



# High Performance Advanced Data Link for Field Communications

## 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



# ADL VANTAGE SPECIFICATIONS



**ADL Vantage**  
Compact and Easy to Use

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™, TRIM-TALK™, TT450S (HW), SATEL®
Forward Error Correction	Yes
Radio Specifications	
Frequency Bands	390-430, 430-470 MHz
Frequency Control	Synthesized 12.5 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 <sup>-5</sup>
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)	-40° to +85° C (-40° to +185° F)
Operating Temperature (Transmitter)	-40° to +65° C (-40° 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 (3.5" L x 1.809" W x 6.3" H)
Weight	705 grams (1.55 lbs.)
Data/Power Connector	5-pin, #1-shell LEMO-style
RF Connector	50 Ohm, TNC female



SYNERGY POSITIONING SYSTEMS  
3/52 Arrenway Drive, Albany  
Auckland, New Zealand  
Free Call: 0800-867-266 Phone: +64-9-476-5151  
Fax: +64-9-476-5140 Email: info@synergypositioning.co.nz  
Website: www.synergypositioning.co.nz



PACIFIC CREST

510 DeGuigne Drive, Sunnyvale, CA 94085  
Tel: 1.800.795.1001 (US & Canada) -- +1.408.481.8070 (International) -- Fax: +1.408.481.8984  
Europe/EMEA +31.72.572.4408 Email: emeasales@pacificcrest.com  
Russia: Tel: +7.812.331.7576 E-mail: info@euroml.ru  
China: chinasales@pacificcrest.com  
Web: www.PacificCrest.com, Email: Sales@PacificCrest.com

©2012 Pacific Crest. Trimble® is a trademark of Trimble Navigation Limited. SATEL is a trademark of SATEL Oy.  
License required prior to operation of radio communication equipment. Specifications subject to change without notification. September 2012