REACH RS+
RTK GNSS receiver with an app as a controller

Reach RS+ is ever-ready to do surveying, mapping and data collection with cm accuracy

emlid.com
For survey and navigation with centimeter accuracy

Reach RS+ can deliver centimeter-accurate coordinates over multiple wireless or wired channels making it a universal tool for all kinds of precision-demanding applications.

Base station
Use Reach RS+ to set up your own base station. Stream corrections over the network via NTRIP/TCP or LoRa radio. Record base logs for post-processing.

Correction format: RTCM3.
Log format: RINEX.

Point collection
With Reach RS+ you can create survey projects to manage data collection. When working in the field each point is assigned a custom name and offset. Results can be downloaded from the project list.

Exporting formats: CSV, DXF, GeoJSON and ESRI Shapefile.

Point stakeout
Point Stakeout feature available in the app allows you to import a list of points of interest. Follow the app’s guidance to reach the exact spot.

Importing formats: DXF, GeoJSON and ESRI Shapefile.

Machinery guidance
Reach RS+ is able to provide precise coordinates over Bluetooth/Wi-Fi to your tablet with a lightbar navigation app. RS232 interface allows to connect Reach RS+ directly to an autosteer system.


ReachView app
Sleek and intuitive software that turns any smartphone into an advanced field controller for Reach RS+.

Helps with setup
Easily configure correction input, solution output, update rate and satellite systems in use. Manage Wi-Fi and Bluetooth connections.

Surveying tools
Built-in tools for data collection. Record geolocations with specified accuracy. Import and export in industry standard formats.

Status monitoring
ReachView shows current satellite signal strength, constellation visibility forecast, your location on a map and much more.

Log management
Logs are automatically recorded in internal memory. View a list of the logs and download them using the ReachView app.

ReachView is available on:

Field-ready

Rugged casing
Tough polycarbonate shell is specially crafted to protect Reach RS+ from falling and everyday wear.

IP67 certified
Sealed enclosure makes Reach RS+ water- and dustproof allowing it to work in any weather.

-20...+65°C
Industrial grade components ensure smooth operation no matter what the season is.

What's inside

Multi-system support
GPS, GLONASS, BeiDou, Galileo, QZSS, SBAS

Dual-feed antenna
With tight phase center variation

Long range radio
LoRa B68/915 MHz for reliable connection on distances up to 8 km

30 hours battery
LiFePO4 battery, USB charging, external 5–40V input

8 GB of storage
Built-in memory for logs

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Reach RS+ specifications

MECHANICAL

<table>
<thead>
<tr>
<th>Ingress protection:</th>
<th>IP67 (water- and dustproof)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size:</td>
<td>145 x 145 x 85 mm</td>
</tr>
<tr>
<td>Weight:</td>
<td>690 g</td>
</tr>
<tr>
<td>Operating temperature:</td>
<td>-20...+65 °C</td>
</tr>
</tbody>
</table>

CONNECTIVITY

<table>
<thead>
<tr>
<th>Interfaces:</th>
<th>USB, RS232, PPS, Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio:</td>
<td>LoRa 862–1020 MHz</td>
</tr>
<tr>
<td>Wi-Fi:</td>
<td>802.11a/b/g/n</td>
</tr>
<tr>
<td>Bluetooth:</td>
<td>4.0/2.1 EDR</td>
</tr>
</tbody>
</table>

POSITIONING

<table>
<thead>
<tr>
<th>Static horizontal:</th>
<th>5 mm + 1 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static vertical:</td>
<td>10 mm + 2 ppm</td>
</tr>
<tr>
<td>Kinematic horizontal:</td>
<td>7 mm + 1 ppm</td>
</tr>
<tr>
<td>Kinematic vertical:</td>
<td>14 mm + 2 ppm</td>
</tr>
</tbody>
</table>

ELECTRICAL

<table>
<thead>
<tr>
<th>Battery life:</th>
<th>30 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charging port:</td>
<td>Micro-USB</td>
</tr>
<tr>
<td>External power input:</td>
<td>5–40 V</td>
</tr>
<tr>
<td>Certifications:</td>
<td>FCC, CE</td>
</tr>
</tbody>
</table>

GNSS

<table>
<thead>
<tr>
<th>Signals:</th>
<th>GPS/QZSS L1, SBAS, GLONASS G1, BeiDou B1, Galileo E1, SBAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update rate:</td>
<td>14 Hz GPS / 5 Hz GNSS</td>
</tr>
<tr>
<td>Tracking channels:</td>
<td>72</td>
</tr>
<tr>
<td>IMU:</td>
<td>9DOF</td>
</tr>
</tbody>
</table>

DATA

<table>
<thead>
<tr>
<th>Internal storage:</th>
<th>8 GB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correction input:</td>
<td>RTCM2, RTCM3</td>
</tr>
<tr>
<td>Solution output:</td>
<td>NMEA, ERB, plain text</td>
</tr>
<tr>
<td>Logs:</td>
<td>RINEX2.X, RINEX3.X</td>
</tr>
</tbody>
</table>

Emlid

By combining modern hardware with an open-source RTK engine Emlid opens high-accuracy GNSS for everyone and offers a significant reduction of expenses for experienced surveyors.

Your local Emlid dealer

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