

Low Noise Amplifier GNSS (GPS, GLONASS, BeiDou, Galileo) 86010142

Description

The low noise amplifier 86010142 is designed for the use inside vehicles with train antennas with a embedded passive 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.



Technical Data

Frequency (MHz): 1559 to 1609 Gain (dB): 25 ± 2 Noise figure (dB): < 2.0 VSWR (input, output): < 1.8 Operation voltage (V): 3.3 ... 5.5, ripple < 50 mV, supplied at inner conductor RF-output. Operation current (mA): = 30 Connector input: TNC female Connector output: N female The housing contains an M4x6 (DIN7500) self-forming T20 torx grounding screw for earthing the LNA to the train body. The minimum recommended wire thickness is 0.05mm2.

Mechanical Data

Dimensions (w x h x l):

70 x 22 x 50 mm

2.8 x 0.9 x 2.0 inches

Mounting:

4 holes, 4.5mm diameter

4 holes, 0.2 inches diameter

Environmental Data

Operation temperature (°C)	-25 to 55
Flammability rating	EN 45545-2
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
WEEE 2012/19/EU	no special marking needed
ELV 2000/53/EC	compliant

Additional Features:

The maximum input power at the input of the amplifier at the frequency range 380-960 MHz 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.

Environmental Conditions:

Temperature range:

-25 °C to +55 °C (data as specified)

-40 °C to +85 °C (extended range) *)

*) Extended range of operation:

Within an extended temperature range of -40 °C to +85 °C and an extended supplied voltage range of 3.0 V to 6.0 V operation is possible with the following restrictions:

Noise figure: < 2.5 dB

Gain: > 20 dB

Related Products

87010003 Sencity Rail Antenna

87010032 Sencity Rail Antenna

87010023 Sencity Rail Antenna

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87010011 Sencity Rail Antenna

87010005 Sencity Rail Antenna

87010006 Sencity Rail Antenna

Also compatible with 1399.99.0032 & 1399.99.0052

Related Documents

3D-model (Step)

DOC-0000862004

Additional Information

Please note: 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.