Coaxial

Low Noise Amplifier (LNA) LNA100M6GLW

50Ω Wide Band, Ultra Low Noise (0.3dB) LNA

Case PN: 6DD2W6H41SA2W

Features:

* Frequency Range: 100 MHz to 6 GHz;
* Noise Figure: typical 0.3 dB @ 1.9 GHz
* Gain: 19.5 dB small signal Gain at 1.9 GHz
* Output P1dB: +22 dBm CW
* +39 dBm OIP3 at 65mA current
* +3.3 to +5V Supply (+5V recommended)
* SMA Female Connector (ROHS Compliant)
* High Quality Rogers RO4350 RF PCB

(very low loss and high thermal performance)

* EMI Shielded (&IP67 Waterproof)

Applications:

* 4.5G, 5G Massive MIMO
* Repeaters/DAS
* Mobile Infrastructure
* LTE/WCDMA/CDMA/GSM
* General Purpose Wireless
* SDR & Ham Radio
* Test Instrumentation

General Description:

LNA100M6GLW is an ultra-low noise, high-linearity amplifier in a small 15/16"x15/16"x0.49" shielded RF enclosure. At 1.9GHz, the LNA provides 19.5 dB gain, +39 dBm OIP3 at a 65mA bias setting, and 0.3 dB noise figure. The LNA can be biased from a single supply +3.3V to +5V. The LNA is EMI shielded and IP67 waterproof.

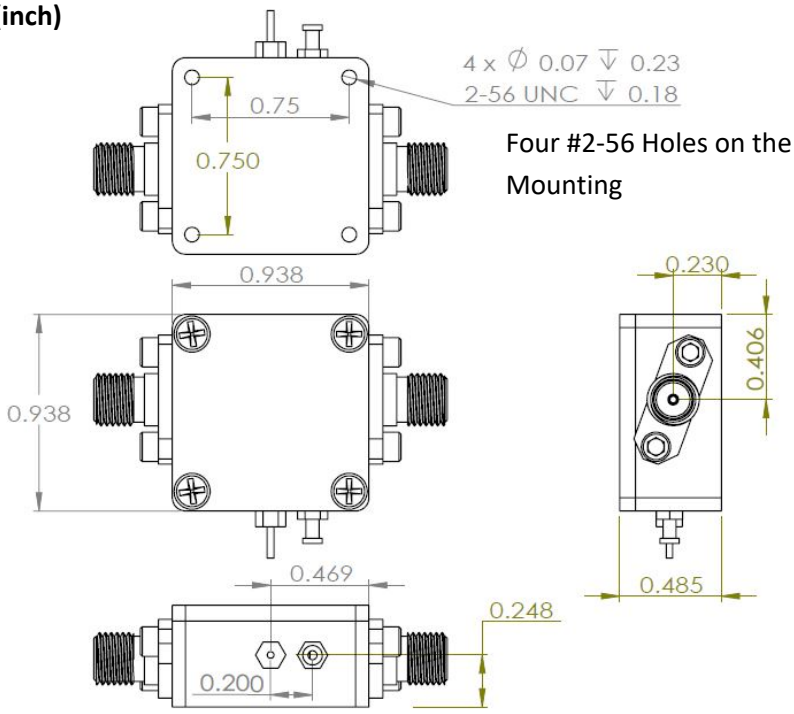
Electrical Specifications:

Item	Parameter	Condition	Electrical Specification			
			MIN	TYP	MAX	UNITS
1	Operational Frequency Range		100		6000	MHz
2	Test Frequency			1900		MHz
3	Gain		17.5	19.5		dB
4	Input Return Loss			12.2		dB
5	Output Return Loss			13.5		dB
6	Noise Figure			0.3	0.5	dB
7	Output P1dB		+21	+22.7		dBm
8	Output IP3	Pout=+2 dBm/tone, Δf=1MHz	+35	+39.3		dBm
9	Operating Current (Quiescent)			65		mA

Absolute Maximum Ratings

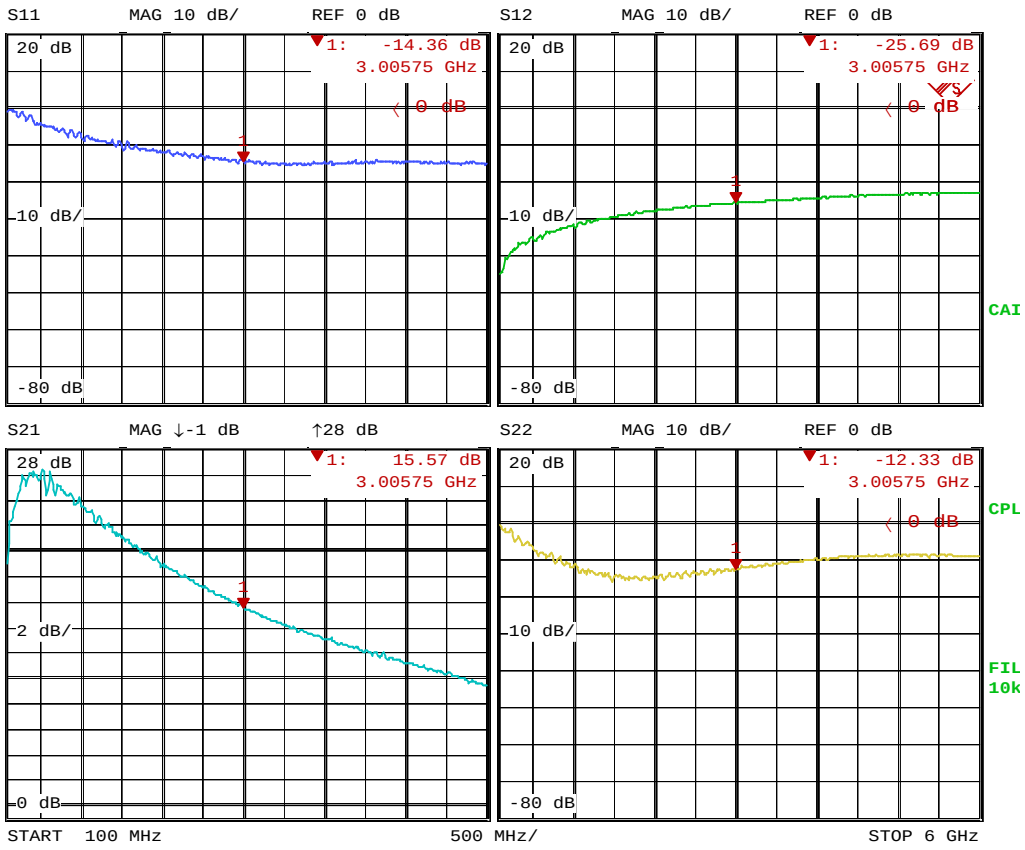
Item	Parameter	Rating	UNITS
1	Max Device Voltage	+7	V
2	Max Input Power,CW,50Ω,T=25°C	+22	dBm
3	Operating Temperature	-40 to +85	°C
4	Max Storage Temperature	-65 to +150	°C

Outline Drawing (inch)



Four #2-56 Holes on the Bottom for Mounting

S-Parameters



Noise Figure (including PCB+SMA Connectors)

RF Frequency (GHz)	Noise Figure (dB)
0.1	0.39
0.69	0.52
1.28	0.42
1.87	0.51
2.46	0.60
3.05	0.77
3.64	0.92
4.23	1.01
4.82	1.35
5.41	1.48
6.0	1.50