

# SENCITY® Low Noise Amplifier GNSS (GPS, GLONASS, BeiDou, Galileo)

86010142

## Properties

- The low noise amplifier 86010142 is designed for the use inside vehicles with train antennas with GNSS.
- It includes a preselection filter to prevent the interference in case of simultaneous operation at the frequency range 380–960 / 1710–3800 MHz and GNSS.
- The product fulfils the requirements according to EN 50155 and EN45545.



## Electrical data

Frequency	1559 MHz - 1609 MHz
Gain	25 dB $\pm$ 2 dB
Noise figure	< 2 dB
VSWR	< 1.8
Operation voltage	3.3 .... 5.5, ripple < 50 mV, supplied at inner conductor RF output
Operation current	$\leq$ 30 mA
Connector input	TNC female
Connector output	N female
Dimensions	70mm x 22mm x 50mm
Mounting	4 holes, 4.5 mm diameter
	4 holes, 0.2 inches diameter

## Electrical remarks

The maximum input power at the input of the amplifier at the frequency range 380 - 960MHz and 1710 - 3800 MHz is limited to +25 dBm.

The noise level at the GNSS frequency generated by the operation at the frequency range 380 - 960 MHz and 1710 - 3800 MHz should not exceed the thermal noise level at the input of the GPS Amplifier, otherwise the noise figure will be increased.

## Mechanical remarks

It is necessary to use four fixing screws to mount the LNA in case the installation height is more than 2 m.

The system operator (receiver) needs to secure a current limit of < 1000 mA

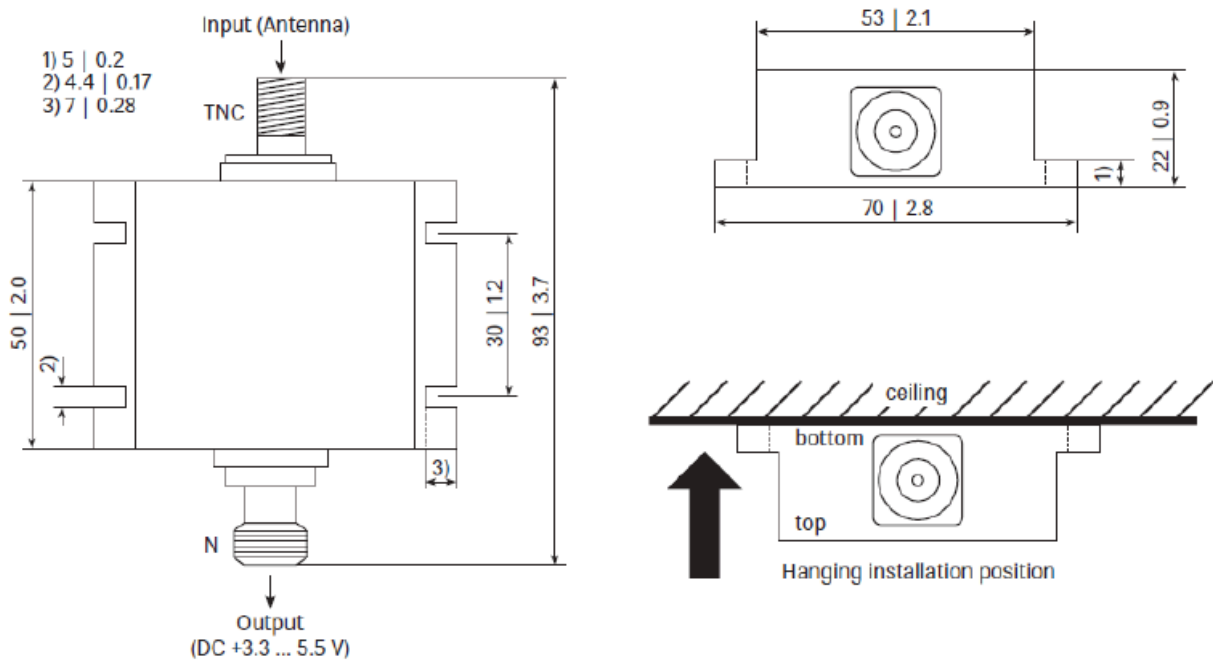
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Environmental data	
Operating Temperature	-25 °C ... 40 °C
Extended operating temperature	-40 °C ... 85 °C

Environmental remarks
Extended range of operation: Within an extended temperature range of -40° C ... +85°C and an extended supplied voltage range of 3.0 V ... 6.0 V operation is possible with the following restrictions: Noise figure: < 2.5 dB Gain: > 20 dB

Ordering Information Table	
Item number	Item description
84460305	86010142

Layout



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