

Low Noise Amplifier 450-8500MHz

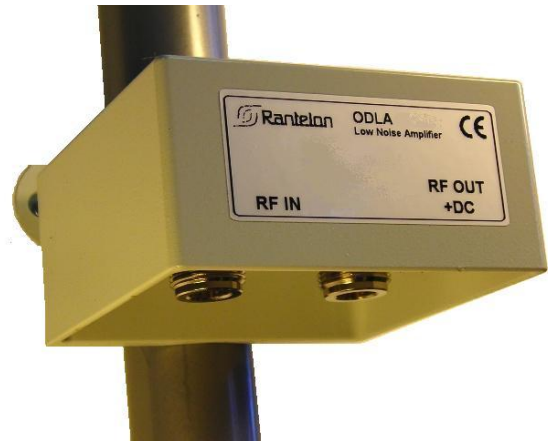
ODLA85G is outdoor very wideband low noise amplifier intended for very precision measurements of RF-signals up to 8.5GHz. ODLA85G is powered through RF-OUT connector only, thanks to what need of special power cable is eliminated.

Features:

- Very wideband
- High gain
- Built-in bias-T circuit
- Outdoor, waterproof
- Compact and reliable
- Wide voltage range

Applications:

- Radio-monitoring
- Small signals receiving
- IF-systems
- Cable loss compensation



RF characteristics in amplifier mode*

Frequency range	450-8500					MHz
IN/OUT impedance	50/50					Ohm
	450	2500	4500	6500	8500	MHz
Gain	7.5	18.0	19.5	16.0	11.0	dB
Noise figure	7.10	3.3	2.2	2.5	4.3	dB
Input return loss	2.1	4.0	7.5	10.0	5.0	dB
Output return loss	1.5	6.0	7.0	5.0	16.0	dB
Isolation	75.0	65.0	57.0	47.0	40.0	dB
Output 1dB	20.0	20.0	20.0	20.0	20.0	dBm

* Measured at temperature T=+25°C

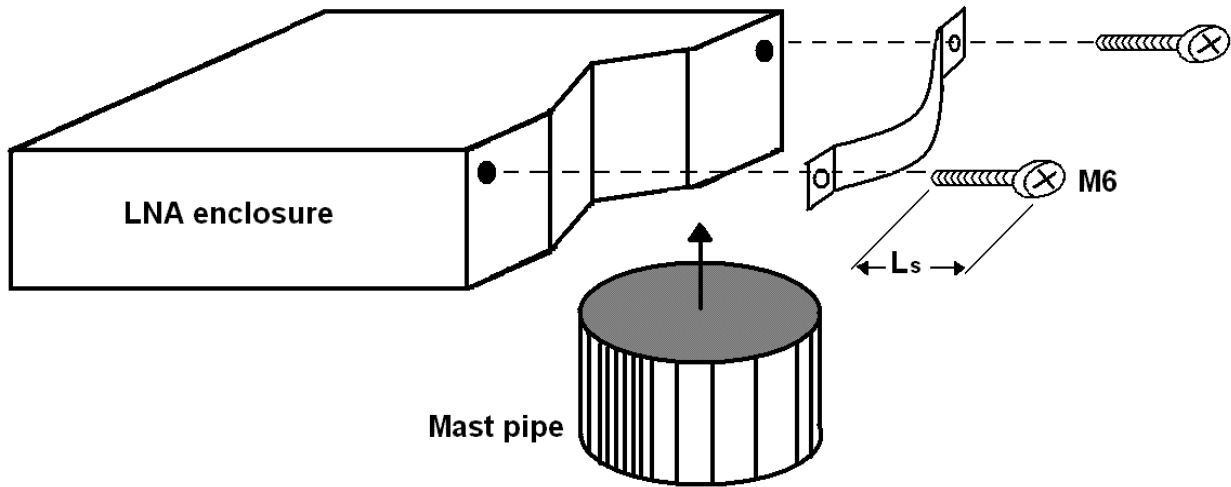
DC and mechanical characteristics

Device current	80	mA
Device voltage (DC)	+5.5...+17	V
IN/OUT Connector	N-type female/ N-type female	
Enclosure type	Outdoor, aluminium	
Mounting	Suitable for mounting onto mast up to 2''	
Dimensions (without mounting clip)	80x80x45	mm

Absolute maximum ratings

Device current	100	mA
Device voltage	+17	V
CW RF input power	+3	dBm
Temperature	-40...+85	°C

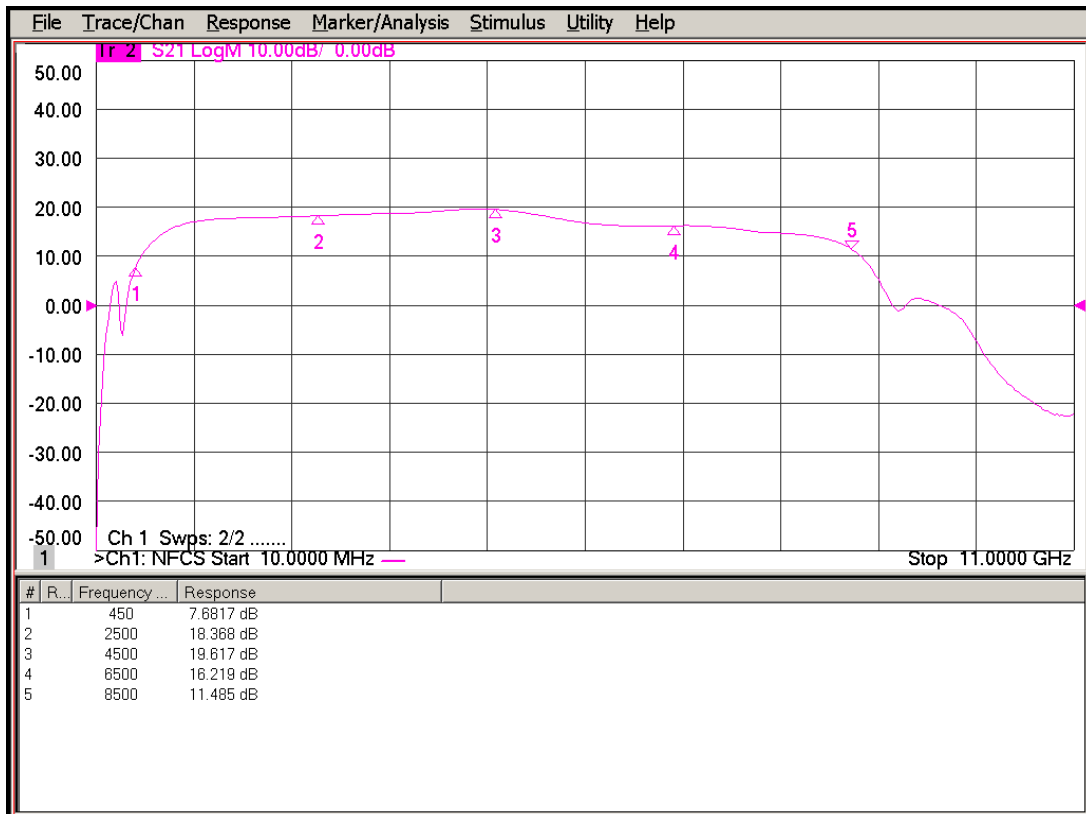
Mounting and installation instructions



For convenience pair of M6-screws is included in the final set. $L_s = 45\text{mm}$.

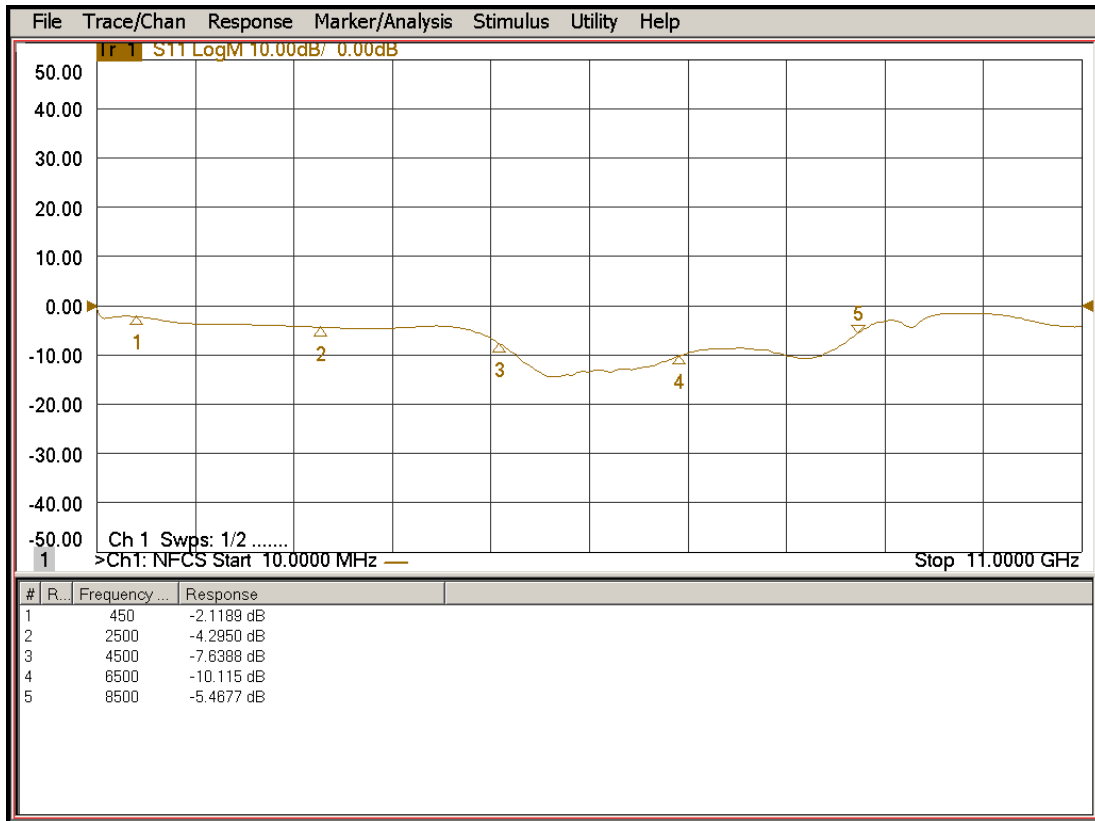
ODLA85G is unidirectional amplifier. RF signal, that must be amplified, comes to RF IN input only. On the RF OUT+DC output amplified input signal can be found. Since ODLA85G can be powered through output RF connector only, proper voltage and sufficient current must be provided onto RF OUT+DC output.

Example of ODLA85G gain curve





Example of Example of ODLA85G input return loss curve (return loss = $-1 * S_{11}$)



Example of ODLA85G noise figure curve

