

## OTX18-005 OUTDOOR BROADBAND TRANSMITTER

- **Broadband Transmitter with 72 Channel Capability**
- **Can Feed Four Receiver at 6 Miles Each**
- **Upgradeable, Modular Design**
- **Feeds Booster Amplifier**



### PRODUCT APPLICATION:

The OTX18-005 Transmitter is an outdoor, solid state, broadband transmitter designed to implement high quality, cost-effective microwave links for transporting up to 72 television channels.

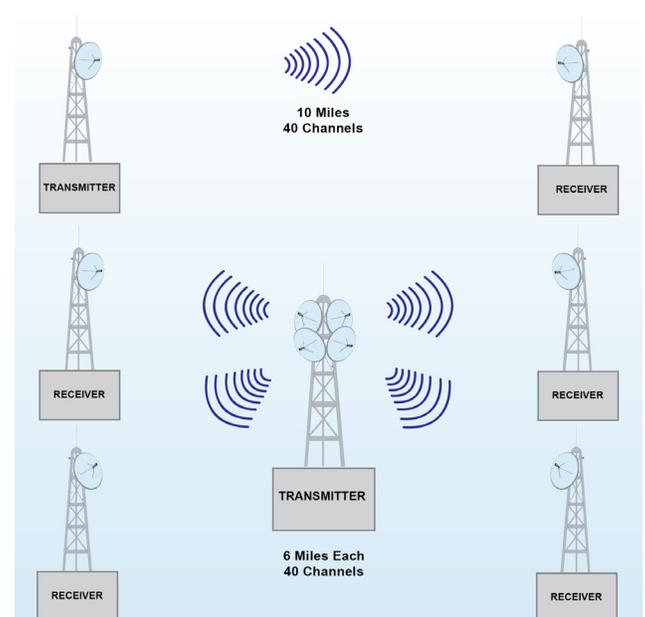
This transmitter can be used to feed a single link or several links simultaneously. A typical application example would be a single 10-mile (16-kilometer) link with 40 channel loading, or four simultaneous links of 6 miles (6.4 kilometers) each.

The OTX18-005 can feed several receivers and one local booster amplifier simultaneously. The capability to drive a booster amplifier with a high quality signal makes it possible to significantly increase the effective range of the transmitter and/or the number of receivers fed from the transmitter site.

The OTX18-005 features operating diagnostics such as output signal level monitoring, phase-lock status and power supply voltages. Remote diagnostics monitoring is offered as an option.

The transmitter incorporates an Automatic Gain Control (AGC) circuit for gain control over its operating temperature range, and a State-of-the-Art, low-noise, crystal controlled reference oscillator and solid state GaAs power amplifier for best reliability and performance.

The OTX18-005 delivers power without compromising reliability by keeping the power amplifier operating temperature below recommended limits by means of linearization techniques with a proven performance record.



# Product Specification<sup>1</sup>



<b>Transmitter</b>																																										
Input Frequency <sup>2</sup> :	54 to 552 MHz																																									
Nominal Input Level for 12 TV:	20 dBmV																																									
Output Frequency <sup>2</sup> :	17.70 to 18.30 GHz																																									
Output Level for 65 dB C/CTB:	<table border="1"> <thead> <tr> <th rowspan="2">Channels</th> <th colspan="3">Main Output</th> <th colspan="3">Booster Output</th> </tr> <tr> <th>dBm/Ch</th> <th>C/N (dB)</th> <th>C/CTB (dB)</th> <th>dBm/Ch</th> <th>C/N (dB)</th> <th>C/CTB (dB)</th> </tr> </thead> <tbody> <tr> <td>12</td> <td>3.5</td> <td>64.0</td> <td>60.0</td> <td>-23.5</td> <td>66.5</td> <td>68.0</td> </tr> <tr> <td>21</td> <td>1.0</td> <td>61.5</td> <td>60.0</td> <td>-26.0</td> <td>64.0</td> <td>68.0</td> </tr> <tr> <td>35</td> <td>-1.5</td> <td>59.0</td> <td>60.0</td> <td>-28.5</td> <td>61.5</td> <td>68.0</td> </tr> <tr> <td>72</td> <td>-4.5</td> <td>56.0</td> <td>60.0</td> <td>-31.5</td> <td>58.5</td> <td>68.0</td> </tr> </tbody> </table>	Channels	Main Output			Booster Output			dBm/Ch	C/N (dB)	C/CTB (dB)	dBm/Ch	C/N (dB)	C/CTB (dB)	12	3.5	64.0	60.0	-23.5	66.5	68.0	21	1.0	61.5	60.0	-26.0	64.0	68.0	35	-1.5	59.0	60.0	-28.5	61.5	68.0	72	-4.5	56.0	60.0	-31.5	58.5	68.0
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Normal Gain <sup>3</sup> :	32 dB																																									
Frequency Response:	±1.0 dB																																									
Frequency Stability:	0.0005%																																									
Input Return Loss:	15 dB																																									
Input Connector:	Type "F"																																									
Output Return Loss:	18 dB																																									
RF Output Connector	WR-42 Waveguide																																									
Temperature Range:	40° to 120°F (40° to 49°C)																																									
Humidity:	100% max.																																									
Primary Power:	60/120/240 VAC, 50/60Hz or 12/24 VDC (per customer specification)																																									
Power Consumption:	100 Watts																																									
Mounting:	Antenna Pole Mount																																									
Weight:	50 lb. (22.7 kg)																																									
Dimensions:	16" W x 13" H x 7" D (40.6cm W x 33cm H x 17.8cm D)																																									

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

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

<sup>3</sup> Gain may be varied with 10dB attenuator.