

LNA Series

10KHz – 1400MHz Low Noise Amplifier

Features

- Frequency Range: 0.01-1400MHz
- Gain: 40dB
- P_{1dB}: +19dBm
- IP3: +32dBm
- Noise Figure: 3dB
- DC Power: 15V/120mA
- SMA Connector

Picture



Description

LNA-1440 is a 40dB gain wideband high dynamic range Low Noise Amplifier operates with frequency range from 10KHz to 1400MHz.

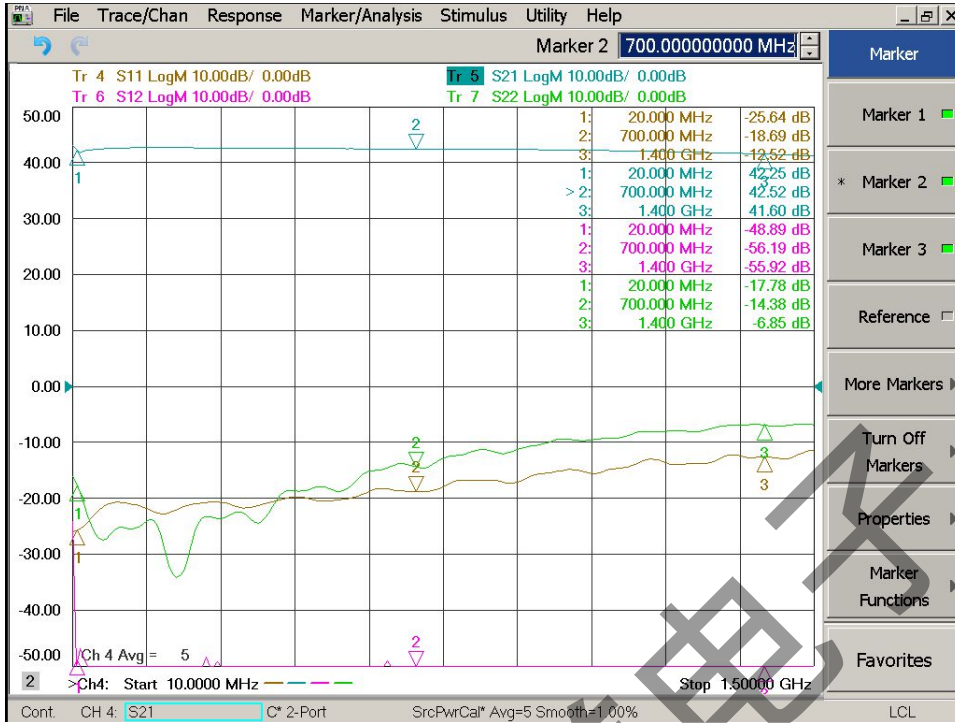
Electrical Specifications @ +25 °C, Z_{in} = Z_{out} = 50 Ω, DC Voltage = +15V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	0.01		1400
Gain S ₂₁ f =	10KHz	38	40	
	20MHz	40	42	
	700MHz	40	42	
	1400MHz	39	41	
Gain Flatness	dB		±1.0	±1.5
P _{1dB} f =	dBm	+17	+19	
IP3 f =	dBm	+30	+32	
Noise Figure f =	dB		3.0	3.5
Reverse Isolation f =	dB	-50	-55	
Input VSWR S ₁₁ f =			1.4:1	2.0:1
Output VSWR S ₂₂ f =			1.5:1	2.0:1
DC Power Supply	V	+14	15	+16
Supply Current	mA		120	135

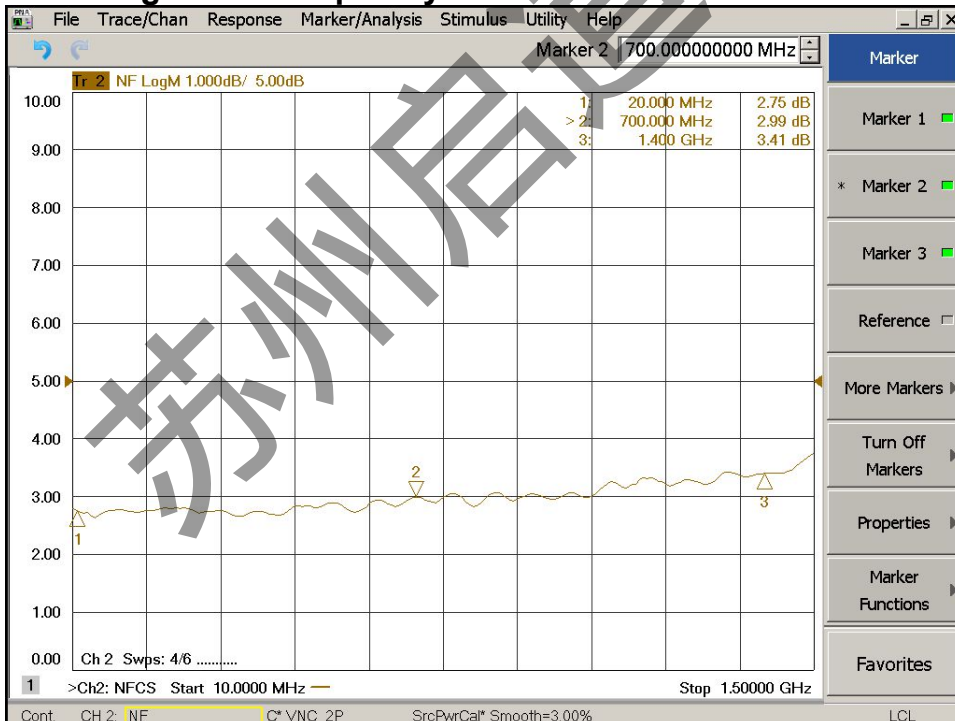
LNA Series

10KHz – 1400MHz Low Noise Amplifier

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



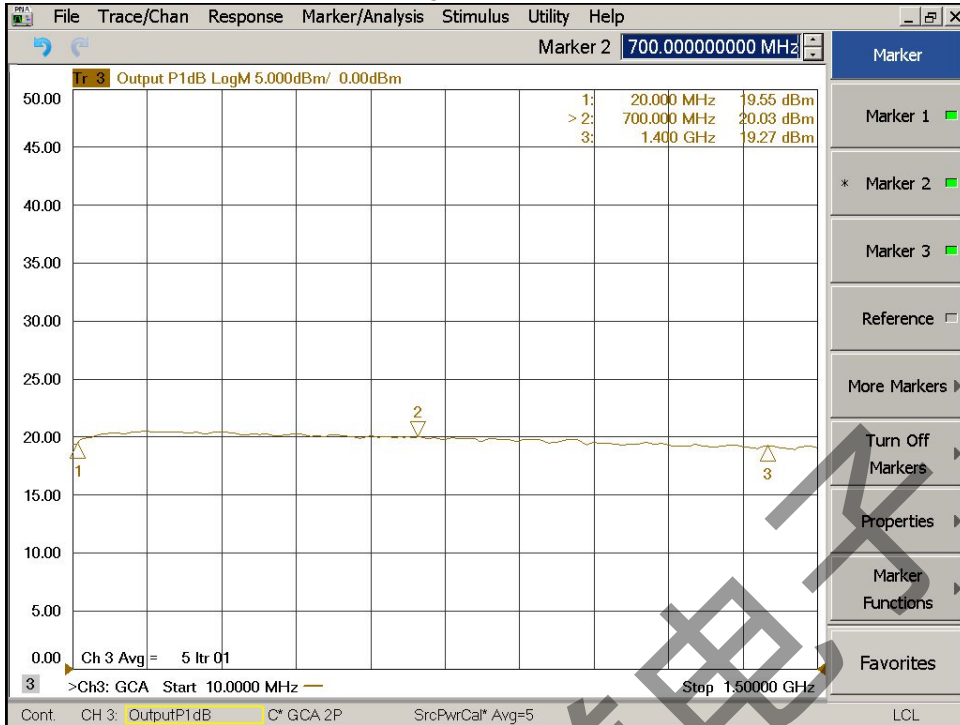
Noise Figure vs Frequency



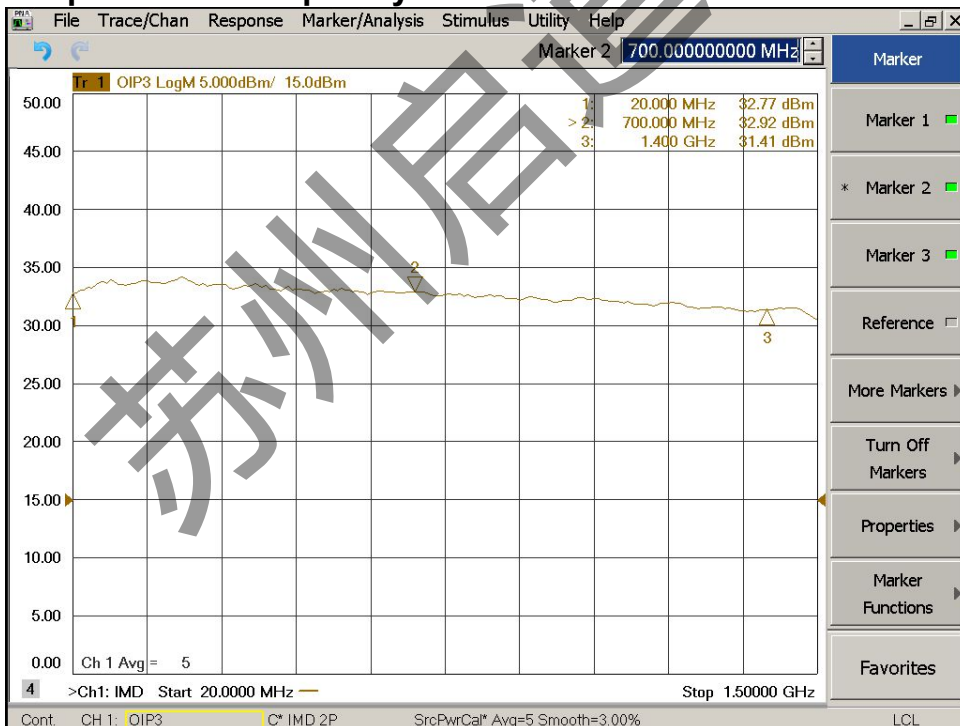
LNA Series

10KHz – 1400MHz Low Noise Amplifier

Output P1dB vs Frequency



Output IP3 vs Frequency



LNA Series

10KHz – 1400MHz Low Noise Amplifier

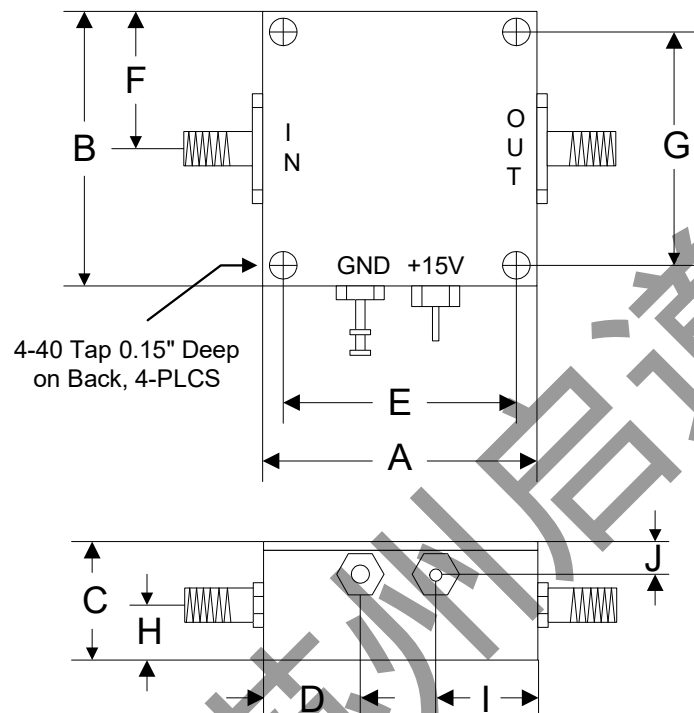
Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+17V
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