Enclosures  ProPak6™

RUGGED ENCLOSURE DELIVERS SCALABLE GNSS WITH HEADING AND WIRELESS COMMUNICATION OPTIONS

FLEXIBLE, RUGGED AND RELIABLE
ProPak6 provides the latest and most sophisticated enclosure product manufactured by NovAtel. From standalone metre-level to centimetre-level positioning, the ProPak6 is flexible to meet your positioning needs. Reliability is safeguarded as a result of the extremely rugged and water resistant IP67 housing combined with its wide operating temperature range. NovAtel has also assured faster time to market by reducing integration time with standardized software and hardware connections. The ProPak6 offers optional GPRS/HSPA cellular modem and/or heading options to provide a solution for many applications.

EASY SYSTEM INTEGRATION AND INSTALLATION
The ProPak6 provides numerous interfaces including multiple RS-232/RS-422 serial ports, CAN Bus, USB host and device as well as Bluetooth®, Wi-Fi and optional cellular radio. Standard interfaces are provided through conventional connectors, eliminating the need for hard to find and expensive custom cables. The ProPak6 also features advanced Ethernet support for remote configuration and access of data logs. Installation and configuration time is reduced with multiple communication options: Wi-Fi, Bluetooth® and optional GPRS/HSPA cellular modem.

PRECISE THINKING MAKES IT POSSIBLE
Developed for efficient and rapid integration, our Global Navigation Satellite System (GNSS) products have set the standard in quality and performance for over 20 years. State-of-the-art, lean manufacturing facilities in our North American headquarters produce the industry’s most extensive line of OEM receivers, antennas and subsystems. All of our products are backed by a team of highly skilled design and customer support engineers, ready to answer your integration questions.

BEFORE YOU CALL...
+ Efficient integration with standard hardware and software interfaces and world class support
+ Future proof for upcoming GNSS signal support
+ Reliable use in harsh environments with the IP67 housing
+ Multiple communication interfaces for easy integration and installation
+ SPAN® INS functionality

FEATURES
+ 240 channels
+ Scalable positioning options from metre to centimetre-level
+ Standard connectors for simple interfacing
+ 4 GB onboard memory for data logging
+ Standard Bluetooth® and Wi-Fi connectivity
+ Optional GPRS/HSPA cellular modem
+ Optional heading

If you require more information about our enclosures, visit www.novatel.com/products/gnss-receivers/enclosures/
**PERFORMANCE**

**Channel Configuration**
240 Channels

**Signal Tracking**
- GPS L1, L2, L2C, L5
- GLONASS L1, L1, L2C
- Galileo E1, E5a, E5b, AltBOC
- BeiDou B1, B2.
- SBAS
- QZSS L1, L2C, L5
- L-Band

**Horizontal Position Accuracy (RMS)**
- Single point L1: 1.5 m
- Single point L1/L2: 1.2 m

**NovAtel CORRECT™**
- SBAS
- DGPS
- PPP
- RT-2
  - 1 cm + 1 ppm

**Measurement Precision (RMS)**
- Fully independent code and carrier measurements:
  - GPS GLO L1 C/A code: 4 cm
  - L1 carrier phase: 0.5 mm
  - L2 P(Y) code:
    - 8 cm
    - 1.0 mm
  - L2C code:
    - 8 cm
    - 1.0 mm
  - L2C carrier phase:
    - 1.0 mm
  - L5 code: 3 cm
  - L5 carrier phase: 0.5 mm

**Maximum Data Rate**
- Measurements: up to 100 Hz
- Position: up to 100 Hz

**Time to First Fix**
- Cold start: 50 s (typical)
- Hot start: 35 s (typical)

**Signal Reacquisition**
- L1: <0.5 s (typical)
- L2/L5: <1.0 s (typical)

**Velocity Accuracy**
<0.03 m/s (typical)

**Time Accuracy**
- 20 ns RMS

**ALIGN Heading Accuracy**
- 0.5 m baseline: 0.40°
- 1.0 m baseline: 0.20°
- 2.0 m baseline: 0.10°

**PHYSICAL AND ELECTRICAL**

**Dimensions**
190 x 185 x 75 mm

**Weight**
1.79 kg

**Power**
- Input voltage: +9 to +36 VDC
- Power consumption: 3.5 W

**Antenna Port(s) Power Output**
- Output voltage: 5 VDC
- Maximum current: 150 mA

**COM Port Power Output**
- Output voltage: +9 to +36 VDC
- Maximum current: 1.5 A

**Connectors**
- Front Panel: Radio antenna, TNC, USB host, SIM, Push-Push
- Rear Panel: Power 4-pin LEMO, COM1, COM2, COM3/IMU, DB9M, I/O or Event, DB9F, USB device, Type micro B, Ethernet RJ45, GPS1, TNC, GPS2 or Ext OSC, TNC/BNC, Expansion port 9-pin LEMO

**Front Panel Buttons**
- Power button
- Logging button

**Front Panel Status LEDs**
- Power
- COM port activity
- GPS
- INS ALN
- Radio status
- Data logging
- USB
- Bluetooth®
- Wi-Fi

**COMMUNICATION PORTS**
- RS-232/RS-422
- IMU
- USB 2.0 host
- USB 2.0 device (high speed)
- Ethernet
- CAN Bus
- Event input
- Event output
- Bluetooth
- Wi-Fi
- GPRS/HSPA (optional)

**ENVIRONMENTAL**

**Temperature**
- Operating: -40° to +75°C
- Operating (heading): -40° to +65°C
- Operating (radios): -40° to +65°C
- Storage: -40° to +95°C

**Humidity**
- 95% NC

**Waterproof**
- IEC 60529 IPX7

**Vibration**
- (operating) MIL-STD-810G, Method 513.6, Procedure II (16 g)
- (non-operating) MIL-STD-810G, S16.6, procedure 1, 40 g 11 ms terminal sawtooth

**Shock**
- (operating) MIL-STD-810G, S16.6, procedure 1, 40 g 11 ms terminal sawtooth

**Compliance**
- FCC, CE, RoHS, WEEE, Bluetooth® SIG

**INCLUDED ACCESSORIES**
- 12 VDC power adapter (CLA) with slow blow fuse
- Mounting bracket and hardware
- Null modem cable
- Extension cable
- I/O interface cable

**OPTIONAL ACCESSORIES**
- Advanced I/O Interface cable
- Straight serial cable
- USB cable
- Ethernet cable
- Cellular antenna
- GPS-700 series antennas
- ANT series antennas
- GrafNav/GravNet®
- NovAtel Connect™

**FIRMWARE OPTIONS**
- Auto-memory transfer to USB flash drive
- Field upgradeable firmware and field upgradeable software models
- Auxiliary strobe signals, including a configurable PPS output and two mark inputs
- ALIGN®
- GLIDE™
- RAIM
- RT-2
- SPAN
- API
- NTRIP v.1.0 and v.2.0
- 100 Hz output rate

For more recent details of this product: www.novatel.com/products/gnss-receivers/enclosures/propak6/

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Version 6 Specifications subject to change without notice.

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1. Typical value. Performance specifications subject to external factors including US DoD operational performance, atmospheric conditions, multipath, interference, etc. Specifications subject to change without notice.
2. Tracks up to 76 L1/L2 satellites.
3. Requires subscription to TerraStar-C data service. Subscriptions available from NovAtel.
4. Hot start with almanac, ephemerides saved, approximate time and position entered.
5. Export licensing restrictions limit maximum velocity to 515 m/s.
6. Export restrictions limit maximum velocity to 515 m/s.
7. Dual receiver option required to support ALIGN heading.
8. Field upgradeable firmware and field upgradeable software. Models and/or configuration dependent. Refer to the user manual for this product for further details.
9. All models and/or configuration dependent. Refer to the user manual for this product for further details.
10. Field upgradeable firmware and field upgradeable software. Models and/or configuration dependent. Refer to the user manual for this product for further details.
11. Field upgradeable firmware and field upgradeable software. Models and/or configuration dependent. Refer to the user manual for this product for further details.
12. Export restrictions limit maximum velocity to 515 m/s.
13. Field upgradeable firmware and field upgradeable software. Models and/or configuration dependent. Refer to the user manual for this product for further details.
14. Field upgradeable firmware and field upgradeable software. Models and/or configuration dependent. Refer to the user manual for this product for further details.
15. Single antenna version with BNC external oscillator input. Dual antenna (ALIGN heading) versions replace the external oscillator input with a TNC antenna input.
16. 100 Hz when tracking up to 20 satellites.