

ITX-1300 INDOOR BROADBAND TRANSMITTER

- **High Power Broadband Transmitter with 80 Channel Capability**
- **Can Feed Two Links of 25 Miles or Four Links of 20 Miles each with 80 Channel Loading**
- **Ultra-reliable Power Amplifier with State-of-the-Art Linearization**
- **Modular Design, Field Upgradeable to the ITX-1300D**
- **Optional Remote Diagnostics (PC Compatible)**
- **Digital Ready**



PRODUCT APPLICATION:

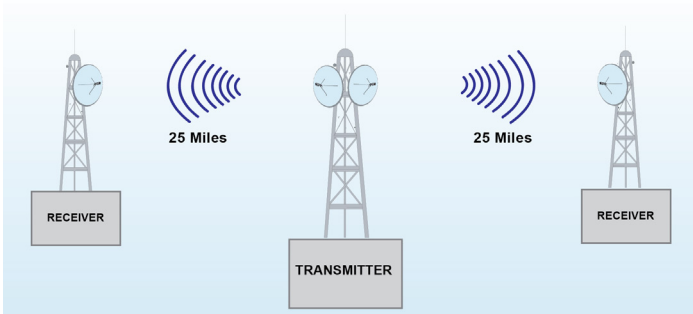
The ITX-1300 is a broadband, high-power transmitter with 80 channel capability. Its state-of-the-art power amplifier circuitry delivers an unprecedented +23 dBm (200mW) per channel for 35 channel loading and +20 dBm (100 mW) per channel for 60 channel loading, while holding output distortion at 65 dB C/CTB NCTA under worst-case conditions.

With this output power capability, the ITX-1300 can feed several links simultaneously with very high reliability.

A typical application example is a 80 channel system with the transmitter simultaneously feeding two links at 25 miles (40 km) each, or four links at 20 miles (32 km) each.

The ITX-1300 features a thoroughly modular design with easy to read diagnostics and an inherently reliable fail-soft architecture that allows service restoration at lower power levels without interruption of service. The transmitter is upgradeable to the (ITX-1300D) dual redundant configuration.

Packaged in a compact 7 foot rack, the ITX-1300 accepts standard VHF cable input of up to 80 channels and directly feeds the output WR-75 waveguide without need for complex multiplexing networks.



Product Specification¹

CABLE AML

Transmitter																			
Input Frequency ² :	54 to 552 MHz																		
Nominal Input Level for 12 TV:	+20 dBmV (-29 dBm per channel)																		
Output Frequency ² :	12.7 to 13.25 GHz																		
Output Level for 65 dB C/CTB:	<table border="1"> <thead> <tr> <th>Channels</th> <th>dBm/Channel</th> <th>C/N (dB)</th> </tr> </thead> <tbody> <tr> <td>12</td> <td>28.0</td> <td>66.0</td> </tr> <tr> <td>21</td> <td>25.0</td> <td>63.0</td> </tr> <tr> <td>35</td> <td>23.0</td> <td>61.0</td> </tr> <tr> <td>60</td> <td>20.0</td> <td>58.0</td> </tr> <tr> <td>80</td> <td>19.0</td> <td>57.0</td> </tr> </tbody> </table>	Channels	dBm/Channel	C/N (dB)	12	28.0	66.0	21	25.0	63.0	35	23.0	61.0	60	20.0	58.0	80	19.0	57.0
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60	20.0	58.0																	
80	19.0	57.0																	
Normal Gain ³ :	48 dB																		
Frequency Response:	±1 dB																		
Frequency Stability:	0.0005%																		
Input Return Loss:	20 dB																		
Input Connector:	Type "F"																		
Output Return Loss:	18 dB																		
RF Output Connector	WR-75 Waveguide																		
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:	375 VA RMS																		
Mounting:	Enclosed Equipment Rack																		
Weight:	500 lb. (227.3 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 For Group C. Other frequencies available.

³ Gain may be varied with 10dB attenuator.