Reach RS4

EMLID

Datasheet

All-band RTK GNSS receiver

⊕ Centimeter precision under canopy

⚲ Next-gen tilt compensation

⚒ L1/L2/L5/L6

⌖ 672 channels

⌯ 2W dual-band radio

🔋 16 hours on one charge

The Reach RS4 is a versatile RTK GNSS receiver designed for challenging fieldwork conditions. It delivers centimeter-level accuracy even under canopies or in urban areas, and features fast tilt compensation, enabling you to measure without levelling the pole.

Ideal for topographic surveys, construction layout, boundary marking, as-built checks, utilities mapping, road alignment and earthwork measurements, the RS4 comes with the Emlid Flow mobile and cloud app to keep every project and team in sync, from the field to the office.

Specifications

Mechanical

Dimensions	128.6 x 128.6 x 99.3 mm (5.06 x 5.06 x 3.91 in)
Weight	920 g (2.03 lb)
Operating t°	-40 to +65 °C (-4 to 149 °F)
Ingress protection	IP68

Positioning

Precision	Static	H: 7mm + 1 ppm V: 14 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
Tilt compensation		RTK + 2mm + 0.3 mm/°
Signal tracked		GPS: L1C/A, L2C, L5
		GLONASS: L1OF, L2OF
		Galileo: E1-B/C, E5a, E6
		BeiDou: B1I, B1C, B2a, B3I
		QZSS: L1C/A, L1C/B11, L2C, L5
		NavIC: L1-SPS Data, L5-SPS
Number of channels		672
Update rate		Up to 10 Hz

Electrical

Autonomy	16 hrs as RTK rover with tilt, 22 hrs of logging
Battery	Li-Ion 5000 mAh, 7.2 V, 36 Wh
Charging	USB Type-C (PD): 5V—3A, 9V—3A, 12V—3A, 15V—3A

Connectivity

Emlid radio*		
LoRa radio	Frequency range	868/915 MHz
	Distance	Up to 8 km
UHF radio	Frequency range	410 - 470 MHz
	Protocols	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
		TD-LTE: 38, 39, 40, 41
		UMTS (UHPS/FDD): 1, 2, 5, 8
		Quad-band, 850/1900, 900/1800 MHz
	SIM card	Nano-SIM
Wi-Fi		802.11a/b/g/n
Bluetooth		Bluetooth 5.1 (BR/EDR + LE)
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

*The exact power and the available frequency range are subject to regional regulations. **TRIMTALK is a trademark of Trimble Inc.

For more information, visit