

**PRASAR BHARATI
BROADCASTING CORPORATION OF INDIA
DIRECTORATE GENERAL: ALL INDIA RADIO
(PLANNING AND DEVELOPMENT UNIT)**

File No. 30/2(2)/2010-D(TD/FM)

SPECIFICATION FOR SUPPLY OF STEREO FM DIGITAL BROADCAST AUDIO PROCESSOR
(FOR VHF FM TRANSMITTERS SET UP)

Specification No.: Stereo FM Digital Broad Audio Pro/June /2010-D (TD/FM)

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N.B.

1. The Tenderer should submit schedule of material /requirement of Supply without *price in the same format as given in* Indenter Specification in the technical bid, failing which the tender shall be considered incomplete and is liable to be rejected.
2. Each statement of this specification has to be complied with & supported by printed technical literature, technical data sheets and technical manuals from the manufacturer of the equipment by the tenderer, to assess the merit of the offer without which tender will be considered incomplete & is liable to be rejected. The tenderer should make a detailed offer.
3. All the technical details, Schematic drawings must be submitted and enclosed with the tender by the tenderer failing which the tender is liable to be rejected.
4. The tenderer should submit the tender offer to AIR in the format given below Section wise & clauses wise in respect of all the sections of technical specifications {along with column number 5 “Ref to tender page No. by the tenderer as per the offer of the tenderer” in the format given below} in detail to assess the full merit of the offer, failing which tender shall be considered incomplete and is liable to be rejected.

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Sr. No. of AIR Spec. Section wise & Clause Wise (1)	Details of Spec. Part/ Section wise & clause wise (2)	Make & Model No of the Equipment offered (3)	Compliance Yes/NO (4)	Ref to tender page No. by the tenderer as per the offer of the tenderer (5)	Remarks (6)
Section-1.0 Clause wise					
Section-2.0 Clause wise					
Section-3.0 Clause wise					
Section-4.0 (I) Clause wise					
Section-4.0 (II) (Optional) Clause wise					

5. Tenderer should quote the rate / cost of individual items in the tender offer while submitting the offer for spares in commercial bid.
6. The complete Technical specification (section wise & clause wise) compliance statement along with schedule of requirements/materials (unpriced) must be signed & stamped on each page by the Original Equipment Manufacturer (OEM) of the equipment in the tender document including the clarifications, if any, asked by the Indenter. In case tender offer is from other than the Original Equipment Manufacturer, the tenderer must also sign & stamp each page of the complete Technical specification (section wise & clause wise) compliance statement including the clarifications, if any, asked by the Indenter, failing which the tender shall be considered incomplete and is liable to be rejected. The OEM & tenderers should fill up their name in CAPITAL LETTERS, full address with pin code , phone number, fax number, e-mail address and with their full signatures.
7. The complete tender shall be page numbered.
8. Optional items will not be considered for ranking purposes.
9. Any change in the AIR Technical Specification format or language or in parameters or of any other nature including the deletion of technical specification clause, words, lines in the technical compliance statement as mentioned in clause 6 as above by the Original Equipment Manufacturer/ tenderer will not be acceptable to Indenter and the tender is liable to be rejected.
10. Tenderers may please note that no clarifications may be asked by the Indenter regarding Indenter technical specifications, so all the tenderers may submit their tender offers accordingly.

SECTION - 1.0
GENERAL SPECIFICATIONS:

- 1.0** Stereo FM Digital Audio Broadcast processor 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.
- 1.1 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:** As per Section 3.0.
- 1.3 INFORMATION TO BE SUPPLIED WITH THE TENDER :**
(The tender and the associated information should be submitted in duplicate.)
- a) A **Compliance Statement** to the complete specification of AIR, Para wise, for each clause.
 - b) Complete **printed technical literature/data sheet/detailed information** including technical manual of equipment/item as per specification from the Original Equipment Manufacturer (OEM) in support of compliance statement should be furnished for all the items of the tender, to assess the full merit of the offer, without which the tender will be considered incomplete and is liable for rejection
 - c) Descriptive information giving complete details of Equipment offered.
 - d) Detailed Schedule of Requirement/Materials offered for Supply of Stereo FM Digital Audio Broadcast processor equipment should be in conformity with specification without any change in format without price (un-priced) failing which the tender shall be considered incomplete and will be liable for rejection. **The tenderer must quote all items.**
 - e) Country of origin, make, type, model number in respect of all items should be submitted along with the name & address of their vendors.
 - f) Dimensions and photographs of the interior of the equipment.
 - g) Information and characteristics of semiconductor devices used in the equipment.
- 1.4 EXPERIENCE (Supply):**
Minimum 5 years experience of OEM in production of the products quoted.
- 1.5 INFORMATION TO BE SUPPLIED BY THE TENDERER AFTER AWARD OF SUPPLY ORDER :**
One set of Technical manuals {for Installation, testing, commissioning , Operation & Maintenance, including Theory of operation and fault diagnosis printed and duly bound for Stereo FM Digital Audio Broadcast processor equipment along with one soft copy on CD} shall be supplied to "The Director Engg. (Projects), P & D Unit, DG: AIR, New Delhi-110001"

1.6 INFORMATION TO PRECEDE DESPATCH OF EQUIPMENT:

Following information should be supplied to the Director Engg. (Projects), P & D Unit, DG:AIR and each of the consignee, two months prior to dispatch of Equipment:

- a) Detailed list of equipment under dispatch.
- b) Photograph showing location of components in the various units and sub units with item numbers marked thereon.

1.7 INFORMATION TO BE SUPPLIED ALONGWITH EQUIPMENT:

Technical manuals {for Installation, testing, commissioning , Operation & Maintenance, including Theory of operation and fault diagnosis printed and duly bound for Stereo FM Digital Audio Broadcast processor equipment along with one soft copy on CD and OEM test certificates as per Section 3.0 shall be supplied as per Section 4.0

- 1.8 A list of required spares and tools etc. along-with item-wise price details are to be quoted separately as optional(un priced) with tender by the tenderers.

1.9 GUARANTEE:

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

- (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 at tenderer's expense, if any, component which becomes defective under normal operating conditions within 18 months from the date of acceptance of Equipment at respective site or 12 months from the date of commissioning at site whichever is earlier.
- (iii) A guarantee to supply all components for a period of ten years from the date of acceptance of Equipment at site, at rates at which these are being supplied by him 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 Equipment, he shall intimate All India Radio in advance to enable the latter to stock the critical items.

1.10 AFTER SALES SERVICE:

The Tenderer shall specify the repair/service facility available for the equipment in India with address, Phone/Fax nos., E-mail etc. The supply of Equipment may require after sales services. Therefore full details of facilities for carrying out after sale service may be given.

1.11 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.

1.12 DELIVERY OF EQUIPMENT:

Eight months (08) from date of placement of the supply order.

1.13 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 Director Engg. (Projects), P & D Unit, DG: AIR, New Delhi.

1.14 INSURANCE AND MARINE RISKS ETC:

Please refer to commercial terms.

1.15 In support of Tenderer's claim an "up-to-date" list of their customers including their full address, Telephone/Fax No & E-mail address is required to be submitted along with complete set of actual performance figures i.e. Performance measurement taken on Stereo FM Digital Audio Broadcast processor equipment are to be furnished along with the tender.

The offered equipment/items as per specification shall be field proven for satisfactory operation. A supply record of Stereo FM Digital Audio Broadcast processor year wise may be enclosed by the tenderer.

1.16 POWER SUPPLY FOR ALL EQUIPMENT:

(i)	Operating Line voltage	AC Single Phase : 230 Volts \pm 10 %
(ii)	Frequency	50 Hz \pm 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

SECTION 2.0 (TECHNICAL SPECIFICATIONS)

1.0 STEREO FM DIGITAL AUDIO BROADCAST PROCESSOR

- 1.1 The specification for Stereo FM Digital Broadcast Audio Processor is meant for broadcast purpose in the audio chain of VHF FM transmitters at various places.
- 1.2 The processor should have Digital Signal Processing technique.
- 1.3 It should be able to provide multi band (minimum 5) compression, limiting and clipping, automatic Wide band gain control.
- 1.4 The processor should have phase limiter to maximize audible transparency and should also have provision for stereo enhancement and high/low frequency enhancement.
- 1.5 The processor should have in-built feature of multiple user pre-set. The user pre-set should be stored in the memory and without any battery back up. By using the processor user pre-set, the factory pre-set of the Processor should not change.
- 1.6 The equipment shall be capable for continuous operation to ensure the uninterrupted broadcast without degradation in performance.

2.0 The Stereo FM Digital Audio Broadcast processor equipment shall have the following:

2.1 The Stereo FM Digital Audio Broadcast processor should accept following inputs.

2.2.1 Digital AES / EBU inputs

2.2.2 Analogue left-right inputs

2.2.3 Sub-carrier inputs (Subsidiary Channel Authorization and Radio Data System/Radio Broadcast Data System)(SCA and RDS/RBDS)

2.2 The Stereo FM Digital Audio Broadcast processor should give following outputs.

2.2.1 Digital AES/EBU left-right output

2.2.1 Analogue left-right output

2.2.2 Composite stereo output/ multiplexed output.

2.3 Necessary function switches such as level/gain control etc. should be available on the front panel. All these control shall be rugged and reliable.

2.4 The processor should have visual monitoring of various technical parameters on the front panel and a compact one unit for ease of operation .All the monitoring must be front panel. In case a separate PC is required for control and operation of Stereo FM Digital Audio Broadcast processor the same must be quoted.The required computer should be of latest configuration.

2.5.1 (Optional): It should be capable for operation ---- controlled remotely with its Remote Control system.

It should have visual monitoring of various technical parameters through remote control through PC etc.

2.5.2 (Optional): It should be capable for operation with Telemetry. It should have visual monitoring of various technical parameters through telemetry system also through a PC, modem etc.

2.6 The equipment is to be properly earthed with the existing equipment earthing system in the transmitter hall.

2.7 Radio Frequency Interference (RFI)/Electromagnetic Compatibility (EMC) filter shall be provided at mains input of the Stereo FM Digital Broadcast Audio Processor as per relevant

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provisions of standards for effective rejection of the interference from the high power transmitters operating in the premises.

These Stereo FM Digital Broadcast Audio Processor will be used in High Power Transmitter halls (upto 250 KW transmitter RF output power) i.e. the rack with full complement of equipment as to operate in a high RF field. As such all the specifications of the individual equipment as well as the full chain, are to remain valid in high RF fields.

3.0 SPECIFICATION OF EQUIPMENT:

3.1	ANALOG AUDIO INPUT	
3.1.1	Configuration:	Stereo
3.1.2	Nominal Input Level:	Software adjustable from -10.0 to +12.0 dBu.
3.1.3	Maximum Input Level:	+24 dBu
3.1.4	Connectors:	Two XLR-type, female, EMI-suppressed.
3.1.5	A/D Conversion :	Minimum, 24-bit

3.2	ANALOG AUDIO OUTPUT :	
3.2.1	Configuration :	Stereo. Flat or pre-emphasised (at 50 μ s or 75 μ s), software-selectable.
3.2.2	Output Level(100% peak modulation):	Adjustable from -6 dBu to +20 dBu peak, into 600 Ω or greater load, software-adjustable.
3.2.3	Signal-to-noise: (20 Hz to 15 KHz)	\geq 80 dB unweighted
3.2.4	Distortion: (20 Hz to 15 KHz)	\leq 0.02 % THD.
3.2.5	Cross Talk (20 Hz to 15 KHz)	\leq - 70 dB
3.2.6	Connectors:	Two XLR-type, male, EMI-suppressed.
3.2.7	D/A Conversion:	Minimum, 24-bit

3.3	DIGITAL AUDIO INPUT	
3.3.1	Configuration :	Stereo, AES/EBU standard, 24-bit resolution.
3.3.2	Sampling Rate :	32, 44.1 or 48 KHz automatically selected.
3.3.3	Connector :	XLR-type, female, EMI-suppressed.
3.3.4	Input reference level	Variable within the range of -25.0 to -10.0 dBFS
3.3.5	De-emphasis:	Software-selectable

3.4	DIGITAL AUDIO OUTPUT	
3.4.1	Configuration:	Stereo AES/EBU standard.
3.4.2	Sample Rate :	32, 44.1 or 48 KHz, selected in software
3.4.3	Connector :	XLR-type, male, EMI-suppressed.
3.4.4	Output Level(100% peak modulation) :	-20.0 to 0.0 dBFS, software-controlled.

3.5	COMPOSITE BASEBAND OUTPUT:	
3.5.1	Configuration :	Two outputs, with individual level controls.

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3.5.2	Maximum Output Level:	+12.0 dBu
3.5.3	D/A Conversion:	Minimum, 24-bit
3.5.4	Signal-to-Noise Ratio: (20 Hz to 15 KHz)	≥85 dB.
3.5.5	Distortion : (20 Hz to 15 KHz)	≤ 0.02% THD.
3.5.6	Stereo Separation: At 100% modulation (30 Hz to 15 KHz)	≥ 55dB.
3.5.7	Cross talk-Linear main channel to sub channel, or sub channel to main channel	≤ -80 dB, main channel to sub channel, or sub channel to main channel
3.5.8	38 KHz Suppression:	≥ 70 dB.
3.5.9	Pilot Protection :	60 dB relative to 9% pilot injection, ± 250 Hz
3.5.10	57 KHz (RDS)Protection:	50 dB relative to 4% sub carrier injection, ± 2.0 KHz.
5.5.11	Connectors:	Two BNC, EMI suppressed.
3.6	REMOTE CONTROL INTERFACE (OPTIONAL)	
3.6.1	Configuration:	Eight (8) inputs, opto-isolated and floating
3.6.2	Voltage :	AC or DC. Details to be given by tenderer
3.6.3	Connector :	Suitable for 5.6.1, EMI suppressed.
3.6.4	Control :	User-programmable for multiple user presets, factory presets, bypass, test tone, stereo or mono modes, analog input, digital input.

3.7	REMOTE COMPUTER INTERFACE (OPTIONAL)	
3.7.1	Configuration:	Transmission Control Protocol (TCP)/ Internet Protocol (IP) protocol via modem or Ethernet interface.
3.7.2	Connectors:	RS-232, EMI-suppressed. Ethernet or Modem card supported with PCMCIA.
3.8	POWER SUPPLY	Single Phase as per Section 1.0
3.8.1	Connector :	IEC, EMI-suppressed. Detachable 3-wire power cord supplied.
3.8.2	Safety Standards :	ETL listed to UL standards, CE marked.

3.9	ENVIRONMENTAL	
3.9.1	Operating Temperature/RH:	As per Section 1.0
3.9.2	Dimensions (Approximate) (W x H x D):	To fit in 19" rack and dimension details to be given by tenderer.
3.9.3	Weight (Kg)	To be given by tenderer.

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3.10	TECHNICAL DESCRIPTION	WHETHER BUILT IN OR NOT(Tenderer shall reply clearly)
3.10.1	The processor should have Digital Signal Processing technique.	YES/NO
3.10.2	It should be able to provide multi band (minimum 5) compression, limiting and clipping, automatic wide band gain control.	YES/NO
3.10.3	The processor should have phase limiter to maximize audible transparency and should also have provision for stereo enhancement and high/low frequency enhancement.	YES/NO
3.10.4	The processor should have in-built feature of multiple user pre-set. The user pre-set should be stored in the memory and without any battery back up. By using the processor user pre-set, the factory pre-set of the Processor should not change.	YES/NO
3.10.5	The equipment shall be capable for continuous operation to ensure the uninterrupted broadcast without degradation in performance.	YES/NO
3.10.6	Necessary function switches such as level/gain control etc. should be available on the front panel. All these control shall be rugged and reliable.	YES/NO
3.10.7	The processor should have visual monitoring of various technical parameters on the front panel and a compact one unit for ease of operation. All the monitoring must be on front panel.	YES/NO
3.10.8	The Stereo FM Digital Audio Broadcast processor should accept following inputs. 5.10.9.1 Digital AES / EBU inputs 5.10.9.2 Analogue left-right inputs 5.10.9.3 Sub-carrier inputs (SCA and RDS/RBDS)	YES/NO YES/NO YES/NO
3.10.9	The Stereo FM Digital Audio Broadcast processor should give following outputs. 5.10.9.1 Digital AES/EBU left-right output 5.10.9.2 Analogue left-right output 5.10.9.3 Composite stereo output/ multiplexed output.	YES/NO YES/NO YES/NO
3.10.10	(Optional): It should be capable for operation-- controlled remotely with its Remote Control system.It should have visual monitoring of various technical parameters through remote control through a PC etc.	YES/NO
3.10.11	(Optional): It should be capable for operation with Telemetry. It should have visual monitoring of various technical parameters through telemetry system also through a PC, modem etc.	YES/NO

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3.11	The Stereo FM Digital Audio Broadcast processor shall essentially have the following
3.11.1	<u>Protection against current over-loads</u> : The equipment should mute in case of overload and revert to normal functioning once overload ceases to exist.
3.11.2	<u>Protection against thermal overload</u> : Temperature of equipment inside component should be monitored and the equipment should get muted with a visual indication whenever temperature exceeds permissible limits. In case of excessive temperature of inside component, the equipment should be protected.
3.11.3	The equipment should have protection against open circuit, full short circuit, ultrasonic frequencies and high RF fields
3.11.4	It should be switchable to all operating modes as per Technical specification.
3.11.5	Necessary function switches such as level/gain control etc. should be available on front panel. These controls shall be rugged and reliable.

3.12	<u>ACCESSORIES</u> : All necessary accessories like connection cords and connectors shall be supplied along with the units. The standard accessories should be clearly mentioned in the tender. Also, optional accessories, if considered useful/recommended by the supplier, should be quoted separately with technical details.
3.13	The equipment shall be mounted in the existing 19” rack (Stereo Programme input - cum -- monitoring rack).
3.14	<u>Protection against RF</u> : The equipment is to be provided with adequate interference shielding so as to perform satisfactory operation in the transmitter hall, without degradation in performance, which houses other high power medium wave or FM transmitters.
3.15	<u>Earthing</u> : An earth terminal shall be provided in the equipment body for connecting audio earth connection.

3.16	<u>SPARES (OPTIONAL)</u> : Essential and recommended spares components, PCBs, and modules shall be quoted separately including remote operation (optional) and telemetry (optional).
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SECTION 3.0 – INSPECTION

INSPECTION DETAILS

Stereo FM Digital Audio Broadcast Processor will be accepted on the basis of OEM’s test certificate of actual performance measurements as per AIR specification before dispatch to indenter and receipt of equipment 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 Stereo FM Digital Audio Broadcast processor.

1. Make, type, model number 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 SCHEDULE OF MATERIAL/REQUIREMENT FOR SUPPLY
(UNPRICED) (FOR ONE Set of Stereo FM Digital Audio Broadcast Processor)**

SNo.	Description	Quantity
1.0	Stereo FM Digital Audio Broadcast processor equipment complete with all accessories as per AIR specification.	1 Set complete
2.0	Any other item/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)	1 lot
3.0	Technical manuals for Installation, testing, commissioning , Operation & Maintenance, including Theory of operation and fault diagnosis printed and duly bound for Stereo FM Digital Audio Broadcast processor Equipment along with one soft copy on CD as per distribution given below:	1 Set
3.1	For DE (Proj.) P&D Unit, DG:AIR { Within Two Months of Supply order) (irrespective of Stereo FM Digital Audio Broadcast processor)	1 Set
3.2	For Consignee {Within Two Months of Supply order).	2 Sets
3.3	For the following officers: 8 Nos. of Technical manuals are to be supplied) {To be supplied along with the equipment}. (irrespective of number of equipment to be ordered)	8 sets
	(i) DE (Proj.),P&D Unit, DG:AIR - 1 set	
	(ii) Zonal Offices (Project Wing) - 5 sets	
	(iii) Technical Library, P&D Unit, DG:AIR - 1 set	
	(iv) Staff Training Institute (Technical) - 1 set	

SECTION: 4.0 (II) (OPTIONAL)

SCHEDULE OF MATERIAL/REQUIREMENT FOR SUPPLY (OPTIONAL INCLUDING ESSENTIAL AND RECOMMENDED SPARES)

(UNPRICED) (FOR ONE Set of Stereo FM Digital Audio Broadcast Processor)

SNo.	Description	Quantity
	(OPTIONAL) :	
1.0	ESSENTIAL AND RECOMMENDED SPARES BASED ON FAILURE PATTERN :	
1.1	Modules	1 Set
1.2	PCBs	1 Set
1.3	Any other item offered by the firm for the completeness of equipment	1 lot
2.0	Remote Computer Interface (optional)	1 Set
3.0	Telemetry Interface etc. (optional)	1 Set

ANNEXURE-I

List of Places for Supply of Stereo digital FM Audio Broadcast Processor.

Sr. No	Name of Places	Qty.
1	Cudapah	2
2	Dibrugarh	2
3	Tejpur	2
4	Thirussur	2
5	Parbhani	2
6	Ratnagiri	2
7	Bhadravati	2
8	Sangli	2
9	Jeypore	2
10	Kota	2
11	Tuticorin	2
12	Rampur	2
13	Bhuj	2
14	Ambikapur	2
15	Chhatarpur	2
16	Gwalior	2
17	Jalgaon	2
18	Tura	2
19	Bhawanipatna	2
20	Sambalpur	2
21	Ajmer	2
22	Almora	2
23	Agra	2
24	Kurseong (scheme-I)	2
25	Jammu	2
26	Poonch	2
27	Nawgaon	2
28	Aizwal	2
29	Kailashaahar	2
30	Kothagudem	2
31	Sasaram	2
32	Bilaspur	2
33	Raigarh	2
34	Hazaribagh	2
35	Chitradurga	2
36	Betul	2
37	Shahdol	2
38	Beed	2
39	Satara	2
40	Chandrapur	2
41	Rourkela	2
42	Bhatinda	2
43	Patiala	2
44	Nagaur	2
45	Churu	2

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46	Bareilly	2
47	Faizabad	2
48	Obra	2
49	Murshidabad	2
50	Panaji	2
51	Cuttack (Scheme –I)	2
52	Cochin	2
53	Jalandhar	2
54	Jaisalmer	2
55	Allahabad	2
56	Dharmshala	2
57	Kasauli	2
58	Mussorie	2
59	Jaipur	2
60	Cuttack (Scheme –II)	2
61	Jamshedpur	2
62	Kurseong (Scheme –II)	2
63	Adilabad	2
64	Keonjhar	2
65	Darjeeling	2
66	Balurghat	2
67	Dhanbad	2
68	Bhardman	2
69	Haldawani	2
70	Coochbihar	2