

MODEL NUMBER:
LNA18G

Microwave Broadband Preamplifier



Low Noise Low Power Wideband Amplifier for increasing sensitivity at field strength measurements and for general attenuation measurements up to 18 GHz. Due to the built-in rechargeable battery, operation without power supply is possible for approx. 8h.

SPECIFICATIONS

Nominal Frequency range	1 - 18 GHz
Useable Frequency range	0.5 - 20 GHz
Connectors:	50 W N / SMA
Mounting tube	Ø 22 mm
Gain	typ. 30 dB +/- 5 dB
SWR typ.	< 2
Max. Input Power	-10 dBm (97 dBµV)
1 dB Compression (at output)	See last page
Noise Figure	2 dB
Power Supply	3.7 V, 3.1 Ah Lithium Ion
Typical Operation Time	8h
Dimensions	6,1 x 3,1 x 2,6 in
Weight	~ 2,2 lb

The amplifier Input comes with an SMA female connector. A coaxial microwave cable of 0.5 m length is supplied to connect the Antenna with the Amplifier. The cable is equipped with N-male and SMA male connectors.

Usually, the amplifier should be installed very close to the antenna. The Amplifier Housing is equipped with rubber pads for placement on horizontal surfaces. Further, there are 22 mm holes in the housing to accept the mounting tube of The EMC Shop. The antenna mounting tube is usually oriented horizontally with the N-female output of the amplifier facing to ground. This avoids undesired bending of the coaxial cable.





Input and Output of the Broadband Amplifier are sensitive to Electrostatic Discharge. Correct precautions are required before touching the amplifier!

BEGINNING OF OPERATION

Operation environment

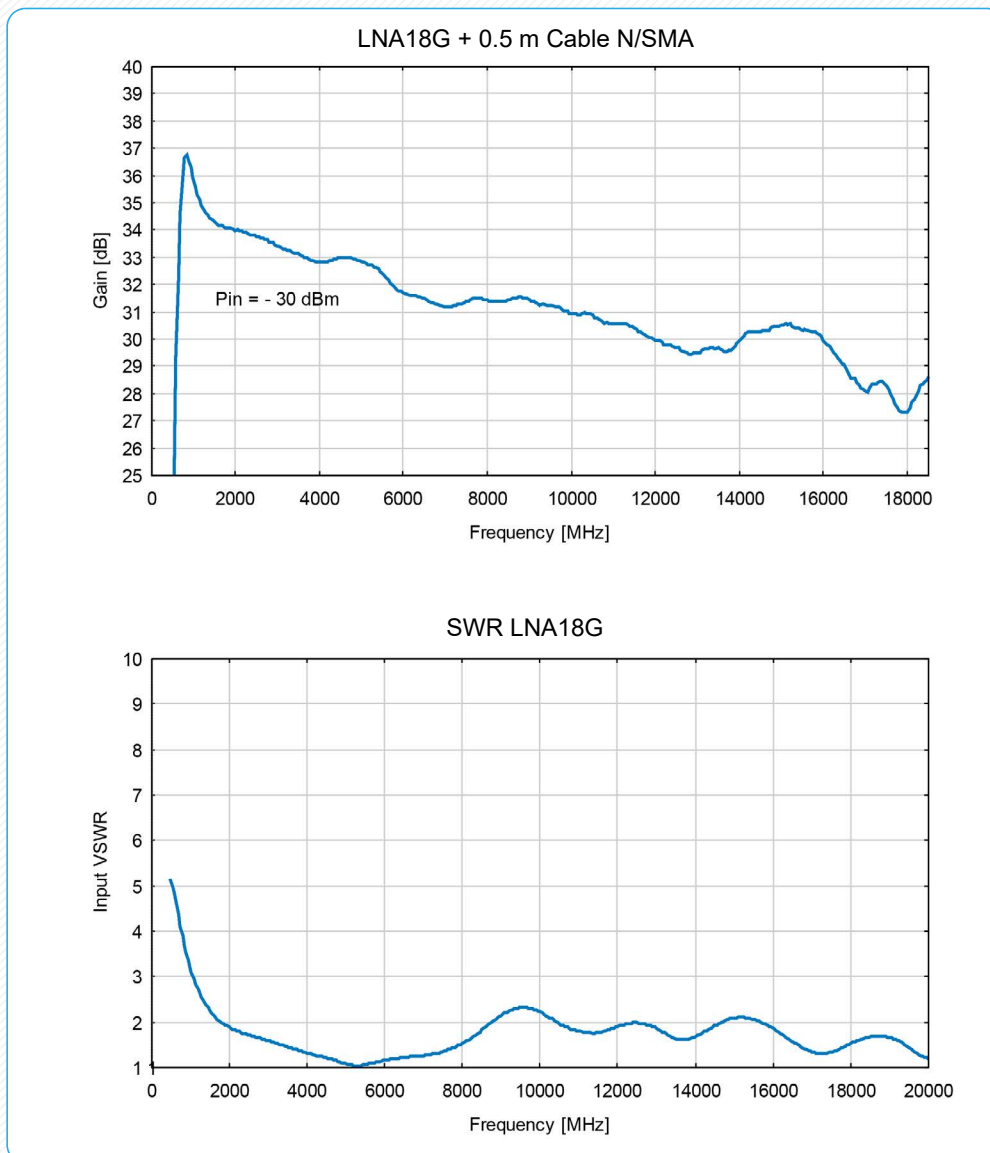
The LNA18G is preferably used indoors. While using on open area test sites, it must be protected from weather conditions, especially humidity.

Switching ON

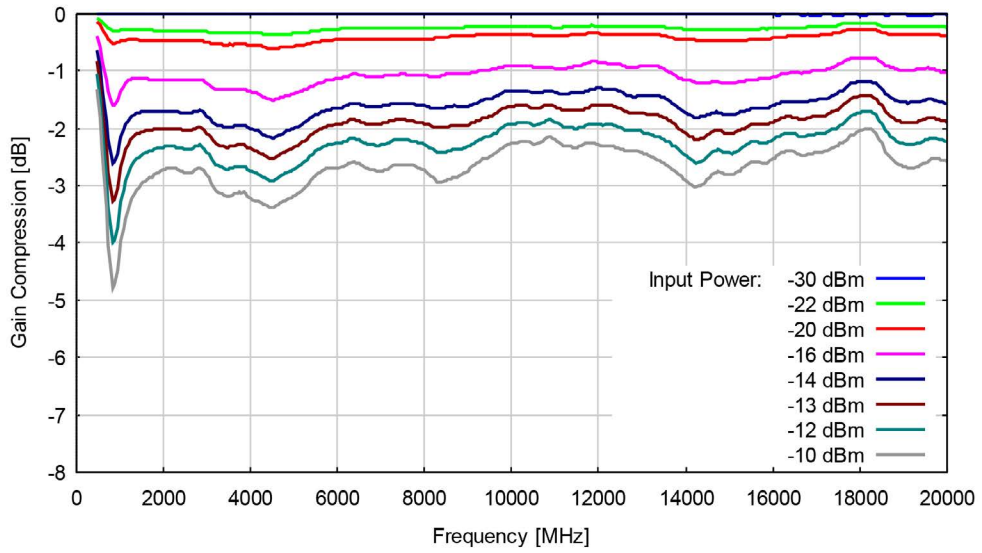
The unit is switched on with the pushbutton. When the battery is properly charged, the upper LED lights up green "BAT FULL". If this LED lights up orange, the unit can only be used for a short time. If the LED is red, charging is urgent. If the unit cannot be switched on, the internal undervoltage cut-off has switched off the battery. After a new charge, the unit is ready for operation again.

More information about the battery

The LNA18G is equipped with a 3.7 V lithium cell. A complete battery charge via USB takes about 2 hours. During the charging process, the green LED "PWR OK" and the yellow LED "CHARGING" light up. The device should be switched off during the charging process. A measurement during the charging process is possible in principle. However, the measurement can be influenced by disturbances of the charging circuit. Deep discharge of the battery is prevented by a protective circuit. If the battery falls below the voltage that is critical for it and the measuring accuracy, it is automatically disconnected from the load. If the BBV 9718 is switched on and the upper red LED does not light up, this is the case. The battery must then be charged immediately. If the lower LED flashes, the battery system is defective and the battery cannot be charged.



Gain Compression



**A battery charger is included in scope of delivery.
(it may differ from the image)**

