File No. Specs. Mod.Monitor/09/04/2020-D(TD/FM)

प्रसार भारती/Prasar Bharati (भारत का लोक सेवा प्रसारक) (India's Public Service Broadcaster)

आकाशवाणी महानिदेशालय /Directorate General: All India Radio P & D Unit, Akashvani Bhawan, Sansad Marg, New Delhi-110001 [एफ. एम. डिजाईन अनुभाग /FM Design Section]

File No. Specs-Mod.Monitor/09/04/2020-D(TD/FM)

Dated 03.07.2020

Subject: Specification for supply of FM Mono and Stereo Modulation Monitor including RF Amplifier (Standalone Unit) (For VHF FM Transmitter Set up)-regarding getting industry feedback.

Kindly find enclosed herewith the draft technical specification [AIR specification No. Mod.Monitor /05/ May/2020-D(TD/FM)] for the supply of FM Mono and Stereo Modulation Monitor including RF Amplifier (Standalone Unit) (For VHF FM Transmitter Set up), to get industry feedback from Original Equipment Manufacturers(OEMs) of the product/prospective bidders.

The OEM/prospective bidders (From India only) may submit their feedback on technical specifications, if any, to this Directorate via e-mail on or before 18.07.2020 by 1700 Hrs. at the following e-mail addresses.

shabihhyder@prasarbharti.gov.in, rnahar@prasarbharati.gov.in manzoor@prasarbharati.gov.in sanjeev542@gmail.com uspandey@prasarbharti.gov.in

Encl: As above.

(U. S. Pandey) Assistant Engineer for Director General

PRASAR BHARATI

(India's Public Service Broadcaster)

DIRECTORATE GENERAL: ALL INDIA RADIO (PLANNING & DEVELOPMENT UNIT)

SPECIFICATION FOR SUPPLY OF FM MONO AND STEREO MODULATION MONITOR INCLUDING RF AMPLIFIER (STANDALONE UNIT) (FOR VHF FM TRANSMITTER SET UP)

CONTENTS

	ELITE	
S.	Description	Page No.
No.		
1	A, Essential Requirement for the tender	1 - 2
2	B, Essential Eligibility Criteria for tenderers	3
3	Section 1.0, General Specifications	4 - 8
4	Section 2.0,Technical Specifications	8 -10
5	Section 3.0, Inspection Details	10
6	Section 4.0 (I), Schedule of Requirements/Materials (Un-Priced) for Supply of	11
	FM Mono and Stereo Modulation Monitor including RF Amplifier	
7	Section 4.0 (II), Spare (optional), Schedule of Requirements/ Materials (Un-	11
	Priced) for Supply of FM Mono and Stereo Modulation Monitor including RF	
	Amplifier	
8	Annexure-I, Performa for information about local office/authorized	12
	representative/dealer in India for after sales support	
9	Annexure-II, List of places	13

A. ESSENTIAL REQUIREMENT FOR THE TENDER:

- 1. (i) The tenderer should submit Schedule of Requirements/Materials of Supply without <u>price</u> in the same format as given in AIR Specification in the technical bid, failing which, the tender shall be considered incomplete and is liable to be rejected.
 - (ii) It is also mandatory to mention *Make & Model of the offered equipment* in the Schedule of Requirements/Materials of supply, failing which, the tender shall be considered incomplete and is liable to be rejected.
- Each statement of the technical specification has to be complied with & supported by printed technical literature, technical data sheets, schematic drawings and technical manuals from the manufacturer of the equipment by the tenderer to assess the full merit of the offer, failing which, the tender shall be considered incomplete and is liable to be rejected.
- 3. The tenderer should submit the tender offer to AIR in the format given below, section wise & clause wise, in respect of all the sections of technical specifications. The OEM/tenderer must provide the page number

reference, in column (4) of the table given below, of the technical bid clearly indicating the volume number also, if any, for each supporting document to verify the parametric values shown in the compliance statement, to assess the full merit of the offer, failing which the tender shall be considered incomplete and is liable to be rejected.

S. No. of AIR Specifications (Section wise & Clause wise)	Details of AIR Specifications (Part/ Section wise & Clause wise)	Compliance (Yes/No)	The page no. of the tender offer, where the information/ supporting document is available.	Remarks
(1)	(2)	(3)	(4)	(5)
A. Essential requirement for the tender				
B. Essential				
eligibility criteria				
for tenderers				
Section-1.0				
Clause wise				
Section-2.0				
Clause wise				
Section-3.0				
Clause wise				
Section-4.0 (I&II)				
Clause wise				

- 4. The tenderer should also quote the rate/cost of individual items in the tender offer while submitting the offer in respect of spares (**OPTIONAL**) in commercial bid.
- 5. The complete technical specifications (Section wise & Clause wise) compliance statement along with Schedule of Requirements/Materials (un-priced) must be signed & stamped by the respective Original Equipment Manufacturer (OEM) in the tender document, failing which the tender shall be considered incomplete and is liable to be rejected.

In case tender offer is from other than the Original Equipment Manufacturer, the tenderer must also sign & stamp the complete Technical specifications compliance statement (Section wise & Clause wise), failing which the tender shall be considered incomplete and is liable to be rejected. The OEM & tenderer should mention their name in CAPITAL LETTERS & designation of the signatories, full address with pin code, phone number, fax number, e-mail addresses etc.

- 6. All the volumes of the entire tender offer must be page numbered.
- 7. The authorization and guarantee must be given by respective Original Equipment Manufacturer (OEM) on their letter head pad duly signed & stamped. In case tender offer is from other than the Original Equipment Manufacturer, the tenderer must also give guarantee on their letter head pad duly signed & stamped, failing which the tender shall be considered incomplete and is liable to be rejected.

- 8. In case tender offer is from other than the Original Equipment Manufacturer, the tenderer should also furnish a certificate from the OEM that the tenderer can quote items of the OEM directly, failing which the tender shall be considered incomplete and is liable to be rejected without any notice/back reference.
- 9. Prasar Bharati will follow the reciprocal market access strategy of the Government of India, which describes on the Clause 10(d) of Public Procurement Preference to Make in India, Order 2017. The Purchaser shall have right for not consider any Bid and may restrict such Bidders from the bidding process; who originate from those countries, where they do not allow market access for Indian companies; in such cases, the Clause 10 (d) of Public Procurement Preference to Make in India, order 2017, shall be invoked wherever applicable, when it is relevant.
- 10. Amendment in General Financial Rules (GFRs), 2017-Golobal Tender Enquiry issued vide F. No. 12/17/2019-PPD dated 15.05.2020 of Government of India, Ministry of Finance, Department of Expenditure, Public Procurement Division shall be applicable.
- 11. Any change/modifications in the AIR technical specifications format, language, technical parameters or of any other nature including the deletion of clause, words, lines in the technical compliance statement by the OEM/ tenderer will not be acceptable to AIR and the tender is liable to be rejected.
- 12. Optional items will not be considered for ranking purpose.

B. ESSENTIAL ELIGIBILITY CRITERIA FOR TENDERERS:

- (a) The tenderer shall be from India only.
- (b) The tenderer should either be the OEM of FM Mono and Stereo Modulation Monitor including RF Amplifier or their authorized representative/dealer.
- (c) (i) The OEM of the FM Mono and Stereo Modulation Monitor including RF Amplifier must have an experience of manufacturing and supplying FM Mono and Stereo Modulation Monitor including RF Amplifier for at least last 5 years. Documentary evidence to support this must be provided.
 - (ii) The OEM should have supplied FM Mono and Stereo Modulation Monitor including RF Amplifier to reputed/public broadcasters. The OEM must provide the details of past supply record (in the format given below) for at least 20 Nos. of such offered FM Mono and Stereo Modulation Monitor including RF Amplifier, supplied during last three years ending last day of the month previous to the one in which the tender is invited.

Supply	Type & Model of the	Qty.	Name of the broadcaster with full postal	Remarks
Order No. supplied FM Mono			address including e-mail address to whom	
with date,	and Stereo Modulation		FM Mono and Stereo Modulation Monitor	
reference Monitor including RF			including RF Amplifier was supplied.	
	Amplifier			
(1)	(2)	(3)	(4)	(5)

- (iii) All India Radio reserves the right to get performance feedback of the FM Mono and Stereo Modulation Monitor including RF Amplifier from any of the above broadcasters named by the tenderer/OEM.
- (iv) Copies of supply order/completion certificates/delivery challans/invoice of at least 10 Nos., out of the 20 Nos. of FM Mono and Stereo Modulation Monitor including RF Amplifier submitted by the tenderer in above format, are also to be enclosed by the tenderer.
- (d) In case the tenderer is the authorized representative/dealer, the tenderer must be an authorized representative/dealer of any OEM of FM Mono and Stereo Modulation Monitor including RF Amplifier for last three years or more **OR** must be in the business of sales and supply of FM Mono and Stereo Modulation Monitor including RF Amplifier for last three years or more. Documentary evidence to support this must be provided.
- (e) The OEM of the offered FM Mono and Stereo Modulation Monitor including RF Amplifier must have his local office/authorized representative/dealer in India for after sales support. A certificate as per Annexure-I duly signed by the OEM as well as local office/authorized representative/dealer must be submitted with the offer. Copy of Agreement/MoU executed between OEMs and their authorized representative/dealer duly signed by both must also be submitted with the offer.

SECTION-1.0

GENERAL SPECIFICATIONS:

- 1.0 FM Mono and Stereo Modulation Monitor including RF Amplifier equipment as per AIR specification shall be used for round the clock for continuous operation without any interruption in VHF FM broadcast service at AIR station for FM transmitter/studio setup.
 - The offered equipment/items as per specification shall be field proven for satisfactory operation
- 1.1 General terms & conditions: Please refer tender documents for general term and conditions of contract for supply including all the commercial aspects like, Packing and Packing List, Insurance and Marine Risk etc., Payment terms, Penalty/Compensation for Delay, Damages and Liabilities, Time Period and Extension for Delay, Foreclosure of Contract due to Abandonment or Reduction in Scope of Supply, Cancellation of Contract in Full or Part, Recovery of Security Deposit, Performance Guarantee, Unsatisfactory Workmanship, Damages Incurred During transit, Tenderer Liable for Damages, Defects, Recovery of Compensation, Ensuring Payment and Amenities, Tenderer to Indemnify Government against Patent Rights, Release of Security Deposit, Safety Code, insurance from manufacturer's works/factory to respective site etc i.e. in totality.

1.2 INSPECTION:

- a. FM Mono and Stereo Modulation Monitor including RF Amplifier equipment will be accepted on the basis of OEM's test certificates (as per AIR specifications) duly stamped and signed by respective OEM on their letterhead, failing which test certificates will be considered incomplete and equipment offered by the firm is liable to be rejected.
- b. The complete Acceptance Test Procedure/Protocol (ATP) will be prepared by the respective OEM of the equipment/items as per Section-4.0 (A&B) and submitted to DDG (E-FM), P&D Unit, DG: AIR for approval within 15 days of issue of Acceptance of

Tender. The **approved ATP** shall form the basis for OEM test certificate of actual performance measurements/inspection to be carried out by OEM. AIR has the right to include other technical parameters in ATP submitted by OEM within the ambit of specification of the product offered.

1.3 DOCUMENTS/INFORMATION TO BE SUPPLIED WITH THE TENDER OFFER:

- (i) The complete technical specifications (Section wise & Clause wise) compliance statement alongwith Schedule of Requirements/Materials (un-priced) duly signed & stamped by the Original Equipment Manufacturer (OEM) and countersigned by the tenderer as per the format given above in clause A (4).
- (ii) Complete printed technical literature/technical data sheet/schematic drawings/detailed information including Technical Manual of FM Mono and Stereo Modulation Monitor including RF Amplifier from the Original Equipment Manufacturer (OEM) in support of compliance statement should be furnished, to assess the full merit of the offer, without which the tender offer will be considered incomplete and is liable for rejection.
- (iii)Detailed Schedule of Requirements/Materials offered for supply of FM Mono and Stereo Modulation Monitor including RF Amplifier should be in conformity with Section-4.0 (I&II) without any change in the format without price, failing which, the tender will be considered incomplete and is liable for rejection. The tenderer must quote all items.
- (iv) Descriptive information and complete details of each equipment offered shall be given by the tenderer.
- (v) Country of Origin, Make, Type & Model of all the offered items should be mentioned including the name & address of their vendors.
- (vi) A copy of the Technical Manual must be enclosed with technical bid for assessing the complete FM Mono and Stereo Modulation Monitor including RF Amplifier. The Technical Manual must include at least the details given below:
 - (a) General description of the offered FM Mono and Stereo Modulation Monitor including RF Amplifier, block diagram/schematic drawings etc.
 - (b) Diagrams showing the isometric view of FM Mono and Stereo Modulation Monitor including RF Amplifier equipment with dimensions in meters.
 - (c) Installation Manual & drawings with dimensions in respect of offered equipment.
 - (d) The procedure of settings FM Mono and Stereo Modulation Monitor including RF Amplifier should be described in detail with practical examples.
 - (e) Photograph of the FM Mono and Stereo Modulation Monitor including RF Amplifier showing Front, Rear, Side & Top view.
 - (f) All *Do's and Don'ts* which are essential for safe Installation, Operation & Maintenance of the FM Mono and Stereo Modulation Monitor including RF Amplifier.

1.4 DOCUMENTS/INFORMATION TO BE SUPPLIED BY THE TENDERER WITHIN 15 DAYS AFTER ISSUE OF ACCEPTANCE OF TENDER:

One set of Technical Manuals (for Installation, Testing, Commissioning, Operation & Maintenance, including theory of operation, circuit description and fault diagnosis) **COLOUR** printed and duly bound for FM Mono and Stereo Modulation Monitor including RF Amplifier along with soft copy on pen-drive must be supplied to "DDG (E-FM), P & D Unit, DG: AIR, New Delhi-110001".

1.5 INFORMATION TO PRECEDE DESPATCH OF EQUIPMENT:

Following information should be supplied to the DDG (E-FM), P & D Unit, DG:AIR and each of the consignee, two months prior to dispatch of Equipment:

a) Detailed list of equipment under dispatch.

1.6 DOCUMENTS/ INFORMATION TO BE SUPPLIED ALONGWITH EOUIPMENT:

Technical manuals (for Installation, Testing, Commissioning, Operation& Maintenance including theory of operation, circuit description and fault diagnosis) for FM Mono and Stereo Modulation Monitor including RF Amplifier shall be supplied as per details given below:

- (i) For each consignee: 2 Sets of technical manual in hard copies **COLOUR** printed and duly bound along with one soft copy on pen drive.
- (ii) For the following offices/officers: One soft copy on pen drive for each offices/officers: Zonal Office Project Wing (NZ, SZ, WZ), Zonal Office Maintenance Wing (NZ, SZ, WZ), R&D, NABM (T), DDG (E-FM), DDG (E-TM), Technical Library P&D Unit.

1.7 GUARANTEE:

The tenderer shall submit with his tender an undertaking to accept the following guarantees:

{This Guarantee clause is applicable to all the equipments/items mentioned in Schedule of Requirements/Materials in Section-4.0 (A&B)}.

- (i) A guarantee that the equipment supplied will be in accordance with these specifications, varied only to the extent stated in his tender and agreed to in the contract.
- (ii) A guarantee to make good within 30 days(from the date of first intimation to OEM/tenderer) at tenderer's expense any component which becomes defective under normal operating conditions for 30 months from the date of supply. If the tenderer failed to rectify the fault within the stipulated period of 30 days, the guarantee period would be extended corresponding to the outage period.
- (iii) A guarantee to supply all components for a period of ten years from the date of supply, at rates at which these are being supplied by the firm to other customers and also should match prices of original manufactures of these components prevailing at that time.
- (iv) If at any stage during next 10 years, the manufacturer stops production of this model of FM Modulation Monitor including RF Amplifier, the firm shall intimate All India Radio in advance to enable the latter to stock the critical items.

1.8 LANGUAGE/UNITS:

All information supplied by the Tenderer & all markings, notes, designation on the drawings & associated write-ups shall be in "English language" only.

All dimensions, units on drawings, all references to weights, measures & quantities shall be in MKS.

1.9 DELIVERY PERIOD OF EQUIPMENT:

Supply will have to be completed within four months from the date of Acceptance of Tender or three months from the date of the Decision Letter from WPC(wherever is required) in respect of RF equipment, provided by AIR, whichever is later.

1.10 PACKING AND PACKING LISTS:

All the equipment should be securely and properly packed to withstand transit hazards. Equipment packing shall be fit for sea freight and incorporate adequate protection against ingress of moisture. Packing slips giving details of the items contained in each package shall be placed inside the package in a water proof envelop to enable easy identification and should contain cross references to item/part numbers of installation drawings/components lists. Copies of packing slips and other details should be sent separately to respective consignee and also to the DDG(E-FM), P & D Unit, DG: AIR, New Delhi.

1.11 INSURANCE AND MARINE RISKS ETC:

Please refer to commercial terms.

1.16 POWER SUPPLY FOR ALL EQUIPMENT:

(i)	Operating Line voltage	AC Single Phase, 230 Volts ± 10 %
(ii)	Frequency	50 Hz <u>+</u> 4%
(iii)	Power factor	Better than 0.9.

1.17 AMBIENT CONDITIONS FOR ALL INSIDE EQUIPMENT:

(i)	Operating temperature range	0 °C to 45 °C
(ii)	Relative Humidity	95% non-condensing.
(iii)	Working altitude	Up to 3000 meters AMSL

1.18 The tenderer will have to arrange demonstration of the offered Equipment during technical evaluation stage at New Delhi (India), if required by All India Radio, within 30 days from the date of issue of AIR request letter. Accordingly, the tenderer should be in readiness for demonstration within 30 days from the date of issue of AIR request letter, failing which the tender offer is liable to be rejected without any further correspondence.

The tenderer will have to make all necessary arrangement for testing of the offered Equipment. Exhaustive checking and measurements will be carried out so as to completely check the compliance of the equipment with the requirements as projected in the specifications.

All expenses & liabilities for demonstration of above offered equipment will be borne by the tenderer.

This is purely for Technical Evaluation of the offered Equipment and is without any commitment for acceptance of offer, whatsoever at this stage.

1.19 MAINTENANCE SUPPORT AND SPARES:

- (a) The minimum recommended essential spares shall be quoted separately by the tenderer.
- (b) The minimum recommended essential spares may be based on predicted rate of failure.
- (c) In case, the tenderer quotes the optional items as 'a set', the details of the components/items offered in the 'set' must be spelt out clearly including their Make & Model and quantity.

1.20 ESSENTIAL REQUIREMENT FOR LOCAL OFFICE/AUTHORIZED REPRESENTATIVE/ DEALER IN INDIA:

- (a) The OEM should have complete setup for maintenance/repair of the FM Mono and Stereo Modulation Monitor including RF Amplifier in India, either of its own or through local office/authorized representative/dealer.
- (b) The local office/authorized representative/dealer will be the nodal point for resolving issues related to after sales support. It is the responsibility of local office/authorized representative/dealer to arrange the repair/replacement of faulty items. Any module of FM Mono and Stereo Modulation Monitor including RF Amplifier requiring repairs will be repaired at site. If it is not feasible to repair the module at site, the same will be collected from the site by local office/authorized representative/dealer that will arrange repairs locally. The cost of transportation, repairs etc. shall be borne by the tenderer during the guarantee period.
- (c) After sales support for the repairs/maintenance of FM Mono and Stereo Modulation Monitor including RF Amplifier after the completion of guarantee period, shall also be provided by the OEM of the FM Mono and Stereo Modulation Monitor including RF Amplifier through their local office/authorized representative/dealer in India.
- (d) The details of technical facilities available with local office/authorized representative/dealer for after sales support such as test bench, necessary test & measuring equipment and photographs thereof, must be provided in the technical bid.
- (e) At the discretion of AIR, AIR representative(s) may visit the works of local office/authorized representative/dealer of OEM in India to ensure/verify that adequate technical infrastructure is available for after sales service for timely resolving the issues related to attending/replacing the equipments. Tenders from the tenderers who failed to meet these criteria shall be considered incomplete and is liable to be rejected.

SECTION-2.0

2.1 The FM Mono and Stereo Modulation Monitor should provide a complete solution for the analog portions of the FM signal. It should combine the features and functions of an RF Amplifier, FM Demodulator, Stereo Demodulator, RDS decoder, SCA decoder etc. in one stand-alone unit.

S. NO.	TECHNICAL PARAMETERS	TECHNICAL SPECIFICATIONS
2.2	R.F. INPUT:	
2.2.1	Frequency Range	88 MHz-108 MHz [To be tunable to any frequency in VHF FM band 88 MHz to 108 MHz]
2.2.2	RF Input Range	1 to 5 Vrms, 50 Ω BNC Connector
2.2.3	Antenna Input	100 μV or better sensitivity, 75 Ω
2.2.4	Accuracy at all Modulation Levels	\pm 2.0 % or better
2.3	BASEBAND MEASUREMENTS:	
2.3.1	Modulation Frequency	30 Hz - 100 kHz
2.3.2	Frequency Deviation	\pm 75 kHz for 100% modulation.
2.3.3	Frequency Deviation Indication	0 to 133 %
2.3.4	Frequency Deviation Indication Accuracy	± 2.0 % or better
2.3.5	AM Noise Measurement	To measure AM noise down to 70 dB from 100% AM modulation.
2.4	MPX Signal Output:	
2.4.1	Frequency Response	Better than ± 0.25 dB
2.4.2	Total Harmonic Distortion plus Noise (THD+N)	Not more than 0.01%
2.4.3	IMD (SMPTE) (60 Hz/7 kHz, 4:1)	Not more than 0.02%
2.4.4	SNR	≥ 90 dB
2.5	STEREO MEASUREMENTS:	
		ultaneous monitoring of L & R channels, total eparation, crosstalk, S.C. suppression, noise in MPX signal separately.
2.5.1	Channel Separation	Better than 70 dB
	(L/R or R/L) (30 Hz to 15 kHz)	
2.5.2	Crosstalk	Better than 65 dB

	(L+R) to (L-R) or (L-R) to (L+R)		
2.5.3	Pilot Carrier Measurement	0 % to 15 % injection	
2.6	OUTPUT:		
2.6.1	Level (L & R)	\geq 0 dBm, 600 Ω , balanced	
2.6.2	Frequency Response	Better than ± 0.25 dB	
2.6.3	De-emphasis	50μsec.	
2.6.4	Signal to Noise Ratio	≥ 85 dB	
2.6.5	Total Harmonic Distortion plus Noise (THD+N)	Not more than 0.01%	
2.6.6	Inter Modulation Distortion (SMPTE) (60 Hz/7 kHz, 4:1)	Not more than 0.02%	
2.7	POWER REQUIREMENTS	Single Phase as per Section-I	
2.8	GENERAL REQUIREMENTS:		
2.8.1	Instrument should be suitable for mounting in a standard 19" rack.		
2.8.2	All RF input and power input cords with suitable connectors are to be provided.		
2.8.3	All accessories needed for various measurements to be quoted.		
2.9	ENVIRONMENTAL CONDITIONS (As per Section -I)		

SECTION 3.0

INSPECTION DETAILS

FM Mono and Stereo Modulation Monitor including RF Amplifier equipment will be accepted on the basis of OEM's test certificate of actual performance measurements as per AIR specification before dispatch to All India Radio and receipt of equipments/items at site in good condition.

The Original Equipment Manufacturer's (OEM) test certificates shall be duly signed & stamped on the letter head of the OEM, failing which Original Equipment Manufacturer's (OEM) test certificates will be considered incomplete and equipment offered by the tenderer is liable to be rejected.

Following information should also form part of OEM test certificate for each FM Mono and Stereo Modulation Monitor including RF Amplifier equipment.

- 1. Make, Type, Model and Country of Origin of the accessories and spares.
- 2. Measurements of all parameters as per Section 2.0 of Technical Specification.

SECTION-4.0 (I)

SCHEDULE OF REQUIREMENTS/MATERIALS (UN-PRICED) (FOR SUPPLY OF ONE SET OF FM MONO AND STEREO MODULATION MONITOR INCLUDING RF AMPLIFIER)

S. No.	Description	Make &	Unit	Quantity
		Model		
1.	Supply of FM Mono and Stereo Modulation Monitor including RF Amplifier (Standalone unit) equipment complete with all accessories along with Technical Manuals as per AIR specification		Set complete	1 Set complete
2.	Any other items/accessories offered for the completeness of the system (Items wise details of offered and included material with part numbers, if any are to be given by the tenderer) State NA, If not applicable.		Lot	1 Lot

SECTION-4.0 (II)

SPARES (OPTIONAL) SCHEDULE OF REQUIREMENTS/ MATERIALS (UN-PRICED) (FOR ONE SET OF FM MONO AND STEREO MODULATION MONITOR INCLUDING RF AMPLIFIER)

S. No.	Description	Make &	Unit	Quantity
		Model		
1.	FM Mono and Stereo Modulation Monitor including RF Amplifier (Standalone unit) equipment complete with all accessories along with Technical Manuals as per AIR specification		Set complete	1 Set complete
2.	Any other items/accessories offered for the completeness of the system (Items wise details of offered and included material with part numbers, if any are to be given by the tenderer) State NA, If not applicable.		Lot	1 Lot

All India Radio at its own discretion may procure spares for a value not exceeding 10% of the cost of equipments. The tenderer should quote all the essential spares.

ANNEXURE-I

PERFORMA FOR INFORMATION ABOUT LOCAL OFFICE /AUTHORIZED REPRESENTATIVE/ DEALER IN INDIA FOR AFTER SALES SUPPORT

1.	Address of local office/authorized representative	e/dealer in India	
	Telephone (Landline) No.		
	Mobile No.		
	E-mail Address		
2.	Address for communication (if different)		
3.	Legal Status (Whether local office/authorized re	epresentative/dealer)	
4.	Name, contact number (Mobile number) & e-ma representative of the local office/authorized representative of the lo		
5.	Brief details of Technical facilities available for		
	The details of technical facilities available with representative/dealer for after sales support necessary test & measuring equipment and pho be provided in the technical bid.	such as test bench,	
6.	Main line of business, specialization and number	of years of operation	
7.	Total number of permanent technical employeesignation and qualification	oyees including their	
8.	Details of Agreement/MoU for after sales supposed must be provided with the offer)	port with OEM (Copy	Date of Agreement:
	,		Executed at:
			Executed by:
(Authorized Signatory of local office/authorized representative/dealer)		(Authorized Signator	y of Mod. Monitor OEM)
Name:		Name:	
Signature :		Signature:	
Place and Date:		Place and Date:	

ANNEXURE-II

List of Places for supply of FM Mono and Stereo Modulation Monitor including RF Amplifier

S. No.	Name of places	State	Quantity
1	Dahod	Gujarat	1 No.
2	Jaspur	U.K.	1 No.
3	Rampur	U.P.	1 No.
4	Rameshwaram	T.N.	1 No.
5	Kupwara	J&K	1 No.
6	Gurej	J&K	1 No.