



LNA 6000

LOW NOISE AMPLIFIER 1 MHz to 3 GHz



- **Wide band**
- **Low noise figure**
- **Significantly enhancing the low level performance**

The LNA 6000 is a low noise amplifier with 12.5 dB of gain covering the nominal frequency range 1 MHz to 3 GHz and can be used in the range from 200 kHz to 4 GHz. With its high gain and low noise figure, it will significantly increase the sensitivity of virtually all spectrum analyzers and other RF measuring instruments. All measuring instruments have a 'noise figure', which is a measure of how good the instrument is at measuring low level signals, the lower this figure, the better, although the lowest signal level will still be governed by the measurement bandwidth. A typical spectrum analyzer may have a noise figure of 20 dB or more, whereas a typical receiver may have a noise figure of 10 dB. The preamplifier has a noise figure of typically 4 dB, significantly enhancing the low level performance of such instruments, enabling signals that were previously masked by noise to be seen.

The low noise amplifier can be connected directly to the RF input (N) of the spectrum analyzer or EMI-receiver. If the LNA 6000 is used with the Teseq receiver SCR 35xx / SMR 45xx, the power supply is provided directly by the receiver via the cable LE 237. Alternatively the power supply unit PSU 6000 can be used.

Technical specifications

Frequency range:	1 MHz to 3 GHz (nominal range)	200 kHz to 4 GHz (utilizable range)
Gain:	typ. 12.5 dB	
Gain flatness:	±0.3 dB (1 MHz – 1 GHz)	+0.3 / -2.5 dB (200 kHz – 3 GHz)
RF-Input:	N - female, 50 Ω	
RF-Output:	N - male, 50 Ω	
VSWR (input):	≤ 1.5	
Noise figure:	typ. 4 dB	
1 dB-compression (output):	>+12.5 dBm (119.5 dBμV)	
1 dB-compression (input):	0 dBm (107 dBμV)	
Intercept point IP3 (output):	typ. +33 dBm	
DC-power supply:	11 to 15 V	
DC-current:	approx. 61 mA	
DC-connector:	ODU-female, plus on inner conductors	
Operating temperature range:	0° to 40°C	
Storage temperature range:	-20° to 60°C	
Size (W x D x H) (without connectors):	27 mm x 50 mm x 27 mm	
Size (W x D x H) (including connectors):	28 mm x 95 mm x 27 mm	
Weight:	approx. 127 g	