



REACH RS2

Datasheet



Key features

- Tracks GPS/QZSS L1C/A, L2C GLONASS L1OF, L2OF BeiDou B1I, B2I Galileo E1-B/C, E5b SBAS L1C/A
- Fast RTK convergence
- Multi-feed antenna with multipath rejection
- 868/915 MHz LoRa modem for up to 8 km connectivity
- Global 3.5G modem
- 22 hours on 1 charge
- NTRIP and VRS support, works with RTCM3
- Logs RINEX at update rate up to 20 Hz
- 16 GB of internal storage
- IP67, water- and dustproof

REACH RS2

Technical specifications

POSITIONING

| | | |
|--------------------|--------|--|
| Precision | Static | H: 4mm+0.5ppm |
| | PPK | H: 5mm+0.5ppm |
| | RTK | H: 7mm+1ppm |
| Convergence time | | ~5s typically |
| Signal tracked | | GPS/QZSS L1C/A, L2C, GLONASS L1OF, L2OF, BeiDou B1I, B2I, Galileo E1-B/C, E5b, SBAS, L1C/A |
| Number of channels | | 184 |
| Update rates | | 20Hz GPS / 5Hz GNSS |
| IMU | | 9DOF |

CONNECTIVITY

| | | |
|------------------|-----------------|---|
| UHF LoRa radio | Frequency range | 868/915 MHz |
| | Power | 0.1W |
| | Distance | Up to 8 km |
| 3.5G modem | Regions | Global |
| | Bands | Quad-band, 850/1900, 900/1800 MHz |
| | SIM card | Nano-SIM |
| Wi-Fi | | 802.11a/b/g/n |
| Bluetooth | | 4.0/2.1 EDR |
| Ports | | RS-232, USB Type-C |
| Data Protocols | | NTRIP, VRS, RTCM3, position output in NMEA, LLH/XYZ |
| Data logging | | RINEX at update rate up to 20Hz |
| Internal storage | | 16GB |

MECHANICAL

| | |
|--------------------|---------------------------|
| Dimensions | 126x126x142 mm |
| Weight | 950 g |
| Temperature | -20...+65 °C |
| Ingress protection | IP67 water- and dustproof |

ELECTRICAL

| | |
|----------------------|--|
| Autonomy | 16 hrs as 3.5G RTK rover, 22 hrs logging |
| Battery | LiFePO4 6400 mAh, 6.4V |
| External power input | 6-40V |
| Charging | USB-C 5V 2A |

COMMUNICATIONS AND DATA STORAGE

- 9PIN port: RS-232, PPS, Event
- USB OTG
- Internal Radio Modem:
 - LoRa technology
 - Reliable link on up to 8 km baseline
 - Transmit power up to 100mW
 - Configurable 862-1020MHz carrier
- Internal 3.5G modem
 - Global
 - Quad-band, 850/1900, 900/1800MHz
- Built-in short-range Wi-Fi 802.11a/b/g/n, WEP, WPA, WPA2 encryption
- Built-in short-range Bluetooth 4.0/2.1 EDR
- Data storage 16GB internal memory
- Raw logs in RINEX, UBX
- External Radio Modem connectivity over RS-232/USB OTG
- RTCM 3.x input and output over Wi-Fi, Bluetooth, LoRa, USB, RS-232, NTRIP
- NMEA 0183, ERB output over Wi-Fi, Bluetooth, USB, RS-232
- ReachView app for iOS and Android for configuration and surveying



YOUR LOCAL DEALER

