

ITX02-100C TRANSMITTER (100Watts)



- **Broadband Indoor Transmitter with 31 Channel Analog or 150 Digital TV Program Capability**
- **9 Kilometer Radius with Full 31 Channel Load**
- **Compact Design, Small Size and Weight**
- **Cost Effective for Small Urban and Rural Areas**

PRODUCT APPLICATION:

The ITX02-100C is a broadband MMDS transmitter with a channel capacity up to 31 television channels or 150 digital channels (64QAM, 256 QAM or OFDM modulation). The transmitter incorporates traditional Cable AML reliability and advanced design features.

The ITX02-100C is designed to provide cost-effective coverage over a wide area. With an omnidirectional transmit antenna it can cover an area of 15 Kilometer radius with 31 analog channels or 150 digital programs, or a 22 Km radius with 15 analog channels or 80 digital programs.

The input is a broadband signal in the 222- 420 MHz range. The output is in the 2.5-2.7 GHz range. As in all broadband transmitters, the output power depends on the number of channels. For example, with a 12 channel load the transmitter delivers 400mW per channel with a C/CTB of better than 50 dB (measured with CW carriers), or approximately 700mW per channel (peak power).

The transmitter is very easy to install and operate. Its compact design requires only 12.25 inches (31.2 cm) height in a standard 19 inch (48.3 cm) wide rack or cabinet. It is designed to operate indoors without air conditioning requirements.

The transmitter features a modular design for ease of maintenance and service. The key modules are the 12 VDC power supply, driver, power amplifier and diagnostic circuits.

An optional feature offered with the transmitter is output monitoring at VHF frequencies.

Product Specification¹

CABLE AML

Transmitter				
Input Frequency ² :	222 to 420 MHz			
Nominal Input Level for 12 TV:	+20 dBmV (-29 dBm)			
Output Frequency ² :	2.5 to 2.7 GHz			
Output Level for 50 dB C/CTB: (measured with CW carriers) ³	Channels	Average Power dBm/Channel	Peak Power dBm/Channel	C/N (dB)
	9	27.5	30.0	64.5
	12	26.0	28.5	63.0
	18	24.0	26.5	61.0
	24	22.0	24.5	59.0
	30	21.0	23.5	58.0
Local Oscillator Frequency ² :	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:	840 VA RMS			
Mounting:	EIA Standard Relay Rack			
Weight:	56 lb. (25.4 kg)			
Dimensions:	19" rack width x 12.5" H x 24" D (48.3cm W x 31.8cm H x 61cm D)			

¹ Specifications subject to change without prior notice.

² Other frequencies available.

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