

TX18000 Series

18 GHz Express - Transmitters



○ Features & Benefits

- Advanced Mixer Design Optimizes C/N and CTB Performance
- Pilot Tone for Accurate Receiver Locking
- Compact, Watertight Outdoor Aluminum Housing

The TX18000 Series of 18 GHz microwave transmitters consists of two models having different power levels. The TX18000 has -30 dBm/ch power output and is typically used for short paths such as crossing a public street. The TX 18001 has a power output of -16 dBm/ch and is used in applications requiring higher power to overcome greater path distances or to feed a power divider network to accommodate multiple receive locations. For more lengthy links, the TX18000 Series can be used with the PA18000 Series Microwave Power Amplifiers.

The TX18000 Series accepts signals in the 54 to 492 MHz frequency range and block up-converts these signals to the 18.142 to 18.580 GHz frequency range. These transmitters benefit from an advanced mixer design, which optimizes both C/N and C/CTB performance. An included 73 MHz pilot tone allows for proper phase locking of receivers. Both transmitters feature extremely high frequency stability and superior signal reproduction. The TX18000 Series employs high reliability, MIL style, GaAsFET based, MMIC circuits. This state-of-the-art technology ensures years of trouble-free service. A DC voltage monitor connector is provided that gives continuous readings of ten operating voltages.

The TX18000 Series products are housed in a compact, watertight, outdoor aluminum housing and can be pole or tower mounted. These units are provided with a WR42 waveguide choke flange output port. The transmitters use standard 60 VAC CATV powering diplexed on the VHF transmitter input.

○ Specifications

RF Input

Frequency Range: 54 to 492 MHz
 Nominal Level: +25 dBmV
 Impedance: 75 ohm
 Return Loss (Minimum): 16 dB

RF Output

Frequency Range: 18.142 to 18.580 GHz
 Flatness (with flat input): ± 1.0 dB
 Power Output
 7175W: -16 dBm/ch
 7175L: -30 dBm/ch

CTB: -70 dB

CNR

7175W: 60.5dB
 7175L: 58 dB

Return Loss (Minimum): 14 dB

RF

Frequency Stability: ± 0.002 %
 Reference Aging: ± 5 ppm/yr
 Pilot Tone Frequency: 72.935480 MHz

General

Power Requirements
 Voltage: 60 VAC square wave
 Frequency: 60 Hz
 Current: 0.8 to 1.2 A
 Operating Temperature Range: -40 to +55 °C
 Humidity: 100 %

Mechanical

Dimensions (LxWxH):
 20.0 x 6.0 x 9.0 in
 508 x 152 x 229 mm
 Weight: 33.0 lbs, 15.0 kg

Connectors

RF/AC Input:
 CATV Entry 5/8-24
 (Gilbert Model G-CH-BAFF-KS)
 RF Output: WR42 Waveguide Choke Flange
 Monitor: MS3112E14-15P

○ Ordering Information

Model	Stock No.	Description
TX18000L	7175L	18 GHz Transmitter 25 mW High Performance, Waveguide, CATV Powering
TX18001M	7175W	18 GHz Transmitter 750 mW High Performance, Waveguide, CATV Powering