

S10 Technical Features

RECEIVER

| | |
|----------------------------|-----------------------------------|
| Satellite Tracked | GPS: L1 C/A, L2E, L2C, L5 |
| | GLONASS: L1 C/A, L1P, L2 C/A, L2P |
| | BEIDOU: B1, B2 |
| | GALILEO: E1, E5 AltBOC, E5a, E5b |
| | QZSS: L1 C/A, L1C, L2C, L5 |
| | SBAS: L1, L5 |
| Channels | 220 |
| Position Rate | 20 Hz |
| Signal Reacquisition | < 1 sec |
| RTK Signal Initialization | Typically < 10 sec |
| Hot Start | Typically < 15 sec |
| Initialization Reliability | > 99.9 % |
| Internal Memory | 4 GB |
| Micro SD Card | Expansion slot up to 32 GB |

POSITIONING¹

| | |
|--|----------------------|
| HIGH PRECISION STATIC SURVEYING | |
| Horizontal | 2.5 mm + 0.1 ppm RMS |
| Vertical | 3.5 mm + 0.4 ppm RMS |
| CODE DIFFERENTIAL POSITIONING | |
| Horizontal | 0.25 m RMS |
| Vertical | 0.45 m RMS |
| SBAS POSITIONING ² | |
| Horizontal | 0.50 m RMS |
| Vertical | 0.85 m RMS |
| REAL TIME KINEMATIC (< 30 Km) - NETWORK SURVEYING ³ | |
| Fixed RTK Horizontal | 8 mm + 0.8 ppm RMS |
| Fixed RTK Vertical | 15 mm + 1 ppm RMS |

INTEGRATED GNSS ANTENNA

High accuracy four constellation micro-strip antenna, zero phase center, with internal multipath suppressive board

INTERNAL RADIO

| | |
|-----------------|---|
| Type | Tx - Rx |
| Frequency Range | 410 - 470 MHz |
| Channel Spacing | 12.5 KHz / 25 KHz |
| Maximum Range | 3-4 Km in urban environment Up to 10 Km with optimal conditions ⁴ |

INTERNAL MODEM

| | |
|------|--|
| Band | GSM/GPRS/EDGE: 850/900/1800/1900 MHz WCDMA/HSDPA: 800/850/900/1900/2100 MHz |
|------|--|

COMMUNICATION

| | |
|--------------------|--|
| I/O Connectors | 7-pins Lemo and 5-pins Lemo interfaces. Multifunction cable with USB interface for PC connection |
| Bluetooth | 2.4 GHz class II |
| Wi-Fi | 802.11 b/g/n |
| Web UI | To upgrade the software, manage the status and settings, data download, etc. via smart phone, tablet or other internet enabled electronic device |
| Reference outputs | RTCM 2.1, 2.3, 3.0, 3.1, 3.2 CMR, CMR+, RTCA |
| Navigation outputs | GGA, ZDA, GSA, GSV, GST, VTG, RMC, GLL |

POWER SUPPLY

| | |
|--------------|--|
| Battery | Rechargeable and replaceable 10.8 V - 3400 mAh Intelligent lithium battery |
| Voltage | 9 to 22 V DC external power input with over-voltage protection (5 pins Lemo) |
| Working Time | Up to 7 hours (1 battery) |
| Charge Time | Typically 4 hours |

PHYSICAL SPECIFICATION

| | |
|-----------------------|--|
| Dimensions | φ 140 mm x 145 mm |
| Weight | 1.25 Kg (w/o battery) 1.45 Kg (with battery) |
| Operating Temperature | -40°C to 65°C (-40°F to 149°F) |
| Storage Temperature | -40°C to 85°C (-40°F to 185°F) |
| Waterproof/Dustproof | IP67 |
| Shock Resistance | Designed to endure to a 2 m pole drop on concrete floor with no damage |
| Vibration | Vibration resistant |

Specifications are subject to change without notice.

1. Accuracy and reliability are generally subject to satellite geometry (DOPs), multipath, atmospheric conditions and obstructions. In static mode they are subject even to occupation times: the longer is the Baseline, the longer must be the occupation time.
2. Depends on SBAS system performance.
3. Network RTK precision depends on the network performances and are referenced to the closest physical base station.
4. Varies with the operating environment and with electromagnetic pollution.