

Product Information: Rev 1A, Issue February 2013, Revised April 2013

ODLA3000 is outdoor wideband low noise amplifier intended for very precision measurements of RF-signals up to 3GHz. ODLA3000 is powered through RF-OUT connector only, thanks to what need of special power cable is eliminated.

KEY FEATURES

- Low noise
- Wideband
- High and flat gain
- Built-in bias-T circuit
- Outdoor and waterproof
- Compact and reliable

APPLICATIONS

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



Image is for illustrative purposes only.

TECHNICAL SPECIFICATIONS

RF characteristics*

Frequency range	100-3000						MHz
IN/OUT impedance	50/50						Ohm
Frequency	20	100	1000	2000	3000	3500	MHz
Gain	31.0	31.2	32.5	32.0	32.0	31.0	dB
Noise figure	3.1	1.2	1.2	1.4	1.7	2.2	dB
VSWR IN	<2.5	<2.0	<2.0	<2.0	<2.0	-	
VSWR OUT	<2.0	<2.0	<2.0	<2.0	<2.0	-	
Output 1dB	13.0	17.0	18.0	18.0	17.0	-	dBm
Output IP3 spacing 1MHz	-	35.0	39.0	35.0	30.0	-	dBm

* Measured at temperature T=+25°C

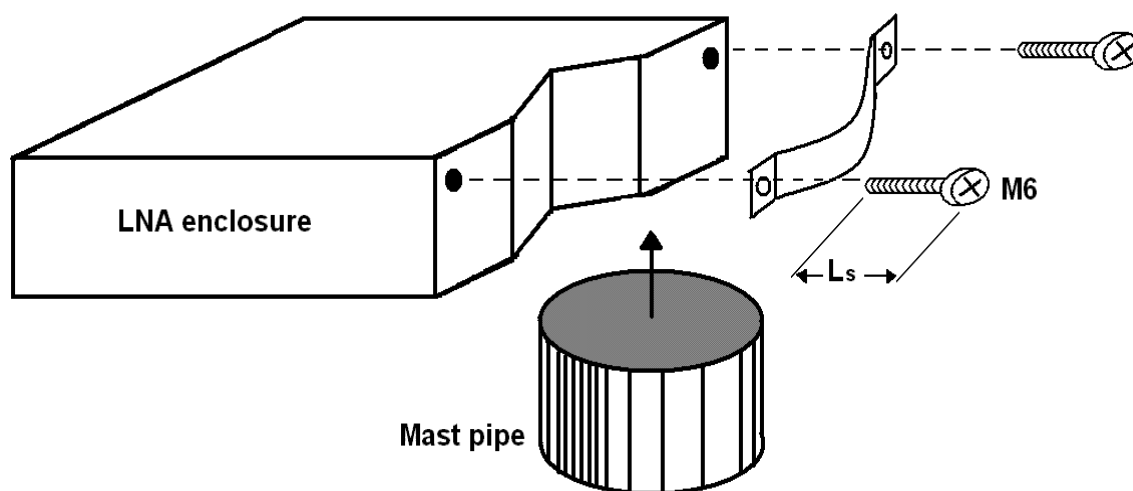
DC and mechanical characteristics

Device current	160	mA
Device voltage (DC)	+12...+17 <i>(positive on central pin)</i>	V
IN/OUT Connector	N-female/ N-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	170	mA
Device voltage	+17	V
CW RF input power	0	dBm
Temperature	-40...+85	°C

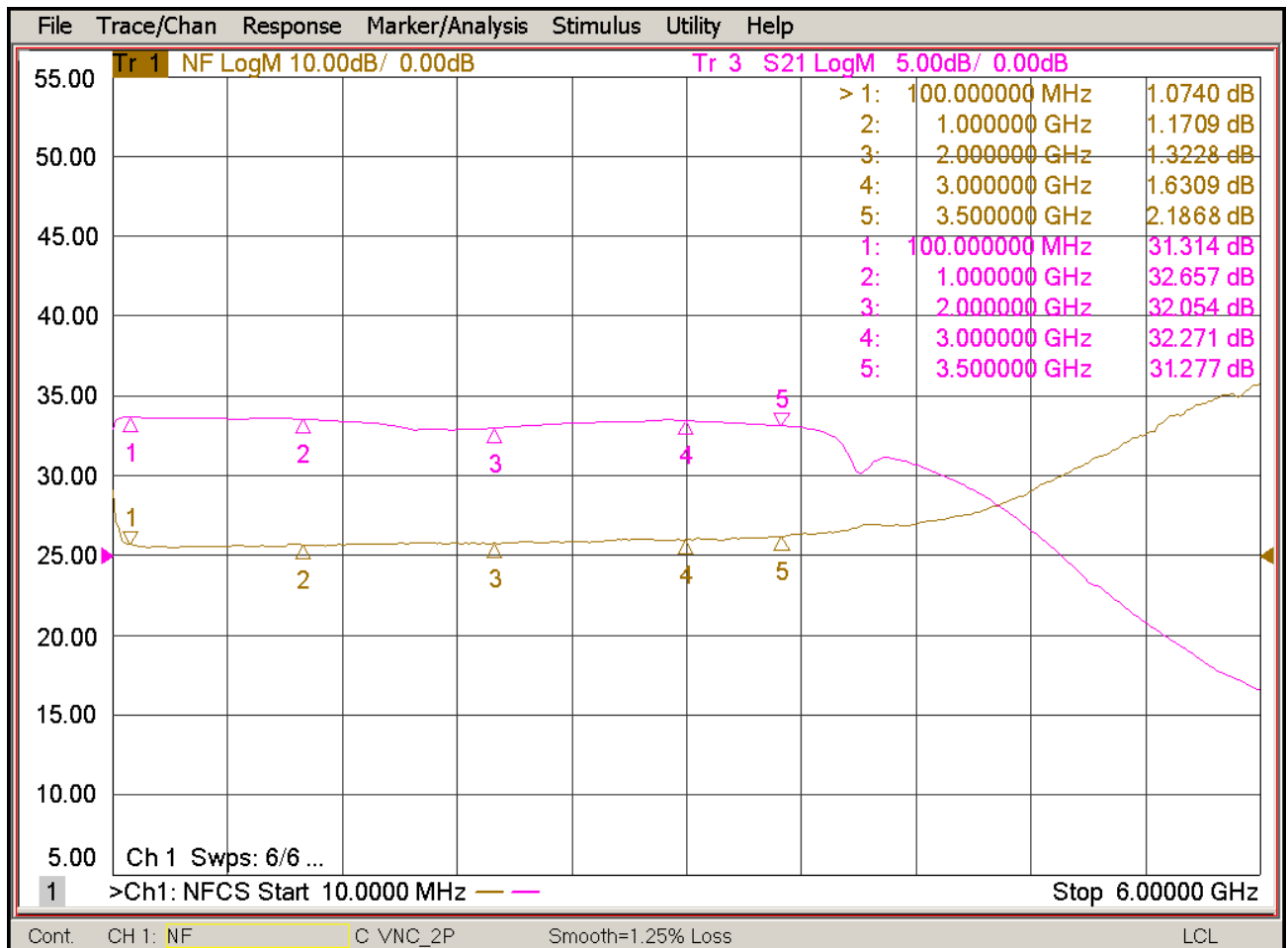
INSTALLATION AND OPERATION INSTRUCTIONS



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

ODLA3000 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 ODLA3000 is powered through output RF connector only, proper voltage and sufficient current must be provided onto RF OUT+DC output.

Example of ODLA3000 performance: noise figure and gain



Rantelon reserves the right to change the specification without notice.