

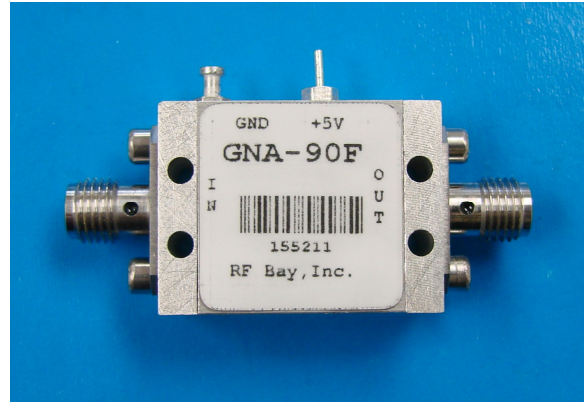
GNA Series

4 – 12GHz Low Noise Amplifier

Features

- Frequency Range: 4-12GHz
- Gain: 20dB
- P_{1dB} : +12dBm
- IP3: +22dBm
- Noise Figure: 1.7dB
- DC Power: +5V to +15V @ 50mA
- Internally Voltage Regulated
- RF Connector: SMA-Female

Photo



Description

GNA-90F is a high performance Microwave Low Noise Amplifier, with standard frequency range of 4GHz to 12GHz.

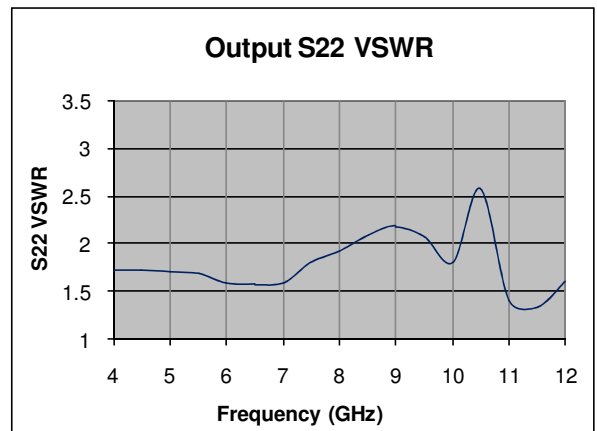
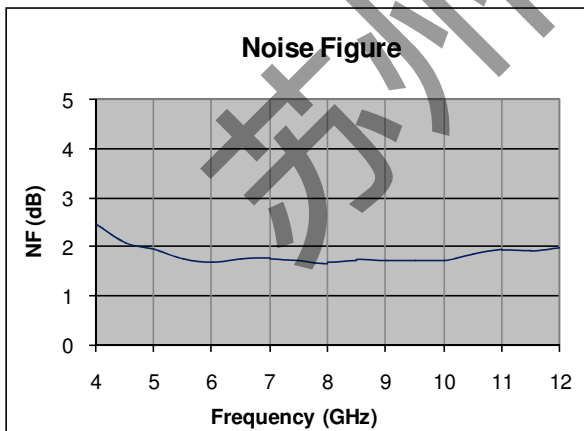
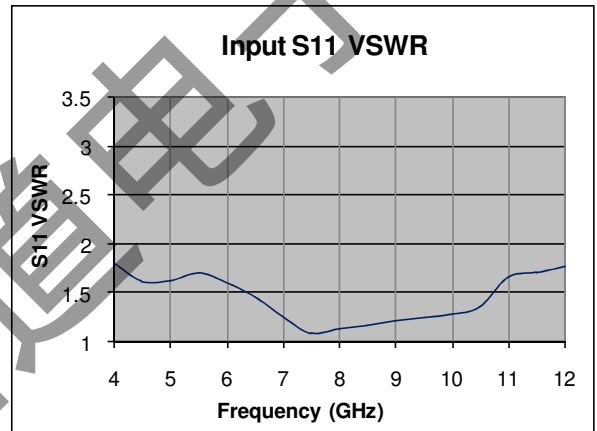
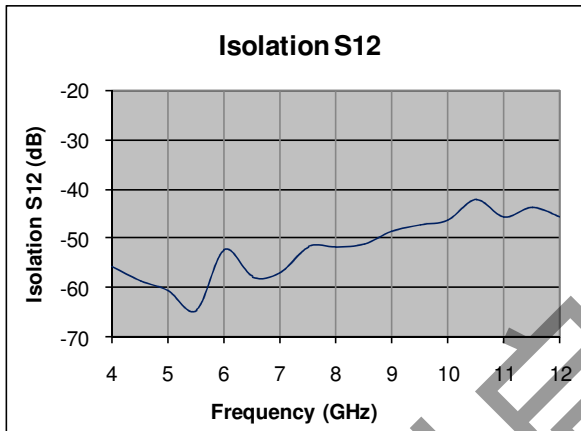
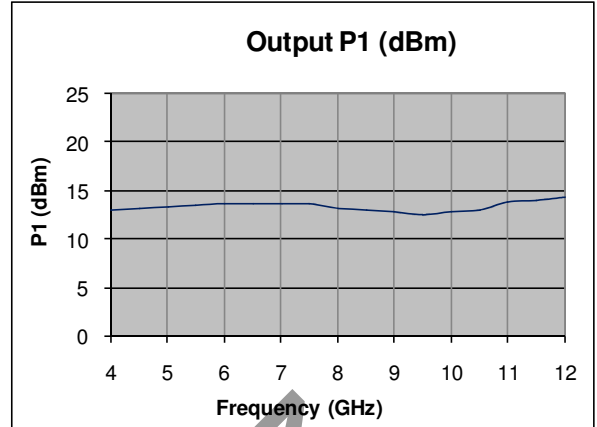
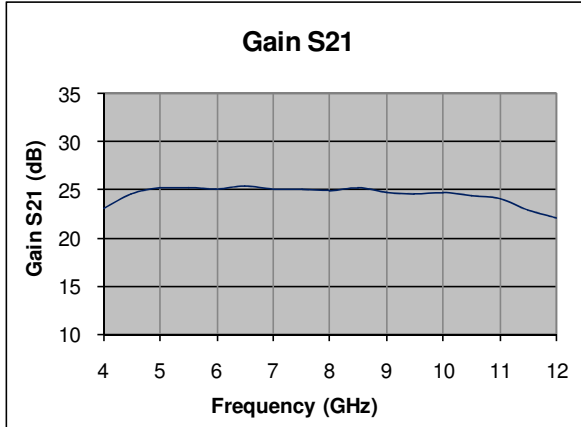
Electrical Specifications @+25°C, $Z_{in}=Z_{out}=50\ \Omega$, $V_{supply} = +5VDC$

| Parameter | Unit | Minimum | Typical | Maximum |
|----------------------------------|------------|--------------------------------|-----------|------------|
| Frequency Range | GHz | 4 | | 12 |
| Gain (S21) f = 4GHz | dB | | 23.0 | |
| f = 8GHz | dB | | 25.0 | |
| f = 12GHz | dB | | 22.0 | |
| Gain Variation Over Temperature | dB/°C | | 0.014 | 0.025 |
| Output Power P_{1dB} | dBm | | +12 | |
| Saturated Output Power P_{Sat} | dBm | | +14 | |
| Output Third Order Intercept IP3 | dBm | | +22 | |
| Noise Figure @8GHz | dB | | 1.7 | |
| Reverse Isolation (S12) @8GHz | dB | | -50 | |
| VSWR-Input (S11) | ratio:1 | 1.8 @4GHz | 1.2 @8GHz | 1.8 @12GHz |
| VSWR-Output (S22) | (unitless) | 1.7 @4GHz | 1.9 @8GHz | 1.6 @12GHz |
| DC Power Supply - voltage | V | 5 | | 15 |
| DC Power Supply - current | mA | | 50 | 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) | | |

GNA Series

4 – 12GHz Low Noise Amplifier

Typical Performance @+25 °C



GNA Series

4 – 12GHz Low Noise Amplifier

Absolute Maximum Ratings

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

Outline

