



FEATURES

- Tactical Telemetry/Video Applications
- 11-14 VDC Operation
- 500 mW, 2.2 - 2.4 GHz
- Frequency Agile, 0.5 MHz Increments
- 1.3 Cubic Inches

DESCRIPTION

The T-155 Transmitter provides high quality telemetry and video data transmission for today's airborne applications. The T-155 uses state-of-the-art techniques to provide 0.5 watts of power in a miniature, ruggedized package. A unique phase lock loop circuit permits 100 Hz modulation response while still meeting the IRIG one second turn-on time requirements. Anti-sweep lock detect circuitry prevents RF radiation until the unit has locked on frequency, thereby eliminating the possibility of interference with other RF signals.

Enhanced reliability and minimum parts count are achieved through RF origination at full frequency as opposed to a subharmonic of the output frequency. This scheme also eliminates low order spurious outputs.

SPECIFICATIONS

Output Characteristics

Frequency Range:	2200-2300 or 2300-2400 MHz
Frequency:	Selectable in 0.5 MHz increments via connector
Frequency Stability:	±0.002%
Output Power:	500mW min. into 1.5:1 VSWR
Output Impedance:	50 ohms
VSWR:	2:1 without Breakup

Power Requirements

Operating Voltage:	+11 to +14 VDC
Input Current:	500 mA max.
Reverse Polarity:	Protected
Overvoltage:	Up to +20 VDC with no damage
Grounding:	Power and modulation returns are common to case

Modulation Characteristics

Type:	True FM
Modulation Sense:	Positive
Coupling:	AC
Input Impedance:	10k ohm min. for TM, 75 ohm for Video



communications

SPECIFICATIONS *(continued)*

Modulation Freq. Response:	100Hz to 6Hz, ± 1.5 dB
Deviation Sensitivity:	500 KHz per volt RMS for TM or 1 MHz per volt peak for Video
Modulation Linearity:	$\pm 2\%$ max.
Modulation Distortion:	2% max.
Incidental AM:	5% max.
Incidental FM:	20 kHz peak

Environmental

Operating Temperature:	-20° to +70°C Baseplate
Storage Temperature:	-55°C to +100°C
Vibration, Sine:	20-2000 Hz, 20g peak, 3 axes
Vibration, Random:	20-2000 Hz, 14g RMS, 3 axes
Shock:	100g, 11 msec, 1/2 sine, 3 axes
Acceleration:	100g, 3 axes
Altitude:	Unlimited
Humidity:	95% RH
EMI:	MIL-STD-461C; IRIG-106 for antenna conducted

Mechanical

Dimensions:	See Outline Drawing
Weight:	3.0 oz. (85 grams) max.

Connectors

RF Output:	SMA Type
Modulation Input:	Flying Lead
Power:	Flying Leads

Options (consult factory)

- Extended Temperature
- High Shock/Vibration Levels
- Extended Frequency Response

Specify When Ordering

- Input Impedance
- Modulation Sensitivity
- Frequency Response
- Operating Frequency Range
- Any Options

T-155 Outline Drawing

