APOLLOTEK

TM-901 Miniature Video Transmitter

Transmitter Features:

- S-Band Video or Digital Transmitter
- L-Band or Upper L-Band Video or Digital Transmitter
- Programmable Frequency Range
- Other frequency Bands supported
- Programmable Power from 100 mW up to 1 Watt
- Compatible with the Apollotek Video Compression System
- Programmable RF Output Power and Frequency through Serial Data Port
- 12 Volts DC or 28 V ± 4 Volts DC Power Supply Options
- Frequency response options up to and above 10 MHz
- 100 KHz/Volt to 6 MHz/Volt nominal carrier deviation sensitivity – User specified
- Digital Data Input Option including PCM data transmission
- Input Impedance nominal 75 Ohm Other values including 50 Ohms and 10K Ohms available
- Miniature mechanical configuration
- Flying lead connection for Power Supply and Modulation Input as standard
- 50 Ohm SMA RF Output Connector option
- Capable of -20 to +75 Degree Centigrade operating case temperature

One of several packaging options

The TM-901 is a small size, low weight, high efficiency transmitter optimised for L-Band, Upper L-Band and S-Band Video and Telemetry data transmission applications requiring RF Power outputs up to 1 Watt.

The TM-901 Miniature Video Transmitter utilises a crystal stabilised programmable frequency synthesiser linked to a voltage controlled oscillator modulator and power output sections programmed through a microcontroller to provide a compact high performance 1 watt Video transmitter.

The TM-901 Transmitter is designed to be as efficient as possible and as small as possible to provide a lightweight high performance transmitter suitable for applications where weight and power consumption are important factors such as unmanned airborne vehicles and surveillance applications. The transmitter can be supplied configured for an analogue video input or as a digital data transmitter compatible with the Apollotek VCM series of Video Compression modules and also suitable for serial PCM data transmission applications

Apollotek Ltd Unit 3 Cypress Court Sunbury on Thames England Tel: +44 1932 780410 Fax +44 1932 780334 e-mail: info@apollotek.co.uk

APOLLOTEK

TM-901 Miniature Video Transmitter

SPECIFICATIONS

General:

Standard Frequency Bands	L-Band, Upper L-Band with 100 MHz tuning Range and S-Band with 200 MHz tuning range
Nominal Frequency Stability	± 0.002 %
Output Power	Supplied in configurations providing up to 1 Watt. User Programmable from 100 mW up to full rated power
VSWR	Protected against damage from any VSWR

Modulation:

Modulation Type	FM as standard. Other modulation and encryption support schemes are available. Digital modulation options are also available including serial PCM
Input Signal Coupling	AC as standard. DC option available
Frequency Response	10 Hz to 6 MHz ± 1.5 dB as standard (other ranges available)
Carrier Deviation Range	Nominal 100 KHz to 6 MHz per Volt rms range – user defined

Power Requirements:

Voltage	12 Volts ± 2 V as standard. (Other options including 28 V DC)
Current	Nominal 350 mA at 12 V DC for 1 Watt output at 25^{O} Centigrade
Isolation	Power and Modulation return are common

Mechanical:

Maximum Dimensions	Typically 55 mm wide excluding antenna connector 80 mm long and 25 mm high Other mounting arrangements can be provided on request
Power, Modulation and Programming	Colour Coded Flying Leads as standard. Connector options available
RF Output Connector	SMA as standard. SMB and SMC Options available

Standard Environment:

Application specific environmental testing and proving can also be performed as required

Normal Operating Temperature	-20^{O} Centigrade to $+70^{O}$ Centigrade case temperature
Normal Vibration	Greater than 5 g sine, $0.1g^{2}$ random, 20Hz to 2000Hz, in any axis
Normal Shock	10g for 1 ms in three mutually perpendicular axes
Normal Acceleration	10g in three mutually perpendicular axes

Specifications are subject to change without notice

Apollotek Ltd Unit 3 Cypress Court Sunbury on Thames England Tel: +44 1932 780410 Fax +44 1932 780334 e-mail: info@apollotek.co.uk