

50Ω Wideband 700 MHz to 6 GHz LNA

Case PN: 6ED2W6H41SP2W

Features:

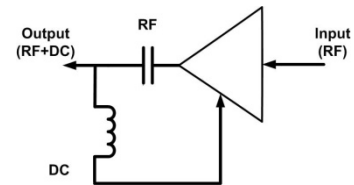
- * Frequency Range: 700 MHz to 6 GHz;
- * Noise Figure: typical 0.4 dB @ 1.95 GHz
- * Gain: 20 dB Gain at 1.95 GHz
- * Output P1dB: +22 dBm CW
- * Output IP3: +35 dBm
- * DC Voltage: +3.3 to +5V
- * Operating Current: 70 mA
- * Stainless Steel SMA Female Connector
- * High Quality Rogers RO4350 RF PCB (ROHS Compliant)

Product Overview:

LNA700M6GBT is a high-linearity, ultra low noise amplifier in a small 1-1/8"x15/16"x0.48" shielded RF enclosure. At 1.95 GHz, the amplifier typically provides 20 dB gain, +35 dBm OIP3 at a 70 mA bias setting, and 0.4 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		700		6000	MHz
2	Test Frequency			1950		MHz
3	Gain		18.5	20.0	21.5	dB
4	Input Return Loss			10		dB
5	Output Return Loss			11		dB
6	Noise Figure			0.40	0.65	dB
7	Output P1dB			+20		dBm
8	Output IP3	Pout = +5 dBm/tone, Δf = 1 MHz	+32	+35		dBm
9	Current, I _{DD}		40	70	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
4	Operating Temperature	-40 to +85	°C
5	Max Storage Temperature	-65 to +150	°C

Noise Parameters

Item	Parameter	Typical Values									UNITS
		900	1700	1950	2300	2600	3000	4500	5500	5500	
1	Noise Figure	0.4	0.36	0.41	0.43	0.53	0.6	0.8	1.0	1.0	dB

S-Parameters

