EPOCH 35

- Affordable GPS + GLONASS integrated receiver
- Integrated Bluetooth® and Interface Control Panel
- RTK real-time positioning
- Network RTK positioning
- Comprehensive TDS Survey Pro field software
- Support for all GNSS data with Spectra Precision Survey Office software

The Spectra Precision® EPOCH® 35 GNSS system uses highly accurate Global Positioning System (GPS) and GLONASS technology for cadastral, topographic, control, stakeout and other precision survey applications. Combining both these satellite services provides the user with the greatest possible satellite coverage, allowing observations in areas where only one satellite solution would not provide results.

The EPOCH 35 is a complete GNSS system that includes a base, rover, field software, data collector, and radio modem. The EPOCH 35 GNSS rover features integrated Bluetooth capability, an internal radio modem and battery. The system runs TDS Survey Pro software. This premiere field software operates on the TDS Recon®, Nomad™ , or Ranger™ data collectors.

With fast, reliable initialization, the EPOCH 35 GNSS is a measurement solution that provides high-quality results in several survey modes including RTK and Static. The system operates without line-of-sight between points, and can be used in any weather. Designed as a multi-purpose, integrated system, the EPOCH 35 GNSS system provides total flexibility. Built especially for surveyors, the compact and lightweight EPOCH 35 GNSS integrates the user control interface panel into one powerful measurement solution.

For RTK surveying, the base system may include a choice of radio modems that provide either a high or low power data link from the base to the rover. In addition Network RTK is also supported by simply connecting to an external data capable cellular modem. Back at the office, surveyors can use the Spectra Precision Office software for postprocessing and quality control.

GNSS SYSTEM

GENERAL

When connected to the data collector

- GPS & GLONASS (GNSS) RTK dual frequency with centimeter accuracy
- Ergonomic, light and compact design
- Integrated Wireless Bluetooth technology
- Color touch-screen indicators for satellite tracking, data logging
- Application programs, job, and data management
- Access Network RTK with GPRS

TECHNICAL SPECIFICATIONS

Static GNSS surveying[1]
Horizontal ±5 mm +0.5 ppm RMS
Vertical ±5 mm +1 ppm RMS
Real-Time surveying[1]
Horizontal
±10 mm + 1 ppm RMS
Vertical
±20 mm + 1 ppm RMS
Initialization
Automatic OTF (on-the-fly) while moving
Initialization time
Typically <30 seconds
Start-up
<60 seconds from power on to
<30 seconds with recent ephemeris
Code differential GPS positioning[1]
WAAS/EGNOS differential positioning accuracy
Typically <5 m 3DRMS[2]
Measurements

- Low elevation satellite tracking technology
- 14 L1, 14 L2 GPS, 12 L1, 12 L2 GLONASS, 2 SBAS, WAAS/EGNOS
- NMEA-0183: AVR, GSV, HDT, VGK, VHD, ROT, GGK, GGA, GSA, ZDA, VTG,GST, PJT, and PJK
- 5 Hz position rate

Physical
Dimensions (W×H x D)
GPS receiver
19.0 cm x 7.0 cm x 20.0 cm
(7.48 in x 2.76 in x 7.87 in)
Weight
Base 1.0 kg (2.2 lb)
Rover 1.1 kg (2.4 lb), internal radio, UHF ntenna
Ports
I/O Two 7-pin Lemo, RS-232
Data Link antenna TNC (Rover only)

ENVIRONMENTAL

Operating temperature
–20 °C to +65 °C (–4 °F to +149 °F)
Storage temperature
–40 °C to +75 °C (–40 °F to +167 °F)
Humidity
95%, condensing
Water/Dust
IP64
Shock and vibration: Tested and meets the following environmental standards:
Shock UNE EN 60068-2-27:1993
Vibration MIL-STD-810F Fig 514.5C-1

ELECTRICAL

- Power 10 V DC to 15 V DC external power input with over-voltage protection on Port 1 and Port 2 (7-pin)
- Rechargeable, 7.4v 2400 mAh Li-Ion internal battery
- Power consumption is <2.5 W, in RTK mode with internal radio
- Average operating times on internal battery:
– RTK/Static: 5.5 hours[3]

COMMUNICATIONS

Base Pacific Crest LPB or HPB positioning data link OTA 9600 bps Transparent GMSK RTCM 2.1, 2.2, 2.3, 3.0, CMR
Rover Integrated receive-only UHF data link RTCM 2.3 & 3.0, CMR, CMR+, NTRIP

1 Accuracy and reliability may be subject to anomalies such as multipath, obstructions, satellite geometry, and atmospheric conditions. Always follow recommended survey practices.
2 Depends on WAAS/EGNOS system performance.
3 Two batteries supplied standard.