

Features:

- L-Band, Upper L-Band, S-Band or 400 MHz Band Tuneable Receiver
- Provides a baseband analogue output signal
- Provides an Automatic Gain Control output voltage proportional to the received signal strength
- Programmable Centre Frequency
- Programmable Deviation Sensitivity
- Programmable Baseband Filter cut off frequency
- Programmed through the USB connection to a host Windows PC
- Programming GUI software provided
- Powered from the Host PC through the USB2 port
- Ready LED indicates that the unit is programmed and ready for operation
- Signal Strength Lock Indicator threshold set to -70 dBm as standard. Other settings available
- Rugged Construction
- Wide operating temperature range
- Other modules in the Apollotek USB range include Receivers with integrated Bit Synchronisers and Decommutors, Bit Synchronisers with integrated Decommutors and also stand alone Bit Synchronisers, Demodulators and PCM Simulators



The Apollotek APK8766 is one of the products in the Apollotek USB powered range of Telemetry Receivers, PCM Bit Synchronisers, Decommutors and PCM Simulators.

The APK8766 provides a tuneable S-Band or L-Band Receiver with an analogue baseband output signal.

The Unit is packaged in an aerospace grade aluminium housing machined from solid which is rugged enough to be installed in an aircraft.

The APK8766 uses proprietary Apollotek developed analogue and digital signal processing techniques to extract the baseband analogue signal which is provided as an output from a connector mounted on the side of the unit.

The Receiver centre frequency, deviation sensitivity and baseband filter bandwidth are programmed through the USB port from a host computer using Apollotek set up software.

Initialisation and receiver status indication is provided on the unit through multicolour LED displays. Status indication is also provided by the set up software supplied with the unit.

USB RECEIVER SPECIFICATIONS

Electrical and Performance Specification

Receiver Tuning Ranges:	Specify: a 200 MHz range in L-Band, Upper L-Band, S-Band, NATO E-Band. Specify a 50 MHz tuning range in the 400 MHz band
Receiver Sensitivity	Better than -75 dBm sensitivity. Red LED indication when the received signal strength drops below approximately -70 dBm
IF Frequency	Single down conversion to a 220 MHz IF before digitisation
Baseband Analogue Output	Output Voltage adjustable up to ± 1 Volt peak to peak Selectable filter settings up to 6 MHz analogue bandwidth
AGC Output Signal	Logarithmic analogue voltage output range nominally set for 1 Volts at 0 dBm received signal strength
Input and Output Signal Connectors	SMA RF female socket Input Connector. A simple Stub Antenna is provided with the unit. BNC Output Connector for Baseband Analogue Output BNC Output Connector for AGC Output Voltage
Software	Supplied with GUI based Set Up Software to enable selection of: Centre Frequency Deviation Sensitivity Baseband Output Signal amplitude Baseband Filter -3dB cut off frequency

System Interface Specification

Interface Type	USB 2 Bus. Backwards compatible with USB 1 ports
Power Requirements	Requires 1 full power USB Hub + 5V Power Supply

Mechanical Specification

Overall Size	105 mm long by 55 mm wide and 35 mm high
Manufacturing Processes	Surface mount internal PCB technology The housing is machined from solid aerospace grade aluminium to provide very rugged packaging

Operational Environmental Specification

Temperature	-10 ^o Centigrade to +60 ^o Centigrade baseplate temperature
Humidity	0 to 90% non-condensing

Non-operating

Temperature	-25 ^o Centigrade to +90 ^o Centigrade
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Specifications are subject to change without notice