



बिहार सरकार

Department of Industries  
Government of Bihar

NOTICE INVITING TENDER

**For Establishment of Audio Conferencing &  
Projection System at the Conference Hall.**

**NIT No.:-** .....

Short Term Sealed tenders are invited for **Establishment of Audio Conferencing & Projection System at the Conference Hall**. All the devices listed should work as an integrated system with the main item, strictly as per terms & conditions. Details descriptions of the item and instructions for submitting your offer can be procured from the office of Department of Industries on cost of Rs. 500.00

Interested Bidders may submit their sealed offers to **The Director, Department of Industries, Government of Bihar, Patna**, up to 03:00 PM on 09/12/2016.

The Director, Department of Industries, Government of Bihar, Patna reserves the right to accept or reject any or all proposals without incurring any obligation to inform the affected bidders of the grounds.

**The Director,  
Department of Industries,  
Government of Bihar,  
Patna.**

## **Short Term Tender Notice** **SCHEDULE**

Schedule for TENDER REF NO 9487/23.11.16

Last Date for purchase of tender : from 25.11.16 to 07.12.16 at 1500 Hrs

Last Date of Tender submission: from ..... to 09.12.16 at 1500 Hrs

Date of Opening of Tender 09.12.16 at 5 PM.

For Any Enquiry, Contact 0612-2235812

Email: [www.industries.bih.nic.in](http://www.industries.bih.nic.in)

Tender No: 9487

Date: 23.11.16

## **Sub: For Establishment of Audio Conferencing & Projection System at the Conference Hall.**

Short Term Sealed tenders are invited for **Establishment of Audio Conferencing & Projection System at the Conference Hall**. All the devices listed should work as an integrated system, strictly as per enclosed terms & conditions.

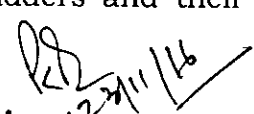
Interested Bidders are requested to send their sealed offers to **The Director, Department of Industries, Government of Bihar, Vikash Bhawan, 2nd Floor, Bailey Road, Patna, 800015.**

Tender will be accepted up to **03:00 PM on 09/12/2016** office of Director of Industries, Government of Bihar, Vikash Bhawan, 2nd Floor, Bailey Road, Patna, 800015.

Details descriptions of the item and instructions for submitting your offer can be obtained from the office of **The Director, Department of Industries, Government of Bihar, Patna, 800015** on any working days or can be downloaded from the website of the department: [www.industries.bih.nic.in](http://www.industries.bih.nic.in)

**EMD** in shape of DD or a Bank Guarantee for the validity period of 6 months, in favor of **The Director, Department of Industries, Government of Bihar, Vikash Bhawan, 2nd Floor, Bailey Road, Patna, 800015** should be submitted along with the offer. The date of the BG should not be later than the last date of tender purchasing.

The price bid will be opened only of those firms, who will be found technically qualified after evaluation of their technical bids. **The technical bids will be opened on 09.12.2016 at 3.00 PM**, in the office of Director of Industries, Deptt. of Industries in the presence of the Bidders and their authorized representative who wish to be present.

  
**The Director,  
Department of Industries,  
Government of Bihar,  
Patna.**

**Minimum Qualification of any Bidder / Agency for carrying the Work under this project:**

**NOTE: The bid documents are not transferable and the firm's seal and signature of the authorized official must appear on all papers and envelopes submitted.**

**INSTRUCTION TO BIDDERS & Terms & Conditions: -**

**Bid Submission: -**

**01.** Bid shall be submitted in TWO PARTS, viz. **Technical Bid** comprising (i) EMD should be in form of DD or a Bank Guarantee in favor of **The Director, Department of Industries, Government of Bihar, Patna;** (ii) technical details, compliances etc. as enumerated in the tender document & and **Financial Bid**. The bid should be submitted in properly wax sealed covers indicating the Bid detail. Address of the firm submitting the tender and the officer to whom the tender is addressed, must appear distinctly on both the inner and outer sealed covers, indicating also on each envelop TECHNICAL BID/FINANCIAL BID as may be applicable

**02. In the part relating to Technical Bid, the OEM/Bidder must provide the followings: -**

1. Details of the technical features of the offered equipment vis-à-vis specification
2. Bidder should be an ISO 9001 / 14001 / 27001 certified company.
3. Authorization certificate, bidder if not manufacturer, to sell the quoted item in Government Department, from the OEM of quoted Items brand specific to this tender, as per the format provided, addressed to **The Director, Department of Industries, Government of Bihar, Patna.**
  - a. \*Note - Any document other than this case specific authorization certificate from the manufacturer, is not accepted.
4. The bidders are required to enclose copy of Sales Tax Registration number allotted by Bihar Commercial Tax Department. The bidders who are not registered with Bihar Sales Tax, if selected, should get themselves registered with Bihar Sales Tax before receiving award of contract or purchase order failing which their EMD will be forfeited.
5. The Bidder should have experience in terms of project execution / supply of IT items / similar items in Government &/or PSU.
6. Bidder must have executed at least one single order valued at Rs 25 Lakh or more, in last five years, as per "required experience" enumerated in this tender document. All work experience shall be only from any Government and / or PSU.
7. The Bidder should be in existence for at least three years as on 31.03.2016.

8. Bidder if registered with NSIC or SSI, may enclose copy of their Registration as per applicable government rules.
9. Bidder to enclose Copy of PAN/TIN number.
10. Has the Bidder been blacklisted from any Government / Semi Government / PSU or similar organization, ever in last five years. If so then Bidder is required to furnish complete details along with certified copy of revocation by the same department, if any, failing which bid will not be accepted. Bidders to enclose an undertaking, in case this clause does not apply to them.
11. Bidder should have his own service office and infrastructure in Bihar. In case, Bidder does not have this service infrastructure as on date of tender submission, then Bidder can submit an undertaking that within 15 days of award of order, they will raise their own service infrastructure, failing which their EMD will be forfeited and their company shall be blacklisted. Outsourcing of any services and/or subletting of any scope of work, in part and/or full, is strictly prohibited.
12. The quoted brand / OEM should have Service Facilities in Bihar.
13. The bidder should deploy one engineer for project management at Patna HQ with adequate spares till the final installation.
14. The quoted brand / OEM (in case of non-Indian) should have been into business operation in India, through their sales and service offices in India, for minimum seven years as on date of bidding.
15. ISO 9001 / 14001 certified OEM will be preferred
16. Net worth of the Bidder should be positive & The bidding company shall be a profit making company in each of the last three years.
17. Bidder to enclose Technical Literature along with tender.
18. The Technical compliance of specifications should be under signature of respective OEMs.
19. Bidder should enclose Proof of annual turnover (Audited Balance Sheet) of having average yearly turnover of Rupees three crores in last three financial years (13-14, 14-15, 15-16), with Rupees three crore Turnover in any one year.
20. Banker's details of tendering FIRM / Bidder should be clearly mentioned.
21. Bidders are instructed to only use formats provided in the tender document. Use of any reproduced/reformatted format will lead to summarily rejection of bid.
22. Rates quoted by bidders shall be for minimum one-year warranty from the date of supply. Bidders are also required to quote for AMC post warranty. However, AMC rates will not be considered during financial evaluation.

23. Earnest Money (EMD) of Rs15,000.00 (Rs. Fifteen Thousand Only), in the form of BG or Demand Draft only, in favor of **The Director, Department of Industries, Government of Bihar, Patna.**

24. Earnest Money Deposit of the successful bidder will be refunded on receipt of Performance Security Deposit from the bidder.

25. This is a turnkey based tender. Bidder must quote for all items. The L1 shall be evaluated on composite price of per set, quantity as per requirement of the department. No partial compliance of any terms, specification, etc. permitted partial compliance and deviation of any terms and or condition will automatically lead to rejection.

26. **The prospective bidders are also required to buy-back old system, details annexed in this tender document. Bidders not considering the buy back will be rejected. Bidder may inspect the system if they require.**

03. **In the part relating to Price Bid, the OEM/Bidder must provide the following: -**

- a. Quantity, basic price (against item-wise details of specifications of each of the offered items).
- b. Prices of each of the optional accessories, as required by specifications and may be relevant for offered equipment, will have to be specifically stated in the quotation.
- c. Bihar VAT should be indicated separately item wise. Price to be quoted inclusive of all taxes, ED, VAT etc. in the given format.
- d. Installation, warranty, delivery & commissioning charge (including Service Tax), should be included in the basic rate of quoted items, if any. Delivery shall be F.O.R. **O/o The Director, Department of Industries, Government of Bihar, Patna.**
- e. Freight & insurance charge should be included in the basic rate of quoted items, if any.

**Other Instructions: -**

01. **Rates:** Rates quoted should be on F.O.R. **O/o The Director, Department of Industries, Government of Bihar, Patna.**

02. **Validity:** Quoted rates must valid for 365 days

03. **Delivery:** Unless otherwise stated delivery of goods will have to be delivered within 30 days from the date of issue of the Purchase Order. All aspects of safe delivery shall be the exclusive responsibility of the OEM/Bidder.

04. **Late and delayed Tenders:** Late and delayed tender will not be considered. In case any unscheduled holiday occurs on prescribed closing/opening date the next working day shall be the prescribed date of closing/opening.

05. **Ground for Rejection of Tender:** The tenders are liable to be rejected if any of the fore going conditions are not complied with and must be strictly as per this

tender document. The tender should be complete in all respects and duly signed wherever required. Incomplete and unsigned offer will not be accepted.

06. **Payment Terms :-90%** payment against delivery and balance **10%** against installation or against submission of Bank Guarantee of equivalent amount, valid for 12 months.

07. **Entry Tax:** Entry tax, if applicable will be borne by the bidder.

08. **VAT** : inclusive

09. Any loss or damage caused to the article in transit to the centralized delivery location is to be made good by the supplier free of cost within reasonable time.

10. Security Deposit / EM can be forfeited in case of none supply / part supply / delayed supply of material unless permitted by the customer.

11. No escalation in respect of materials, labor, freight etc. will be allowed in any shape.

12. A declaration should also be furnished by the agency that they will supply the original product of the manufacturing company. In case of supply of duplicate product suitable action will be taken against the agency including forfeiture of EM/ Security Deposit.

13. The rates should be quoted and legibly written both in words and Figures. In case of corrections, the same must be attested by the bidder with full signature; however no overwriting is permissible.

14. In case of any discrepancy between words and figures, in financial bid, the rates in words shall be accepted as correct.

15. The bids shall be opened in the office of **The Director, Department of Industries, Government of Bihar, Patna**, on the date and time given in the enquiry letter. The Bidders may send their authorized representative to attend the Bid opening, if they so desire. In the event of the bid opening date being declared holiday, the bids will be opened at the appointed time and place on the next working day.

17. The Bidder has to sign in full at all pages of the bidding document.

**The Director,  
Department of Industries,  
Government of Bihar,  
Patna.**

**Undertaking by the Bidder**

I have read all the terms, conditions, enclosures and the whole tender document and understood the contents. As a token of acceptance of all the terms of tender, I am here by submitting the entire tender document under our seal and signature. I am also authorized by my firm to fill in this tender and therefore I am submitting this in the form of undertaking. Apart from that agree to abide by the following:

1. Proof of three years in operation, as per experience requirement mentioned in this tender document.
2. We will ensure that a minimum of 98% uptime, calculated on an annual basis is achieved for the supplied items.
3. We have quoted rates of items for one year warranty with spare and labor, which excludes accessories.
4. It is undertaken that no item supplied is used/reprocessed or refurbished in any manner either in part or otherwise.
5. The above document is executed on \_\_\_/\_\_\_/2016 at (place) \_\_\_\_\_ and we accept that if anything out of the above information is found wrong, our tender shall be liable for rejection.
6. We hereby undertake that all the components/parts/assembly are original and no duplicate parts are used in the entire manufacturing process.

Name of Person: \_\_\_\_\_

Complete Address: \_\_\_\_\_



### Bill of Materials(Supply, Installation, & Maintenance)

Sl	Description		Unit	Qty
1	Central Control Unit		Nos	1
2	Discussion Unit		Nos	31
3	Microphone for Discussion Unit		Nos	31
4	Wireless Handheld Microphone		Nos	1
5	Wireless lapel Microphone		Nos	1
6	55" Professional Display		Nos	3
7	Matrix Switcher		Nos	1
8	HDMI Extender up to 100 meters		Nos	2
9	HDMI Cable 2 Mtr		Nos	4
	HDMI Cable 15 Mtr		Nos	3
	HDMI Cable 20 Mtr		Nos	4
10	Amplifier		Nos	1
11	Speaker		Nos	10
12	Speaker Cable(Mtr.)		Mtr.	200
13	12U Acoustic Rack		Nos	1
14	Cables, Connectors, and installation etc.		Lot	1

**Bill of Materials**  
**(Buy Back of old System on as is where is basis)**

Sl	Description		Unit	Qty
1	Chairman unit Ahuja (CMC-4100)		Nos	1
2	Delegate unit Ahuja ( CMD-4200)		Nos	56
3	Speaker Ahuja		Nos	8
4	Wireless handheld mic with receiver		Nos	1
5	Wireless collar mic with receiver Ahuja		Nos	1
6	Expansion unit for conference hall Ahuja		Nos	3
7	Central Amplifier Ahuja (CMA-4400)		Nos	1
8	Amplifier Ahuja (TZA-1200)		Nos	2

Bidders may inspect the system for its present condition. Department shall not be responsible for its non-working status etc. As is where is basis.

### Technical Specification

**Item No. 1 :-Central Control Unit**

Technical Specification		Compliance (Y/N)
Audio output signal type	electronically balanced	
Nominal output level	0 dBm at nominal input	
Max. output level	4.9V RMS ~ +16 dBm	
Nominal input level (In 1 is switchable)	0 dBm or -10 dBm (0.775V RMS or 0.245V RMS)	
Max. input level	+15 dBm (4.5V RMS)	
Analog Audio in	impedance 50-100 kΩ	
Connectors (Chain - Discussion Units)	2xRJ45	
Connector LAN (TCP/IP)	1 RJ45	
Form factor	19" rackmount	
feature	Web browser interface for mic control & configuration	
Four Microphone operation mode	Automatic, FIFO Manual and VOX (Voice activated On/Off of the microphone)	
Sound quality	24 bit audio, 32 kHz sampling frequency	
Frequency response	65 Hz-16 kHz (-3dB)	
THD at 1KHz	< 0.1 %	
Signal-to-noise ratio	> 85 dBA	
Dynamic Range	> 80 dB	
Base Unit	Each component should connect to the base to assemble the discussion unit. Two RJ-45 jacks on the bottom to provide power, audio, and control across a chain of discussion units.	
Front Plate	The front plate to include the touchbutton controls. Two models for speech only or optionally speech with language interpretation monitoring	
Loudspeaker	scalable to optional flush mounted speaker for sound re-enforcement	
Microphone Unit	The microphone unit is for voice input, featuring Automatic, FIFO, Manual and VOX (voice activation)	
Touch Button Overlays	The overlay should attache to the front plate and automatically configure the touch-button controls. Each overlay to provide specific controls for operation as a delegate or chairman.	
<b>Electrical</b>		
Frequency response (headphone)	65 Hz to 16 kHz	
Frequency response (loudspeaker)	150 Hz to 15 kHz	
THD	<0.1%	
Signal-to-noise ratio	>90 dBA	

Headphone connection		3.5 mm jack, female stereo socket	
<b>Item No. 2 :- Discussion Unit</b>			
<b>Technical Specification</b>			<b>Compliance (Y/N)</b>
Features	Up to 250 discussion units can be connected to a single system		
	'Auto Off' of microphones		
	Support for delegate interrupt mode		
Digital Discussion System	LAN daisy-chain topology using loop-through connections or star topology using junction boxes		
<b>Electrical</b>			
Frequency response (headphone)	65 Hz to 16 kHz		
Frequency response (loudspeaker)	150 Hz to 15 kHz		
Power consumption	1.5 W		
Power maximum (loudspeaker)	2.1 W RMS		
THD	<0.1%		
Signal-to-noise ratio	>90 dBA		
Headphone connection	3.5 mm jack, female stereo socket		
<b>Interconnections</b>			
LAN	Two RJ45 female sockets (loop-through) with auto-termination		
<b>Item No. 3 :- Microphone for Discussion Unit</b>			
<b>Technical Specification</b>			<b>Compliance (Y/N)</b>
Feature			
Condenser 50 cm gooseneck microphones			
Cardioid polar pattern			
Flexible gooseneck			
XLR connector			
LED lighting indication in microphone head			
<b>Electrical</b>			
Transducer type	Condenser		
Polar pattern	Cardioid		
Frequency response	30 Hz - 18 kHz		
Sensitivity	-52 +/- 3dB(OdB = 1V/1Pa, 1 kHz)		
Maximum input sound level	110 dB SPL, 1 kHz at 3% THD		
Signal-to-noise ratio	>60 dBA		
Front/back ratio	>25 dB (1 kHz)		
Connector type	3-pin male XLR		
<b>Item No. 4 :- Wireless Handheld Microphone</b>			
<b>Technical Specification</b>			<b>Compliance (Y/N)</b>
Light weight, long range, rechargeable battery based wireless hand held microphone, complete with transmitter and receiver	Transmitter - Working Range- 91 m (300 ft) Line of Sight, 60Hz – 15kHz Non detachable (Fixed) Microphone handheld, Sensitivity (1 kHz): -53 dBV/Pa / 2,2 mV/Pa, Audio Input Level: gain - 0dB -20 dBV maximum & -10dB: -10 dBV maximum, Gain control should be adjustable – 10dB RF Transmitter output – 10mW Cartridge with a neodymium magnet, On/Off switch for onstage control, Integral "pop" filter for reducing explosive breath sounds and wind noise		

	<p>Pollar Pattern : Cardioid polar HandHeld Transducer Type : Dynamic Polar Pattern: Cardioid Frequency Response from: 60 Hz Frequency Response to: 15 KHz Sensitivity (dBV/Pa): -53 dBV/Pa Sensitivity (mV/Pa): 2.2 mV/Pa</p>	
	<p>Receiver – Microprocessor-controlled internal antenna diversity, One-touch Quick Scan frequency selection quickly locates the best frequency, Two audio status indicator LED, Break-resistant Microphone Clip, Audio Output Impedance : XLR connector: 200 Ω / 6.35 mm (1/4") connector: 50 Ω Audio Output Level: XLR connector: -27 dBV (into 100 kΩ load) / 6.35 mm (1/4") connector: -13 dBV (into 100 kΩ load), (Ref. ±33 kHz deviation with 1 kHz tone) RF Sensitivity : -105 dBm for 12 dB SINAD, typical Image Rejection - &gt;50 dB, typical</p>	
<b>Item No. 5 :- Wireless lapel Microphone</b>		
<b>Technical Specification</b>		<b>Compliance (Y/N)</b>
<p>Wireless miniature-invisible lapel microphone with receiver and transmitter</p>	<p>Wireless Transmitters with Lapel Audio Input Level: gain Max: -15dBV Min: +10dBV, Gain Adjustment Range: 26 dB, Input Impedance - 1 MΩ, RF Transmitter output ~ 10mV Lavalier Microphone impedance minimum 3000 ohms with minimum 1m of cable. Transducer Type : Condenser Polar Pattern: Omnidirectional Frequency Response from: 50 Hz Frequency Response to: 20 KHz Sensitivity (dBV/Pa): -38 dBV/Pa Sensitivity (mV/Pa): 13 mV/Pa Equivalent Selfnoise: 18 dB (A) Sound Pressure: 120 dB</p>	
	<p>Receiver – Microprocessor-controlled internal antenna diversity, One-touch Quick Scan frequency selection quickly locates the best frequency, Two audio status indicator LED, Break-resistant Microphone Clip, Audio Output Impedance : XLR connector: 200 Ω / 6.35 mm (1/4") connector: 50 Ω Audio Output Level: XLR connector: -27 dBV (into</p>	

	100 k $\Omega$ load) / 6.35 mm (1/4") connector: -13 dBV (into 100 k $\Omega$ load), (Ref. $\pm$ 33 kHz deviation with 1 kHz tone) RF Sensitivity : -105 dBm for 12 dB SINAD, typical Image Rejection - >50 dB, typical	
<b>Item No. 6 :- 55" Professional Display</b>		
<b>Technical Specification</b>		<b>Compliance (Y/N)</b>
<b>Panel</b>		
Monitor Type	55" LED with IPS Panel	
Aspect Ratio	16:09	
Native Resolution	1,920 x 1,080 (Full HD)	
Brightness	350cd/m2 or higher	
Contrast Ratio	1,100 : 1 or higher	
Dynamic CR	500,000 : 1 or higher	
Orientation	Portrait & Landscape	
Surface Treatment	Hard Coating, Anti-glare Treatment of the Front Polarizer	
Circuit board Protection	Dust & Humidity Protection Coated	
Viewing Angle (H x V)	178 x 178 degree	
<b>Connectivity</b>		
Inputs	HDMI, DVI-D, RGB, Stereo Mini Jack, USB- 2 nos	
Outputs	Stereo Mini Jack, External Speaker Out	
External Control	RS232C (In/Out), RJ45, IR Receiver	
<b>Environment Conditions</b>		
Operation Temperature	0 °C to 40 °C	
Operation Humidity	10 % to 80 %	
<b>Power Supply</b>		
Power Supply	100-240V~, 50/60Hz	
Consumption	70W (Typ)/ 55W (SES) or more	
<b>Industrial Grade/ Certification</b>		
Safety	UL / cUL / CB / TUV / KC	
EMC	FCC Class "A" / CE / KCC	
Energy Star	Yes energy star 6.0 .	
<b>Item No. 7 :- Matrix Switcher</b>		
<b>Technical Specification</b>		<b>Compliance (Y/N)</b>
<b>Video Input</b>		
Interface	4 x HDMI Type A Female	
Impedance	100 $\Omega$	
Max Distance	1.8 m	
<b>Video Output</b>		
Interface	4 x HDMI Type A Female	
Impedance	100 $\Omega$	
Max Distance	15 m	
<b>Video</b>		
Max. Data Rate	6.75 Gbps (2.25 Gbps Per Lane)	
Max. Pixel Clock	225 MHz	
Compliance	HDMI (3D, Deep Color)	

	HDCP 1.4 Compatible	
	Consumer Electronics Control (CEC)	
Max Resolutions	Up to 1080p	
Max Distance	Up to 15 m	
<b>Control</b>		
RS-232	<b>Connector:</b> 1 x DB-9 Female	
	<b>Baud rate and protocol:</b>	
	Baud Rate: 19200, Data Bits: 8, Stop Bits:1,	
	Parity: No, Flow Control: No	
<b>EDID Settings</b>		
	<b>EDID Mode:</b> Default / Port1 / Remix	
<b>Power</b>		
	<b>Connector:</b> 1 x DC Jack	
	<b>Consumption:</b> 5.3 VDC, 9W	

**Item No. 8 :- HDMI Extender up to 100 meters**

<b>Technical Specification</b>		<b>Compliance (Y/N)</b>
Extends the distance between HDMI source and HDMI display		
Uses Cat 5e cable to achieve long distance transmission		
• 8 segment equalization adjustment switch		
• Extend 1080p by 40m; extend 1080i (HDTV) by 60m		
• video quality – 1920 x 1200, up to 1080p		
• HDMI (3D, Deep Color)		
• Support Dolby True HD and DTS HD Master Audio		
• DDC compatible		
• HDMI and HDCP 1.1 Compatible		
Display	HDMI Out, HDMI in	
Unit to Unit	2xRJ-45 Female	
Power Jack	1 x DC Jack	
HDMI Resolutions	HDTV resolutions: 480p, 720p, 1080i, 1080p	
	(1920 x 1080); PC resolutions: VGA, SVGA, XGA, SXGA, UXGA, WUXGA (1920 x 1200)	

**Item No. 9 :- HDMI Cable 2, 15, 20 Mtr.**

<b>Technical Specification</b>		<b>Compliance (Y/N)</b>
Low Smoke, Halogen Free, High Speed with Ethernet, 1.4a		
24Ct Gold Plated contacts		
3 Fold Shielding		
Conductor based on high purity copper		
Ethernet Network (up to 100 Mbit)		
Audio Return Channel		
3D-Video		
Additional Color Spaces		
Content Type		
2160p (4K x 2K Video)		
1080p (Full HD)		
1080i/720p		
Data rate up to 10.2 Gbit/s (340 Mhz bandwidth)		
Deep Color multi-bit; x.v.Color		
HDMI® 2.0 compatible		
HD Audio: DTS™ HD, Dolby® True HD, Dolby® Digital Plus, PCM, DVD Audio, SACD		
Up to 8 Audio-channels (24 Bit /192 kHz)		
Lip sync: automatic synchronisation between picture and sound		

2160p (4K x 2K Video) with downward compatibility			
Data rate up to 10.2 Gbit/s (340 Mhz bandwidth)			
Deep Color multi-bit; x.v.Color			
HDMI® 2.0 compatible			
HD Audio: DTS™ HD, Dolby® True HD, Dolby® Digital Plus, PCM, DVD Audio, SACD			
Up to 8 Audio-channels (24 Bit /192 kHz)			
Lip sync: automatic synchronisation between picture and sound			
<b>Item No. 10: - Amplifier</b>			
<b>Technical Specification</b>			Compliance (Y/N)
<b>AUDIO INPUTS</b>			
<b>Mic/Line Inputs (4 – Balanced)</b>			
Connectors	3-pin Euroblock		
Input range	20 Hz – 20 kHz		
Input impedance	Mic 2 k Ohms /Line 25 k Ohms		
Maximum input level	Mic -20 dBu/Line 10 dBu		
Equivalent input noise	122 dB (A-weighted/20 Hz – 20 kHz)		
<b>Line Inputs (4 – Unbalanced)</b>			
Connectors	Dual RCA (summed to mono)		
Input range	20 Hz – 20 kHz		
Input impedance	10 k Ohms		
Maximum input level	+10 dBu		
<b>Page Input (1 – Balanced)</b>			
Connectors	4-pin Euroblock		
Input range	20 Hz – 20 kHz		
Input impedance	400 Ohms		
Maximum input level	30 dBu		
Equivalent input noise	122 dB (A-weighted/20 Hz – 20 kHz)		
<b>Direct Input (1 – Balanced)</b>			
Connectors	3-pin Euroblock		
Input range	20 Hz – 20 kHz		
Input impedance	18 k Ohms		
Maximum input level	+8 dBu		
<b>Direct AUDIO OUTPUTS Amplifier Outputs (2)</b>			
Connectors	5-terminal inverted Euroblock		
Nominal load	(70/100V) 50 Ohms @ 70V, 100 Ohms @ 100V		
Output impedance	4 Ohms		
<b>Auxiliary Output (1)</b>			
Connectors	3-pin Euroblock		
Output impedance	400 Ohms		
Maximum output level	2.2 dBV		
<b>PERFORMANCE</b>			
Amplifier power	2 x 120W @ 4½, 2 x 100W @ 70/100V		
THD (at full rated power)	<= 0.5%		
Crosstalk - (below rated power, 1 kHz)	<=-60 dBV		
Signal-to-Noise ratio - (below rated power, A-weighted)	75 dB		
Dynamic range	80 dB		
Frequency response	40 Hz – 16 kHz (+0/-3 dB)		
Sampling rate	44.1 kHz		
A/D and D/A converters	24-bit		



Communication port	RS-232 serial port	
LED status indicators	Power – blue; Signal present – green; Clip – red	
<b>Item No. 11 :- Speaker</b>		
<b>Technical Specification</b>		<b>Compliance (Y/N)</b>
Type	Full Range Driver	
Driver compliment	One 2.25" (57mm) full-range driver	
Maximum acoustic output (pink noise)	96 dB-SPL @ 1m	
	102 dB-SPL (peak) @ 1m	
Impedance	8½ (transformer bypass)	
Long-term power handling	16W	
Sensitivity (pink noise) SPL	84 dB-SPL, 1W @ 1m	
Frequency response (-/+3 dB)	95 Hz - 17 kHz	
Frequency range (-10 dB)	80 Hz - 19 kHz	
Nominal Dispersion	170°H x 160°V (loudspeaker mounted horizontally)	
Filter	80 Hz high pass filter	
Loudspeaker EQ	required	
<b>Construction features</b>		
Enclosure	Injection-moulded polypropylene enclosure	
Grille	Powder-coated steel	
Connectors	The included mounting bracket features a three-terminal barrier strip. Optional junction boxes include a pre-wired ceramic connector and a thermal fuse for use when required.	
<b>Item No. 12 :- Speaker Cable</b>		
<b>Technical Specification</b>		<b>Compliance (Y/N)</b>
Conductors:	16 AWG, (26/30) Bare copper conductors.	
Insulation:	PVC color coded: Red, Black.	
Outer jacket color:	Dark Gray w/blue lettering.	
<b>Diameters</b>		
Conductor:	0.058 inch ,1.478mm.	
Outer jacket:	0.205inch, 5.2mm.	
PVC insulation:	0.079 inch, 2.0 mm diameter.	
<b>Electrical</b>		
DC resistance:	4.17Ω per 1000ft, 13.7Ω per km.	
Temperature:	- 4 ° to 167° Fahrenheit, - 20° to 75° Celsius.	
<b>Regulatory</b>		
CSA:	FT4.	
RoHS:	Compliant in accordance with European directive 2002/95/IEC.	
UL:	CL2.	
<b>Item No. 2.2 :- 12U Acoustic Rack</b>		
<b>Technical Specification</b>		<b>Compliance (Y/N)</b>
Acoustic Rack		
12U Floor Mount with Front Glass Door with Lock + 1U Cable Manager-, Roof Mounted Fan Tray with 2 Fan, 230V AC, 3 Unit of 19" Mounted PDU with 4 Sockets of 5/15A Type 3 Pack of Hardware.		

## Financial Bid Format

SI	Name of Items	Unit	Qty	Rate Per Unit	All Taxes	Total Price
a	b	c	d	e	f	(e+f)
1	Central Control Unit	Nos	1			
2	Discussion Unit	Nos	31			
3	Microphone for Discussion Unit	Nos	31			
4	Wireless Handheld Microphone	Nos	1			
5	Wireless lapel Microphone	Nos	1			
6	55" Professional Display	Nos	3			
7	Matrix Switcher	Nos	1			
8	HDMI Extender up to 100 meters	Nos	2			
9	HDMI Cable 2 Mtr	Nos	4			
	HDMI Cable 15 Mtr	Nos	3			
	HDMI Cable 20 Mtr	Nos	4			
10	Amplifier	Nos	1			
11	Speaker	Nos	10			
12	Speaker Cable(Mtr.)	Mtr	200			
13	12U Acoustic Rack	Nos	1			
14	Cables, Connectors, and installation etc.	Lot	1			
					<b>Sub Total</b>	
<b>(-) Value of back back of old systems (comprehensive value)</b>						
					<b>Net Quote (Bid Price)</b>	

**Bid Price** .....Rs( in words..... )

**Price Bid including warranty and delivery, shall be submitted in only above format.**

We, ....., on award of order, undertake to supply the items at the above consolidated prices.

**Bidder signature with Seal**