

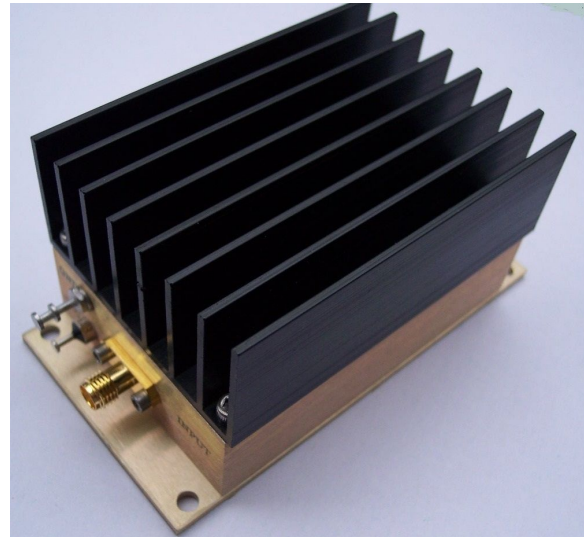
**MPA Series**

**1500-1700MHz 1W RF Power Amplifier**

**Features**

- Frequency Range: 1500-1700MHz
- Gain: 33dB
- P<sub>out</sub>: +30dBm (1Watt)
- IP3: +40dBm
- Noise Figure: 1.5dB
- DC Power: +12V
- DC Reverse Protected
- Internal Voltage Regulated
- SMA Connector

**Picture**



**Description**

MPA-16-33 is a 1Watt (+30dBm) output RF Power Amplifier operating from single 12V DC power supply with frequency from 1500MHz to 1700MHz.

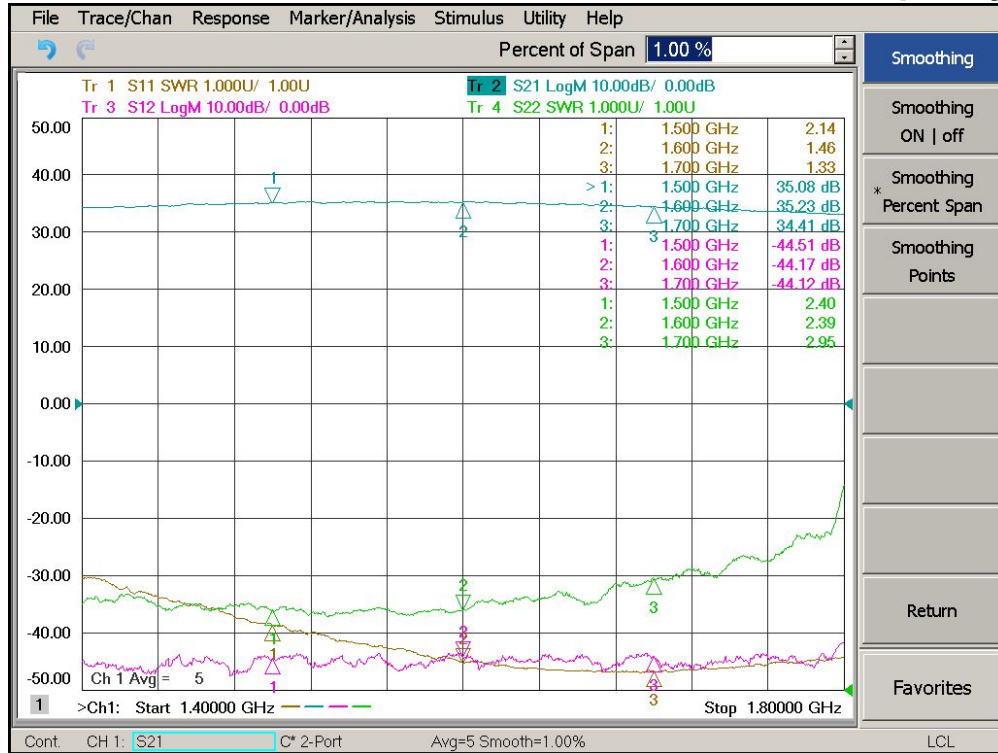
**Electrical Specifications @ +25°C, Z<sub>IN</sub> = Z<sub>OUT</sub> = 50Ω, DC Supply = +12V**

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	1500		1700
Small Signal Gain S <sub>21</sub> f = 1600MHz	dB	32	33	
Gain Flatness	dB		± 0.5	± 1.0
Output Power P <sub>3dB</sub> f = 1600MHz	dBm	+29	+30	
Output IP3 f = 1600MHz	dBm	+38	+40	
Reverse Isolation S <sub>12</sub>	dB	-40	-43	
Noise Figure	dB		1.5	2.0
VSWR Input VSWR S <sub>11</sub>			1.5:1	2.5:1
Output VSWR S <sub>22</sub>			2.5:1	3.5:1
DC Power Supply	V	9	12	15
Quiescent Current with No Input	mA		600	700
Current @ P <sub>out</sub> = +30dBm	mA		800	950
Size (Excluding SMA Connector)	inch	3.750" x 2.000" x 1.813"		
Weight	Oz.	8		

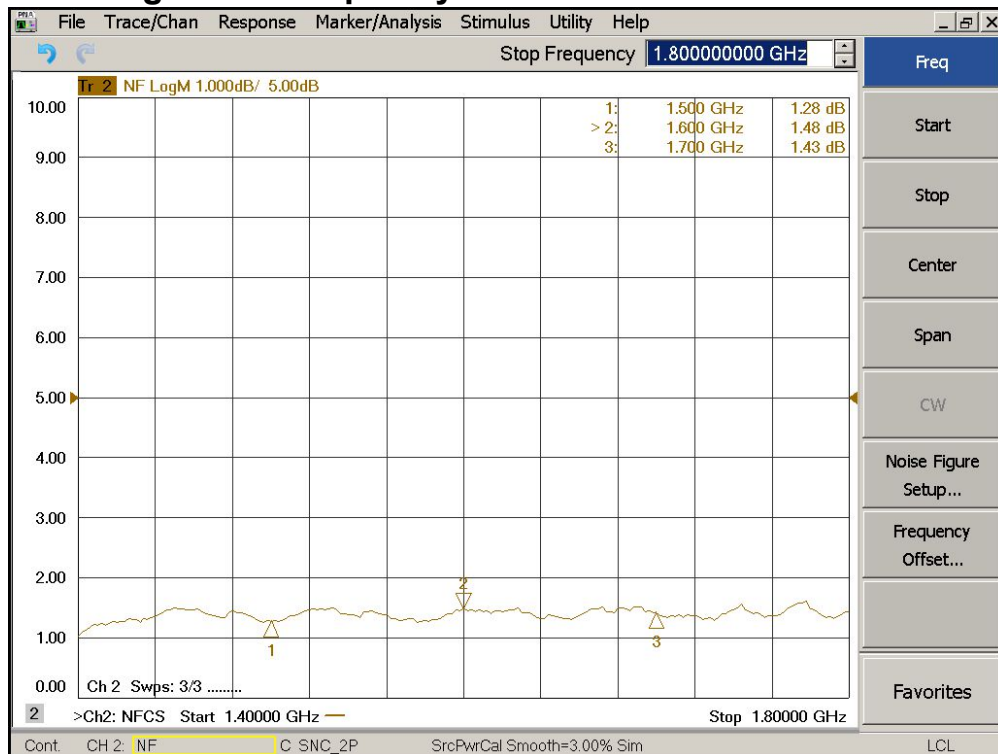
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**Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency**



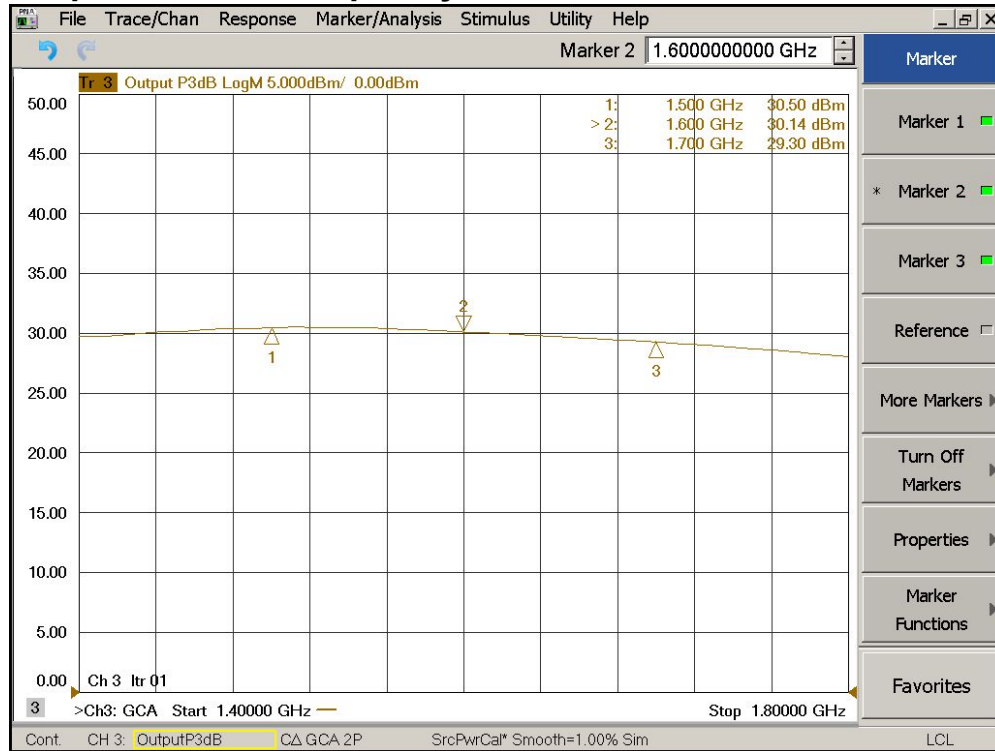
**Noise Figure vs Frequency**



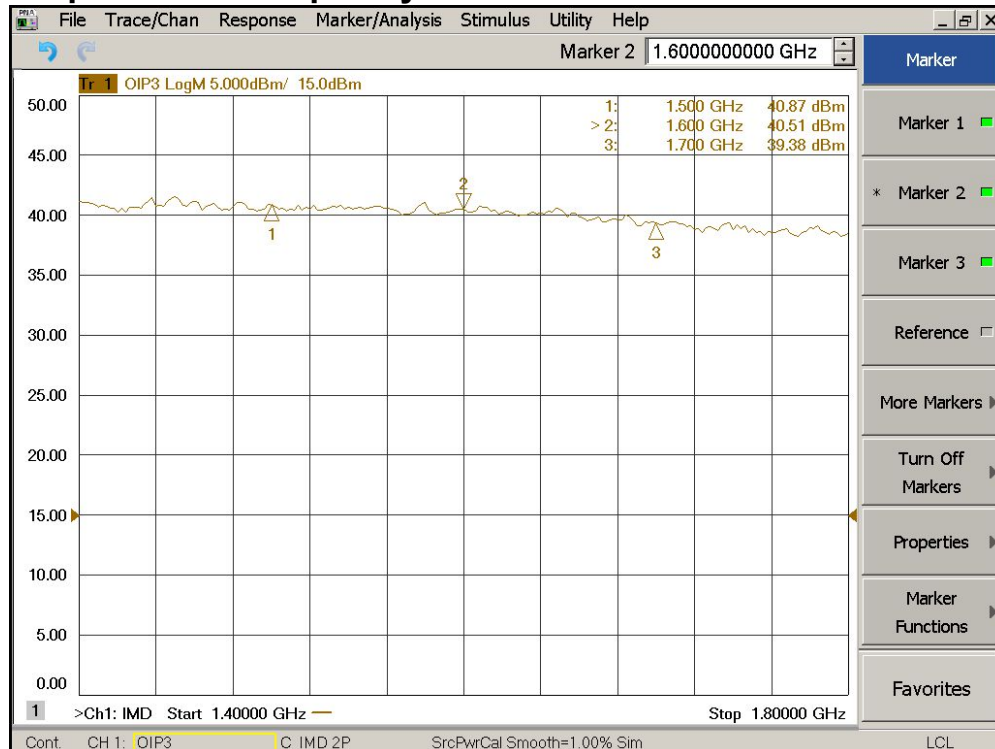
## MPA Series

## 1500-1700MHz 1W RF Power Amplifier

### Output P3dB vs Frequency



### Output IP3 vs Frequency



**MPA Series**

**1500-1700MHz 1W RF Power Amplifier**

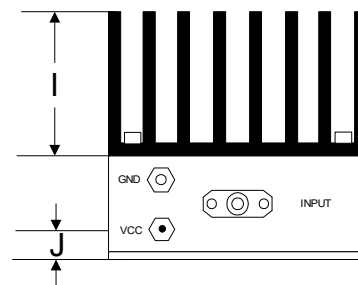
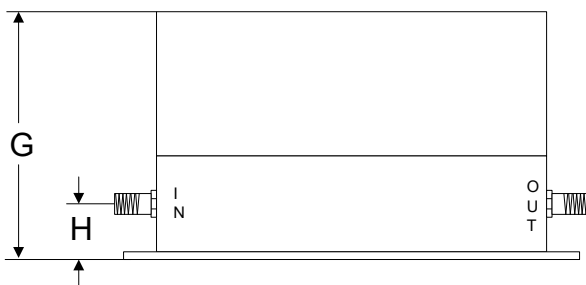
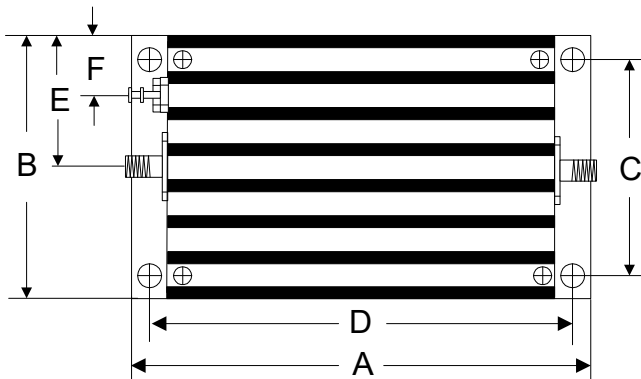
**Absolute Maximum Ratings**

Parameter	Absolute Maximum
RF Input Power	+23dBm
DC Supply Voltage	+18V
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>	3.750	2.000	1.750	3.400	1.000	0.400	1.813	0.375	1.000	0.238
<b>mm</b>	92.25	50.80	44.45	86.36	25.40	10.16	46.05	9.53	25.40	6.03