

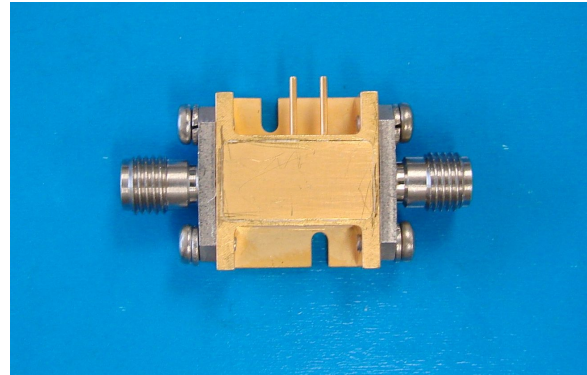
XNA Series

0.1 – 18GHz Low Noise Amplifier

Features

- Frequency Range: 0.1 - 18GHz
- Gain: 20dB min
- P_{1dB}: +10dBm
- IP3: +20dBm
- Noise Figure: 2.5dB max.
- DC Power: 15V @ 75mA
- Field Replaceable SMA-F

Photo



Description

XNA-00101800-251020 is a high performance Microwave Low Noise (& Driver) Amplifier, with standard frequency range of 100MHz to 18GHz.

Electrical Specifications @+23°C, Z_{in}=Z_{out}=50 Ω, V_{supply} = +15VDC

| Parameter | Unit | Minimum | Typical | Maximum |
|----------------------------------|------------|---|---------|---------|
| Frequency Range | GHz | 0.1 | | 18 |
| Gain (S21) | dB | 20 | 24 | |
| Gain Flatness | dB | | | ±2.5 |
| Output Power P _{1dB} | dBm | +10 | | |
| Output Third Order Intercept IP3 | dBm | | +20 | |
| Noise Figure * | dB | | | 2.5 |
| Isolation (S12) | dB | | -50 | |
| VSWR-Input (S11) | ratio:1 | | | 2.5:1 |
| VSWR-Output (S22) | (unitless) | | | 2.0:1 |
| DC Power Supply - voltage | V | 12 | 15 | |
| DC Power Supply - current | mA | | 75 | 100 |
| Operating Temperature | °C | -54 | | +85 |
| Size (RF/DC feedthru's excluded) | Inch/mm | 0.650 x 0.646 x 0.223/16.5 x 16.4 x 5.7 (LxWxH) | | |
| Weight | Oz | 0.35 (10 grams) | | |

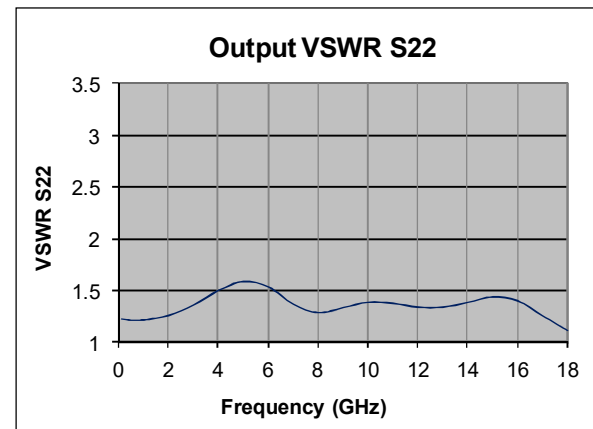
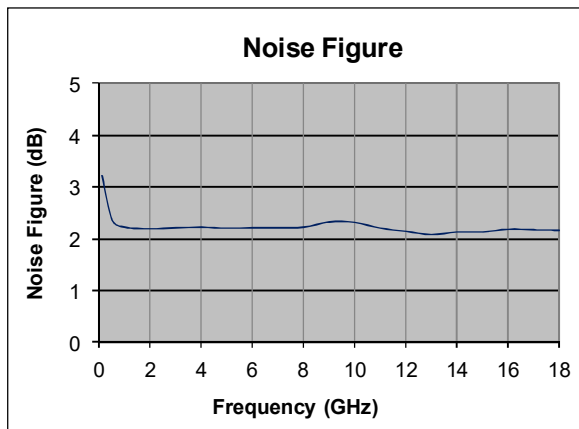
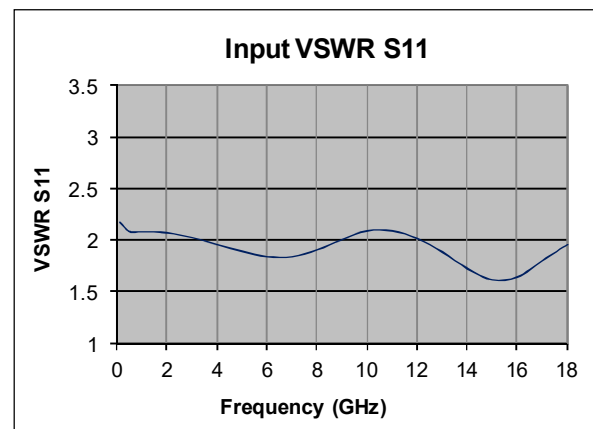
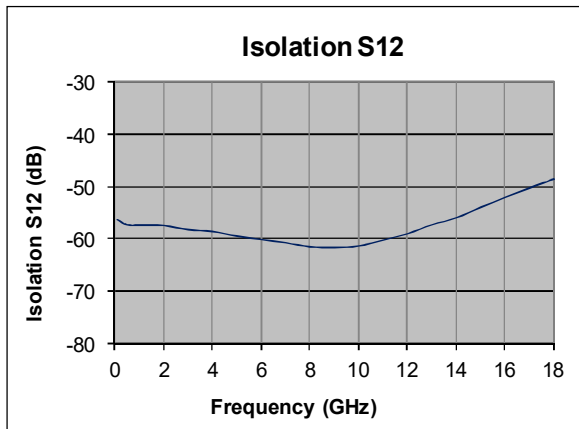
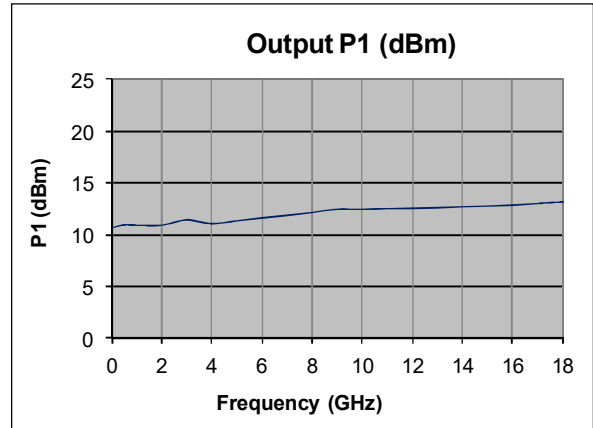
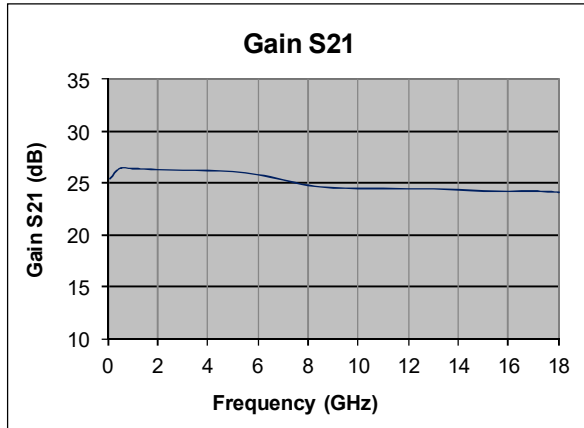
* Noise figure increases below 500MHz due to 1/f noise

WARNING: MUST USE HEAT SINK IF CASE TEMPERATURE EXCEEDS 50 °C

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Typical Performance @ +25 °C



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Absolute Maximum Ratings

| Parameter | Absolute Maximum |
|---------------------------|-------------------|
| RF Input Power | +15dBm |
| Supply Voltage (Survival) | +16V |
| Operating Temperature | -54 °C to +85 °C |
| Storage Temperature | -55 °C to +125 °C |

Outline

