

# FM Solutions

25W to 250W FM Translators

## LARCAN FM Translator Series

FMT-100 / 100W FM Translator



**FMT-100  
FM Translator**

### NEW FM Translator Series – Your Best in FM Solutions

The FMT-100 is a unique VHF, FM Stereo "Translator" product that provides the professional broadcaster with a flexible range of Rx/Tx options and excellent specifications, all in a 2U rack mount unit. The Standard product incorporates an FM receiver front end, base band demodulator and re-modulator to the new FM Frequency. The product includes a switch and Baseband Input to connect a MPX signal for local insertion of program content.

The FMT-100 can provide numerous FM re-broadcasting solutions such as the following.

- a) VHF (Receive) to VHF (Transmit) re-broadcast (100W RF Output)
- b) UHF (Receive) to VHF (Transmit) re-broadcast (100W RF Output)

This unique product provides a solution for "On frequency VHF gap filling" via a VHF (Receive) to UHF (Transmit) unit, and a UHF (Receive) to VHF (Transmit) unit, where the two VHF frequencies are the same. This completely eliminates the problems of Rx/Tx antenna coupling and can even eliminate the need for a second VHF broadcast license.

LPFM applications that require a STL, this product can be fitted with the UHF Down convertor with FM modulator, which will not require a separate UHF receiver, this offers a unique cost-saving opportunity that other products cannot offer.

#### Features:

- Superior audio performance
- Compact 2U lightweight, rack mount, forced air-cooled
- A.C. 230 / 115V and D.C. (+24V-100W) operation
- Wideband operation (100kHz baseband)
- Automatic tuning (front end)
- High selectivity (300kHz adjacent channel operation)
- Optional Higher selectivity front-end filter (tuned) [FM]
- FCC Certified & Field Tunable

# FM Solutions

25W to 250W FM Translators

## LARCAN FMT-100 (100W FM Translator)

### TECHNICAL SPECIFICATIONS



#### Translator Options:

Parameter	Option 1
Band	VHF
Frequency (MHZ)	87.5-108
RF Power	100W
Synthesizer Type	PLL Single

#### Receiver Options:

Parameter	Option 1	Option 2	Option 3
Band	VHF	VHF	UHF
Frequency (MHZ)	87.5-108	87.5-108	920-960
S/N $\geq$ 60dB	100uV	200uV	150uV
Synthesizer Type	PLL Single	PLL Single	PLL Dual

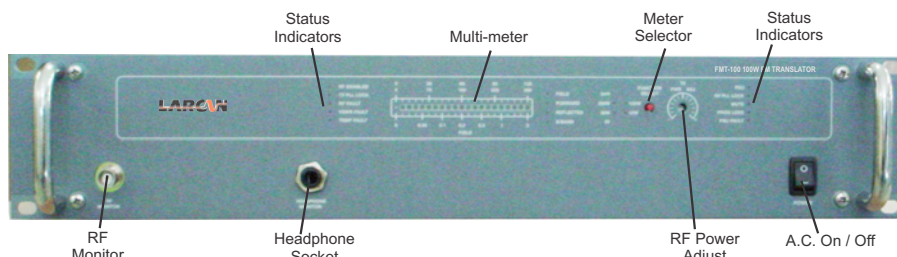
NOTE: Option, RF Power, Receive and Transmit Frequency must be provided with order

#### Translator General Electrical Specifications

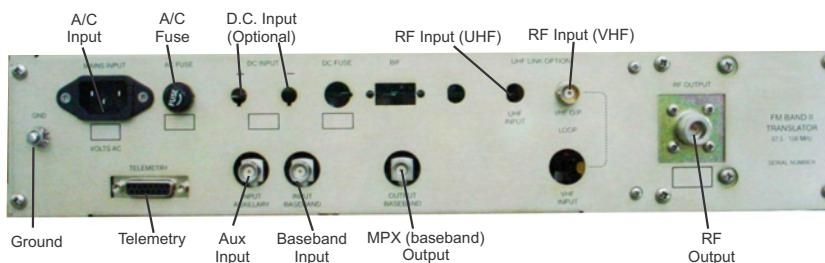
PARAMETER	SPECIFICATION
Modulation type	F3E and F8E (direct carrier)
Frequency synthesizer	PLL with Local/Remote control
Frequency increments	50 kHz
Frequency stability	2ppm
Modulation Bandwidth	100kHz
TX:RX Minimum Frequency Spacing	300kHz
Stereo Separation (L & R)	$\geq$ 50dB (30Hz - 15kHz)
Stereo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

#### Translator General Electrical Specifications

PARAMETER	SPECIFICATION
AC power input	110/220V (VIA SWITCH) +/- 15%
External dc Voltage Supply	+24V (battery/solar)
Consumption (110V A.C)	160VA (1.5A)
Operating temperature	-10 to +45 °C
Operating altitude	<2500 m
Dimensions (inches)	19W x 18.9D x 3.48H (2U)
Weight	24.5 Lbs



FMT-100 FRONT PANEL CONTROLS AND INDICATORS



FMT-100 REAR PANEL CONNECTIONS