SPECTRA PRECISION®

EPOCH® 35 GNSS SYSTEM

SPECSHEET

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 positioning
<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 (WxH 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 antenna
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

DATA COLLECTOR COMPATIBILITY

TDS Survey Pro:

- **Ranger 300X**
- **Ranger 500X**
- **Nomad 800L**
- **Nomad 800X**
- **Recon**

Carlson SurvCE:

- **Surveyor+**
- **Surveyor**
- **Explorer II**

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.

Specifications are subject to change without prior notice.

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