization with major VC application providers like Zoom , MS Teams & Google Meet. Certifications: Microsoft Teams, Google Meet, Google Voice, Zoom, and Tencent Meeting	
Speaker	Frequency response: 60Hz-20kHz, Driver size: 55 mm	
Microphone	5 Integrated beamforming mics, Frequency response: 65Hz-8kHz	
Package Contents	All required cable to connect system with the compute / Pc should be supplied by the OEM.	
Docking station features	Docking interface: USB-C with Display Port or Alt Mode Power to system: Up to 100 Watt charging Monitor Ports: 1 x HDMI v. 2.0 (Support up to 4K, i.e. 3840 x 2160 @60Hz HDR) 1 x DisplayPort 1.4 (Support up to 4K, i.e. 3840 x 2160 @60Hz HDR) Others: 1 x Bluetooth Sync button 1 x AC power (230W, 19.5V) Security slot type: Kensington security slot 2-Year Limited Hardware Warranty 1-Year Extended Warranty available for purchase	

I/O Ports	Peripheral Ports: 2 x USB-A 1 x USB3.1 (5Gbps) with 4.5W charging 1 x USB3.1 (5Gbps) with 7.5W fast charging 3 x USB-C 2 x USB3.1 (5Gbps) with 4.5W charging 1 x USB3.1 (5Gbps) with 7.5W fast charging 1 x USB-C Upstream	
Warranty	Three years comprehensive onsite warranty	

Item No 38: Integrated USB all-in-one conferencing device for 4-5-seater

Item Description		Compliance Yes/No Model No.
General Requirement	Complete camera, speakerphone, remote control and microphone should be an integrated single OEM solution for ease of use and seamless experience.	
Camera	System should support onboard H.264 UVC 1.1 AVC for processing of video within the camera to save computing resources on end device/ laptop/PC or codec.	
	Resolution 1080p at 30fps for live calling and 2 MP optical for still photographs	
	Port : USB 2.0 for end device connectivity.(Single USB for connecting speakerphone , microphone and camera)	
	SNR >= 35 db or better with Aperature F#2.0 or higher	
	Zoom: 1.2x or better with 75degree or above FOV, Autofocus	
	Motorized pan, tilt and zoom enabled from remote control as well as manually from integrated system itself with +/- 64° Pan range or 180° PAN , +24°/-30° tilt range	
Integrated Speakerphone	Frequency response: 220 Hz - 20 kHz or better, Sensitivity: 80 dB SPL at 1 ft (0.3 m)	
Microphone	Omni-directional with Frequency Response: 200 Hz - 8 kHz or better, 3.5 mm jack for personal conversation.	
Cables and remote control	System should be connected and powered with USB cable(for camera , speakerphone and microphone) with 2 mts of minimum length is connected to end device (laptop, Mac, Codec ,desktop and thin client)	
	System should be supplied with integrated remote control to manage Camera (Pan, Tilt, Zoom, Preset), Speakerphone (volume +/-) and Microphone (mute /unmute) with 3 mts or above range.	
Warranty	Three years comprehensive onsite warranty	

Item no 39: Integrated USB all-in-one conferencing device

Item Description		Compliance Yes/No Model No.
Camera	Camera should be plug and play and should comply to UVC 1.1 standards for processing of video.	
	Output: YUY2, MJPEG.	
	Optical Resolution : 8 MP : (4K, 1440p, 1080p, 900p, 720p, and SD at 30fps)	
	Sensor size : 1/2.5" CMOS	
	Port : USB 3.0: 3x Type A, 1x Type C	
	SNR >= 38dB	
	FOV : Diagonal 90°, Horizontal 82°.1and vertical 52°.2or above.	
	Aperature : F2.0 ~ 3.1, Total Room Coverage 132.1° Horizontal x 82.2° Vertical	
	Focal length Wide: 3.725mm, Tele : 17.88mm	
	Should support autofocus, speakers tracking, auto framing	
	Smooth Motorized pan, tilt and zoom from remote control	
	It should also be possible for user to control camera via simple software application in PC & Mac.	
	Should support FECC: Far End camera control.	
	Zoom: 15x or better	
	Camera Control: by remote	
	+/-90° Pan range , + 50°/-90° tilt range	
	Minimum illumination : 80 lux	
	Preset : 1 or above	
	Should have Dual camera to support Speaker track , group framing , grid view , Speaker track with room view features, Camera Zone also	
	Should have Kensington Security Slot to ensure physical security of camera in conference room.	
Device should have option to mount on wall\table\TV		
To be supplied with required power adaptor, regional plugs, cables minimum 3mts and mounting bracket.		
Microphone	System should be supplied with 6 internal microphone from day one and have the ability to connect another 4 external microphones if required in future without any external device and hence all 10 microphones should work simultaneously.	
	Pickup range: 7m / 23 ft diameter or more	
	Each external microphone should have four omnidirectional microphones forming eight acoustic beams and have option to be mounted on the ceiling directly, if required with Pendant mount.	
	Should have AEC (Acoustic Echo Cancellation)	

	Should have VAD (Voice Activity Detector) to cut unwanted voice.	
	Should have background noise suppression	
	Should have mute button with LED status indicator	
	Frequency response: 90Hz – 16kHz	
	Sensitivity: >-36dBFS +/-1dB @ 1Pa	
	It should be possible to extend single or multiple external microphones upto 50mtrs.	
	Microphone data rate: 48 kHz	
Speaker	Sensitivity: 90+/-3dB SPL at 1W, ½ meter	
	Speaker should take power from the integrated Unit only to avoid multiple cables or power sources.	
	Drivers: 2x 70mm / 2.7 in	
	Output: 90dB SPL @1W, 99dB SPL @8.0W, both +/-2dB at ½ meter	
	Speaker Sampling Rate: 48 kHz	
	THD: 1kHz < 2%	
Other	System should have the option to connect 2 display devices in the room.	
	System should have build in appliance mode with basic application, Example - MS Teams, Zoom , Go to Meeting, ETC. and guest join option also	
	System should give the option to connect any video source via HDMI on the table side and carry it to the display device upto 50mts	
Cable Management and ambience	System should be supplied with USB A to USB C 3.0 Cable: 2.2m / 7.2 ft of minimum length cable to connected end device (laptop, Mac, Codec ,desktop and thin client)	
	All necessary cables for all the components, power adaptors, cable management, regional plugs, and quick start guide along with the mounting bracket should be supplied by the OEM.	
Remote Control	Type: RF / Bluetooth with removable / replaceable batteries to ensure it don't require line of sight in conference room.	
	System should be supplied with all-in-one remote control to manage Camera (Pan, Tilt, Zoom, Preset, block/ mute video).	
	Range 8.5 mts or more	
Warranty	Three years comprehensive onsite warranty	

Item No 40: Integrated USB all-in-one conferencing device

Item Description		Compliance Yes/No Model No.
Camera	Camera should be plug and play and should comply to UVC 1.1 standards for processing of video.	
	Output: YUY2, MJPEG.	

	Optical Resolution: (4K, 1440p, 1080P6, 720p30fps & 30fps).	
	Sensor size : 1/2.5" CMOS	
	Port : HDMI Out: 1 HDMI In: 1 USB: 1x Type A USB 3.1, 1x Type C USB 3.1 Network: 10/100/1G Ethernet WiFi: 802.11a/b/g/n/ac	
	FOV: Diagonal 120°, Horizontal 113°and vertical 80 or above.	
	Focal length Wide: 3.725mm, Tele : 17.88mm	
	Should support auto framing	
	Smooth Motorized pan, tilt and zoom from remote control	
	It should also be possible for user to control camera via simple software application in PC & Mac.	
	Should support FECC: Far End camera control.	
	Zoom: 4X HD digital zoom , Pan Motorized : ±48° , Tilt Motorized ±32°	
	Total Room Coverage (field of view + pan and tilt):163° horizontal x 110° vertical	
	Should have support group framing.	
	Preset : 1 or above	
	Should have Kensington Security Slot to ensure physical security of camera in conference room.	
	Camera should have option to mount on Tripod stand if required.	
	To be supplied with required power adaptor, regional plugs, cables minimum 3mts and mounting bracket.	
Microphone	System should be supplied with 6 internal microphone from day one and have the ability to connect another 3 external microphones if required in future without any external device and hance all 9 microphones should work simultaneously.	
	Pickup range: 7m / 23 ft diameter or more	
	Each microphone should have four omnidirectional microphones forming eight acoustic beams	
	Should have AEC (Acoustic Echo Cancellation)	
	Should have VAD (Voice Activity Detector) to cut unwanted voice.	
	Should have background noise suppression	
	Should have mute button with LED status indicator	
	Frequency response: 90Hz – 16kHz	
	Sensitivity:>-36dBFS +/-1dB @ 1Pa	
	It should be possible to extend single or multiple microphones.	
	Microphone data rate: 48 kHz	
Speaker	System should be supplied with 2 internal speakerphone from day one	

	Speaker should take power from the integrated Unit only to avoid multiple cables or power sources.	
	Should have High-performance 3" (76mm) driver.	
	90dB SPL @1W, 99dB SPL @8.0W, both +/-2dB at ½ meter	
	Sensitivity:86+/-2dB SPL at 1W, ½ meter	
	Speaker sampling rate: 48 kHz	
Other	System should have the option to connect 2 display devices in the room.	
	System should have built in appliance mode with basic application, Example - MS Teams, Zoom , Go to Meeting, ETC. and guest join option also	
	System should give the option to connect any video source via HDMI / VGA on the table side and carry it to the display device upto 50mts	
Cable Management and ambience	System should be supplied with USB A to USB C 3.0 Cable: 2.2m / 7.2 ft of minimum length cable to connected end device (laptop, Mac, Codec ,desktop and thin client)	
	All necessary cables for all the components, power adaptors, regional plugs, quick start guide along with the mounting bracket should be supplied by the OEM.	
Remote Control	Type: RF / Bluetooth with removable / replaceable batteries to ensure it don't require line of sight in conference room.	
	System should be supplied with all-in-one remote control to manage Camera (Pan, Tilt, Zoom, Preset, block/ mute video).	
	Range 8.5 mts or more	
Warranty	Three years comprehensive onsite warranty	

Item No. 41: Integrated USB all-in-one conferencing device for 8+ seater

Item Description		Compliance Yes/No Model No.
Camera	System should be USB video class (UVC) for processing of video and USB Audio class (UAC) to save computing resources on end device/ laptop/PC or codec.	
	Output: YUY2, MJPEG.	
	Optical Resolution : 8 MP for still photo and 4K(3840×2160)30fps, 1080P60fps or above for video calling	
	Sensor size : 1/3" CMOS	
	Port: USB 2.0 for end device connectivity.	
	SNR >= 38dB	
	Should support autofocus.	
	FOV: Diagonal 120°, Horizontal 113°and vertical 80°or above.	

	Aperature: F#2.0	
	Smooth Motorized pan, tilt and zoom from remote control provided with unit or via Smartphone.	
	It should also be possible for user to control camera via simple software application in PC & Mac.	
	Should support FECC: Far End camera control.	
	Zoom: 5x or better	
	Camera Control: Standard VISCA / Mini din 6 pin / USB / USB C type or equivalent.	
	+/-25° Pan range , +/- 15° tilt range	
	Minimum illumination : 80 lux	
	Preset : 3 or above	
	Should have Kensington Security Slot to ensure physical security of camera in conference room.	
	To be supplied with required power adaptor, regional plugs, cables minimum 5mts and mounting bracket.	
Integrated Speakerphone	LED for speakerphone streaming, mute, hold and bluetooth pairing so that user is aware about the status of the device.	
	Should have Kensington Security Slot to ensure physical security of device in conference room.	
	Audio Technology: Must support Echo and noise cancellation.	
	Frequency response: 100Hz – 15KHz	
	Sensitivity: 86.5+/-3dB SPL at 0.5 meter	
	Max output: 95 dB SPL at 0.5 meter	
Integrated Microphones	Three inbuilt microphones supporting pickup from 8ft or more.	
	Frequency response:90 Hz - 16kHz for full voice reproduction and high intelligibility without noise	
	System should support atleast 1 or more expansion microphone to increase coverage for large conference rooms.	
	Microphones should be Microsoft Cortana certified for precision with voice command.	
	Integrated microphone and supported expansion microphone should have mute/unmute button so that user sitting at any corner of conference room have provision to mute/ unmute the complete system with LED indication on each of microphone.	
Cable Management and ambience	System should support single USB cable (for camera , speakerphone and microphone) with 5mts of minimum length is connected to end device (laptop, Mac, Codec ,desktop and thin client)	

	All necessary cables for all the components, power adaptors, regional plugs, quick start guide along with the wall mounting bracket should be supplied by the OEM. If required OEM should provide separate kit to TV mount the integrated system.	
Remote Control	Type: RF with removable / replaceable batteries.	
	System should be supplied with all-in-one remote control to manage Camera (Pan, Tilt, Zoom, Preset), Speakerphone (volume +/-) and Microphone (mute /unmute)	
	Any smart device (Android /IOS) with Bluetooth should be able to act as remote control.	
Warranty	Three years comprehensive onsite warranty	

Item No 42: Sliding screen with safety lockable enclosure

Sr.No.	Description	Compliance (Yes/No)
42 a	Supply and Installation of a protection mechanism for a 55” or higher size Interactive Panel Protection mechanism with proper distinctive lock for 55” or higher Hybrid Interactive Panels: Sliding shutter with SS frame or equivalent for 55” or higher Hybrid Interactive Panels along with a lock and white marker board on front	
42 b	Supply and Installation of a protection mechanism for a 65” or higher size Interactive Panel Protection mechanism with proper distinctive lock for 65” or higher Hybrid Interactive Panels: Sliding shutter with SS frame or equivalent for 65” or higher Hybrid Interactive Panels along with a lock and white marker board on front	
42 c	Supply and Installation of a protection mechanism for a 75” or higher size Interactive Panel Protection mechanism with proper distinctive lock for 75” or higher Hybrid Interactive Panels: Sliding shutter with SS frame or equivalent for 75” or higher Hybrid Interactive Panels along with a lock and white marker board on front	
42 d	Supply and Installation of a protection mechanism for an 85” or higher size Interactive Panel Protection mechanism with proper distinctive lock for 85” or higher Hybrid Interactive Panels: Sliding shutter with SS frame or equivalent for 85” or higher Hybrid Interactive Panels along with a lock and white marker board on front	
42 e	Supply and Installation of a protection mechanism for a 98” or higher size Interactive Panel Protection mechanism with proper distinctive lock for 98” or higher Hybrid Interactive Panels: Sliding shutter with SS frame or equivalent for 98”	

	or higher Hybrid Interactive Panels along with a lock and white marker board on front	
42 f	Supply and Installation of a protection mechanism for a 110” or higher size Interactive Panel Protection mechanism with proper distinctive lock for 110” or higher Hybrid Interactive Panels: Sliding shutter with SS frame or equivalent for 110” or higher Hybrid Interactive Panels along with a lock and white marker board on front	

Item No. 43: Camera (Option 4)		
S. No.	Particulars	Minimum Specifications
1	Imaging Device	4k@30/25 CMOS 1/2.7” or better
2	Video Formats	4k@30/25 - 1080p60/50/30/25
3	Camera Output	USB 2.0 or better
4	Focal Length	F=2.8mm
5	Minimum Illumination	0.05 lux @(F1.8, AGC ON) or better
6	Field of View	Horizontal Field of View: 90° ± 10% or better Vertical Field of View: 50° ± 10% or better
7	Zoom	5x or better
8	Pan/ Tilt	Yes
9	Warranty	Three years onsite warranty

Item No. 44: Speakerphone		
S. No.	Particulars	Minimum Specifications
1	Microphones	4 or more built in mics with Omni-directional functionality Full Duplex with Acoustic Echo Cancellation and Noise Suppression Pickup Range: 20 ft or above
2	Speaker	Frequency Response: 100Hz to 20,000Hz or better
3	Connectivity	USB 2.0, Bluetooth 5.0 or better, Class 1 (HFP/ HSP/ A2DP), NFC
4	Warranty	Three years onsite warranty

Item No. 45: Interactive panel with Diagonal 55 inch

Sr. No.	Description	Compliance Yes/No Model No.
1.	Display	55inch
2.	Resolution	3840 X 2160 or higher
3.	Contrast Ratio	1100:1 or higher
4.	Brightness	350 cd/m2 or higher
5.	Response time	10ms or better

6.	Input/ Output Ports	HDMI x 2 or better, LAN Port, USB X 1 or better	
7.	Audio	Inbuilt 2x10 Watts RMS or better	
8.	16X7 operation	The display shall be suitable for 16X7 operation	
9.	Operating System	Android version-Android: 13, RAM Memory-8 GB, Internal Storage-128 GB, In-built camera & MIC	
10	In-built camera	48 MP	
11	MIC	8 Array Microphone	
12.	Network Mode	Wired: LAN, Wireless: WIFI	
13.	Light Life	30,000 Hrs or better	
14.	Antiglare Coating	Yes	
15.	Touch Interface	Touch sensitive as well as pen driven	
16.	Touch Technology	Infrared optical/ Capacitive	
17.	Number of Touch Points (Number)	10 Points or higher IR Multi-Touch Touch Interface	
18.	Provision for wall Mounting	Yes	
19.	Number of electronic pen or stylus to be supplied with the board (Nos)	2 with magnetic pen holder	
20.	Installation Kit, connecting cables to be supplied along with the Panel	Yes, VGA (5m x 1), HDMI (1.5m x 2)	
21.	Certification Required	Mandatory Certifications: BIS, FCC Desired Certifications: UL or more	
22.	Warranty	Three years onsite warranty.	

Item No. 46: Interactive Panel with Diagonal 65 inch

Sr. No.	Description		Compliance Yes/No Model No.
1.	Display	65inch	
2.	Resolution	3840 X 2160 or higher	
3.	Contrast Ratio	1100:1 or higher	
4.	Brightness	350 cd/m2 or higher	
5.	Response time	10ms or better	
6.	Input/ Output Ports	HDMI x 2 or better, LAN Port, USB X 1 or better	
7.	Audio	Inbuilt 2x10 Watts RMS or better	
8.	16X7 operation	The display shall be suitable for 16X7 operation	
9.	Operating System	Android version-Android: 13, RAM Memory-8 GB, Internal Storage-128 GB, In-built camera & MIC	
10	In-built camera	48 MP	

11	MIC	8 Array Microphone	
12.	Network Mode	Wired: LAN, Wireless: WIFI	
13.	Light Life	30,000 Hrs or better	
14.	Antiglare Coating	Yes	
15.	Touch Interface	Touch sensitive as well as pen driven	
16.	Touch Technology	Infrared optical/ Capacitive	
17.	Number of Touch Points (Number)	10 Points or higher IR Multi-Touch Touch Interface	
18.	Provision for wall mounting	Yes	
19.	Number of electronic pen or stylus to be supplied with the board (Nos)	2 with magnetic pen holder	
20.	Installation Kit, connecting cables to be supplied along with the Panel	Yes, VGA (5m x 1), HDMI (1.5m x 2)	
21.	Certification Required	Mandatory Certifications: BIS, FCC Desired Certifications: UL or more	
22.	Warranty	Three years onsite warranty.	

Item No. 47: Interactive Panel with Diagonal 75 inch

Sr. No.	Description		Compliance Yes/No Model No.
1.	Display	75inch	
2.	Resolution	3840 X 2160 or higher	
3.	Contrast Ratio	1100:1 or higher	
4.	Brightness	350 cd/m2 or higher	
5.	Response time	10ms or better	
6.	Input/ Output Ports	HDMI x 2 or better, LAN Port, USB X 1 or better	
7.	Audio	Inbuilt 2x10 Watts RMS or better	
8.	16X7 operation	The display shall be suitable for 16X7 operation	
9.	Operating System	Android version-Android: 13, RAM Memory-8 GB, Internal Storage-128 GB, In-built camera & MIC	
10	In-built camera	48 MP	
11	MIC	8 Array Microphone	
12.	Network Mode	Wired: LAN, Wireless: WIFI	
13.	Light Life	30,000 Hrs or better	
14.	Antiglare Coating	Yes	
15.	Touch Interface	Touch sensitive as well as pen driven	
16.	Touch Technology	Infrared optical/ Capacitive	
17.	Number of Touch	10 Points or higher IR Multi-Touch Touch	

	Points (Number)	Interface	
18.	Provision for wall Mounting	Yes	
19.	Number of electronic pen or stylus to be supplied with the board (Nos)	2 with magnetic pen holder	
20.	Installation Kit, connecting cables to be supplied along with the Panel	Yes, VGA (5m x 1), HDMI (1.5m x 2)	
21.	Certification Required	Mandatory Certifications: BIS, FCC Desired Certifications: UL or more	
22.	Warranty	Three years onsite warranty.	

Item No. 48: Interactive Panel with Diagonal 86 inch

Sr. No.	Description		Compliance Yes/No Model No.
1.	Display	86 inch	
2.	Resolution	3840 X 2160 or higher	
3.	Contrast Ratio	1100:1 or higher	
4.	Brightness	350 cd/m2 or higher	
5.	Response time	10ms or better	
6.	Input/ Output Ports	HDMI x 2 or better, LAN Port, USB X 1 or better	
7.	Audio	Inbuilt 2x10 Watts RMS or better	
8.	16X7 operation	The display shall be suitable for 16X7 operation	
9.	Operating System	Android version-Android: 13, RAM Memory-8 GB, Internal Storage-128 GB, In-built camera & MIC	
10	In-built camera	48 MP	
11	MIC	8 Array Microphone	
12.	Network Mode	Wired: LAN, Wireless: WIFI	
13.	Light Life	30,000 Hrs or better	
14.	Antiglare Coating	Yes	
15.	Touch Interface	Touch sensitive as well as pen driven	
16.	Touch Technology	Infrared optical/ Capacitive	
17.	Number of Touch Points (Number)	10 Points or higher IR Multi-Touch Touch Interface	
18.	Provision for wall Mounting	Yes	
19.	Number of electronic pen or stylus to be supplied with the board (Nos)	2 with magnetic pen holder	
20.	Installation Kit, connecting cables to be supplied along with the Panel	Yes, VGA (5m x 1), HDMI (1.5m x 2)	
21.	Certification Required	Mandatory Certifications: BIS, FCC Desired Certifications: UL or more	

22.	Warranty	Three years onsite warranty.	
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Item No. 49: Web cam with speaker phone (Desktop based VC)

S.No.	Description	Minimum Specifications(Web Cam)	Compliance (Yes/ No)
1	Camera	1080p (Full HD), 720P (HD) Compatible	
		Integrated privacy shutter	
		Auto focus with 4x zoom / EPTZ	
		80° DFOV	
		Low light quality & true color images	
		Custom controls through Desktop application	
2	Microphone	Single directional microphone optimized for personal workspaces	
		50 Hz to 16 kHz frequency response	
3	Compatibility	Windows version 8.1, 10	
		Mac OS X version 10.7 or later	
		Any application that supports standard USB/UVC standards	
4	Connectivity	USB 2.0 port	
		UVC/UAC Plug and Play compatible	
5	Other features	Integrated USB 2.0 Type A cable	
		Adjustable monitor clamp	
		Tripod ready	
		USB-A port built-in for wireless headset adapter	
		Status LED indicates calling and mute state	
6	Warranty	The complete solution should be from the same OEM with 1 year warranty from day one.	
		Speaker phone	
1	Microphone	Three microphone steerable array	
		Pickup range: 7 ft / 2 m	
		Frequency Response: 100 Hz to 6.7 kHz	
		Full duplex audio	
		Noise and echo reduction	
2	Speaker	40 mm high-performance music speaker	
		Frequency response: 80 Hz to 20 kHz	
		Bass reflex with dual passive radiators	
3	Compatibility	Windows and Mac OS	
4	Connectivity	To PC via USB-A (Integrated cable length : minimum 2.34 feet)	
		To PC wirelessly via included Bluetooth Dongle adapter	
		Smartphone via Bluetooth v5.1	
5	User Interface Features	Touch sensitive user controls for for Call/answer end, Mute, Volume +/-, Programmable function button	
		Push button user controls for Power On/Off, Bluetooth	

		pairing	
		One USB-A port for smartphone charging	
6	Battery	Type: Lithium-ion	
		Capacity: 3200 mAh	
		Talk time: up to 20 hours	
		Charge Time: up to 4 hours	
7	Certification	Microsoft Teams and Zoom certified	
8	Operating Conditions	IP64 dust and water resistant	
9	Warranty	Three years comprehensive onsite warranty	

Item No. 50: Personal Video Bar

S.No.	Description	Minimum Specifications	Compliance (Yes/ No)
1	Camera	Ultra HD (4K 16:9, 2160p), Full HD (1080p), HD (720p)	
		Integrated privacy shutter	
		Electronic zoom up to 4x	
		90° DFOV	
		Personal conference view with auto-framing	
		True color and low light compensation	
		Custom controls through Desktop application	
2	Microphone	3-element beamforming microphone array	
		Full-duplex conversations, acoustic echo cancellation and background noise suppression	
		NoiseBlockAI & Acoustic Fence technology	
3	Speaker	100 Hz to 20 kHz frequency response	
		80 dBA @ 1000 Hz @ 1 meter at maximum volume	
4	Compatibility	Windows 8.1, 10	
		Mac OS 10.10 or higher	
		Any application that supports standard USB/UVC standards	
5	Connectivity	1x USB 3.0 Type-C port	
		2x USB 2.0 Type-A ports	
		UVC/UAC Plug and Play compatible	
6	Other features	Adjustable monitor clamp	
		Tripod ready	
		USB-A port built-in for wireless headset adapter	
		Status LED indicates calling and mute state	
7	Warranty	Three years comprehensive onsite warranty	

Item No. 51: All-in-One USB Video Bar for Huddle Room that works with any standard software based VC client

S.No.	Description	Specification Parameter	Compliance (Yes/ No)
1	Package	It should be All-In-One Video Bar (with Integrated Microphones, Speakers, 4K Camera with Privacy Cover/Shutter) and Wireless Remote Control	
2	Supported Audio & Video Standard	It should support UAC 1.0 Audio, UVC 1.1/1.5 Video & HID 1.1	
3	Supported Operating System	It should support at least Windows 8.1, 10, 11 or higher & Mac OS 10.12, 10.13 & 10.14 or higher	
4	Camera	Integrated UHD 2160p (4K) capture resolution	
		120-degree FOV and UHD 2160p (4K) capture resolution	
		5x zoom / EPTZ	
		Group Framing, Automatic Speaker Tracking and people framing.	
		Presenter Track feature to follow the active speaker while the speaker is moving in the room from one place to another	
		The Camera should have privacy cover/shutter	
5	Microphone	Inbuilt 6 Microphones to capture stereo sound	
		Up to 3.7 m/12 ft stereo microphone pickup range	
		120 Hz - 16 kHz frequency response	
		It should support at least one external expansion microphone from same OEM	
6	Speaker	Inbuilt Stereo Speaker	
		100 Hz - 20 KHz frequency response	
7	Other Interfaces	1 x USB 3.0	
		Bluetooth 4.2	
8	Audio Features	It should support Full-duplex conversations, acoustic echo cancellation and background noise suppression	
		It should support Acoustic Fence technology to create a virtual “audio fence” so that sounds from “outside of the fence” are blocked from being heard by remote participants during a video call	
		It should support NoiseBlock technology which automatically mutes the microphone during video calls when a user stops speaking, silencing noises, such as paper shuffling, food wrappers, and keyboard typing that interrupt conversations	
		It should be possible to pair a mobile phone over Bluetooth & use the all in one video bar as the speaker and microphone for the mobile phone	

9	Video Features	When two people in the same room talk back and forth, it should treat them as if they are in a conversation. If the two speakers aren't close, the USB video bar displays a split screen showing the two speakers.	
10	Additional feature	It should be possible to pair a mobile phone over Bluetooth & use the all in one video bar as the speaker and microphone of the mobile phone	
11	Warranty	Three years comprehensive onsite warranty	

Item No. 52 : USB Based PTZ Camera and speakerphone for Large Size Room

S.No.	Description	Specification Parameter(PTZ camera)	Compliance (Yes/ No)
1	Camera Type	1/2.7" CMOS (1920 x 1080)	
2	Output	1080p30/25, 720p30/25, 960x540p30/25, 640x360p30	
3	Zoom	12X Optical	
4	Compression	H.264 SVC/AVC	
5	Focus	Auto	
6	Lens Focal Length	f=3.5mm to 42.3mm	
7	Lens F#	1.8 - 2.8	
8	Horizontal Field of View	6.9 - 72.5 degrees	
9	Vertical Field of View	3.9 - 44.8 degrees	
10	Pan Range	+/-170 degrees	
11	Tilt Range	+90/-30 degrees	
12	Camera PTZ Control	IR Remote Control to be supplied day one.	
13	Minimum Illumination	0.5Lux @ (F1.8, AGC ON)	
14	Exposure	Auto-iris, AGC	
15	SNR	≥ 55dB	
16	Certification	Microsoft Teams Certified Devices, Zoom Rooms Certified Hardware	
17	Safety Compliance	UL, IEC, RoHS, BIS	
18	Power Consumption	12v @ 1.5A power	
19	Warranty	Three years comprehensive onsite warranty	
		Speakerphone	
1	Type	Professional Speakerphone that allows to connect easily via USB and Bluetooth	
		Digital Signal Processing (DSP) technology	
		5-inch color LCD (720 x 1280 pixel), 9:16 aspect ratio	
2	Microphone	Number of Microphones : 3 cardioid microphones	
		Type of Microphones : Omnidirectional	
		Pickup range (feet) : 20ft/6m pickup range	
		Two additional expansion microphones required from day one	

3	Speaker	Frequency Response : 100 Hz to 22 KHz	
		Volume : 92 dB at 0.5 m peak volume	
4	Connectivity	1 x USB 2.0 Type A-compliant	
		1 x USB 2.0 Micro-B device port	
		Integrated Bluetooth 4.0	
5	Functionality	Touch-sensitive controls	
		End Call	
		Volume up and down	
		Mute / Unmute Microphone	
		3 illuminated mute buttons	
6	Power	PoE Class 4	
7	Safety Certification	UL, CE, IEC	
8	Warranty	Three years comprehensive onsite warranty	

Item No. 53 : Room Based - All-in-One VC Endpoint

<p>The proposed system must be an all-in-one video bar consisting of Integrated - Camera, Codec, Speakers, Microphones and Wireless Remote Control/Touch Control Panel. The system must be based on ITU standards & hardware based. No software based solution will be accepted.</p>			
Sr. No.	Description	Specification Parameter	Compliance (Yes/ No)
1	Package	It should be All-In-One Video Bar (with Integrated Microphones, Speakers, 4K Codec, 4K Camera with Privacy Cover/Shutter) and Wireless Remote Control/Touch Control Panel from same OEM.	
2	Video Standards and Resolutions	It should support H.323 & SIP standards for communications.	
		It should support interoperability and bandwidth saving using video compression H.264 AVC, H.264 High Profile, H.265	
		It should support 4K 30 fps,1080p 60 fps,1080p 30 fps ,720p 60 fps ,720p 30 fps.	
3	Content Standards and Resolutions	It should support both wired and wireless content sharing using standard based H.239 and BFCP. It should also support audio from Laptop used for content sharing.	
		It should transmit content to the far end location up to 4K15fps.	
		It should support inbuilt feature for wireless content sharing from Windows, MacOS, Android, iOS Smartphones & Tables without downloading any application on the user device.	
		It should support Content Annotation and WhiteBoarding/Blackboaring capability when connected to Touch Enabled Display/Monitor.	
4	Audio Standards and Features	It should support G.711, G.728, G.729A, G.722, G.722.1, G.719 or better	

		It should support 20 kHz or better bandwidth with crystal clear audio and stereo sound.	
		Keyboard Noise Reduction, NoiseBlockAI and Acoustic Fence.	
5	Video and Audio Inputs	1 x HDMI input to share 4K/Full HD content from PC/Laptop/Document camera/PTZ Camera.	
		2 x HDMI/USB inputs to connect additional PTZ cameras from same OEM to capture whiteboard/presenter and podium area in future whenever required.	
		1 x 3.5 mm/RCA audio input	
6	Video and Audio Outputs	2 x HDMI output for connecting primary and secondary 4K(UHD)/Full HD displays.	
		1 x 3.5 mm/RCA audio output	
7	Other Interfaces	1 x 10/100/1000 Ethernet port	
		1 x USB to support system software upgrade	
		Bluetooth 5.0 and WiFi 802.11a/b/g/n/ac (MIMO) for Wireless Content Sharing for Guests using their Smartphones and Tablets (Android and iOS)	
8	Camera	Integrated UHD 2160p (4K) capture resolution	
		Minimum 5x digital automatic zoom and will be capture up to 20feet of the room	
		The camera should support automatic speaker framing and group framing.	
		The Camera should have privacy cover/shutter.	
		Video Conference Camera and Codec should be controlled using same remote control/touch panel.	
9	Microphone and Speaker	Inbuilt Microphones and Stereo Speakers	
		Up to 20ft or more of microphone pickup range	
		Support for expansion microphone with mute/unmute button.	
10	USB Pass-Thru Mode	The system should have inbuilt functionality to use the VC system as an external camera and microphones when connected to a Laptop/PC over a single USB cable without using any external hardware components to connect to any Cloud Based VC platform like Cisco Webex, Zoom, BlueJeans, Microsoft Teams, Google Meet, etc.	
		The system should be able to support up to 1080p30fps video transmit in USB Pass-thru mode.	
		It should be possible to Mute/Unmute all the microphones and control camera functionality from the same remote control/touch control panel during USB pass-thru mode.	

		The system should be supplied with 5 mtrs. single USB cable from the same OEM for USB Pass-thru mode for seamless functionality.	
11	Network Features	H.323 and SIP bandwidth supporting up to 6 Mbps or more.	
		Must support IPv4 and IPv6 from day one on both H.323 and SIP.	
		Auto Gatekeeper Discovery, Lost Packet Recovery (LPR) technology, IP Precedence and DiffServ, Configurable MTU size	
12	Security	Media Encryption (H.323, SIP): AES-128, AES-256, H.235.6 support	
		Authenticated access to admin menus and web interface access	
		Local account password policy configuration	
		Global Directory/Centralized Directory/LDAP support	
13	Other Standards/features	H.460.18, H.460.19, SSL, TLS	
14	Warranty	Three years comprehensive onsite warranty	

Item No. 54 : Room Based VC Endpoint

The proposed system must support PAL/equivalent with PTZ camera. The codec must be based on ITU standards & hardware based. No software based solution will be accepted. All components of the VC system like Codec, Camera, Microphones and Wireless Remote Control/Touch Control Panel should be from the same OEM.			
Sr. No.	Description	Specification Parameter	Compliance (Yes/ No)
1	Package	Full HD 1080p30 PTZ Camera, 4K Codec, Omnidirectional Microphone, Cables and Wireless Remote Control/Touch Control Panel from the same OEM	
2	Video Standards and Resolutions	It should support H.323 & SIP standards for communications.	
		It should support interoperability and bandwidth saving using video compression H.264 AVC, H.264 High Profile, H.265	
		It should support 1080p 30 fps, 720p 30 fps.	
3	Content Standards and Resolutions	It should support both wired and wireless content sharing using standard based H.239 and BFCP. It should also support audio from Laptop used for content sharing.	
		It should transmit content to the far end location up to 4K15fps.	
		It should support inbuilt feature for wireless content sharing from Windows, MacOS, Android, iOS Smartphones & Tables without downloading any application on the user device.	
		It should support Content Annotation and WhiteBoarding/Blackboaring capability when connected to Touch Enabled Display/Monitor.	

4	Audio Standards and Features	It should support G.711, G.728, G.729A, G.722, G.722.1, G.719 or better	
		It should support 20kHz or better bandwidth with crystal clear audio and stereo sound.	
		Automatic Gain Control and Automatic Noise Suppression	
		Keyboard Noise Reduction, NoiseBlockAI and Acoustic Fence.	
5	Video and Audio Inputs	1 x HDMI/HDCI/USB input for connecting main Full HD camera	
		1 x HDMI input to share 4K/Full HD content from PC/Laptop/Document camera/PTZ Camera.	
		3 x HDMI/USB inputs to connect additional PTZ cameras from same OEM to capture whiteboard/presenter and podium area in future whenever required.	
		3 x Microphone Inputs or more with support for minimum 3 digital omnidirectional mics. The bidder needs to quote 1 digital omnidirectional microphone with mute/unmute soft touch button on the microphone. Each microphone should have atleast 20 feet pickup range.	
		1 x RCA/3.5mm stereo line-in	
6	Video and Audio Outputs	2 x HDMI output for connecting primary and secondary 4K(UHD)/Full HD displays.	
		1 x RCA/3.5 mm stereo line-out	
7	Other Interfaces	1 x 10/100/1000 Ethernet port	
		1 x USB to support system software upgrade	
		Bluetooth 5.0 and WiFi 802.11a/b/g/n/ac (MIMO) for Wireless Content Sharing for Guests using their Smartphones and Tablets (Android and iOS)	
		1 x RS-232 Serial Port or equivalent port for connecting to external RS-232 controller	
8	Camera	1/2.7" CMOS sensor and 72.5° Horizontal Field of View or more	
		The camera should support minimum 12X Optical Zoom, PAN +/-170°, Tilt +90°/-30° & minimum 10 camera presets.	
		Video Conference Camera and Codec should be controlled using same remote control/touch panel.	
9	Network Features	H.323 and SIP bandwidth supporting up to 6 Mbps or more.	
		Must support IPv4 and IPv6 from day one on both H.323 and SIP.	
		Auto Gatekeeper Discovery, Lost Packet Recovery (LPR) technology, IP Precedence and DiffServ, Configurable MTU size	

10	USB Pass-Thru Mode	The system should have inbuilt functionality to use the VC system as an external camera and microphones when connected to a Laptop/PC over a single USB cable without using any external hardware components to connect to any Cloud Based VC platform like Cisco Webex, Zoom, BlueJeans, Microsoft Teams, Google Meet, etc.	
		The system should be able to support up to 1080p30fps video transmit in USB Pass-thru mode.	
		It should be possible to Mute/Unmute all the microphones and control camera functionality from the same remote control/touch control panel during USB pass-thru mode.	
		The system should be supplied with 10 mtrs. single USB 3.0 cable from the same OEM for USB Pass-thru mode for seamless functionality.	
11	Security	Media Encryption (H.323, SIP): AES-128, AES-256, H.235.6 support	
		Authenticated access to admin menus, web interface and APIs	
		Local account password policy configuration	
		Global Directory/Centralized Directory/LDAP support	
12	Other Standards/features	H.460.18, H.460.19, SSL, TLS	
13	Warranty	Three years comprehensive onsite warranty	

Item No. 55.:Wireless Presenter

Sr. No.	Item Description	Comply (Yes/No)	
1	General Requirement	All in one wireless presenter having additional functionality of Timer and Pointer (Dimmer, magnifier and highlighter)	
		System must have all required certification FCC , CE , RoHS, GS, C-Tick , VCCI and comply to India E-waste management rules	
		OEM for the system should be ISO 9001:2008 certified.	
		All required components of the system should have Government of India - Ministry of Communication & IT approval (WPC - Wireless and planning coordination certified)	
		OEM for the system should be listed in India for more than 5 years as on bid calling date.	
		To support bidder and for better service to end customer, OEM should have minimum 40 or more authorized service centres across India	
2	Compatibility	Software: Powerpoint , Keynote , PDF , Google slides and Prezi etc.	
3	OS support	Windows 7 or later, Mac 10 or later. Should support basic slide navigation on iOS and andriod mobile platforms	
4	Features	Maximum 5 or less customizable buttons for easy use.	

		Should have the option to control cursor on the screen to click videos and links in the presentation.	
		Quick charge of the device with 1 minute for 3 hours or more.	
		Full charging should last for 3 months.	
		Time management tracker with vibration feedback	
5	Receiver options	USB and Bluetooth	
6	Range	30meters or more	
7	Sensor Technology	Accelerometer and Gyroscope leveraging Invensense 3D technology	
8	Software Upgrade	Auto software upgrade from application on PC /Laptop.(OEM should provide .msi file for mass deployment in the organization)	
9	Battery	Rechargeable Lithium (80mAh) Or better	
10	Accessories	All required accessories (batteries , carry case , charging cable etc) , software should be supplied along with the unit.	
11	Warranty	3-years onsite warranty	

Item No. 56: Webcamera with integrated Dual Stereo microphones

Sr. No.	Item Description		Comply (Yes/No)
1	Camera Resolution	1080p/30fps (1920x1080 pixels) or 720p/30fps (1280x720 pixels) or above	
2	FOV	58° Degree or above	
3	Privacy shutter	Should have option for Integrated privacy shutter for privacy	
4	Focal Length	4mm or better	
5	Microphone	3 meter pickup with noise suppression	
6	Cable length	5 ft (1.5 m) or above	
7	Mounting option	Universal clip to fit on laptop, LCD or monitors	
8	Zoom	1x	
9	USB connectivity	USB-A plug-and-play	
10	Lens type	Plastic lens	
11	Focus type	Fixed focus	
12	Camera megapixel	2 megapixels CMOS image sensor	
13	Certified	Google Meet, Works With Chromebook	
14	Warranty	3-years onsite warranty	
15	Camera Management System	To control Brightness, Contrast, sharpness	

Item No. 57 : Web camera with integrated Dual Stereo microphones

Sr. No.	Item Description		Comply (Yes/No)
1	Camera Resolution	1080p/30fps (1920x1080 pixels) , 720p/60fps (1280x720 pixels) or above	
2	FOV	70°Degree or above	
3	Privacy shutter	Should have option for Integrated privacy shutter	

		for privacy	
4	Focal Length	4mm or better	
5	Image sensor	2MP CMOS	
6	Microphone	4ft (1.22 m) with noise suppression	
7	Cable length	5 ft (1.5 m) or above	
8	Mounting option	Universal clip to fit on laptop, LCD or monitors	
9	USB connectivity	USB-C plug-and-play	
10	Lens type	Glass	
11	Focus type	Fixed	
12	Camera megapixel	2MP	
13	Certified	Microsoft Teams, Zoom, Google Meet, Works With Chromebook	
14	Warranty	3-years onsite warranty	
15	Camera Management System	To control Brightness, Contrast, sharpness	

Item No. 58: Web camera with integrated Dual Stereo microphones

Sr. No.	Item Description		Comply (Yes/No)
1	Camera Resolution	1080p/30fps (1920x1080 pixels) , 720p/60fps (1280x720 pixels) or above	
2	FOV	90°/78°/65° Degree or above	
3	Privacy shutter	Should have option for Integrated privacy shutter for privacy	
4	Focal Length	4mm or better	
5	Microphone	dual with noise suppression	
6	Cable length	5 ft (1.5 m) or above	
7	Microphone Range	4 ft (1.22 m) pickup with noise suppression	
8	Mounting option	Universal clip to fit on laptop, LCD or monitors	
9	Zoom	4X Digital zoom	
10	USB connectivity	USB-C plug-and-play	
11	Lens type	Glass	
12	Focus type	Autofocus	
13	Camera megapixel	4MP	
14	Certified	Microsoft Teams, Zoom, Google Meet, Works With Chromebook.	
15	Warranty	3-years onsite warranty	
16	Camera Management System	To control Brightness, Contrast, sharpness , Pan Tilt Zoom	

Item No 59: Audio Podium

Sr. No.	Parameters	Specifications	Compliance (Yes/No)
1	Construction	Wooden Top Assembly should be available with 1 Gooseneck Phantom Powered Microphone and 1 LED Lamp. It should have Metallic Base supporting the whole system and balancing the overall weight uniformly.	
2	Speaker Stand	Should have inbuilt Speaker Stand consists of minimum 3 Speakers on front side.	
3	In-Built Speakers	Two speakers of 40 watt each with 20 watt sub-woofer	
4	VHF Wireless Mic	Audio Podium should have inbuilt wireless microphone receiver with Two VHF wireless handheld microphones of 10 Metres range	
5	Antenna Integration	Should have two Dedicated Wireless high gain antennas	
6	Gooseneck Microphone	Available	
7	Gooseneck Lamp	Available	
8	Output Wattage	100W	
9	Input/ Output	One Line RCA input, One Microphone Input, 1 Line RCA Output.	
10	Input Sensitivity	Microphone1: 10MV/680Ω, Microphone2: 10MV/600Ω, Aux: 350MV/10KΩ	
11	Pre-Output	1V/0dB	
12	Digital Amplifier	Class-D	
13	Audio Format Support	Mp3	
14	Maximum Support Capacity	Dedicated USB port and Micro SD slot with minimum 32GB drive capacity support	
15	Sound Quality Control	Bass 10dB/Treble 10dB	
16	Frequency Response	100-16KHz(+1dB,-3dB)	
17	Wireless Transmission Distance	10-15 Meter or better	
18	Power Supply	AC 220V / 50Hz	
19	Power Consumption	140W or better	
20	Logo	Should available proper space to fix the department/school logo on Front side.	

21	Audio Receiver Functionality	<p>Support to play loss less audio, LCD screen, support to display Audio track name</p> <ul style="list-style-type: none"> -Minimum function modes: USB / PLAYING / Bluetooth / FM -Should have options for playback and recording -Should have LCD screen - Should have wireless remote control - Long press mode selection button to automatically switch on and off - Support USB disk, Mico SD card function, read storage media below 32G, support MP3/WAV/ WMA/ AEC/FLAC format decoding - With USB disk / Micro SD card to play the current track memory function and the current function mode two kinds of memory - Support mobile phone Bluetooth function, can play audio from mobile wirelessly 	
22	Warranty	Three years comprehensive onsite warranty	

Item No 60: Digital Podium

S. No.	Parameters	Specifications	Compliance (Yes/No)
1	Type/Mounting	Free Standing	
2	Construction	The Podium shall be wheel mounted capable of moving in all directions with a facility of lock them while the Electronic podium is in use. The enclosure shall be made of Polymer Powder Coated Steel Body with wooden top panels, designed to work in suitable environmental conditions. The wooden top shall have lock and key and should have a sliding cover for opening/closing easily. The Podium should have housing and connectivity for Visual Presenter while the visualizer is in use and not in use. At the time of using the Visualizer, drawer can be opened and Visualizer can be used. The construction of the podium should be such that, while the podium is locked and not is use, there should not be any port exposed/ visible on the outer body for breakage/mishandling.	
3	Display	Built-in highly sensitive Interactive Panel with adjustable Motorized tilt & a mechanism to make the Panel stable so that it does not shake while writing with following minimum features -	
(a)	Screen Type	LED	
(b)	Size	53.0 cm (21 inches) or higher	
(c)	Resolution	1920 x 1080 or higher	
(d)	Aspect ratio	16:9/16:10	
(e)	Computer interface	One USB, One VGA/DVI/HDMI Port	
(f)	Interactive Resolution	4000 Lpi (lines per inch)	
(g)	Response Time	5ms	

(h)	Viewing Angles	170(H) ; 160(V)	
(i)	Touch	Finger Touch	
(j)	Reading accuracy	±0.5 mm (center)	
(k)	Tracking speed	Approximately 200 points per second	
(l)	Pen Pressure sensitivity	2048 Levels	
(m)	Speakers	Display panel should have Inbuilt Speaker	
4	System Details		
(a)	Processor	Intel Core i5 (10th Gen or better processor)	
(b)	Small Form Factor	Computer should be of 2 liters Volume or less	
(c)	In-Built Wi-Fi /Wireless LAN Card	Should have a inbuilt Wi-Fi / Wireless LAN Card	
(d)	RAM	8 GB	
(e)	Storage	256 GB SSD or better	
(f)	Ports (Min.)	HDMI x 1, USB ports x 4, LAN Port x 1	
(g)	Keyboard & Mouse	Wireless	
(h)	Operating System	Windows 10	
(i)	Certifications	BIS Certifications Required for Mini PC. BIS of Mini PC should be registered in name of Podium's OEM	
5	Controller		
(a)	Ports on front Panel of Controller (Minimum)	VGA,HDMI,USB3.0x2,Audio IN or more	
(b)	Buttons on front Panel of Controller (Minimum)	Push buttons to control Volume Up& Down, Volume Mute and to switch sources of HDMI Visual Presenter, VGA Visual Presenter, HDMI Laptop, PC HDMI,VGA Laptop, VGA PC and Controller Power On/Off, Display Power On and Power Off or more	
(c)	Ports on Rear Panel of Controller (Minimum)	USB 3.0 X 2,VGA Input x 2, VGA Output x 2, RCA Audio IN X 1,RCA Audio Output x 2,HDMI Inputx2,HDMI Outputx2 , Programming Port (Phoenix connector) or more	
(d)	Built in HDMI Repeater	Yes (HDMI Output port should support 15mtr HDMI cable)	
(e)	Controller Resolution Output	4K (3840 x 2160) Native	
(f)	Power	5 V DC (Suitable Adaptor should be supplied with controller)	
6	Built in devices		
(a)	Gooseneck Microphone	Gooseneck Microphone with XLR output. It should be Phantom powered so that there is no requirement of batteries thereby eliminating consumable cost. The gooseneck length should be at least 21.5 inch with ON/OFF switch and with LED light indicating ON/OFF status. The gooseneck microphone shall be permanently polarised condenser, highly directional featuring hyper cardioid /lobar directivity.	

(b)	Built in Amplifier Power	<p>Amplifier : Class D</p> <p>Rated Power : 250 W or better</p> <p>Impedance : MIC input: 5mV / 600Ω balanced; AUX1,2 input: 350mV / 10KΩ unbalanced RCA connection terminal</p> <p>Mic Input : Minimum 4 input or better</p> <p>Line Input : Minimum 2 input or better</p> <p>Output : MIX OUT: 1000mV / 470Ω unbalanced RCA connector</p> <p>Tone : Bass: ± 10dB at 100Hz; Treble: ± 10dB at 10KHz</p> <p>Frequency Response : 80Hz ~16KHz (+ 1dB, -3dB)</p> <p>SNR : MIC1,2,3: 66dB; AUX1,2: 85dB</p> <p>THD : < 0.05% (at 1KHz, 1/3 rated power)</p> <p>Mute Function : MIC 1 is prior to MIC2-4, AUX1-2 audio input; EMC is prior to all audio inputs</p> <p>Channel Crosstalk Attenuation : ≥50dB</p> <p>Heat Dissipation : Side-in and rear-out forced fan cooling; fan starts automatically when the device is turned on; infinitely variable speed</p> <p>Protection : Overheat protection, overcurrent protection, short circuit protection</p> <p>Power Supply : AC ~ 220V / 50Hz</p> <p>Power Consumption : 300W</p>	
(c)	Speakers	<p>Two speakers of Minimum 100 W each shall be a part of standard supply.</p> <p>Speaker Type : 2 Way drivers</p> <p>Effective frequency range : 100 Hz – 17 kHz</p> <p>Rated power : 100 watts</p> <p>Sensitivity : 90 dB or Better</p> <p>Impedance : 8Ω ohm</p> <p>LF transducer : 8-inch woofer or better</p> <p>HF transducer : 2-inch tweeter or better</p> <p>Mounting : With mounting bracket fixed by screw</p>	
(d)	Wireless Microphone Units	Wireless Hand Held & Lapel microphone with receiver.	
7	Sliding Trays	Provision for keeping laptop and Keyboard & Mouse	
8	Power Supply	180 -240V, 50Hz, AC Supply	
9	Security	Integrated authentication System having RFID, Password protection & Physical Key for secure access to system.	
10	Fans	Suitable cooling fans to be provided in the lower body.	
11	Logo	Should be provided with Acrylic logo	
12	Warranty	Three years comprehensive onsite warranty	

Performance Bank Guarantee Template

[Date]

To,

The Managing Director,
H.P. State Electronics Development Corporation Ltd.,
First Floor, IT Bhawan, Mehli, Shimla-171013.

Dear Sir,

1. Whereas M/s _____ (hereinafter called "CONTRACTOR") has supplied _____ (as per Bill of Material Specified in this Document) as per agreement/supply order No. _____ dated _____ signed between the HPSEDC (hereinafter called "Client") and them and as per the agreement/supply order the M/s. _____ is supposed to furnish Performance Security for supply of _____ and maintain the same for a period of _____ years.
2. NOW THEREFORE KNOW ALL THE MAN THESE PRESENTS THAT WE, __ (Bank Name) _____ having its Head Office at _____ (hereinafter called "the Bank") are bound up to the Client in the sum of Rs. _____/- (Rs. _____) only) for which payment will and truly to be made to the said Client, the Bank binds itself, its successors and assignees by these presents.
3. The Bank further undertakes to pay to the purchaser up to the above amount on receipt of its first written demand, without the Client having to substantiate its demand. The Client's decision in this regard shall be final and shall not be called upon to question under any circumstances. The Bank Guarantee will remain in force up to _____. However, its validity can be got extended before _____ solely at the instance of the Purchaser. This clause shall remain valid notwithstanding anything else contained to the contrary in this document.
4. Our responsibility under this guarantee is restricted to Rs. _____/- (Rupees _____) only and it will remain enforce up to _____ unless a demand in writing is received by the bank on or before _____, all your

rights under the said guarantee shall be forfeited and we shall be released and discharged from all the liabilities thereunder.

5. This guarantee will remain in force up to <date of validity> and any demand in respect thereof should reach the Bank not later than the specified date/dates. However, notwithstanding anything else contained to the contrary in this Guarantee, if the implementing agency does not submit the fresh performance bank guarantee (as per required schedule and amount) till 15 days before expiry of this performance bank guarantee, the Purchaser may either forfeit the PBG or ask the Bank to extend validity of the Bank Guarantee for a further period not exceeding six months. In the latter situation, the Bank shall comply with such a request of extension.
6. Sealed with the Common Seal of the said Bank this _____ day of _____, 2024. In witness whereof the Bank, through its authorized officer, has set its hand and stamp on this _____ day of _____, 2024 for Bank _____

Witness

Signature

Name

M/s. _____ (complete address)

Note: This guarantee will attract stamp duty as a security bond.

A duly certified copy of the requisite authority conferred on the official/s to execute the Guarantee on behalf of the bank should be annexed to this guarantee for verification and retention thereof as documentary evidence.

Bank Guarantee (BG) Format for EMD

Date _____

To

The Managing Director,
H.P. State Electronics Development Corporation Ltd., First Floor, IT
Bhawan, Mehli, Shimla-171013.

Dear Sir,

1. Whereas M/s. _____ (hereinafter called “Bidder”) has quoted against the Tender No: *SEDC/RC/DigiComm/2K23-5957* invited by M/s H.P. State Electronics Development Corporation Ltd. (HPSEDC) towards supply of _____ is supposed to furnish Bank Guarantee the same valid for a period of 120 days.
2. NOW THEREFORE KNOW ALL THE MAN THESE PRESENTS THAT WE, _____ (Bank Name) _____ having its Head Office at _____ (hereinafter called “the Bank”) are bound up to the Client in the sum of Rs. _____/- (Rs. _____) only) for which payment will and truly to be made to the said Client, the Bank binds itself, its successors and assignees by these presents.
3. The Bank further undertakes to pay to the purchaser up to the above amount on receipt of its first written demand, without the Client/ HPSEDC having to substantiate its demand. The Client’s decision in this regard shall be final and shall not be called upon to question under any circumstances. The Bank Guarantee will remain in force up to 120 days. However, its validity can be got extended before expiry of its validity solely at the instance of the HPSEDC. This clause shall remain valid not withstanding anything else contained to the contrary in this document.
4. Our responsibility under this guarantee is restricted to Rs. _____/- (Rupees _____) only and it will remain enforce up to _____ unless a demand in writing is received by the bank on or before _____, all your

rights under the said guarantee shall be forfeited and we shall be released and discharged from all the liabilities thereunder.

5. This guarantee will remain in force up to <date of validity> and any demand in respect thereof should reach the Bank not later than the specified date/dates. However, notwithstanding anything else contained to the contrary in this Guarantee, if the bidder does not submit the fresh bank guarantee or extend the existing Bank Guarantee till 15 days before expiry of this bank guarantee, the Purchaser/ HPSEDC may either forfeit the BG or ask the Bank to extend validity of the Bank Guarantee for a further period not exceeding six months. In the latter situation, the Bank shall comply with such a request of extension.
6. Sealed with the Common Seal of the said Bank this _____ day of _____, 2024. In witness whereof the Bank, through its authorized officer, has set its hand and stamp on this _____ day of _____, 2024 for Bank _____

Witness

Signature

Name

M/s. _____ (complete address)

Note: This guarantee will attract stamp duty as a security bond.

A duly certified copy of the requisite authority conferred on the official/s to execute the Guarantee on behalf of the bank should be annexed to this guarantee for verification and retention thereof as documentary evidence.

Latest instructions for bidders:

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.
- II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- III. "Bidder from a country which shares a land border with India" for the purpose of this Order means: -
 - a. An entity incorporated, established, or registered in such a country; or
 - b. A subsidiary of an entity incorporated, established, or registered in such a country; or
 - c. An entity substantially controlled through entities incorporated, established, or registered in such a country; or
 - d. An entity whose beneficial owner is situated in such a country; or
 - e. An Indian (or other) agent of such an entity; or
 - f. A natural person who is a citizen of such a country; or
 - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- IV. The beneficial owner for the purpose of (III) above will be as under:
 1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation—

- a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company.
 - b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements.
2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has

ownership of entitlement to more than fifteen percent of capital or profits of the partnership.

3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals.
 4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official.
 5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- VI. The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

The Bidder has to provide following declarations (duly signed and stamped):

Declaration 1 of Latest instructions to bidders

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I hereby certify that this bidder is not from such a country and is eligible to be considered."

Declaration 2 of Latest instructions to bidders

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]

Declaration 3 of Latest instructions to bidders

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached"

In case bidder is Himachal based company/ firm/ entity then the bidder should submit a self-declaration certificate regarding above mentioned Declaration 1, 2 and 3.

Note: Interested bidder may refer to Office Memorandum (F. No. 6/18/2019-PPD) dated 23.07.2020 of Department of Expenditure, Ministry of Finance, Govt. of India for further details and all the requirements will be in accordance with this memorandum.