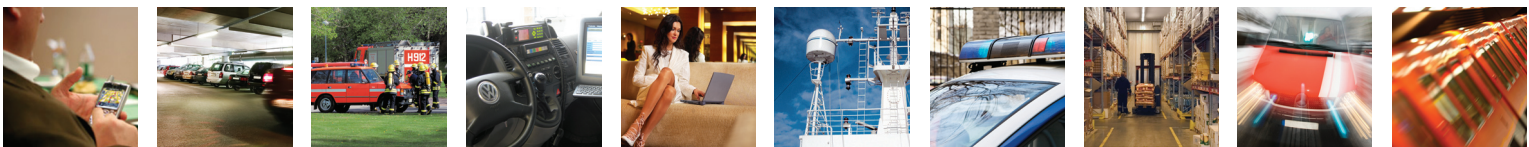




ROGER™

GPS repeater

GPS signal distribution products



How does GPS Repeater work?

ROGER GPS repeater operates by receiving GPS satellite signals with an antenna located outside the building and re-radiating the signals to the indoor area or covered space.

Use of re-radiated signals means that GPS receiver is tracking the current GPS status meaning that when a GPS receiver is moved from covered area to outdoors, the receiver is instantly tracking the location instead of time consuming acquisition of GPS data.

ROGER GPS Repeater Package (GPSR-BP)

A single ROGER GPS Repeater Package is enough to provide a GPS indoor coverage area of 30 metres in diameter from the repeater. Mount the external antenna on the roof of the building and connect the cable (RG58), supplied with the kit, to the antenna and to the repeater installed indoors.

Connect the power supply unit to the repeater, adjust the repeater's transmission power according to the local conditions, to prevent a signal loopback, and indoor GPS coverage is immediately available. The kit includes clear installation instructions and a pre-completed application for a radio license.

Several ROGER GPS Repeater Packages can be installed in the same building. Alternatively, the signal coverage provided by a single package can be extended with ROGER GPS Accessories, such as line amplifiers and signal splitters.



WHAT'S IN THE BOX

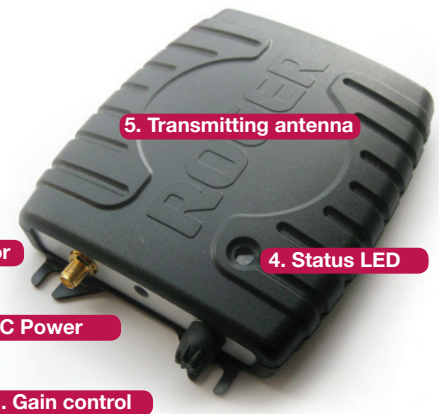
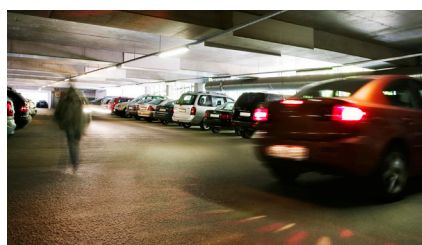
- Outdoor antenna
- Antenna mount and adapter for cables
- ROGER GPS Repeater unit
- Power supply
- RF-cabling, 19,5m
- Manual

Technical information

Size	110*143*28 mm
Weight	165 g
Overall Gain	> 40dB
Noise Figure	< 2dB
Variable attenuation	0-40dB
Impedance	50Ω
Input connector	SMA-female
Operating temperature	-35 - +60°C
Power supply	+12VDC, 300mA
Indoor coverage radius	5-10m
Antenna power output	+5VDC, 100mA
TX antenna gain	max +4dBd, RHCP polarization

Other features

Automatic gain control	Output power limit -60dBm
Feedback oscillation suppression	Status/power LED
Manual gain control	Internal transmit antenna



ROGER GPS Repeater Unit (GPSR-R1)

Each ROGER GPS repeater is capable of transmitting the GPS signal over an area 30 metres in diameter. Every repeater unit is supplied with a mains power supply unit with a 1.9 metre cable. The device has been CE certified in 2008.

ROGER GPS Repeater Package Easy(GPSR-EP)

A single ROGER GPS Repeater Package Easy is enough to provide a GPS indoor coverage area of 30 metres in diameter from the repeater. Mount the patch antenna on the window and connect the antenna cable, 6 meters (RG174).

GPS antenna, 1575,42 MHz, 50 Ohm, Gain 26 dB at 3V and 28 dB at 5V, Cable: RG174, Cable length: 6m.



WHAT'S IN THE BOX

- Pach type outdoor antenna
- ROGER GPS Repeater unit
- Power supply
- RF-cabling, 6m
- Manual

ROGER GPS Splitter&Amplifier Package (GPSR-SAP)

To extend the coverage area provided by the ROGER GPS Repeater Package, use the complete ROGER GPS Repeater Splitter & Amplifier extension kit that includes cables (1x3 m TNC-m/TNC-m)+(1x20 m TNC-m/TNC-m)+(1x25cm TNC-m/TNC-m)+(2x20 m TNC-m/SMA-m), 1 line amplifier, 2 repeater units and a new signal splitter/line amplifier.

With this installation kit, two extra repeaters can be added to the ROGER GPS Repeater Package to provide greater indoor GPS coverage. If necessary, a repeater can be installed up to 43 metres away from the outdoor antenna. The extension kit is easy to integrate with an existing system that comprises an external antenna and indoor repeater.

WHAT'S IN THE BOX

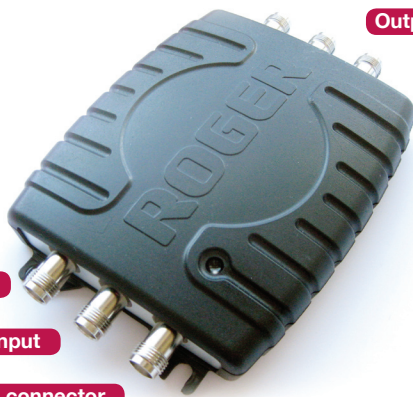
- 1xROGER GPS Amplifier&Splitter
- 1xROGER GPS Amplifier
- 2xROGER GPS Repeater unit
- 1x3 m TNC-m/TNC-m
- 1x20 m TNC-m/TNC-m
- 1x25cm TNC-m/TNC-m
- 2x20 m TNC-m/SMA-m



ROGER GPS repeaters offer you uninterrupted GPS service inside buildings, tunnels, shops and in vehicles.

Story: Fire and Rescue Station

The garage for fire and emergency vehicles is covered with GPS signal by ROGER GPS Repeaters and accessories and so the navigator in each vehicle is online instantly and navigation gaps will be avoided in the beginning of a rescue operation.



Output connector

Output connector

Output connector

Input connector

Output / DC input

Output connector

ROGER GPS Splitter (GPSR-S)

With the ROGER GPS Signal Splitter, the signal from one external antenna can be redistributed to up to five repeater units. It is advisable to use a separate amplifier with the signal splitter in order to ensure adequate transmission power to all the five repeaters. If the signal is to be transmitted to fewer than five repeaters, the unused ports should be terminated.

ROGER GPS Car Installation Package (GPSR-CIP)

GPS antenna, 1575,42 MHz, 50 Ohm, Gain 26dB at 3V and 28 dB at 5V, Cable: RG174 A ROGER GPS repeater can also be installed in a vehicle. An onboard repeater ensures trouble-free transmission of the tracking data to the inside the vehicle and reliable operation of GPS terminals and GPS trackers when the vehicle is on the move. The ROGER GPS Car Installation Package contains a repeater unit, a compact and unobtrusive double sided tape-attached GPS antenna and a voltage regulator (12V or 24V)



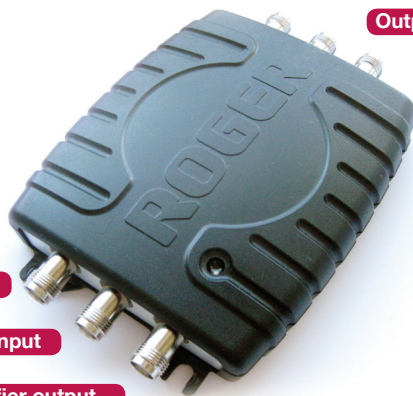
WHAT'S IN THE BOX

Patch type antenna
GPS Repeater
Voltage regulator (12V or 24V)

Output connector

Output connector

Amplifier input



Splitter input

Output / DC input

Amplifier output

ROGER GPS Amplifier & Splitter (GPSR-AS)

ROGER GPS Signal Splitter & Amplifier is a combined signal splitter and line amplifier with an output of +18db that can transmit to up to three separate repeater units. The splitter & amplifier is easy to use and permits a wide range of system configurations.

Instant GPS connection indoors

The information and the coordinates concerning a rescue alert are transmitted from the call center directly to the vehicles information terminals. Before the installation of the ROGER GPS Repeater products the navigation systems of the vehicles were unable to have connection to satellites inside the garage between rescue missions. And when they were leaving the station for a mission they had to wait for several minutes to get the coordinates to the scene/site of an emergency. And when saving lives, every second counts.



Nowadays the data and navigation terminals are fully functional and online all the time even before the rescue crew gets in.

"ROGER GPS Products are working great without failures/ malfunctions. After the installation of the ROGER Product it was instantly clear how basic element GPS coverage indoors actually is for everyday use of navigation systems."

After finding tested, user-friendly and CE-certified devices the local fire and emergency/rescue station in Eastern Finland decided to get indoor GPS coverage to their every station in three different cities. **"When we are making investments concerning the improvements of the work accuracy and efficiency, we always set the target higher than what it needs to be. The targets for the installation of the GPS navigation equipments was to get it operate as perfectly indoors as they work outdoors. After all, rescue stations need the GPS devices to be online all the time."**



Check for more:
www.gps-repeating.com/



ROGER GPS products are designed and manufactured in Finland.

Roger-GPS Ltd. is a company specialized in GPS technology. Its customers include a wide range of users who need GPS signal reception indoors. Users include rescue services, police, defence, airlines and companies manufacturing, selling and servicing GPS terminals. Roger-GPS Ltd.'s business concept permits the use of GPS devices and services in places where it was previously impossible.

The company was established in 2009 to carry on the development, manufacture and marketing of GPS products started by Sparklike Ltd. In September 2008 Sparklike Ltd. launched the first CE-certified GPS repeater and product family approved by the communications authorities in Finland and Sweden for use as radio-licensed devices. So far it is the only product of its type to meet the applicable standards.

The first GPS repeater users in Finland and Sweden are the fire-fighting and rescue services. Additionally, devices have been installed in the premises of local police departments and airlines and in testing and servicing companies.

The increasing popularity of GPS terminals has generated new applications and given rise to expectations that these devices would be able to operate indoors as well.

At the end of 2008, ROGER GPS products were sold by retailers in 20 countries. Additionally, devices have been exported directly from Finland to countries worldwide. All ROGER GPS products are designed and manufactured in Finland.

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