

50Ω Wideband 100 to 2000 MHz

Case PN: 6UDE2W6S1A2

Features:

- * Frequency Range: 100 MHz to 2 GHz;
- * Noise Figure: typical 0.45 dB @ 900MHz
- * Gain: 20 dB Gain at 900 MHz
- * Output P1dB: +22 dBm CW
- * Output IP3: +36 dBm
- * DC Voltage: +5 to +15V
- * Operating Current: 68 mA
- * Stainless Steel SMA Female Connector
- * High Quality RO4350 RF PCB
(very low loss and high thermal performance)
- * ROHS Compliant

Product Overview:

LNA100M2GR is a high-linearity, ultra low noise amplifier in a small 15/16"x1-1/8"x0.59" shielded RF enclosure (PN: 6UDE2W6S1A2). It has integrated LDO Linear Regulator with industrial leading low noise (11μV rms). At 900 MHz, the amplifier typically provides 20 dB gain, +36 dBm OIP3 at a 68 mA bias setting, and 0.45 dB noise figure. The LNA can be biased from a single supply +5V to +15V. It can be powered by wide categories of power supplies (e.g., USB, Car Battery etc.).

Electrical Specifications:

Item	Parameter	Conditions	Min	Typ	Max	Units
1	Operational Frequency Range		100		2000	MHz
2	Test Frequency			900		MHz
3	Gain		18.2	19.8	21.2	dB
4	Input Return Loss			13		dB
5	Output Return Loss			11		dB
6	Noise Figure			0.45	0.75	dB
7	Output P1dB			+20		dBm
8	Output IP3	Pout =+5 dBm/tone, Δf =1 MHz	+32	+36		dBm
9	Current, I _{DD}		40	68	90	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	100	mA
2	Max Device Voltage	+40	V
3	Max RF input Power	+22	dBm
5	Operating Temperature	-40 to +85	°C
6	Max Storage Temperature	-65 to +150	°C

Applications:

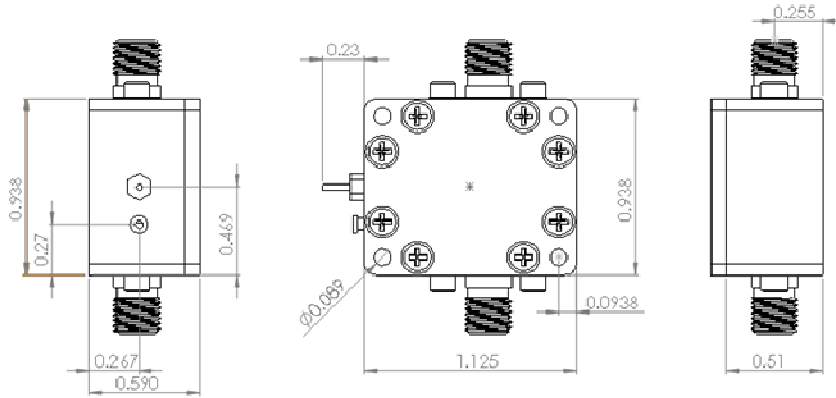
- * Repeaters/DAS
- * Mobile Infrastructure
- * LTE/WCDMA/CDMA/GSM
- * General Purpose Wireless
- * SDR & Ham Radio
- * Test Instrumentation



Noise Parameters (Test conditions $V_{DD} = +5V$, $I_{DD} = 68mA$ (typ.) Temp = $+25^{\circ}C$, 50Ohm System

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

Outline Drawing (inch)



S-Parameters

