Cable AML

ITX02-1000
HIGH POWER TRANSMITTER
(1000 Watts)

- **Broadband Transmitter with 31 Carrier Capability (200 Digital TV Programs)**
- **State-of-the-Art Linearization Technology**
- **Redundant Power Amplifiers and Power Supplies**
- **Built In Diagnostics**

PRODUCT APPLICATION:

The ITX02-1000 is a broadband MMDS transmitter with a channel capacity up to 31 digital carriers (at least 200 TV programs) capable of transmitting with 64QAM, 256QAM or OFDM modulation. The transmitter incorporates traditional Cable AML reliability and design features including advanced linearization techniques.

The ITX02-1000 is designed to provide cost-effective coverage over a wide area. With an omnidirectional transmit antenna, it can cover an area of approximately 50 Kilometer radius when loaded with 31 carriers. A larger area can be covered if the desired coverage is less than 360 degrees in azimuth.

The output power per channel depends on the channel loading. For a 12 channel load, the transmitter delivers a total of 4 Watts per channel with a C/CTB of 50 dB (measured with CW carriers) or approximately 7 Watts per channel peak power.

The ITX02-1000 features a redundant power amplifier assembly (four amplifiers in parallel) for increased reliability. It also features redundant power supplies.

To facilitate transmitter monitoring with a field strength meter or a TV monitor, the ITX02-1000 includes signal monitoring at VHF frequencies. 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, consisting of a redundant driver, redundant power amplifiers and redundant power supplies for ease of service and maintenance.

Product Specification[1]

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ITX02-1000

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	37.5	40.0	66.5
12	36.0	38.5	65.0
18	34.0	36.5	63.0
24	32.0	34.5	61.0
30	31.0	33.5	60.0

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 32°C)
Humidity	95% max.
Primary Power:	120/240 VAC, 50/60Hz (per customer specification)
Power Consumption:	2300 VA RMS
Mounting:	Enclosed Equipment Rack
Weight:	450 lb. (205 kg)
Dimensions:	22” W x 84” H x 27” D (55.9cm W x 213.4cm H x 68.6cm D)

[1] Specifications subject to change without prior notice.

[2] Other frequencies available.

[3] The C/CTB with modulated carriers is approximately 6 dB better than with CW carriers.