

Receiver Features:

- 290 MHz to 450 MHz Band Data Link Receiver
- 20 MHz tuning range within the 290 MHz to 450 MHz Band
- 200 KHz Tuning Steps
- Designed to operate in conjunction with the Apollotek T-567-2 Data Link Transmitter
- RS-232 Serial Data Output
- Up to 56 KBPS Data Rate
- 12 V DC Operation
- Low Current Consumption
- Digital Design implementation

The Apollotek R-567-2 Data Link Receiver is a 290MHz to 450 MHz miniature lightweight receiver designed to work with a companion Apollotek T-567-2 Transmitter to provide a robust serial digital data link solution for UAV's and other covert and overt applications.

A Low Noise Amplifier Gain Chain is incorporated in the design to provide maximum sensitivity.

An Automatic Gain Control Amplifier is incorporated to provide maximum received signal dynamic range.

The receiver utilises a digitally controlled NCO to synthesise and track the input signal.

Modulation deviation Bandwidth is optimised for the serial data rate specified by the Customer. The default setting is 19.2 KHz for a 9600 Baud data rate.



The standard R-567-2 Data Link Receiver configuration is configured for a deviation bandwidth of 19.2 KHz optimised for RS232C serial data demodulation at 9600 baud.

The standard RF input signal is provided through a coaxial flying lead terminated with an SMA Female connector.

The Demodulated RS-232C data output and the Power Supply input connections are provided on colour coded flying leads. Other interconnection options can be provided.

The standard R-567-2 Receiver is designed to operate from a nominal 12 V DC Supply. It will operate at voltages up to 15 Volts DC and down to 7 Volts DC.

The R-567-2 is one of a series of Receiver Products which can be specified to process different data types and different data rates. Variants are currently available to cover the received frequency range from 200 MHz up to 2.5 GHz.

SPECIFICATIONS**General:**

Frequency Band	290 MHz to 450 MHz frequency band capability
Tuning Range	20 MHz within the Frequency Band. Tuneable in 0.2 MHz steps from host PC running Apollotek supplied set-up software
Nominal Receiver Sensitivity	Better than -90 dBm with FSK modulation
Nominal Image Rejection	Better than 45 dB

Modulation:

Modulation Type	FM / FSK
Output Signal Coupling	Optimised for RS232C Amplitude and Impedance
Standard Data Rate	Set to 9600 Baud as standard. Up to 56 KBPS NRZ data rate options are available (28 KBPS for Bi-Phase Codes)
Standard Deviation Bandwidth for Demodulation	Set to 19.2 KHz as standard. Other deviations matched for different data rates can be provided

Power Requirements:

Supply Voltage	Nominal 12V DC. Will operate over 7 V to 15 V DC
Current	Nominal 70 mA with 12 V supply
Grounding	Power and Modulation return are common to case ground

Mechanical:

Maximum Dimensions	Standard package: 38 mm wide 73 mm long including base flange mounting and 20 mm high excluding connectors and antenna
Power and Demodulated Output Interconnections	Colour Coded flying leads as standard. Connector terminated cable options are available
RF Input Connection	50 Ohm SMA Female on 150 mm RG188 or similar flying lead as standard. Other interconnection options available
Weight:	Approximately 100 grams for standard unit.

Environmental:

Normal Operating Temperature	-38 ^o Centigrade to +70 ^o Centigrade baseplate temperature
Vibration	10g sine, 0.1 g ² random, 20Hz to 2000Hz, in any axis
Shock	10g for 1 ms in three mutually perpendicular axes
Acceleration	10g in three mutually perpendicular axes

Specifications are subject to change without notice

**STANDARD PLASTIC FLANGED PACKAGE DIMENSIONS
FOR
DATA LINK RECEIVER TYPE R-567-2**

