

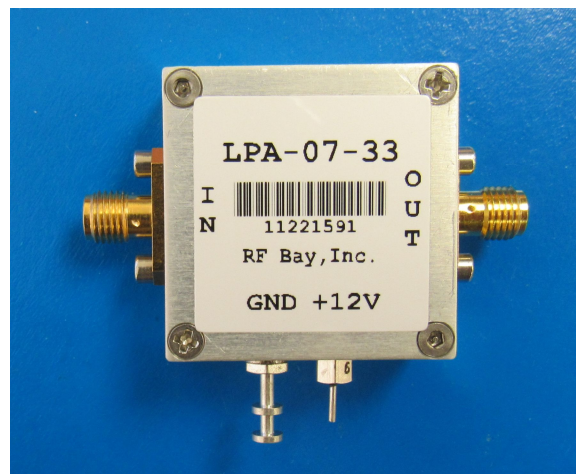
## LPA Series

## 20 – 700MHz RF Amplifier

### Features

- Frequency Range: 20 - 700MHz
- Gain: 33dB
- P<sub>1dB</sub>: +20dBm
- OIP3: +33dBm
- Noise Figure: 2dB
- DC Power: 12V/100mA
- Internal Voltage Regulated
- Reverse DC Protected
- SMA Female Connector

### Picture



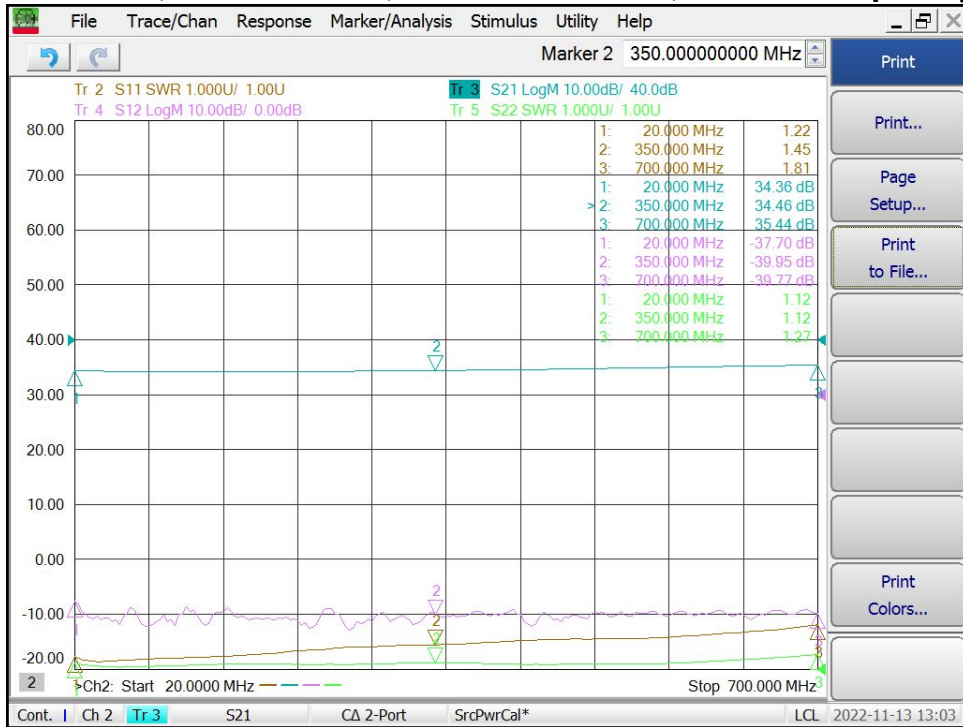
### Description

LPA-07-33 is a single 12V 33dB Gain RF Amplifier operates in frequency range from 20MHz to 700MHz.

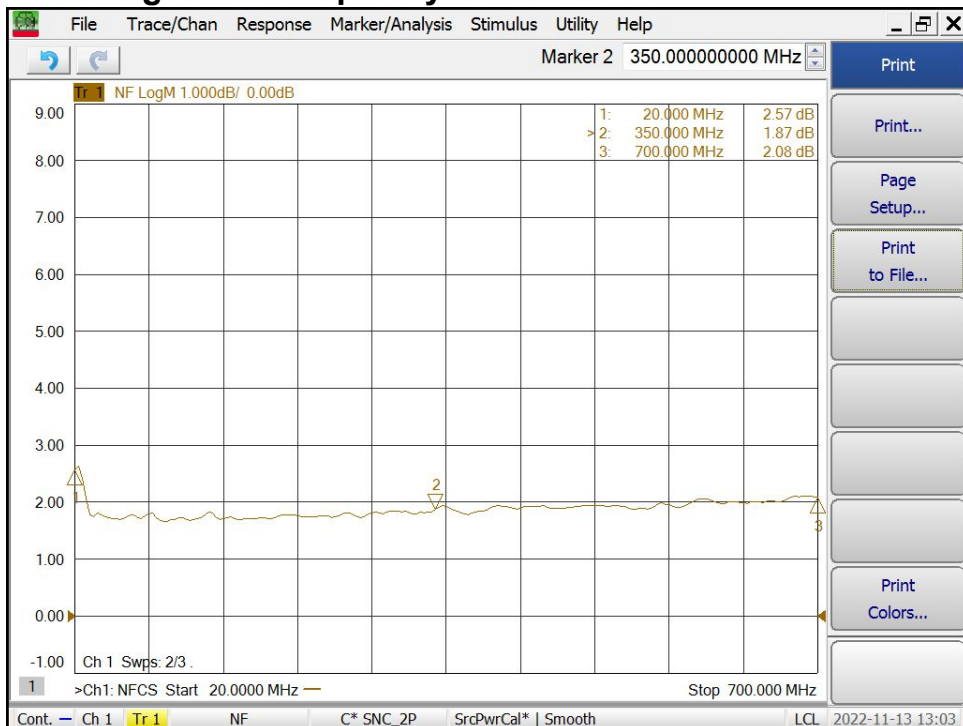
### Electrical Specifications @ +25 °C, Z<sub>in</sub> = Z<sub>out</sub> = 50 Ω, DC Voltage = +12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	20		700
Gain S <sub>21</sub> f = 20MHz	dB	33.0	34.0	
f = 350MHz	dB	33.0	34.0	
f = 700MHz	dB	33.0	35.0	
Gain Flatness	dB		±0.5	±1.0
P <sub>1dB</sub> f = 350MHz	dBm	+18	+20	
OIP3 f = 350MHz	dBm	+31	+33	
Noise Figure f = 350MHz	dB		2.0	3.0
Reverse Isolation S <sub>12</sub> f = 350MHz	dB	-30	-39	
Input VSWR S <sub>11</sub> f = 350MHz			1.5:1	1.8:1
Output VSWR S <sub>22</sub> f = 350MHz			1.2:1	1.6:1
DC Power Supply	V	11	12	18
Supply Current	mA		100	120

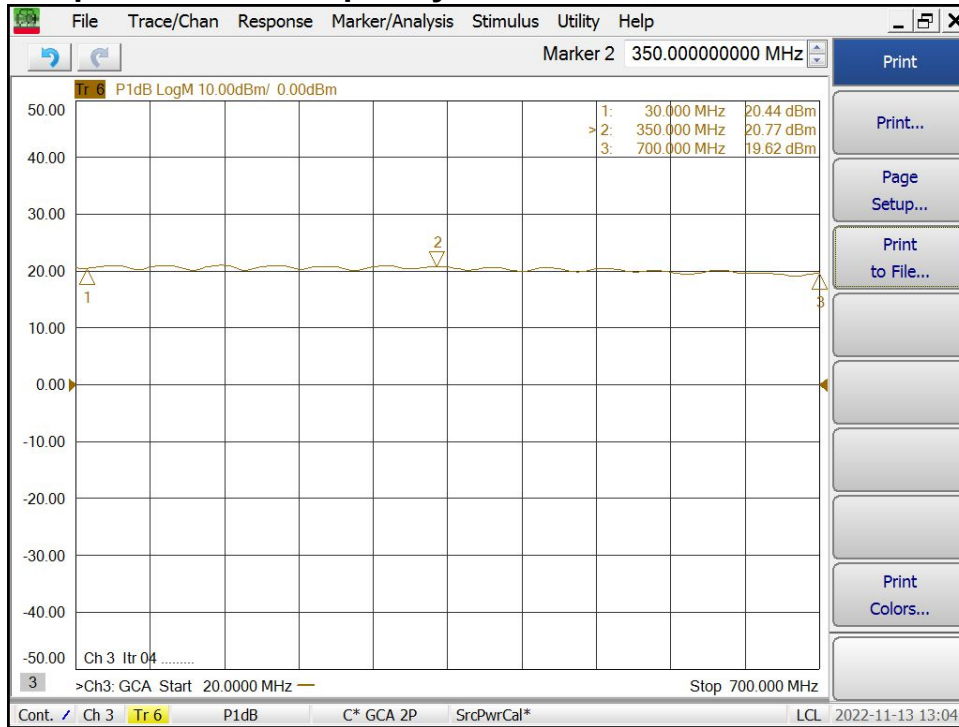
### Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



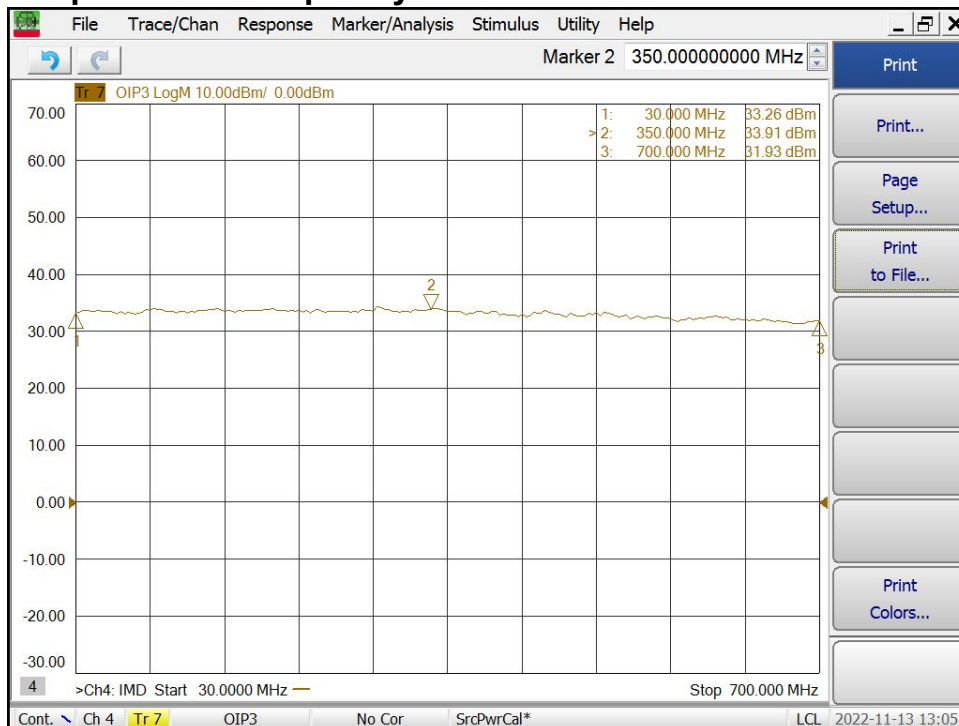
### Noise Figure vs Frequency



**Output P1dB vs Frequency**



**Output IP3 vs Frequency**



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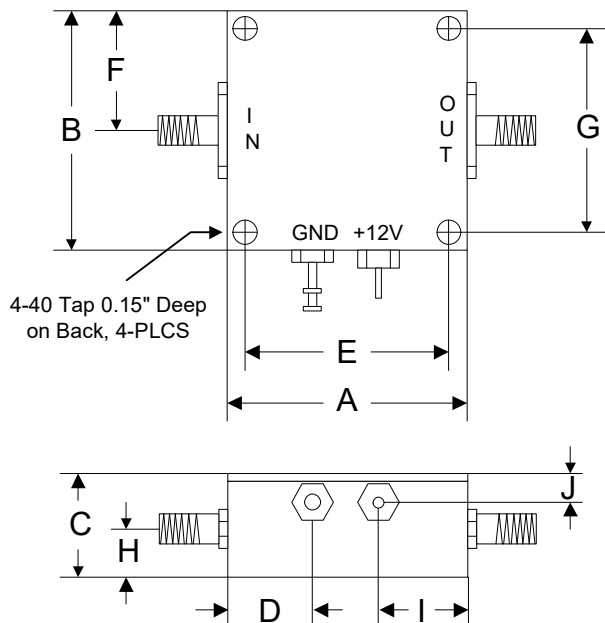
**Absolute Maximum Ratings**

Parameter	Absolute Maximum
RF Input Power	+15dBm
DC Supply Voltage	+25V
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