OTX02-250
OUTDOOR BROADBAND TRANSMITTER
(250 Watts)

- **High Power Broadband Outdoor Transmitter with 31 Channel Analog or 150 Digital TV Program Capability**
- **Outdoor Mounting to Minimize Waveguide Losses**
- **Built In Diagnostics**
- **Modular Construction, Small Size and Weigh**

PRODUCT APPLICATION:

The OTX02-250 is a solid state, broadband transmitter incorporating advanced linearization techniques. It is designed to transmit thirty-one analog television channels or 150 digital TV programs (64QAM, 256 QAM or OFDM modulation). The transmitter incorporates traditional Cable AML reliability and advanced design features.

The OTX02-250 is designed to provide cost effective coverage over a wide area. With an omnidirectional transmit antenna it can cover an area of 24 Kilometer radius with 150 digital TV programs or 31 analog channels, or 35 Km radius with 80 digital TV programs or 15 analog channels.

The output power per channel depends on the number of channels. For a 12 channel load, the transmitter delivers 1 Watt per channel with a C/CTB of 50 dB (measured with CW carriers), or approximately 2 Watts per channel (peak power).

The OTX02-250 is designed to operate outdoors. For increased reliability, an external cooled heatsink maintains component temperatures at desirable levels and an internal temperature sensor protects the high power amplifier from failure due to overheating.

To facilitate operational monitoring with a field strength meter or a TV monitor, the OTX02-250 includes optional input/output VHF monitors. Operational diagnostic voltages can be monitored locally. An option allows the voltages to be monitored remotely via serial port interface to a standard Windows-equipped PC.

The transmitter features an efficient, compact, modular design. The key modules are the up converter, power amplifier and power supply modules.

Product Specification[1]

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 65 dB C/CTB:	

Channels	Average Power dBm/Channel	IP3 (dBm)	C/N (dB)
9	31.5	34.0	64.5
12	30.0	32.5	63.0
18	28.0	30.5	61.0
24	26.0	28.5	59.0
30	25.0	27.5	58.0

Local Oscillator Frequency[2]:	2278 MHz
Frequency Response:	±1 dB
Frequency Stability:	0.0005%
Input Return Loss:	15 dB
Input Connector:	Type “N” Female
Output Return Loss:	18 dB
Output Connector:	Type “N”
Temperature Range:	-40° to 122°F (-40° to 50°C)
Primary Power:	120/240 VAC, 50/60Hz (per customer specification)
Power Consumption:	840 VA RMS
Mounting:	Antenna Pole
Weight:	160 lbs. (27.3 kg)
Dimensions:	24” W x 24” H x 15” D (61cm x 61cm x 38.1cm)

[1] Specifications subject to change without prior notice.
[2] Other frequencies available.
[3] The C/CTB with modulated carriers is approximately 6dB better than with CW carriers.