

## LPA Series

## 1 – 3000MHz RF Amplifier

### Features

- Frequency Range:1-3000MHz
- Gain: 18dB
- P<sub>1dB</sub>: +22dBm
- IP3: +35dBm
- Noise Figure: 4dB
- DC Power: 15V/110mA
- SMA Connector

Performance at 1500MHz

### Description

LPA-3-18 is a 18dB gain wideband flat response RF Amplifier operates with frequency range from 1 to 3000MHz.

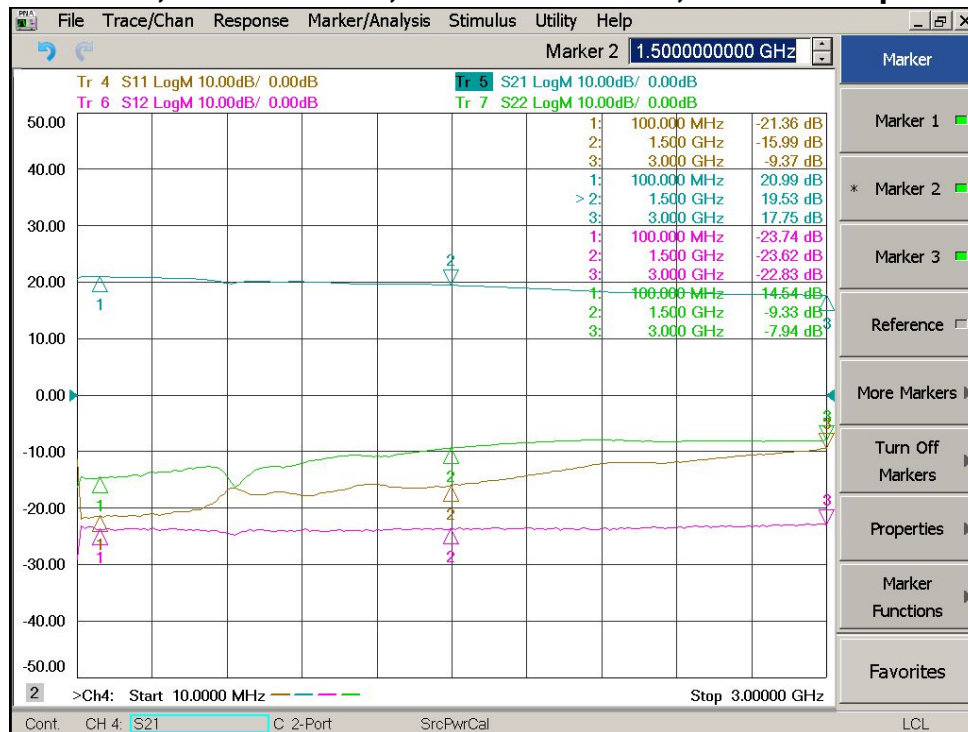
### Picture



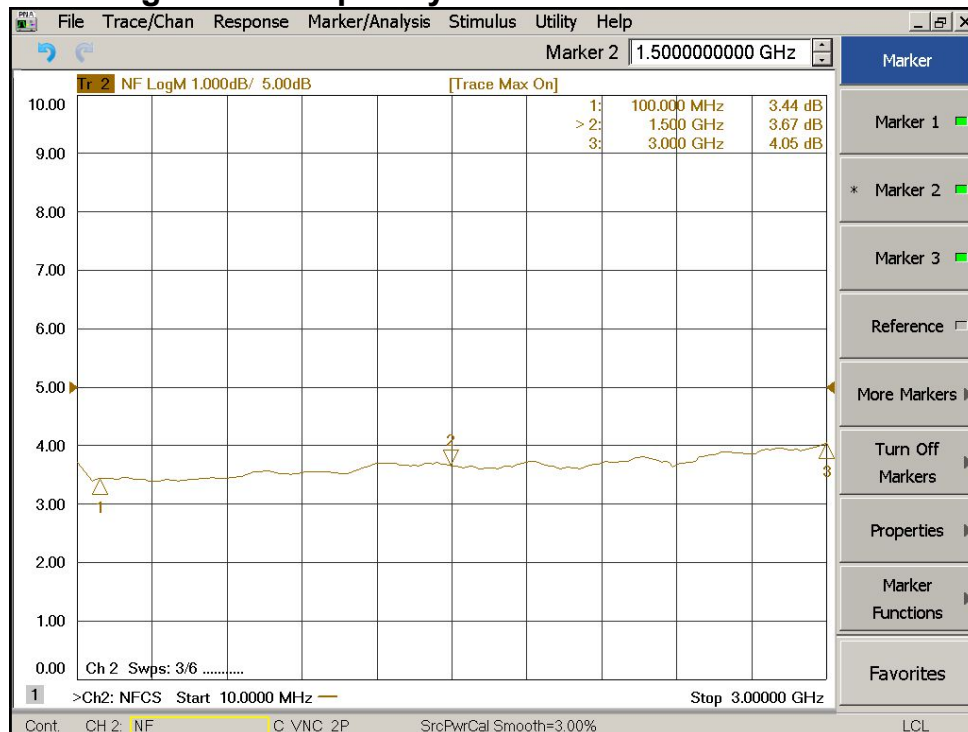
### Electrical Specifications @ +25 °C, Z<sub>in</sub>=Z<sub>out</sub>=50Ω, DC Supply=+15V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	1		3000
Gain S <sub>21</sub> f = 1MHz	dB	17.0	18.5	
f = 10MHz	dB	19.0	20.5	
f = 100MHz	dB	19.5	21.0	
f = 1500MHz	dB	18.0	19.5	
f = 3000MHz	dB	16.0	17.5	
Gain Flatness	dB		±1.5	±2.0
P <sub>1dB</sub> f = 1500MHz	dBm	+20	+22	
IP3 f = 1500MHz	dBm	+33	+35	
Noise Figure f = 1500MHz	dB		4.0	4.5
Reverse Isolation S <sub>12</sub> f = 1500MHz	dB	-20	-23	
Input VSWR S <sub>11</sub> f = 1500MHz			1.5:1	2.0:1
Output VSWR S <sub>22</sub> f = 1500MHz			2.0:1	2.5:1
DC Power Supply	V	14	15	16
Supply Current	mA		110	130

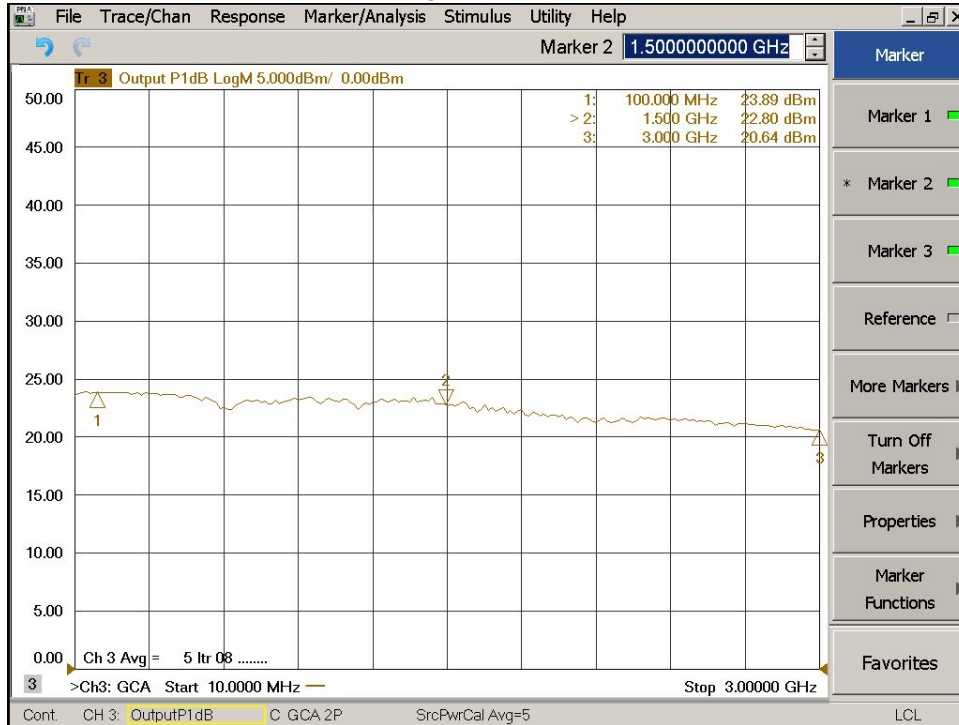
### Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



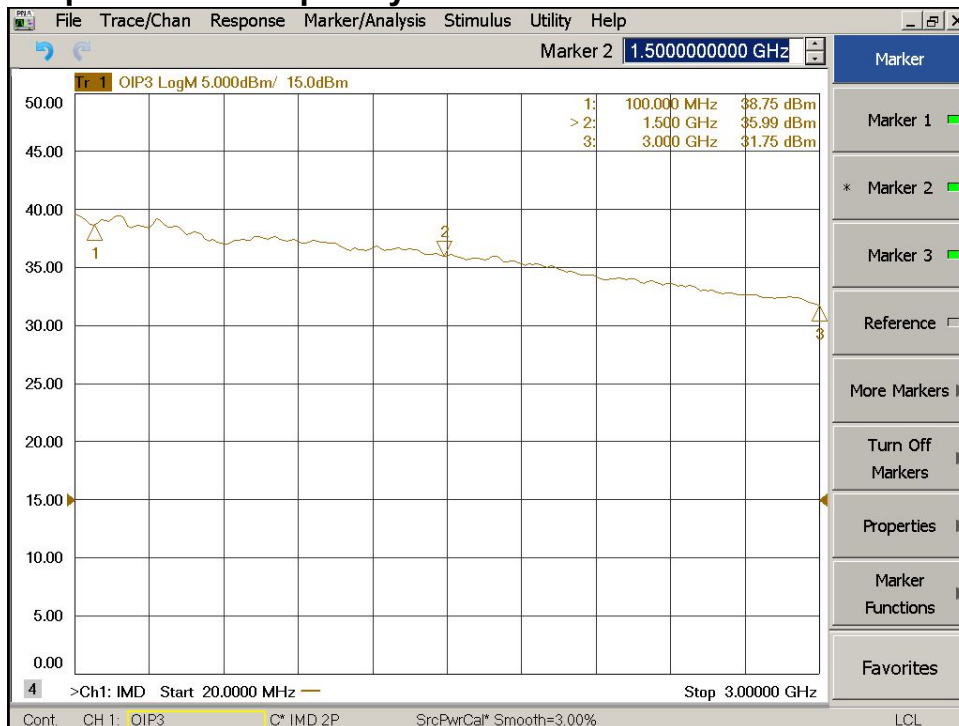
### Noise Figure vs Frequency



**Output P1dB vs Frequency**



**Output IP3 vs Frequency**



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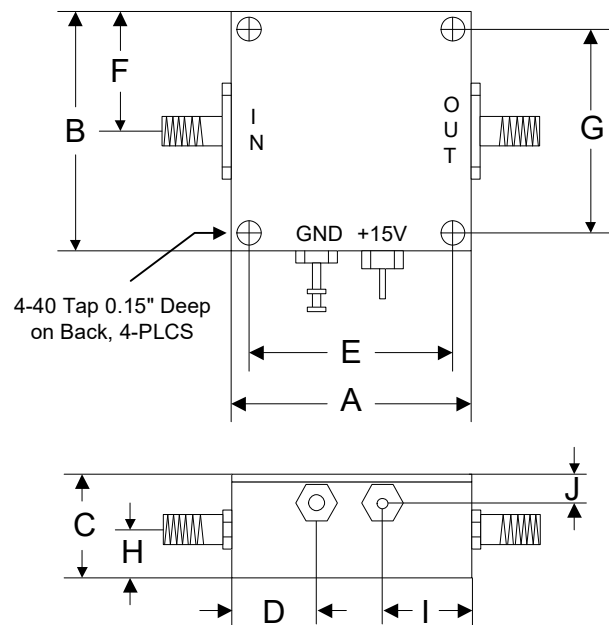
### Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+16V
RF Input Power	+10dBm
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:

**Unit must be connected to input and output before apply DC power, or permanent damage may occur with open source and load.**