

LPA Series

300KHz – 6500MHz RF Amplifier

Features

- Frequency Range:0.3-6500MHz
- Gain: 35dB
- P_{1dB}: +17dBm
- IP3: +29dBm
- Noise Figure: 4.0dB
- Internally Voltage Regulated
- DC Voltage Reverse Protected
- DC Power: 12V/120mA
- SMA Connector

Picture



Performance at 3000MHz

Description

LPA-6-30 is a wideband high gain RF Amplifier operates with frequency range from 300KHz to 6500MHz.

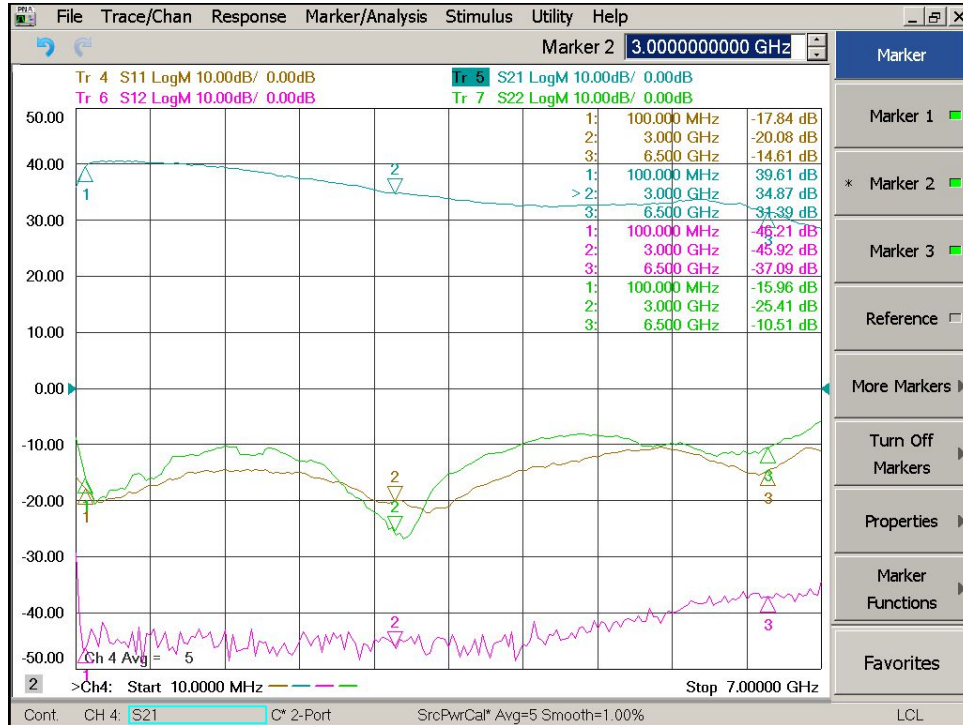
Electrical Specifications @ +25 °C, Z_{in}=Z_{out}=50Ω, DC Supply=+12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	0.3		6500
Gain S ₂₁ f = 300KHz	dB	33.0	35.0	
f = 100MHz	dB	37.0	39.0	
f = 3000MHz	dB	33.0	35.0	
f = 6500MHz	dB	28.0	30.0	
Gain Flatness	dB		±4.5	±5.5
P _{1dB} f = 3000MHz	dBm	+15	+17	
IP3 f = 3000MHz	dBm	+27	+29	
Noise Figure f = 3000MHz	dB		4.0	5.0
Reverse Isolation S ₁₂ f = 3000MHz	dB	-40	-45	
Input VSWR S ₁₁ f = 3000MHz			1.4:1	2.0:1
Output VSWR S ₂₂ f = 3000MHz			1.6:1	2.0:1
DC Power Supply	V	10	12	15
Supply Current	mA		120	135

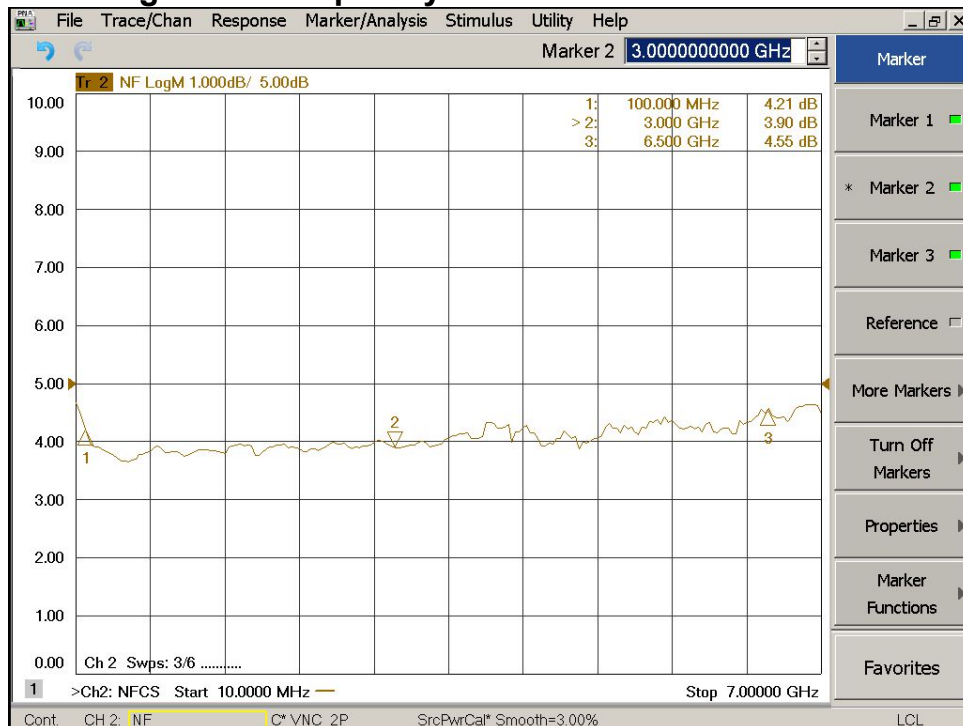
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



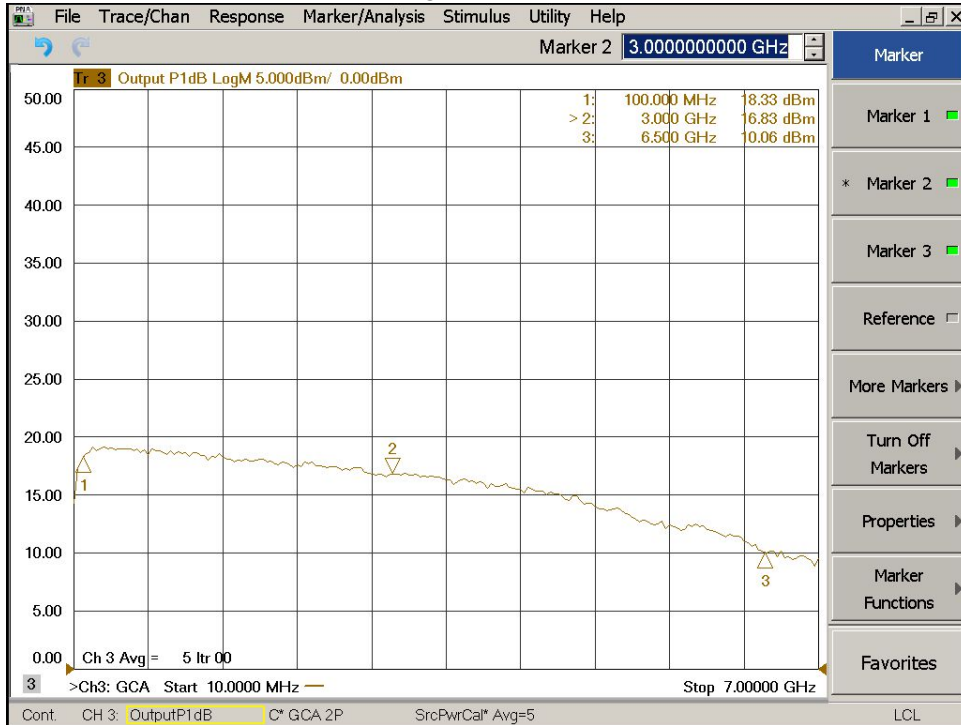
Noise Figure vs Frequency



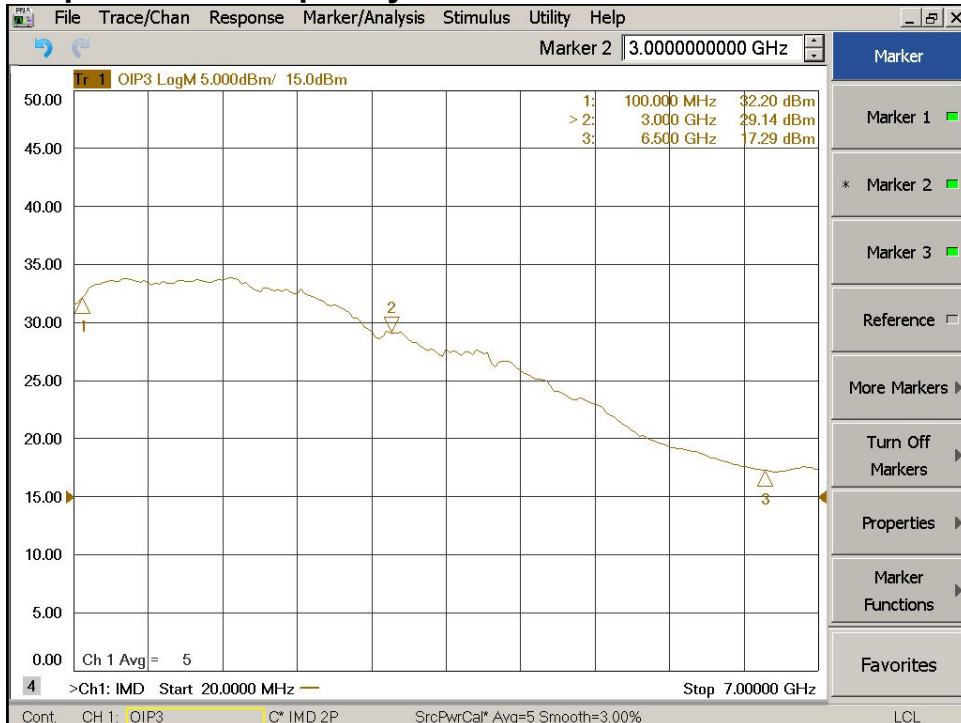
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Output P1dB vs Frequency



Output IP3 vs Frequency



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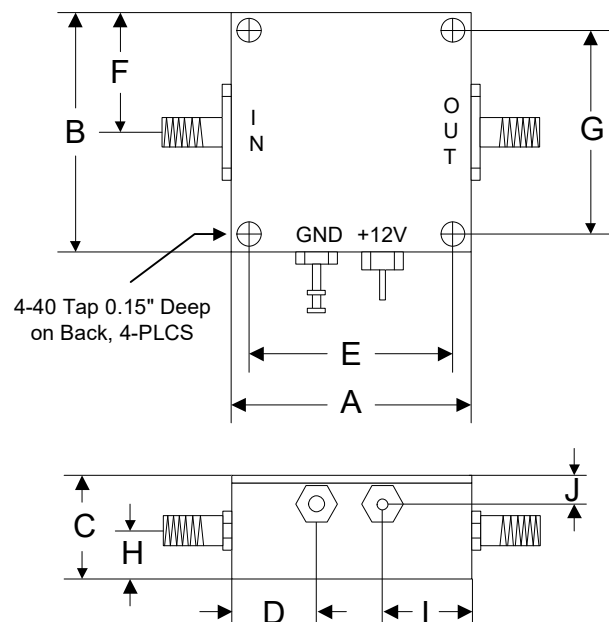
Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+16V
RF Input Power	+17dBm
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