

50Ω Wideband 100 MHz to 2 GHz LNA

Case PN: 6ED2W6H41SP2W

Features:

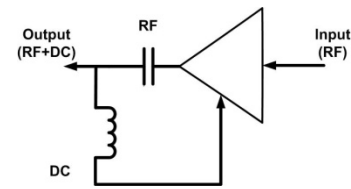
- * Frequency Range: 100 MHz to 2 GHz;
- * Noise Figure: typical 0.45 dB @ 900MHz
- * Gain: 20 dB Gain at 900 MHz
- * Output P1dB: +22 dBm CW
- * Output IP3: +36 dBm
- * DC Voltage: +3.3 to +5V
- * Operating Current: 68 mA
- * Stainless Steel SMA Female Connector
- * High Quality Rogers RF PCB
(very low loss and high thermal performance)
- * ROHS Compliant

Product Overview:

LNA100M2GBT is a high-linearity, ultra low noise amplifier in a small 1-1/8"x15/16"x0.48" shielded RF enclosure. 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 +3.3V to +5V. The DC power is fed through output SMA connector. It combines Bias Tee and LNA in one with DC Power via RF output port.

Applications:

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

**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	+7	V
3	Max RF input Power	+22	dBm
5	Operating Temperature	-40 to +85	°C
6	Max Storage Temperature	-65 to +150	°C

Noise Parameters (Test conditions $V_{DD} = +5V$, $I_{DD} = 68mA$ (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

S-Parameters

