



FT500-D

500W FM DIGITAL TRANSMITTER

The FT500-D FM transmitter is designed to provide more reliable FM transmitters using the extremely rugged LDMOS power transistor for the FM broadcast market.

FT500-D consists of a 25W digital exciter (FTC25-D), 500W FM amplifier (FA500) and a cabinet.

Main Features

- Direct to channel digital exciter with built in RDS encoder
- Very Efficient LDMOS Amplifier
- Excellent audio performance
- Measurement and display of the transmitter's working parameters
- Built-in silence detector (adjustable time)
- Built-in automatic audio source selector
- Seven Selectable Complete Set-up Ready For Use N+1 System
- Automatic start/stop for air conditioner
- Ready for SFN
- RDS Alarm contact
- Event logs can be seen on display or printed out with date&time of event
- High Reliability Use Of Microstrip Technology



Options

- Double Exciter With Automatic Changeover System
- GSM/GPRS Modem for internet connection
- Remote Control Via Internet (TCP/IP, SNMP)





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Technical Parameters

COMPOSITION	Exciter	FTC25 25W FM Exciter
	Amplifier	FA500 500W FM Amplifier
GENERALDATA	RF Output Connector	7/16
	Output Power Range	0-500W
	Operating Band	87.5-108.0 MHz
	Dimensions:W - H - D	52 - 40 - 80cm (7U RackUnit)
	Weight	55 kg
	RF Power Stage Technology	LDMOS
	Automatic Power RF Control	Stabilized output power value on the set value
	Overall Output Power RF Stability	±0.1 dB
	Cooling System	Forced air-cooling
	Air outlet	On the rear. Cooling flow 2200/2400 m3/h (depending on environment)
	RS232/RS485	2xRS485 (RJ45), 1xRS232 (DB9). RS232 only for printer. RS485 for communication with other devices
	Points of measure	RF Sample
	N+1 Redundancy System	Available for max. 7+1
	Automatic Change Over Unit	Available via relay contacts of the amplifier
	Automatic Aircondition Control	Available via relay contacts of the amplifier
	Humidity Control	Available to see the humidity ratio and run the air condition automatically
	Event Log	Last 100 events in LCD menu, 26 events via remote connection
AC Voltage & Current Protection	Available	
EXCITER PERFORMANCE	L/R Input Level	-3 to +9 dBm
	L/R Level Adjustment	Soft adjust 0.1 dBu steps from front panel
	L/R Input Impedance	600 ohm balanced, 10K ohms unbalanced
	MPX Input Level	+15/-10 dBu for 75 KHz standard deviation
	AES/EBU input resolution	24 bits
	AES/EBU input sample rate	32, 44.1, 48, 96, 192 KHz automatically selected
	AES/EBU input level	-20 dBFS - 0 dBFS
	SCA/RDS input level	0 dBu for 10% deviation
	PILOT Tone Frequency Stability	± 1 Hz
	THD+N	0.03% @ 400Hz (stereo/mono operation), 0.01% @ 400Hz (MPX operation)
	Pre-emphasis	50/75µs selectable
	FM S/N CCIR Mono/Stereo	>80dB weighted >80dB unweighted @400Hz, 75KHz deviation, quasi-peak detector, 50us de-emphasis
	FM S/N MPX	85 dB 20 Hz to 23 KHz @ 53 KHz - detector RMS
	Amplitude-frequency characteristic	± 0.15 dB, 30 Hz to 15 KHz
	Linear crosstalk	> 70 dB 20 Hz to 15 kHz
	Intermodulation distortion	<0.05% Measured with two of tones 1 kHz & 1.3 KHz, ratio 1:1 at 100% modulation
	Class of Emission	F3
Stereo Emission	According to ITU-R recommendation 450 (pilot tone)	
Frequency Deviation	± 75 KHz	
Maximum Frequency Deviation	± 150 KHz	
Frequency Stability	± 1ppm from -5 to 45°C.	
RF Frequency Steps	100 KHz	
INSTALLATION REQUIREMENTS	AC Voltage	180/264V AC – 47-63 Hz
	Power Consumption	700 VA
	Current consumption @220VAC	3.2A
	Overall Efficiency	0.67
	Power Factor	>0.95
ENVIRONMENT	Temperature Range (operating)	-5 / +45 °C, 23 / 113 °F
	Humidity Range (operating)	90% @ 40 °C, 104 °F
	Altitude Range (operating)	<2000 meters / <13125 Feet
TELECONTROL & TELEMETRY	Remote Control via TCP/IP	Option
	SNMP	Option
	Remote Control via GSM Modem	Option
	Alerting via E-mail & SMS	Option