

Image shows custom SMA power supply option

Product Features

- Frequency Range = 4.4 to 5.0 GHz
- Typical Noise Figure < 0.7dB
- Gain (typical) = 35 dB
- Gain Flatness < ± 0.5 dB
- Typical + 25 dBm IP3
- Reverse voltage protection
- State-of-the-Art PHEMT Technology
- MIL-883, MIL-45208 construction and reliability
- Weatherproofing options available
- Bias Thru Output (BTO) option provides DC via output connector
- **NEW SMA power option allows supply voltage to be delivered via standard SMA connector**
- **Internal DC regulator allows anywhere from 12-24VDC for easier integration into existing systems**

Typical Key Parameters at 23°C

| Parameters | Unit | Minimum | Typical | Maximum | Notes |
|-----------------|------|---------|---------|---------|--------------|
| Frequency | GHz | 4.40 | - | 5.0 | Customizable |
| Gain | dB | 33 | 35 | 36 | Customizable |
| Gain Flatness | dB | - | ±0.5 | ±0.5 | Customizable |
| In/Out VSWR | - | - | 1.50 | 1.50 | Customizable |
| Output P1dB | dBm | +15 | +16 | - | Customizable |
| DC Power | V@mA | +11 | +12 | +16 | @175mA |
| Noise Figure | dB | - | 0.6 | 0.7 | Customizable |
| Outline/Package | - | - | - | - | D4 |

Product Description

This C-Band model is an amplifier with very low Noise Figure (<0.6dB typical) and a high typical IP3 of +25 dBm. Lower NF options are also available with custom flatness, VSWR, P1dB, and outline. The LNA has a BTO option to provide the DC power via the center conductor of the output connector allowing for mast antenna mounting as well as an option to provide power via an industry standard SMA connector. The specific Gain Window and superb flatness make this amplifier a reliable staple component for self-contained communications systems deployed on various sea-based stations miles from land, making reliable communications an absolute necessity.

Absolute Maximum Ratings*

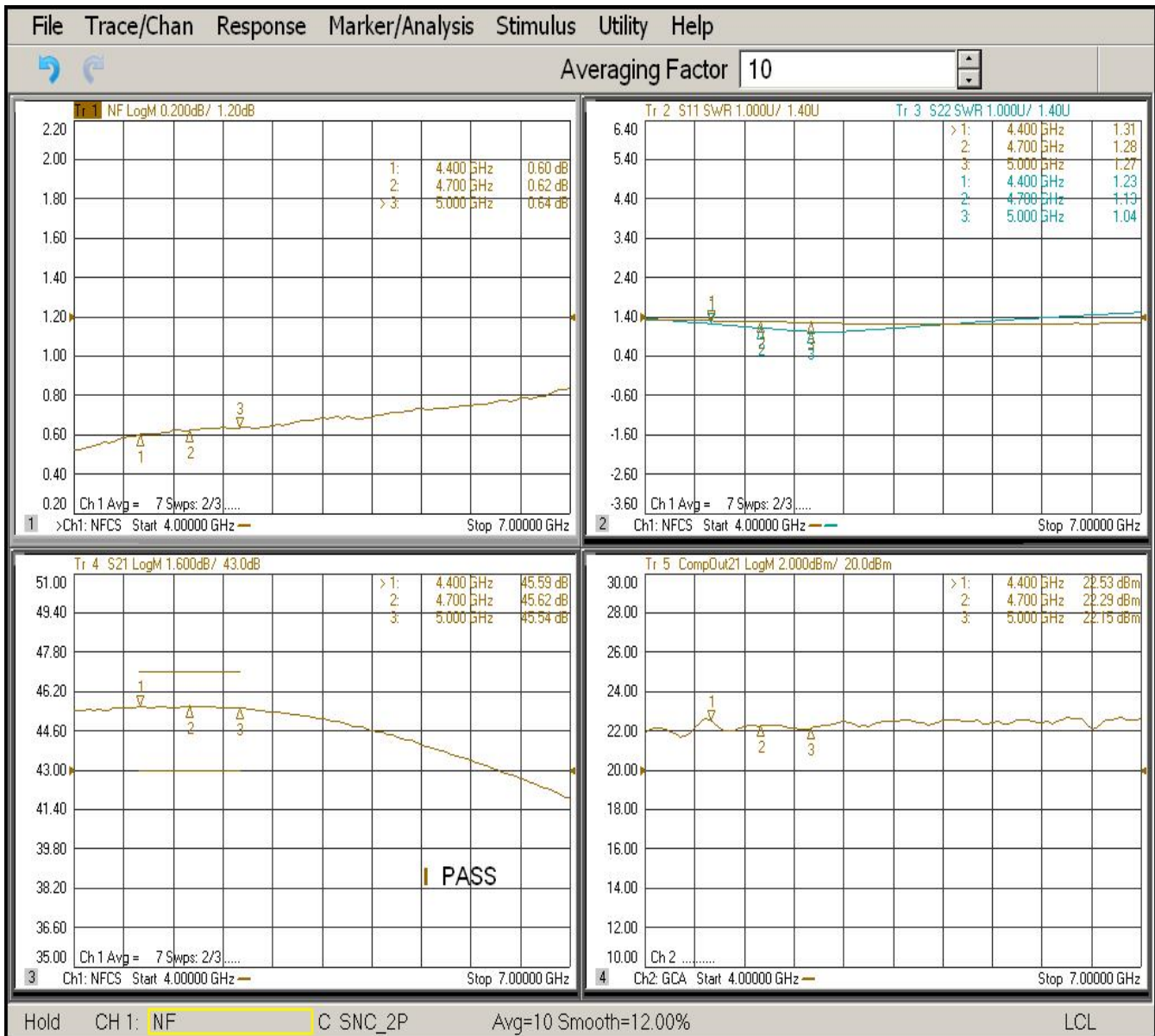
| Parameters | Unit | Minimum | Maximum | Notes |
|------------------------------|------|---------|---------|------------------------------|
| Operating Temperature (Case) | °C | -54 | +85 | 95% humidity, non-condensing |
| Storage Temperature (Case) | °C | -54 | +115 | 95% humidity, non-condensing |
| RF Input Power | dBm | - | +16 | CW |
| Die Junction Temp (Tj) | °C | - | +150 | For GaAs devices |
| Positive Supply Voltage | V | - | +16 | At +V DC terminal |
| Negative Voltage | V | - | -10 | Reverse Voltage |

Applications

- Receiver Front End
- Radar
- Satellite Communication (SATCOM)
- Microwave Radio System
- Telemetry
- Portable SATCOM appliance such as tropo-scatter

* Stresses above those listed under "Absolute Maximum Rating" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability. All STANDARD units are packaged in Aluminum housings that are layered with electroless Nickel and then plated with Gold to eliminate contamination of other adjacent electronic components.

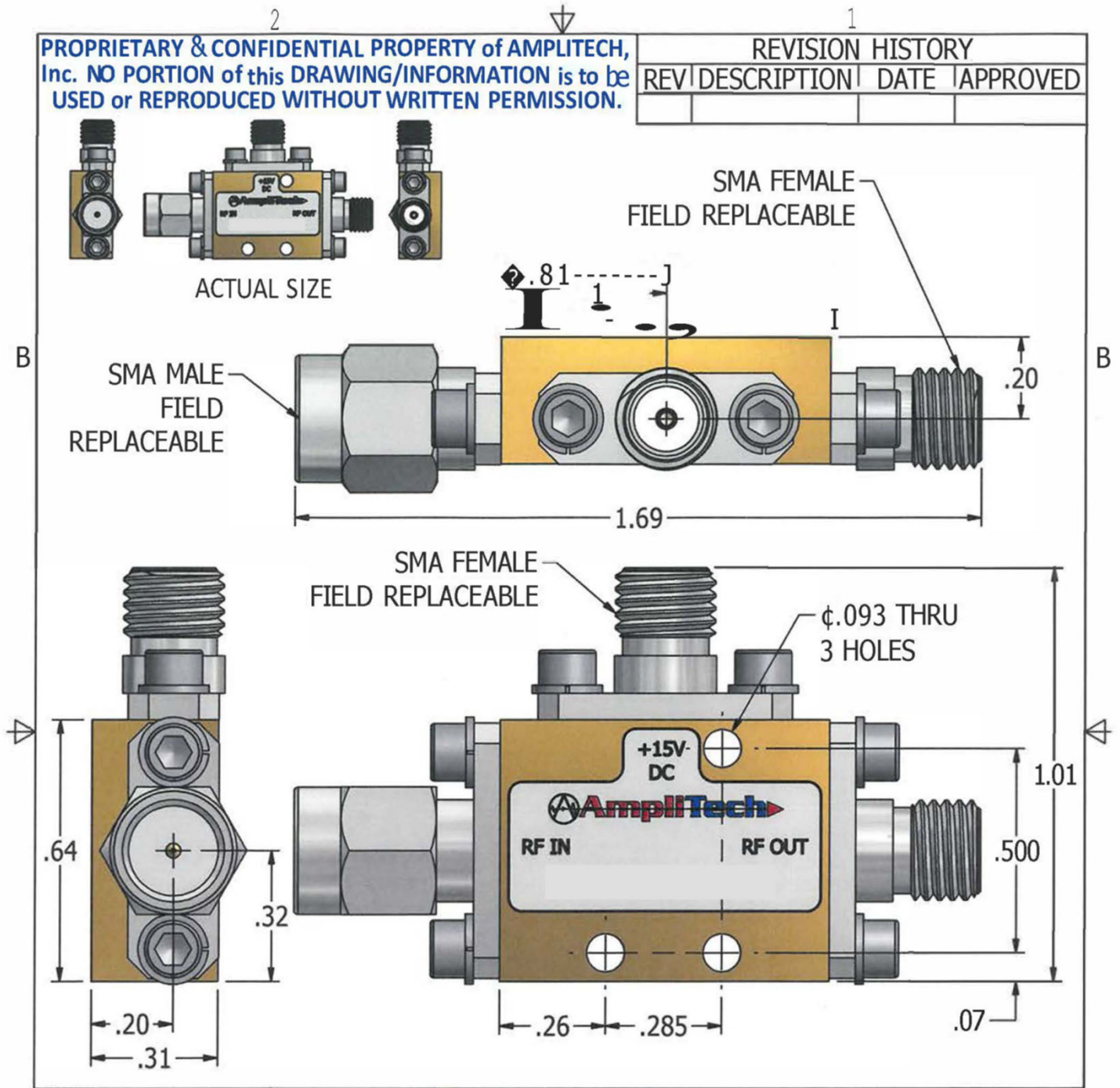
Typical Measured Data



Data taken with Agilent N5242 PNA-X Vector Network Analyzer

When presenting a custom model, the data may sometimes be from another model that is closely related or better than the one described in the datasheet in the most relevant categories

Outline Drawing



Note: Custom outline options available