

## Low Noise Amplifier 40-1300MHz

ODLA401300 is outdoor wideband low noise amplifier intended for precision measurements of RF-signals up to 1.3GHz. ODLA401300 is powered through RF-OUT connector only, thanks to what need of special power cable is eliminated.

### Features:

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

### Applications:

- Radio-monitoring
- Small signals receiving
- IF-systems



### RF characteristics\*

Frequency range	40-1300					MHz
IN/OUT impedance	50/50					Ohm
	40MHz	88MHz	500MHz	1000MHz	1300MHz	
Gain	23.8	23.5	22.0	20.0	18.0	dB
Noise figure	0.90	0.80	0.85	1.00	1.60	dB
VSWR IN	3.6	typ. 1.4			2.0	
VSWR OUT	1.5	typ. 1.3			1.4	
Isolation	26.0	26.0	26.0	26.0	26.0	dB
Output 1dB compression	18.5	18.5	18.5	18.0	18.0	dBm
Output IP3	33.0	33.0	33.0	32.0	31.5	dBm

\* Measured at temperature T=+25°C

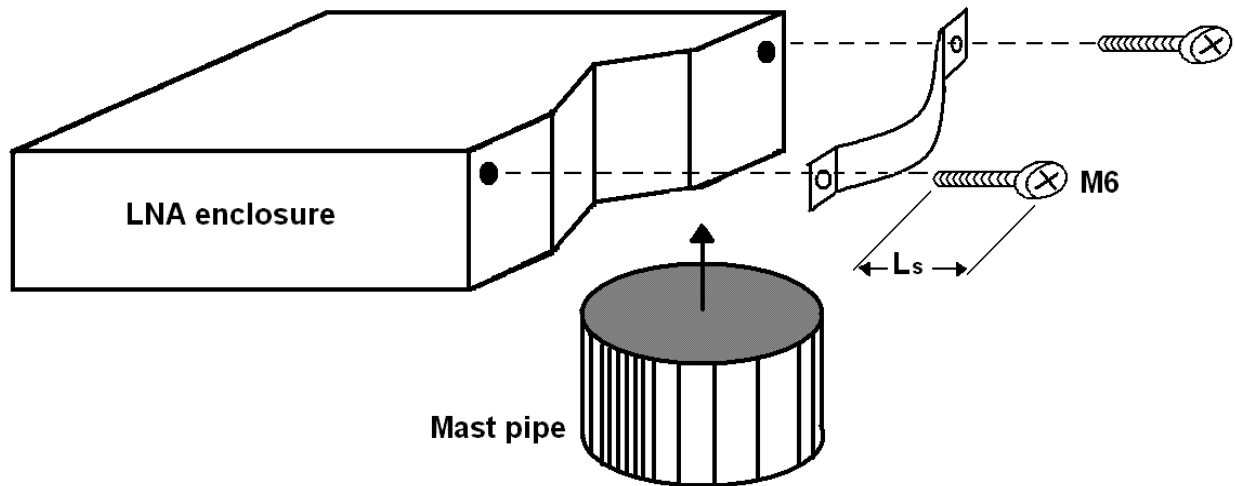
### DC and mechanical characteristics

Device current	60	mA
Device voltage (DC)	+5...+12	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)	80x80x40	mm

### Absolute maximum ratings

Device current	100	mA
Device voltage	+17	V
CW RF input power	+5	dBm
Temperature	-40...+85	°C

## Mounting and installation instructions

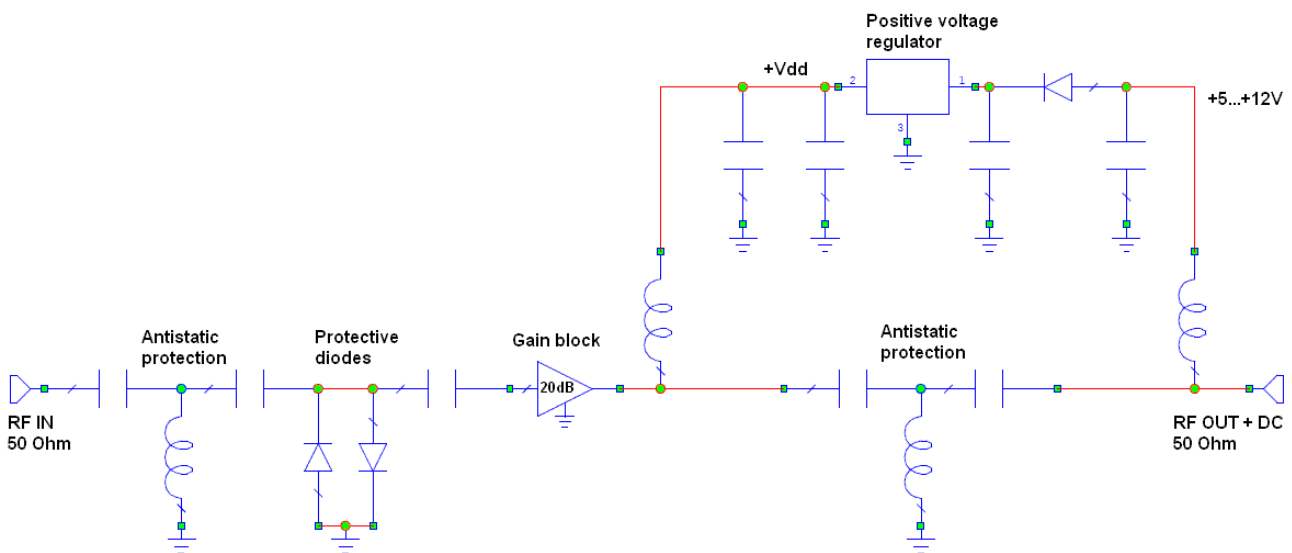


For convenience in mounting process two variants of M6-screw couples are included in LNA-set:

- 1)  $L_s = 25\text{mm}$
- 2)  $L_s = 45\text{mm}$

ODLA401300 is unidirectional amplifier. RF signal, that must be amplified, comes to RF IN input only. On the RF OUT+DC output amplified by 20dB input signal can be found. Since ODLA401300 is powered through output RF connector only, proper voltage and sufficient current must be provided onto RF OUT+DC output.

## Principal circuit diagram of ODLA401300



Example of ODLA401300 transfer function curve

