

50Ω Wideband 500 to 8000 MHz

Case PN: 6UDD2W6S1A2

Features:

- Low noise figure, 1.3 dB
- High gain, 21 dB typical
- Flat gain over broadband ± 1 dB over 1 to 7 GHz
- Wideband, 500 to 8000 MHz
- High Linearity, +35 dBm output IP3
- Rugged, shielded case (SMA Connector, 50 Ω System)

Applications:

- LTE/WCDMA/CDMA/GSM
- General Purpose Wireless/Test Instrument
- SDR & Ham Radio/Satellite

**Product Overview:**

Lotus LNA500M8P0G is a wideband LNA providing low noise, high IP3 and flat gain over 500M to 8 GHz. The LNA operates on a single 5V supply and is housed in a rugged, shielded case (3/16" x 3/16" x 0.594") with SMA connectors.

Electrical Specifications:

Item	Parameter	Conditions	Min	Typ	Max	Units
1	Operational Frequency Range		500		8000	MHz
2	Test Frequency		--	2000	--	MHz
3	Gain		18.5	21.0	21.5	dB
4	Input Return Loss		--	17	--	dB
5	Output Return Loss		--	13	--	dB
6	Noise Figure		--	1.3	--	dB
7	Output P1dB		--	20	--	dBm
8	Output IP3	Pout = +5 dBm/tone, $\Delta f = 1$ MHz	+32	+35	--	dBm
9	Current, I_{DD}		--	60	--	mA

Test Conditions: $V_{DD} = +5V$, $I_{dd} = 70$ mA (typ.) Temp = +25 °C, 50 Ω system.

Absolute Maximum Ratings

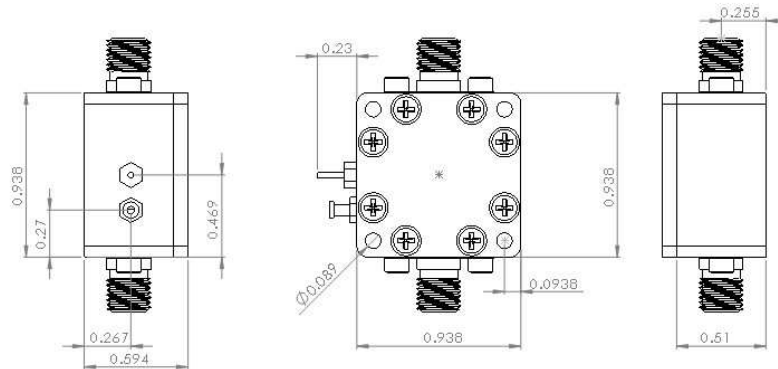
Item	Parameter	Rating	UNITS
1	Max Device Voltage	+7	V
2	Max RF input Power	+19 (5 min. max.) +16 (continuous)	dBm
3	Operating Temperature	-40 to +85	°C
4	Max Storage Temperature	-65 to +150	°C

Noise Parameters

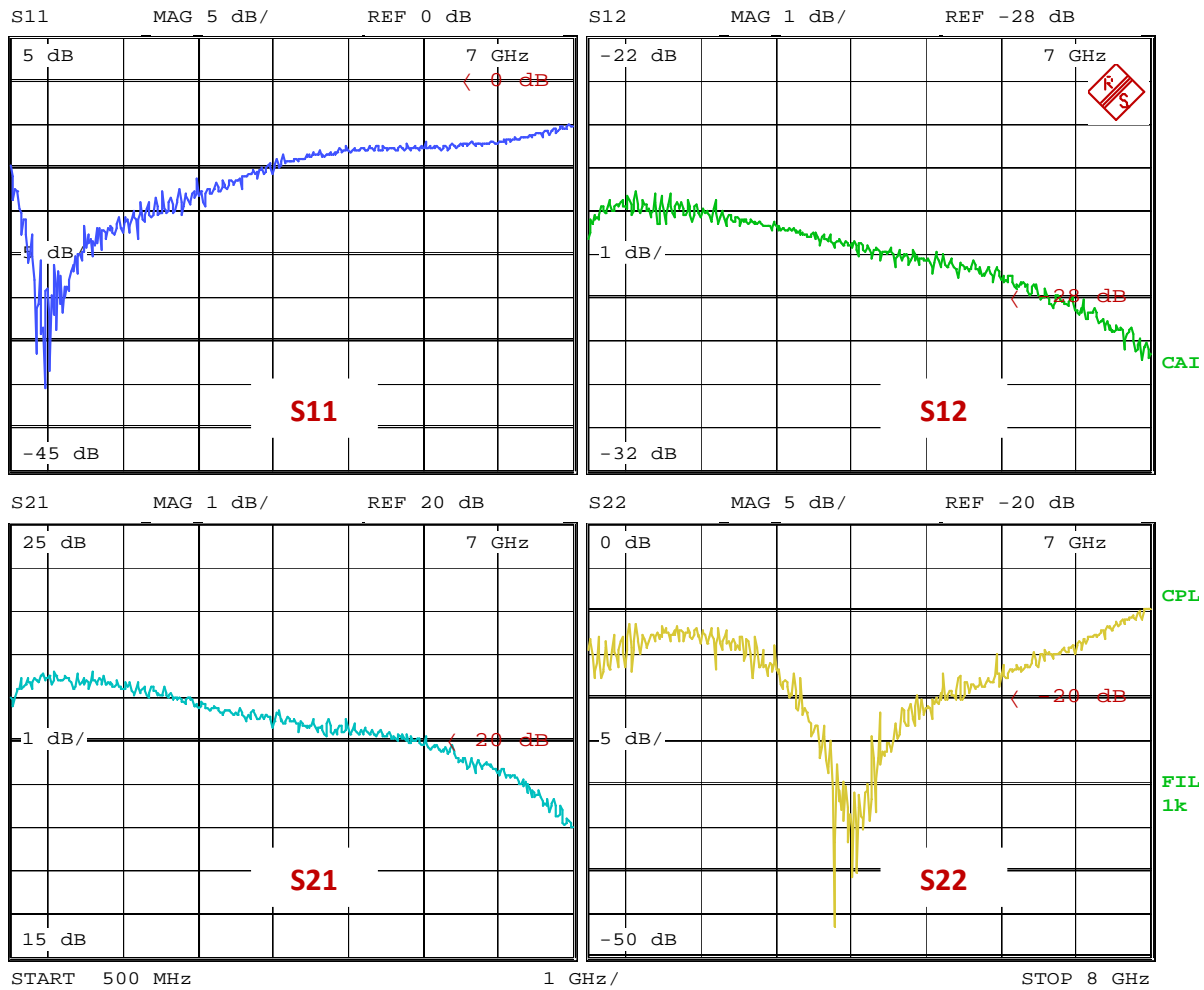
Item	Parameter	Typical Values				UNITS
	Frequency	0.5	2.0	4.0	8.0	GHz
1	Noise Figure	1.6	1.4	1.5	2.2	dB



Outline Drawing (inch)



S-Parameters



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<https://cdn.shopify.com/s/files/1/1592/7469/files/LNA500M8P0G.pdf>



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