

Product Bulletin

T4X0-S “Low Boy” Ballistic Telemetry Transmitter Airborne Telemetry Products



FEATURES

- High Shock
- 200 mW RF Power
- Phase Modulated
- Crystal Controlled to 0.003%
- Subminiature Construction
- Range Qualified

DESCRIPTION

L-3 Communications Telemetry-East, Microcom heritage, Crystal Controlled, Phase Modulated T4X0 Transmitter was developed to operate under the extremes of environmental stresses, including operation at longitudinal shock levels beyond 20,000g. The “Lowboy” Package provides a crystal controlled transmitter replacement for those applications previously using the free-running T4 series. Being crystal controlled, the T4X0 is ideally suited for ballistic applications requiring “in-bore” and flight data. This unit delivers 200mW of RF output power at any factory set frequency between 2200-2300 MHz.

Incorporating advanced RF and miniaturization technologies, the T4X0 provides a conversion efficiency and power output unequalled for its small size and light weight.

RF output circuit design allows the T4X0 to be operated (without damage) into an open or short circuit load condition.



communications

SPECIFICATIONS

Output Characteristics

Output Power (into nominal 50 ohm load with 1.5:1 VSWR max.):	200 mW min.
Frequency Range:	2200 MHz-2300 MHz
Frequency Stability:	± .003%

Power Requirements

Voltage:	17 to 32 VDC
Current:	200 mA max.
Isolation:	B- and Modulation Return are common to Chassis Ground
Reverse Polarity and Overvoltage Protection:	The application of ± 40 VDC will not damage the unit

Modulation Characteristics

Type:	PM
Coupling:	AC
Deviation Sensitivity:	0.50 VRMS/M.I. = 5
Carrier Deviation:	M.I. = 5 max.
Frequency Response:	100 Hz to 1 MHz $\pm$ 1.5 dB
Input Impedance:	10 K ohm min. shunted by 10 pF max.
Distortion:	5% max.
Incidental Frequency Modulation:	20 kHz peak max. at 20kg shock
Incidental Amplitude Modulation:	5% max.

Environmental

Temperature	
Operating:	-20°C to +70°C, Baseplate
Non-Operating:	-55°C to +100°C
Vibration	
Sine:	20g, 20-2000 Hz, 3 axes
Random:	0.1g ² /Hz, 20-2000 Hz, 3 axes
Acceleration:	1000g, 3 axes
Shock:	20 kg, 3 mS, 1 axis
Altitude:	Unlimited
Humidity:	MIL-STD 810C, Method 507

Mechanical

Weight: 3.0 oz. max
Connectors
RF: SMA
Power/Mod: Solder pins
Pin Connections: See Outline Drawing

Options (consult factory)

- Semi-rigid coax cable (6" $\pm$.5") with SMA connector
- Higher Vibration/Shock Levels
- Extended Temperature

Specify When Ordering

- Operating Frequency
- Any Optional Configurations

T4X0 Outline Drawing

