



ADL RXO

HIGH PERFORMANCE INTEGRATABLE UHF RECEIVER

The ADL RXO is a receive-only UHF radio module designed for integration into products that require a low power one-way radio communication link. This sophisticated radio utilizes Pacific Crest's next generation Advanced Data Link (ADL) technology while remaining backward compatible with existing Pacific Crest, Trimble and other products. Integrating the latest wireless technology from the leader in radio frequency data communications instantly puts your products in touch with the world's largest installed base of GNSS precise positioning systems. With Pacific Crest's system integration expertise, you are buying a solution, not just a radio.



Key Features

- ▶ 40 MHz Bandwidth
 - 390-430 and 430-470 MHz models
 - Advanced Data Link design for high performance over entire band
- ▶ High Over-the-Air Link Rate
 - 19,200 bps (both GMSK and 4FSK)
 - Supports 1Hz RTK corrections for multi-GNSS receivers
- ▶ Multiple Protocol Support
 - Transparent (EOT and EOC)
 - Packet Switched
 - Industry-standard GNSS protocols
- ▶ Software-Derived Channel Bandwidth
 - Compatible with both 12.5 and 25 kHz radios
- ▶ Improved Environmental Capabilities
 - Higher vibration tolerance
 - Wider temperature specification

GENERAL SPECIFICATIONS

- DTE - DCE Interface
 - 1 RS-232
 - CMOS, 115.2 kbps maximum
- User Interface
 - Refer to Pin-Outs in ADL RXO Integrator's Guide

RADIO SPECIFICATIONS

- Frequency Bands
 - 390-430, 430-470 MHz
- Frequency Control
 - Synthesized 6.25 kHz tuning resolution,
 - Frequency stability +/- 1 PPM
- Channel Bandwidth
 - 12.5 kHz and 25 kHz, software derived
- Sensitivity
 - -110 dBm BER 10-5
- Type Certification
 - All models are type accepted and certified for operation in the U.S., European Union, Russia, Australia, New Zealand and Canada

MODEM SPECIFICATIONS

- Link Rate/Modulation
 - 19,200 bps/4FSK
 - 9600 bps/4FSK
 - 19,200 bps/GMSK
 - 16,000 bps/GMSK
 - 9600 bps/GMSK
 - 8000 bps/GMSK
 - 4800 bps/GMSK
- Link Protocols
 - Transparent EOT/EOC
 - Packet-switched
 - SATEL®
 - OEM-specific
- Forward Error Correction
 - Yes

ENVIRONMENTAL

- Operating Temperature range:
 - -40° to +85° C (-40° to +185° F)
- Storage Temperature
 - -55° to +85° C (-67° to +185° F)
- Shock and Vibration
 - MIL-STD-810F

POWER

- Input
 - 3.3 VDC to 5.0 VDC +/-0.1 VDC
- Consumption
 - 0.5 Watts nominal @ 3.3 VDC; 0.7 Watts Nominal @5.0 VDC

PHYSICAL

- Dimensions
 - 7.6 cm L x 5.6 cm W x 1.1 cm H, (3.0" L x 2.2" W x 0.4" H)
- Weight
 - 70 grams (2.5 oz.)
- Data/Power Connector
 - 20 Pin: Samtec TFM-110-11-S-D
 - Mount
 - 4 x 3.175 mm (0.125") diameter holes

ANTENNA

- Connector
 - 50 Ohm, MMCX-style female

ORDERING INFORMATION

- | | |
|-------------------------------|----------|
| • ADL RXO 390-430 MHz - CMOS | K01146 |
| • ADL RXO 430-470 MHz - CMOS | K01147 |
| • ADL RXO 430-470 MHz - RS232 | 82494-10 |

Specifications subject to change without notice.

TRIMBLE
Worldwide
Integrated Technologies
510 DeGuigne Drive
Sunnyvale, CA 94085

Email: sales-intech@trimble.com