

50Ω Wide Band, Ultra Low Noise, Flat Gain LNA

Case PN: 6UDE2W6S1A2

Features:

- 0.6-4.2GHz Frequency Range
- 2dB Gain flatness across 1.5-3.6 GHz
- 0.6dB NF at 2.6 GHz
- High input power ruggedness, 33 dBm CW
- Rugged, shielded case (SMA connector 50Ω system)
- +5V to +15V Supply

General Description:

LNA600M4P2GR is flat-gain, high-linearity, ultra-low noise amplifier in a small 15/16"x1-1/8"x0.59" shielded RF enclosure. It has integrated LDO Linear Regulator with industrial leading low noise (11µv rms). The LNA provides a gain flatness of 2 dB (peak-to-peak) over a wide bandwidth from 1.5 to 3.6GHz. At 2.6 GHz, the amplifier typically provides 20 dB gain, +39.5 dBm OIP3 at a 65 mA bias setting, and 0.6 dB noise figure. The LNA can be biased from a single positive supply ranging from +5 to +15 volts. It can be powered by wide categories of power supplies (e.g., USB, Car Battery etc.).

Electrical Specifications:

Item	Parameter	Condition	Electrical Specification			
			MIN	TYP	MAX	UNITS
1	Operational Frequency Range		600		4200	MHz
2	Gain		18	19	21	dB
3	Gain Flatness	1500-3600MHz		2.0		dB
4	Input Return Loss			11		dB
5	Output Return Loss			17		dB
6	Noise Figure			0.65	0.95	dB
7	Output P1dB			+19		dBm
8	Output IP3	Pout=+5 dBm/tone, Δf=1MHz	+28	+37		dBm
9	Operating Current (Quiescent)		45	65	85	mA

Applications:

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

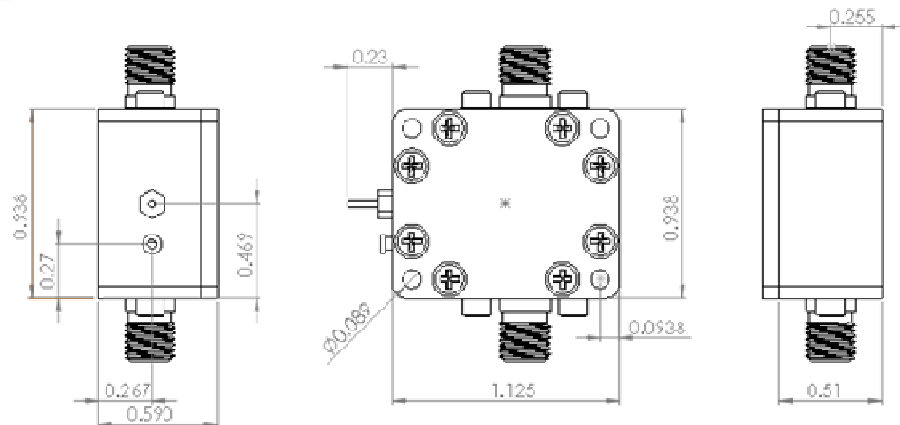


Absolute Maximum Ratings

Item	Parameter	Rating	UNITS
1	Max Device Current	100	mA
2	Max Device Voltage	+40	V
3	Max Input Power, CW, 50Ω, T=25°C	+33	dBm
5	Operating Temperature	-40 to +85	°C
6	Max Storage Temperature	-65 to +150	°C



Outline Drawing (inch)



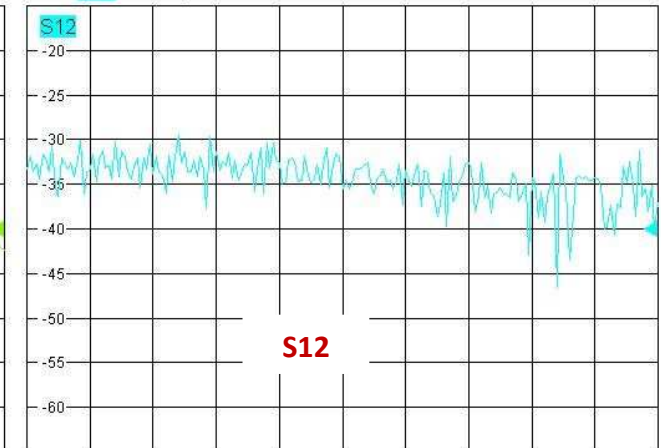
S-Parameters

Trc1 S11 dB Mag 5 dB / Ref -12 dB Cal int



Ch1 fb Start 600 MHz Pb -30 dBm Stop 4.2 GHz

Trc2 S12 dB Mag 5 dB / Ref -40 dB Cal int



Ch1 fb Start 600 MHz Pb -30 dBm Stop 4.2 GHz

Trc3 S21 dB Mag 5 dB / Ref 21 dB Cal int



Ch1 fb Start 600 MHz Pb -30 dBm Stop 4.2 GHz

Trc4 S22 dB Mag 5 dB / Ref -25 dB Cal int



Ch1 fb Start 600 MHz Pb -30 dBm Stop 4.2 GHz