M6

Survey & Engineering

- High end network rover solution
- 3.75G network modem
- Built-in Bluetooth and WiFi communication
- 220 channels multi-constellation receiver
- 32 GB internal memory

M6 GNSS receiver is a new-generation high end GNSS network receiver designed for RTK field survey.

Integrated powerful GNSS engine, M6 performs top-level GNSS satellite tracking and positioning capacity. GPS, GLONASS, Galileo and BDS supports M6 seamless working in every corner around the world.

Various modules provide the most professional and convenient solution in network RTK mode. Bluetooth and WiFi modules enable an easy and quick access in field even with your smart phone for setting or data download. Internal 3.75G network modem offers not only general NTRIP service but also CHC APIS method like traditional RTK with one base and one rover to cover no NTRIP service region.

Compatible with field data collection software running on Android OS, M6 is the best choice for a future-proof GNSS receiver leaving you more options at present or in the future.

■ Technical Specifications

GNSS Characteristics

- 220 channels with all in view simultaneously tracked satellite signals
    - GPS: L1C/A, L1C, L2C, L2E, L5
    - GLONASS: L1C/A, L1P, L2C/A, L2P, L3
    - Galileo: E1, E5A, E5B
    - BDS: B1, B2
    - SBAS: L1C/A, L5 (QZSS, WAAS, EGNOS, GAGAN)

GNSS Accuracies [1]

- Network RTK:
    - Horizontal: 8 mm + 0.5 ppm RMS
    - Vertical: 15 mm + 0.5 ppm RMS
    - Initialization Time: < 10 s
    - Initialization Reliability: > 99.9%
- Real Time Kinematics (RTK):
    - Horizontal: 8 mm + 1 ppm RMS
    - Vertical: 15 mm + 1 ppm RMS
    - Initialization Time: < 5 s
    - Initialization Reliability: > 99.9%
- Post-processed Kinematic (PPK):
    - Horizontal: 8 mm + 1 ppm RMS
    - Vertical: 15 mm + 1 ppm RMS
- High-precision Static:
    - Horizontal: 2.5 mm + 0.5 ppm RMS
    - Vertical: 3.5 mm + 0.5 ppm RMS
- SBAS: 0.5 m RMS

Hardware

- Size (H × W): 83 mm × 127 mm (3.3 in x 5 in)
- Weight: 0.93 kg (2.1 lb)
        1.04 kg (2.3 lb) with battery
- Environment
    - Operating: -40°C to +75 °C (-40°F to +167°F)
    - Storage: -55°C to +85°C (-67°F to +185°F)
- Humidity: 100% condensation
- Dust and Water Proof: IP67
- Shock and Vibration: 3 m (9.8 ft) fall onto concrete, MIL-STD-810G

Communications and Data Recording

- Network Modem: Internally integrated 3.75G modem
    - HSPA+ 21 Mbps (download), 5.76 Mbps (upload)
    - WCDMA 850/900/1700/1900/2100
    - EDGE/GPRS/GSM 850/900/1800/1900
- WiFi: 802.11 b/g/n, access point mode
- Bluetooth®: Internally integrated multimode system compatible with Android, Windows Mobile and Windows desktop operating systems
- Serial: 2 x 7pin LEMO port (external power, USB data download, USB update, RS-232)
- External Power: 12 V DC to 36 V DC

Electrical

- Power Consumption: 3.2 W (depending on user settings)
- Li-ion Battery Capacity: 3400 mAh, 7.4 V
- Operating Time[2]: 6 h in RTK rover mode
- External Power: 12 V DC to 36 V DC

(1) Accuracy and reliability specifications may be affected by multipath, satellite geometry and atmospheric conditions. Performances assume minimum of 5 satellites, follow up of recommended general GPS practices. (2) Operating time varies based on temperature.

Specifications are subject to change without notice.

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