

FMT-25 to 500 25-500W FM Translator

The FMT FM Translator is a unique VHF, FM Stereo Translator product that provides the professional broadcaster with a flexible range of Rx/Tx options and excellent specifications, for program re-broadcasting off-air. The product also has the option of operating as a UHF to UHF translator or VHF to UHF translator providing a very flexible or VHF/UHF program linking solution all in a 2U rack mount unit.

The FMT range of products provides various VHF RF output powers in the FM band for re-broadcasting solutions such as the following.

- # FMT-25 25W FM to FM Translator
- # FMT-50 50W FM to FM Translator
- # FMT-100 100W FM to FM translator
- # FMT-250 250W FM to FM Translator
- # FMT-500 500W FM to FM Translator
- # FMT-U15 5-15W UHF Translator

The FMT Range of Products also offers options for VHF / UHF program linking with receiver options from 200-950MHz as follows:

VHF / UHF receiver option a to for FMT-25, FMT-50, FMT-100, FMT-250 and FMT-500

VHF to VHF or UHF to UHF translators are also configurable for Transmission of VHF or UHF link frequencies in the RF power range from 5W to 15W. see Transmitter Options on the rear page.

The Standard product is utilized as a VHF FM translator, receiving the program on one FM Frequency and re-broadcasting on another VHF FM Frequency in the RF Power output ranges of 25W, 50W, 100W , 250W or 500W, by configuring different Power supplies and amplifies modules in the model variations.

The FMT-25 to 500 can also receive a program on a VHF or UHF Link frequency (200-470 or 800-950MHz) and re-transmit on a FM VHF Frequency (88-108MHz). This application provides a solution for "On frequency VHF gap filling" by receiving the program on a UHF frequency and re-broadcasting on VHF FM and could completely eliminate the problems of FM to FM Rx/Tx antenna coupling and can even eliminate the need for a second VHF broadcast license.



FMT-250 250W FM Translator

Features

Compact 2U lightweight, rack mount, convection cooled

A.C. 230 / 115V and D.C. (+24V-100W), (+48V-250-300W) operation

Wideband operation (100kHz baseband)

Automatic tuning (front end)

High selectivity (300kHz adjacent channel operation)

Optional VHF / UHF Receiver down Converter

Optional VHF/UHF up-converter and amplifier

TECHNICAL SPECIFICATIONS

Transmitter Options:

Model no. Option.	FM					UHF	
	FMT-25	FMT-50	FMT-100	FMT-250	FMT-500	FMT-U15	FMT-U15
Band	FM	FM	FM	FM	FM	VHF/UHF	UHF
Frequency (MHZ)	87.5-108	87.5-108	87.5-108	87.5-108	87.5-108	200-470	800-960
Max RF Power	25W	50W	100W	300W	550W	15W	5W

Receiver Options:

Parameter	FM		VHF / UHF					
	Option 1	Option 2	Option a	Option b	Option c	Option d	Option e	Option f
Band	FM	FM	VHF	VHF/UHF	UHF	UHF	UHF	UHF
Frequency (MHZ)	87.5-108	87.5-108	200-250	290-350	350-400	400-470	800-870	900-960
S/N \geq 60dB	100uV	200uV	100uV	100uV	150uV	150uV	150uV	150uV

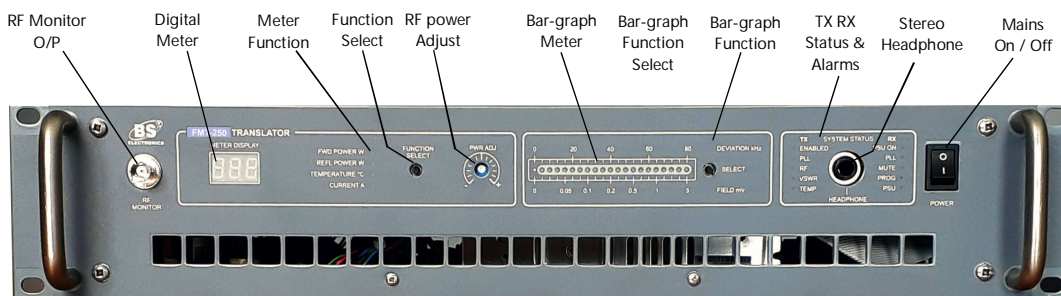
NOTE: RF Power, Receive and Transmit Frequency options must be provided with order.

Translator General Electrical Specifications

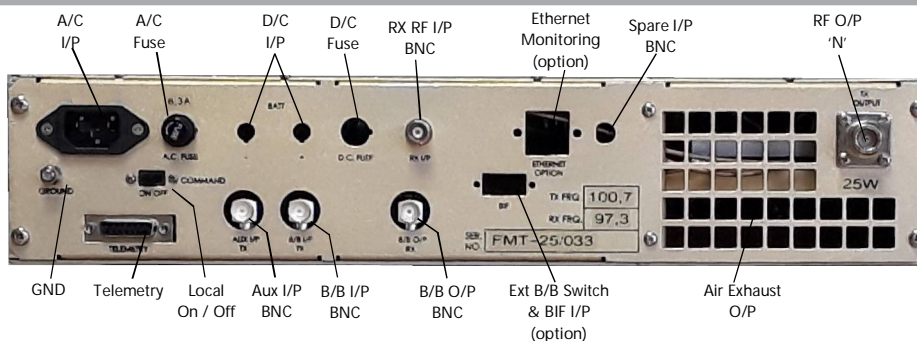
PARAMETER	SPECIFICATION
Modulation type	F3E and F8E (direct carrier)
Frequency synthesizer	PLL with Local/Remote control
Frequency increments	50 kHz
Frequency stability	2ppm
Modulation Bandwidth	100kHz
TX:RX Minimum Frequency Spacing	300kHz
Stereo Separation (L & R)	\geq 50dB (30Hz - 15kHz)
Stereo CrossTalk (L & R)	\geq 45dB (30Hz - 15kHz)
Stereo Distortion	\leq 0.25% (30Hz - 15kHz)
Sync AM	\leq -50dB
Non Sync AM	\leq -50dB
RF Spurious and Harmonics	\leq -70dBc
Stereo S/N @ 1mV	\leq -70dB
Standard RX Sensitivity for 60dB S/N	150uV

Translator General Electrical Specifications

PARAMETER	SPECIFICATION
AC power input	110/220V (VIA SWITCH) +/- 15%
External dc Voltage Supply	+24V (25-100W) or +48V (250W)
Mains consumption	FMT-U15 40VA FMT-25 70VA FMT-50 100VA FMT-100 175VA FMT-250 400VA FMT-500 800VA
Operating temperature	-10 to +45 °C
Operating altitude	<2500 m
Dimensions (mm)	485W x 500D x 88H (2U)
Weight	6.5- 7kg



FMT-25 to 500 FRONT PANEL CONTROLS AND INDICATORS



FMT-25 to 500 REAR PANEL CONNECTIONS