Coaxial

Ultra Low Noise Amplifier (LNA) – 2 Stage High Gain LNA100M2G2S

50Ω Wideband 100 to 2000 MHz

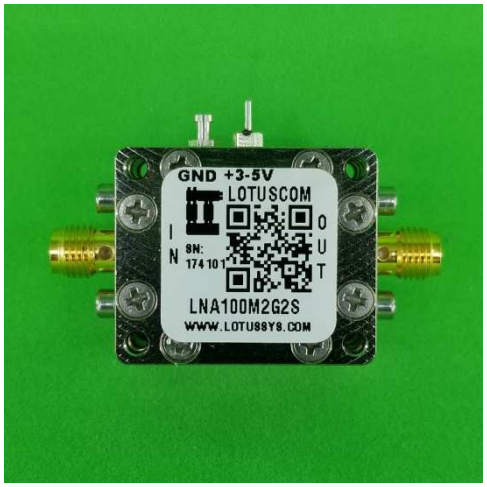
Case PN: 6UED2W6S1A2

Features:

* **Frequency Range: 100 MHz to 2 GHz;**
* **Noise Figure: typical 0.45 dB @ 900MHz**
* **Gain: 40 dB Gain at 900 MHz**
* **Output P1dB: +22 dBm CW**
* **Output IP3: +36 dBm**
* **DC Voltage: +3 to +5V**
* **Operating Current: 135 mA**
* **Stainless Steel SMA Female Connector**
* **High Quality Isola-Tera RF PCB**
(very low loss and high thermal performance)
* **ROHS Compliant**

Applications:

* **Repeaters/DAS**
* **Mobile Infrastructure**
* **LTE/WCDMA/CDMA/GSM**
* **General Purpose Wireless**
* **SDR & Ham Radio**
* **Test Instrumentation**



Product Overview:

LNA100M2G2S is a high-linearity, ultra low noise 2 stage high gain amplifier in a small 1-1/8”x15/16”x0.59” shielded RF enclosure (PN: 6UED2W6S1A2). At 900 MHz, the amplifier typically provides 40 dB gain, +36 dBm OIP3 at a 135 mA bias setting, and 0.45 dB noise figure. The LNA can be biased from a single supply +3V to +5V.

Electrical Specifications:

Item	Parameter	Conditions	Min	Typ	Max	Units
1	Operational Frequency Range		100		2000	MHz
2	Test Frequency			900		MHz
3	Gain		36	40	42	dB
4	Input Return Loss			13		dB
5	Output Return Loss			11		dB
6	Noise Figure			0.45	0.75	dB
7	Output P1dB			+22		dBm
8	Output IP3	Pout =+5 dBm/tone, Δf =1 MHz	+32	+36		dBm
9	Current, I_{DD}		80	135	180	mA

Test Conditions: V_{DD}=+5V, I_{dd} = 70 mA (typ.) Temp = +25 °C, 50Ω system.

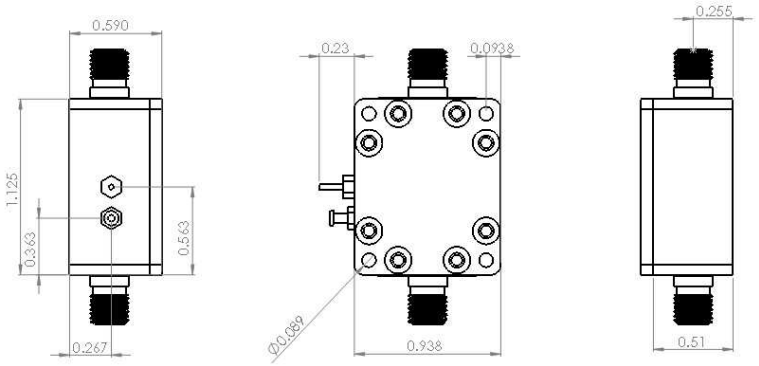
Absolute Maximum Ratings

Item	Parameter	Rating	UNITS
1	Max Device Current	200	mA
2	Max Device Voltage	+7	V
3	Max RF input Power	+2	dBm
5	Operating Temperature	-40 to +85	°C
6	Max Storage Temperature	-65 to +150	°C

Noise Parameters (Test conditions V_{DD} = +5V, I_{DD} = 135mA (typ.) Temp = +25°C, 50Ohm System

Item	Parameter	Typical Values					UNITS
	Frequency	700	900	1100	1300	1500	MHz
1	Noise Figure	0.35	0.45	0.41	0.40	0.38	dB

Outline Drawing (inch)



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