

OTX02-100 OUTDOOR BROADBAND TRANSMITTER (100 Watts)

- **Broadband Outdoor Transmitter with 31 Channel Analog or 150 Digital TV Program Capability**
- **Cost Effective for Small Urban Rural Areas**
- **Outdoor Mounting to Minimize Waveguide Losses**
- **Built In Diagnostics**
- **Modular Construction, Small Size and Weight**



PRODUCT APPLICATION:

The OTX02-100 is a solid state 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 OTX02-100 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.

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 OTX02-100 is designed to operate outdoors. For increased reliability, an external cooled heatsink maintains component temperatures at low 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 OTX02-100 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 upconverter, power amplifier and power supply modules.

Product Specification¹



Transmitter																									
Input Frequency ² :	222 to 420 MHz																								
Nominal Input Level for 12 TV:	+20 dBmV (-29 dBm)																								
Output Frequency ² :	2.5 to 2.686 GHz																								
Output Level for 50 dB C/CTB: (measured with CW carriers) ³	<table border="1"> <thead> <tr> <th>Channels</th> <th>Average Power dBm/Channel</th> <th>Peak Power dBm/Channel</th> <th>C/N (dB)</th> </tr> </thead> <tbody> <tr> <td>9</td> <td>27.5</td> <td>30.0</td> <td>64.5</td> </tr> <tr> <td>12</td> <td>26.0</td> <td>28.5</td> <td>63.0</td> </tr> <tr> <td>18</td> <td>24.0</td> <td>26.5</td> <td>61.0</td> </tr> <tr> <td>24</td> <td>22.0</td> <td>24.5</td> <td>59.0</td> </tr> <tr> <td>30</td> <td>21.0</td> <td>23.5</td> <td>58.0</td> </tr> </tbody> </table>	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
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Local Oscillator Frequency ² :	2278 MHz																								
Frequency Response:	±1 dB																								
Frequency Stability:	0.0005%																								
Input Return Loss:	15 dB																								
Input Connector:	Type "F" 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:	1000 VA RMS																								
Mounting:	Antenna Pole																								
Weight:	90lbs. (40.823 kg)																								
Dimensions:	22" W x 28" H x 24" D (55.9cm W x 71.1cm 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.