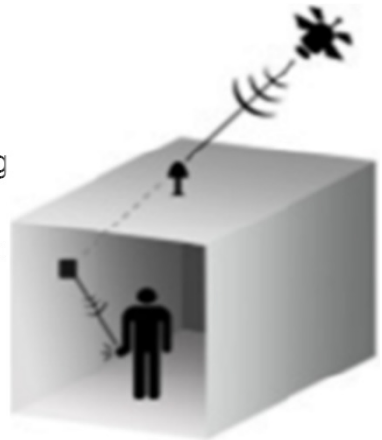
ROGER GPS
Case 2 repeaters and 1 antenna
GPSR-BP, -1 and -S

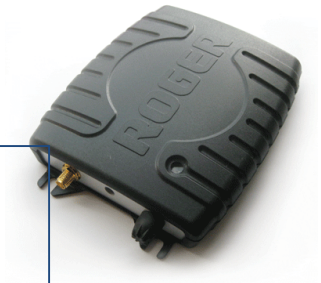
2011

Huvudkontor Order & Lager: Malux Sweden AB, Box 221, 891 25 Örnsköldsvik. Växel 0660-29 29 00, fax 0660-850 85.
För adresser till våra försäljningskontor: www.malux.se.

ROGER-GPS Ltd

- The increasing popularity of **GNSS** – **Global Navigation Satellite System** (GPS, Glonass, Galileo, Compass,…) terminals, systems and services has generated new applications and given rise to expectations that these devices would be able to operate indoors as well.
- Roger-GPS Ltd. is a company specialized in GNSS (GPS) technology. Its customers include a wide range of users who need GNSS signal reception indoors. Users include public safety, defence, public transport, airlines, logistics and companies manufacturing, selling and servicing GPS terminals, systems and services.
- Roger-GPS Ltd.'s business concept permits the use of GNSS repeater devices and services in places where it was previously impossible.
- The company was established as spin-off in 2009 to carry on the development, manufacturing and marketing of GPS products started by Sparklike Ltd. September 2008 Sparklike Ltd. launched the first CE-certified GPS repeater product family approved by the communications authorities in Finland and Sweden for use as radio-licensed device.
- The private company owners of Roger-GPS are Maktub Consulting Ltd., and Naxim Ltd.





CE CERTIFICATE NB1986

The Roger-GPS L1 GPS repeater has recertified CE code NB1986 in January 2012 according to the renewed ETSI EN 302 645 V1.1.1 (2010-03) Harmonized European Standard.
The equipment conforms to the essential requirements of article 3.1.b (EMC) and article 3.2 (effective use of radio spectrum) of Directive 1999/5/EC. TCF ref. 3.6.2008.
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31999L0005:en:NOT
Roger-GPS products have been classified in NATO N-S-N code 5825580004234 and NATO NCAGE code: A557G.

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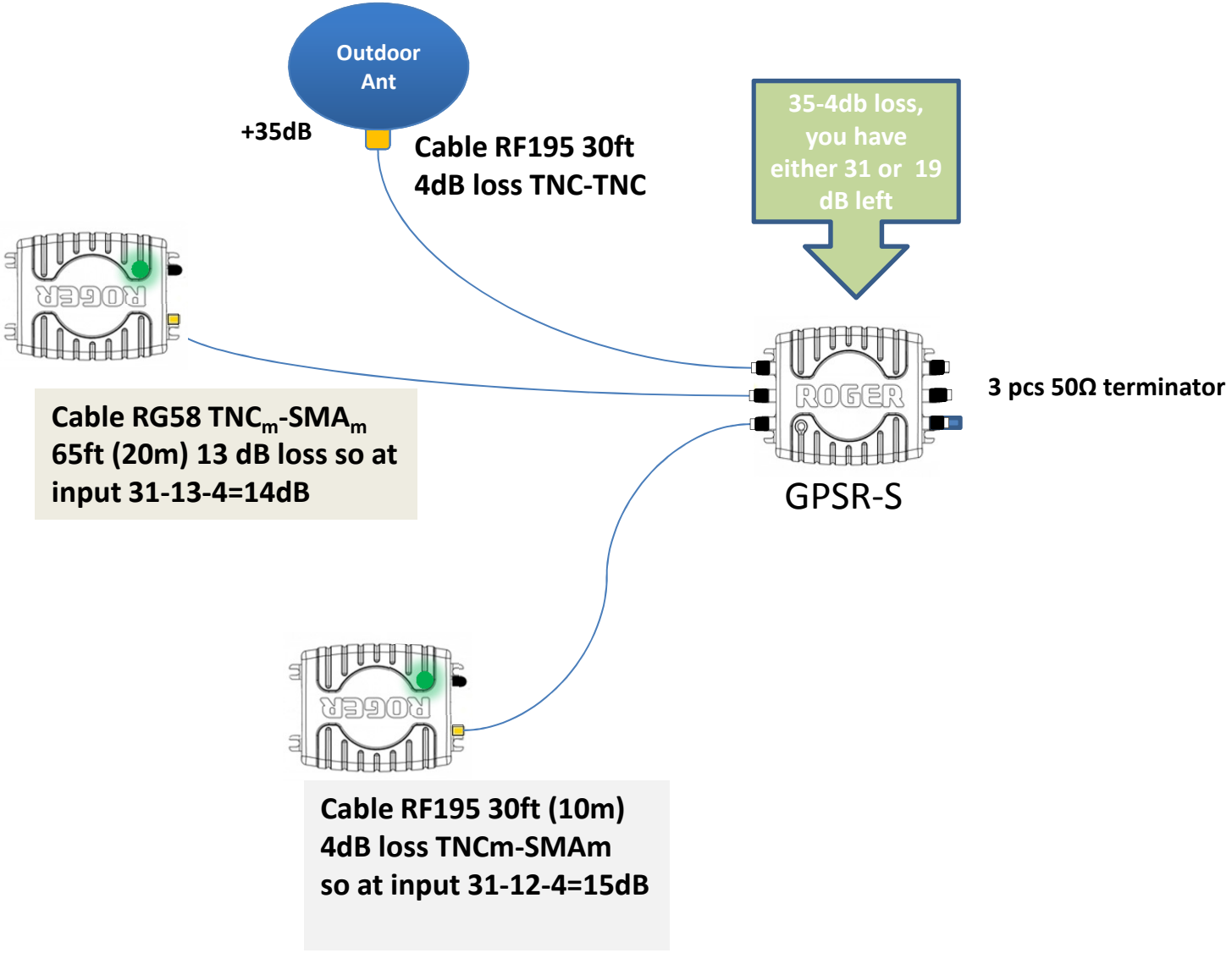
GPSR-BP, -1 and -S



Malux

BOM

ROGER™ GPS repeater

PCS	Product	Description	
1	GPSR-BP	Repeater and power supply, antenna, antenna mount and spacer, 65ft TNC-SMA cable	
1	GPSR-1	Repeater and power supply	
1	GPSR-S	Splitter 1 to 5	
3	GPSR-50TERM	50 Ohm (Ω) terminator	
1	GPSR-10RF195-T-T	10m (30 ft) RF195 cable TNCm-TNCm connectors	
1	GPSR-10RF195-T-S	10m (30 ft) RF195 cable TNCm-SMAm connectors	

Malux Repeater Package GPSR-BP

A single ROGER GPS Repeater Package is enough to provide a GPS indoor coverage area of 40-50 meters in diameter from the repeater.

1. Mount the external antenna on the roof of the building and connect the cable, supplied with the kit, to the antenna and to the repeater installed indoors.
2. 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. Several ROGER GPS Repeater Packages can be installed in the same building.

<u>The GPSR-BP package consists of:</u>

- GPSR-1 repeater
- A mains power supply unit with a 1.9 meter cable
- Outdoor antenna
- Outdoor antenna installation accessories: extension spacer and antenna mount
- 20 m RG-58 cable

Alternatively, the signal coverage provided by a single package can be extended with ROGER GPS Accessories, such as line amplifiers and signal splitters.

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Repeater unit GPSR-1

Each ROGER GPS repeater is capable of transmitting the GPS signal over an area 30 meters in diameter (~1000m²) .

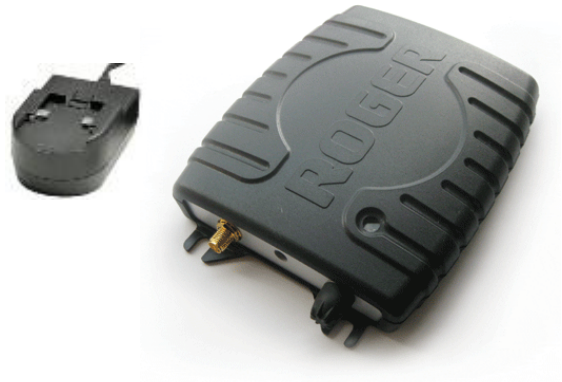
If necessary, the area can be extended by adding additional repeater units, all connected to the same outdoor antenna, using a signal splitter and line amplifier.

The package includes:

- A repeater unit
- A mains power supply unit with a 1.9 meter cable.

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, 500mA
Indoor coverage radius:	15m
Antenna power output:	+5VDC, 100mA
TX antenna gain max:	+4dBd, RHCP polarization



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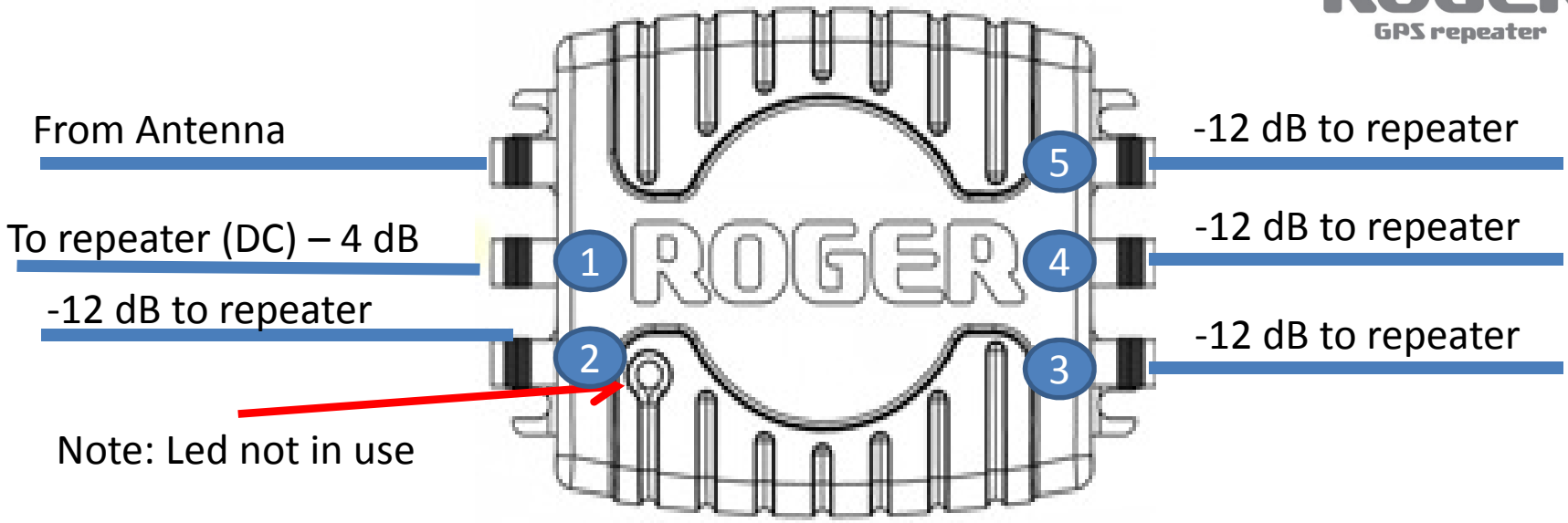
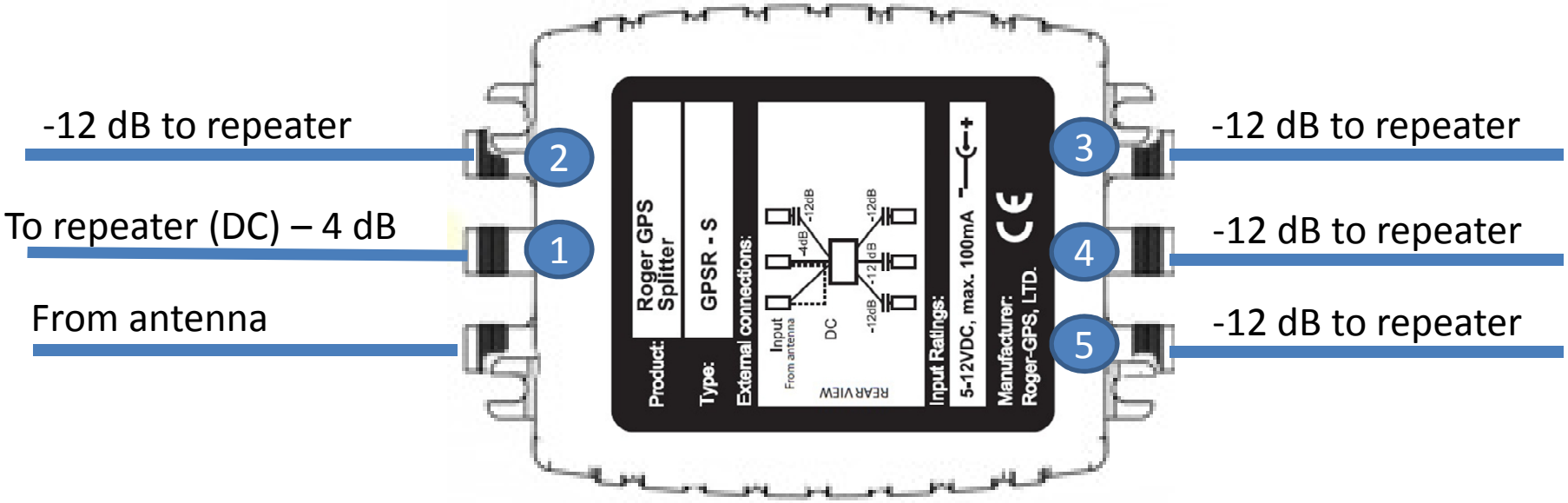
GPSR-S, connection order to repeaters





All unused ports need to be terminated with 50 Ohm terminator

Antenna, antenna mount and extension spacer

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ROGER GPS
Installation instructions
GPSR-A, AS and S

2011

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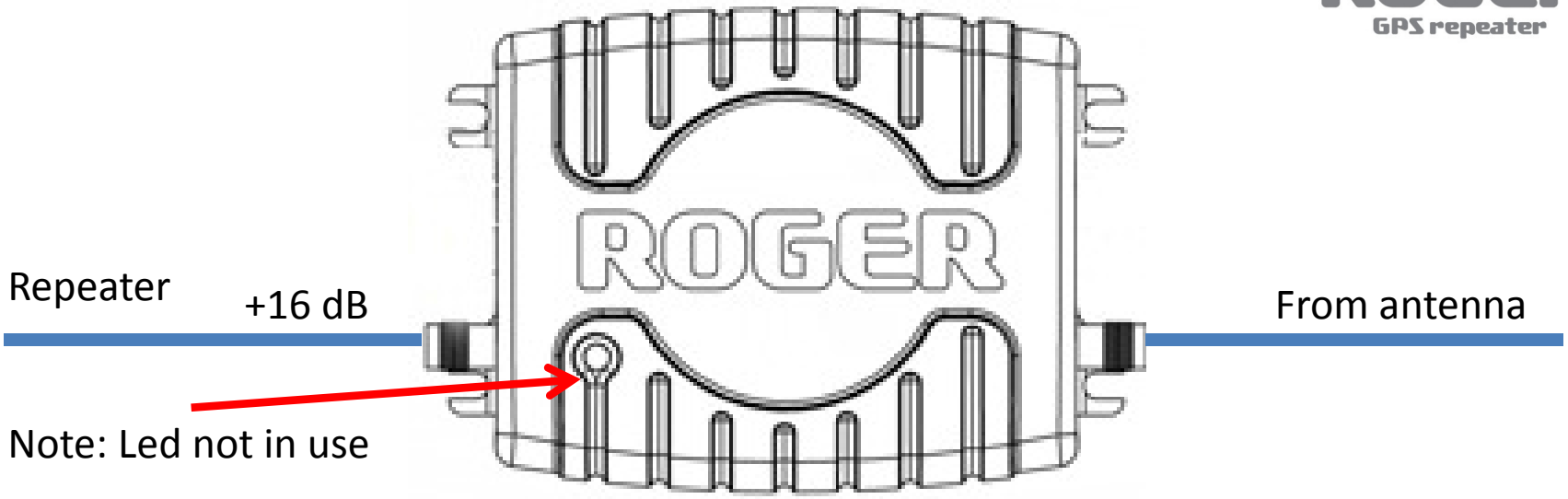
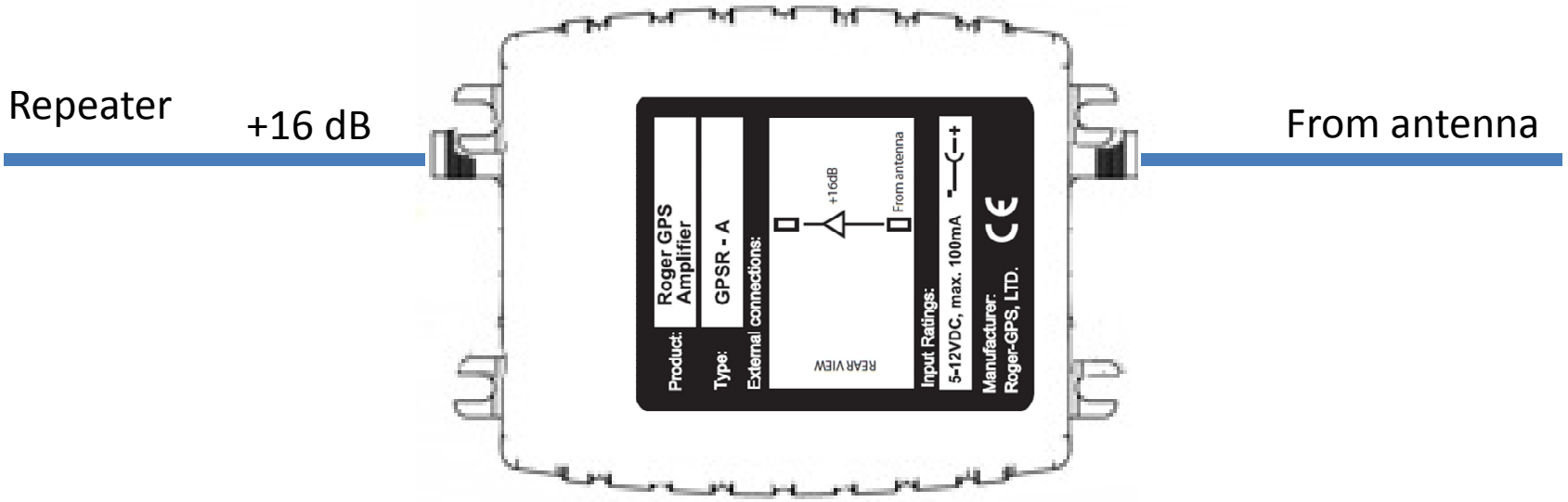
Malux GPSR-A

ROGER™
GPS repeater

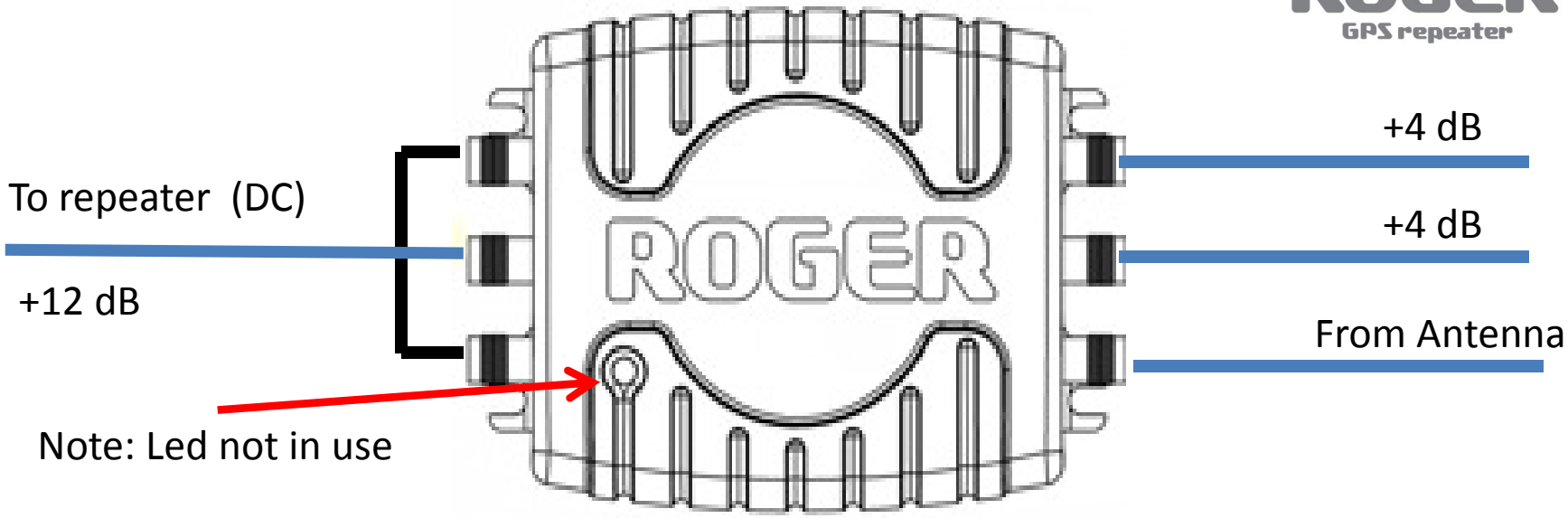


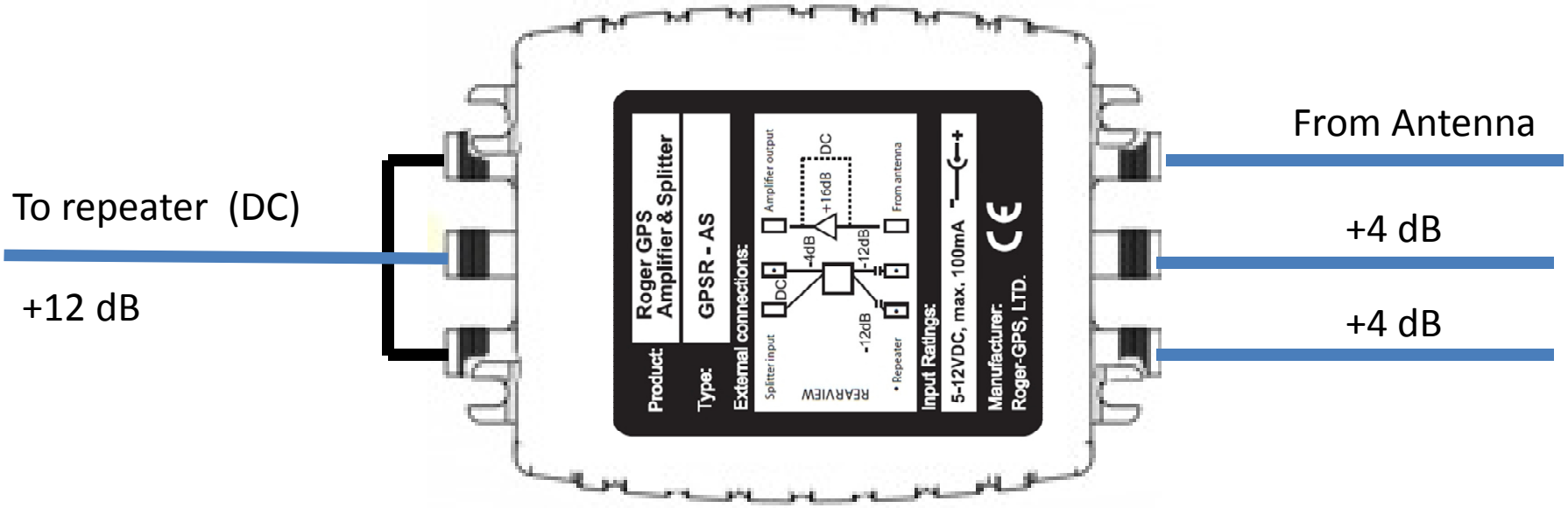


Malux

GPSR-AS when used in AS mode

ROGER™ GPS repeater





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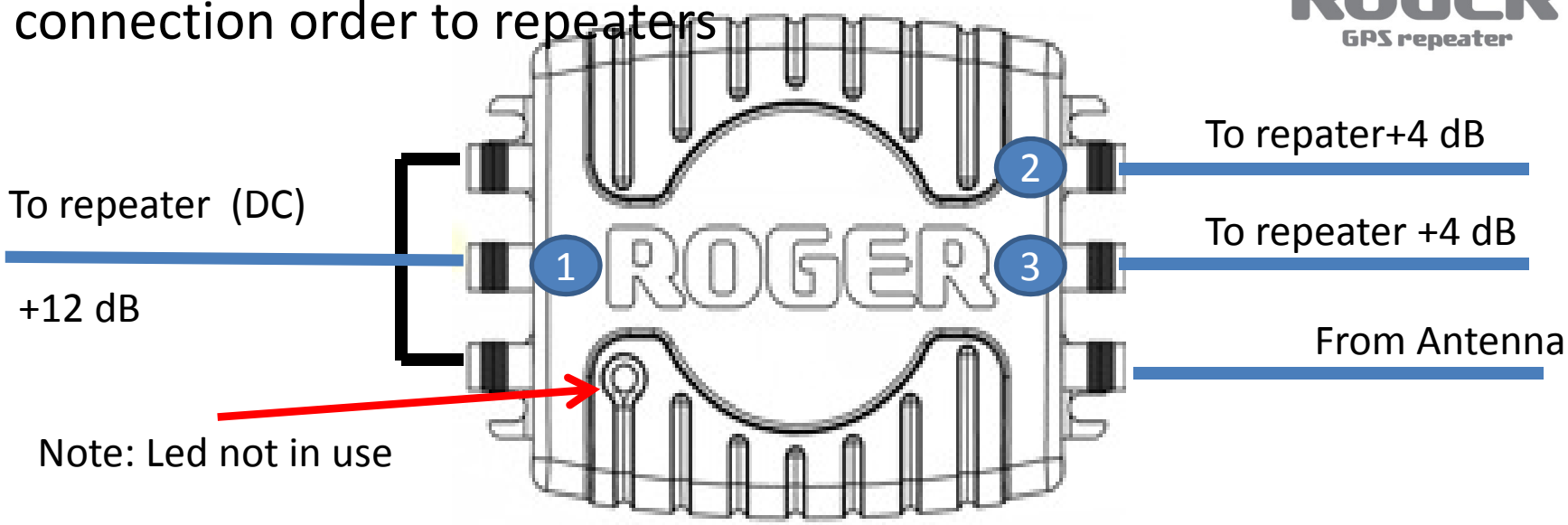
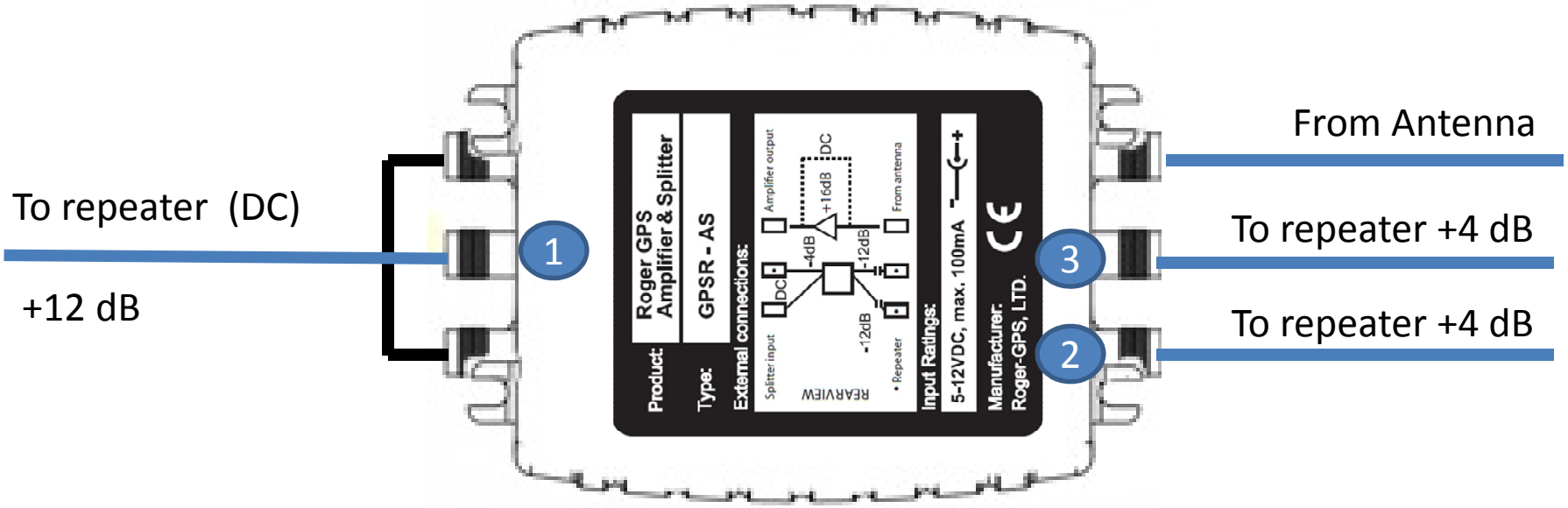
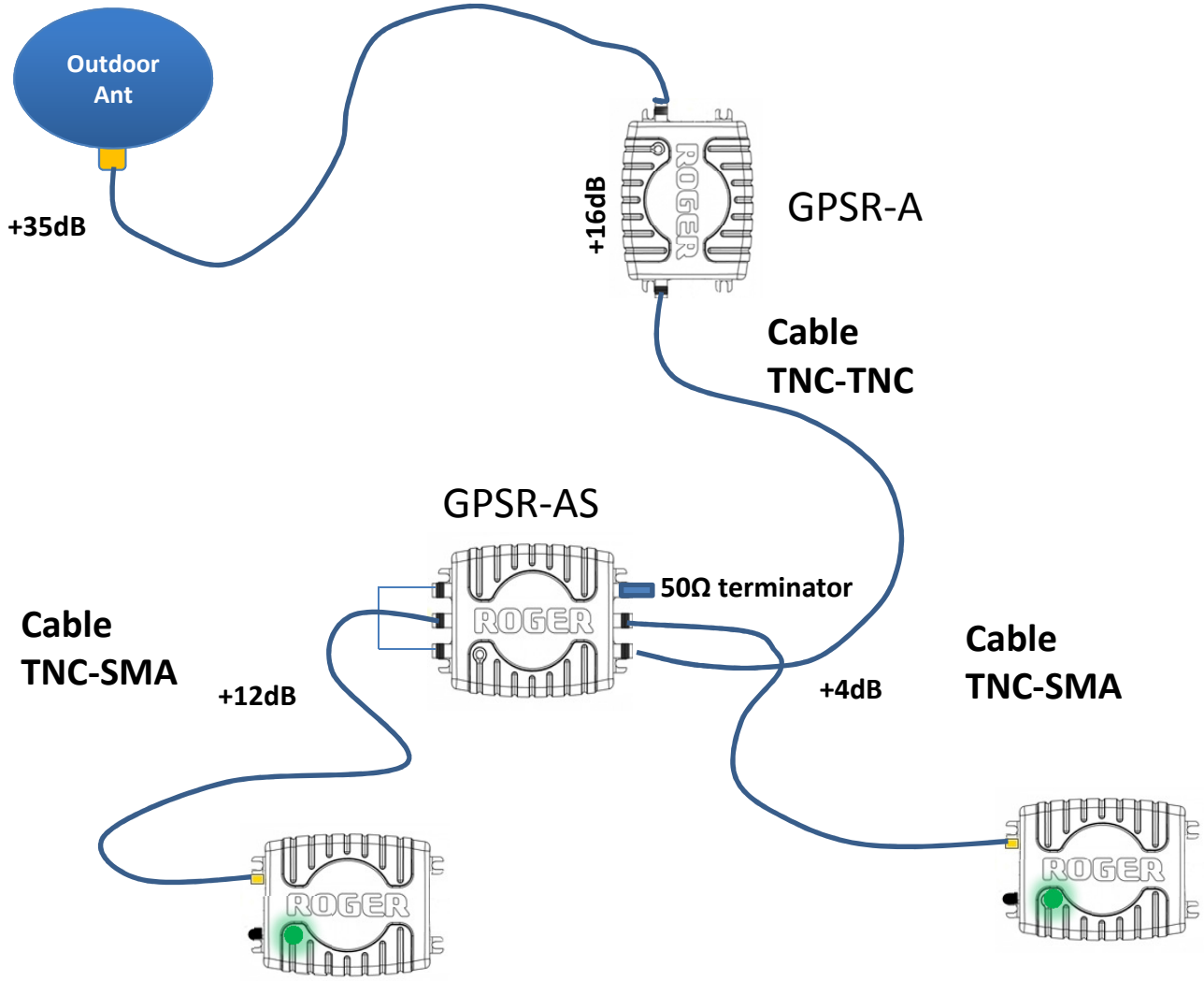
GPSR-AS when used in AS mode, connection order to repeaters



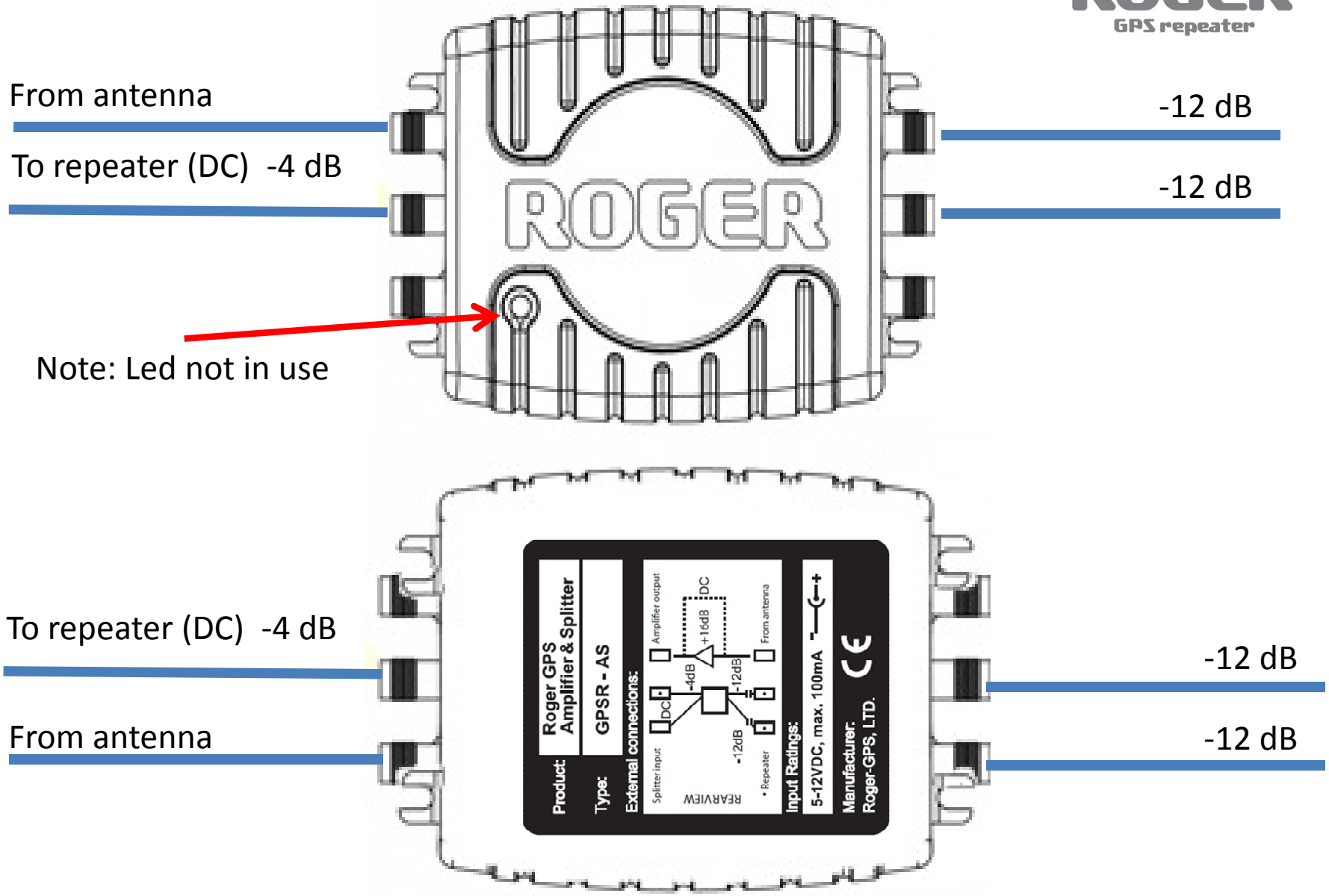


All unused ports need to be terminated with 50 Ohm terminator

GPSR-A and -AS


Outdoor
Ant
+35dB
+16dB
GPSR-A
Cable
TNC-TNC
GPSR-AS
50Ω terminator
Cable
TNC-SMA
+12dB
+4dB
Cable
TNC-SMA

GPSR-AS used in S mode



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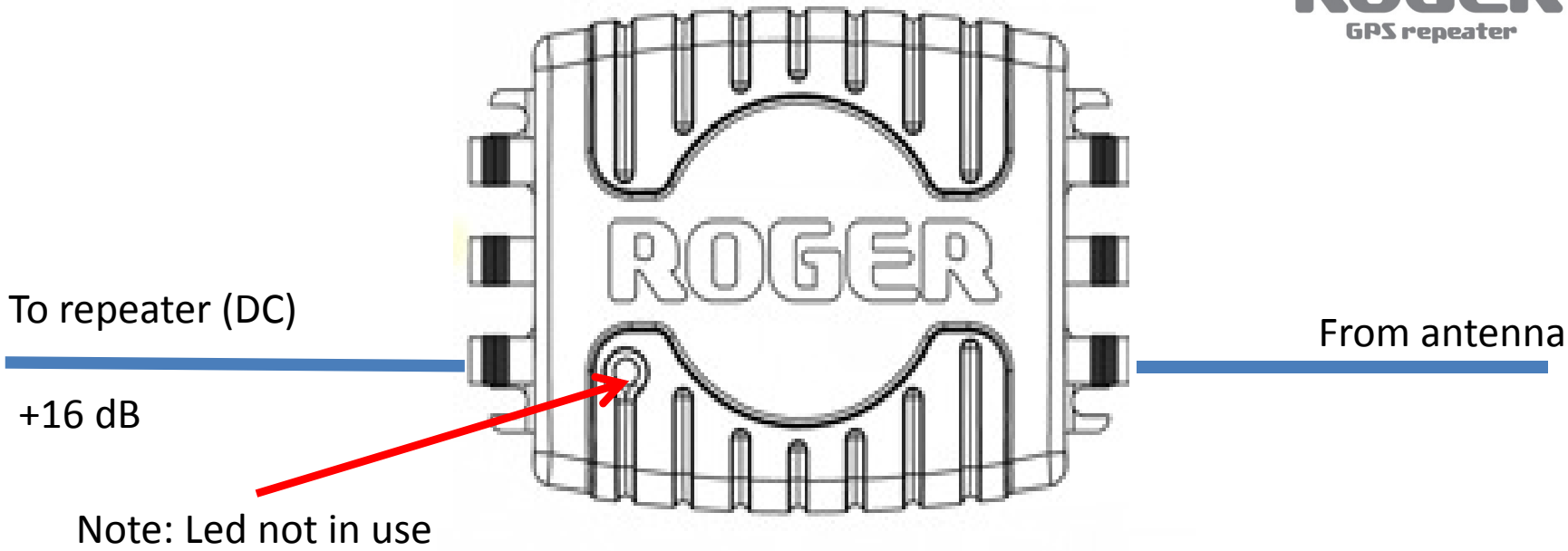
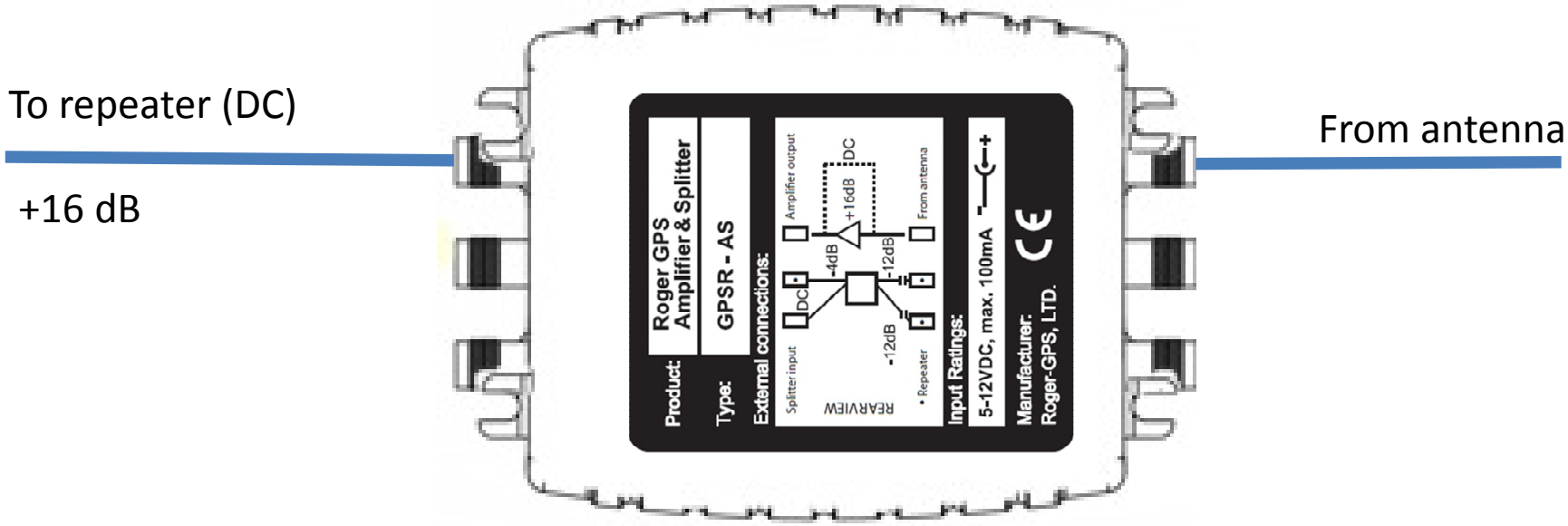
GPSR-AS used in A mode

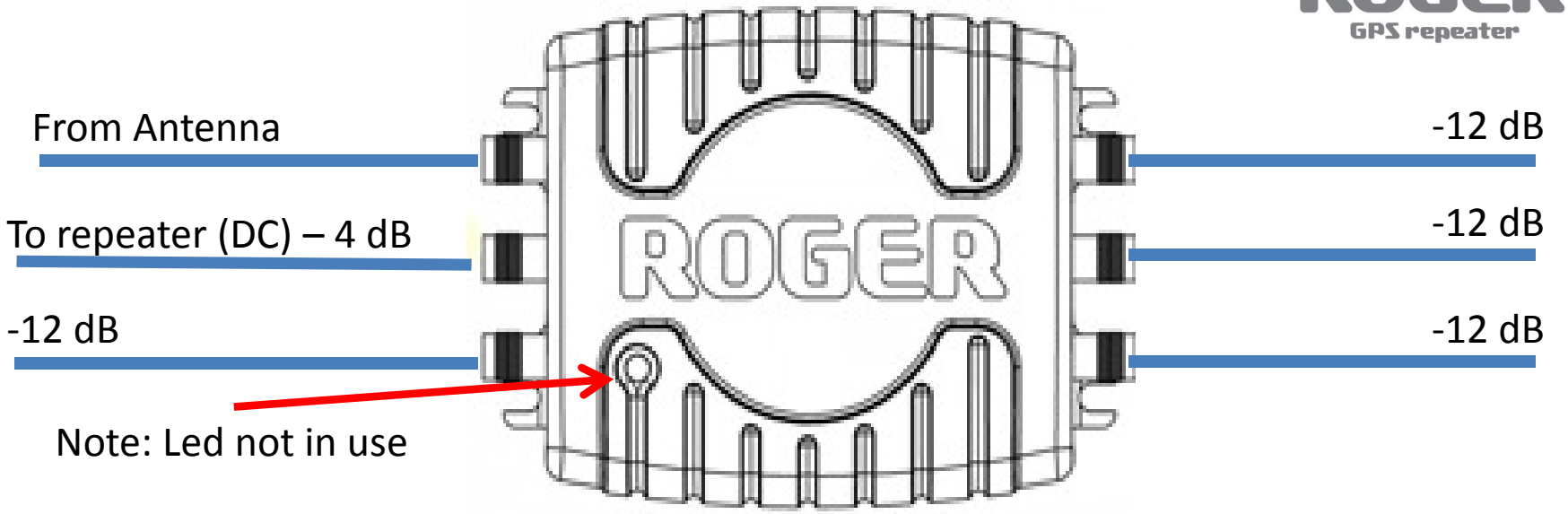


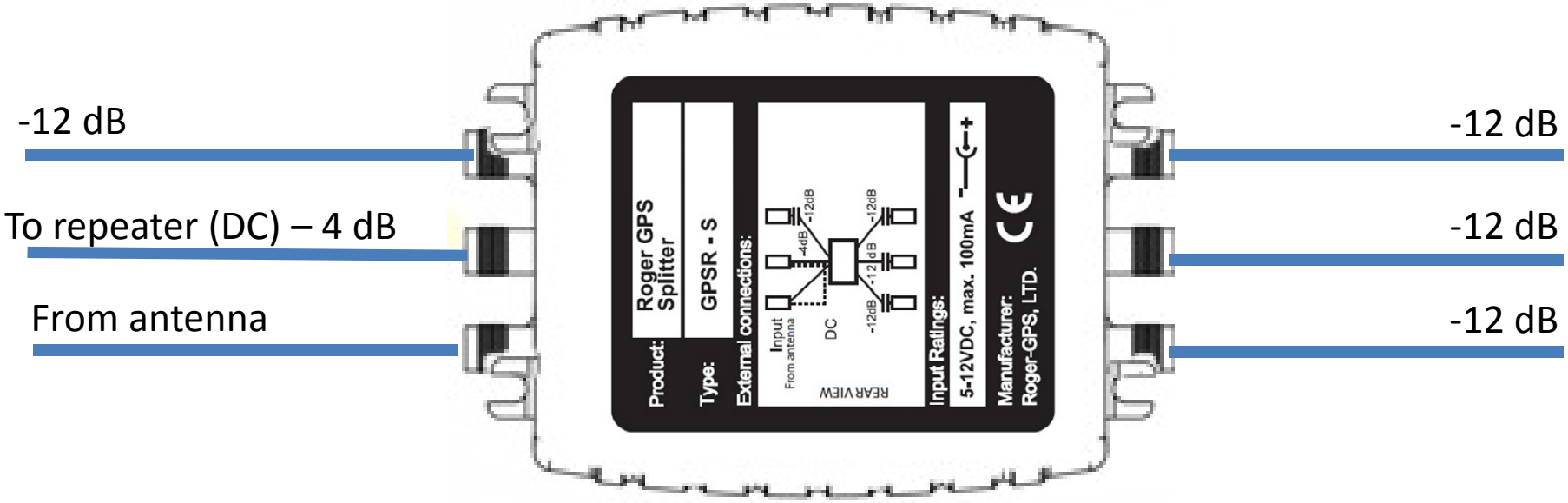


Malux

GPSR-S

ROGER™
GPS repeater





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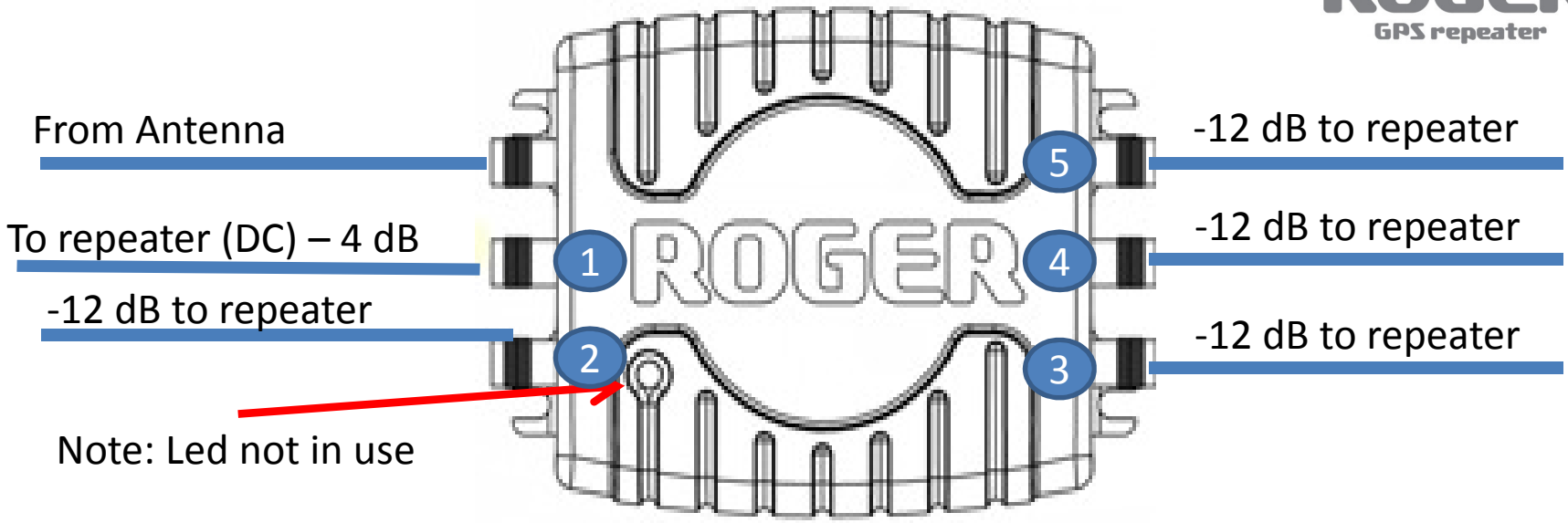

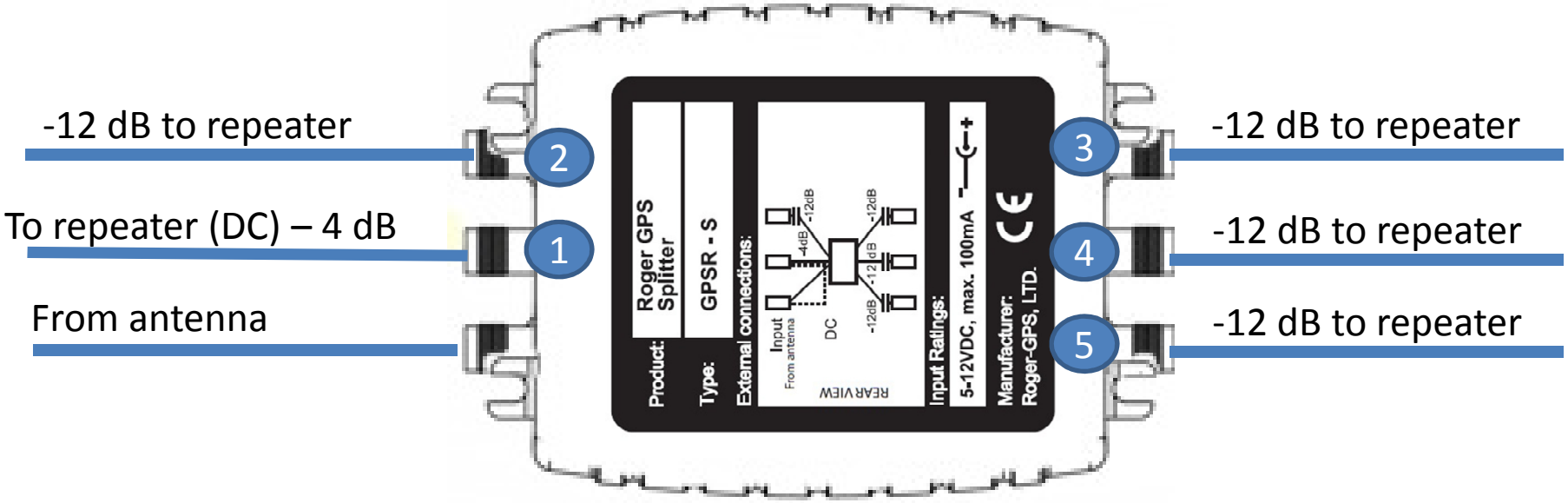

All unused ports need to be terminated with 50 Ohm terminator