

EX02-501F

EX02-301F

EX02-101F

EX02-500F



50W VHF FM TRANSMITTER
100W VHF FM TRANSMITTER
300W VHF FM TRANSMITTER
500W VHF FM TRANSMITTER

Exciter Line

General information

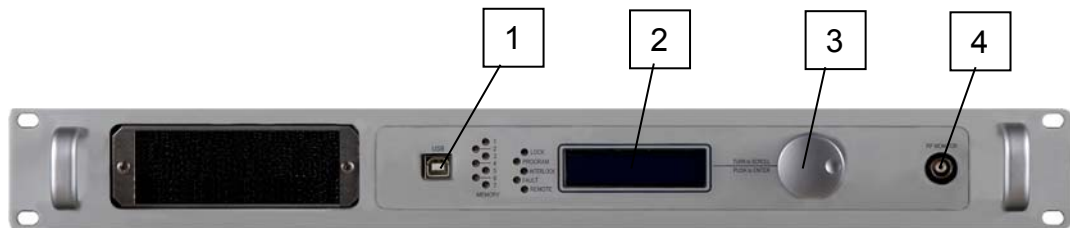
The series belongs to the TX02 Low Power VHF product family of FM Radio Transmitters fully solid state technology air cooled.

The TX02 family is operating in the Band II or Band I (OIRT) for FM stereo sound broadcasting, with 50 to 500W output power capability and exciter built-in.

The equipment is fully compliant with the personnel safety requirements as specified in EC 215.

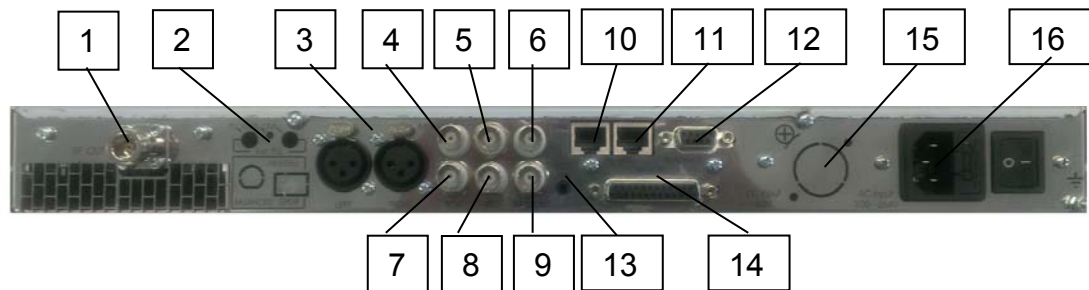
The transmitters have been designed to offer to the customer high performances, high reliability and great simplicity in their operation and maintenance procedures.

Front Panel



- 1 – USB Port: USB Connector for upgrade function
- 2 – LCD Display: Two-row, sixteen-characters LCD Display
- 3 – Encoder: Rotary encoder
- 4 – RF Monitor: RF Output Monitor BNC female (50 Ohm)

Rear Panel



- 1 – RF Output. N (50 Ohm) type connector, female.
- 2 – AES/EBU Input (Optional): Digital \ Input Balanced BNC Plug / (TOS optical Input)
- 3 – Right/Left - Mono Input: Analog Audio Input XLR (3 pins female connector)
- 4 – MPX Input: MPX Unbalanced Input. BNC female connector.
- 5 – AUX Input: BNC female connector.
- 6 – 9 kHz Pilot Output: BNC female connector.
- 7 – SCA Input: BNC female connector.
- 8 – RDS/external Input: RDS Input. BNC female type connector.
- 9 – AF Monitor: BNC female Type connector
- 10 – WEB Telemetry (OPTIONAL): RJ45 for Lan connection
- 11 – RS485: RJ45 for RS485 connection.
- 12 – Reading: DB9 Female Connector
- 13 – RDS Programming (OPTIONAL): Jack/ST/Female 3,5mm
- 14 – Telemetry: DB25 Female Connector
- 15 – DC Input (OPTIONAL): Amphenol connector eco-mate series C16-1
- 16 – AC Mains: AC Main Source. VDE Mains socket.

Technical Specifications

GENERAL

• Frequency range	87.5 to 108 MHz
• Class of emission	F3E (Monophonic) ; F8E (Stereophonic)
• Stereo system	According to C.C.I.R. rec.450-2
• Frequency deviation	±75 kHz nominal
• Frequency control	Built-in Frequency Synthesiser
• Resolution	10 kHz step programmable
• Frequency stability	± 500 Hz / 6 months
• Output power	50W ; 100W ; 300W or 500W dependent of version
• Harmonic emission	≤ 70 dBc
• Spurious emission	≤ 90 dBc
• Residual AM noise level	≤ 60 dB
• Synchronous AM	≤ 50 dB
• RF output impedance	50 Ω (N Female connector)

ENVIRONMENTAL

• Operating temperature	0°C to +45°C (others on request)
• Relative humidity	20% to 90% non-condensing
• Altitude	up to 2500 m.

PROGRAM INPUT

• Mono/Stereo	L & R program input
• Connector	XLR type
• Impedance	600Ω balanced (others selectable)
• Level	-4 to +12dBm
• Preemphasis	50 or 75µs selectable
• Audio frequency response	40 to 15000 ±0.3dB
• 19 kHz suppression	≥ 50 dB
• RDS and AUX	Subcarrier program input
• Connector	BNC
• Impedance	≥ 2 kΩ unbalanced
• Frequency range	67 to 100 kHz
• Nominal input level	-10dBm (±7.5 kHz deviation)

TRANSMISSION CHARACTERISTICS

Mono operation ±75 kHz deviation

• Total harmonic distortion	≤ 0.1%
• Intermodulation	≤ 60 dB
• Signal to noise unweighted	≥ 80 dB
• Signal to noise weighted (CCIR 468-3)	≥ 78 dB

Stereo operation ±75 kHz deviation

• Total harmonic distortion	≤ 0.1%
• Intermodulation	≤ 60 dB
• Signal to noise unweighted	≥ 75 dB
• Signal to noise weighted (CCIR 468-3)	≥ 72 dB
• Crosstalk L & R (40 to 15000 Hz)	≥ 50 dB
• 38 kHz subcarrier suppression	≥ 50 dB
• Attenuation above 53 kHz	≥ 50 dB

METERING

The following parameters can be read on front display

- Forward power (FWD)
- Reflected power (REF)
- DC Supply voltage
- Frequency (active channel)
- Frequency (stored channels 1 to 6)
- Mono and stereo sensitivity (0,25 dB step)
- Programmed output power
- MPX peak modulation
- L & R peak level
- RDS, SCA, Aux, MPX external modulation
- Programmed audio parameters (+L or -L, +R or -R, L on/off, R on/off, Pre-emphasis lin. 50, 75 μ sec, Limiter on/off, Input Impedance $Z=10k\Omega / 600\Omega$)
- Alarm status
- Memory status
- Internal voltage
- Serial Number

REMOTE CONTROL

Parallel interface: start, stop, standby, alarms, status, interlock, recall memory
WEB interface: TCP/IP Telemetry (option)

GENERAL

Voltage power supply: 220 VAC $\pm 15\%$ (others on request)
Frequency: 50-60Hz $\pm 5\%$
Power consumption: 90W to 800W dependent by model
Power factor: ≥ 0.9
Cooling: forced air
Dimensions: 485 x 405 x 44H mm
Weight: 5.5 kg. (500W model)

OPTION

Digital audio Input: AES-EBU facilities XLR balanced (S/PDIF)
RDS: RDS simple coder programmable via PC
OIRT Version: band of frequency 65.80 to 74.00 MHz

How to Order (others version on request):

EX02-500F – 50W Transmitter
EX02-101F – 100W Transmitter
EX02-301F – 300W Transmitter
EX02-501F – 500W Transmitter
-D – AES/EBU Digital I/O Board
-R – RDS Coder Board
-W – Web GUI Interface Board

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