

Low Noise Amplifier / Preamplifier for the 1575 MHz
GPS band

DESCRIPTION

- Miniature GPS line amplifier.
- Suitable for GPS signal distribution network.
- Built-in band-pass filter to attenuate unwanted signals and clean up the distributed GPS signal.
- Low input and output VSWR.
- Low noise figure.
- Low weight.
- Wide temperature range.
- Wide supply voltage range.
- Low power consumption.
- DC supplied from phantom voltage on the signal line.
- Also exists with a DC block on the input.
- Also available with DC-path from output to input to DC-feed an active GPS antenna or to DC feed more amplifiers in series on the same line.



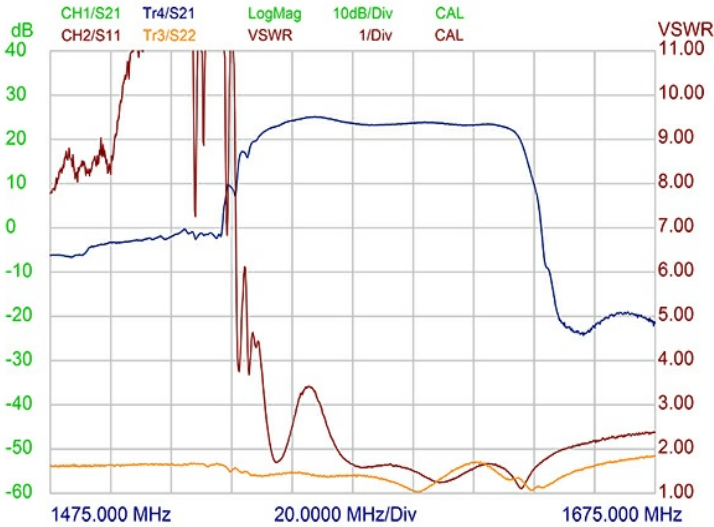
SPECIFICATIONS

Electrical	
Model	LNA-GPS line amp-...
Frequency	1575 ±10 MHz
Amp. Gain	24 dB ± 1 dB @ 1575 MHz
Noise Figure	< 3.0 dB, Typ 2.5 dB
Output IP3	>+14 dBm
Impedance	50 Ω
P1dB	> 0 dBm
VSWR	< 3.0:1 (typ. < 1.5:1)
Power Supply	3 - 15 V DC
Current Consumption	10 mA
Selectivity	See curve
Max. Current	300 mA
Mechanical	
Connection(s)	Input: SMA(f) or TNC(f) Output: SMA(f)
Colour	Black (RAL 9005)
Dimensions	62 x 66 x 19.5 mm / 2.44 x 260 x 0.77 (incl. connectors and flanges)
Weight	Approx. 0.065 kg / 0.14 lb.
Environmental	
Operating temperature range	-30 °C to +70 °C
Ingress Protection	IP52

ORDERING

Model	Product No.	Description
LNA-GPS line amp-SMA-SMA	210001657	No DC path
LNA-GPS line amp-TNC-SMA-0DC	210001163	No DC path
LNA-GPS line amp-SMA-SMA-DC	210001808	DC path between output and input

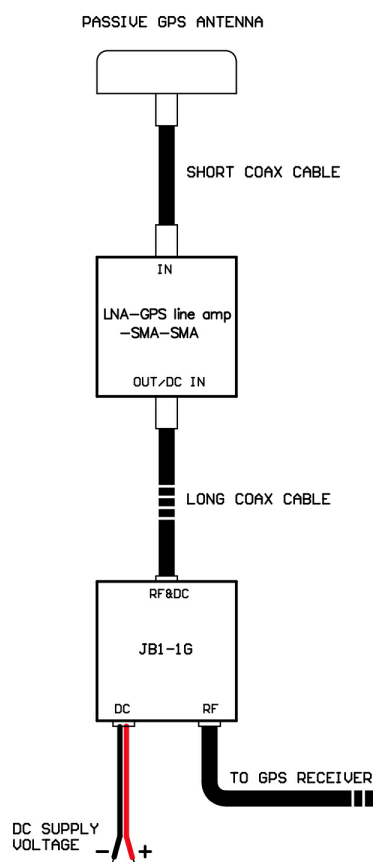
TYPICAL SELECTIVITY AND VSWR CURVE



APPLICATION EXAMPLE 1:

How to connect the LNA-GPS line amp-SMA-SMA as preamplifier for a passive GPS antenna to compensate high loss in long coax cable downloads.

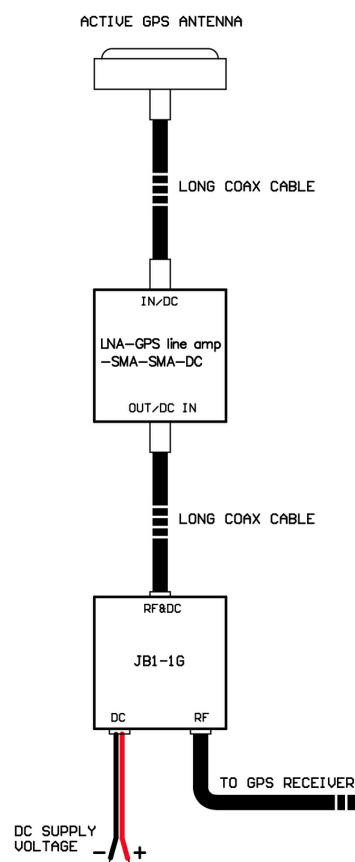
DC supply voltage is inserted on the signal line at the GPS receiver by the junction box JB1-1G (to be ordered separately).



APPLICATION EXAMPLE 2:

How to connect the LNA-GPS line amp-SMA-SMA-DC to compensate high loss in long coax cable downloads from an active GPS antenna.

DC supply voltage is inserted on the signal line at the GPS receiver by the junction box JB1-1G (to be ordered separately).



EU AND UK DECLARATION OF CONFORMITY

Hereby Amphenol Procom declare that the product type LNA-GPS line-amp-... is in compliance with EU Directive 2014/53/EU and the UK Radio Equipment Regulations 2017 (S.I. 2017 No. 1206).
The full text of the Declaration of Conformity is available at:

https://amphenolprocom.com/images/shop/catalog/pdf-for-catalogues/Declaration-of-Conformity-LNA-GPS-line_amp.pdf