

## MGA Series

## 1.75GHz –1.95GHz 1W RF Amplifier

### Features

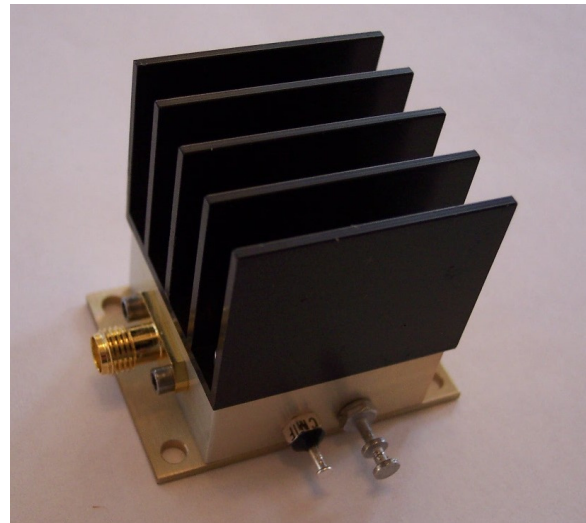
- Frequency Range:1.75–1.95GHz
- Gain: 12dB
- P<sub>1dB</sub>: +30dBm
- IP3: +47dBm
- Noise Figure: 5.5dB
- Input/Output VSWR: 1.7:1/1.6:1
- DC Power: 5V
- SMA Connector

Performance Tested @ 1.85GHz

### Description

MGA-1850 is +30dBm (1W) output RF Amplifier operates with frequency range from 1.75GHz to 1.95GHz.

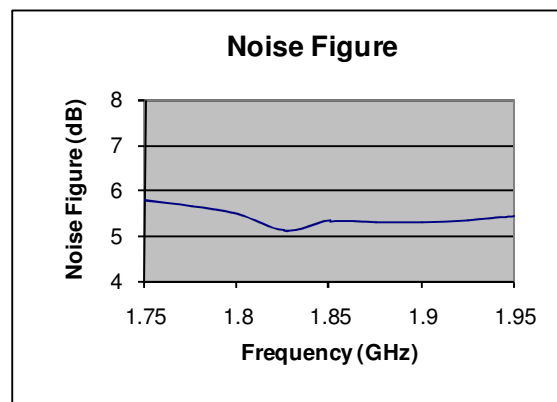
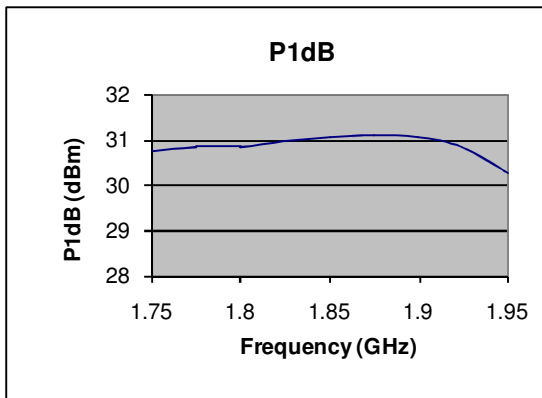
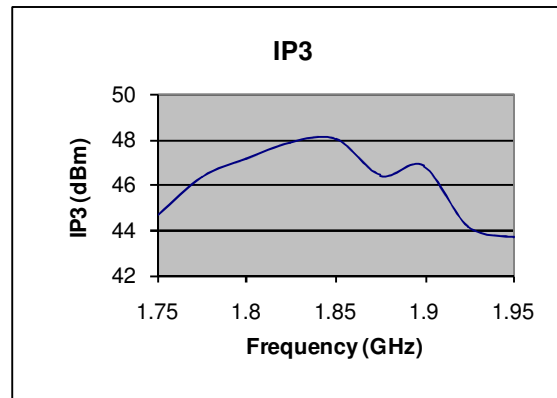
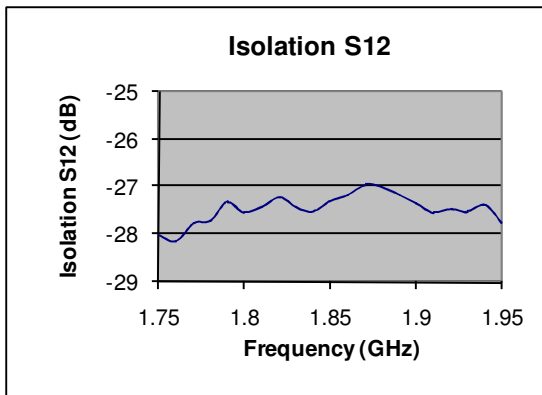
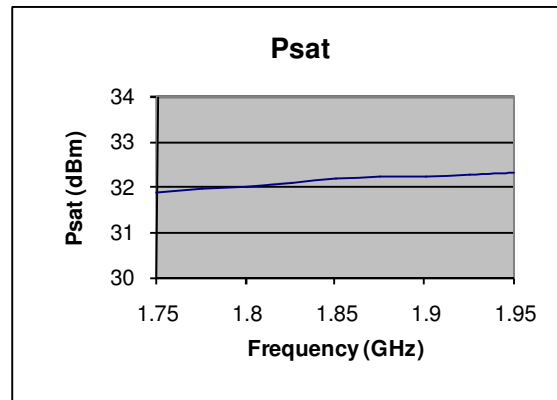
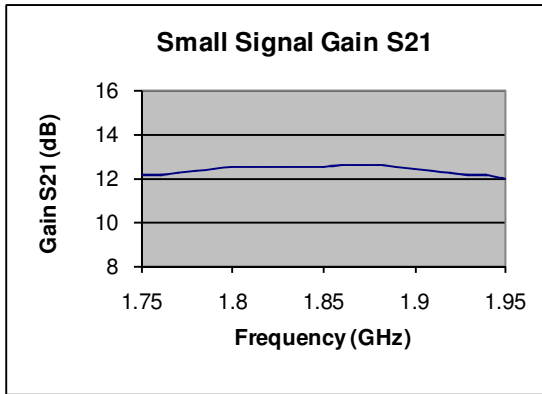
### Picture



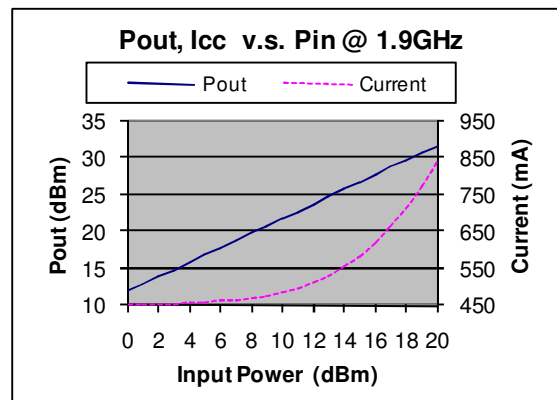
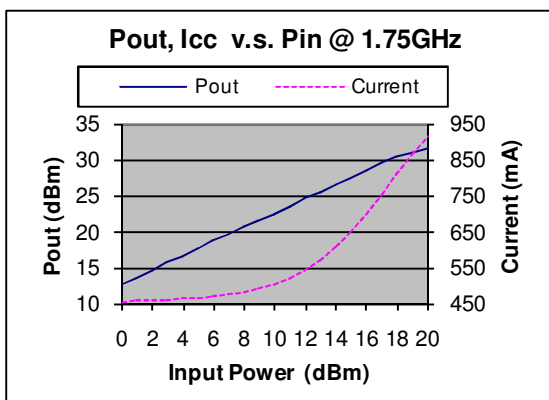
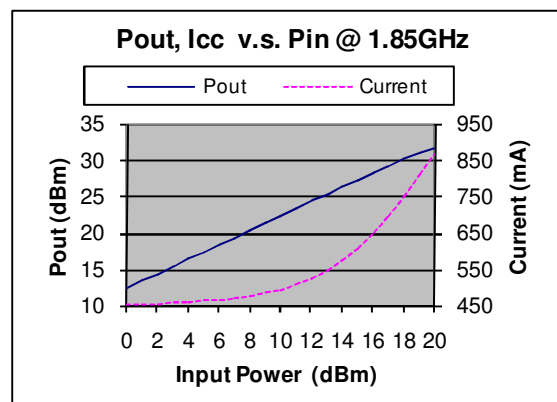
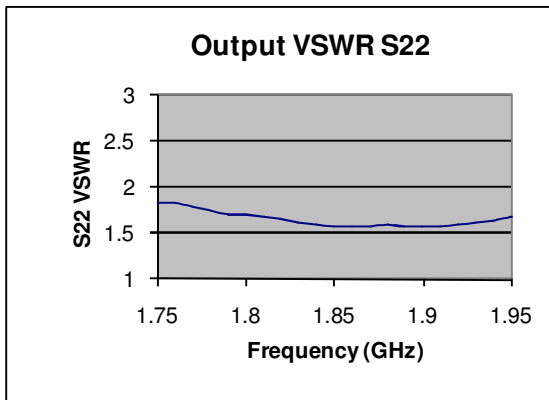
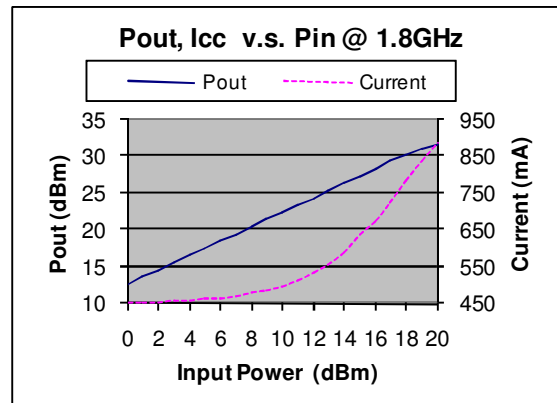
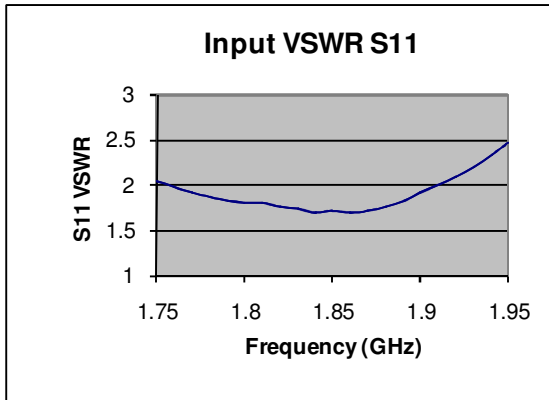
### Electrical Specifications @ +25 °C, Z<sub>S</sub> = Z<sub>L</sub> = 50 Ω, V<sub>CC</sub>=+5V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	1.75		1.95
Small Signal Gain	f = 1.75GHz		12.0	
	f = 1.85GHz		12.5	
	f = 1.95GHz		12.0	
Gain Flatness	dB		± 0.5	
P <sub>1dB</sub>	dBm		+30	
OIP3	dBm		+47	
Noise Figure at 1.85GHz	dB		5.5	
Reverse Isolation	dB		-27	
VSWR f = 1.85GHz	Input		1.7:1	
	Output		1.6:1	
DC Power Supply	V	4.5	5.0	5.5
Supply Current	Quiescent (no RF)		450	
	@ P <sub>out</sub> = +30dBm		750	

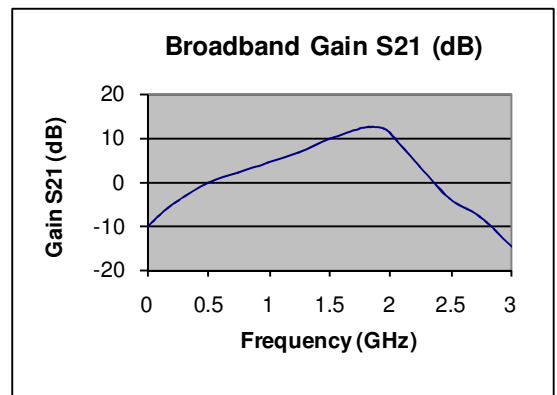
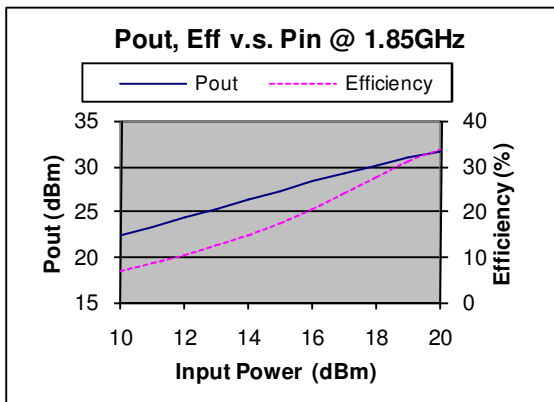
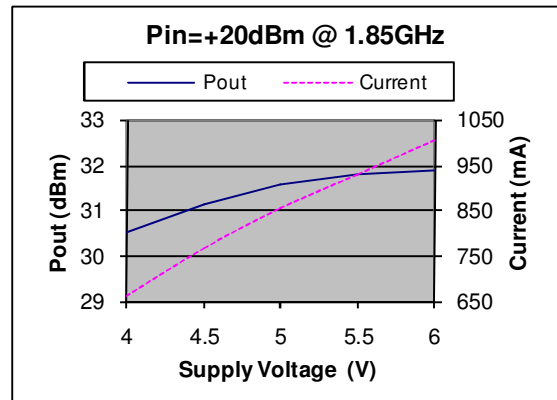
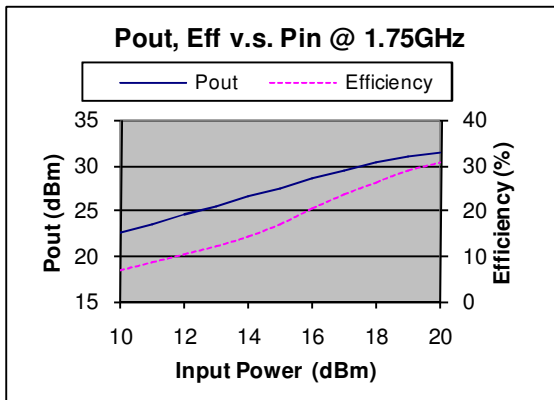
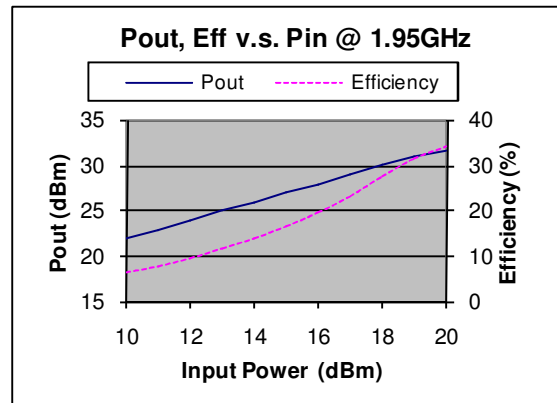
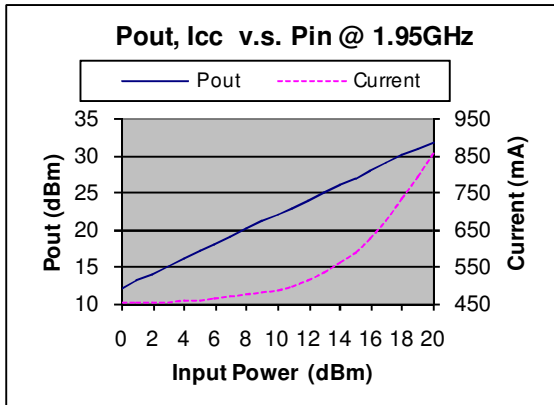
### Typical Performance @ +25 °C



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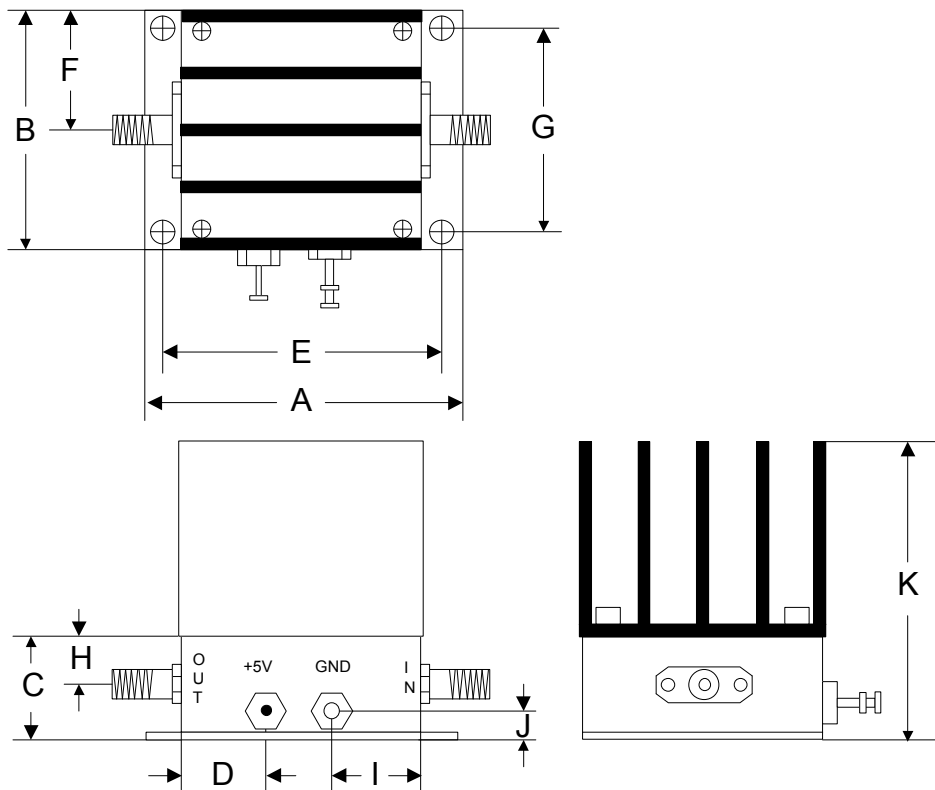
### Typical Performance @ +25 °C



### Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+25dBm
Supply Voltage	+6V
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