



Request for E-Quotation -Goods

Country: India

Name of Project: Hon. Balasaheb Thackeray Agribusiness & Rural Transformation (SMART) Project, Pune

Contract Title: Procurement of Supply and installation of Audio-Visual system

Loan No.: IBRD Loan No90310

RFQ Reference No.: SMART/PCMU/ AV System / 177/ 2021-22

Issued by:

Additional Project Director

**Hon. Balasaheb Thackeray Agribusiness & Rural Transformation (SMART) Project
Department of Agriculture, Government of Maharashtra**

**Sheti Mahamandal Bhavan, 270, Bhamburda,
Senapati Bapat Road, Pune - 411 016.**

Website: www.smart-mh.org

INVITATION FOR QUOTATIONS

To

Sub: Invitation for quotation for Supply, Installation and Maintenance of Audio-Visual system

Dear Sir/Madam

1. Department of Agriculture, Government of Maharashtra has received financing from the World Bank towards "Hon. Balasaheb Thackeray Agribusiness & Rural Transformation (SMART) Project" to transform agriculture and livelihoods sector in Maharashtra. The objective of the project is "to support development of inclusive and competitive agriculture value chains focusing on smallholder farmers and agri-entrepreneurs in Maharashtra". This would be achieved by expanding access to new and organized markets for producers and enterprises with complementary investments in provision of technical services and risk management capabilities.
2. The Project Director of Hon. Balasaheb Thackeray Agribusiness & Rural Transformation (SMART) Project now invites online quotation on <https://mahatenders.gov.in> from eligible bidders for the following items.

Sr. No	Item	Technical Specification	Required qty.
1	Supply, Installation and Maintenance of Audio-Visual system	As per annexure -A	1 set

3. Schedule of RFQ :

Sr No	Details	Date & Time
1.	Date & Time for Commencement of Downloading RFQ document.	Date: 25/02/2022 Time: 9.30 AM
2.	Pre-bid meeting	NA
3.	Last date & time for downloading the RFQ document	Date: 07/03/2022 Time: 4.00PM
5.	Last Date (deadline) & Time for submission of quotations	Date: 07/03/2022 Time: 4.00PM
6.	Date and Time for Opening of Technical envelop	Date: 08/03/2022 Time: 4.00PM
7.	Date and Time for Opening of Financial envelop	It will be published on https://mahatenders.gov.in

4. Tender Fee & EMD :

Sr No	Information	Details
1.	Tender Fee	Rs. 4500/- (Rupees Four Thousand Five Hundred payable via online payment gateway available on online e-tendering)

		portal.
2.	Earnest Money Deposit (EMD)	Rs. 75,000/- (Rupees Seventy-five thousand only) to be paid online on the e-tendering portal at the time of submission of the tender.
3.	Bid Validity Period	60 days from the date of opening of the technical bid
4.	Performance Security	10 % of the contract price within 7 days from the date of award of contract.

5. Bid Price

- a) The contract shall be for the full quantity as described above.
- b) All duties, taxes and other levies payable on the raw materials and components shall be included in the total price.
- c) The rates quoted shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- d) The Prices shall be excluding GST.
- e) Rate should be inclusive of supply, installation and one-year maintenance

6. Validity of Quotation

Quotation shall remain valid for a period not less than 60 days after the deadline date specified for submission.

7. Eligibility Criteria:

- a) Bidder should have its main or branch office anywhere in Maharashtra
- b) Bidder should be registered under Goods and Services tax Act, 2017
- c) The agency should be in existence and in operation of business from last 3 years.
- d) The average turnover of the bidder should be more than Rs. 20 lakhs in previous 3 financial years i.e. 2018-19 to 2020-21.
- e) The Bidder or its OEM {themselves or through reseller(s)} should have supplied same or similar Category Products to any Central/ State Govt Organization / PSU / Public Listed Company.
- f) The bidder should be authorized dealer/distributor for the items
- g) The bidder should not be blacklisted /banned by any Government organization/PSUs during last 3 years.

8. Submission of bid:

- a) The bidder should submit the bid online on e-tendering Portal <https://mahatenders.gov.in>
- b) The bids submitted, shall comprise of the following 2 envelopes:
 - **Envelope 1:** Technical Bid
 - **Envelope 2:** Financial Bid in the form of BOQ
- c) Modification and Withdrawal of Bids – Resubmission of bid by the agencies for any number of times before the final date and time of submission is allowed.

9. Technical bid: (Envelop 1)

The bidder has to upload following documents in the technical envelope.

- a) PAN Card copy
- b) GST registration certificate
- c) Turn over certificate issued by the chartered Accountant

- d) Supply order and installation report of audio-visual system issued by the client
- e) Manufacturer authorization: Wherever Authorized Distributors / Dealers are submitting the bid, Manufacturers Authorization Form (MAF) / Certificate with OEM details such as name, designation, address, e-mail Id and Phone No. required to be furnished along with the tender
- f) Technical Specification datasheet of the product(s) offered in the bid, are to be uploaded
- g) The declaration that the bidder is not black listed/banned by any government organization/PSUs.

Failure to provide the above information will lead to bid being declared as non-responsiveness and will not be considered for evaluation.

10. Financial Bid:

- a) The bidder shall quote for all the items as mentioned in the Financial Quote in BOQ format (Annexure 1) only.
- b) All duties, taxes and other levies payable on the raw materials and components shall be included in the total price.
- c) The rates quoted shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- d) The Prices shall be excluding GST.
- e) Rate should be inclusive of Cables & component Connectivity, installation of system on site, Project Documentation & Handover Report, 2 days training to staff & 1-year maintenance & implementation services
- f) Each Bidder shall submit only one quotation. Bidder shall not contact other Bidders in matters relating to this RFQ.

11. Bid opening and Evaluation process

a) Opening of Envelop - A (Technical Bid)

The 'Technical Envelop' of bids will be publicly opened first online in the presence of the Bidders' designated representatives and anyone who chooses to attend at the address on the date and time specified in the tender notice. In the event of the date specified for bid opening being declared as a closed holiday for the purchaser's office, the due date for opening of bids will be the following working day at the same time and venue.

b) Evaluation of Technical Bid

The evaluation of the technical bids will be carried out as per the eligibility criteria mentioned in the clause 7. The bidders fulfilling minimum eligibility criteria are declared technically qualified and eligible opening of the financial proposal.

c) Opening of Envelop - 2 (Financial Bid)

This envelope of technically qualified bidders shall be opened as per e-tendering procedure. The date and time of opening of financial bids will be published on <https://mahatenders.gov.in>

12. Evaluation of Quotations

The SMART Project will evaluate and compare the quotations determined to be substantially responsive i.e. which

- (a) are properly signed; and
- (b) conform to the terms and conditions, and specifications.

The Quotations would be evaluated for the all items together. GST cost shall not be considered in evaluation.

13. Award of contract

The SMART Project will award the contract to the bidder who has been determined to be substantially responsive and who has offered the lowest evaluated price (L1) for all items together.

- a) Notwithstanding the above, the SMART Project reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.
- b) The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the supply/ work order.

14. Performance Security:

- a) The successful bidder shall, within 7 days of the notification of contract award submit Performance Security @ 10 % of Contract Price. The Performance Security shall be in the form of the Demand Draft or Bank Guarantee and shall be valid till 30 days after completion of the bidder's performance obligations under the Contract, including any warranty obligations, unless specified otherwise.
- b) The Performance Security without interest will be discharged/returned upon being satisfied that there has been due performance of the obligations of the selected bidder under the contract.

15. Delivery period and Place:

Successful bidder should complete supply and installation of goods within 15 days from the date of supply/work to Hon. Balasaheb Thackeray Agribusiness & Rural Transformation (SMART) Project, Sheti Mahamandal Bhavan, 270, Bhamburda, Senapati Bapat Road, Pune-411016.

16. Payment:

Payment will be made within 2 weeks after successful supply and installation of goods certified by the authority appointed by the Project along with the bill/invoice Applicable GST will be paid on submission of invoice/bill.

Sd-
**Additional Project Director
SMART, Pune.**

Annexure- A

Technical Specifications:

1. Interactive Display with Floor mounting Kit (Quantity: 1)

Feature	Title	Specifications
Display Size	-	86 inch
Display Panel Diagonal	-	2184.4mm
Panel type	-	IPS Ultra HD
Backlight type	-	D-LED
Panel Resolution	-	3840x2160 pixels
Brightness	-	350cd/m ² (typ.)
Contrast Ratio(typ)	-	1200:01:00
Response Time(ms)	-	5ms
Pixel Pitch	-	0.429(H)x0.429(V)
Aspect Ratio	-	16:09
Frame rate	-	60Hz
View angle	-	178°(H) / 178°(V)
Effective Display width	-	1970mm
Effective Display Height	-	1184mm
Display Colors	-	1.07 Billion
(Color Gamut)(X% NTSC)	-	65%
Touch technology	-	Advanced Infra-red
Touch precision	-	32768*32768
Number of touch points	-	20 Points
Surface Protection	-	4mm Toughened Glass
Anti-glare AG	-	high transparent+ smoother
Minimum Touch Object	-	≥1.6mm(Single touch ≥1.6mm), ≥3mm(Multiple touch ≥3mm)
Glass Transmission	-	>92%
Touch Accuracy	-	±1mm
Response Time	-	≤10ms
FINGER & STYLUS	-	FINGER & STYLUS
No of Stylus or Electronic Pens Supplied	-	3
Theory Clicks	-	Unlimited
Output Mode	-	HID Standard
OS	-	Windows 10/8/7,Android : Multiple Touch
Connect type	-	Male USB2.0
Communication type	-	USB2.0 Full speed
Power supply	-	USB power
OS	-	Android 8.0 or Above
Compatible system	-	Windows 7/8/10 ,XP ,Linux,MAC OS, Android
Software's Provided	-	Writing & screen sharing
Versatile Annotate	-	Yes
screenshot	-	Yes
Gesture Eraser	-	Yes
File Manager	-	Yes

Feature	Title	Specifications
Miracast both for Android and iPhone,MAC,Windows	-	Yes
Surround the stereo sound	-	Yes
Support HTML 5 Browser, HTML5	-	Yes
Support Local/ Online Video	-	1080P/3840*2160
Support Local/ Online Music	-	Yes
Input HDMI ports	-	2 Audio Input Ports
USB 2.0 ports	-	1 Audio Output Ports
USB 3.0 ports	-	4 RS-232 C ports
Inbuilt WiFi	-	Dual WIFI (5G & 2.4G), Dual Hotspot (5G & 2.4G) BT 5.0
Certification		BIS
Floor mounting Kit for display with wheels	-	Yes
Warranty: Basic Onsite OEM service Warranty (In Years)	Basic Onsite OEM service Warranty (In Years)	3 Years

2. High Resolution moving camera (Quantity: 1)

Feature	Title	Specifications
Sensor	-	1/2.7", CMOS, Effective Pixel: 2.07M
Scanning Mode	-	Progressive
Resolution	-	FHD (1920 x 1080)
Frame rate	-	1080p/60 fps
Zoom	-	12X
Lens	-	f3.5mm ~ 42.3mm, F1.8 ~ F2.8
Digital Zoom	-	16x Digital Zoom
FOV	-	72.5° ~ 6.9°
Vertical Angle of View	-	44.8° ~ 3.9°
USB	Version	USB 2.0, USB 3.0
Remote Control	-	Yes
HD Output	HDMI	1xHDMI: Version 1.3
Shutter	-	1/30s ~ 1/10000s
Digital Noise Reduction	-	2D&3D Digital Noise Reduction
Video S/N	-	Video S/N : ≥55dB
Horizontal Rotation Range	-	±170°
Vertical Rotation Range	-	(-30° ~ +90°)
Pan Speed Range	-	1.7° ~ 100°/s
Tilt Speed Range	-	1.7° ~ 69.9°/s
H & V Flip	-	Yes
Image Freeze	-	Yes
Local Storage	-	Yes
Number of Preset	-	255
Preset Accuracy	-	0.1°

Feature	Title	Specifications
Video Compression	Type	H.265 / H.264 / MJPEG
Video Stream	-	Main Stream, Sub Stream
Sub Stream Resolution	-	720x576, 720x480, 320x240
Video Bit Rate	-	128Kbps ~ 8192Kbps
Bit Rate	Type	Variable Rate, Fixed Rate
Frame Rate	-	50Hz: 1fps ~ 50fps, 60Hz: 1fps ~ 60fps, 720p120: 120fps, 640x480p240: 240fps
Audio Compression	Type	AAC
Audio Bit Rate	-	96Kbps, 128Kbps, 256Kbps
Support protocols	-	TCP/IP, HTTP, RTSP, RTMP, Onvif, DHCP, Multicast, etc.
HD Output	-	HD Output : 1xHDMI: Version 1.3
SD Output	-	1xCVBS: 3.5mm mini jack, 1Vp-p, 75Ω
Network Interface	-	1xRJ45: 10M/100M Ethernet Interface
Audio Interface	-	1-ch: 3.5mm Audio Interface, Line In
USB	-	: 1xUSB3.0: Type B female jack, : 1xUSB2.0: Type A female jack
Extension Cable	-	10 meter USB extension cable should be supplied with camera & cable should be 4K optical cable from the same OEM as Camera.
Recording	-	Direct on USB Devices without NVR
Communication Interface	-	:1xRS232 In: 8pin Min DIN, Max Distance: 30m, Protocol: VISCA/Pelco-D/Pelco-P, :1xRS232 Out: 8pin Min DIN, Max Distance: 30m, Protocol: VISCA network use only :1xRS485: 2pin Phoenix Port, Max Distance: 1200m, Protocol:VISCA/Pelco-D/Pelco-P
Remote Control	-	Yes (Along with Ceiling mounting Kit)
Certifications	-	CE & latest CB Certification along with CB Test Reports
Make	-	Same as Interactive Display OEM (Sr. No. 1)
Warranty	Basic Onsite OEM service Warranty (In Years)	1 Years

3. Focus At Preset Button Unit (**Quantity: 1**)

Feature	Title	Specifications
Number of Presets (Buttons)	-	8
Type of Communication	-	Wireless
Display	-	LCD
Communication Interface	-	RS-485/RS-232
Baud Rate	-	2400bps, 4800bps, 9600bps
Make	-	Same as Interactive Display OEM (Sr. No. 1)

Feature	Title	Specifications
Warranty	Basic Onsite OEM service Warranty (In Years)	1 Years

4. Cable Cubby (Quantity: 4)

Feature	Title	Specifications
Connectivity	-	2 x Universal Power
	-	2 x USB Charger
	-	RJ45 Network
	-	VGA
	-	3.5mm Audio
	-	HDMI 2.0v
	-	Type C USB 3.0v/ Type A USB 3.0v
Warranty	Basic Onsite OEM service Warranty (In Years)	1 Years

5. All In One Multichannel Console DSP with Component rack (Quantity: 1)

Feature	Title	Specifications
Wireless microphone System	Frequency type	Quartz locked frequency
	Operating Range	300 Feet
	Microphone Options	1 Handheld +1 Lapel
	Frequencies	5 non interfering frequencies
	Antennas	Soft, Flexible rubberised antennas
	Output	Balanced XLR and Mixed Unbalanced 1/4" Outputs
	LCD Display	Frequency, Group, Antenna & Channel is displayed on the LCD in the receiver
	Gain Control	Separate gain controls for both the channels
	Microphone Frequency Response	80 Hz-18KHz
	Microphone Type	UHF
Amplifier	Power output @ 8 ohms	2X50w, Vcc= 21V DC
	Minimum impedance	8 ohms @50W
	Frequency response	20 Hz-20,000Hz
	Operating supply voltage	8 V to 24 V
	Type	Class D (Digital)
Digital signal processor	Frequency Range	30 Hz. to 16 KHz.
	Automatic Echo Cancellation	Yes
	Automatic Gain Control	Yes
	Dynamic Noise Reduction	Yes
	Full Duplex	Yes
	MIX Out	1X6.5mm

Feature	Title	Specifications
Interface	Line Input	1x 2RCA
	Line Output	1x 2RCA
	USB Audio Port	1xUSB 2.0
	Mic OUT	2xXLR(Balanced)
	MIC In	1X6.5mm gain control
Make	-	Same as Interactive Display OEM (Sr. No. 1)
Rack	For Hardware Components	15 U rack for placing Hardware components with Cooling fans, Power distribution units, Cable manager
Warranty	Basic Onsite OEM service Warranty (In Years)	1 Years

6. DSP with Ceiling Mic system(**Quantity: 1**)

Feature	Title	Specifications
Components	No of Ceilling MIC	2
	-	Digital audio processor
	-	DSP processing bus structure
	-	B-type USB connection
	-	2 road 3.81mm phoenix interface
	-	input and output single adjustment knob
	-	suspended spherical microphone
Interface	-	B-type USB interface
	-	DC 12V power interface
	-	2 road 3.81mm phoenix interface
Audio processor	-	frequency response (20hz-20khz @+4dBu)
	-	microphone channel +0/ -2db.
	-	line input channel +0/-0.5dB.
	-	Work normal , red, green alternatively lighting on Certification
Audio features	-	adaptive echo cancellation.
	-	adaptive noise suppression.
	-	intelligent remix
Microphone	-	Pick up radius 10m
	-	Frequency response 50hz-20khz
	-	Sensitivity -47 plus or minus 3dB
	-	SNR 75dB
Make	-	Same as Interactive Display OEM (Sr. No. 1)
Warranty	Basic Onsite OEM service Warranty (In Years)	1 Years

7. Open Pluggable Specification (OPS) System Desktop (**Quantity: 1**)

Feature	Title	Specifications
Form factor	-	Tower/SFF
Processor	Processor Make	Intel/AMD Ryzen OR equivalent
	Processor Generation	10th or Higher
	Processor	Intel® Core™ i5 /Ryzen 5 OR equivalent
Graphics	Graphics	Integrated graphics
Memory	RAM Type	DDR IV
	RAM Size (GB)	16
	Memory Slots	2 DIMM
	RAM Expandable up to (GB)	64
Storage	Hard Disk Drive	1 SSD Upto 512 GB/ 1 TB SATA HDD Enterprise Class
Operating System	-	Windows 10 or Higher
Sound Card	-	Onboard
Connectivity	Network connectivity	Ethernet Gigabit 10/100/1000
	Wi-Fi Connectivity	Yes
	Bluetooth	Yes
DVD-ROM/RW Drive	-	No
Keyboard	Make	Same as Tower/SFF OEM
	Type	Wireless
Mouse	Make	Same as Tower/SFF OEM
	Type	Wireless
Support	-	Drivers should be provided for further support, maintenance and freely available from OEM website
Certification	-	FCC/UL, Energy Star, EPEAT INDIA, Windows 10 certification, ISO or equivalent
Warranty	Basic Onsite OEM service Warranty (In Years)	3 Years

8. 4K Wireless Presenter for Content Sharing (Quantity : 1)

Feature	Title	Specifications
Ports	-	1 Ethernet: On an RJ-45 connector
	-	1 USB 3.0: On a female USB type-A connector
	-	1 USB 2.0: On a female USB type-A connector
Outputs	-	1 HDMI: On a female HDMI connector
Video	-	Max Resolution: 4K@30Hz
General	-	Processor: Intel® Gemini Lake SOC/ AMD or Equivalent
	-	Main Memory: 4GB LPDDR4 (2400)
	-	Storage: 32GB eMMC
	-	Networking: 802.11 ac/b/g/n dual band Wireless LAN and Bluetooth 4.1
	-	Operating System: Linux/Windows
	-	Cooling: Fan with sink
Supported OS	-	iOS, Android, Chromebook, PC, and Mac

Feature	Title	Specifications
Warranty	Basic Onsite OEM service Warranty (In Years)	1 Years

9. Ceiling Speaker (Quantity : 2)

Feature	Title	Specifications
Type	-	2-way coaxial speaker
Woofers	-	6.5" polypropylene cone
Tweeter	-	0.5" Mylar dome
Impedance	-	8Ω
Transformer Taps	-	70V: 30W/15W/7.5W/3.7W/Off (Lo-Z); 100V: 30W/15W/7.5W/Off (Lo-Z) UL 1480 & 2043 Listed
Frequency response	-	80Hz to 20kHz @ -10dB, 95Hz to 20kHz @ ±3dB
Transformer taps	-	70V - 3.7W/7.5W/15W/30W/Off (Lo-Z), 100V - 7.5W/15W/30W/Off (Lo-Z)
Sensitivity	-	87dB SPL, 1W @1m
Max spl	-	Continuous: 100.7dB, peak: 103.7dB
Crossover frequency:	-	9.2kHz
Coverage angle	-	101°
Materials	-	ABS bezel, aluminum grill, metal back can
Warranty	Basic Onsite OEM service Warranty (In Years)	1 Years

10. Graphics Workstation (Quantity : 1)

Feature	Title	Specifications
Form factor	-	Tower/SFF
Processor	Processor Make	Intel/AMD Ryzen OR equivalent
	Processor Generation	10th or Higher
	Processor	Intel® Core™ i5 /Ryzen 5 OR equivalent
Graphics	Graphics Type	Dedicated
	Graphics Memory	4 GB
	Graphics Card make	G Force/ NVIDIA/AMD or equivalent
Memory	RAM Type	DDR IV
	RAM Size (GB)	16
	Memory Slots	2 DIMM
	RAM Expandable up to (GB)	64
Storage	Hard Disk Drive 1	1 SSD Upto 512 GB
	Hard Disk Drive 2	1 TB SATA HDD
Operating System	-	Windows 10 or Higher
Sound Card	-	Onboard
Connectivity	Network connectivity	Ethernet Gigabit 10/100/1000
	Wi-Fi Connectivity	Yes
	Bluetooth	Yes
DVD-ROM/RW Drive	-	No
Display	Display Size (Inch)	21.5

Feature	Title	Specifications
	Resolution	1920 x 1080
Keyboard	Type	Wireless
Mouse	Type	Wireless
Support	-	Drivers should be provided for further support, maintenance and freely available from OEM website
Warranty	Basic Onsite service Warranty (In Years)	1 Years

11. HDMI switcher (Quantity : 1)

Feature	Title	Specifications
Input	-	4×HDMI Type A Female HDMI 2.0
Output	-	1×HDMI Type A
	-	1×L/R audio out [3.5mm Stereo Mini-jack]
	-	1xIR INPUT [3.5mm Stereo Mini-jack] 1xRS232 [3.5mm Stereo Mini-jack]
Max data rate	-	18Gbps
I/P & O/P cable length	-	4K @ 5m & 1080P @ 15m
Output Resolution	-	Up to 4K2K@50/60Hz (YCbCr 4:4:4),4K2K@30Hz
Colour Depth	-	8-bit, 10-bit, 12-bit [1080P, 4K30Hz, 4K60Hz (YCbCr 4:2:0)], 8-bit [4K60Hz (YCbCr4:4:4)]
HDMI Compliance	-	HDMI 2.0
HDCP Compliance	-	HDCP 2.2 and HDCP 1.4
EDID	-	In-built EDID management
HDMI Audio	-	HDMI Audio PCM2.0/5.1/7.1CH, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
L/R Audio Formats	-	PCM2.0CH
Warranty	Basic Onsite OEM service Warranty (In Years)	1 Years

12.VGA Scaler switcher (Quantity : 1)

Feature	Title	Specifications
Video input	-	1xHDMI/MHL; 2xHDMI; 1xDP; 1xVGA
Video Input Connector	-	3xFemale HDMI; 1xDisplay Port; 1xFemale VGA (15-pin)
Input Video Signal	-	HDMI, DP, YPbPr, C-video, VGA
Video Output	-	1xHDMI; 1xHDBaseT

Feature	Title	Specifications
Video Output Connector	-	1xFemale HDMI; 1xRJ45
Output Video Signal	-	HDMI, HDBaseT
Output Resolution	-	1920x1200, 1920x1080, 1600x1200, 1600x900, 1360x768, 1280x800, 1280x720, 1024x768
Audio Input	-	1xstereo audio input
	-	1xstereo audio input for VGA; 1x Microphone audio
Audio Input Connector	-	2x3.5mm Stereo jacks; 1x 3-Pin phoenix connector
Audio Input Impedance	-	10k Ω
Audio Output	-	1xDual-Mono analog audio
Audio Output Connector	-	1x5-Pin phoenix connector
Audio Output Impedance	-	70 Ω
Frequency Response	-	20Hz~20K Hz
Stereo Channel Separation	-	>80dB @1KHz
Control port	-	1xIR IN; 1xIR OUT; 1xIR EYE, 1xRS232; 1xTCP/IP
Control Connector	-	3x 3.5mm mini jack; 1x 3-Pin phoenix connectors; 1xRJ45
Warranty	Basic Onsite OEM service Warranty (In Years)	1 Years

13.HDMI Scaler switcher (Quantity : 1)

Feature	Title	Specifications
Input	-	Input 3xHDMI Type A , 1xDisplay Port [female], 1xVGA [female] 1xMIC input , 5xStereo inputs
Input Resolutions	-	HDMI/DisplayPort: up to 4K2K@50/60Hz(4:4:4) YPBPR: 480i to1080p, VGA: 640x480/60 to1920x1200/60
Control interfaces	-	1xIR in [3.5mm mini jack],1xIR out [3.5mm mini jack], 1xCONTACT IN , 1xRS-232 , 1xWeb GUI [RJ45], 1xUSB Type A [5-pin female]
Output	-	1xHDMI Output Type A [19-pin female], 1xHDBaseT Out [RJ45], 1xStereo Output
Output Resolutions	-	4K2K/30,4K2K/25,1920x1080p/60, 1920x1080p/50, 1280x720p/60, 1280x720p/50,1024x768/60, 1280x800/60,1360x768/60,1400x1050/60, 1680x1050/60,1920x1200/60
Max data rate	-	18 Gbps
Transmission cable length	-	4K@5m & 1080P@15m

Feature	Title	Specifications
EDID	-	In-built EDID management
DP Compliance	-	DisplayPort 1.2a
Audio Formats	-	LPCM 2.0CH
Warranty	Basic Onsite OEM service Warranty (In Years)	1 Years

Cost should be inclusive of Cables & component Connectivity, installation of system on site, Project Documentation & Handover Report, 2 days training to staff & 1-year maintenance & implementation services