

50Ω Broad Band 2-Stage LNA 1G~6GHz

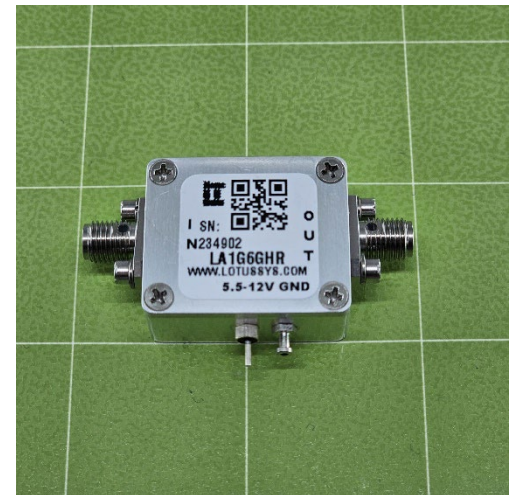
Case PN: 6ED4W6H41SA20

Features:

- Frequency Range: 1 to 6 GHz
- Gain: 34dB flat gain from 1.5~5GHz
- Noise Figure: typical 1.0 dB @ 4.75 GHz
- Input P1dB: -17dBm
- Input IP3: -5dBm
- 5.5V~+12 VDC wide operating voltage
- ROHS Compliant
- EMI Shield (& Weatherproof IP67 option available)
- Part Number: LA1G6GHRW
- Female SMA Connectors for RF Input and Output

Applications:

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



General Description:

Part Number: LA1G6GHR is a flat gain, high-linearity, ultra-low noise amplifier in a small 1.125"x0.935"x0.485" RF enclosure. The LNA provides a 1 dB flat gain (peak-to-peak) from 1.5 to 5 GHz. At 4.75 GHz, the amplifier typically provides 34 dB gain and 0.9 dB noise figure. The LNA can be biased from a single supply from +5,5V to +12V from output port.

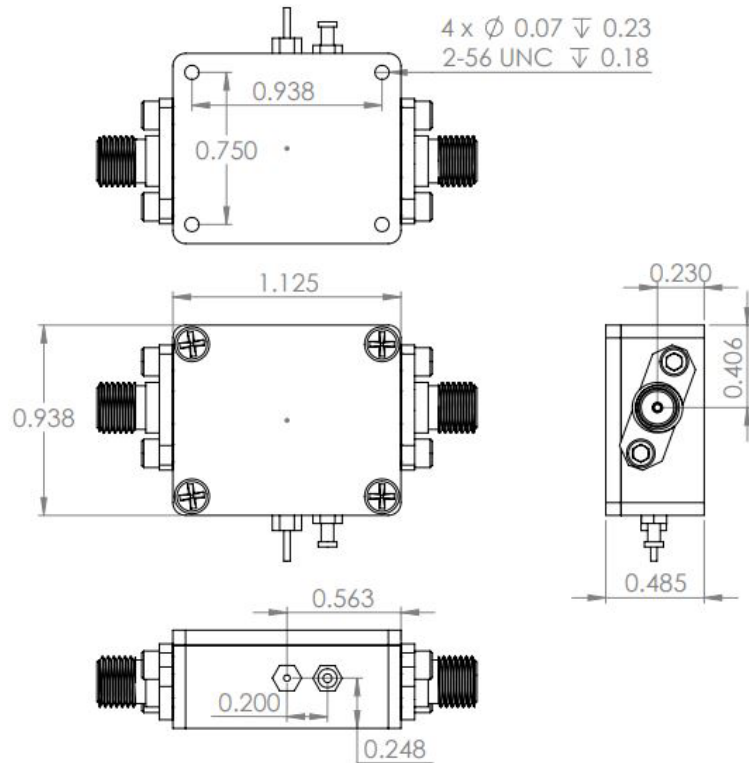
Electrical Specifications:

	Characteristics	Specification	Specification (Range)			
			MIN	TYP	MAX	UNITS
1	Operating Frequency		1		6	GHz
2	Gain	2.50 GHz 3.75 GHz 4.70 GHz	32 32 32	34	--	dB
3	Noise Figure	2.50 GHz 3.75 GHz 4.70 GHz		0.7 0.8 0.9		dB
4	Input Return Loss			>18		dB
5	Output Return Loss			>15		dB
6	Input Power @1dB Compression			-17		dBm
7	Input Power @3dB Compression			-5		dBm
8	Reverse Isolation			>55		dB
9	Bias Current (mA)			80		mA





Mechanical Specifications



Environmental

	Characteristics	Specification
1	Temperature Range	
	• Operating	-40 °C to +60 °C
	• Storage	-55 °C to +85 °C
2	Humidity (Operating)	5–95 %, Relative Humidity, Non-Condensing (RHNC) @ 30 °C
3	Attitude	
	• Operating	13,000 ft. AMSL
	• Storage	40,000 ft. AMSL
4	Shock and Vibration	As encountered in normal commercial transport and bench handling.
5	Weather Protection	IP67 water proof for outdoor usage (Option)

Reliability and Maintainability

	Characteristics	Rating
1	Mean Time Between Failure (MTBF) Max Storage Temperature	The design MTBF shall be 220,000 hours minimum at 25 °C in a ground fixed environment The design MTBF shall be 85,000 hours minimum at 25 °C in a ground mobile environment



S-Parameters

