



REACH RS2

Multi-band RTK GNSS receiver with centimeter precision

For surveying, mapping, and navigation

Comes with a mobile app

emlid.com

€2499

Key features

Gets fix in seconds

The Reach RS2 gets a fixed solution in seconds and maintains a robust performance even in challenging conditions. Centimeter accuracy can be achieved on distances over 60 km in RTK and 100 km in PPK mode. The receiver tracks GPS/QZSS (L1, L2), GLONASS (L1, L2), BeiDou (B1, B2), and Galileo (E1, E5).

Built-in 3.5G modem

The Reach RS2 features a power-efficient 3.5G HSPA modem with 2G fallback and global coverage. Corrections can now be accessed or broadcast over NTRIP independently, without relying on an Internet connection on your phone.

22 hours on one charge

Up to 22 hours of autonomous work when logging data and up to 16 hours as a 3G rover, even in cold weather. The Reach RS2 can charge from a USB wall charger or a power bank over USB-C.

PPP support

Antenna calibration details for Reach RS2 are added to NOAA's National Geodetic Survey registry.

The post-processing will be flawless with OPUS, AusPos, NRCAN, and other PPP services.

Water and dustproof

You can work in dusty areas or under the rain.

Engineered to be tough

The Reach RS2 is designed to work even in the most challenging environments.

-20 °C to +65 °C

Works during coldest winters and hottest summers.

Polycarbonate body

Covered with elastomer



SIM

RS-232

LoRa radio

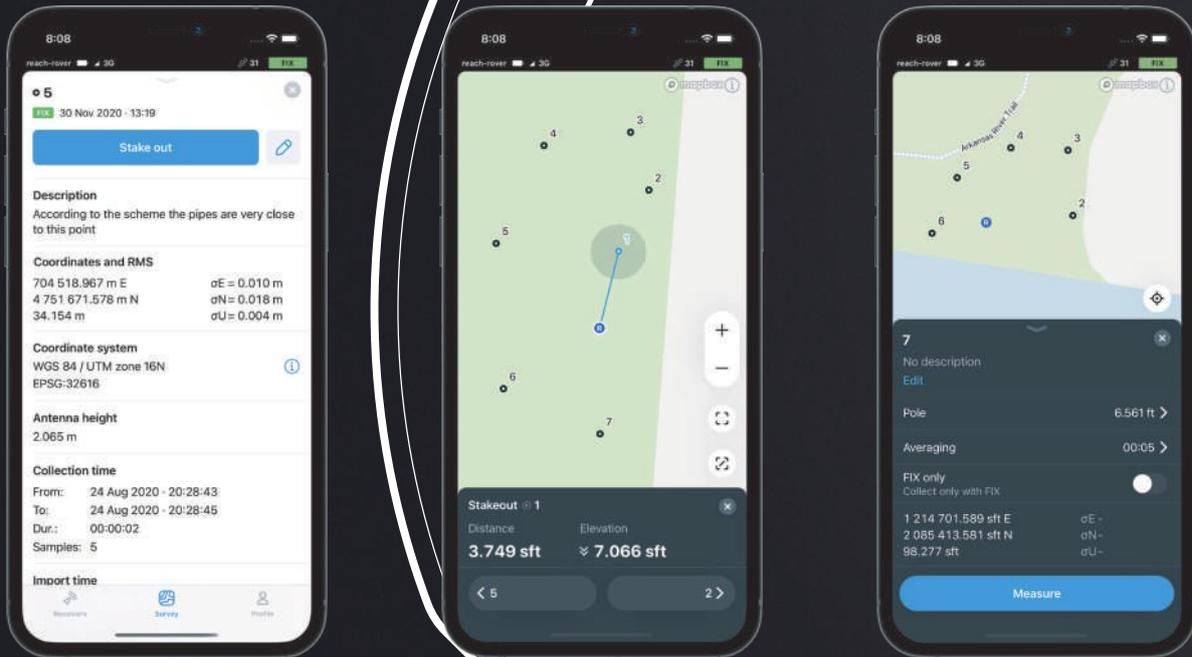
USB-C

Surveying with ReachView 3

ReachView 3 is intuitive software for data collection is available for Android and iOS.

With the ReachView 3, you can collect stake out points using your local coordinate system and control your Reach RS2 unit. Set up a base station, log RINEX data, configure NMEA output — everything in one app.

The ReachView 3 supports thousands of different coordinate systems worldwide. The selection is based on the EPSG and IGN registries. The ReachView 3 has a custom tool for manual coordinate system creation for areas without a predefined coordinate system.



Base and rover for RTK and PPK

Real-time navigation

The Reach RS2 can send precise coordinates over Bluetooth or Wi-Fi to your tablet with a lightbar navigation app. The RS-232 interface allows the direct connection of the Reach RS2 to an autosteering system.

Solution formats: NMEA, ERB, LLH/XYZ

Base station mode

Use the RS2 to set up your own base station. Stream corrections over the network via NTRIP/TCP or LoRa radio, record base logs for post-processing. The RS2 works with any amount of rovers, and it's compatible with the Reach RS+ and M2/M+.

The RS2 is compatible with any receiver that supports RTCM3 and NTRIP. External radios are supported over RS-232.

Reach RS2 survey kit



Two Reach RS2 receivers for surveying in RTK and PPK modes.

Two full packages, each includes:

- Reach RS2 unit
- Carrying case with a strap
- Radio antenna
- USB-C cable

Reach RS2 specifications

MECHANICAL

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

GNSS

Signal tracked	GPS/QZSS L1C/A, L2C, GLONASS L1OF, L2OF, BeiDou B1I, B2I, Galileo E1-B/C, E5b
Number of channels	184
Update rates	up to 10 Hz

CONNECTIVITY

UHF LoRa radio	Frequency range	863-928 MHz
	Power	0.1 W
	Distance	Up to 8 km
3.5G modem	Regions	Global
	Bands	Quad-band, 850/1900, 900/1800 MHz
	SIM card	Nano-SIM
Wi-Fi	802.11 b/g/n	
Bluetooth	4.0/2.1 EDR	
Ports	RS-232, USB-C	

ELECTRICAL

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

DATA

Position output	NMEA, LLH/XYZ
Corrections	NTRIP, VRS, RTCM3
Data logging	RINEX at update rate up to 10 Hz
Internal storage	16 GB

POSITIONING

Precision	S tatic	H: 4 mm+0.5 ppm V: 8 mm+1 ppm
	PPK	H: 5 mm+0.5 ppm V: 10 mm+1 ppm
	RTK	H: 7 mm+1 ppm V: 14 mm+1 ppm
Convergence time	~5 s typically	
IMU	9DOF	

For more information visit emlid.com