

# **MX SERIES**

The evolution of 40+ years of experience

SIMPLICITY • RELIABILITY • MODULARITY • SERVICEABILITY

## **MX-10V**

**10 Watt VHF Transmitter / Translator**



***A Digital Transmitter  
with Analog Front End***

***DTV COMPATIBLE***

***FREQUENCY AGILE  
INPUT AND OUTPUT***

***AMPLIFIER FIELD TESTED  
FOR DIGITAL SERVICE***

***BROADBAND,  
CLASS AB AMPLIFIER***

***ADJACENT CHANNEL  
OPERATION CAPABLE***

***LINEAR POWER SUPPLY  
PROVEN RELIABILITY***

***FIELD TUNABLE  
OUTPUT FILTERS***

# **LARCAN**

# MX SERIES

The evolution of 40+ years of experience

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## MX-10V SPECIFICATIONS

THE **MX Series** IS THE NEW STANDARD IN BROADCAST TRANSMITTERS. DESIGNED UPON THE PRINCIPLES OF

- SIMPLICITY
- RELIABILITY
- MODULARITY
- SERVICEABILITY

THEY ARE BUILT TO LAST. PERIOD.

### BROADBAND DESIGN

WITH STATE-OF-THE-ART BROADBAND AMPLIFIERS, AND A FREQUENCY AGILE FRONT END, CHANNEL CHANGES COULDN'T BE EASIER. MINOR FIELD TUNING OF THE OUTPUT FILTER IS ALL THAT IS REQUIRED.

### LINEAR POWER SUPPLY

RESPONSIBLE FOR PROVIDING DEPENDABLE, UNINTERRUPTED SERVICE WITH MINIMAL MAINTENANCE REQUIREMENTS AND MAXIMUM SURGE PROTECTION - TO KEEP YOU ON THE AIR.

### FIELD TESTED FOR DIGITAL

THE AMPLIFIERS COME FROM THE LARCAN FIELD-TESTED GENERATION OF DTV TRANSMITTERS, WHICH MAKES THE **MX Series** THE EQUIPMENT OF CHOICE FOR THE FUTURE.

### NTSC

#### OUTPUT

**Power:** 10 Watts, peak visual  
10% Aural

**Frequency:** Low Band VHF;  
Channels 2-6 (54-88MHz)  
High Band VHF  
Channels 7-13 (174-216MHz)

**Output Connector:** 50 ohm, type 'N'

#### INPUT

**Input Frequency:** baseband, comp. NTSC video

**Input Level:** 0.5 to 1.5 Vp-p

**Input Connector:** 75 ohm, type "F"

### PERFORMANCE

**Response:**  $\pm 1.5$ dB between carriers

**Frequency Stability:**  $\pm 0.02\%$  over temperature range  
High stability option available

**Harmonic Radiation:** -60dBc

**Spurious Products:** -50dBc

**Three Tone IMD:**  $> -52$ dBc

#### VIDEO

**Differential Phase:**  $\leq 3^\circ$

**Differential Gain:**  $\leq 5\%$

**2T K-factor:**  $\leq 2.5\%$

**Group Delay:** Per FCC specification

**ICPM:**  $\leq 2^\circ$

**AM Noise:**  $\geq -50$ dBc

#### AUDIO

**Distortion:**  $\leq 1\%$  (0.2% typ.) 50Hz to 15kHz

**Hum and Noise:** 55dB below 25kHz deviation

**Response:**  $\pm 1.0$ dB, 50Hz to 15kHz

### GENERAL

**Power Requirement** 275VA at 95 to 130VAC,  
50/60Hz

**Dimensions:** 7" x 19" x 17-1/8"  
(H x W x D) (178mm x 483mm x 435mm)

**Temperature Range:** 0 to 45° C, recommended.  
Tested at -30° to +50° C.

**Options:** CCIR Channels and IF Frequencies. Channel 3 or 4 IF for USA Applications. 4.5MHz Aural Subcarrier Input, Dual Input Automatic Switching.

### TRANSMITTER

### TRANSLATOR

10 Watts, peak visual  
10% Aural

Low Band VHF;  
Channels 2-6 (54-88MHz)  
High Band VHF  
Channels 7-13 (174-216MHz)

50 ohm, type 'N'  
75 ohm, type 'F' available

All VHF and UHF channels

1 mV, +/-20dB  
( $<1$ dB output change for 40dB  
input change)

75 ohm, type "F"

$\pm 1.5$ dB between carriers

$\pm 0.02\%$  over temperature range  
High stability option available

-60dBc

-50dBc

$> -52$ dBc

$\leq 3^\circ$

$\leq 5\%$

$\leq 2.5\%$

$\pm 30$ ns maximum

$\leq 2^\circ$

$\geq -50$ dBc

$\leq 1\%$  (0.2% typ.) 50Hz to 15kHz

55dB below 25kHz deviation

$\pm 1.0$ dB, 50Hz to 15kHz

275VA at 95 to 130VAC,  
50/60Hz

7" x 19" x 17-1/8"  
(178mm x 483mm x 435mm)

0 to 45° C, recommended.  
Tested at -30° to +50° C.

Due to continuous product improvements,  
specifications subject to change without notice.

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