



AN ISO 9001:2000 COMPANY

UHF RECEIVER MODEL 01015RX



**Compact
Frequency Synthesized
Excellent Sensitivity
Narrow Band
High Efficiency
9600 Baud Rate
15-Channel Programmable
Various Packaging Options**

The Model 1015TX/Model 1015RX Transmitter and Receiver pair provide a narrow band link with a data rate of 9600 bits/sec. These radios were designed to provide a command uplink or telemetry downlink, between a Ground Control Station and an air vehicle, for Unmanned Aerial Vehicle (UAV) applications. They can be used in any terrestrial or airborne application with the link budget requiring this type of system.

The receiver is frequency synthesized and phase-locked to a TCXO with a frequency stability of ± 2.5 ppm. A microcontroller interfaces to an RS-232 serial port and the synthesizer. It is a dual-conversion design with excellent filtering and sensitivity of -119 dBm @ -12 dB SINAD, 1kHz tone. It also has RSSI output at the output port/connector.

The transmitter is frequency synthesized and are programmable for 2 Watt , 5 Watt and 7 Watt power output.

**Radios can be configured to operate over various UHF bands from 350 MHz to 900 MHz
Modules can be pre-programmed with up to 15 switch-selectable user-defined frequencies**





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Receiver Specifications

Frequency Range: 339-372MHz
Frequency Spacing: 50 kHz
Sensitivity: -119dBm @ -12 dB SINAD, 1kHz tone
-100dBm @ 1E-06 BER
Input Impedance: 50Ω
Adjacent Channel Rejection: -70dB
Frequency Control: 1st L.O.: Phase Locked to TCXO
2nd L.O.: Crystal Controlled
Frequency Stability: 1st L.O.: ±0.00025% (±2.5 ppm)
2nd L.O.: ±0.00100% (±10 ppm)
Modulation Acceptance: ± 17kHz
Inter-modulation Rejection: 69dB
Data Output Level: TTL/CMOS
Data Rate: 9600 bps
RSSI Output: 0-5V DC
DC Voltage: 9-13.6V DC
DC Current: 155mA nominal
Reverse DC Prot'n: Yes

Environmental

Operating Temp.: -30° C to +60° C

Mechanical

Data Output Conn.: D15 Female
RSSI Output Conn.: D15 Female
RF Input Conn.: SMA Female
DC Power Conn.: D15 Female
Size (housing): 3.062" x 4.25" x 1.062"
Weight: .5 lbs.



Applied Micro Design is an engineering company providing product and services to both government and private industry. Our staff has expertise in the hardware and firmware design of microprocessor-based systems, RF circuit design, analog and digital design, and computer applications programming. All work is done in house, at our ISO 9001:2000 registered facility.

We design, develop, and manufacture high performance, cost effective autopilots for small Unmanned Aerial Vehicles. We also provide a wide range of products, services and systems, including harnesses, radios for command and telemetry applications, low-noise amplifiers, and Ground Control Stations.

