

**Sansad Television**  
**3<sup>rd</sup> Floor Talkatora Stadium Annexe Building**  
**New Delhi-110001**

No. SANSAD/Eqpt. & Tech 6(ii)/2021

18 June 2021

**TENDER NOTICE FOR SUPPLY, INSTALLATION, TESTING AND**  
**COMMISSIONING OF 144X144 SDI DIGITAL VIDEO ROUTER FOR**  
**SANSAD TELEVISION**

Sealed tenders are invited under two bid system viz. **Technical Bid and Financial Bid** from manufacturers/ authorized distributors/dealers, hereinafter referred to as agency for supply, installation, testing and commissioning of 144x144 SDI Digital Video Router for Sansad Television as per Bill of Material given in Annexure I. The equipment will be installed at Parliament Library Building, New Delhi.

2. **ELIGIBILITY CONDITIONS**

- (a) The Agency should have **Permanent Account Number (PAN)** under the Income Tax Act, 1961. A copy of the PAN card should be enclosed with the technical bid.
- (b) The Agency should have an annual turnover of Rs.1 (one) crore or above during each of the financial years 2018-19, 2019-20 and 2020-21. **Attested copies of Income Tax Returns and Balance Sheets for these financial years should be enclosed with the technical bid.**
- (c) The agency should have successfully supplied similar items to at least one TV Channel/Production House/Organization during the last two financial years. Documentary proof in this regard along with completion certificate may be given with the technical bid.
- (d) If the Agency is a consortium, a copy of MOU between the partners should be submitted with the technical bid.
- (e) The Agency should have a Letter of Authorization from Original Equipment Manufacturer (OEM) to quote against the tender and for providing after- sales support. A copy of the Letter of Authorisation should be enclosed with technical bid.
- (f) The Agency should not have been blacklisted by any government organization/PSU in the past. **A certificate to this effect should be enclosed with the technical bid.**

3. **The agency should keep the following points in view while submitting its bid:**

- 3.1. Items supplied should be of standard make and model. The model of the equipment should not be nearing obsolescence.

Contd..2/-

- 3.2 The OEM shall provide comprehensive after-sales services in India such as repairs, maintenance, supply of spare parts etc. and should be able to provide such services at short notice, irrespective of the presence of its after-sales service centres in India, at least for a period of five years. OEM shall be required to furnish a certificate to this effect.
- 3.3 Software applications/firmware supplied should be of the latest version. Upgrades to the same shall be provided during the warranty period without any financial implications.
- 3.4 Agency shall quote only for the intended product and shall not quote for an alternate product.
- 3.5 The Agency shall impart hands-on training to the professionals of Sansad TV.

#### 4. **GENERAL CONDITIONS**

- 4.1 The successful bidder will ensure that the items mentioned in **Annexure I and specification given in Technical Bid (Annexure-II)** of this tender document are supplied, installed, tested and commissioned on-site within 1 week from the date of issue of the purchase order to the full satisfaction of Sansad TV.
- 4.2 The equipment should be securely packed to withstand transportation and delivered in perfect condition.
- 4.3 The equipment shall be under warranty for a period of 12 months from the date of commissioning of the equipment or standard warranty/ guarantees provided by the OEM, whichever is for more periods.
- 4.4 The agency shall quote separately for an extended warranty for three years after expiry of the initial warranty period in Financial Bid (**Annexure-IV**).
- 4.5 The Agency will supply two printed copies of the Technical Manual/Operating Manual with each equipment. One set of test certificate of each equipment will be required to be enclosed with the shipment.
- 4.6 Only reputed industry-tested equipment and solutions with reliability will be accepted.
- 4.7 All the equipment should meet regulatory compliance, safety requirements and environmental clearances.

#### 5. **SUBMISSION OF BIDS**

- 5.1 The Agency should submit its bid in two parts, in separate covers, one containing the **Technical Bid** and the other the **Financial Bid**, superscribed accordingly. The sealed Technical and Financial bids should be placed inside a large sealed cover superscribing **“Tender for Supply, Installation, Testing and Commissioning of 144 x 144 SDI Digital Video Router for SANSAD TV”**. The tender should be addressed to Director (Sansad TV), **Sansad Television, 3<sup>rd</sup> floor, Talkatora Stadium Annexe Building, New Delhi-110001** and may be dropped in the drop box by **5:00 p.m. on or before 2 July, 2021** or may be sent by **courier/registered/speed post** so as to reach Sansad TV by **5:00 p.m. on 2 July, 2021**.

- 5.2 The **Technical Bid** should be given in proforma attached as **Annexure III** and should be accompanied by earnest money deposit of Rs. 1 (one) lakh in the form of a demand draft drawn in favour of **Drawing & Disbursing Officer, Rajya Sabha Television** payable at **New Delhi** on which no interest will be paid. Earnest money of an Agency will be forfeited if it refuses to take up the job or fails to execute the order within the specified period or if the information given by it is found to be false; or if it withdraws the bid during the validity period of the bid. Earnest money of the unsuccessful bidders will be returned after completion of the tender process. Earnest money of the successful bidder will be returned after satisfactory completion of supply, installation, testing and commissioning of 144 x 144 SDI Digital Video Router.
- 5.3 **Financial Bid** should be given in the proforma attached as **Annexure-IV**. Rate quoted should include delivery of equipment on site.
- 5.4 There should not be over-writing or correction or cutting in the bids and each page of the Technical bid as well as Financial bid should be signed by an authorized representative of the Agency.
- 5.5 Firm rates/charges should be quoted in Indian Rupees both in figures and words and should be valid for **180 days** from the date of opening of the bids. Rates and charges should be inclusive of GST and any other incidental charges.

6. **PRE-BID MEETING**

A pre-bid meeting will be held at 4 p.m. on 24 June, 2021 in the office of Sansad TV, Talkatora Stadium Annexe Building, New Delhi-110001 where the intending bidders may seek any clarifications and visit Sansad TV office to have first-hand information about the requirements of Sansad TV. The intending bidders are requested to make it convenient to attend the pre-bid meeting so that there may not be any communication gap and they are aware of the requirements of Sansad TV.

7. **OPENING OF BIDS**

Technical Bids will be opened at 4:00 p.m. on 5 July, 2021 at Sansad TV office, Talkatora Stadium Annexure Building, New Delhi 110001 in the presence of the bidders or representatives thereof, if any. Financial Bids of only such bidders will be opened who are found eligible in Technical Bid. Time and date of opening of the Financial Bids will be informed to the Agencies which are found eligible in the Technical Bid.

8. **TERMS OF PAYMENT**

- 8.1 90% payment of the total order value will be released after satisfactory completion of supply, installation, testing and commissioning of 144 x 144 SDI Digital Video Router.
- 8.2 Sansad TV will withhold 10% of the total value of the contract as performance security which will be released after a period of one year from the date of satisfactory commissioning of the equipment.

9. **REJECTION OF BIDS**

Canvassing by the bidders in any form, unsolicited letters and post tender correction may invoke summary rejection with forfeiture of EMD. Conditional tenders will be rejected. Sansad TV reserves the right to reject any or all of the bids without assigning any reason therefor.

10. **PENALTY CLAUSE**

Time is the essence of the project and the agency should stick to the prescribed time schedule. In case of late delivery, installation, testing or commissioning of the equipment the agency shall be liable to pay penalty @ 0.5% of the order value per week of delay or part thereof, up to a maximum amount of 5% of order value, after which the order is liable to be cancelled.

11. **INDEMNITY**

The successful bidder shall at all times indemnify Sansad TV towards any loss/damage caused or any claim raised against Sansad TV by any party/third party consequent to this contract. The successful bidder shall be liable, in accordance with the Indian Laws and Regulations for any accident or damage incurred or claims raised against Sansad TV during the period of delivery, installation, testing and commissioning of the equipment. The successful bidder shall also provide all insurance, including third-party insurance as may be necessary to cover the risk. No extra payment would be made to the successful bidder on this account.

12. **ARBITRATION**

All the disputes and differences arising out or in any way touching or concerning the bid shall be referred to the sole arbitrator appointed by the Sansad TV. The award of such arbitration shall be final and binding on the parties. The arbitration proceedings shall be held at New Delhi.

13. **JURISDICTION**

The Courts at New Delhi will have the sole and exclusive territorial jurisdiction over any dispute or difference in connection with this tender.

**Director (Sansad TV)**

**Bill of Material**

<b>Sl. No.</b>	<b>Item</b>	<b>Description</b>	<b>Qty</b>
1.	144X144 Matrix HD/SD- SDI Video Router	The 144X144 Router should accept HD-SDI and SD-SDI signals with all the embedded ancillary data including audio for routing and should route any of the input sources to any desired destinations	01
2.	LCD Panel remote control Panel	48 buttons with LCD Panel remote control Panel and should be connected by X-Y over Ethernet.	04
3.	Control Software	The control software application should be capable of labelling the sources and the destinations and configuration and control of various parameters of the offered Router	01
4.	Installation Material	All the Patch Panel, Patch Cords, BNC cables to connect Patch Panel to Router, Power cables, RCP connection cables and all necessary accessories to make the Router functional	01 lot

**Annexure-II**

**Technical Specification for 144x144 Matrix Video Router**

**I. ESSENTIAL FEATURES:**

- (a) The offered Routing Switcher should accept HD-SDI and SD-SDI signals with all the embedded ancillary data including audio for routing and should route any of the input sources to any desired destinations.
- (b) The offered Routing Switcher should autosense the HD-SDI and SD-SDI standard signals.
- (c) The switching should take place in vertical blanking as per SMPTE RP-168.
- (d) The router should be configurable for Transmission playback, ingest and monitoring of various sources through RCPs
- (e) Routing Switcher should be gen-locked with external reference sync signal.
- (f) The offered product shall be rack mountable and have redundant power supply unit.
- (g) The router should be controllable through Broadcast Automation system and should have Web Interface control.
- (h) The offered Routing Switcher should also be equipped with redundant cross point and redundant controller and the same must be included in the offer.
- (i) The offered router should future compatibility of Fibre Optical inputs and outputs, SDI to Fibre and Fibre to SDI routing facility, Virtual RCP support, HDMI input and output support.
- (j) The Routing Switcher has to be offered with multi bus (X-Y) remote control panels.
- (k) Each of the single bus RCPs should have dedicated button per input source. Further, the offered multi bus (X-Y) RCP should have dedicated buttons for destinations also.
- (l) There should be visual indication on all the RCPs regarding the information of the selected source and the destination.

- (m) All the RCPs should be interconnected by suitable interface with the main electronics via data interface such as S-bus, IP/Ethernet as RS-232/422 etc. either in a daisy chain or directly from the main electronics for various control locations.
- (n) Cable length between RCP and mainframe can go up to 100 meters. The bidder should also quote for necessary control cable with matching connectors at both ends.
- (o) The Routing Switcher should have non-volatile storage facility for control information, so that in case of power supply failure, the status of the switcher output should remain unchanged when the power is restored.
- (p) The offer should include a control software application to enable the testing, alignment, remote monitoring, configuration and control of various parameters of the offered Routing Switcher. The necessary hardware and software interface required for the purpose should be offered **essentially**, if it is not the part of standard configuration.
- (q) The offered control software application should be capable of labelling the sources and the destinations with alpha numeric characters through a suitable GUI.
- (r) The offered router must be compatible with Imagine Automation ADC100

II. The offered Routing Switcher has to be complied for the following technical specifications:

(i) **Router Main Frame Technical Specification**

<b>TECHNICAL SPECIFICATIONS OF 144x144 SDI VIDEO ROUTER</b>		
I.	INPUT:	
1	Number of Video Input:	144 No.
2	Input connector:	HD-BNC/Mini BNC, 75 Ohm
3	Input impedance:	75 Ohm
4	Signal Type supported:	SMPTE 424M, SMPTE 292M, SMPTE 259M, SMPTE 344M, DVB-ASI
5	Equalization:	Automatic cable equalisation for:
		550 mtr for 270 Mb/s data rate
		250 mtr for 1.485 Gb/s data rate
		150 mtr for 2.97Gb/s data rate
6	Reference Input	PAL Black & Burst or Tri-level on BNC
II.	OUTPUT:	
1	Number of Video output:	144 No.
2	Output connector:	HD-BNC/Mini BNC, 75 Ohm
3	Output Impedance:	75 Ohm
4	Signal type supported:	SMPTE 424M, SMPTE 292M, SMPTE 259M, SMPTE 344M, DVB-ASI
5	Return Loss:	>15dB up to 1.485 GHz >10dB, 1.485 to 2.97 GHz.
6	Signal Amplitude:	800mV +/- 10%
7	DC offset:	0V +/- 0.5V

8	Rise Time :	270 Mb/s : 400-800pS
		1.485 Gb/s : <135pS
		2.97Gb/s : <135 pS
9	Fall Time:	270 Mb/s : 400-800pS
		1.485 Gb/s : <135pS
		2.97Gb/s : <135 pS
10	Jitter :	270 Mb/s & 1.485 Gb/s : < 0.2 UI relocked
		2.97 Gb/s : < 0.3 UI relocked
III.	GENERAL :	
1	Size	4 RU or less
2	Weight:	Not exceeding 10 Kg.
3	Matrix size	144X144
4	Number of modules:	6 No (24X24).
5	Resource/Cross point module:	2 No.
6	Power supply module:	2 No, dual redundant power supply.
7	Fan module	2 No.
8	Power source:	230 Volt, single phase, three wire.
9	Operating condition:	Temperature: 25 Degree C, normal, 45 Degree C-Max.
		Humidity: 70%RH normal & 85% RH Max.

**(ii) LCD Panel remote control Panel**

Multi Bus RCP for Router Switching with Assignable Buttons for different Sources and Destination and Programmable Buttons for different functions.

**(iii) Control Software**

All the necessary software required for the proper working of the system is to be supplied in the original and should be licensed to Rajya Sabha Television with perpetual validity.

**(iv) Installation Material**

All the Patch Panel, Patch Cords, BNC cables to connect Patch Panel to Router, Power cables, RCP connection cables and all necessary accessories to make the Router functional



**TENDER NOTICE FOR SUPPLY, INSTALLATION, TESTING AND  
COMMISSIONING OF 144 X 144 SDI DIGITAL VIDEO ROUTER FOR SANSAD TV**

**TECHNICAL BID DOCUMENT**

<b>Sl. No.</b>	<b>Description</b>
1.	Name of the Tender Firm/Agency/Company :
2.	Postal Address of the Tenderer Firm/Agency/Company:
3.	Details of the contact person of the Tendering Firm/Agency/Company:  (a) Name of the Authorized Person:  (b) Tele. No. with STD (O) (FAX) :  (c) Mobile No :  (d) E-mail :  (e) Website :
4.	Name of Proprietor/Partners/Directors of the firm/agency:
5.	Registration and incorporation particulars of firm : (Please attach copies of the relevant documents/certificates)
6.	GST registration details : (Please attach copies of the relevant documents/certificates)
7.	Permanent Account Number from Income Tax Department (PAN/Income Tax Circle/TIN) : (Please attach copies of the relevant documents/certificates)

8.	<p>Annual Turnover of the agency : (please attach certified copies of Income Tax Returns, Profit and Loss A/C and Balance Sheets for the relevant period)</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: left; width: 40%;"><b><u>Financial Year</u></b></td> <td style="text-align: right; width: 60%;"><b><u>Turnover</u></b></td> </tr> <tr> <td style="padding-top: 10px;">(a) 2018-19</td> <td style="text-align: right; padding-top: 10px;">Rs.-----</td> </tr> <tr> <td style="padding-top: 10px;">(b) 2019-20</td> <td style="text-align: right; padding-top: 10px;">Rs.-----</td> </tr> <tr> <td style="padding-top: 10px;">(c) 2020-21</td> <td style="text-align: right; padding-top: 10px;">Rs.....</td> </tr> </table>	<b><u>Financial Year</u></b>	<b><u>Turnover</u></b>	(a) 2018-19	Rs.-----	(b) 2019-20	Rs.-----	(c) 2020-21	Rs.....												
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(c) 2020-21	Rs.....																				
9.	<p>Details of supply of similar products to TV Channel/Production House/Organization during the last two financial years :</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 8%;">Sl. No.</th> <th style="width: 25%;">Name &amp; Address</th> <th style="width: 25%;">The period during which the equipment was supplied</th> <th style="width: 15%;">Value of equipment supplied in Rupees</th> <th style="width: 27%;">Remarks, If any</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td style="text-align: center;">2018-19</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">2019-20</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">2020-21</td> <td></td> <td></td> </tr> </tbody> </table>	Sl. No.	Name & Address	The period during which the equipment was supplied	Value of equipment supplied in Rupees	Remarks, If any			2018-19					2019-20					2020-21		
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		2018-19																			
		2019-20																			
		2020-21																			
10.	<p>Details of the Earnest Money Deposit :</p> <p>(a) Name of the Bank :</p> <p>(b) Demand Draft No. :</p> <p>(c) Value of the Demand Draft :</p> <p>(d) Demand Draft drawn in favour of :</p>																				

11. Technical specifications of the items required are given in column (3) of the following table:

<b>144x144 Matrix Video Router</b>			
<b>(1) Sl. No</b>	<b>(2) Parameter</b>	<b>(3) Technical Specification</b>	<b>(4) Whether the item proposed to be supplied has specifications as given in column (3). Write Yes or No.</b>
1	Number of Video Input:	144 No.	
2	Input connector:	HD-BNC/Mini BNC, 75 Ohm	
3	Input impedance:	75 Ohm	
4	Signal Type supported:	SMPTE 424M, SMPTE 292M, SMPTE 259M, SMPTE 344M, DVB-ASI	
5	Equalization:	Automatic cable equalisation for 550 mtr for 270 Mb/s data rate 250 mtr for 1.485 Gb/s data rate 150 mtr for 2.97Gb/s data rate	
6	Reference Input	PAL Black & Burst or Tri- level on BNC	
II.	OUTPUT:		
1	Number of Video output:	144 No.	
2	Output connector:	HD-BNC/Mini BNC, 75 Ohm	
3	Output Impedance:	75ohms	
4	Signal type supported:	SMPTE 424M, SMPTE 292M, SMPTE 259M,	
	Return Loss:	SMPTE 344M, DVB-ASI	
5		>15dB up to 1.485 GHz >10dB, 1.485 to 2.97 GHz.	
6	Signal Amplitude:	800mV +/- 10%	
7	DC offset:	0V +/- 0.5V	
8	Rise Time :	270 Mb/s : 400-800pS 1.485 Gb/s : <135pS 2.97Gb/s : <135 pS	
9	Fall Time:	270 Mb/s : 400-800pS 1.485 Gb/s : <135pS 2.97Gb/s : <135 pS	
10	Jitter :	270 Mb/s & 1.485 Gb/s : < 0.2 UI relocked 2.97 Gb/s: < 0.3 UI relocked	
III	GENERAL :		
1	Size	4 RU or less	
2	Weight:	Not exceeding 10 Kg.	
3	Matrix size	144X144	
4	Number of modules:	6 No (24X24).	
5	Resource/Cross point module:	2 No.	
6	Power supply module:	2 No, dual redundant power supply.	
7	Fan module	2 No.	
8	Power source:	230 Volt, single phase, three wire.	

9	Operating condition:	Temperature : 25 Deg C, normal, 45 deg C-Max.	
		Humidity : 70%RH normal & 85% RH Max.	

(ii)	<b>LCD Panel remote control Panel</b>	Multi Bus RCP for Router Switching with Assignable Buttons for different Sources and Destination and Programmable Buttons for different functions.	
(iii)	<b>Control Software</b>	All the necessary software required for the proper working of the system is to be supplied in the original and should be licensed to Rajya Sabha Television with perpetual validity.	
(iv)	<b>Installation Material</b>	All the Patch Panel, Patch Cords, BNC cables to connect Patch Panel to Router, Power cables, RCP connection cables and all necessary accessories to make the Router functional	

*(It may be specifically indicated in column (4) of the table whether the agency will undertake supply, installation, testing and commissioning of 144 x 144 Matrix Video Router (as per specifications) for Sansad Television)*

### Certificate

**It is certified :**

- (i) That I/we have gone through and understood the requirements given in the Tender Notice No. No. SANSAD/Eqpt. & Tech 6(ii)/2021 dated 18 June, 2021 and rates have been quoted accordingly.
- (ii) That the terms and conditions given in the tender notice are acceptable to me/us.
- (iii) That the information furnished by me/us is true and correct.
- (iv) That the agency has not been blacklisted by any Government organization/department.

**Dated:----- June, 2021**

**Name and Address of the firm**

**Signature of the Authorised Signatory & Seal of the firm.**

**TENDER NOTICE FOR SUPPLY, INSTALLATION, TESTING AND  
COMMISSIONING OF 64 X 64 MATRIX VIDEO ROUTER FOR**

**FINANCIAL BID DOCUMENT**

(1) Sl. No	(2) Item Description		(3) Rate in Rs. (per unit) (excluding GST)	(4) Qty	(5) Total amount in Rs. (Col. 3 x (Col. 4)
1.	144X144 Matrix HD/SD-SDI Video Router	The 144X144 Router should accept HD-SDI and SD-SDI signals with all the embedded ancillary data including audio for routing and should route any of the input sources to any desired destinations		01	
2.	LCD Panel remote control Panel	48 buttons with LCD Panel remote control Panel and should be connected by X-Y over Ethernet.		04	
3.	Control Software	The control software application should be capable of labelling the sources and the destinations and configuration and control of various parameters of the offered Router		01	
4.	Installation Material	All the Patch Panel, Patch Cords, BNC cables to connect Patch Panel to Router, Power cables, RCP connection cables and all necessary accessories to make the Router functional		1lot	
<b>Total</b>					
5	Cost of extended warranty after the expiry of the standard warranty period			03 years	
<b>Grand Total</b>					

**It is undertaken that :**

- (i) The above rates are including applicable taxes.
- (ii) The above-quoted rates shall remain valid for 180 days from the date of opening of the financial bid.

Dated: -----

Name and Address of the firm

**Signature of the Authorised Signatory and Seal of the Firm**