

FM Transmitter TF 500

500W 87.5Mhz÷108Mhz



ebs[®]

europaen broadcast systems
europaen broadcast systems

EBS srl[®]

Riviera Maestri del Lavoro 20/1, 35127 Padova, Italy
T: +39 049 8705066 | F: +39 049 8945939 |
sales@ebscast.com | www.ebscast.com



Specifications FM Transmitter TF 500

500W 87.5Mhz÷108Mhz

RF Output : 500W

RF Output Impedance: 50 Ohm.

RF Output Connector: DIN 7/16 type.

Monitor RF: BNC connector.

VSWR: 10:1

Frequency Range: 87.5 ÷ 108.00 MHz, Programmable in 10 kHz steps.

Frequency Stability: ±1 ppm from -5 to 45°C.

External Reference: 10 MHz BNC connector back panel.

Type of Modulation: analog synthesis.

Off Lock Attenuation: ≥ -80 dBc.

Modulation Capability: ±150 KHz.

Limiter built in

Modulation Mode: Mono, Stereo, Multiplex, SCA, RDS, Aux.

Preemphasis: Flat/50/75µs selectable from front panel.

Asynchronous AM S/N Ratio: -70 dB.

Synchronous AM S/N Ratio: -65 dB .

RF Harmonics: Exceeds EBU/CCIR/FCC requirements.

RF Spurious: Exceeds EBU/CCIR/FCC requirements.

MONO OPERATION

Audio Input Impedance: 600 Ohm - ≥10 kOhm balanced.

Audio Input Level: -12 to +12 dBm, DS series -6 to +12 dBm

Input Connector: XLR female.

Audio Frequency Response: ±0.1 dB, 30 Hz to 15 KHz.

Total Harmonic Distortion + Noise: 0.01% @ 400 Hz.

Intermodulation Distortion: 0.01%, 1 KHz/1.3 KHz, 1:1 ratio.

Transient Intermodulation Distortion: 0.01% 2.96KHz square wave and 14 KHz sine wave.

Distortion: 0.01% 2.96KHz square wave and 14 KHz sine wave. 14 KHz sine wave.

FM S/N Ratio: -90 dB rms detector, -85 dB below ±75 KHz deviation.



STEREO OPERATION

Audio Input Impedance: 600 Ohm - ≥ 10 kOhm balanced.

Audio Input Level: DP series -12 to +12 dBm, DS series -6 to +12 dBm

Input Connector: XLR female.

Audio Frequency Response: ± 0.1 dB, 30 Hz to 15 KHz.

Total Harmonic Distortion + Noise: 0.01% @ 400 Hz.

Intermodulation Distortion: 0.01%, 1 KHz/1.3 KHz, 1:1 ratio.

Transient Intermodulation Distortion: 0,01% 2.96KHz square wave and 14 KHz sine wave.

FM S/N Ratio: -90 dB rms detector, -85 dB below ± 75 KHz deviation.

Stereo Separation: series -45 dB@30Hz \geq -60dB@ Freq ≥ 100 Hz

Crosstalk attenuation: ≥ 45 dB@15kHz.

38 KHz Suppression: ≥ -85 dB.

Pilot Frequency: 19 KHz ± 1 Hz

Output Pilot: 2Vpp adjustable from front panel

MULTIPLEX OPERATION

Composite Input Impedance: 2 KOhm unbalanced.

Composite Input Level: -12 to +12 dBm, DS series -6 to +18 dBm

Input Connector: BNC female.

Composite Amplitude Response: ± 0.1 dB, 30 Hz to 100 KHz.

Total Harmonic Distortion + Noise: 0.01% @ 400 Hz.

Intermodulation Distortion: 0.01%, 1 KHz/1.3 KHz, 1:1 ratio.

Transient Intermodulation Distortion: 0.01% 2.96KHz square wave and 14 KHz sine wave.

FM S/N Ratio: -90 dB rms detector, -85 dB below ± 75 KHz deviation

SCA, RDS, AUX OPERATION

Input Impedance: ≥ 2 kOhm.

Input Level: -6 to +12 dBm.

Frequency Response: ± 0.1 dB, 50 KHz to 100 KHz.

Input Connector: BNC female.



AUXILIARY CONNECTIONS

Telemetry Interface: DB25 connector on back panel.

LAN: RJ45 connector on back panel

MPX OUT: connector BNC on back panel.

ENVIRONMENTAL

Operating temperature: -5°C to +50°C.

Max Operating Altitude: 2000 mt. others on request

Relative Humidity Range: 0 to 90%. non-condensing

ELECTRICAL

Compact Version

AC Input Power: 90÷260 VAC 50/60 Hz single phase for 30W – 5000W models

AC Input Power: 340 ÷ 440 VAC 50/60 Hz three phases for 5000W models

AC Efficiency

500W : 70%

Acoustic noise: < -65 dBa @ 1 meter.

PHYSICAL DIMENSION

Compact Version

Mounting: Standard 19" chassis 2 U rack. **Weight:** ~ 15Kg. (500)

EBS srl

Riviera Maestri del Lavoro 20/1, 35127 Padova, Italy

T: +39 049 8705066 | F: +39 049 8945939 |

sales@ebscast.com | www.ebscast.com

