

## **ITX02-500C BROADBAND MMDS TRANSMITTER (500 Watts)**

- **Broadband Transmitter with 150 TV Program or 31 Analog Channel Capability**
- **State-of-the-Art Linearization Technology**
- **Redundant Power Amplifier and Power Supplies**
- **Built In Diagnostics**

### **PRODUCT APPLICATION:**

The ITX02-500C is a broadband MMDS transmitter with a channel capacity up to 31 analog television channels or 150 digital channels (64QAM, 256QAM or OFDM modulation). The transmitter incorporates traditional Cable AML reliability and design features including advanced linearization techniques.

The ITX02-500C is designed to provide cost-effective coverage over a wide area. With an omni-directional transmit antenna, it can cover an area of approximately 35 Kilometer radius when fully loaded with 31 channels, or 50 Km radius when loaded with 15 digital carriers (a minimum of 90 TV programs).

The Output power per channel depends on the number of channels.

For example, for a 12 channel load, the transmitter delivers 2 Watts per channel with a C/CTB of 50 dB (measured with CW carriers), or approximately 4 Watts per channel (peak power).

To facilitate transmitter monitoring with only a field strength meter or a TV monitor, the ITX02-500C includes a block down-converter at the output. Transmitter diagnostic voltages can be monitored locally or remotely by a serial port interface to a standard Windows-equipped PC.

The transmitter features a modular design for ease of installation, service and maintenance. The key modules are the driver, redundant power amplifiers, redundant hot-swappable power supplies and input/output monitoring ports.

<b>Broadband Transmitter</b>				
Input Frequency <sup>2</sup> :	222 to 420 MHz			
Nominal Input Level for 12 TV:	+20 dBmV (-29 dBm)			
Output Frequency <sup>2</sup> :	2.5 to 2.7 GHz			
Output Level for 50 dB C/CTB: (measured with CW carriers) <sup>3</sup>	Channels	Average Power dBm/Channel	Peak Power dBm/Channel	C/N (dB)
	9	34.5	37.0	67.5
	12	33.0	35.5	66.0
	18	31.0	33.5	64.0
	24	29.0	31.5	62.0
	30	28.0	30.5	61.0
Local Oscillator Frequency <sup>2</sup>	2278 MHz			
Frequency Response	±1 dB			
Frequency Stability	0.0005%			
Input Return Loss:	15 dB			
Input Connector:	Type "F"			
Output Return Loss:	18 dB			
Output Connector:	Type "N"			
Temperature Range:	60° to 100°F (16° to 38°C)			
Humidity:	95% max.			
Primary Power:	120/240 VAC, 50/60Hz (per customer specification)			
Power Consumption:	1200 VA RMS			
Mounting:	Enclosed Equipment Rack			
Weight:	250 lb. (113.4 kg)			
Dimensions:	22" W x 48" H x 27" D (55.9cm W x 122cm H x 68.6cm D)			

<sup>1</sup> Specifications subject to change without prior notice.

<sup>2</sup> Other frequencies available.

<sup>3</sup> The C/CTB with modulated carriers are approximately 6 dB better than with CW carriers.