



## IP51 Product Range

### GNSS-L1G1 and GPSR-1

IP51 range Roger repeaters cover GPS L1 and GLONASS satellite signals. IP51 products are easy to install in controlled conditions. This makes them ideal for places like offices, work shops, demo areas, exhibition centers, etc.



### GNSS-S, GNSS-S2, GNSS-AS and GNSS-A

With the ROGER<sup>TM</sup> GNSS signal splitters and amplifiers it is easy to extend distance from an antenna or add more repeaters to extend coverage in a building.



### DC/DC and AC/DC Power solutions

Roger<sup>TM</sup> GNSS DC Power Distribution is designed to be used with Roger GNSS repeaters. Roger<sup>TM</sup> GNSS AC/DC Power Distribution can provide power up to 5 Roger GNSS repeaters from one AC power outlet. AC/DC 100-240V and DC/DC 12/24VDC also available.



## Roger GNSS Line Amplifier GNSS-A

### Key Features

Roger<sup>TM</sup> GNSS Line Amplifier is used to allow longer cable runs for GNSS Repeaters.

It has a gain of +16dB at the GPS L1/L2 and GLONASS frequency bands and it includes a filter to remove unwanted signals that may have entered the cable at some point.

Amplifier is powered through the output signal cable by the Roger<sup>TM</sup> GNSS Repeater and also passes on DC power for the GPS receiving antenna or an another Roger<sup>TM</sup> GNSS equipment.



#### Technical information:

Size:	110*143*28mm
Weight:	135 g
Operating temperature:	-25 - +55°C
Connectors:	TNC female input/TNC female output
Frequency range:	1200-1700 MHz
Noise figure:	<5dB
Impedance:	50Ω
Power supply:	The amplifier is powered through the output signal cable by the ROGER GNSS Repeater
Gain:	+16dB

## ROGER GNSS Amplifier Splitter GNSS-AS

### Key Features

ROGER<sup>TM</sup> GNSS Amplifier & Splitter is a combined signal splitter and line amplifier that can transmit amplified signal to up to three separate repeater units.

Amplifier has a gain of +16dB at the GPS L1/L2 and GLONASS frequency bands and it includes a filter to remove unwanted signals that may have entered the cable at some point.

Splitter is a one to three signal splitter that can transmit signal to up to three separate GNSS (Global Navigation Satellite System) repeater units.

Amplifier is powered through the output signal cable by the ROGER<sup>TM</sup> GNSS Repeater and also passes on DC power for the ROGER<sup>TM</sup> GNSS Splitter, an another GNSS line amplifier or GNSS receiving antenna.

The splitter & amplifier is easy to use and permits a wide range of system configurations.



#### Technical information:

##### *Amplifier section*

Size:	110*143*28mm
Weight:	195 g
Operating temperature:	-25 - +55°C
Connectors:	TNC female input TNC female output
Frequency range:	1200-1700 MHz
Noise figure:	<5 dB
Impedance:	50Ω
Gain:	+16dB

##### *Splitter section*

Connectors:	TNC female input, 3xTNC female output 1 x +12 dB with amplifier section or 1 x -4dB without with DC input from repeater 2 x +4 dB with amplifier section or 2 x -12dB without. DC blocked for repeaters
Power supply:	The amplifier&splitter is powered through the output / DC input connector by the ROGER GNSS Repeater
Frequency range:	1200-1700 MHz



# Instant GPS/GLONASS service indoors

## GNSS-L1G1

### Key Features

- Automatic gain limitation
- Oscillation prevention with indicator
- Maximal coverage for CE approved repeater
- Instant GPS/GLONASS fix when moving indoors and outdoors
- Full product family with repeaters, amplifiers and splitters



**Emergency stations and depots**

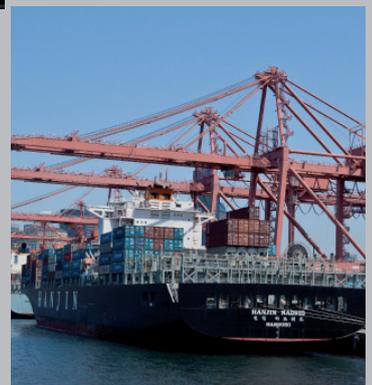


**Asset management in control room**

**Tunnels and traffic stations**



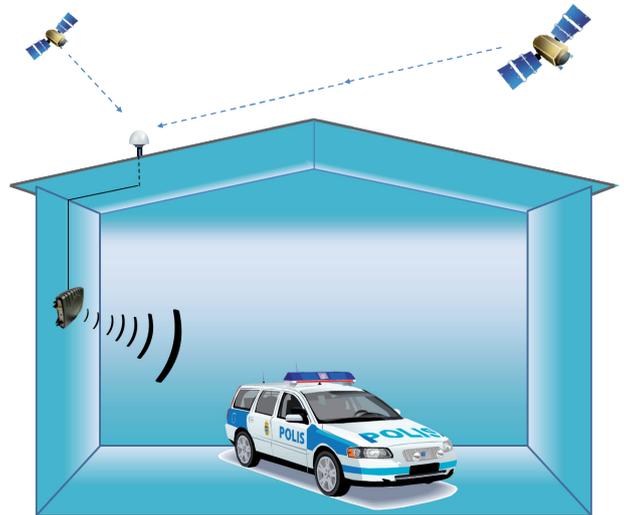
**Ships and vessels**



# How does Roger repeater work?

ROGER GPS/GLONASS repeater operates by receiving 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 indoors means that GPS/GLONASS receiver is tracking the current status and signal from the satellites. When a GPS/GLONASS receiver is moved from covered area to outdoors and vice versa, the receiver is instantly tracking the location instead of time consuming acquisition.



## Technical information

Frequency:	GPS L1 (1.57542 GHz) GLONASS L1 (1.602 GHz)
Size:	110*143*28 mm
Weight:	165 g
Overall gain:	> 40 db
Adjustable Gain:	0-40 db
Impedance:	50 Ohm
Input connector:	SMA-female
Operating temperature:	- 25 - +55 °C
Power supply:	+12VDC/300mA
Indoor coverage:	upto 50 meters
Antenna power output:	+ 5 VDC, 100 mA
TX Antenna gain:	max. +4dBd, RHCP polarized

## ROGER™ GNSS products:

Latest Product information can be found on  
<http://www.gps-repeating.com/>

or email us to

[roger@gps-repeating.com](mailto:roger@gps-repeating.com)



# ROGER™

## GNSS repeater



## Roger GNSS Basic Package GNSS-L1G1-BP

### Key Features

A single ROGER GNSS Repeater Package is enough to provide a GPS indoor coverage area of about 1000 square meters and a distance up to 40 meters from the repeater center. Mount the external antenna on the roof of the building and connect the cable supplied with the kit to the antenna and other end 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.

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



#### Technical information:

##### GNSS-L1G1 Repeater

Frequency:

GPS L1 (1.57542 GHz)  
GLONASS L1 (1.602 GHz)

Size:

110\*143\*28 mm

Weight:

165 g

Overall Gain:

> 40dB

Noise Figure:

< 2dB

Adjustable attenuation:

0-40dB

Impedance:

50Ω

Input connector:

SMA-female

Operating temperature:

-25 - +55°C

Power supply:

+12VDC, 1,5 A

Antenna power output:

+5VDC, 100mA

TX antenna gain max:

+4dBd, RHCP polarization

#### Antenna

Gain:

+35 dB

#### Cable

Length:

20 meters (GNSS-L1G1-BP40 with 40 meter cable)

Read more about our solutions from [www.gps-repeating.com](http://www.gps-repeating.com)

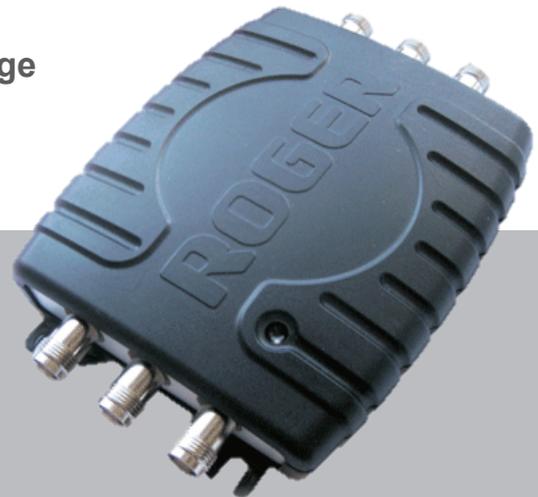
## Roger GNSS Splitter GNSS-S

### Key Features

With the ROGER<sup>TM</sup> GNSS Signal Splitter, is a signal splitter that is used to distribute GNSS signals to several Repeaters. Splitter works with GPS L1, GPS L2 and GLONASS frequency bands. It has one chaining output and four repeater outputs. DC power is passed from the chaining output to the input connector for line amplifier and GNSS receiving antenna.

ROGER<sup>TM</sup> GNSS Splitter is a one to five signal splitter with an output of -4 dB (1 port) and -12 dB (4 ports) that can transmit signal to up to five separate GNSS repeater units.

The splitter is easy to use and permits a wide range of system configurations.



#### Technical information:

Size:	110*143*28mm
Weight:	185 g
Operating temperature:	-25 - +55°C
Connectors:	1 x TNC female input, 5 x TNC female output: 1 x -4dB with DC pass 4 x -12dB
Frequency range:	1200-1700MHz
Impedance:	50Ω
Power:	The splitter is powered through the output / DC input connector by the ROGER GNSS Repeater

## Roger GNSS Splitter 1-to-2 GNSS-S2

### Key Features

With the ROGER™ GNSS Signal Splitter, is a signal splitter that is used to distribute GNSS signals to several Repeaters. Splitter works with GPS L1, GPS L2 and GLONASS frequency bands. It has one chaining output and two repeater outputs. DC power is passed from the chaining output to the input connector for line amplifier and to GNSS receiving antenna.

ROGER™ GNSS Splitter is a one to two signal splitter with an output of -4 dB (2 ports) that can transmit signal to up to two separate GNSS repeater units. The splitter is easy to use and permits a wide range of system configurations.



#### Technical information:

Size:	110*143*28mm
Weight:	185 g
Operating temperature:	-25 - +55°C
Connectors:	1 x TNC female input, 2 x -4dB TNC female output:
Frequency range:	1200-1700MHz
Impedance:	50Ω
Power:	The splitter is powered through the output / DC input connector by the ROGER GPS Repeater



## Instant GPS service indoors

### Key Features

- Automatic gain limitation
- Oscillation prevention with indicator
- Maximal coverage for CE approved repeater
- Instant GPS fix when moving outdoors
- Full product family with repeaters, amplifiers and splitters



**Emergency stations and depots**

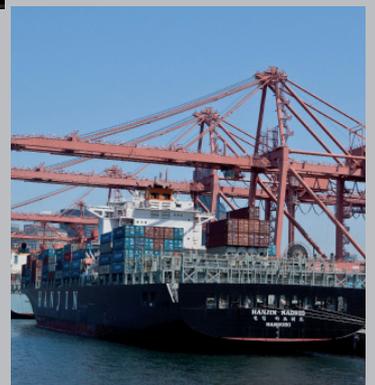


**Asset management in control room**

**Tunnels and traffic stations**



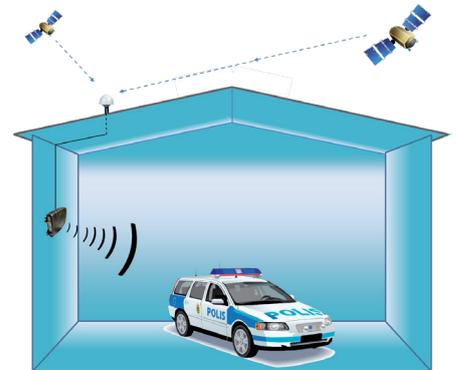
**Ships and vessels**



# How does Roger 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.



## Technical information

Frequency:	GPS L1 (1.57542 GHz)
Size:	110*143*28 mm
Weight:	165 g
Overall gain:	> 40 db
Adjustable Gain:	0-40 db
Impedance:	50 Ohm
Input connector:	SMA-female
Operating temperature:	- 25 - +55 °C
Power supply:	+12VDC/300mA
Indoor coverage:	upto 50 meters
Antenna power output:	+ 5 VDC, 100 mA
TX Antenna gain:	max. +4dBd, RHCP polarized

## ROGER™ GPS products:

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or email us to

[roger@gps-repeating.com](mailto:roger@gps-repeating.com)



# ROGER™

## GNSS repeater



## Roger GNSS Basic Package GPSR-BP

### Key Features

A single ROGER GNSS Repeater Package is enough to provide a GPS indoor coverage area of about 1000 square meters and a distance up to 50 meters from the repeater center. Mount the external antenna on the roof of the building and connect the cable supplied with the kit to the antenna and other end 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.

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



#### Technical information:

##### GPSR-1 Repeater

Size:	110*143*28 mm
Weight:	165 g
Overall Gain:	> 40dB
Noise Figure:	< 5 dB
Adjustable attenuation:	0-40dB
Impedance:	50Ω
Input connector:	SMA-female
Operating temperature:	-25 - +55°C
Power supply:	+12VDC, 500mA
Antenna power output:	+5VDC, 100mA
TX antenna gain max:	+4dBd, RHCP polarization
Type Approval:	CE 1986 (!) R&TTE Directive (Directive 199/5/EC)

##### Antenna

Gain: +35 dB

##### Cable

Length: 20 meters (GPSR-BP40 with 40 meter cable)





# ROGER™

GNSS repeater



## Instant GPS L2 service indoors

### Key Features

- Automatic gain limitation
- Oscillation prevention with indicator
- Maximal coverage for CE approved repeater
- Instant GPS L2 fix when moving indoors and outdoors
- Full product family with repeaters, amplifiers and splitters
- Combine with Roger GPS L1 repeater and have both GPS L1 and L2 signals

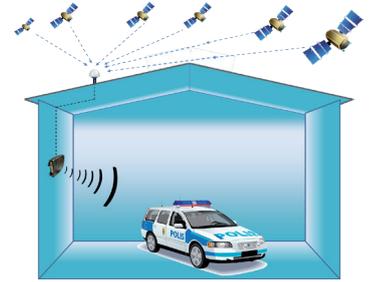


Read more about our solutions from [www.gps-repeating.com](http://www.gps-repeating.com)

# How does Roger GPS L2 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 indoors means that GPS receiver is tracking the current status and signal from the satellites. When a GPS receiver is moved from covered area to outdoors and vice versa, the receiver is instantly tracking the location instead of time consuming acquisition.



## Technical information

Frequency:	GPS L2 (1.2276 GHz)
Size:	110*143*28 mm
Weight:	165 g
Overall gain:	> 40 db
Adjustable Gain:	0-40 db
Impedance:	50 Ohm
Input connector:	SMA-female
Operating temperature:	- 25 - +55 °C
Power supply:	+12VDC/300mA
Indoor coverage:	upto 50 meters
Antenna power output:	+ 5 VDC, 100 mA
TX Antenna gain:	max. +4dBd, RHCP polarized

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