



FTC5K-D

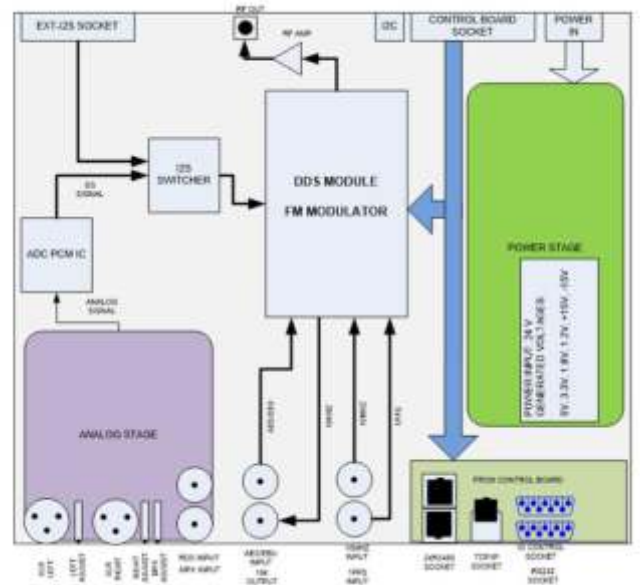
5 KW FM DIGITAL TRANSMITTER



FTC5K-D FM digital exciter is designed to provide all requested specifications in a single box. Analog&digital audio signals are converted to digital signals and modulated in a FPGA with excellent software algorithms to FM band with extremely low noise level. It is manufactured to the highest performance needs.

Main Features

- Direct to channel digital modulator (DDS) with built in RDS encoder
- High audio performance is ensured by advanced digital signal processing technology (24-bit analog converter)
- Measurement and display of the transmitter's working parameters
- Built-in silence detector (adjustable time)
- Built-in automatic audio source selector
- Ready for N+1 redundancy 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
- All parameters can be remotely controlled by TCP/IP





FTC5K-D

5000 W FM DIGITAL TRANSMITTER

Technical Parameters

GENERAL DATA	Output Power Range	0 - 5000 W
	RF Output Connector	7/8
	Operating Band	87.5 - 108.0 MHz
	Dimensions: W-H-D	48.5 - 77.5 - 22 cm (5U Rack Unit)
	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	± 0.1dB
	Cooling System	Forced air-cooling
	Remote Control	Yes. SNMP. Optional
	RS232 / RS485	2xRS485 (RJ45), 1xRS232 (DB9). RS232 only for printer. RS485 for communication with other devices
	Points of Measure	RF Sample
	AUDIO & RF DATA	L/R Input Level
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
MPX Input Impedance		5 K unbalanced
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
AES/EBU input impedance		110 Ohm unbalanced
SCA/RDS input level		0 dBu for 10% deviation
PILOT Tone Frequency		19 KHz
PILOT Tone Frequency Stability		± 1 Hz
THD+N (stereo/mono operation)		< 0.03% or better with 75 KHz frequency deviation at 30 Hz to 15 kHz
THD+N (Mpx operation)		< 0.01% or better with 75 KHz frequency deviation at 30 Hz to 15 kHz
Pre-emphasis		50/75µs selectable
Pre-emphasis Tolerance		± 0.1 dB
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)	
PLL Lock Time	110 ms	
Frequency Deviation	± 75 KHz	
Maximum Frequency Deviation	± 150 KHz	
Frequency Stability	± 1 ppm from -5 to 45°C.	
RF Frequency Steps	100 KHz	
INSTALLATION REQUIREMENTS	AC Voltage	180/264 V AC- 47- 63 Hz
	Power Consumption	8250 VA
	Current consumption @220V AC	37.5 A
	Overall Efficiency	65%
	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