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 weight and compact design
- Integrated Wireless Bluetooth® 2.0 technology
- 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
- 72 channels
- NMEA-0183: L2/L2C, 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 9.76 cm x 20.0 cm
(7.48 in x 3.8 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)
Storage SD Card Slot. . . . . 512MB/1GB[4]

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, 7.4 V 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 AND DATA STORAGE

- Raw GNSS data storage on a 512 Mb Industrial Grade Removable SD Card
- Supports external GSM/GPRS/CDMA modems for point to point RTK
- Supports external and integrated Nomad 800X GPRS modems for NTRIP operations
- Supports external UHF transmit data link for RTK base station operation
  – CMR, RTCM 2.1, RTCM 2.2, RTCM 2.3, RTCM 3.0
- Epoch 35 with integrated internal UHF receive only data link
  – CMR, RTCM 2.3, RTCM 3.0, RTCM 3.1 RTK
  – 410-430 MHz, 430-450MHz, 450-470MHZ
  – 25KHz Channel spacing, 4800-9600 bps
  – 12.5KHz Channel spacing, 4800bps

NOTICE TO OUR EUROPEAN UNION CUSTOMERS

For product recycling instructions and more information, please go to www.spectraprecision.com/ev.shtml.

Recycling in Europe:
To recycle Spectra Precision WEEE (Waste Electrical and Electronic Equipment products that run on electrical power),
call +31 497 53 24 30, and ask for the "WEEE Associate".
Or, mail a request for recycling instructions to: Spectra Precision,
c/o Menlo Worldwide Logistics, Meerheide 45, 5521 DZ Eersel, NL.

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.
4 Authorized Spectra Precision SD cards only.

Specifications are subject to change without prior notice.

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