

Medium Power FM Transmitters

TX 1 – 1000 W

TX 05 – 500 W

The TX 1 and TX 05 are really innovative FM Transmitters with 1000W and 500W output power respectively. Thanks to the new solutions that our engineers have implemented in the circuitry and to the compact design, for these transmitters we have estimated a 20% longer MTBF with respect to the average similar models available in the market.

The TX 1 and TX 05 are equipped with a microprocessor board that allows the programming from the local display or even remotely, through a standard RS232 or SNMP. Thanks to the ultimate electronic components that have been largely implemented in the design, also the RF spectrum specifications have been significantly improved



The equipment complies with the RTTE European Requirements.

- Solid state amplifier with Mosfet technology.
- Output Power adjustable from 100W to 1000W
- User friendly for monitoring and control
- Double stage power supply
- Fast and multiple protections
- Compact and modular design for quick and easy maintenance
- Flexible telemetry system and remote control
- N+1 Hardware and software control facility

CODE	MODEL	DESCRIPTION
F866	TX 1	1000 W Stereo, Mono MPX Transmitter
F872	TX 05	500 W Stereo, Mono MPX Transmitter



Technical data

FREQUENCY	
Range	87,5 ÷ 108 MHz
Internal Setting mode	10 KHz steps
External Setting mode	10 KHz steps by remote control RS232-RS485
Generation	PLL synthesizer
Control	Microprocessor
Output frequency stability	± 300 Hz / 3months
Reference	TCXO 12,8 MHz
Nominal deviation	± 75 KHz
Stability of Frequency Deviation	± 2,5 % over 6 months
Impedance RF Connector	50 Ohm
RF OUTPUT SPECIFICATIONS	
Harmonics suppression	< - 75 dBc
Spurious Emission	< - 90 dBc
Off Lock Attenuation	> 60 dBc
S/N RATIO (weighted)	> 73 dB (referred to ± 75 KHz)
THD	0,10%
VSWR	Less then 1,5:1
Probe	BNC connector RF – 40 dB BNC connector LF
MONO MPX SPECIFICATIONS	
Mono/MPX Impedance	600 Ohm bal. or 10 KOhm unbal., XLR female Connector
Mono Level	From - 6 to + 12 dBm
MPX Level	- 6 dBm
Audio Filter Response	> 30 dB (from 19 KHz to 100 KHz)
THD	< 0,2% From 40 Hz to 15 KHz
Suppression of 19 KHz	> 46 dB
RDS and SCA Impedance	10 KOhm unbal., BNC Connector (with 30 Hz to 100 KHz Filter)

STEREO SPECIFICATIONS	
Left, and Right Impedance	600 Ohm bal. or 10 KOhm unbal., XLR female Connector
Left, Right Level	From – 6 to + 12 dBm
Crosstalk	> 50 dB (@ 19 KHz)
THD on Encoded channels	< 0,3 % From 0,4 Hz to 15 KHz
Suppression of 38 KHz	> 50 dB
Spurious suppression outside band	According to ETSI 300-384
Sub Carrier Generation	Internal Cristal
Pilot Frequency	19 KHz ± 1 Hz
DESIGN DATA	
Type	Solid state direct FM frequency
Pre-emphasis	Flat or 75 or 50 µs
Audio frequency response	± 0,2 dB (from 40 Hz to 15 KHz) (stereo) ± 0,3 dB (from 40 Hz to 100 KHz) (MPX)
Unbalance rejection	> 40 dB
Modulation	Type: Direct VCO frequency modulation F3E/F8E Capability: Meets or exceeds all CE 99/ 05 R&TTE requirements
REMOTE CONTROL	
Output Connector	RS 232 – PC connection (front panel) RS 232 Amplifier connection (rear panel) RS 485 (rear panel)
Input Connector	RS 485 (rear panel)
STANDARDS COMPLIANCE	
Radio spectrum	ETSI 300-384; ETS 302-018
EMC	ETSI 447; ETS 301-489
Safety	EN 60950 - EN 60215
TEMPERATURE	
Operating range	0° to 45° C
Storage range	- 40° to 60° C
Maximum relative Humidity	90% non condensing
Max Operating Altitude	2500 mt. a.s.l.



SPECIFICATIONS	TX 01	TX 05
RF output power	From 100 to 1000 W	From 50 to 500 W
Output Connector	7/16 Type Female	7/16 Type Female
Dimension (WxHxD) mm	482 x 132 x 700 (550 x 270 x 800 Package)	482 x 132 x 700 (550 x 220 x 800 Package)
Weight	18 Kg (20 Kg. Package)	17 Kg (19 Kg. Package)
Power consumption	Approx. < 1800 VA	Approx. < 900 VA
Number of power supplies	230 Vac±15%, single phase;	230 Vac±15%, single phase;
Number of fans	2 blowers 24 V dc	2 blowers 24 V dc

Remote control system

This remote control system for FM transmitters can be operated by Cable or by GSM Modem; basically, it allows monitoring and modifying remotely the

overall setting of transmitters. In case of failures in the transmitter which is under control, the software of the remote control automatically sends an SMS warning message.



DESCRIPTION

All the main parameters (frequency, levels, mono-stereo- pre-emphasis, output power) are adjustable through the keypad and are automatically stored in the memory, even in case of lack of mains. Many events can be stored; every alarm information is advised with its start alarm date and the end alarm date.

The main measurements realized by this system are: value of modulation, heatsink temperature, mains line voltage, voltage and current of the RF final stage, main oscillator faulty.

The transmitter can be controlled by means of the keypad or in remote mode.

As a monitor, a common personal computer can be connected on the dedicated connector on the front panel. By simply installing an appropriate program on the PC, it is possible to set and see all the parameters.

Every transmitter can be connected to a GSM Modem with an external antenna, to link the transmitter to the public telephone network. It is possible to control and modify all the parameters of the transmitter just like if the user were on the site.

CODE	MODEL	DESCRIPTION
F634.06		Modem analogico
F634.07		Modem GSM
F634.08		Opzione software

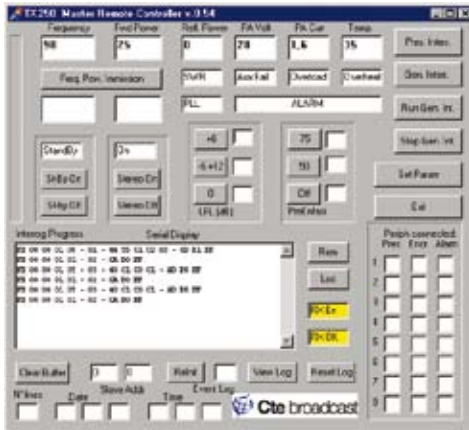
TECHNICAL FEATURES

- › Remote setting and measurement of: direct power, reflected power, modulation, current, voltage, temperature, power supply
- › Immediate information via GSM on unexpected events (managed by two different telephone numbers)
- › Password as system protection
- › Friendly use
- › Operated by TCP/IP protocol using SNMP protocol

PC System requirements:

- Processor Type: PENTIUM or higher
- Operative system: WINXP
- RAM: 256MB
- Graphic: SVGA 600x800/768x1024

SOFTWARE



EXAMPLE OF A STANDARD TRANSMITTING STATION

