

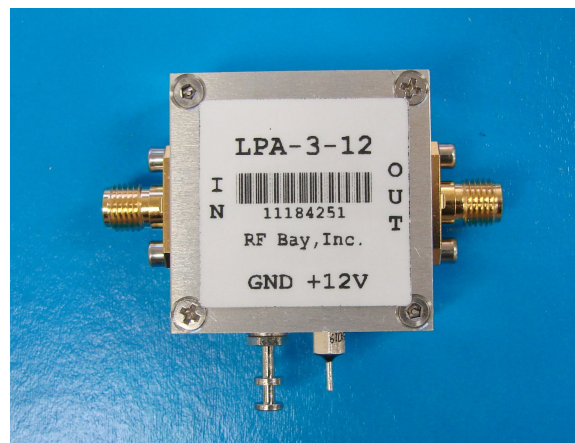
LPA Series

30 – 3000MHz RF Amplifier

Features

- Frequency Range: 30-3000MHz
- Gain: 13dB
- P_{1dB}: +25dBm
- IP3: +38dBm
- Noise Figure: 3.5dB
- DC Power: 12V/160mA
- Internally Voltage Regulated
- Reverse Voltage Protected
- SMA Female Connector

Picture



Performance at 1500MHz

Description

LPA-3-12 is a wideband High IP3 RF Amplifier operates with frequency range from 30 MHz to 3000MHz.

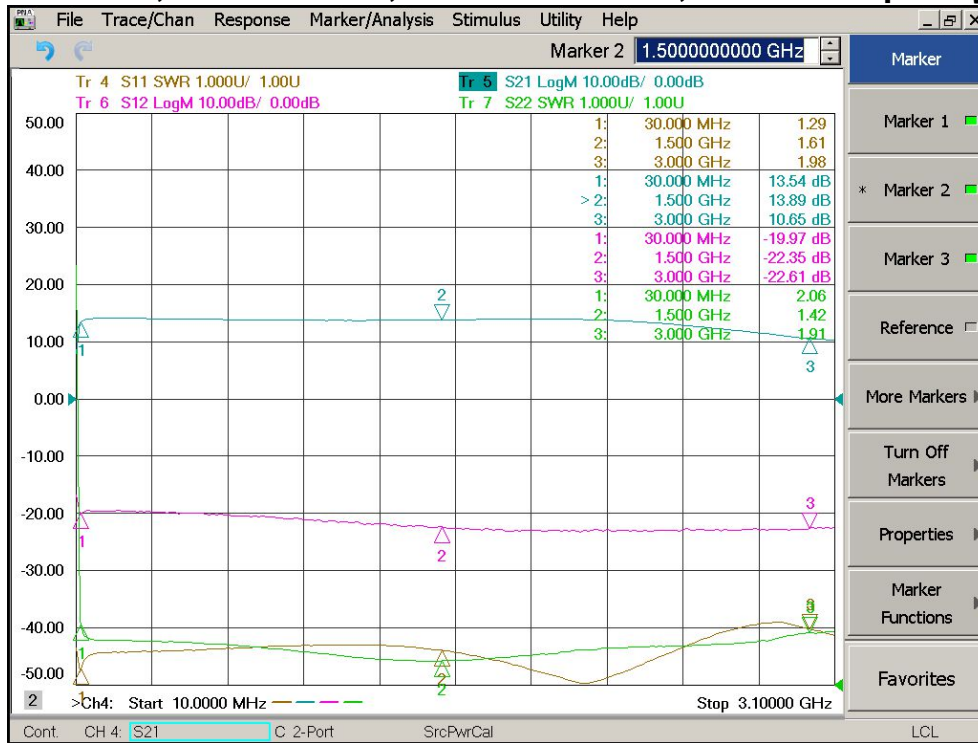
Electrical Specifications @ +25 °C, Z_{in}=Z_{out}=50Ω, DC Supply=+12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	30		3000
Gain S ₂₁ f = 30MHz	dB	12.0	13.5	
f = 1500MHz	dB	12.0	13.5	
f = 3000MHz	dB	9.0	10.5	
Gain Flatness	dB		±1.5	±2.0
P _{1dB} f = 1500MHz	dBm	+23	+25	
IP3 f = 1500MHz	dBm	+36	+38	
Noise Figure f = 1500MHz	dB		3.5	5.0
Reverse Isolation S ₁₂ f = 1500MHz	dB	-18	-22	
Input VSWR S ₁₁ f = 1500MHz			1.6:1	2.0:1
Output VSWR S ₂₂ f = 1500MHz			1.5:1	2.0:1
DC Power Supply	V	11	12	15
Supply Current	mA		160	180

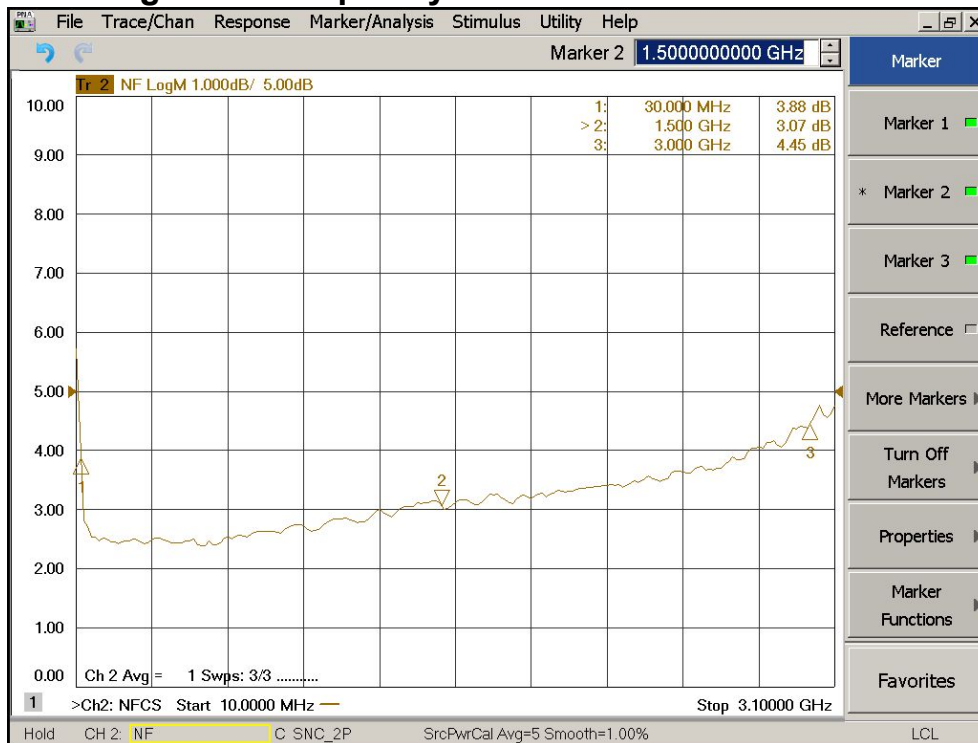
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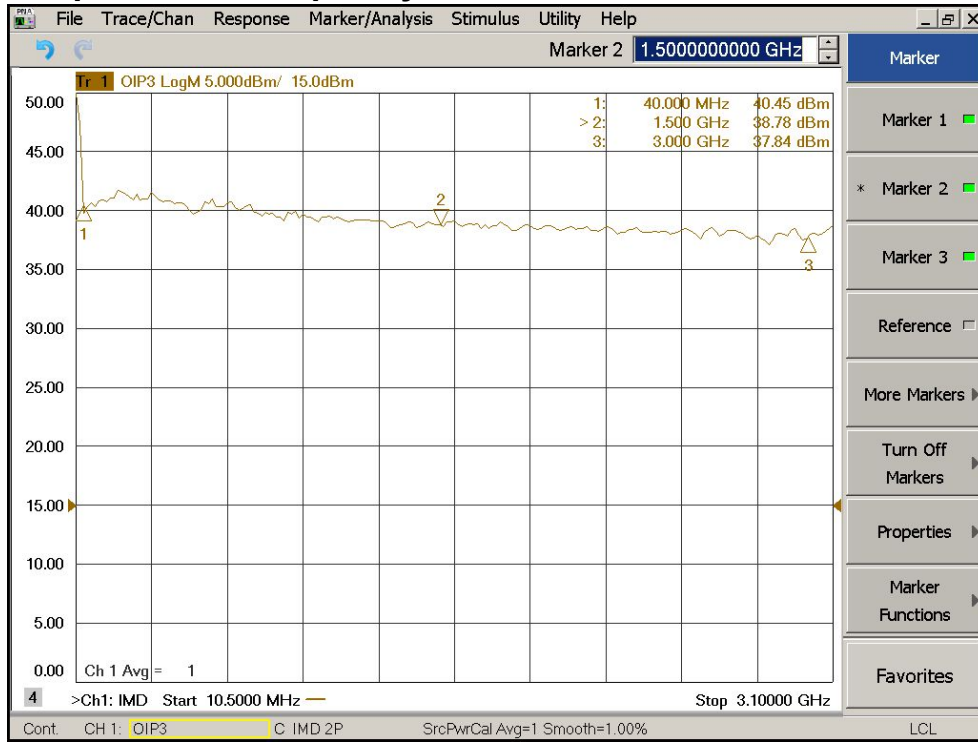
Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



Noise Figure vs Frequency



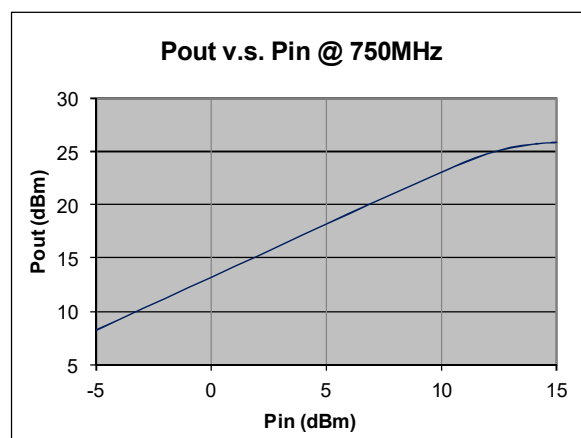
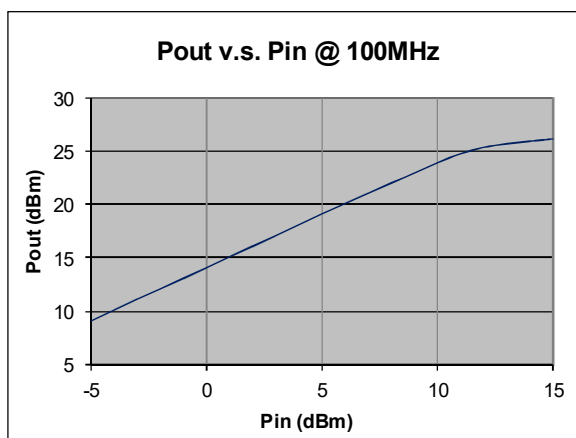
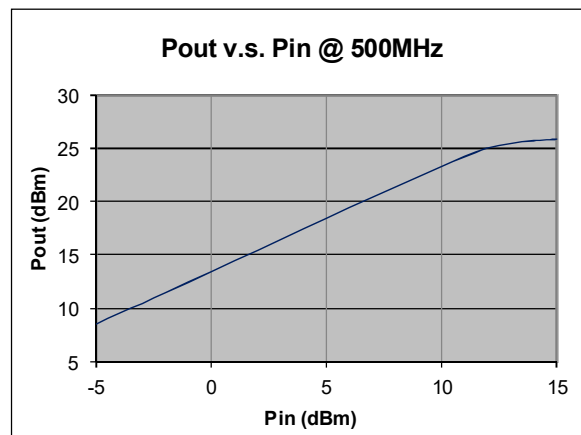
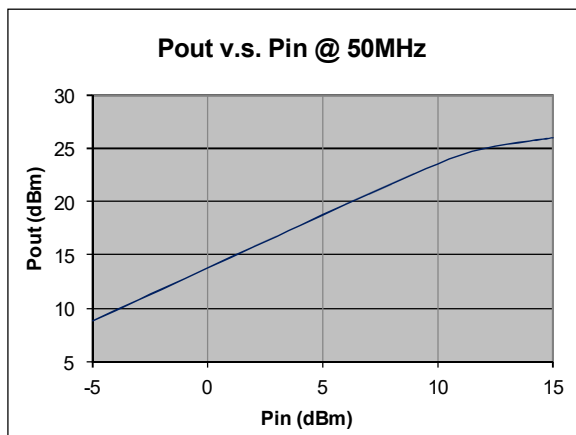
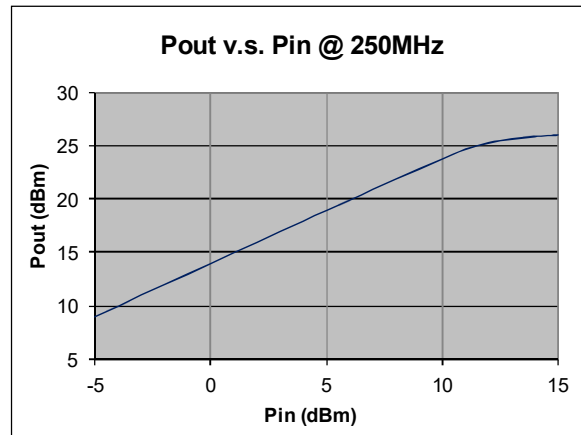
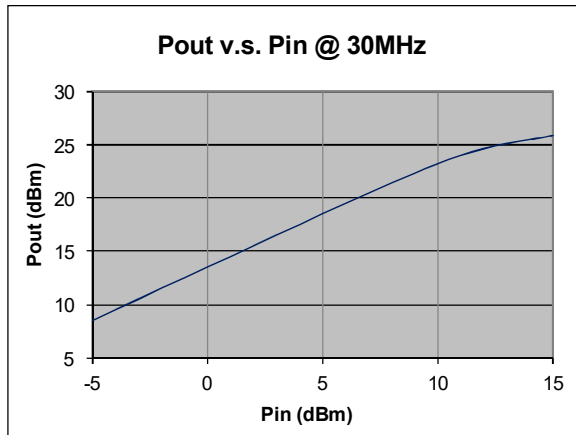
Output IP3 vs Frequency



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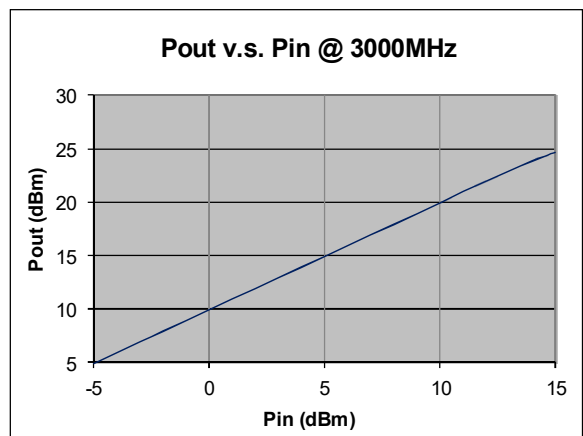
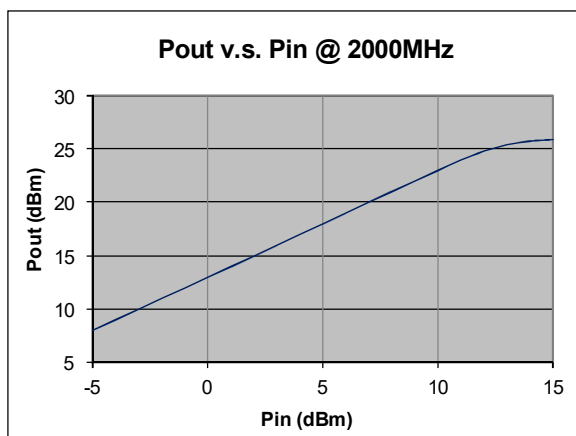
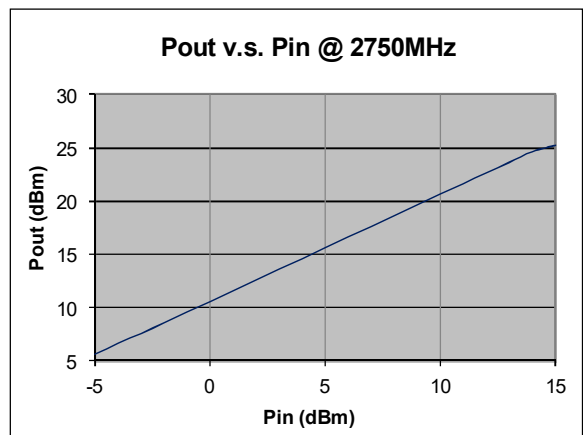
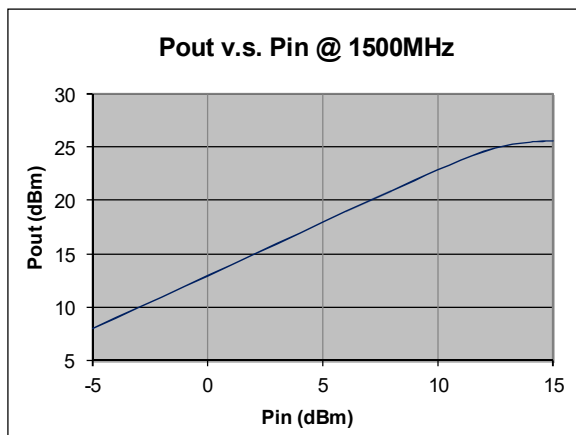
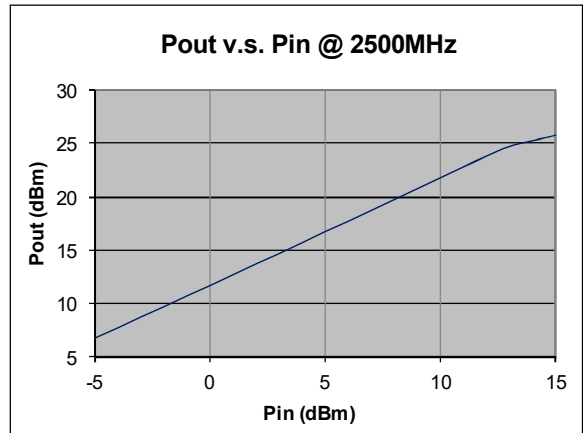
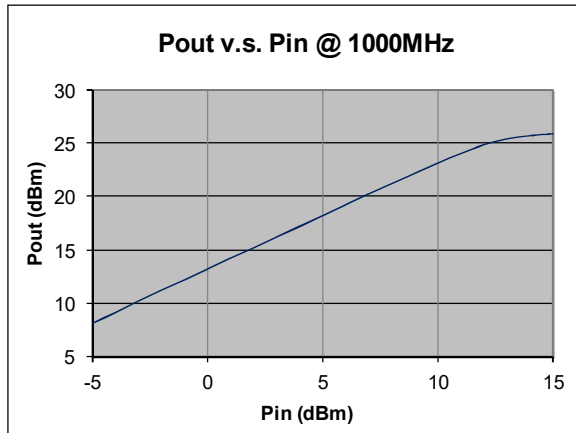
Typical Performance @ +25 °C



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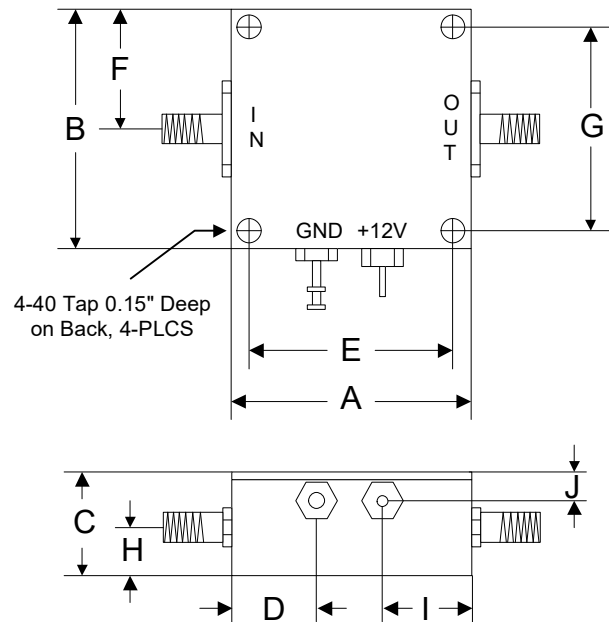
Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+17V
RF Input Power	+20dBm
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

WARNING: MUST USE HEAT SINK IF CASE TEMPERATURE EXCEEDS 50 °C