

LNA Series

10 – 1000MHz Low Noise Amplifier

Features

- Frequency Range: 10-1000MHz
- Gain: 50dB
- P_{1dB}: +13dBm
- IP3: +24dBm
- Noise Figure: 2.2dB
- DC Power: 10V-15V/88mA
- SMA Connector

Performance measured @ 500MHz

Description

LNA-1050 is a 50dB gain wideband Low Noise Amplifier operates with frequency range from 10 to 1000MHz.

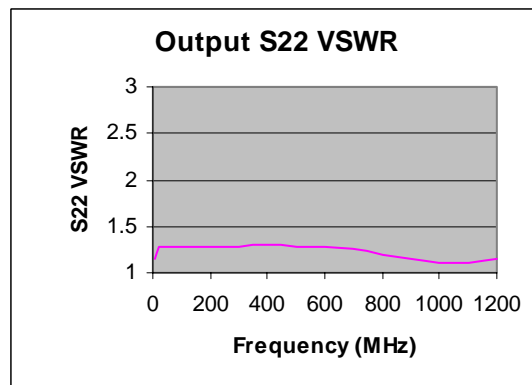
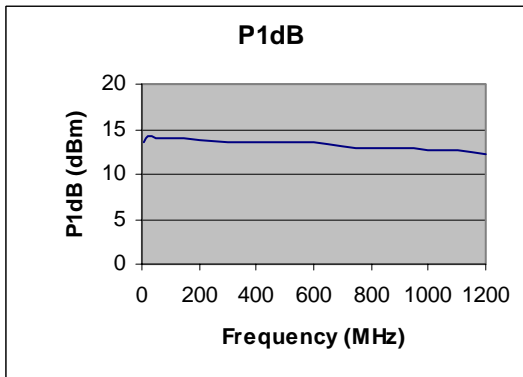
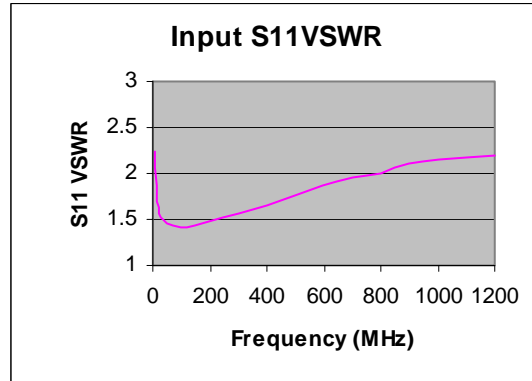
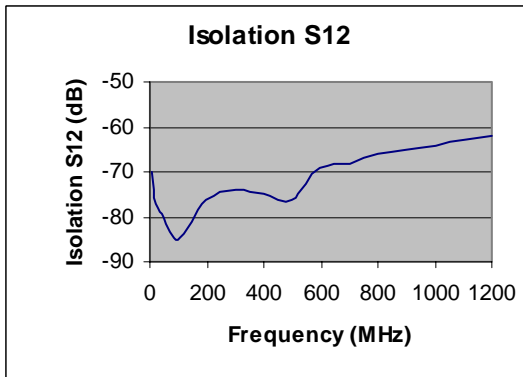
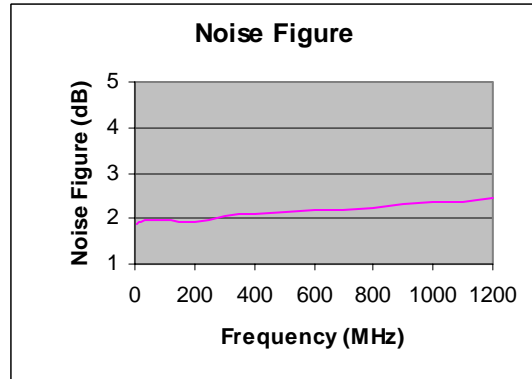
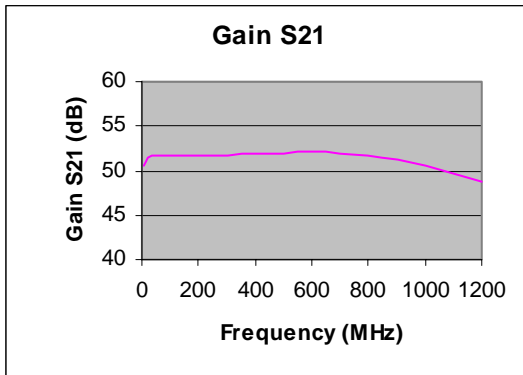
Picture



Electrical Specifications @ +25 °C

| Parameter | Unit | Minimum | Typical | Maximum |
|-------------------|------|---------|---------|---------|
| Frequency Range | MHz | 10 | | 1000 |
| Gain | | | | |
| f = 10MHz | dB | | 50 | |
| f = 500MHz | dB | | 51 | |
| f = 1000MHz | dB | | 50 | |
| P _{1dB} | dBm | | +13 | |
| IP3 | dBm | | +24 | |
| Noise Figure | dB | | 2.2 | |
| Reverse Isolation | dB | | -75 | |
| VSWR | | | | |
| Input VSWR | | | 1.9:1 | |
| Output VSWR | | | 1.3:1 | |
| DC Power Supply | V | 10 | 12 | 15 |
| Supply Current | mA | | 88 | |

Typical Performance @ +25 °C



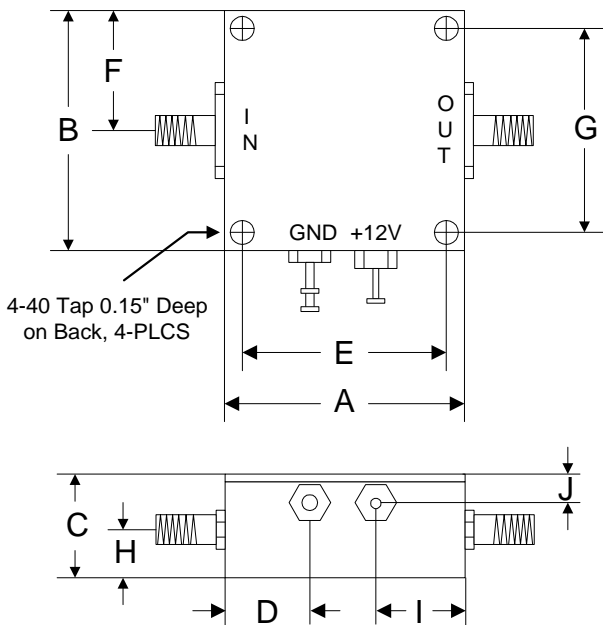
Typical Performance @ +25 °C

| Frequency(MHz) | NF (dB) | S21 (dB) | S12 (dB) | S11(VSWR) | S22(VSWR) | P _{1dB} (dBm) |
|----------------|---------|----------|----------|-----------|-----------|------------------------|
| 10 | 1.89 | 50.5 | -70 | 2.24 | 1.15 | +13.5 |
| 20 | 1.92 | 51.5 | -77 | 1.56 | 1.27 | +14.2 |
| 50 | 1.95 | 51.7 | -80 | 1.45 | 1.28 | +14.0 |
| 100 | 1.97 | 51.7 | -85 | 1.42 | 1.27 | +13.9 |
| 200 | 1.91 | 51.7 | -76 | 1.47 | 1.28 | +13.7 |
| 300 | 2.06 | 51.7 | -74 | 1.56 | 1.29 | +13.6 |
| 400 | 2.10 | 51.9 | -75 | 1.66 | 1.30 | +13.6 |
| 500 | 2.13 | 52.0 | -76 | 1.77 | 1.29 | +13.6 |
| 600 | 2.18 | 52.1 | -69 | 1.87 | 1.28 | +13.6 |
| 700 | 2.20 | 52.0 | -68 | 1.95 | 1.25 | +13.2 |
| 800 | 2.23 | 51.7 | -66 | 2.00 | 1.20 | +12.9 |
| 900 | 2.34 | 51.2 | -65 | 2.10 | 1.14 | +12.8 |
| 1000 | 2.36 | 50.5 | -64 | 2.15 | 1.10 | +12.6 |
| 1100 | 2.37 | 49.7 | -63 | 2.17 | 1.11 | +12.6 |
| 1200 | 2.45 | 48.8 | -62 | 2.20 | 1.14 | +12.3 |

Absolute Maximum Ratings

| Parameter | Absolute Maximum |
|-----------------------|-------------------|
| RF Input Power | +13dBm |
| Supply Voltage | +16V |
| Operating Temperature | -40 °C to +85 °C |
| Storage Temperature | -55 °C to +125 °C |

Outline



| | A | B | C | D | E | F | G | H | I | J |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Inch | 1.250 | 1.250 | 0.563 | 0.450 | 1.000 | 0.625 | 1.000 | 0.250 | 0.500 | 0.187 |
| mm | 31.75 | 31.75 | 14.29 | 11.43 | 25.40 | 15.88 | 25.40 | 6.35 | 12.70 | 4.76 |