

## 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.

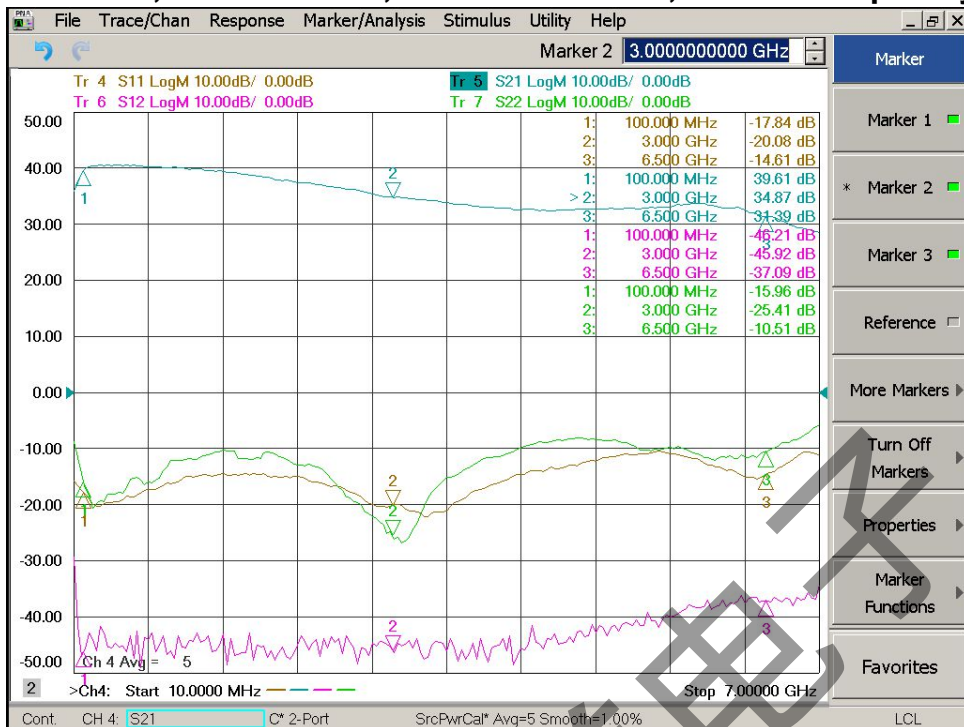
### Electrical Specifications @ +25 °C, $Z_{in}=Z_{out}=50\Omega$ , DC Supply=+12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	0.3		6500
Gain S21	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 S12	f = 3000MHz	dB	-40	-45
Input VSWR S11	f = 3000MHz		1.4:1	2.0:1
Output VSWR S22	f = 3000MHz		1.6:1	2.0:1
DC Power Supply	V	10	12	15
Supply Current	mA		120	135

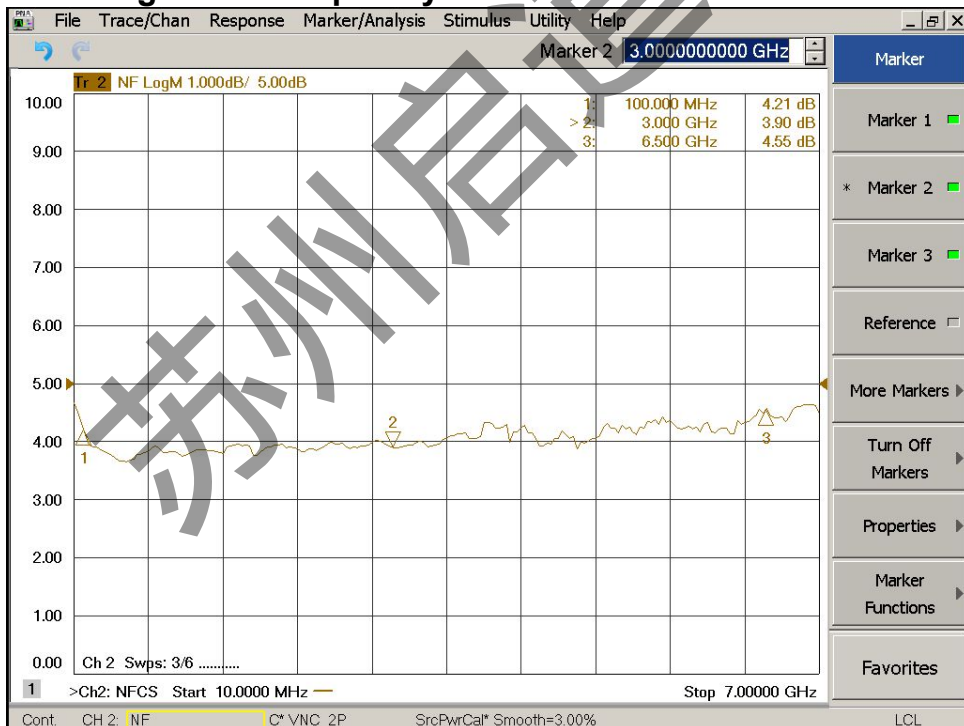
**LPA Series**

**300KHz – 6500MHz RF Amplifier**

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



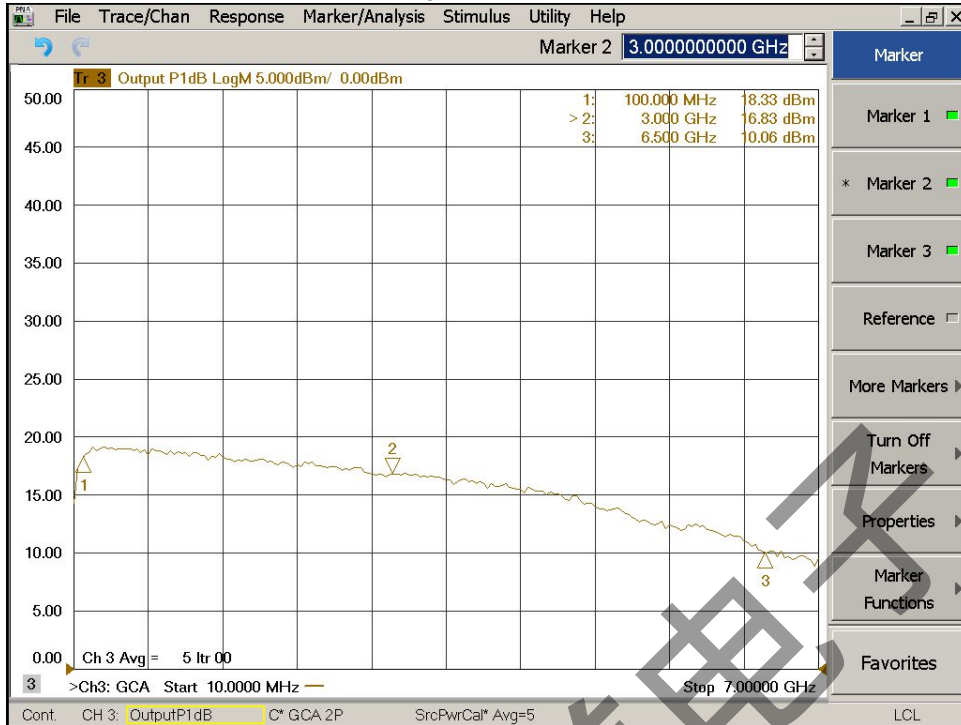
**Noise Figure vs Frequency**



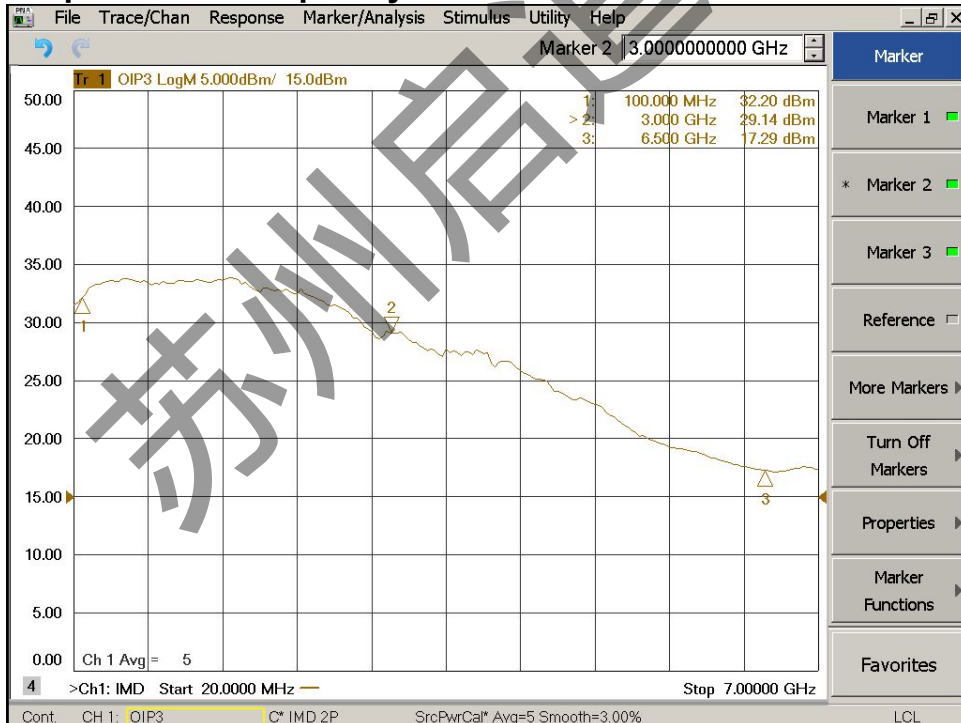
## LPA Series

## 300KHz – 6500MHz RF Amplifier

### Output P1dB vs Frequency



### Output IP3 vs Frequency



## LPA Series

## 300KHz – 6500MHz RF Amplifier

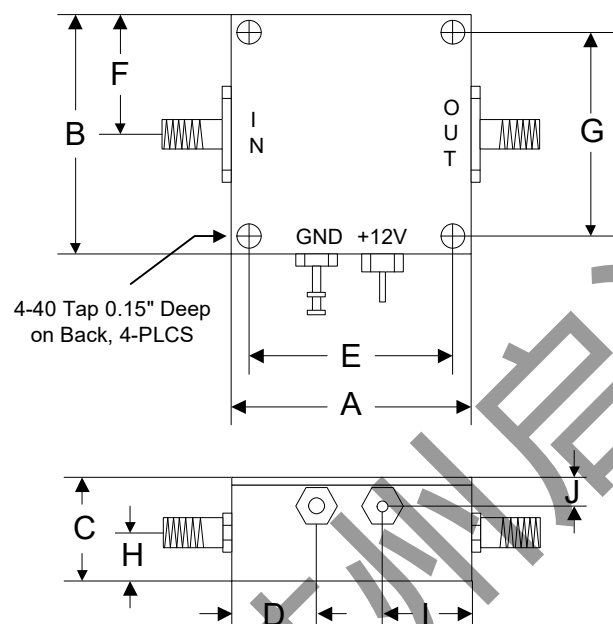
### Absolute Maximum Ratings

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
<b>Inch</b>	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187
<b>mm</b>	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76