

**Specifications for High Quality Amplispeaker**

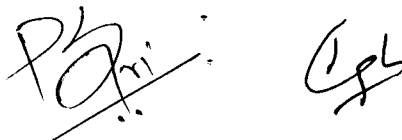
Specifications No.: SD 17/2010  
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**1. SCOPE:**

The specifications lay down the performance measure for High Quality Amplispeaker, which will be used in mono aural or stereo environment. The amplispeaker is required to meet the most demanding audio quality monitoring requirements of broadcast television facilities such as post production and recording studios of Doordarshan Network.

**2. ESSENTIAL FEATURES:**

- 2.1 **The offered equipment should be from a reputed manufacturer and the quoted model should be field proven and in use by leading broadcasters. The bidder should essentially submit the list of the broadcasters to whom the quoted model has been supplied. The tenders without the proper user list shall liable to be rejected out rightly.**
- 2.2 The offered amplispeaker should have excellent performance features like **“flat frequency response”, “carefully controlled roll off”, and “very low distortion”** etc.
- 2.3 The offered amplispeaker should have **“high sound pressure level”** across the whole frequency spectrum.
- 2.4 The offered amplispeaker should have two way speaker system consisting of a woofer and a tweeter. It should be a bi-amplified active monitor system.
- 2.5 The offered amplispeaker should have a **Volume control potentiometer provided at the front panel** for adjusting the monitoring level.
- 2.6 The offered amplispeaker should be suitable for horizontal and vertical mounting.
- 2.7 The offered amplispeaker should be capable of ceiling, wall and stand mountings.
- 2.8 The offered amplispeaker should accept balanced analog audio on 3-pin XLR female connector.



- 2.9 The offered amplispeaker should have proper magnetic shielding to avoid the interference when used in close proximity to other audio & video systems.
- 2.10 The offered amplispeaker should have high efficiency durable power amplifiers for continuous long duration use.
- 2.11 The amplifier should have excellent dispersion to provide extremely accurate reference.
- 2.12 The bill of material required is given in **Appendix-I**.
- 2.13 The equipment are being procured for various Doordarshan centres as per **Appendix-II**.

### **3. TECHNICAL SPECIFICATIONS:**

<b>Sl. No.</b>	<b>PARAMETER</b>	<b>PERFORMANCE</b>
<b>3.1</b>	<b>INPUT</b>	
3.1.1	Number of Channels	: 1 or more
3.1.2	Impedance	: 600 Ohm or higher
3.1.3	Sensitivity	: +6 dBu to -6dBu @ 96 dB SPL or better
<b>3.2</b>	<b>DRIVERS</b>	
3.2.1	Bass (woofer)	: 5 inch or more (cone)
3.2.2	Treble (Tweeter)	: ≤ 1 inch (metal dome)
3.2.3	Bass/Treble crossover frequency	: ≥ 2.3 KHz
<b>3.3</b>	<b>FREQUENCY RESPONSE</b>	
3.3.1	Lower-cutoff frequency	: ≤ 80 Hz
3.3.2	Upper Cutoff Frequency	: ≥ 15 KHz
<b>3.4</b>	<b>AMPLIFIER POWER</b>	
3.4.1	Bass (woofer)	: 40 Watts or better
3.4.2	Treble (tweeter)	: 40 Watts or better
3.4.3	S/N for Bass & Treble @ full output	: Better than 90 dB
<b>3.5</b>	<b>SOUND PRESSURE LEVEL</b>	
3.5.1	Short term RMS SPL @ 1 Meter	: Better than 95 dB
3.5.2	Continuous Max SPL @ 1 Meter	: Better than 90 dB

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**3.6 POWER CONSUMPTION** : < 200 VA

**3.7 DIMENSION**

3.7.1 Width : ≤ 200 mm

3.7.2 Height : ≤ 300 mm

3.7.3 Depth : ≤ 250 mm

**3.8 TOTAL WEIGHT** : ≤ 8 Kg

**3.9 TOTAL HARMONIC DISTORTION (THD)**

THD at 85 dB SPL for frequency : < 1%  
between 200 Hz to 15 KHz

**3.10 ENVIRONMENTAL**

3.10.1 Power Supply : 230 ± 5% V AC, 50 Hz

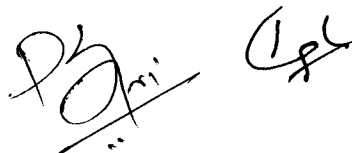
3.10.2 Operating Temperature : 5°C to 40°C

3.10.3 Humidity : 0 to 85%, Non-condensing

**4. COMPLIANCE:**

- (a) Any substandard equipment included in the offer may cause the rejection of complete offer with the sole responsibility of bidder.
- (b) The firm should provide the offered un-priced bill of material in electronic form also in addition to the hard copy for ease of technical evaluation.
- (c) **A point-by-point compliance statement from the principal manufacturer in respect of all the points laid down in these specifications is to be enclosed along with the offer in the format given below. Mere signature on the copy of the specifications shall not be accepted as a compliance statement.**

**The figures so mentioned should be supported by record of these in the technical literature enclosed with the tender and reference to the page number of enclosed literature for all features and technical specifications should be mentioned in the relevant column. Offers without the compliance statement or with incomplete compliance statement will liable to be rejected with the sole responsibility of the bidder. Any deviation from the specification detailed in the compliance statement is to be highlighted separately.**



Sr. No of DD specs.	DD specs.	Compliance (Yes/No)	Performance Fig. of equipment Offered.	Reference to the Page Number of enclosed literature	Deviations, in case of non-compliance	Optional items if any reqd. to make the sys. Compliant to DD specs.	Features in the offered Product which exceeds DD specs.

#### 5. ACCESSORIES:

All the accessories such as power cables etc. required to complete the system should be offered by the bidder. **The bidder should certify the completeness of the system in all respect.** All the optional items should be quoted separately. The bidder must provide enough details about such optional items to decide its utility.

#### 6. DOCUMENTATION:

One set of printed technical and operation & maintenance manuals for all the equipments are to be provided on non-returnable basis along with the tender to facilitate the technical evaluation, otherwise the tender is liable to be ignored. The successful bidder will have to supply one set of printed operation, service and maintenance manuals with respect to each equipment.

#### 7. GUARANTEE:

- (a) The system should be guaranteed for two years of trouble free operation from the date of supply. In case of any equipment failure including software and hardware within this period, the same shall be rectified or replaced free of cost to Doordarshan.
- (b) The guarantee should cover all hardware, software and modules of the complete system.

#### 8. DEMONSTRATION:

If necessary, the firm may be asked for demonstration of the offered system as part of the technical evaluation. In such case the firm will have to make suitable arrangement for the demonstration of the offered system at Doordarshan Bhawan, New Delhi, on notice of 7 days. Accordingly the firm should be in readiness for demonstration on a notice of 7 days.

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**9. INSPECTION:**

The equipment shall be subjected to inspection by Doordarshan officials at New Delhi.

**10. ENCLOSURES:**

The bidder must necessarily submit the following enclosures along with the technical bid:

- (a) Compliance statement with respect to all the points of the specifications duly signed by the OEM.

The reference to the page number of enclosed literature for all features and technical specifications should be essentially mentioned in the relevant column of the compliance statement.

- (b) Technical manuals/Detailed technical literature/catalogues for all the offered products for substantiating the model no. and technical specification.

- (c) **Model specific User list of the offered product.**

- (d) Any other document mentioned elsewhere in the tender document.

**The tender is liable to be rejected in the absence of the above enclosures with the sole responsibility of the bidder.**

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**BILL OF MATERIAL**

<b>Sl. Nos.</b>	<b>Detail of Items</b>	<b>Qty.</b>
1.	Amplispeaker with accessories	279 nos.
2.	Operation manual/User Guide/ Technical Manual/ Installation Manual etc.	279 Sets
3.	Service & Maintenance Manuals	279 Sets

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**EQUIPMENT ARE BEING PROCURED FOR THE FOLLOWING  
DOORDARSHAN CENTRES**

<b>Sl. No.</b>	<b>Zone</b>	<b>Location of Doordarshan Centre</b>	<b>Qty.</b>
1.	<b>North Zone (NZ)</b>	Jammu	9 Sets
2.		Chandigarh	9 Sets
3.		Bareilly	9 Sets
4.		Shimla	9 Sets
5.		Allahabad	9 Sets
6.		Mau	9 Sets
7.	<b>East Zone (EZ)</b>	Daltonganj	9 Sets
8.		Mujjafarpur	9 Sets
9.		Ranchi	9 Sets
10.		PPC Guwahati	9 Sets
11.		Siliguri	9 Sets
12.		shillong	9 Sets
13.		Tura	9 Sets
14.		Kohima	9 Sets
15.		Itanagar	9 Sets
16.		Imphal	9 Sets
17.		Silchar	9 Sets
18.		Dibrugarh	9 Sets
19.		Aizwal	9 Sets
20.		Agartala	9 Sets
21.	Sambalpur	9 Sets	
22.	Gangtok	9 Sets	
23.	<b>South Zone (SZ)</b>	Gulbarga	9 Sets
24.		Pondicherry	9 Sets
25.		Vijayavada	9 Sets
26.		Portblair	9 Sets
27.	<b>West Zone (WZ)</b>	Panaji	9 Sets
28.		Raipur	9 Sets
29.		Rajkot	9 Sets
30.		Pune	9 Sets
31.		Indore	9 Sets
<b>TOTAL</b>			<b>279 Sets</b>

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