

PRASAR BHARTI
(India's Public Service Broadcaster)
Directorate general of Doordarshan
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New Delhi -110001.

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Subject: Draft Technical specifications for Supply of Audio-Video Monitor System for Earth Station for 11 Locations.

Draft technical specification of the upcoming tender is enclosed herewith for comments from OEMs and bidders. Comments if any, may be sent by email at ddpurchase401@yahoo.co.in or on following Address:

Assistant Engineer
Room No. 403,
Directorate General: Doordarshan,
Doordarshan Bhawan,
Copernicus Marg,
New Delhi -110001 (India)
Telephone: 011- **2311 4401**

Specification For: Draft Technical specifications for Supply of Audio-Video Monitor System for Earth Station for 11 Locations.

Specification No.: SATD/ES_11 No. Audio Video Monitors/MAY_2020
Date: 29/07/2020

Due Date to offer Comments: 21.08.2019

Encl.: As above (25 Pages)

Prabhat Kumar Singh
Assistant Engineer

Prasar Bharati
Directorate General: Doordarshan
Doordarshan Bhawan: Copernicus Marg
New Delhi-110001

Specification for
"Supply of Audio-Video Monitor system
For Earth Station for 11 Locations"

Specification No.: SATD/ES_11 No. Audio Video Monitors/MAY_2020

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Technical Specifications for Supply of Audio-Video Monitor system for Earth Station at 11 Locations” (Jalandhar, Shimla, Ahmedabad, Bhopal, Bhubaneshwar, Chennai, Jaipur, Jammu, Kolkata, Lucknow, Thiruvananthapuram)

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1. Introduction :

This document lays down technical specifications for “Supply of Audio Video Monitor system for Digital Earth Station at 11 Locations” namely Jalandhar, Shimla, Ahmedabad, Bhopal, Bhubaneswar, Chennai, Jaipur, Jammu, Kolkata, Lucknow and Thiruvananthapuram.

2. Scope :

- 2.1 The scope of the tender shall include “Supply of Audio Video Monitor system for Digital Earth Station at 11 Locations” namely Jalandhar, Shimla, Ahmedabad, Bhopal, Bhubaneswar, Chennai, Jaipur, Jammu, Kolkata, Lucknow and Thiruvananthapuram for Monitoring of video and **Multichannel** audio from multiple sources and metering of a variety of input options and to be used for confidence level monitoring in transmission chain at various points.
- 2.2 The offered system shall meet the International standards for digital satellite broadcasting.
- 2.3 The offered system would also include the standard accessories supplied by the Manufacturer along with the items mentioned in para 2.1

3. Eligibility Criteria :

The Bidder and original equipment manufacturer (OEM) shall have to meet the following eligibility criteria:-

- 3.1 The bidder should be the original equipment manufacturer (OEM) of Audio Video Monitor System or their authorized representative/dealer in India.
- 3.2 Bidders shall offer Audio Video Monitor system of only those OEMs who are having past experience of at least Five years of manufacturing and supplying **similar** Audio Video Monitor system.
- 3.3 OEM should meet the following eligibility criteria:
 - 3.3.1 The OEM of Audio Video Monitor system must have experience of Supplying at least **25 sets or more** of offered Audio Video Monitor system in the past **five** years.

- 3.3.2 Copies of supply order and receipt certificates/delivery challans/dispatch certificates in respect of above said quantities of offered Audio Video Monitor system in the preceding past five year should essentially be submitted along with the bid document.
- 3.4 If the offered solution is a combination of professional grade, broadcast quality integrated receiver/Decoder (IRD) and professional grade, broadcast quality Audio Video Monitor, then the above Eligibility Criteria clause no. 3.3.1 and 3.3.2 are applicable for OEMs of both equipment i.e. integrated receiver/Decoder (IRD) and Audio Video Monitor. So it is mandatory to submit the documents required for the said paras for both equipment from their respective OEMs separately.
- 3.5 In case bidder is the authorized representative/dealer of Audio Video Monitor system in India, it should be in the business of sales and supply of Broadcast Equipment for at least past three years. Copies of orders and completion certificates/delivery challans/dispatch certificates to support this must be provided.
- 3.6 The bidder must have his local office/authorized representative/dealer in India for after sales support.
- 3.7 The cutoff date for the experience shall be the date of NIT.

4. General Requirements:

- 4.1 The bidder shall submit only one solution (Single BOM) for the offered system. Bid with multiple options against any requirement is liable to be rejected.
- 4.2 The project will consist of Supply of the Audio Video Monitor system at Jalandhar, Shimla, Ahmedabad, Bhopal, Bhubaneswar, Chennai, Jaipur, Jammu, Kolkata, Lucknow and Thiruvananthapuram as detailed at Clause No. 2, Scope of Tender.
- 4.3 Each and every offered equipment and accessories including software should be from internationally reputed manufacturer and the quoted model should be of high class, high MTBF, field proven and in use by leading broadcasters/organizations in various continents of the World. Any customized product which is not field proven in the industry will not be acceptable.
- 4.4 All software being offered, are to be licensed to Doordarshan on perpetual basis without specifying any time limit or without specifying any end of life of the software. Software upgrades within warranty period will have to be supplied free of cost.

- 4.5 For facilitating maintenance issues, bidder must also submit firm's self certified copies of Custom Invoice of all imported items to DG: DD for release of PBG.
- 4.6 The installation, testing and commissioning of the equipment supplied at site will be done by Doordarshan as per procedure laid down in the installation manual of respective equipment. The installation manual should also include list of Do's & Don'ts and step by step procedure for configuration etc. Bidder must submit copy of the installation manual along with the bid.
- 4.7 Inspection and Testing:
- 4.7.1 The Audio Video Monitor system shall be installed, configured, tested and commissioned at site by Doordarshan as per the instructions contained in the manufacturer's installation manual.
- 4.7.2 However, the local representative of the OEM/bidder shall also be responsible for resolving any issues related to hardware, softwares, license and configuration of the Audio Video Monitor system.
- 4.7.3 If required, local representative of the OEM/bidder shall resolve issues related to hardware, softwares, license and configuration through OEM(s).
- 4.8 In the process of technical evaluation Doordarshan can ask for any clarification/ query as required through e-mail/FAX/Post etc, which shall be treated as a part of tender and invariably attended and replied by the bidder within the time stipulated therein.
- 4.9 Bidder may have to demonstrate the features of equipment offered as and when asked as part of technical evaluation of Tender. However, it will not bestow any right of acceptance of the bid.
- 4.10 Cross reference in respect of supporting documents, should be given with proper page number and volume no. etc. If required Doordarshan may also ask for any other supporting document to ascertain the claim of bidder and their OEM.
- 4.11 The successful bidder along with OEM will be responsible for providing after sales support of all the offered items as per para 8.3.
- 4.12 The bidder must have his local office/authorized representative/dealer in India for after sales support. The local office/authorized representative/dealer in India will be nodal point for resolving issues, related to configuration, testing and after sales support of the equipment. Details of the local office/authorized representative/dealer in India including its locations are to be provided along with bid.
- 4.13 If required, bidder may have to give a presentation to explain their technical offer within one week from the date of issue of letter, as part of technical evaluation.

4.14 If the offered solution is a combination of professional grade, broadcast quality integrated receiver/Decoder (IRD) and professional grade, broadcast quality Audio Video Monitor, then the above paras are also applicable for OEM of integrated receiver/Decoder (IRD).

5. Audio Video monitor System

A. Features:

- i) The offered solution can be a standalone unit of professional grade, broadcast quality Audio Video Monitor System with two inbuilt screens or may be a combination of professional grade, broadcast quality integrated receiver/Decoder (IRD) of 1 RU and professional grade, broadcast quality Audio Video Monitor with two inbuilt screens.

If offered with integrated receiver/Decoder, the bidder should ensure that the technical specs and feature of the integrated receiver/Decoder along with Audio video monitor should meet all requirement stipulated in the technical specifications and technical specifications of the combined unit should be at par with that of the stand alone Audio Video Monitor System. The offered Audio video monitor system should not compromise (in any way) with any technical parameter quality during confidence level monitoring in transmission chain.

- ii) The offered Audio Video Monitor system should be equipped with Monitoring of video and **Multichannel** audio from multiple sources and metering of a variety of input combination options and to be used for confidence level monitoring in transmission chain at various points.
- iii) The offered solution should be capable to monitor the digital HD-SDI, SD-SDI, SD-SDI with Embedded Audio, HD-SDI with Embedded Audio (all on BNC).
- iv) The offered solution should be capable to monitor the MPEG-2 TS over ASI (MPTS and SPTS) (on BNC) and MPEG-2 TS over IP (MPTS and SPTS) (on Gigabit Ethernet/RJ 45) with multiple services filtering facility and decryption of META DATA.
- v) It should be capable to monitor the standard Video Resolution HD-SDI and SD-SDI video.
- vi) The offered solution should be capable to monitor HD/SD-SDI video compressed in standard MPEG-2 and H.264/MPEG-4 AVC formats, so must have required Decompression/Codecs licenses.

- vii) The offered solution should be capable to monitor all the standard MPEG-1 Layer-II audio, Dolby Digital (AC-3) 5.1 Audio, Dolby Digital plus 5.1 Audio (E-AC-3), Dolby E Audio, so must have required Decompression/Codecs licenses.
- viii) The offered Audio/Video monitor should have high resolution LCD/LED/OLED screen and support (HD-SDI) and (SD-SDI) video formats.
- ix) It should decode and display up to 16 channel multi format audio simultaneously like Dolby E, Dolby Digital (AC-3) 5.1 audio, Dolby digital plus 5.1 audio, AES/EBU stereo channel, analogue stereo audio channel for monitoring and metering.
- x) It should have multi-channel (min 16) audio bar graph and speakers and should not be overlaid on the video.
- xi) It should have facility to select any one audio channel for confidence level monitoring through high quality internal stereo loudspeakers.
- xii) It should be 19" rack mountable and have facility to monitor loudness and save minimum 5 preset configurations.
- xiii) It should have Headphone output with loudspeaker mute.
- xiv) It should have Multi channel outputs for external stereo or 5.1 loudspeaker system integration.
- xv) It should have Front panel controls and indicators.
- xvi) It must have phase indication.
- xvii) It should have APIs for remote control, allows integration with control systems, managing sources effectively.
- xviii) It should have the capability to monitor the inputs in any of the following combination (at a time anyone).

Table : 1

| S. No. | Combination of Input Port | |
|--------|---|---|
| | Input 1 | Input 2 |
| 1 | SD/HD SDI (with Embedded Audio) - One No. | SD/HD SDI (with Embedded Audio) - One No. |
| 2 | SD/HD SDI(with Embedded Audio) - One No. | ASI on BNC- One No. |
| 3 | SD/HD SDI(with Embedded Audio) - One No. | ASI over IP on RJ-45- One No. |

| | | |
|---|-------------------------------|-------------------------------|
| 4 | ASI on BNC – One No. | ASI on BNC -One No. |
| 5 | ASI on BNC- One No. | ASI over IP on RJ-45- One No. |
| 6 | ASI over IP on RJ-45- One No. | ASI over IP on RJ-45- One No. |

- xix) All the requisite drivers, softwares Codecs and licenses required for meeting the DD specifications must necessarily be pre-loaded and configured by the OEM before supplying equipment to DD.
- xx) If offered solution consists of audio video monitor plus IRD, then each unit of the combination must have adequate numbers of input & output ports and Ethernet ports to meet DD technical specifications requirement of Input and output ports along with type of connectors mentioned below at B.4, B.5 and B.6.

B. Technical Specifications:

| Sl. No. | Parameters | Specifications |
|-----------|--|---|
| 1 | DIGITAL VIDEO INPUTS FORMAT | |
| i | HD-SDI Serial Interface | SMPTE 292M-1485 Mbps |
| ii | SD-SDI Serial Interface | SMPTE 259M-(10 bit) 270 Mbps |
| iii | SD-SDI with Embedded Audio | SMPTE 272M |
| iv | HD-SDI with Embedded Audio | SMPTE 299 M |
| 2. | DIGITAL AUDIO INPUTS | |
| i | Embedded Audio on SDI | i) Stereo AES/EBU or AES3 id ii) Dolby Digital (AC-3) 5.1 Audio iii) Dolby Digital Plus 5.1 Audio (E-AC-3) iv) Dolby E |
| 3. | TS INPUT FORMAT | |
| i | ASI and IP Input Transport Stream | 1-MPEG-2 TS over IP (MPTS and SPTS) on Ethernet. 2-MPEG-2 TS over ASI on BNC. |
| ii | Video Compression format support on TS Input | MPEG-2 and H.264/MPEG-4 AVC |
| iii | Audio Compression Format support on TS Input | i) MPEG-1 layer II ii) Dolby Digital 5.1 AC-3 audio iii) Dolby Digital plus 5.1 Audio (E-AC-3) iv) Dolby E |

| | | |
|-----------|--|---|
| 4. | INPUT PORTS | |
| i | Video inputs quantity & type | <p>i) Minimum two nos. autosensing HD/SD-SDI, HD/SD-SDI with embedded audio, MPEG-2 TS over ASI in BNC/MINI BNC, 75 ohms.</p> <p>ii) Minimum two nos. MPEG-2 TS over IP (MPTS and SPTS) on Gigabit Ethernet/RJ 45</p> <p>These two nos. BNC/Mini or HD BNC input port and two nos. Gigabit Ethernet/RJ45 should be usable in any of the combination mentioned above in Table-1 from sl. no. 1 to sl. no.6 (at a time anyone).</p> |
| ii | Audio Inputs quantity and type | <p>Min. 8 x Balanced Analogue Audio Input</p> <p>Min. 4 unbalanced AES pairs</p> |
| iii | USB port for Loading and Saving of Configurations and Software Updates | Min. One No. USB Port |
| 5 | OUTPUT PORTS | |
| i | Video Outputs | Min. 1 HD/SD-SDI re-clocked with embedded audio BNC/MINI BNC, 75 ohms. |
| ii | Audio Outputs | <p>8 Balanced analogue</p> <p>4 unbalanced AES pairs</p> <p>5.1 DOLBY output</p> |
| iii | Computer Interface for remote access | <p>a) Ethernet Connectivity /RJ45 Minimum one no. for standalone Audio video monitor system.</p> <p>b) Audio video monitor and IRD both must have Ethernet Connectivity /RJ45 Minimum one no. if offered in combination.</p> |

| | | |
|-----------|--|--|
| 6 | CONNECTOR TYPE | |
| i | Audio Input and Audio Output | a) Analogue audio: XLR/D-type (with breakout cables for XLR) b) Unbalanced AES audio: BNC 75 Ohms. c) 3G/HD/SD-SDI with embedded audio: BNC/MINI BNC, 75 ohms. |
| ii | Video Input and Video Output | HD/SD-SDI, HD/SD-SDI with embedded audio: BNC/MINI BNC, 75 ohms |
| iii | TS Input | MPEG-2 TS over ASI: BNC 75 Ohm MPEG-2 TS over IP: Ethernet/RJ 45 |
| 7. | GENERAL SPECIFICATION - | |
| i | AES and SDI termination | 75 ohm unbalance |
| ii | Level meter scaling | AES/EBU, VU |
| iii | Level meter Parameter | Threshold, Reference, limits |
| iv | Display Screen type & size | Min. Two Nos. LCD/LED/OLED, min 3.4 inch (diagonal) |
| v | Sample rate for Digital input | 48KHz |
| vi | Analogue O/P a) Frequency Response b) Noise + THD | ±1dB (80Hz to 20KHz) Better than -60dB w.r.t. max O/P |
| vii | Peak acoustic output at 2 feet | 98 dB SPL or better |
| viii | No. of Audio display | 16 channels (audio bars) |
| 8 | Audio and Video Decompression Parameters | |
| a | Audio Decompression Type | i) MPEG-1 Layer-II audio ii) Dolby Digital (AC-3) 5.1 Audio iii) Dolby Digital plus 5.1 Audio (E-AC-3) iv) Dolby E |
| b | Video Decompression Type | i) SD MPEG-2, MP@ML, 4:2:0 ii) SD H.264 /AVC MPEG-4, MP@L3, 4:2:0 iii) HD H.264/AVC MPEG-4,MP@Level 4.0, 4:2:0 |
| c | Video Resolution (all resolutions shall be capable of I, P & B frame decoding, other standard solution should be selectable) | i) For SDTV 720 X 576 544 X 576 480 X 576 ii) For HDTV 1920x1080 1440x1080 |

6. General Physical, Environmental & Mechanical Specifications

Following specification is to be followed if not mentioned elsewhere in this document:

6.1 Power Supply

Equipment shall operate from a wide range of power supply voltages without interruption or damage.

| Parameter | Specification |
|---------------------------|---|
| (a) Voltage Range Adapter | : 220/240 V AC nominal, (at input, if an external AC to DC power adapter is used) |
| (b) Frequency | : (50 Hz Nominal) |

6.2 Environmental Specifications

| Parameter | Specification |
|---|----------------------------|
| a) Operating Temperature (Indoor) | : 0°C to 40°C |
| b) Operating Temperature (Outdoor door) | : - 10°C to 50°C |
| c) Storage Temperature | : -20°C to 60°C |
| d) Humidity (Indoor) | : 0 to 85% non- Condensing |
| e) Humidity (Outdoor) | : 0 to 100% |
| f) Altitude | : 0 to 2000 m |

6.3 Mechanical Specifications

Indoor equipment shall be rack mounted.

| Parameter | Specification |
|-----------------|--|
| a) Construction | : Modular approach, EIA RS-310C, 19" rack-mount. |

7. Complement of Equipment:

- 7.1 The make and model/part no. of each and every equipment/ item etc. should be clearly mentioned in the offered Bill of Material (BoM).
- 7.2 The suggestive Bill of Material (BOM) has been provided in **Annexure-I**. The bidder is required to provide the complete list of equipment, software and accessories etc. offered to meet the specifications requirement. The quantity of each item including sub-module etc. are to be specified clearly and compulsorily, failing which the bid is liable to be rejected summarily. The following is the Proforma for the BOM:

| Sl. No. | Description of Item as per Specification (Suggestive BOM) | Description of Item as offered by the Bidder | Qty. per site | Total quantity as per Suggestive BOM | Make | Model |
|---------|---|--|---------------|--------------------------------------|------|-------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | | | | | | |
| | | | | | | |

- 7.3 Any substandard equipment included in the offer may result into the rejection of complete offer with the sole responsibility of bidder.
- 7.4 The offer should also include the detailed technical brochure and technical manual containing all the technical specifications of all the offered equipment, accessories, and software etc.
- 7.5 General specifications applicable to all equipment wherever applicable have been given in Clause No. 6.

8. General

8.1 Compliance and Authorization:-

- 8.1.1 The bidder must submit a point-by-point compliance statement in respect of all the points, sub-points and paras laid down in this specification from page 1 onwards along with the offer.
- 8.1.2 In addition to the above, compliance from the OEM (not from representatives) in respect of the offered Audio Video Monitor System (if offered stand alone) necessarily be given on their letter heads, with reference to the points, sub-points and paras laid down in the technical specifications.

8.1.2.A) In case of the offered Audio video monitor system (Audio video monitor and IRD), compliance from the OEM of Audio video monitor necessarily be given on their letter heads, with reference to the points, sub-points and paras laid down in the technical specifications along with mention of remarks in the remarks column, where it meets the technical specification requirement in combination with the offered IRD.

8.1.2.B) In case of the offered Audio video monitor system(Audio video monitor and IRD), Compliance from OEM (not from representatives) of professional grade, broadcast quality integrated receiver/Decoder (IRD) necessarily be given on their letter heads, with reference to the paras 2.2, 2.3,3.2, 3.3, 4.3, 4.4, 4.6, 4.7.1, 4.7.2, 4.7.3, 4.10, 4.11, 5.A.i, 5.A.ii, 5.A.iv, 5.A.iv, 5.A.vii, 5.A.xvii, [and for para 5.A.xviii Table1 Sr No 2,3,4,5,6 (either alone or along with offered audio Video Monitor)],5.B.3.i, 5.B.3.ii, 5.B.3.iii, 5.B.4.i, 5.B.4.iv, 5.B.5.iii, 5.B.6.ii, [5.B.7.ii, 5.B.7.iii, 5.B.7.v, 5.B.7.vii, 5.B.7.viii (either alone or along with offered audio Video Monitor)]. 5.B.8.a, 5.B.8.b, 5.B.8.c. 6.1, 6.2, 6.3. 7.3, 7.4, 8.1.2.B, 8.1.3, 8.1.4, 8.1.5, 8.1.6, 8.1.7, 8.1.8, 8.1.9. (8.3.1,2,3,4,5,7), 8.4.3.

8.1.3 The OEM's authorization (not from representative) in respect of Audio Video Monitor system should also be given on their letter heads along with bid as per Annexure II.

In case of the offered Audio video monitor system (Audio video monitor and IRD), the OEM's authorization (not from representative) in respect of both Audio Video Monitor and IRD from the respective OEMs should also be given on their letter heads along with bid as per Annexure II.

8.1.4 Mere signature on a copy of Doordarshan specifications shall not be accepted as a compliance statement.

8.1.5 Compliance statement in the format as indicated below shall only be accepted.

| DD specs. Sr. No. of | DD Specs. | es/(No) Compliance | ment Performance | of non- Deviation, liance | Optional items if any required to make the system Compliant | red Features in the | Page No. | Remarks |
|----------------------|-----------|--------------------|------------------|---------------------------------|--|---------------------|----------|---------|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |

- 8.1.6 The manufacturer should also record the performance figures of the equipment offered/ solution in the quote for which the compliance statement is enclosed.
- 8.1.7 The compliance statement should be supported by highlighted record of these in the technical literature/data sheets enclosed with the tender and a clear reference to the attached supporting document should be given in the remarks column against each & every specs. Any offer without proper supporting document of each & every specs and containing only a commercial hand out/pamphlet is liable to be rejected.
- 8.1.8 Data sheets should be submitted in respect of all offered equipment. Any deviation from the specification detailed in the compliance statement is to be highlighted separately. Page no. of location of data sheet should be given in page no. column above.
- 8.1.9 Offers without proper & duly completed compliance statement are likely to be rejected with the sole responsibility of bidder and no further claim/ correspondence will be entertained.

8.2 Documentation

- 8.2.1 One set of technical manual for all offered equipment (Audio video monitor and IRD both, if offered in combination) are to be provided along with the tender to facilitate the technical evaluation, otherwise the tender is liable to be ignored.
- 8.2.2 The successful bidder will have to supply set of printed technical manuals and installation manual along with factory test report for all offered equipment (Audio video monitor and IRD both, if offered in combination).
- 8.2.3 Technical Manual and installation for all offered equipment (Audio video monitor and IRD both, if offered in combination) should also be supplied on SATA III (or better) SSD (120 GB or more) with search facility.
- 8.2.4 All offered software should have perpetual validity and should be in the name of Doordarshan. All software backups should also be supplied on SATA III (or better) SSD (120 GB or more).
- 8.2.5 For facilitating maintenance issues, the bidder must submit the firm's self certified copies of Bill of Entry/Bill of Laden/Custom Invoice of all imported items to DG: DD at the time of release of PBG.

8.3 Guarantee

- 8.3.1 The respective manufacturer/manufacturers shall guarantee satisfactory working of the offered solution without any fault and defect for three years from the date of receipt of last accepted consignment.
- 8.3.2 Any defect or failure of any module/equipment during the guarantee period shall be repaired/replaced free of charge by the successful bidder at site. For repairing of any defective module/equipment during guarantee period, the defective module or equipment requiring repairs will be handed over to local office/local authorized representative/ dealer who will arrange repairs locally at site or send/export the defective modules to OEM factory and re-import/send back after repairs.
- 8.3.3 It is the responsibility of local office/ Authorized representative/ dealer of the bidder to arrange the repair/ replacement of faulty items for Doordarshan i.e. transportation charges would not be paid by DD for transporting the defective/ repaired items, if required to be removed from site, during the guarantee period.
- 8.3.4 Guarantee period may be extended corresponding to the outage period if the failure rectification takes more than 15 working day's time.
- 8.3.5 Bidder shall provide the guarantee/warranty through the respective OEM/OEMs for the offered solution. In case of the offered audio video monitor System, a certificate duly signed by the OEM on the OEM's letterhead, must be submitted with the offer by the bidder in the format as prescribed in Annexure III.
- In case of the offered audio video monitor system (Audio video monitor and IRD both, if offered in combination) duly signed certificate by the OEM of the audio video monitor and OEM of the IRD on their respective letter heads, must be submitted with the offer by the bidder in the format as prescribed in Annexure III.
- 8.3.6 The successful bidder will be responsible for providing after sales service support of all the offered equipment for Five years from the date of receipt of last accepted consignment including three (3) years warranty period. The bidder must submit undertaking for providing after sales service support for additional Two (2) years after the end of warranty period along with bid.

8.3.7 If bidder is not the OEM of the offered solution, then after sales service support for additional 2 (TWO) years for the repairs/maintenance of Audio Video Monitor system (Audio video monitor and IRD both, if offered in combination) after the completion of guarantee/warranty period shall also be provided by the respective OEMs either directly or through his representative in India. In this regard a certificate, duly signed by the respective OEMs (Audio video monitor and IRD both, if offered in combination) on the letterhead, must be submitted with the offer by the bidder in the format as prescribed in Annexure IV.

8.4 Inspection:

8.4.1. All the equipment to be supplied against the supply order for this tender shall be subjected to inspection in India by Doordarshan before acceptance of the equipment. The successful bidder should produce the factory test reports of all the offered equipment to facilitate inspection.

8.4.2. The inspection of the equipment will be carried out by a team of Doordarshan based on approved Acceptance Test procedure (ATP). A copy of ATP (Acceptance Test procedure) must be submitted by the bidder within one month of issue of A/T (Acceptance of Tender) for approval by Doordarshan. ATP should describe the standard test procedure of individual equipment. The factory test report will not be treated as ATP. The accepted ATP/ approved ATP with or without changes shall be sent back to the bidder to be used for inspection of ES equipment by DD Engineer(s) at DD site.

8.4.3. As the local office/authorized representative/dealer will be nodal point for resolving issues related to testing, the local representative of the OEM/bidder may also arrange the visit of OEM's Engineer at site if required or any issue with ATP. The factory test report will not be treated as ATP.

8.4.4. The accepted ATP / approved ATP with or without changes shall be sent back to the successful bidder for their reference, which will be used for inspection of ES equipment by DD Engineer(s) at site.

8.4.5. In case the bid is directly from OEM not based in India.

- (1) Its local office/authorized representative/dealer in India shall facilitate the inspection by DD Engineers at DD premises in Delhi/consignee site.
- (2) OEM has to submit one advance sample equipment at his own cost, within 45 days of issue of A/T in accordance with clause No. 11.10 (Delivery linked with approval of advance sample) of DGS&D manual. The advance sample shall be inspected by DD as per approved ATP within 10 working days of receipt of advance sample at the inspection site.

(3) The approval of the acceptance of sample equipment shall be intimated by DD to the supplier/authorized representative or dealer in India after which the supplier shall deliver the equipment as per A/T.

(4) Thereafter, post delivery inspection shall be carried out on receipt of equipment before accepting and issue of Inspection Note accordingly.

8.5 Delivery Period

Within 4 months from the date of issue of purchase order.

8.6 Pre-bid Conference

8.6.1. Pre bid conference on technical Specifications and other issues shall be held on date, time and mode (either physical or Video Conferencing) as specified in the NIT. All prospective bidders may attend the pre bid conference to discuss their queries and suggestions.

8.6.2. All the queries and suggestions should be sent to Doordarshan at least 2 days before the date of pre bid conference. No queries/ suggestions shall be entertained after pre bid conference.

8.6.3. Amendments subsequent to the pre bid conference shall be sent to prospective bidders, who have purchased tender document, by e-mail/ fax/ post.

8.6.4. It shall be bidder's responsibility to check for any amendments/ addendum on the website before submitting their duly completed bids.

8.7 Check List and Enclosures

The bidders may ensure the following check list while submitting the bid including some important list of enclosures for ease of technical evaluation (**Annexure V**).

8.7.1. Whether documents related to fulfilment of the eligibility criteria as per Clause 3 have been submitted.

8.7.2. Whether point-by-point compliance statement of the bidder in respect of all the points, sub-points and Paras laid down in this specification from page 1 onwards along with the offer as given in Clause 8.1.1 has been included.

8.7.3. Whether point-by-point compliance statement of OEM in respect of all the points, sub-points and Paras laid down in the technical specifications as mentioned in Clause 8.1.2 have been included. OEM compliance for the offered solution from the OEM of the audio video monitor system/respective OEMs of

IRD and Audio video monitor (if offered in combination) shall only be acceptable and not from the authorized dealer of the OEM/OEMs.

- 8.7.4.** OEM's authorization as mentioned in clause no. 8.1.3 has been included for the offered solution from the respective OEMs. Authorization from the OEM/OEMs will only be acceptable and not from the authorized dealer of the OEM/OEMs.
- 8.7.5.** Whether the Compliance has been submitted in the prescribed format as given in Clause 8.1.5.
- 8.7.6.** Ensure that all equipment and accessories as given in the Suggestive bill of material have been included in the offered BOM.
- 8.7.7.** Whether the page numbers of the relevant enclosed technical data sheet/manual against each parameter of the specifications have been given in the compliance statements.
- 8.7.8.** Whether the requisite undertakings for after sales support by OEM/OEMs and bidder have been submitted.
- 8.7.9.** Ensure that no alternate item has been offered.
- 8.7.10.** Ensure that the relevant technical brochures containing all the parameters of technical specifications of all the offered equipment and accessories have been included with proper indexing for ease of identification.
- 8.7.11.** Ensure that the Un-priced BOM has been included.
- 8.7.12.** Any other item mentioned elsewhere in the tender.

Annexure-I

Suggestive Bill of Material (BOM)**Supply of Audio Video Monitor system for Earth Station-11 Locations**

(Jalandhar, Shimla, Ahmedabad, Bhopal, Bhubaneswar, Chennai,

Jaipur, Jammu, Kolkata, Lucknow, and Thiruvananthapuram)

(Bidders must submit BOM as per Proforma given in Clause 7)

| S. No. | Description of Item as per Specification (Suggestive BOM) | Description of Item as offered by Bidder | Qty. per site | Total Qty. as per suggestive BOM | Make | Model |
|--------|--|--|---------------|----------------------------------|------|-------|
| A. | Professional grade, broadcast quality Audio Video Monitor system along with required standard accessories like rack mounting kit, D to XLR connectors etc to meet the DD specifications . OR Audio video monitor system comprising of Professional grade, broadcast quality Audio video monitor and Professional grade, broadcast quality IRD along with required standard accessories like rack mounting kit, interconnecting cables, D to XLR connectors etc to meet the DD specifications | | 1Set. | 11Sets. | | |
| B. | Any other item to make the system complete to meet the DD specification. | | 1Set. | 11Set. | | |
| C. | Training | | | | | |
| | In India: One day on site training (including Theoretical (along with basic study material)& Practical training, hands on experience) on offered solution equipment for Doordarshan personnel at each site. (Note: Training will not be treated as part of the delivery period) | | 1 Lot | 11 Lots | | |
| D. | Documentation | | | | | |
| | Equipment manuals consisting of: | | 1 Lot | 1 Lot | | |
| a) | Operation/User Manual and installation manual Hard copy and Soft copy on SATA III (or better) | | | | | |

| | | | | | | |
|----|--|--|--|--|--|--|
| | SSD (120 GB or more) with Search facility for all the supplied equipment. (1 Set to be supplied at each 11 ES Kendras, 1 Set to be supplied at DG: DD and 1 Set to be supplied at each zonal office ADG(NZ), ADG(SZ), ADG(EZ), ADG(WZ)). | | | | | |
| b) | All software backups are to be supplied on SATA III (or better) SSD (120 GB or more). (1 Set supplied at each 11 Kendras, 1 Set supplied at DG:DD and 1 Set supplied at each zonal office ADG(NZ), ADG(SZ), ADG(EZ), ADG(WZ)). | | | | | |

Annexure II

OEM LETTER HEAD

CERTIFICATE FOR AUTHORIZATION

Date:

Tender No. :

We, M/s (Name and Address of the OEM), do hereby authorize M/s..... (Bidder's name), having its office at (Bidder's address) to submit the bid and sign the contract with Doordarshan for the products offered by us against the above tender.

Signature
Name & Designation of authorized signatory.....
Name of the OEM -
Stamp

Annexure III

OEM LETTER HEAD

CERTIFICATE FOR GUARANTEE

Date:

Tender No. :

We, M/s (Name and address of the OEM), do hereby confirm that:

1. The offered (Name of equipment) shall be guaranteed without any fault and defect for a period of 3 (THREE) years from the date of last accepted consignment.
2. Any part failing during the guarantee period shall be repaired/replaced free of charge by the successful bidder at site. For repairing of any defective equipment during guarantee period, the defective module or equipment requiring repairs will be handed over to local office/local authorized representative/ dealer who will arrange repairs locally at site or send/export the defective modules to OEM factory and re-import/send back after repairs.
3. It is the responsibility of M/s -----, (their local office/ Authorized representative/ dealer of the bidder) to arrange the repair/ replacement of faulty items for Doordarshan i.e. no transportation charges would be paid by DD for transporting the defective/ repaired items, if required to be removed from site, during the guarantee period.
4. Guarantee period may be extended corresponding to the outage period if the failure rectification takes more than 15 days' time.
5. All software being offered, are to be licensed to Doordarshan on perpetual basis without specifying any time limit or without specifying end of life of the software. Software upgrades within warranty period will have to be supplied free of cost.

Signature
Name & Designation of authorized signatory.....
Name of the OEM -.....
Stamp

Annexure IV

OEM LETTER HEAD

CERTIFICATE FOR AFTER SALES SERVICE SUPPORT

Date:

Tender No. :

We, M/s (Name and address of the OEM), do hereby confirm that after sales service support for additional Two (2) years for the repairs/maintenance of offered products after the completion of three (3) Years guarantee/ warrantee period shall be provided through our representatives/authorized dealer/service provider for the offered equipment and accessories in India as mentioned below:

| S. No. | Name of the authorized person | After sales & support office address | Telephone/ Fax | Email of concerned personnel |
|--------|-------------------------------|--------------------------------------|----------------|------------------------------|
| 1 | | | | |

Signature
Name & Designation of authorized signatory.....
Name of the OEM -.....
Stamp

Annexure V

BIDDER LETTER HEAD

DECLARATION BY THE BIDDER

1. Bill of Material (BOM)- : [Yes/No]
2. Bidder's compliance (As per specs clause no. 8.1) : [Yes/No]
3. Copy of the Memorandum of Understanding (MOU) (if any) of partnership : [Yes/No]
4. OEM Compliance for following equipment from their respective OEMs (as per clause no. 8.1.2):

| S. No. | Name of equipment | Name of OEM | OEM compliance submitted (Yes/ No) |
|--------|--|-------------|------------------------------------|
| i. | Audio Video Monitor/ Audio Video Monitor system | | |
| ii | IRD (if offered in combination with Audio video monitor) | | |

5. Certificate for Authorization for following equipment from their respective OEMs(as per clause no. 8.1.3):

| S.No. | Name of equipment | Name of OEM | Authorization certificate submitted (Yes/ No) |
|-------|--|-------------|--|
| i. | Audio Video Monitor/ Audio Video Monitor system | | |
| ii. | IRD (if offered in combination with Audio video monitor) | | |
| iii. | | | |
| . | | | |
| . | | | |

6. Certificate for Guarantee for following equipment from their respective OEMs:

| S.No. | Name of equipment | Name of OEM | Guarantee certificate submitted (Yes/ No) |
|-------|--|-------------|---|
| i. | Audio Video Monitor/ Audio Video Monitor system | | |
| ii. | IRD (if offered in combination with Audio video monitor) | | |
| iii. | | | |

| | | | |
|---|--|--|--|
| . | | | |
| . | | | |

7. Certificate for After sales service support for following equipment from their respective OEMs:

| S. No. | Name of equipment | Name of OEM | After sales service support certificate submitted (Yes/ No) |
|--------|--|-------------|---|
| i. | Audio Video Monitor/ Audio Video Monitor system | | |
| ii. | IRD (if offered in combination with Audio video monitor) | | |
| iii. | | | |
| . | | | |
| . | | | |
| . | | | |

8. Datasheet for the offered equipment as per offered BOM: [Yes/No]

- i. Audio Video Monitor/ Audio Video Monitor system
- ii. IRD (if offered in combination with Audio video monitor)

Signature
 Name & Designation of authorized signatory.....
 Name of the Bidder -
 Stamp