

Data Sheet

Low Noise Amplifier GNSS 86010142 (GPS, GLONASS, BEIDOU, GALILEO)

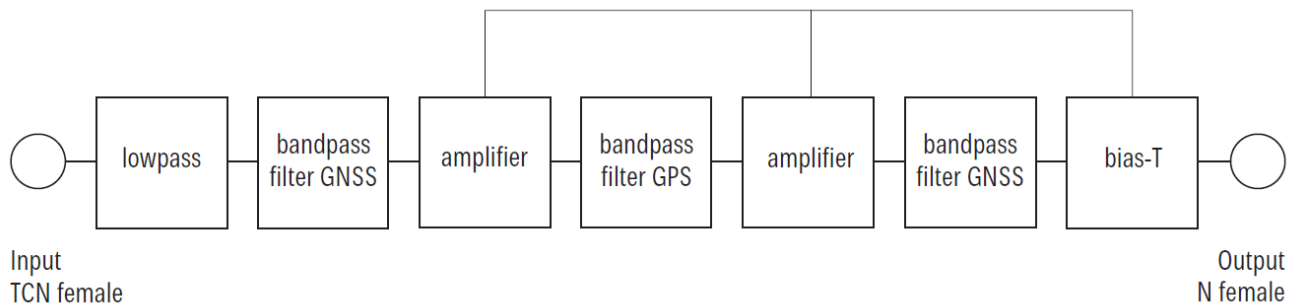
Item No. 84460305



Description

- 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.

Block Diagram



Technical Details

Type No.	86010142	
Frequency	MHz	1559 – 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	
Dimensions (w x h x l)	mm inches	70 x 22 x 50 2.8 x 0.9 x 2.0
Mounting	mm inches	4 holes, 4.5 diameter 4 holes, 0.2 diameter

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 ... +55 °C (data as specified)

–40 °C ... +85 °C (extended range)*)

*) 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

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.

Dimensions

