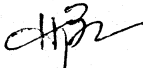


PRASAR BHARATI / प्रसार भारती  
(BROADCASTING CORPORATION OF INDIA) / भारतीय प्रसारण निगम  
DIRECTORATE GENERAL: ALL INDIA RADIO / आकाशवाणी महानिदेशालय  
PLANNING AND DEVELOPMENT UNIT / योजना एवं विकास एकक

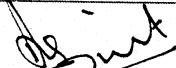
**SPECIFICATION OF DIGITAL PHONE-IN CONSOLE**

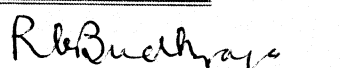
**1. GENERAL**

- 1.1 This specification describes the requirements of Digital phone-in console for use in Broadcast Studios of All India Radio (AIR).
- 1.2 Digital Phone-in Console is required to interface PSTN lines with digital/analogue audio mixers in Broadcast Studios to produce on-air radio talk shows. The unit should be able to conferencing facilities between studio and callers.
- 1.3 The console shall be fully digital and based on the field proven design using state of the art technology. These should be rugged in construction and suitable for reliable operation 24 hours a day and 365 days in a year.
- 1.4 Only professional and branded products manufactured by reputed companies in sound broadcasting equipment field shall be offered.
- 1.5 The tenderer must submit the following documents along with the tender:
- 1.5.1 **A point-to-point compliance statement as per Annexure-I highlighting deviations, if any, on all the clauses of specification from the manufacturer of the offered equipment duly signed in original. Actual performance figures should be quoted under remarks column. If compliance statement is in format other than Annexure -I, the tender may be rejected outrightly.**
- 1.5.2 **Detailed printed literature of the equipment giving complete electrical and mechanical data including detailed dimensions and mounting requirements.**
- 1.5.3 **The quote should either be from the original manufacturer or from their authorized representative/dealer. In case, the quote is from the authorized representative/dealer, a certificate in original from the original manufacturer that the tenderer is authorized representative/dealer for India should be enclosed with the tender.**
- 1.6 The tenderer will be required to demonstrate the complete functioning of the tendered unit at the time of technical evaluation in Delhi. The tenderer

  
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has to demonstrate all the functions and technical parameters of the offered equipment as per AIR specifications. Non-compliance of equipment demonstration shall disqualify the tender.

- 1.7 Tenderers shall quote console of one and only one make. Tenderer offering equipment of more than one make will be out rightly rejected.
- 1.8 Incomplete offers will be rejected out rightly.

## 2. SCOPE OF THE TENDER:

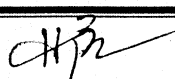
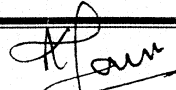
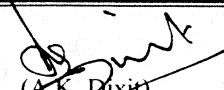
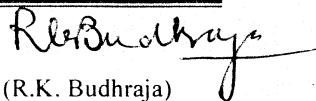
- 2.1 The specification is for supply of Digital Phone-in Consoles at different stations of All India Radio as detailed in Annexure –II.
- 2.2 The consoles shall be supplied along with all accessories and mating connectors etc to make the console fully functional. The details of all the accessories to be supplied along with equipment shall be clearly indicated in the tender.

## 3. TECHNICAL SPECIFICATION

### 3.1 Essential features of Phone-in console

- 3.1.1 The Digital Phone-in-console shall consist of a 19" Rack mountable base unit & a wired Remote Control Unit.
- 3.1.2 Console should be DSP based and all the processing in the console shall be performed in the digital domain. Console shall have at least 20 bit digital signal processing for optimal performance at all time.
- 3.1.3 Console shall be capable of interfacing four Telephone (PSTN) lines.
- 3.1.4 Console shall have two digital hybrids and a switch matrix to connect any of the incoming call to either of hybrid.
- 3.1.5 It should be possible to connect two lines ON-AIR at a time independently or simultaneously in conference mode.
- 3.1.6 The console shall provide two individual outputs containing only the Receive signal (from caller) of Telephone line i.e. Caller's Voice only of selected (ON-AIR) telephone lines. These outputs shall be on Balanced XLR connectors in Analog format.
- 3.1.7 The console shall have one input ("Send to Caller") to send Mix-Minus signals from Studio Console into the selected (ON-AIR) Telephone lines. This input shall be on Balanced XLR connectors in Analog format.

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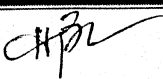
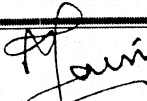
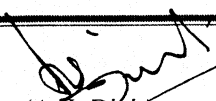
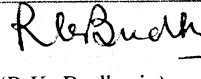
			
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- 3.1.8 It should be possible to control the levels of send (i.e. Studio console's Mix-Minus Output) & Receive (i.e. Caller's voice) signals independently.
- 3.1.9 Each Hybrid shall provide AGC/limiting function and dynamic equalization for Receive ("from Caller") to ensure consistent caller audio levels. Necessary noise gating and shaping features shall also be available to work on lines in noisy conditions.
- 3.1.10 Each hybrid shall provide adequate separation, elimination of feedback and distortion between send and receive signals.
- 3.1.11 Feature of caller ducking (dynamic reduction in volume of Caller's voice when announcer speaks) should be available.
- 3.1.12 It should be possible to screen the incoming calls, put them on hold/ON-AIR and disconnect them using the remote control unit.
- 3.1.13 Control unit shall have Call control system and dialer, Visual telephone Lines's status (i.e. indication of connected lines, Calls on hold, Ready caller status and callers ON-AIR Status etc.).
- 3.1.14 Audio level meters for send and receive signals of both the hybrids shall be available on the front panel of the console/Control Unit.
- 3.1.15 The console shall provide music/audio to on-hold callers. It should be possible to provide external audio input for on-hold callers.

### 3.2 Technical Specification :

- 3.2.1 Telephone Lines : 4 PSTN.
- 3.2.2 Hybrids : 2 Nos
- 3.2.3 Maximum Callers (ON-AIR): 2 Nos
- 3.2.4 Maximum Callers On hold : 2 Nos
- 3.2.5 PSTN Line Interface : Standard
- 3.2.6 Line Input ("Telephone Transmit To Caller")
- 3.2.6.1 Analogue : Balanced on XLR connectors.
- a) Level : 0 dBu (Nominal) & 10 dBu maximum
- b) Impedance :  $\geq 5$  k Ohm

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