LNA-545

LNA Series — 10KHz – 500MHz Low Noise Amplifier

Features

- Frequency: 10KHz - 500MHz
- Gain: 45dB
- P_{1dB}: +10dBm
- IP3: +20dBm
- Noise Figure: 2dB
- DC Power: 15V/75mA
- SMA Connector

Performance measured @ 250MHz

Picture

Description

LNA-545 is a wideband 45dB Gain Low Noise Amplifier operates with frequency range from 10KHz to 500MHz.

Electrical Specifications @ +25 °C, $Z_{in} = Z_{out} = 50\ \Omega$, DC Voltage = +15V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	0.01		500
Gain S21 f = 10KHz	dB	44	45	
f = 250MHz	dB	44	45	
f = 500MHz	dB	44	45	
Gain Flatness	dB			± 0.5
P_{1dB} f = 10KHz	dBm	+11	+14	
f = 250MHz	dBm	+10	+13	
f = 500MHz	dBm	+10	+13	
IP3 f= 250MHz	dBm	+20	+23	
Reserve Isolation S12 f=500MHz	dB	-50	-55	
Noise Figure f = 10KHz	dB		2.5	3.0
f = 250MHz	dB		2.0	2.5
f = 500MHz	dB		2.0	2.5
VSWR Input VSWR S11			1.4:1	2.0:1
Output VSWR S22			1.3:1	2.0:1
DC Power Supply	V	14	15	16
Supply Current	mA		75	90

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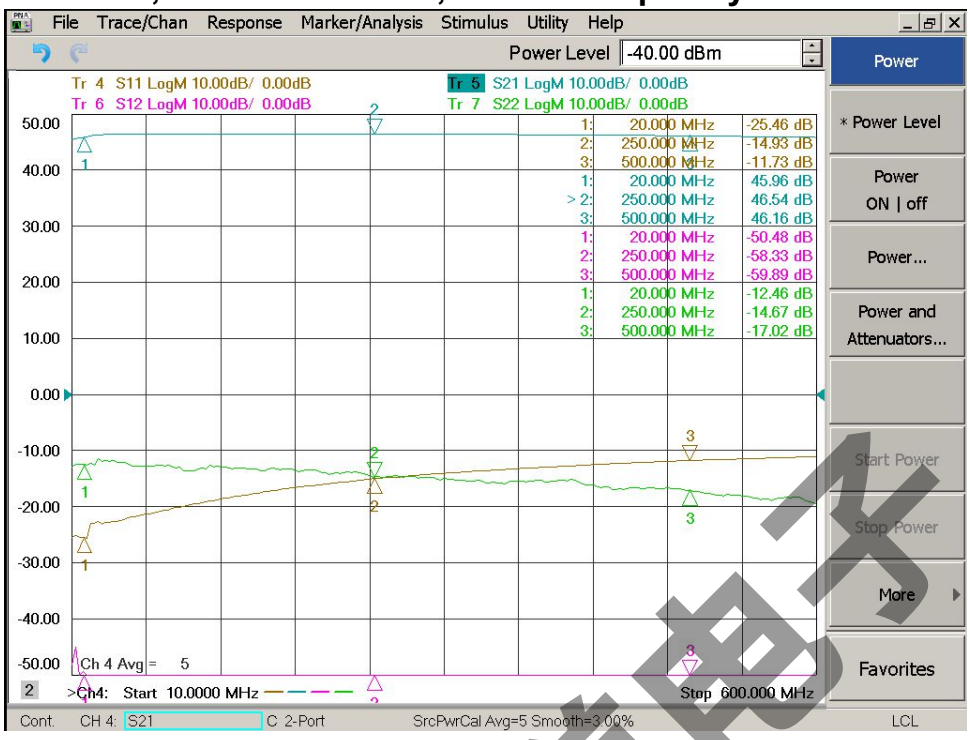
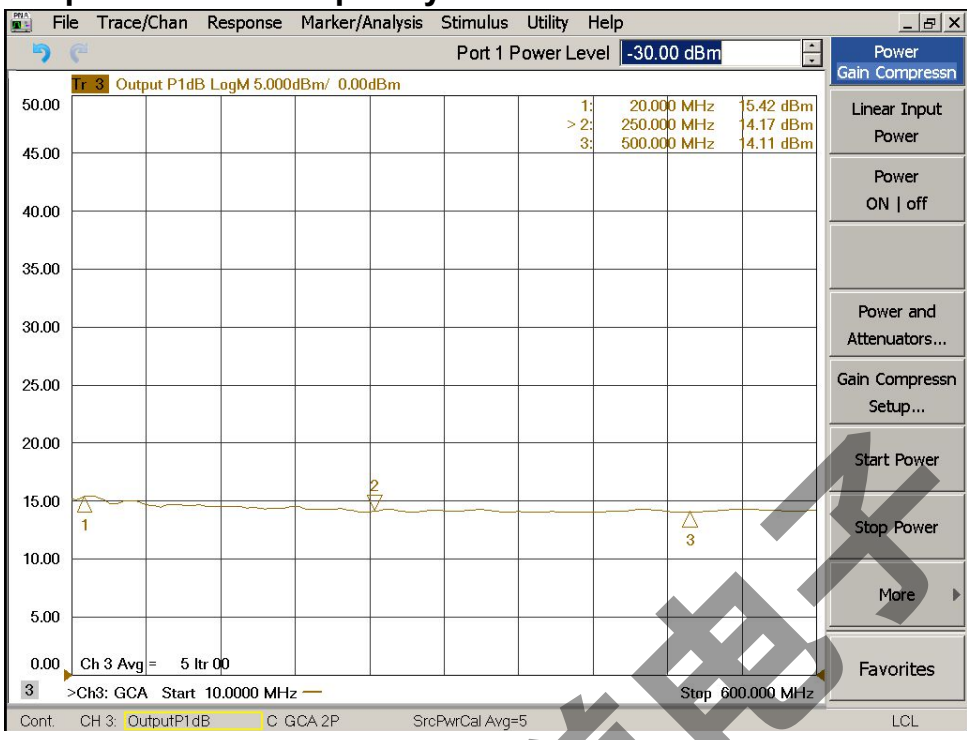
Gain S21, Return Loss S11, S22 vs Frequency

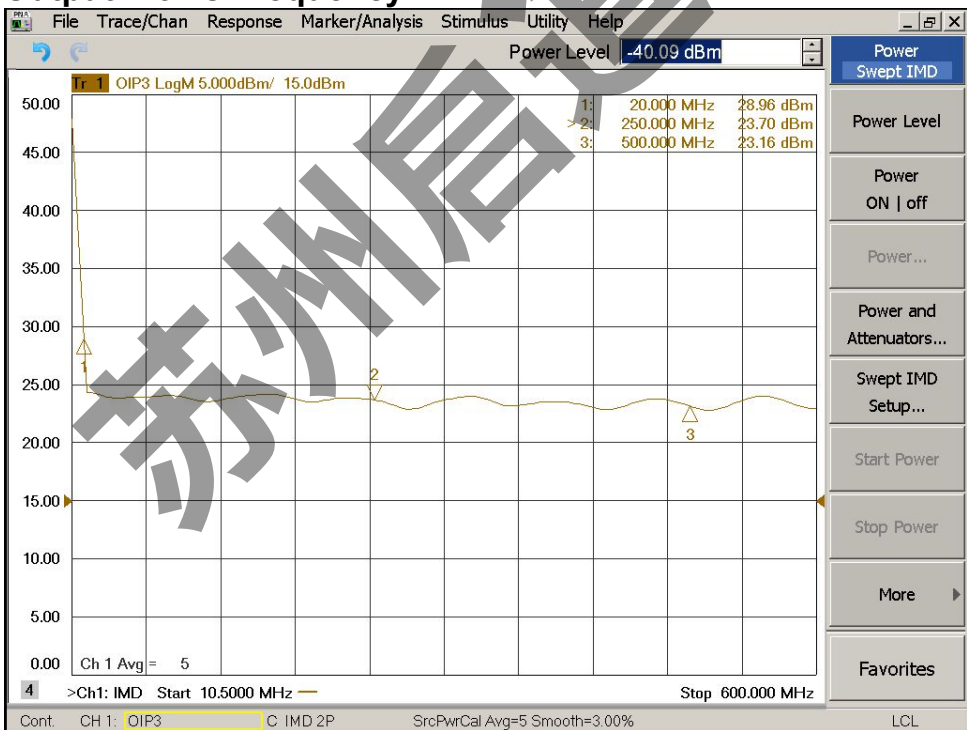


Noise Figure vs Frequency

Output P1dB vs Frequency



Output IP3 vs Frequency



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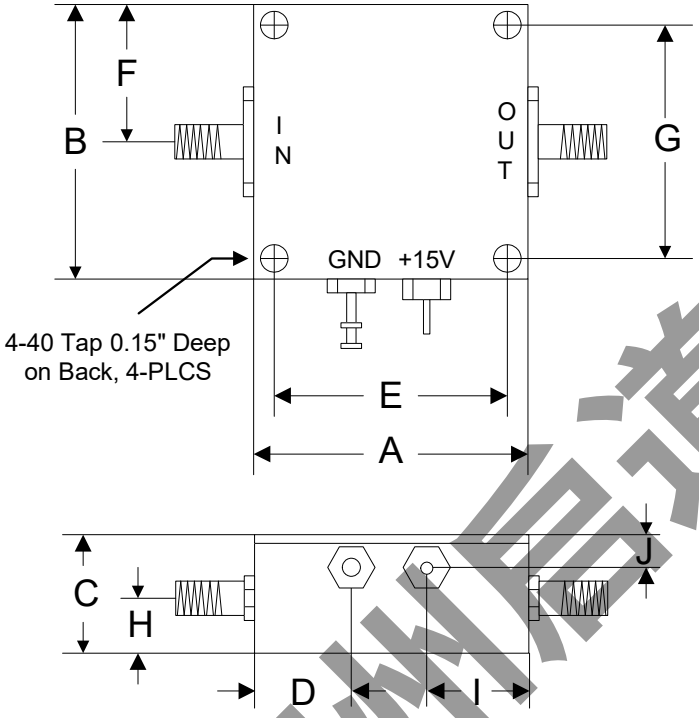
Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+18V
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