



## MIZAR FM Stereo Radio Transmitter

Available in 50W (1RU), 300W (2RU), 500W (2RU) and 1kW (2RU) with extremely simplified wiring

Repeatability of the performances, guaranteed by the completely mechanized assembling

High Signal/Noise ratio

Analogic telemetry signals available on Db9

RS232 (or RS485) connection for remote control unit

Automatic output power level control

All the final stages with MOSFET technology

Internal Standard Stereo Coder fitted

Internal RDS Coder card option available

The **MIZAR** FM Stereo Radio Transmitter is a leader in the global market of FM Transmitters.

The display on the front panel can indicate the frequency and frequency changes, frequency step, forward and reflected power, amplifier temperature, modulation level, alarms, emphasis and remote control status.

The rear panel contains XLR balanced inputs each with input level controls, BNC for MPX output from internal stereo coder (optional), BNC for MPX input and 2 BNC for SCA operation. There is also a DB9 for wired external control and a DB9 for serial RS232 or RS485 (selectable) remote control.

As far as audio performances are concerned, only one world is needed: "transparent".

With a signal-to-noise ratio of 80dB, the whole dynamics of modern digital audio are reproduced with high fidelity.

With a crosstalk of 60dB (with stereo option) there is excellent channel clarity.

The mains power input is via an EMI filtered connection.

The power amplifier is based on a modern MOSFET device.

An engineered air tunnel through the transmitter keeps cool air running right through the heat sink.

The amplifier is protected from damage by temperature controlled systems and antenna fault (SWR) monitoring.

The switching type power supply automatically adapts itself to any input voltage from 80 to 260V.

## MODELS:

- 50W (Mizar 50)
- 300W (Mizar 300)
- 500W (Mizar 500)
- 1000W (Mizar 1000)

## STEREO MODELS:

- 50W (Mizar 50S)
- 300W (Mizar 300S)
- 500W (Mizar 500S)
- 1000W (Mizar 1000S)

	Power Consumption	AirFlow
MIZAR50	115VA	60m <sup>3</sup> /h
MIZAR300	600VA	120m <sup>3</sup> /h
MIZAR500	1kVA	120m <sup>3</sup> /h
MIZAR1000	2kVA	250m <sup>3</sup> /h

## RF SECTION

Frequency Range, Frequency Step	87.5 - 108MHz, 10/50/100 kHz (from front panel) 87.0 - 108MHz China, other bands on request
Reference Stability	± 2.5ppm (0°C - 50°C)
Nominal Output Power	50W / 300W / 500W / 1000W
Power Level	0-100% (from front panel)
Output Impedance / Connector	50 Ohms/N Female
RF Monitor Level / Connector	-30dBc/BNC
Off Lock Attenuation	> 60dB
Asynchronous AM S/N Ratio	> 65dB
Synchronous AM S/N Ratio	> 60dB
Spurious and Harmonic Suppression	Meets or Exceeds all FCC and CCIR requirements
Modulation Capability	Meets or Exceeds all FCC and CCIR requirements

## AUDIO SECTION

Audio Input Impedance	Balanced 600 Ohms/10k Ohms (jumper)
Audio Input Connector	XLR
Audio Input Level	2Vpp Nominal (±6dB adjustable from rear panel)
Frequency Amplitude Response	± 0.5dB 30Hz-15 kHz
Harmonic Distortion	< 0.05% 30Hz-15 kHz
Pre-emphasis	Flat, 50ms, 75ms (ON/OFF from display, 50/75 from jumper)
S/N Ratio with CCIR Unweighted Filter	> 73 dB
S/N Ratio with CCIR Weighted Filter	> 73 dB

Audio Input Impedance	Balanced 600 Ohms/10k Ohms
Audio Input Connector	XLR
Audio Input Level	2Vpp Nominal (±6dB adjustable from rear panel)
MPX Output Connector / Impedance	BNC / 50 Ohms
MPX Output Level	5.6Vpp
Frequency Amplitude Response	± 0.5dB 30Hz-15 kHz
Harmonic Distortion	< 0.05% 30Hz-15 kHz
Pre-emphasis	Flat, 50ms, 75ms (ON/OFF from display, 50/75 from jumper)
Stereo Separation	> 50dB (typ. 60dB) 30-15kHz
S/N Ratio with CCIR Unweighted Filter	> 70 dB
S/N Ratio with CCIR Weighted Filter	> 70 dB

SCA Input Impedance	10k Ohms
SCA Input Connector	BNC
Input Level	2Vpp Nominal for ± 7.5 kHz deviation
Frequency Amplitude Response	± 0.2dB 40-100 kHz

Serial Interface	RS232/RS485 (internally selectable)
Telemetry	Forward, Reflected, Alarm and On/Off control

## GENERAL

AC Power Requirements	80 - 260V <sub>AC</sub> 50/60Hz
Dimensions / Weight	Rack 19" 1RU-6kg (50W) 2RU-9.5kg (300W) 2RU-9kg (500W) 2RU-14kg (1000W)
Ambient Temperature Range	-5°C to +45°C

Specifications and characteristics are subject to change without notice Rev.6/6.16p



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