When Ordinary GPS Isn’t Good Enough

LEGACY-E

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With a Legacy-E GNSS receiver, fast and accurate solutions don’t rely on when or where you’re working, or how much time have. It has the world’s most advanced GNSS receiving technology built-in, ready to work where others won’t.

At its core is our Paradigm chip featuring 40 universal super channels that can each track all signals of either L1 or L2 GPS and GLONASS frequencies — and up to 20 GNSS satellites at once, the maximum available at any one time! It incorporates our new innovations in signal processing, multipath mitigation and co-op tracking, making Topcon GNSS the best in the field for under-canopy and low signal strength reception.

Our unique Cinderella feature activates GPS L1+L2 and GLONASS reception every other Tuesday for 24 hours so you can experience the real power of Topcon GNSS. Permanently activating these frequencies and other options is easy with simple password commands entered via a PC. Options can even be added on a pay-per-use basis — only when you need it.

The MINimum INTERface keeps operation very simple. Just two function keys and two 3-color LED’s are all that’s needed to record data and check status. Up to four serial ports lets Legacy-E work with a variety of accessories in all types of configurations.

Topcon offers a full line of antennas, radios, post-processing software and all the other accessories and hardware that will help ensure maximum productivity and accuracy.

Powerful, simple, versatile, Topcon Legacy-E—no ordinary GPS receiver.

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### Legacy-E Technical Data

<table>
<thead>
<tr>
<th>Description</th>
<th>40 channel integrated GNSS receiver with MINTER interface.</th>
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</thead>
<tbody>
<tr>
<td>Tracking Specifications</td>
<td>40 L1 GPS (20 GPS L1+L2+GLONASS on Cinderella’s days) 20 GPS L1+L2 (GD), 20 GPS L1 + GLONASS (GG), 20 GPS L1+L2+GLONASS (GGD)</td>
</tr>
<tr>
<td>Signals Tracked</td>
<td>L1/L2 C/A and P Code &amp; Carrier</td>
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<tr>
<td>Performance Specifications</td>
<td>(1 sigma)</td>
</tr>
<tr>
<td>Baseline Accuracy</td>
<td>Horizontal: 3mm + 1ppm for L1+L2; 5mm + 1.5ppm for L1 Vertical: 5mm + 1.5ppm for L1+L2; 6mm + 1.5ppm for L1 Horizontal: 10mm + 1.5ppm for L1+L2; 15mm + 2ppm for L1 Vertical: 15mm + 1.5ppm for L1+L2; 20mm + 2ppm for L1</td>
</tr>
<tr>
<td>Cold Start / Warm Start</td>
<td>Reacquisition &lt;1 second</td>
</tr>
<tr>
<td>Power Specifications</td>
<td>Battery External (maximum of 2 ports) Power input / consumption 6 to 28 volts DC / less than 3.3 watts Continuous Operating Time 7 hours (typical w/2.3AH rechargeable battery)</td>
</tr>
<tr>
<td>GNSS Antenna Specifications</td>
<td>GPS / GLONASS Antenna External Antenna Type Microstrip (Zero-Centered) Ground Plane Antenna on a flat ground plane or Choke Ring</td>
</tr>
<tr>
<td>Radio Specifications</td>
<td>Type External, UHF/VHF radio modem Base Power Output 0.5W/2.0W/35W</td>
</tr>
<tr>
<td>Communication Ports</td>
<td>Serial (RS232), 4 maximum, 2 standard</td>
</tr>
<tr>
<td>Other I/O Signals</td>
<td>1pps, event marker, frequency input, frequency output 2x3-color LED’s, two-function keys (MINTER)</td>
</tr>
<tr>
<td>Control &amp; Display Unit</td>
<td>External: Husky FS/2, FS/3, Ranger, 3rd Party</td>
</tr>
<tr>
<td>Memory &amp; Recording</td>
<td>Internal Memory Up to 96 Mbytes Raw Data Recording Up to 20 times per second (20Hz) Data Type Code and Carrier from L1 and L2, GPS and GLONASS</td>
</tr>
<tr>
<td>Data Output</td>
<td>Real time data outputs RTCM 104 version 2.2 and/or CMR2 ASCII Output NMEA 0183 version 2.2/2.3 (2.3 default) Other Outputs TPS format Output Rate Up to 20 times per second (20Hz)</td>
</tr>
<tr>
<td>Environmental Specifications</td>
<td>Enclosure Waterproof Operating Temperature -40°C to 55°C / -40°F to 130° F Dimensions W:240 x H:110 x D:35 mm / 9.45 x 4.33 x 1.38 in Weight 0.6 kg / 1.32 lbs</td>
</tr>
</tbody>
</table>

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**Standard Configuration**
- Legacy-E Receiver (0Mb)
- Cinderella GPS L2 + GLONASS activation
- 1 Hz Update Rate
- Co-op Tracking
- NMEA 0183 output
- User Defined Outputs
- MINTER Interface
- 2x RS232 Serial Ports
- 1x External Power Port
- Power Cables
- RS232 Cable

**Optional Features**
- GPS L2 and GLONASS
- Update rate 5Hz,10Hz, 20Hz
- RTK @ 5Hz, 10Hz, 20Hz
- Data Recording 4Mb to 96Mb
- CMR/RTC/M input/output
- Advanced Multipath Reduction
- Frequency I/O
- Event Marker
- Two additional serial ports
- Additional power port

**Common Accessories**
- Topcon Antennas
- LegAnt-2 flat ground plane
- RegAnt-1 SD choke ring
- RegAnt-2 DD choke ring
- UHF/VHF/Spread Spectrum Base or Rover radio kit
- Topcon Power Station
- 2.3AH rechargeable battery
- Lithium-ion battery
- LitePole
- Tripod, tribrach & adapter
- Pinnacle software
- Carlson GPS software e
- Survey Pro software
- Backpack, carrying case

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1 Specifications are subject to change without notice. Performance specifications assume a minimum of 6 GPS or 7 GPS/GLONASS satellites above 15 degrees in elevation and adherence to procedures recommended by TPS in the appropriate manuals. In areas of high multipath, periods of high PDOP and during periods of high Ionospheric activity performance may be degraded. Robust checking procedures are highly recommended in areas of extreme multipath or under dense foliage.

2 Cinderella feature activates GPS L2 and GLONASS reception at GPS midnight every other Tuesday for 24 hours.