

## 50Ω (match on input &amp; output) Broadband 50M to 6G Hz

Case PN: 6UDD2W6S1A2

## Features:

- \* Frequency Range: 50 MHz to 6 GHz;
- \* Noise Figure: typical 0.65dB @ 1.9 GHz, Max. 1.0 dB
- \* Gain: 16.5 dB Gain at 1.9GHz
- \* Output P1dB: +22.5 dBm
- \* Output IP3: +37 dBm
- \* DC Voltage: +5V
- \* Operating Current: 115mA
- \* Stainless Steel SMA Female Connector
- \* High Quality Isola-Tera RF PCB  
(very low loss and high thermal performance)
- \* ROHS Compliant

## General Description:

LNA50M6G is a high-linearity, low noise amplifier in a small 15/16"x15/16"x0.59" shielded RF enclosure (PN: 6UDD2W6S1A2). At 1900 MHz, the amplifier typically provides 16.5 dB gain, +37 dBm OIP3 at a 115 mA bias setting, and 0.65 dB noise figure. The LNA can be biased from a single positive supply +5V.

## Applications:

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



## Electrical Specifications:

Item	Parameter	Condition	Electrical Specification			
			MIN	TYP	MAX	UNITS
1	Operational Frequency Range		50		6000	MHz
2	Test Frequency			1900		MHz
3	Gain		15	16.5	18	dB
4	Input Return Loss			13		dB
5	Output Return Loss			10		dB
6	Noise Figure			0.65	1.0	dB
7	Output P1dB		+20	+23		dBm
8	Output IP3	Pout=+5 dBm/tone, Δf=1MHz	+32.5	+37		dBm
9	Operating Current (Quiescent)			115	150	mA
10	Supply Voltage		+4.75	+5	+5.25	V

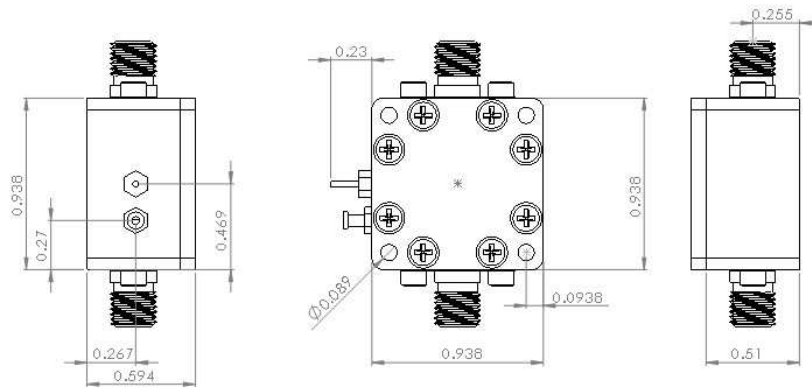
Test Conditions: V<sub>DD</sub>=+5V, Temp = +25 °C, 50Ω system

## Absolute Maximum Ratings

Item	Parameter	Rating	UNITS
1	Max Device Voltage	+7	V
2	Max RF input Power	+10	dBm
3	Operating Temperature	-40 to +85	°C
4	Max Storage Temperature	-65 to +150	°C

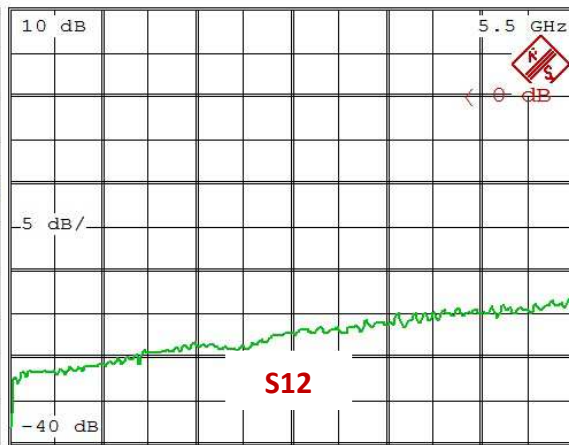
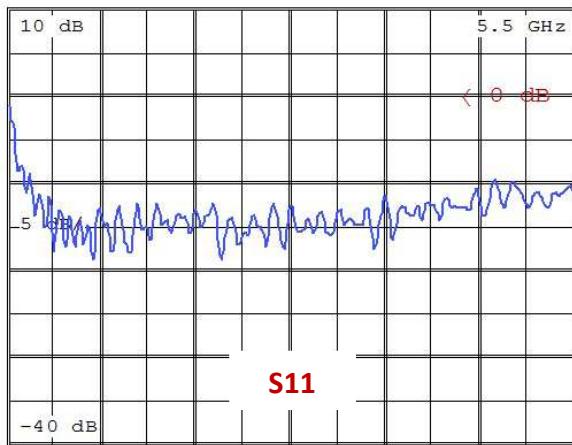


Outline Drawing (inch)

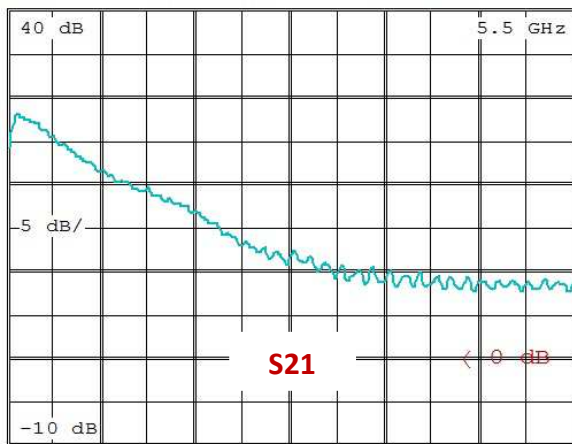


S-Parameters

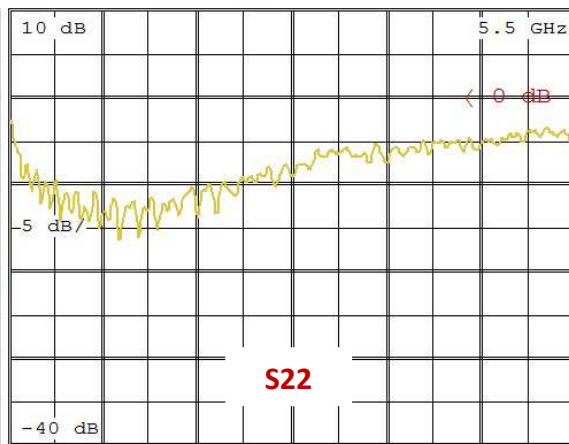
S11 MAG 5 dB/



S21 MAG 5 dB/ REF 0 dB



S22 MAG 5 dB/ REF 0 dB



START 50 MHz 500 MHz/ STOP 6 GHz

Date: 14.AUG.17 22:25:41

<https://cdn.shopify.com/s/files/1/1592/7469/files/LNA50M6G.pdf>



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Rev. A LNA50M6G