

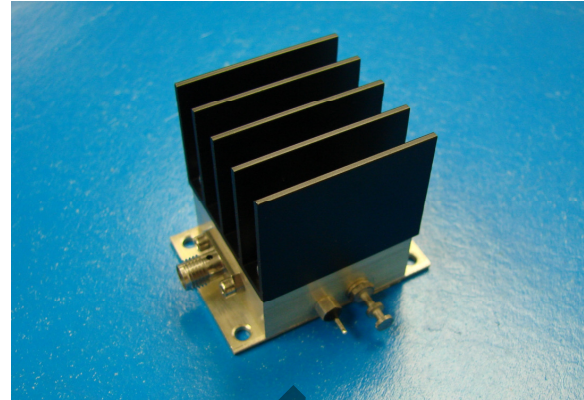
## MGA Series

## 1 – 22GHz RF Amplifier

### Features

- Frequency Range: 1–22GHz
- Gain: 13dB
- P<sub>1dB</sub>: +22dBm
- IP3: +32dBm
- Noise Figure: 3.6dB
- DC Power: 12V to 15V/225mA
- Internally Voltage Regulated
- RF Connector: SMA-Female

### Picture



### Description

MGA-22-13 is a high performance Microwave Amplifier operates with frequency range from 1GHz to 22GHz.

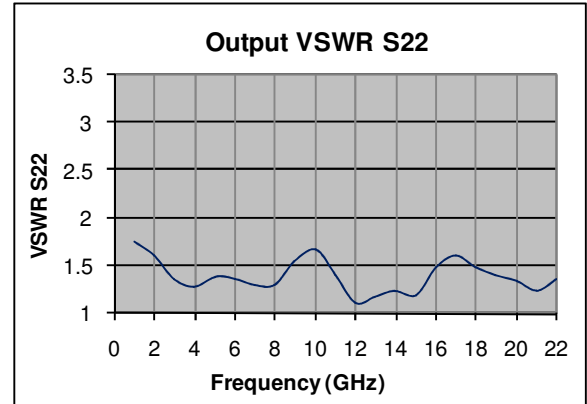
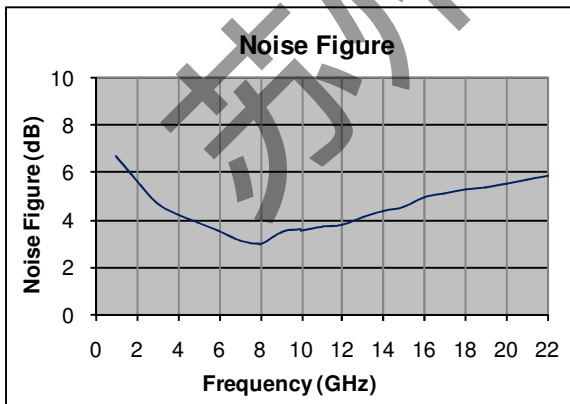
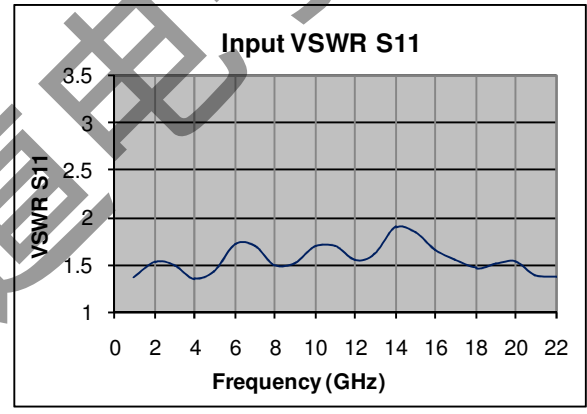
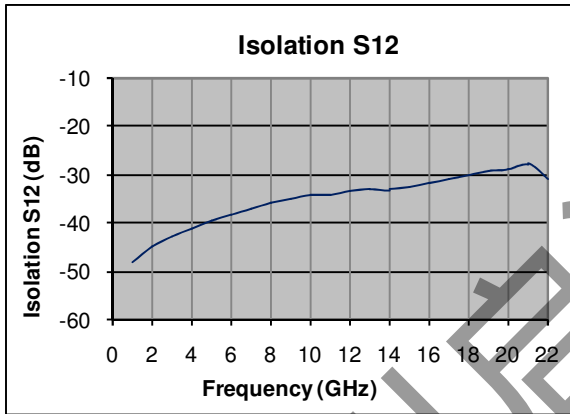
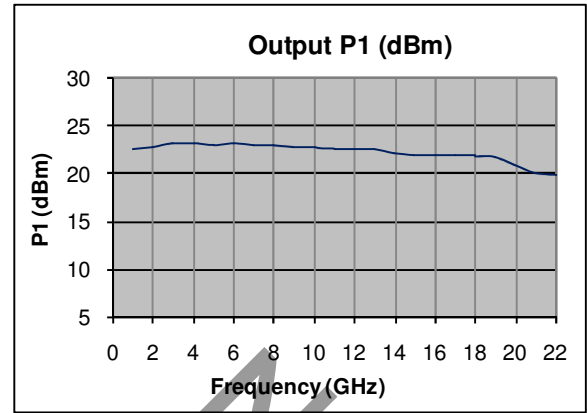
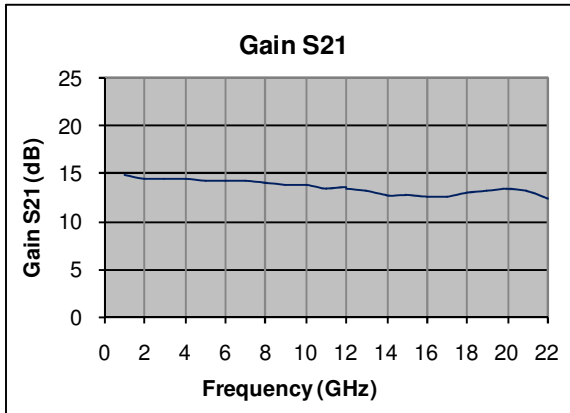
### Electrical Specifications @ +25 °C, Z<sub>in</sub>=Z<sub>out</sub>=50 Ω, V<sub>supply</sub> = +12VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	1		22
Small Signal Gain	f = 1GHz f = 5GHz f = 10GHz f = 15GHz f = 22GHz		14.8 14.2 13.7 12.7 12.4	
Gain Flatness	dB		± 1.2	
P <sub>1dB</sub> at 10GHz	dBm		+22	
OIP3 at 10GHz	dBm		+32	
Noise Figure at 10GHz	dB		3.6	
Reverse Isolation at 10GHz	dB		-34	
VSWR-Input (S11)	ratio:1	1.4 @ 1GHz	1.7 @10GHz	1.4 @ 22GHz
VSWR-Output (S22)	(unitless)	1.8 @ 1GHz	1.7 @10GHz	1.4 @ 22GHz
DC Power Supply	V		12	15
Supply Current	mA		225	285

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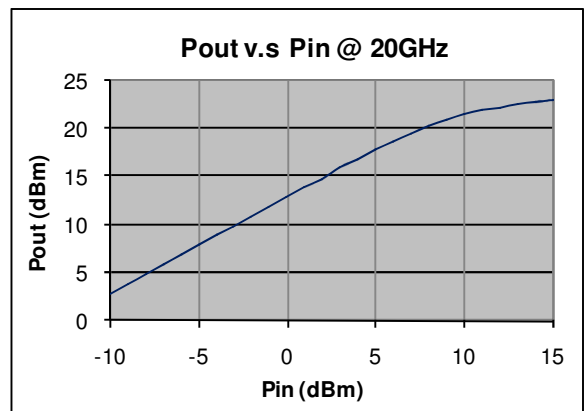
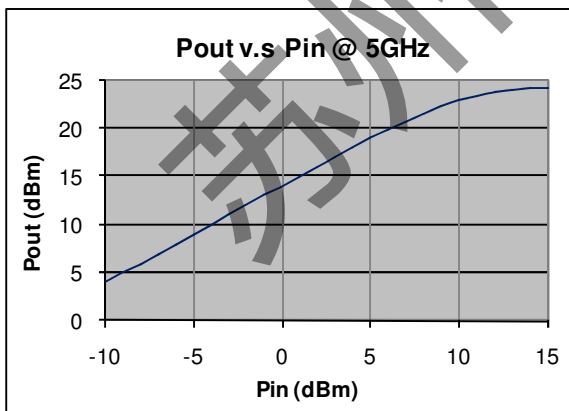
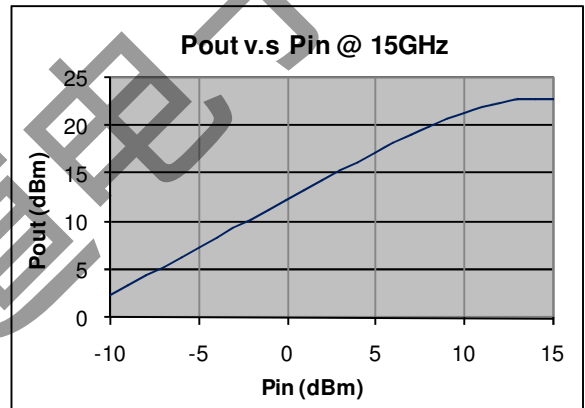
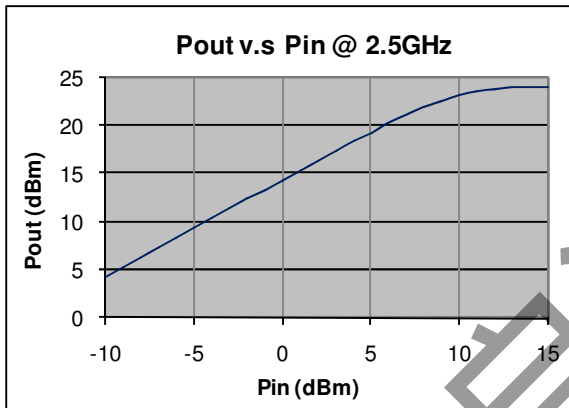
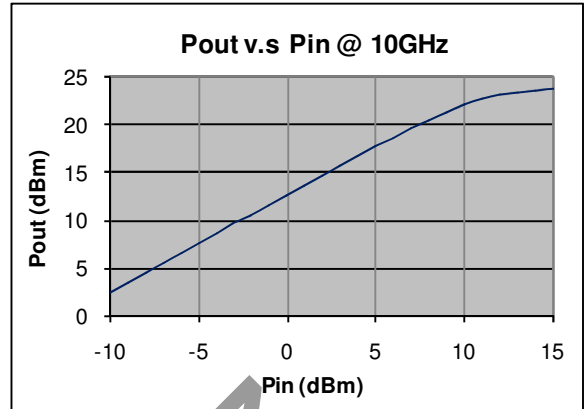
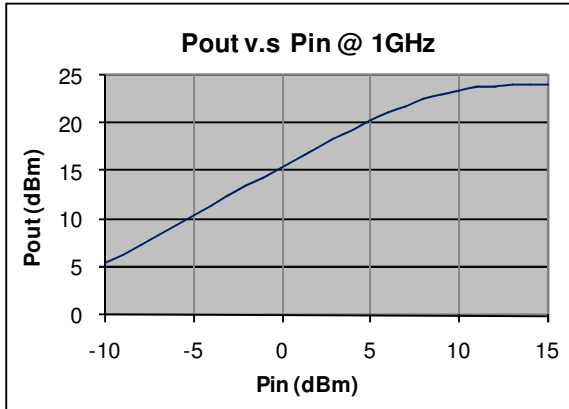
### Typical Performance @ +25 °C



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### Typical Performance @ +25 °C



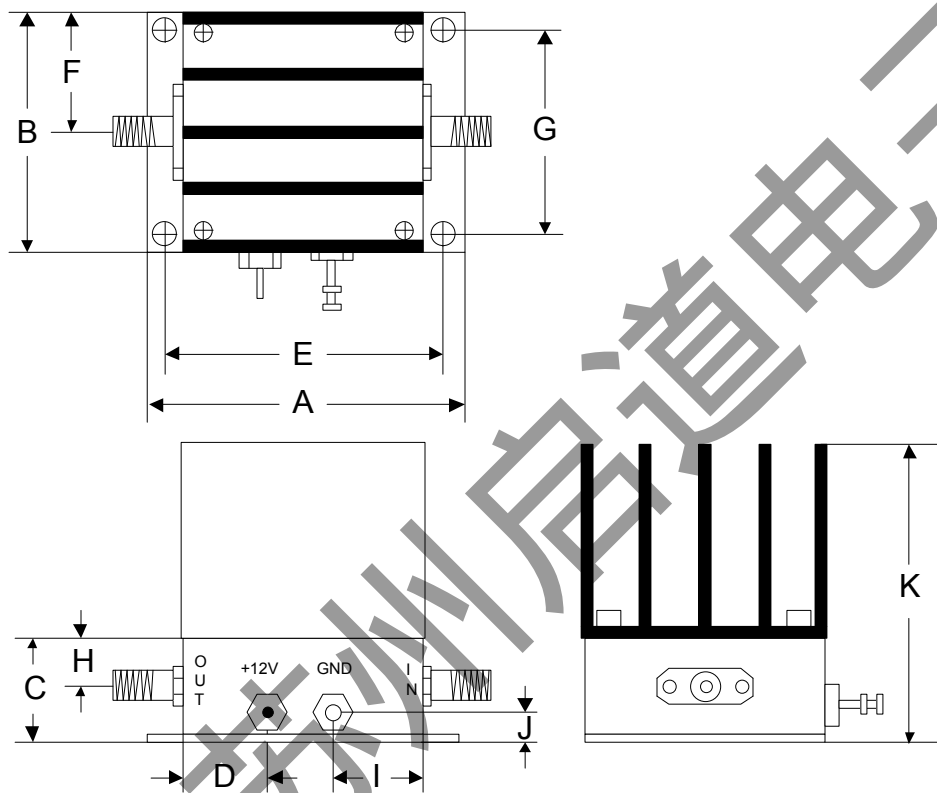
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### Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+20dBm
Supply Voltage	+25V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +100 °C

### Outline



	A	B	C	D	E	F	G	H	I	J	K
<b>Inch</b>	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187	1.563
<b>mm</b>	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76	39.70