

# REACH RS3

EMLID

## Datasheet

### Key feature

#### High-precision IMU

RTK + 2 mm + 0.3 mm/°

Up to 60° of tilt

Immune to magnetic disturbances

#### Dual-band radio

868/915 MHz LoRa to receive and transmit corrections

450 MHz UHF to receive corrections

Tracks GPS/QZSS, GLONASS L1, L2;  
BeiDou B1, B2; Galileo E1, E5

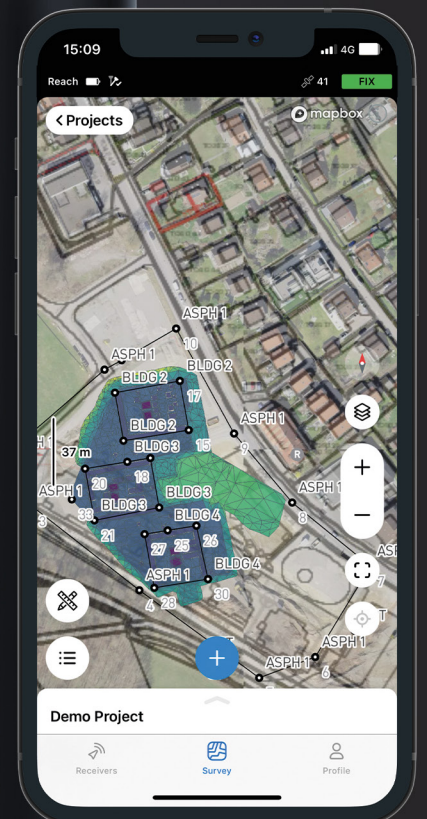
NTRIP and RTCM3

Global LTE modem and Wi-Fi

Up to 18 hrs of RTK with tilt compensation

Water and dust resistant to IP67

Comes with the Emlid Flow app



# REACH RS3

## TECHNICAL SPECIFICATIONS

### POSITIONING

Precision	Static	H: 4 mm+0.5 ppm V: 8mm+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
Signal tracked		GPS/QZSS L1C/A, L2C, GLONASS L1OF, L2OF, BeiDou B1I, B2I, Galileo E1-B/C, E5b
Number of channels		184
Update rate		Up to 10Hz
IMU		6DOF

### MECHANICAL

Dimensions	126x126x142mm
Weight	950 g
Operating temperature	-20°C to +65°C
Ingress protection	IP67 water and dustproof

### ELECTRICAL

Autonomy	18 hrs as an RTK rover with tilt compensation, 22 hrs of logging
Battery	LiFePO4 6400mAh, 6.4V
Charging	USB Type-C 5V 3A

### CONNECTIVITY

LoRa radio		Transmit and receive
	Frequency range	868/915 MHz
	Power	0.1 W
	Distance	Up to 8 km
UHF radio		Receive-only*
	Frequency range	410-470MHz
	Protocol	TRIMTALK 450S**
	Modulation type	GMSK
LTE modem	Regions	Global
	Bands	FDD-LTE:1, 2, 3, 4, 5, 7, 8, 12, 13, 18, 19, 20, 26, 28, 66 TD-LTE: 38, 40, 41
		UMTS (WCDMA/FDD): 1, 3, 2, 4, 5, 6, 8, 19 Quad-band, 850/1900, 900/1800MHz
	SIM card	Nano-SIM
Wi-Fi		802.11 b/g/n
Bluetooth		4.0/2.1 EDR
Ports		RS-232, USB Type-C
Data protocols	Corrections	NTRIP, RTCM3
	Position output	NMEA, LLH/XYZ
Data logging		RINEX, NMEA, LLH/XYZ, UBX
Internal storage		16 GB

\*Requires a 410-470 MHz antenna, sold separately  
\*\*TRIMTALK is a trademark of Trimble Inc.



### EMLID SOFTWARE AND SERVICES



#### Emlid Studio

Free software for static, kinematic, and drone data post-processing.



#### Emlid Flow & Emlid Flow 360

Android & iOS app for surveying and cloud service for data management.



#### Emlid NTRIP Caster

Free service to stream corrections between your base and rovers over the internet.

[emlid.com](http://emlid.com)

### YOUR LOCAL DEALER

Contact details: