# Low Noise Amplifier 30-40 GHz

## 2.5dB Noise Figure, 20dB Gain, 12VDC- WR28 Wave guide Connectors

### Key Features

**Frequency Range: 30 to to 40 GHz.**
**Small Signal Gain: 20 dB**
**Noise Figure: 2.5 dB**
**Several Mounting options**
**Gold plated compact Aluminum housing**
**Solder filtered pins for DC connection**
**RF Connectors: WR28**
**Environmental test available un the request**

### Applications

**Industrial / Laboratory**
**Satcom/ Telecom**
**Space / Aerospace / Military**


**This Low Noise Amplifier provides a gain of 20dB with a noise figure below 2.5dB. The compact size and modularity makes it ideal for a wide range of applications.**

**Order Examples:** **RLNA-30-40-2.5dNF-20d-12VDC-WR28-z21**
**Description:** *(Low Noise Amplifier, 30-40GHz, 2.5dB Noise Figure, 30dB Gain, 12VDC, WR28 Waveguide)*

| Specification a case temperature of 25ºC ±1 | | | | Units |
|---|---|---|---|---|
| | Min | Typical | Max | |
| Frequency | 30 | - | 40 | GHz |
| Output Power(P1dB) | 9.2 | 9.5 | 9.8 | dBm |
| Gain | 18 | 20 | 22 | dB |
| Noise Figure | 2.4 | 2.4 | 2.5 | dB |
| VSWR input | 1.3:1 | 1.8:1 | 2.2:1 | - |
| VSWR output | 1.1:1 | 1.5:1 | 1.9:1 | - |
| DC Voltage | 9 | 12 | 15 | V |
| Power Consumption | - | 0.5 | - | W |
| Input Power rate | | | -1dBm | |
| Operating Temp | -35 | | 75 | °C |
| Storage Temp | -55 | | 125 | °C |
| Humidity | 70% ±10 | | | % |
| DUT Warm of Time | 30 | | | Minutes |
| Test Equipment Warm of Time | | | | |
| Connectors | WR28 IN/OUT | | | |



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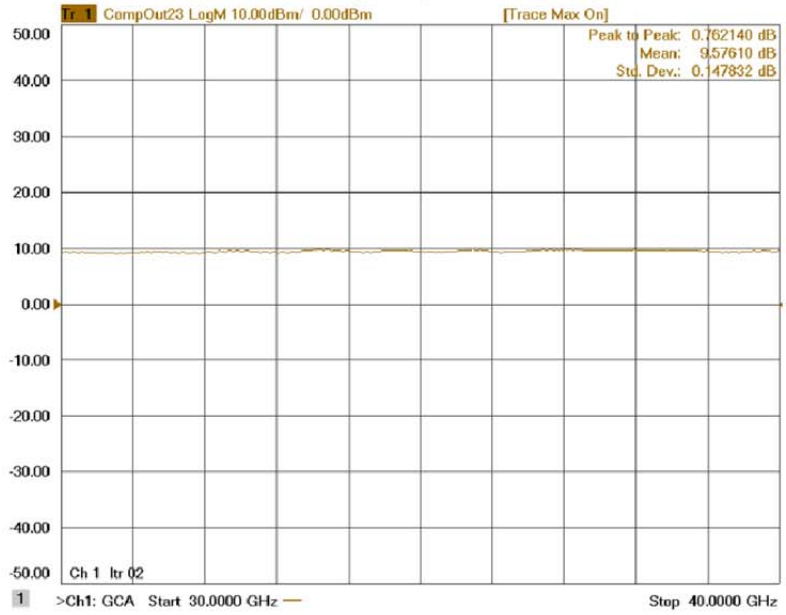
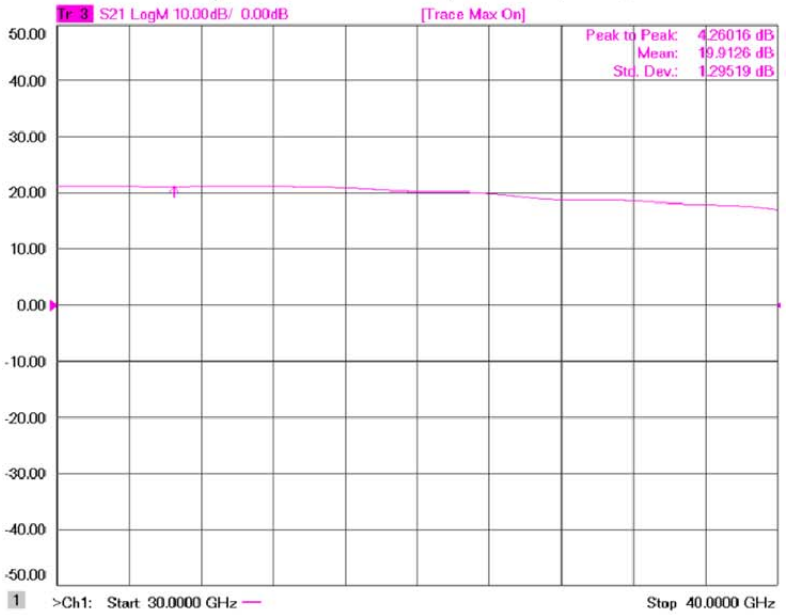
### Output power at 1 dB Compression

Figure 1 shows output power at 1dB compression measurement as a function of frequency at room temperature (25°C).




### Small Signal Gain

Figure 2 shows small signal gain measurement as a function of frequency at room temperature (25°C).



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## Input and Output Matching

Figure 4 and Figure 5 show input (S11) and output (S22) VSWR as a function of frequency at room temperature (25°C).

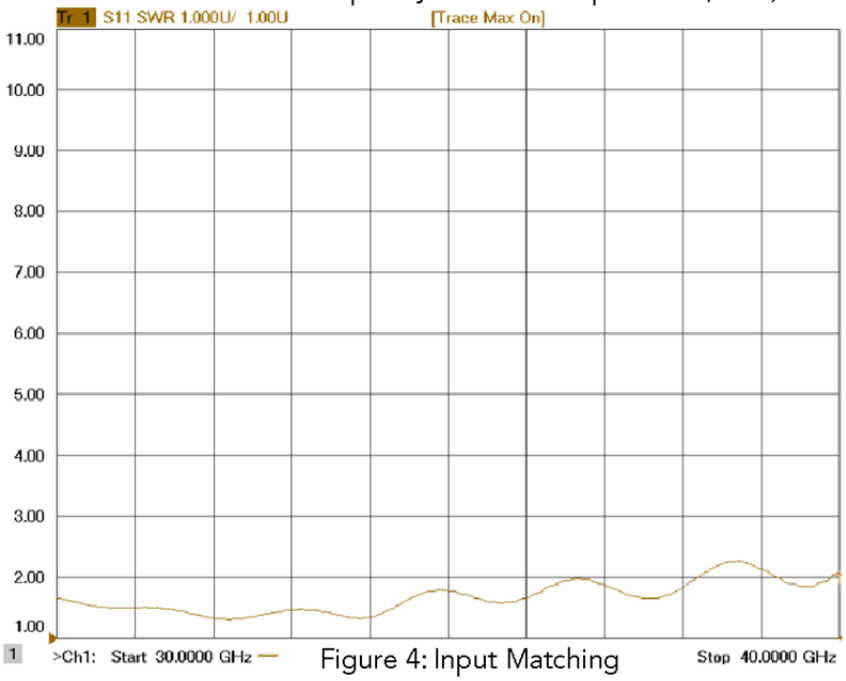


Figure 4: Input Matching

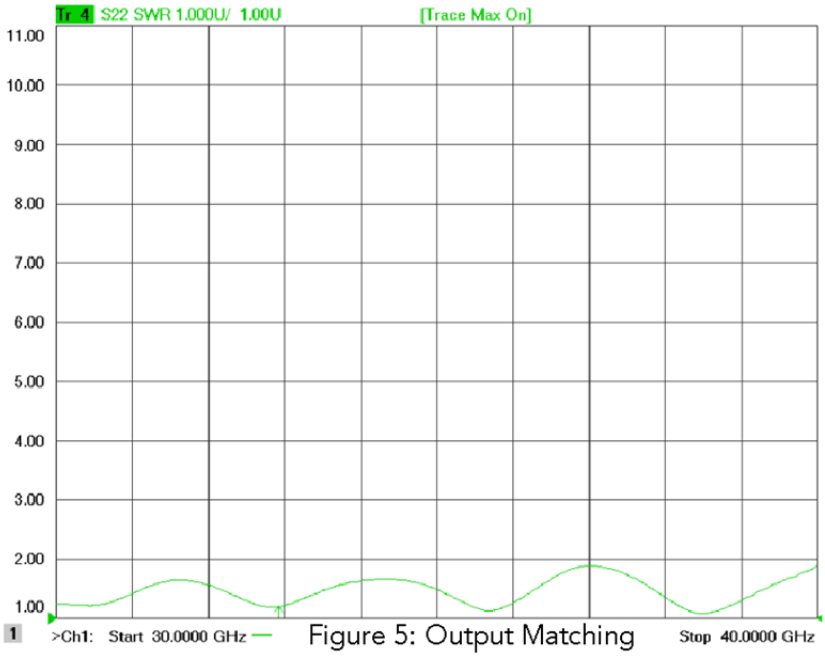


Figure 5: Output Matching



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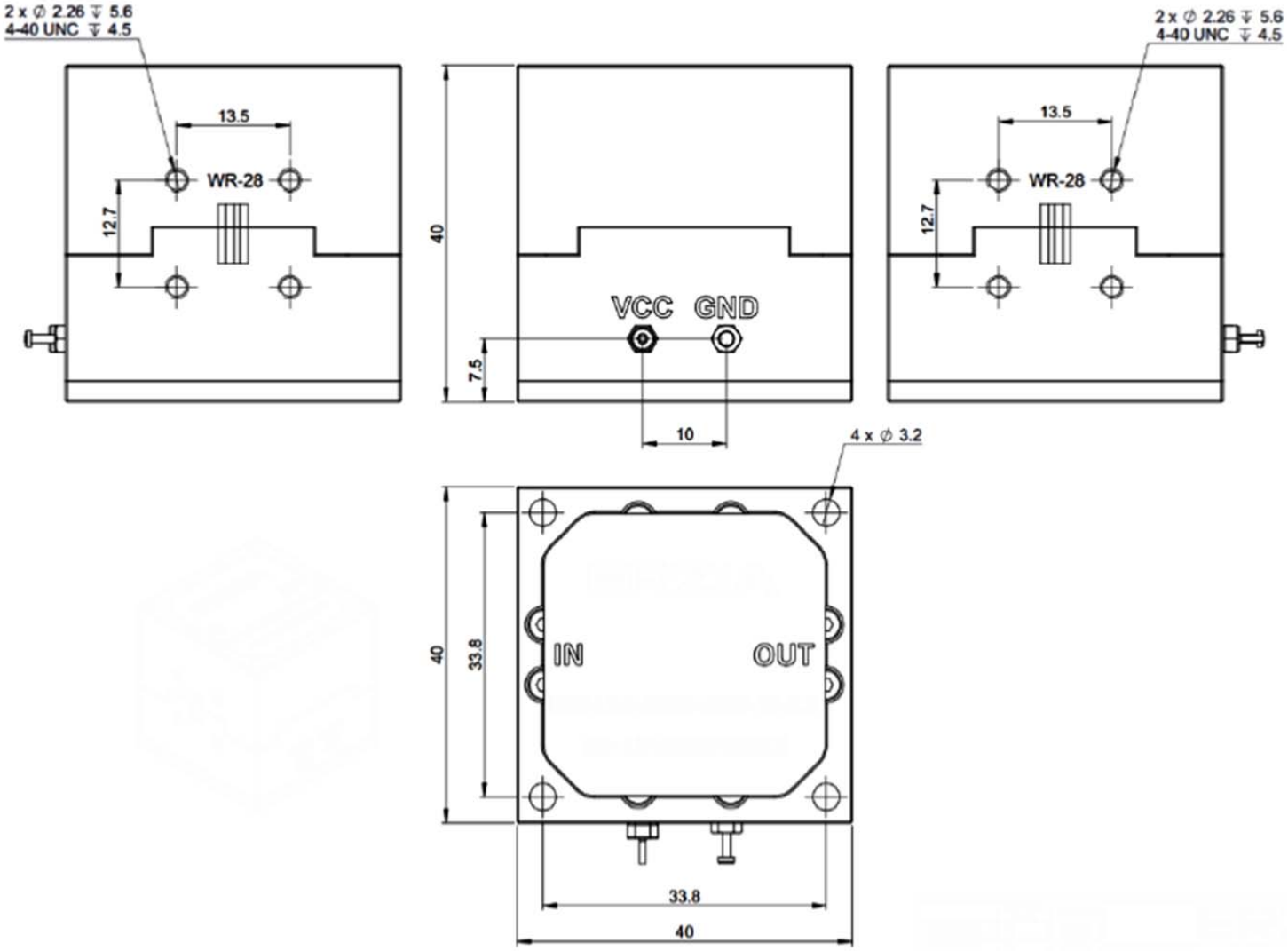
## Preview Line Drawing



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