

Audio Processing
RDS Encoding
Mobile Metering
Signal Monitoring



FM TRANSMITTER SILVER

OVERVIEW

The FM Transmitters Silver are top specification FCC certified and RTTE/CE compliant. They are ideally suitable for low and medium power radio stations, from 1W to 600W. Frequency is easily adjustable from 87.5 to 108 MHz from the front panel graphic display control system or via RS-232 using the software interface. All FM Transmitter Silver models except the FM1 version include 2 BNC outputs on their front panel for deviation and RF monitoring. The equipment is also able to send alarms.

FEATURES

- Compact light weight unit
- Universal main power input
- Mosfet power design
- Harmonic filter
- Dual speed PLL
- Stereo encoder
- Built in limiter/compressor
- LCD display
- Cooling Fan
- Alarms and fault monitoring
- Dual system RS232 control
- Loop through / External MPX
- Switchable settings
- RF power control
- VSWR and overheat protection
- FCC certified

BENEFITS

- Great features at a very good price.
- Integrated audio limiters, stereo generators, remote control

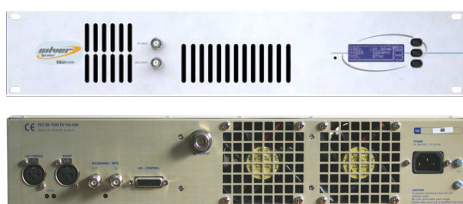
TRANSMITTERS RANGE

FM Transmitter Silver 25/50



FM Transmitter Silver 150/300

FM Transmitter Silver 600



All in One solution

The FM Transmitter Silver range is an All in One solution. All transmitters are compact (1 or 2 rack units depending on the version) and contain an audio limiter, a stereo encoder, an LCD programmable dual loop PLL transmitter and an amplifier. The limiter and the stereo encoder can be switched in and out of the circuit. Jumper settings are also available internally for pre emphasis, clipping, processing mode (clarity/loudness), mono/stereo, and limiter on/off. The "All in One" approach also has economic advantages. It's easier to install and maintain, draws less power, and takes up less space at the transmitter site.

User interfaces

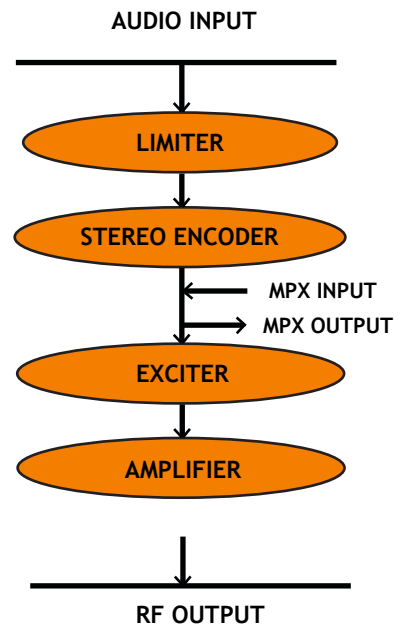
A graphic display makes the equipment very easy to configure and monitor. It indicates the frequency, forward and reflected power, power amplifier temperature, power amplifier voltage, PLL board voltage, modulation levels as well as the amount of gain reduction of the internal audio limiter module. PC software is also provided to connect the FM Transmitter Silver using the RS232 serial port.

Protection

The amplifier is protected from damage by temperature control systems and reverse power (VSWR) monitoring. The power to the amplifier is turned down into the safety zone should a fault occur, keeping you on air rather than shutting down completely and taking you off air. The power amplifier is based on a modern MOSFET device.

Internal architecture

The limiter and stereo encoder stages can be bypassed. An MPX input and output before the exciter means you can use the FM Transmitters Silver in many configurations. This is very useful for those who want to add an RDS encoder into the chain by connecting it directly to the FM Transmitter Silver.



APPLICATIONS

- For low power Radio stations
- As a retransmitter with an external receiver

FM TRANSMITTER SILVER

TECHNICAL SPECIFICATIONS

	FM25/50	FM150/300	FM600
Control System	3 Buttons - 128x32 graphic display		
Cooling	40mm Fan	Dual 80mm Fans	
External Control/Monitor	Dual 9 Way D-Type with adapter (option)		
Size	475mm x 44mm x 250mm	475mm x 88mm x 250mm	
Weight	2.5kg	5kg	9kg
Voltage Input	85-260 VAC (50-60Hz)		
Current Input	110V-500mA 220V-500mA	110V-4.5A 220V-2.2A	110V-8.5A 220V-4.5A
Power Connector	IEC, fused and switchable		
Switched Mode Supplies Approvals	UL/TUV/CE		
Frequency range	87.5 to 108MHz		
Frequency steps	100kHz (12,5kHz from internal switches)		
Frequency Selection	Internal switches or front panel LCD System		
Frequency Control type	Dual Speed Phase Locked Loop (PLL)		
Frequency Stability	+/-200Hz (fine adjustment available)		
Power (adjustable)	3-25W (FM25 version) 5-50W (FM50 version)	25-170W (FM150 version) 25-300W (FM300 version)	25-600W
Connector	N-type 50 Ohms		
Harmonics	<75dBc		
Spurious	<90dBc		
VSWR	- Fold Back Above 2.1		
MPX Input	BNC		
MPX Input Response	+/-0.3dB (5Hz to 100kHz)		
MPX Input Level	-10dB to +10dB adjustable		
Modulation	Direct Frequency Modulation		

LIMITER

Audio Input Levels	-10dB to +18dB for limiting
Audio Input Connectors	XLR balanced (RF shielded)
Input CMRR	>60dB
Audio Distortion	< 0.1% at limiting 1kHz (clarity mode)
Frequency Response	>20Hz to 20kHz +/- 0.5dB (0µs pre-emphasis)
Limiter Control Range	>22dB (0µs pre-emphasis)
Input Impedance	10k
Pre-Emphasis	50 and 75 µs
Process Modes	Clarity and Loud
Clipping	On or Off

STEREO

Pilot and subcarrier Generation	Microprocessor Generated (oversampled)
Pilot	19kHz +/- 1 Hz (adjustable)
Output level	(BNC) 6dBu
15 kHz Filtering	>40dB at 19kHz
15kHz overshoot filter clipping	On or Off
Spurious >80 kHz	>60dB (>50dB for FM1, FM5, and FM25/50 versions)
Spurious >160 kHz	>80dB
Stereo Separation	>60dB from 20Hz to 15kHz (>50dB for FM1, FM5, and FM25/50 versions)

ORDER INFORMATION

Standard version	
TFE00173	FM Transmitter Silver 1W*
TFE00174	FM Transmitter Silver 5W*
TFE00175	FM Transmitter Silver 25/50: 25W*

*with a built in sound processor and stereo encoder

TFE00176	FM Transmitter Silver 25/50: 50W*
TFE00177	FM Transmitter Silver 150/300: 150W*
TFE00178	FM Transmitter Silver 150/300: 300W*
TFE00179	FM Transmitter Silver 600W*

Ref: FM Transmitter Silver - Datasheet 08/2008
Technical specifications are subject to change without prior notice



infos@ecreso.com - www.broadcast-silver.com

Head office: 20, avenue Neil Armstrong - 33700 - Mérignac-France
Tel: +33 (0)+556 675 454 - Fax: +33 (0)+556 675 167
US office: 19595 NE 10th Av, Suite A - Miami, Florida 33179
Tel: +1(305) 249 3110 - Fax: +1(305) 249 3113
China sales office: Room No.21, Unit 2, No.13 Ti-Yu-Guan Street
Chongwen District Beijing 100061 - P.R.CHINA
Tel: +86 1067703330