

LNA Series

300 – 1200MHz Low Noise Amplifier

Features

- Frequency Range: 300 – 1200MHz
- Gain: 40dB
- P_{1dB} : +19dBm
- IP3: +34dBm
- Noise Figure: 0.6dB (typ.)
- DC Power: 12V @ 125mA
- SMA-female

Performance measured @ 750MHz

Description

LNA-750 is a 0.6dB Noise Figure Low Noise Amplifier operates with frequency range from 300 to 1200MHz.

Photo



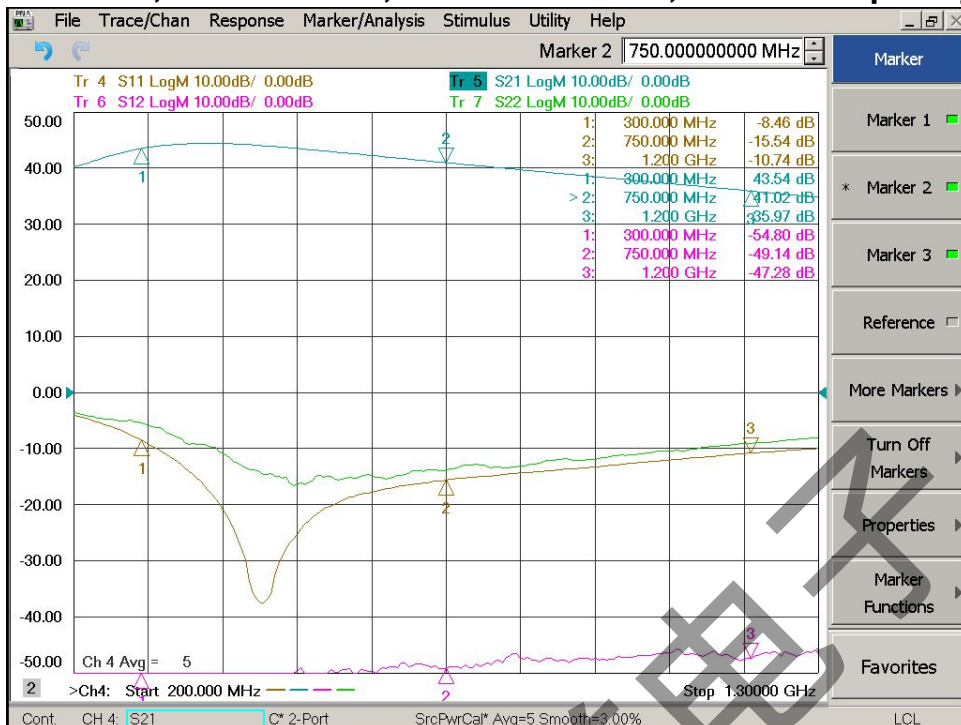
Electrical Specifications @+25 °C, $Z_{in}=Z_{out}= 50 \text{ Ohm}$, DC Voltage = +12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	300		1200
Gain (S21) f = 300MHz	dB	41	43	
f = 750MHz	dB	38	40	
f = 1200MHz	dB	33	35	
Gain Flatness	dB		± 4.0	± 5.0
Output Power P_{1dB}	dBm	+17	+19	
Output Third Order Intercept IP3	dBm	+32	+34	
Noise Figure f = 750MHz	dB		0.6	0.8
Reverse Isolation (S12) f = 750MHz	dB	-40	-47	
VSWR-Input (S11) f = 750MHz			1.4:1	2.0:1
VSWR-Output (S22) f = 750MHz			1.4:1	2.0:1
DC Power Supply - voltage	V	11	12	13
DC Power Supply - current	mA		125	140
Operating Temperature	°C	-40		+85
Size (RF/DC feedthru's excluded)	Inch	1.25 (L) x 1.25 (W) x 0.56 (H)		
Weight	Oz	1.6 (45 grams)		

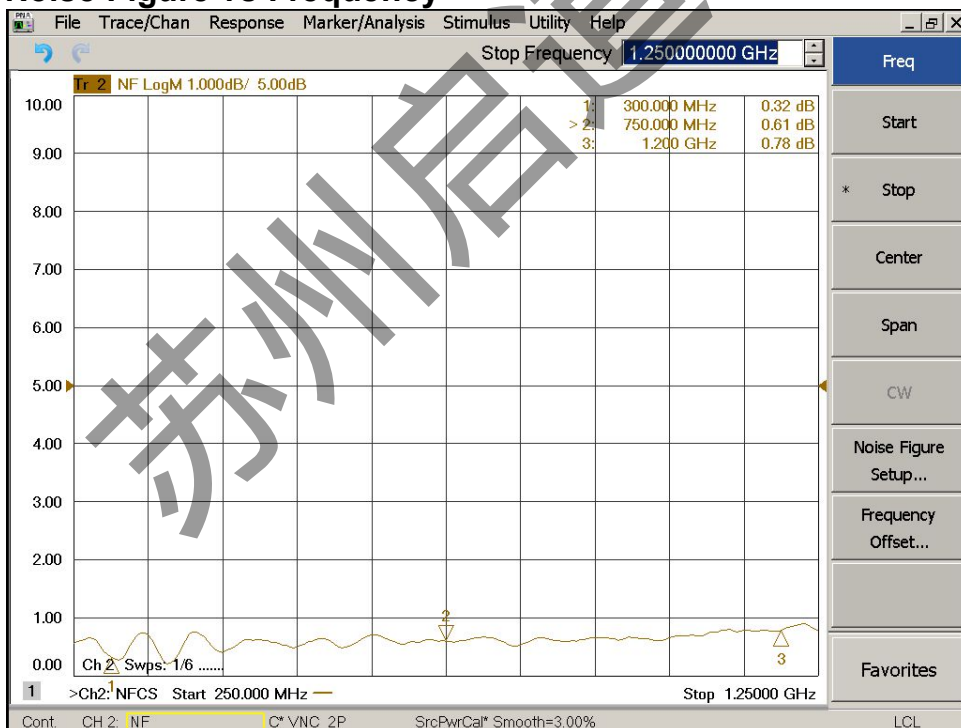
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



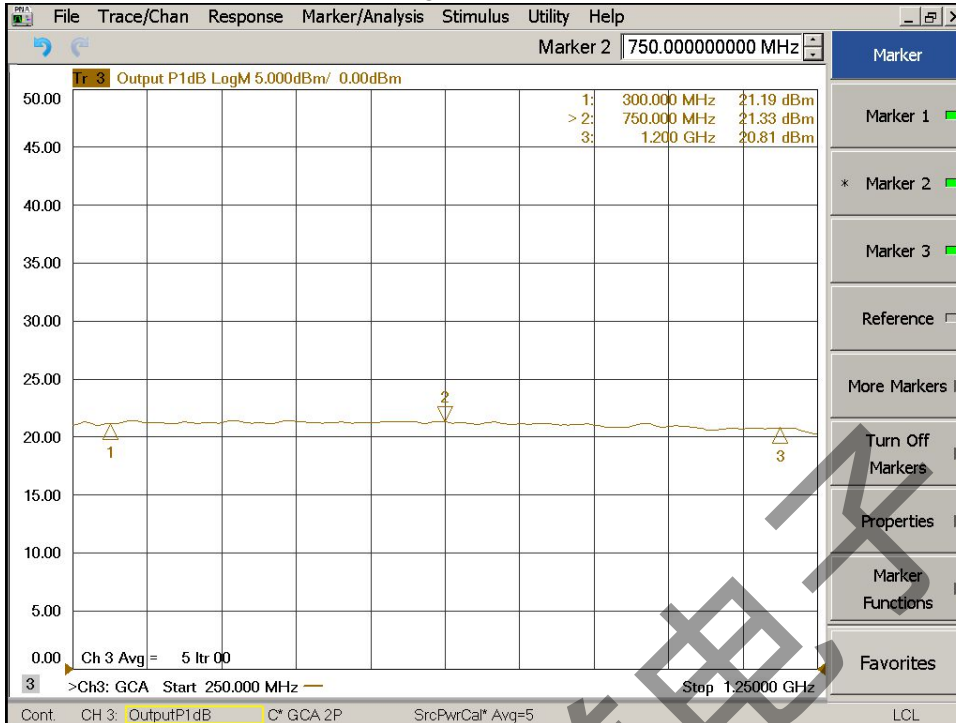
Noise Figure vs Frequency



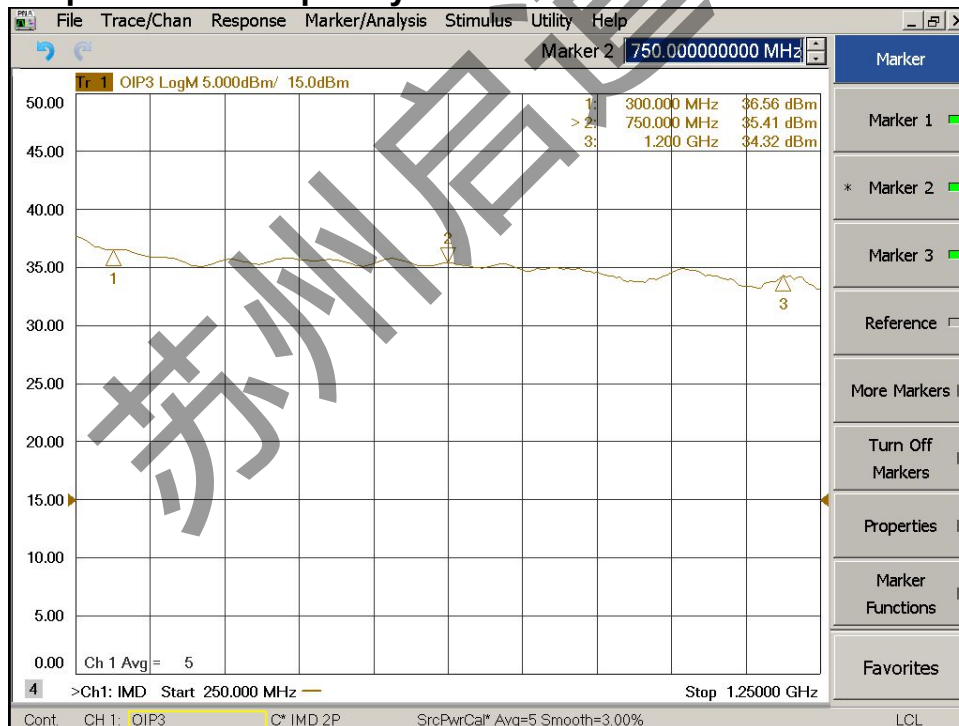
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Output P1dB vs Frequency



Output IP3 vs Frequency



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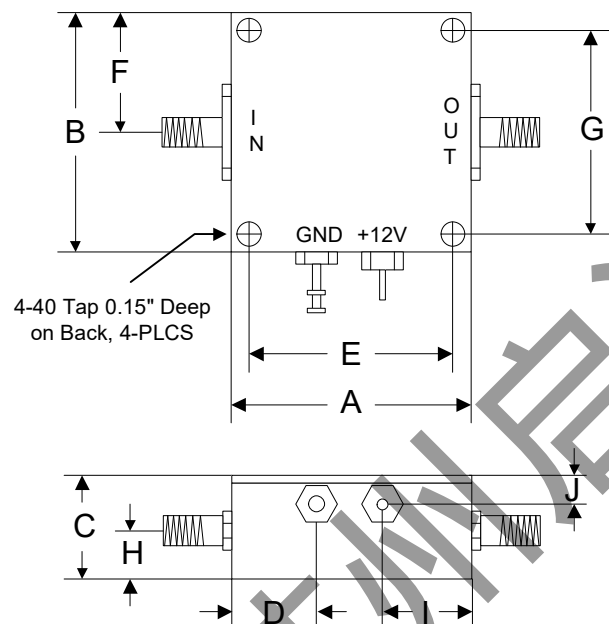
Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+15V
RF Input Power	+13dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

ESD Sensitive Material



Outline



	A	B	C	D	E	F	G	H	I	J
Inch	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187
mm	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76