High Power Advanced Data Link for Field Communications

ADL Vantage Pro

ADL Vantage Pro is an advanced, high speed, high power, wireless data link built to survive the rigors of GNSS/RTK surveying and precise positioning. This sophisticated 2 - 35 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 radios. ADL Vantage Pro's 35 Watts of power maximize range, enabling you to work in difficult terrain and urban areas. Its full-function user interface streamlines field configuration and troubleshooting so you can maintain maximum productivity. For the most rugged and reliable long-range data link, go with the Geomatics industry's new standard in wireless communications – ADL Vantage Pro.

Features

- **Configurable Transmit Power**
  As low as 2 Watt for longer battery life
  As high as 35W for longer range
- **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
- **Advanced 40 MHz Bandwidth**
  390-430 and 430-473 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 radios

Solutions






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ADL VANTAGE PRO SPECIFICATIONS

ADL Vantage Pro
Compact and Easy to Use

General Specifications	
Communication	1 RS-232 port, 115.2 kbps maximum
User Interface	5 navigation buttons with LCD display 2-row LCD display with 16-characters (English or Cryllic) or 8 characters (Chinese)
Power	
External	9.0 – 30.0 VDC, 15 Amp maximum
During RX	1.7 Watts nominal @ 12.0 VDC
During TX	130 Watts nominal @ 12.0 VDC, 35W RF output 55 Watts nominal @ 12.0 VDC, 8W RF output 8 Watts nominal @ 12.0 VDC, 2W 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 FST™, Transparent EOT/EOC, Packet-switched, TRIMMARK™ , TRIM-TALK™, TT450S (HW), SATEL®
Forward Error Correction	Yes
Radio Specifications	
Frequency Bands	390-430, 430-473 MHz
Frequency Control	Synthesized 6.25 kHz tuning resolution Frequency stability: +/- 1 ppm @ -40 to +85°C
Channel Bandwidth	12.5 kHz and 25 kHz, software derived
RF Transmitter Output	Programmable to 2 - 35 Watts (where permitted)
Sensitivity	-110 dBm BER 10^{-5}
Type Certification	All models are type accepted and certified for operation in the U.S., Europe, Australia, New Zealand, and Canada
Environmental Specifications	
Enclosure	IP67 (Watertight to depth of 1 meter for 30 minutes)
Operating Temperature (Radio)	-40 ˚C to +65 ˚C (–40˚ F to +149 ˚F)
Operating Temperature (LCD)	–20 ˚C to +65 ˚C (–4˚ F to +149 ˚F)
Storage Temperature	–40 ˚C to +85 ˚C (–40 ˚F to +185 ˚F)
Vibration Specification	MIL-STD-810F
Mechanical Specifications	
Dimensions	11.9 cm L x 8.6 cm W x 21.3 cm H 4.7” L x 3.4” W x 8.37” H (with handle)
Weight	1.95 Kg (4.3 lbs.)
Data/Power Connector	5-pin, #1-shell LEMO-style
RF Connector	50 Ohm, TNC female

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