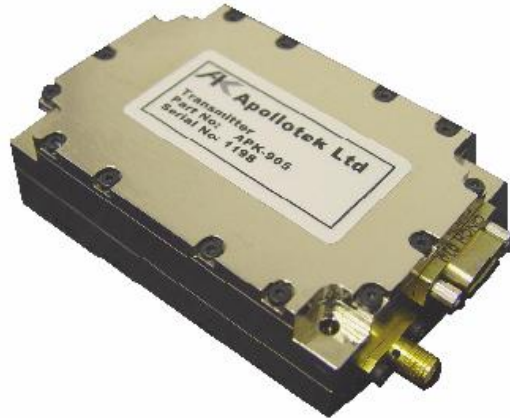


Transmitter Features:

- S-Band PCM or Video Transmitters
- L-Band PCM or Video Transmitters
- Programmable Power from 1Watt up to 5 Watts
- Power Output On /Off control
- Frequency Range Programmable over 200 MHz in any band
- Four Power and Frequency pre-sets selectable through input connector pins
- Programmable Power and Frequency through Serial Data Port
- 28 Volts \pm 4 Volts DC Power
- High Efficiency design minimises current consumption
- Progressive power output reduction when the operating temperature is exceeded
- frequency response options up to and above 10 MHz
- 100 KHz/Volt to 6 MHz/Volt nominal carrier deviation sensitivity – User defined
- Input Impedance nominal 75 Ohm Other values including 50 Ohms, 10K Ohms and RS422 are available
- Single Microminiature D-Type connector for Power Supply and Modulation Input as standard
- 50 Ohm SMA RF Output Connector. A TNC option is also available



The ApolloTek T-905 series of Telemetry Transmitters are designed using modern efficient components and are qualified for aerospace and similar applications.

The T-905 range of transmitters utilise a crystal stabilised programmable frequency synthesiser linked to a voltage controlled oscillator and modulator driving power output sections. The transmitter characteristics are programmed through a microcontroller. The T905 series of transmitters can be supplied as fixed frequency or tuneable in 0.25 MHz to 1 MHz steps over the tuning range.

A set of four programmed frequencies can be assigned for selection via binary coding on two of the input connector pins. Frequency and power can also be controlled through a serial programming port.

The transmitter housing is machined from solid aluminium sections using precision numerically controlled machining processes to provide a very high strength transmitter assembly.

The small modern transmitter components utilised in the design enable the T-905 Transmitter series to be supplied in housings of several types and configurations to meet new requirements and they can also be supplied to match the mounting arrangements of legacy transmitters in existing applications. The position of the transmitter mounting holes can be varied to suit the type of transmitter being replaced.

SPECIFICATIONS

General:

Standard Frequency Bands	Up to 200 MHz tuning range within 1400 MHz to 1600 MHz Up to 200 MHz tuning range within 2200 MHz to 2500 MHz
Nominal Frequency Stability	± 0.002 %
Output Power	Can be supplied in configurations providing up to 5 Watts. 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 including CPM and Orthogonal schemes
Input Signal Coupling	AC as standard. DC option available
Frequency Response	10 Hz to 10 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	28V ±4 Volts DC
Current	Nominal 800 mA for 5 Watts output at 25 ^o Centigrade
Isolation	Power and Modulation return are common to case ground

Mechanical:

Maximum Dimensions	Standard 55 mm wide 80 mm long and 25 mm high excluding connectors (units can also be supplied in 34 mm height configurations for legacy replacement applications)
Power, Modulation and Programming Connector	15 way microminiature D-Type (SMA option for Modulation)
RF Output Connector	SMA as standard. SMB and SMC Options available, TNC option on 34 mm height (10 watt output) package

Environmental:

Normal Operating Temperature	-38 ^o Centigrade to +70 ^o Centigrade baseplate temperature
Vibration	>20g sine, 0.1 g ² random, 20Hz to 2000Hz, in any axis
Shock	100g for 1 ms in three mutually perpendicular axes
Acceleration	100g in three mutually perpendicular axes