ADL Vantage

ADL Vantage is an advanced, high speed, wireless data link built to survive the rigors of GNSS/RTK surveying and precise positioning. This sophisticated 0.1-4.0 Watt radio modem utilizes Pacific Crest’s next generation Advanced Data Link (ADL) technology while remaining backward compatible with existing Pacific Crest, Trimble and other products. ADL Vantage’s full-function user interface streamlines field configuration and troubleshooting so you can maintain maximum productivity. For the most rugged and reliable digital data link, go with the Geomatics industry’s standard in wireless communications – ADL Vantage.

Features

- **Multi-function user interface**
  - Allows radio configuration and troubleshooting in the field
  - Change configuration to adapt to changes in field equipment

- **Heavy-Duty Construction**
  - All metal construction for the ultimate in impact and EMI resistance
  - Environmentally sealed to IP67 standard

- **High Over-the-Air Link Rate**
  - 19,200 bps (both GMSK and 4FSK)
  - Supports 1Hz RTK corrections for multi-GNSS receivers

- **Configurable Transmit Power**
  - 0.1-2 W for longer battery life
  - 4.0 W for longer range (where permitted)

- **Advanced 40 MHz Bandwidth**
  - 390-430 and 430-470 MHz models
  - Advanced Data Link design for high performance over the entire band

- **Software-Derived Channel Bandwidth**
  - Compatible with both 12.5 and 25 kHz licenses

Solutions

![Solutions](image1.png)
## General Specifications
- **Communication**: 1 RS-232 port, 115.2 kbps maximum
- **User Interface**: 2-row, 16-character LCD display with 5 navigation buttons

## Power
- **External**: 9.0 – 30.0 VDC, 2 Amp maximum
- **During RX**: 0.6 Watts nominal @ 12.0 VDC
- **During TX**: 7 Watts nominal @ 12.0 VDC, 1 W RF output
- **13.4 Watts nominal @ 12.0 VDC, 4 W RF output**

## Modem Specifications
- **Link Rate/Modulation**: 19,200 bps/4FSK, 9600 bps/4FSK, 19,200 bps/GMSK, 16000 bps/GMSK, 9600 bps/GMSK, 8000 bps/GMSK, 4800 bps/GMSK
- **Link Protocols**: Transparent EOT/EOC, Transparent FST, Packet-switched, TRIMMARK™, TRIMTALK™, TT450S (HW), SATEL®
- **Forward Error Correction**: Yes

## Radio Specifications
- **Frequency Bands**: 390-430, 430-470 MHz
- **Frequency Control**: Synthesized .5 kHz tuning resolution, Frequency stability +/- 1 PPM
- **Channel Bandwidth**: 12.5 kHz and 25 kHz, software derived
- **RF Transmitter Output**: Programmable to 0.1 – 4 Watts (where permitted)
- **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

## Environmental Specifications
- **Enclosure**: IP67 (Watertight to depth of 1 meter for 30 minutes)
- **Operating Temperature (Receiver)**: -25˚ to +85˚ C (-13˚ to +185˚ F)
- **Operating Temperature (Transmitter)**: -25˚ to +65˚ C (-13˚ to +149˚ F)
- **Storage Temperature (Receiver/Transmitter)**: -55˚ to +85˚ C (-67˚ to +185˚ F)
- **Vibration Specification**: MIL-STD-810F

## Mechanical Specifications
- **Dimensions**: 8.89 cm L x 4.6 cm W x 16.0 cm H
  
- **Weight**: 705 grams (1.55 lbs.)
- **Data/Power Connector**: 5-pin, #1-shell LEMO-style
- **RF Connector**: 50 Ohm, TNC female

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Model ADLV-1, 390-430 MHz, P/N K01110
Model ADLV-2, 430-470 MHz, P/N K01111

Pacific Crest
510 DeGuigne Drive, Sunnyvale, CA 94085
Tel: 1.800.795.1001 (US & Canada) - +1.408.481.8070 (International)
Americas & Asia-Pacific
  radiosales@pacificcrest.com
Europe/EMEA
  +31.72.572.4408 telephone - eumeasales@pacificcrest.com
Russia
  +7.495.504.1081 telephone - rusales-pc@trimble.com
China
  chinasales-pc@trimble.com
Web
  www.PacificCrest.com
Email: info@pacificcrest.com

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