PwrPak7

Compact Enclosure Delivers Scalable Positioning Performance With Internal Storage

Future-Proofed Scalability
Capable of tracking all present and upcoming Global Navigation Satellite System (GNSS) constellations and satellite signals, the PwrPak7 is a robust, high-precision receiver that is software upgradeable in the field to provide the custom performance required for your application.

Base Station or Rover
Compact and lightweight, the PwrPak7 is well suited for base or rover applications. It has a powerful OEM7 GNSS engine inside and offers built-in Wi-Fi, onboard NTRIP client and server support and 16 GB of internal storage. It also has enhanced connection options including serial, USB, CAN and Ethernet.

Precise Thinking Makes It Possible
Developed for efficient and rapid integration, our 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.

Integrated IMU
With SPAN GNSS+INS technology, the PwrPak7 can interface with supported IMUs to bridge GNSS outages. With integrated IMU options, the PwrPak7 is a single stop solution to work in difficult environments.

Benefits
- Small, low power GNSS enclosure
- Easy integration into space and weight constrained applications
- Rugged design ideal for challenging environments
- Enhanced connection options including serial, USB, CAN and Ethernet
- Future-proof for upcoming GNSS signal support

Features
- TerraStar correction services supported over multi-channel L-Band and IP connections
- Advanced interference mitigation features
- SPAN GNSS+INS capability with configurable application profiles
- Dedicated Wheel Sensor input
- 16 GB of internal storage
- Built-in Wi-Fi support
## Performance

### Signal Tracking

<table>
<thead>
<tr>
<th>System</th>
<th>Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPS</td>
<td>L1 C/A, L1C, L2C, L2P, L5</td>
</tr>
<tr>
<td>GLONASS</td>
<td>L1 C/A, L2 C/A, L5</td>
</tr>
<tr>
<td>Galileo</td>
<td>E1, E5a, E5b, E6</td>
</tr>
<tr>
<td>BeiDou</td>
<td>B1I, B1C, B2I, B2a, B2b, B3I</td>
</tr>
<tr>
<td>QZSS</td>
<td>L1 C/A, L1C, L2C, L5, L6</td>
</tr>
</tbody>
</table>

### Alignment

- NavIC (IRNSS): L5
- SBAS: L1, L5
- L-Band: up to 5 channels

## Communication Ports

<table>
<thead>
<tr>
<th>Type</th>
<th>Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1RS-232</td>
<td>up to 460,800 bps</td>
</tr>
<tr>
<td>2RS-232/RS-422</td>
<td>up to 460,800 bps</td>
</tr>
<tr>
<td>1 USB 2.0</td>
<td>(device) HS</td>
</tr>
<tr>
<td>1 USB 2.0 (host)</td>
<td>HS</td>
</tr>
<tr>
<td>1 Ethernet</td>
<td>10/100 Mbps</td>
</tr>
<tr>
<td>1 CAN Bus</td>
<td>1 Mbps</td>
</tr>
<tr>
<td>1 Wi-Fi</td>
<td></td>
</tr>
<tr>
<td>3 Event inputs</td>
<td></td>
</tr>
<tr>
<td>3 Event outputs</td>
<td></td>
</tr>
<tr>
<td>1 Pulse Per Second output</td>
<td></td>
</tr>
<tr>
<td>1 Quadrature Wheel Sensor input</td>
<td></td>
</tr>
</tbody>
</table>

## Environmental

- **Temperature**
  - Operating: -40°C to +75°C
  - Storage: -40°C to +85°C
- **Humidity**: 95% non-condensing
- **Ingress Protection Rating**: IP67

### Vibration (operating)

- Random: MIL-STD-810H, Method 514.8, Procedure II (16 g)
- Shock: MIL-STD-810H, Method 516.8, Procedure 1, 40 g, 11 ms terminal sawtooth

### Acceleration (operating)

- MIL-STD-810H, Method 513.8, Procedure II (16 g)

### Shock (operating)

- MIL-STD-810H, Method 516.8, Procedure 1, 40 g, 11 ms terminal sawtooth

### Compliance

- FCC, ISED, CE and Global Type Approvals

## Firmware Solutions

- ALIGN
- SPAN
- RTK
- RTK ASSIST
- TerraStar PPP
- API

## Included Accessories

- Power cable
- USB cable
- DSUB HD26 to DB9 RS-232 cable
- Full breakout cable for DSUB HD26 connector
- DSUB HD26 to M12 IMU cable
- RJ45 Ethernet cable
- VEXXIS GNSS-500 and GNSS-800 series antennas
- Compact GNSS antennas
- GrafNav/GrafNet
- Inertial Explorer
- NovAtel Application Suite

## Optional Accessories

- PwrPak7-E1 integrated G320 IMU
- PwrPak7-E2 integrated G370 IMU
- PwrPak7M no Wi-Fi, no 16 GB internal storage

## Hardware Options

- PwrPak7-M 16 GB internal storage
- PwrPak7M no Wi-Fi, no 16 GB internal storage

### NovAtel Application Suite

- Inertial Explorer
- GrafNav/GrafNet
- Compact GNSS antennas

## Features

- NovAtel OEM7 positioning engine
- Standard 16 GB internal storage
- Support for logging to external USB storage device
- Built-in Wi-Fi support
- Optional integrated Epson IMU
- Web GUI

## Contact Hexagon | NovAtel

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For the most recent details of this product: novatel.com

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