

## MGA Series

## 5.15GHz –5.35GHz 0.5W RF Amplifier

### Features

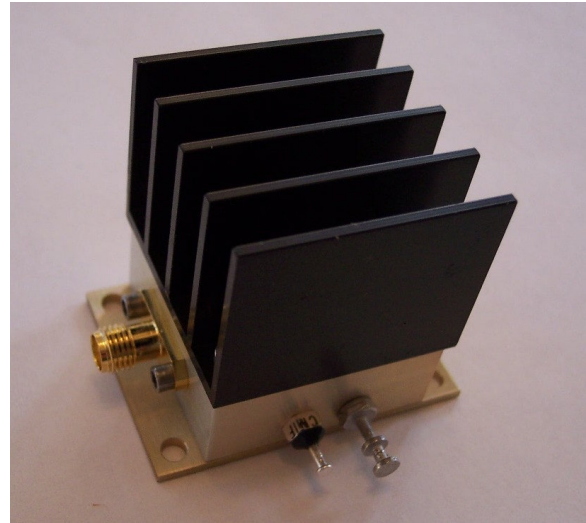
- Frequency Range: 5.15–5.35GHz
- Gain: 20dB
- P<sub>out</sub>: +27.3dBm
- IP3: +40dBm
- Noise Figure: 6dB
- Input VSWR: 1.6:1
- DC Power: 5V
- SMA Connector

Performance Tested @ 5.25GHz

### Description

MGA-5250 is +27dBm (0.5W) output RF Amplifier operates with frequency range from 5.15GHz to 5.35GHz.

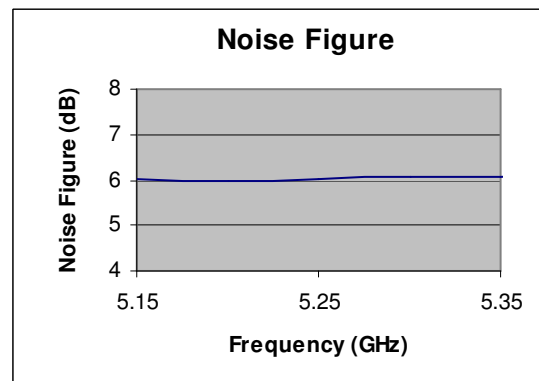
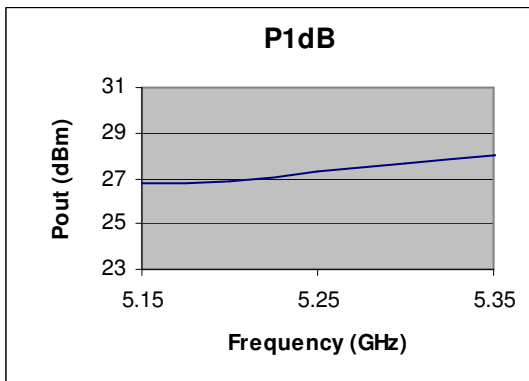
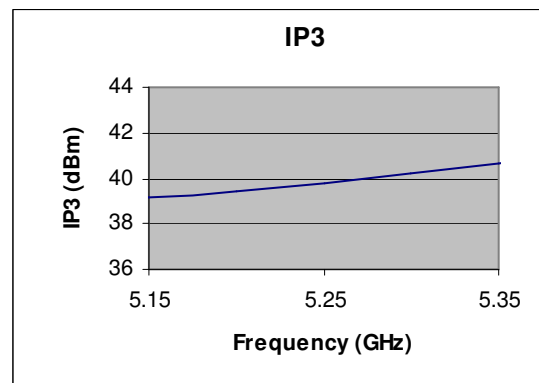
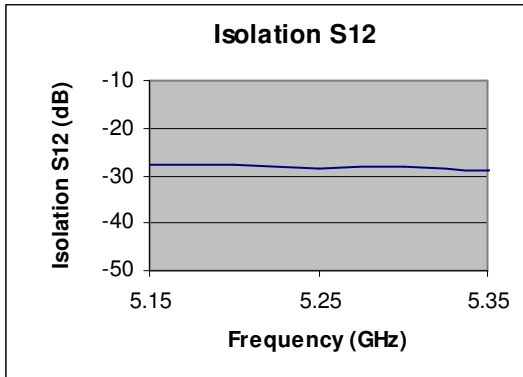
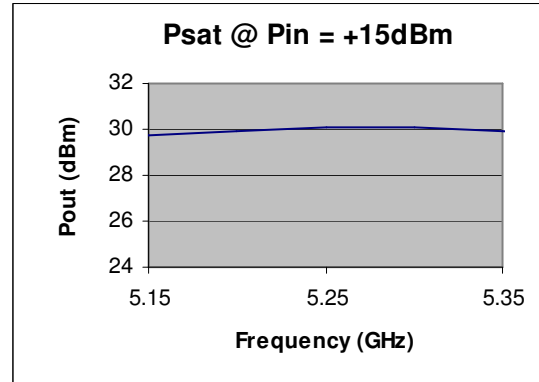
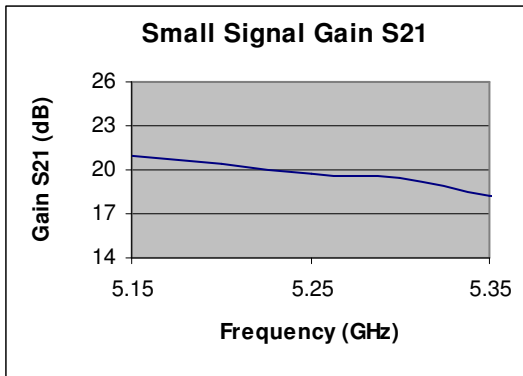
### Picture



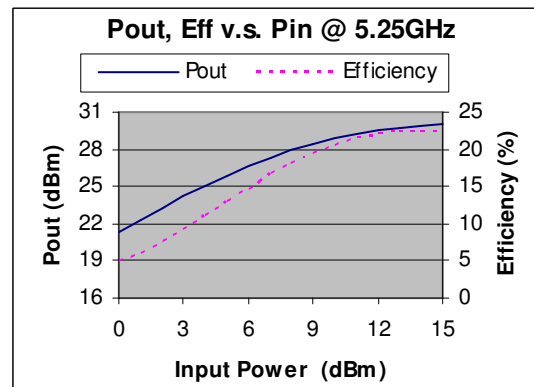
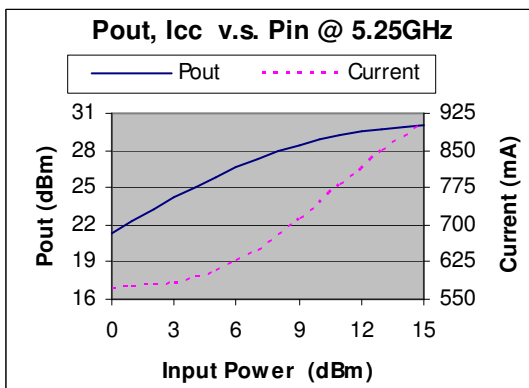
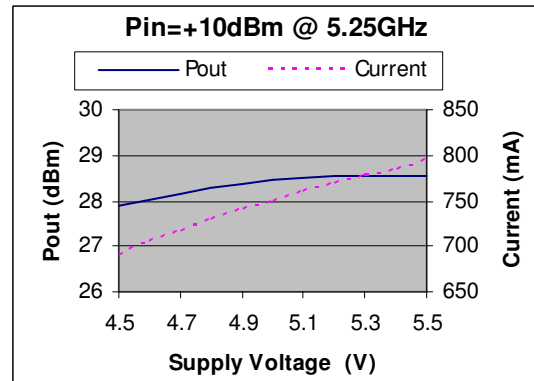
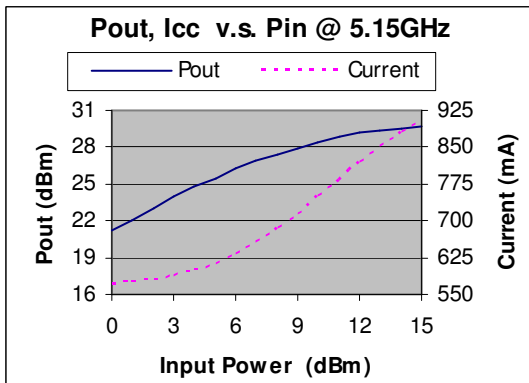
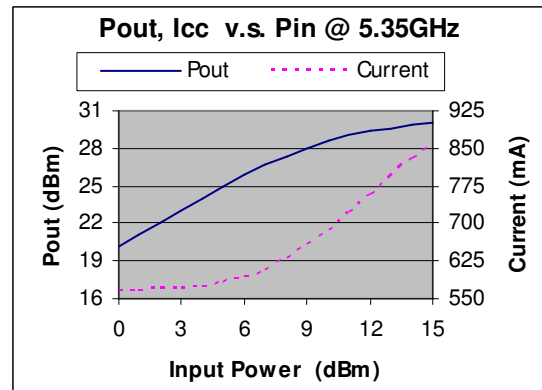
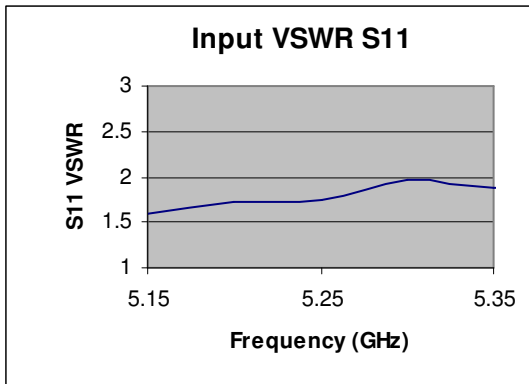
### Electrical Specifications @ +25 °C, Z<sub>s</sub> = Z<sub>L</sub> = 50 Ω, V<sub>cc</sub>=+5V

| Parameter                                   | Unit                        | Minimum | Typical | Maximum |
|---|-----------------------------|---------|---------|---------|
| Frequency Range                             | GHz                         | 5.15    |         | 5.35    |
| Small Signal Gain                           | f = 5.15GHz                 |         | 21.0    |         |
|   | f = 5.25GHz                 |         | 19.8    |         |
|   | f = 5.35GHz                 |         | 18.3    |         |
| P <sub>1dB</sub>                            | dB                          |         | +27.3   |         |
| P <sub>sat</sub> @ P <sub>in</sub> = +15dBm | dBm                         |         | +30     |         |
| OIP3  | dBm                         |         | +40     |         |
| Noise Figure at 5.25GHz                     | dB                          |         | 6.0     |         |
| Reverse Isolation                           | dB                          |         | -28     |         |
| VSWR Input                                  |                             |         | 1.7:1   |         |
| DC Power Supply                             | V                           | 4.5     | 5.0     | 5.5     |
| Supply Current                              | Quiescent (no RF)           | mA      | 570     |         |
|   | @ P <sub>sat</sub> = +30dBm | mA      | 900     |         |

### Typical Performance @ +25 °C



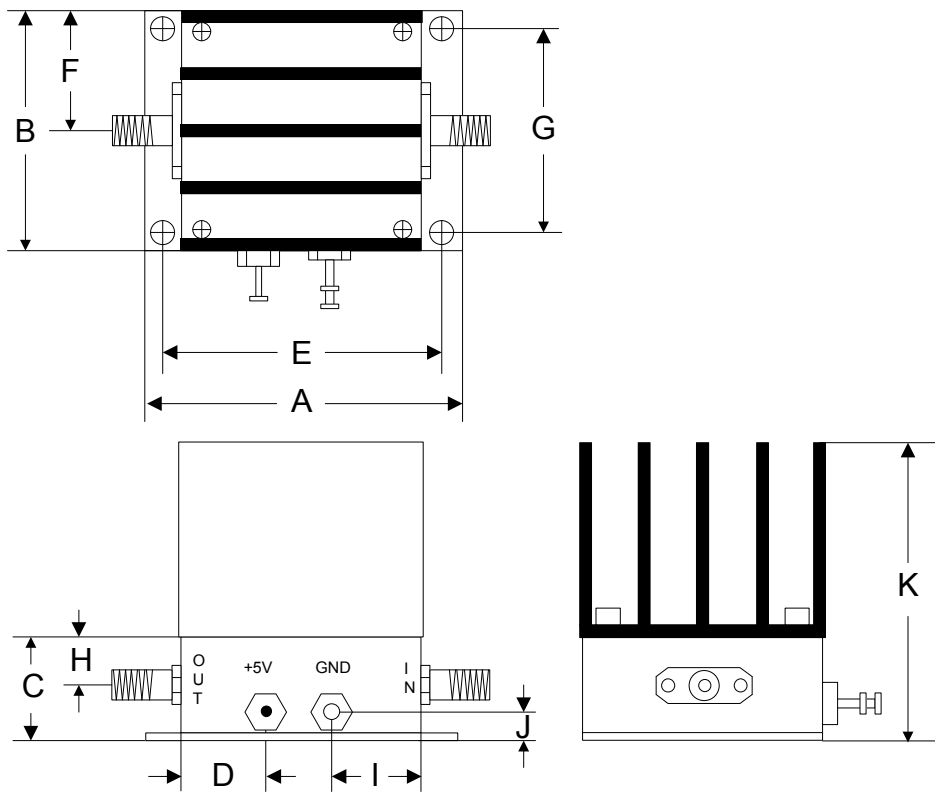
### Typical Performance @ +25 °C



### Absolute Maximum Ratings

| Parameter             | Absolute Maximum  |
|-----------------------|-------------------|
| RF Input Power        | +20dBm            |
| 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     |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Inch | 1.250 | 1.250 | 0.563 | 0.450 | 1.000 | 0.625 | 1.000 | 0.250 | 0.500 | 0.187 | 1.563 |
| mm   | 31.75 | 31.75 | 14.29 | 11.43 | 25.40 | 15.88 | 25.40 | 6.35  | 12.70 | 4.76  | 39.70 |