

## 50Ω Wideband 700 MHz to 6 GHz LNA

Case PN: 6UED2W6S1P2

## 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  
(very low loss and high thermal performance)
- \* ROHS Compliant

## Product Overview:

LNA700M6GBT is a high-linearity, ultra low noise amplifier in a small 1-1/8"x15/16"x0.59" shielded RF enclosure (PN: 6UED2W6S1P2). 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.

## 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 <sub>DD</sub>		40	70	90	mA

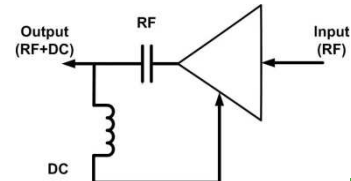
Test Conditions: V<sub>DD</sub>=+5V, I<sub>dd</sub> = 70 mA (typ.) Temp = +25 °C, 50Ω system.

## 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

## Applications:

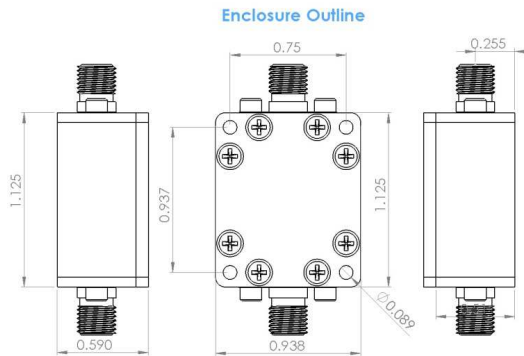
- \* Repeaters/DAS
- \* Mobile Infrastructure
- \* LTE/WCDMA/CDMA/GSM
- \* General Purpose Wireless
- \* SDR & Ham Radio
- \* Test Instrumentation



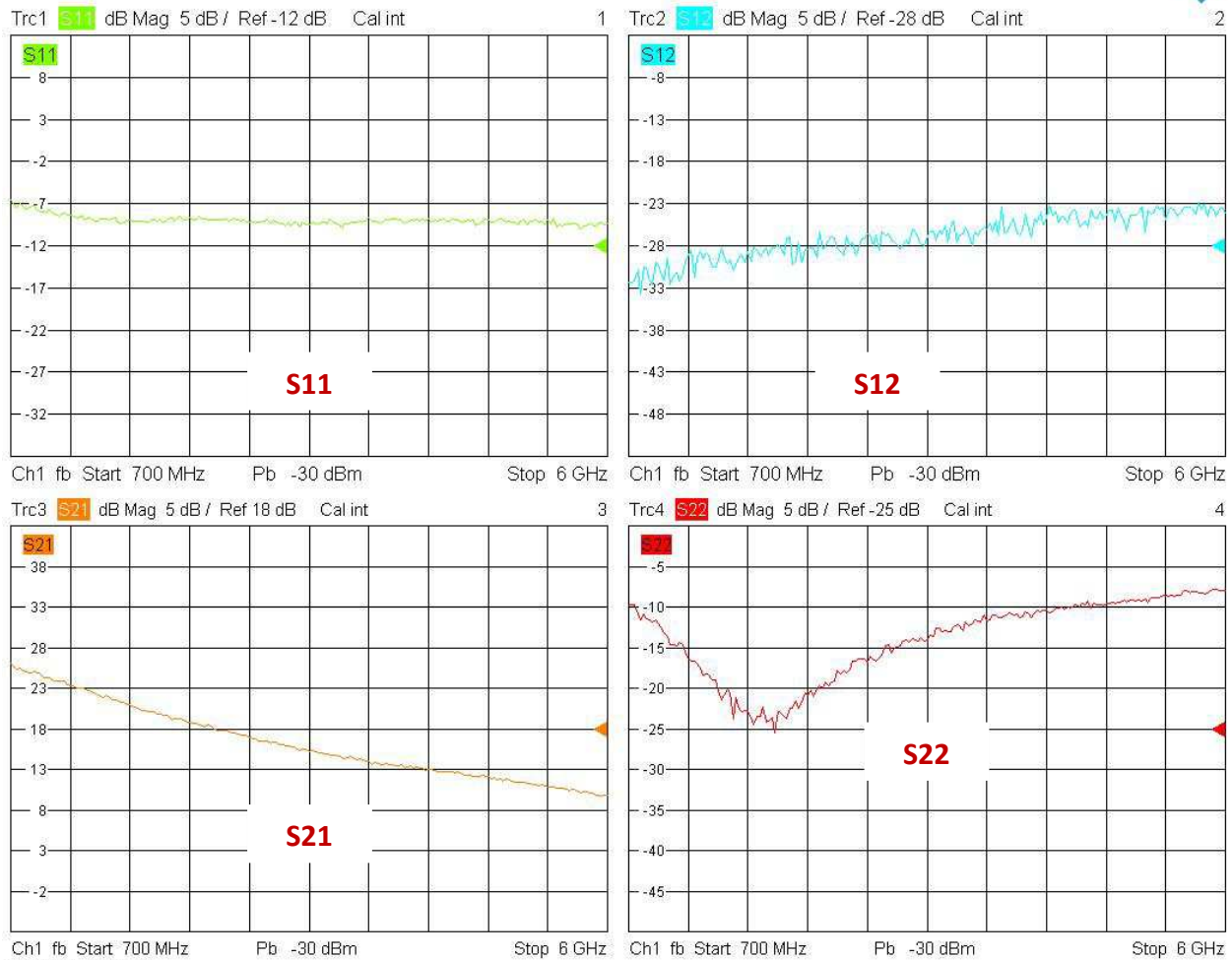
Noise Parameters

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

Outline Drawing (inch)



S-Parameters



<https://cdn.shopify.com/s/files/1/1592/7469/files/LNA700M6GBT.pdf>

