



प्रसारभारती / PRASAR BHARATI

भारतीय लोकसेवा प्रसारक / INDIA'S PUBLIC SERVICE BROADCASTER

अपरमहानिदेशक(अभि.) (द.क्षे) कार्यालय / O/o. ADDL. DIRECTOR GENERAL (E)(SZ)

आकाशवाणी एवं दूरदर्शन / ALL INDIA RADIO & DOORDARSHAN

स्वामीशिवानंदासालै, चेन्नई / SWAMY SIVANANDA SALAI, CHENNAI - 600 005

No. ADG(E)(SZ)/SMT/IEBR/METP/24-25/

Date: 27.09.2024

Sir/Madam,

**Sub: Request for Budgetary Quotation for 2 nos. of 100 W Exciter for 10KW DBE FM Transmitter**

Quotations are invited for supply of 2 nos. of 100 W FM Exciter for 10KW DBE FM Transmitter at Akashvani Vijayawada and Akashvani Hassan

Sl. No.	Particulars	Qty.
1.	Supply of 2 nos. of 100 W FM Exciter for 10KW DBE FM Transmitter at Akashvani Vijayawada and Akashvani Hassan as per the specification attached.	1 job

- 1) **GUARANTEE / WARRANTEE:**  
**One year** from the date of supply of material.
- 2) **Payment terms** :100% payment on testing of item.

Quotations may be Addressed to : Shri. N.Ravichandran, Deputy Director(E), Room No 306, O/o Additional Director General(E), Akashvani & DD, Swamy Sivananda Salai, Chennai - 600005.

And by Email to : diravm\_sz@yahoo.com

Yours faithfully

  
27/9/24

N.Ravichandran  
Deputy Director(E)

## **TECHNICAL SPECIFICATION- 100W Exciter DBE**

<b>RF FEATURES</b>	
RF Output impedance	50Ω unbalanced
Frequency range	87.5 to 108MHz
Frequency control	Full Digital Synthesis
Emission classification	F3E/F8E direct FM at the carrier frequency
Modulation mode	Mono, Stereo, Multiples, SCA, AUX, RDS/DARC, AES/EBU
Frequency deviation	±75kHz=100%=150kHz capability (others on request)
RF harmonics	Exceeds CCIR/FCC requirement
RF spurious	Exceeds CCIR/FCC requirement
Pre-emphasis	Flat 50/75micro selectable via front panel
Stereo operation	CCIR 450/S2" pilot tone system"

<b>MONO OPERATIONS</b>	
Input impedance	6000hms /10kOhms or greater (selectable)
Input level for ±75kHz peak deviation	Adjustable from - 6to +6dBu
FM S/N Ratio at ±75kHzdeviation(30Hzto 15kHz) rms unweighted	> 75 dB
Total Harmonic Distortion plus Noise (THD+N)	< 0.1%
Inter modulation Distortion (IMD) SMPTE (60Hz/7kHz, 1:1)	< 0.1%
Amplitude response (30Hz to 15 kHz)	Better than or equal to ±0.1dB

<b>STEREO OPERATIONS</b>	
6000hms /10kOhms or greater (selectable)	6000hms /10kOhms or greater (selectable)
Input level for ±75 kHz peak deviation	Adjustable from - 6to +6 dBu
Stereo separation(30 Hz to 15 kHz)	> 60 dB
Linear Cross Talk referred to 100% modulation (30 Hz to 15Khz)	> 60 dB
Nonlinear Cross Talk referred to 100% modulation	> 60 dB
FM S/N Ratio at ±75 kHz deviation (L or R) (30 Hz to 15 kHz rms unweighted	> 75 dB
Total Harmonic Distortion plus Noise (THD+N) (L or R)	< 0.1%
Intermodulation Distortion (IMD) SMPTE (L or R) (60Hz/7kHz, 1:1)	< 0.1%
Amplitude response (L or R) (30 Hz to 15kHz)	Better than or equal to ±0.1 dB

<b>MPX OPERATION</b>	
Input impedance	10kOhms or greater
Input level for $\pm 75$ kHz peak deviation	Adjustable from - 6to +12 dBu
FM S/N Ratio at $\pm 75$ kHz deviation rms unweighted	> 75 dB
Total Harmonic Distortion plus Noise (THD+N)	< 0.1%
Intermodulation Distortion (IMD) SMPTE (60Hz/7kHz, 1:1)	< 0.1%
Amplitude response (30 Hz to 15kHz)	Better than or equal to $\pm 0.1$ dB

<b>AES/EBU OPERATION</b>	
Input impedance	110 kOhms
Input level for $\pm 75$ kHz peak deviation	Adjustable from -24 to 0 dBFS
Audio response (30 Hz to 15 kHz)	Better than or equal to $\pm 0.1$ dB

<b>RF OUTPUTS</b>
-------------------

<b>MODEL</b>	<b>NOMINAL POWER</b>	<b>CONNECTOR</b>	<b>SIZE</b>
DIG 100	100 W	N	2U x 19"

<b>ENVIRONMENT</b>	
Storage temperature	-20°C TO 60°C
Operating temperature	0°C TO +50°C
Guaranteed performance temperature	0°C TO +45 °C
Relative non-condensing humidity	90% MA
Max operating altitude	3000 mt.

<b>SIZE &amp; ELECTRICS</b>	
Power Supply	230V single phase AC (+10/-15%)50-60Hz/ $\pm 5\%$
Display	Color panel : LCD
Cooling	Foreed air