

GNA Series

5 – 15GHz Low Noise Amplifier

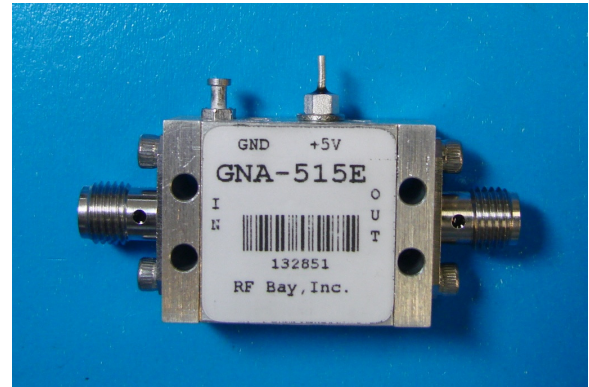
Features

- Frequency Range: 5-15GHz
- Gain: 27dB
- P_{1dB}: +10dBm
- IP3: +25dBm
- Noise Figure: 1.9dB (typ.)
- DC Power: 5V @ 65mA
- SMA-female connectorized

Description

GNA-515E is a high performance Microwave Low Noise (& Driver) Amplifier, with standard frequency range of 5GHz to 15GHz.

Photo



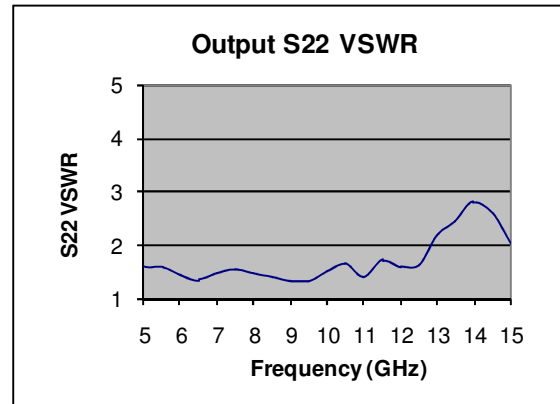
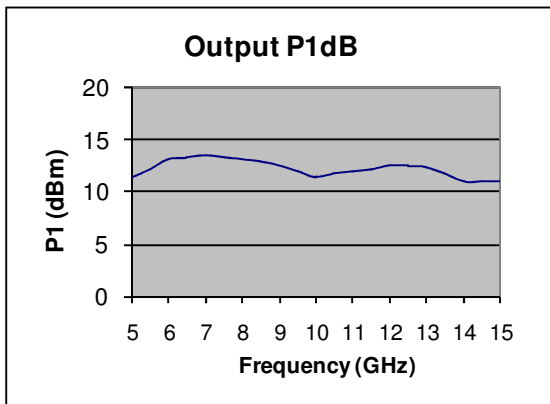
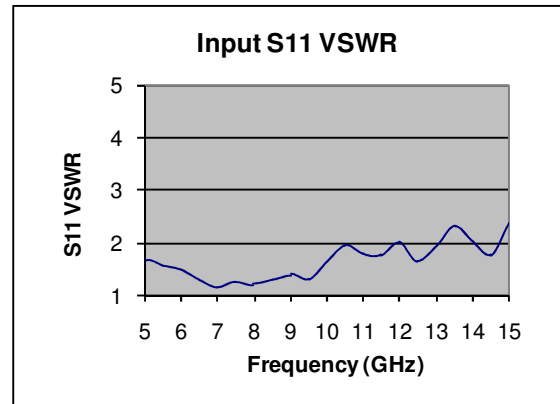
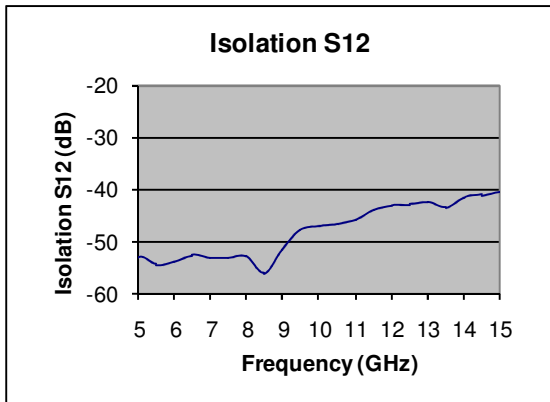
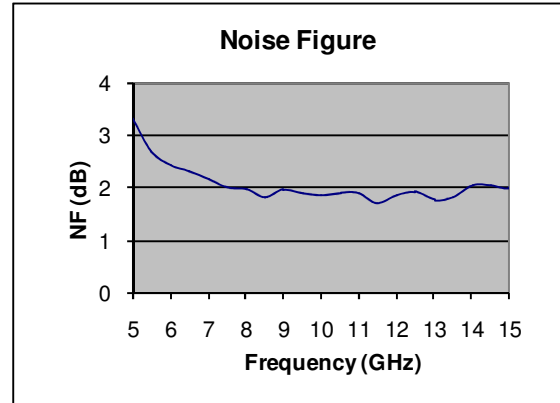
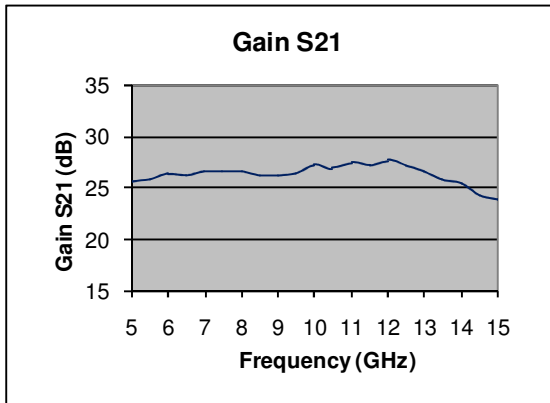
Electrical Specifications @+25 °C, Z_{in}=Z_{out}=50 Ohm, V_{supply} = +5VDC

| Parameter | Unit | Minimum | Typical | Maximum |
|---|------------|--------------------------------|---------------|---------------|
| Frequency Range | GHz | 5 | | 15 |
| Gain (S ₂₁) f = 5GHz | dB | | 25.5 | |
| f = 10GHz | dB | | 27.0 | |
| f = 15GHz | dB | | 23.8 | |
| Gain Variation Over Temperature | dB/°C | | 0.02 | 0.03 |
| Output Power P _{1dB} | dBm | +10 | +11 | |
| Saturated Output Power P _{Sat} | dBm | | +13 | |
| Output Third Order Intercept IP3 | dBm | | +25 | |
| Noise Figure @10GHz | dB | | 1.9 | 2.1 |
| Reverse Isolation (S ₁₂) @10GHz | dB | | -47 | |
| VSWR-Input (S ₁₁) | ratio:1 | 1.7 typ@5GHz | 1.7 typ@10GHz | 2.4 typ@15GHz |
| VSWR-Output (S ₂₂) | (unitless) | 1.6 typ@5GHz | 1.5 typ@10GHz | 2.0 typ@15GHz |
| DC Power Supply - voltage | V | 4.5 | 5.0 | 5.5 |
| DC Power Supply - current | mA | | 65 | 75 |
| Operating Temperature | °C | -40 | | +85 |
| Size (RF/DC feedthru's excluded) | Inch | 1.00 (L) x 0.75 (W) x 0.45 (H) | | |
| Weight | Oz | 0.6 (17 grams) | | |

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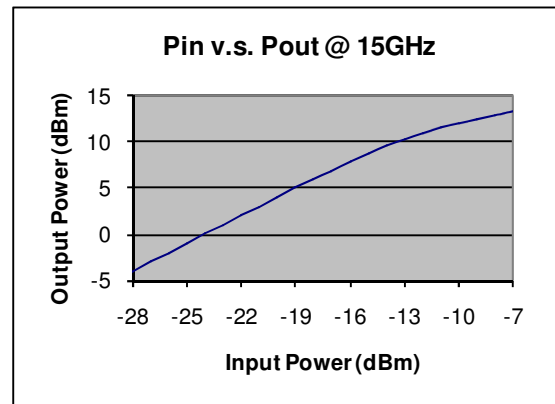
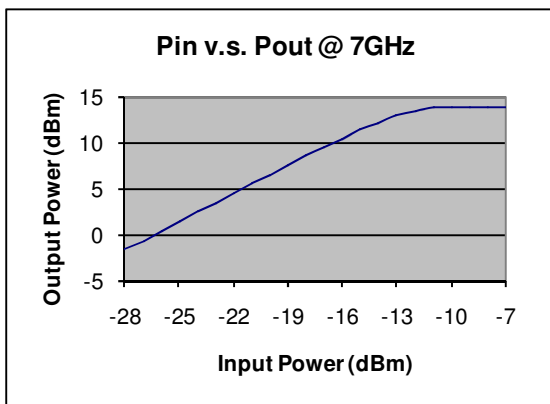
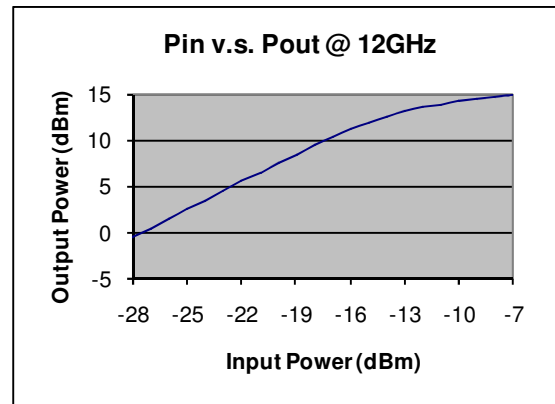
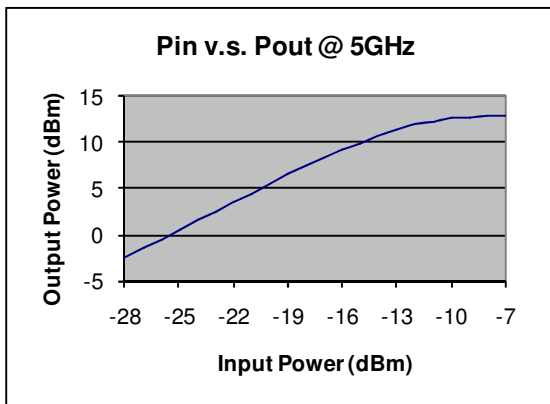
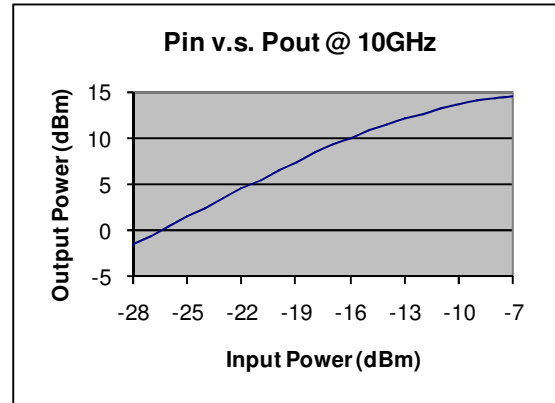
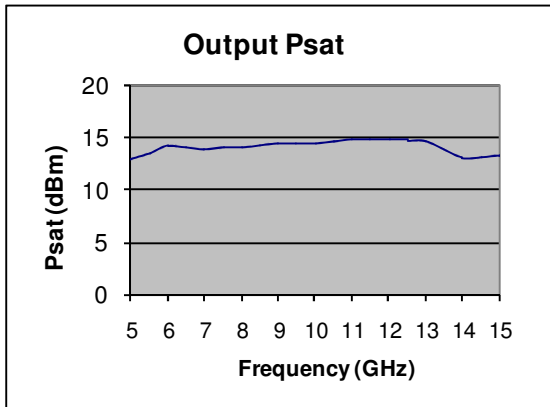
Typical Performance @+25 °C



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Absolute Maximum Ratings

| Parameter | Absolute Maximum |
|-----------------------|-------------------|
| Supply Voltage | +16V |
| RF Input Power | +20dBm |
| Operating Temperature | -40 °C to +85 °C |
| Storage Temperature | -55 °C to +125 °C |

ESD Sensitive Material



Outline

