

1.2 dB NF Low Noise Amplifier, Operating from 50 MHz to 1 GHz with 18 dB Gain, 16 dBm P1dB and SMA

The PE15A1041XX is a low noise RF coaxial amplifier operating in the 2 GHz to 4 GHz frequency range. The amplifier offers 0.7 dB typical noise figure, 14 dBm typical P1dB and high 40 dB minimum small signal gain. This performance is achieved through the use of hybrid MIC design and advanced SiGe Bipolar devices. The low noise amplifier requires typically a +12V DC power supply. The amplifier desing input/output ports are internally matched to 50 ohms and are DC blocked. The connectorized SMA module is unconditionally stable and includes built-in voltage regulation. This low noise amplifier requires only a single positive supply, is unconditionally stable and operates over the temperature range of -40°C and +75°C.



Features:

- 2 GHz to 4 GHz Frequency Range
- P1dB: 14 dBm
- High Small Signal Gain: 40 dB typical
- Noise Figure: 0.7dB typ
- 50 Ohm Input and Output Matched
- -40 to 75°C Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in Voltage Regulator

Electrical Specifications (TA = +25°C , DC Voltage = 12Vdc , DC Current = 70mA)

Description	Min	Typ	Max	Unit
Frequency Range	50		1,000	MHz
Small Signal Gain	17	18		dB
Gain Flatness			±0.5	dB
Output at 1 dB Compression Point	+16	+16		dBm
Output 3rd Intercept Point	+30	+32		dBm
Noise Figure			1.2	dB
Input VSWR		1.8:1	2.2:1	
Output VSWR		1.4:1	2:1	
Reverse Isolation		-24		dB
Operating DC Voltage	10	12	18	Volts
Operating DC Current		70	80	mA
Operating Temperature Range	-40		+75	°C

Absolute Maximum Rating

Parameter	Rating	Units
Supply Voltage	+25	V
RF Input Power	+15	dBm
Operating Temperature	-40 to +85	°C
Storage Temperature	-55 to +125	°C

Applications:

- Laboratory Applications
- R&D Labs
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Communication Systems
- Wireless Communication
- Microwave Radio Systems
- Cellular Base Stations
- Low Noise Amplifier
- General Purpose Amplification
- General Purpose Wireless
- Wideband Gain Block
- IF Amplifier/RF Driver Amplifier
- RF Wideband Front Ends
- RF Pre-amplification
- Fixed and Land Mobile



ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved

ESD Workstation.

Fairview Microwave
 10340 Preston, Suite 100
 Lewisville, TX 75056
 Tel: 1-800-715-4396 / (972) 649-6678
 Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

Mechanical Specifications

Size

Weight 0.086 lbs [39.01 g]
 Input Connector SMA Female
 Output Connector SMA Female

Environmental Specifications

Temperature

Operating Range -40 to +75 deg C
 Storage Range -55 to +125 deg C

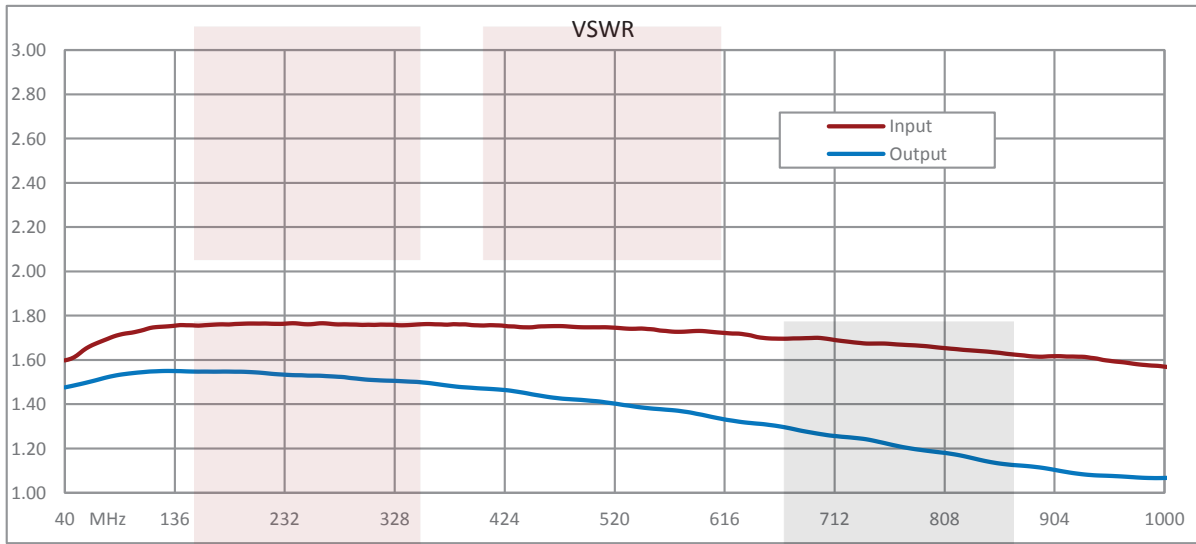
Compliance Certifications (see [product page](#) for current document)

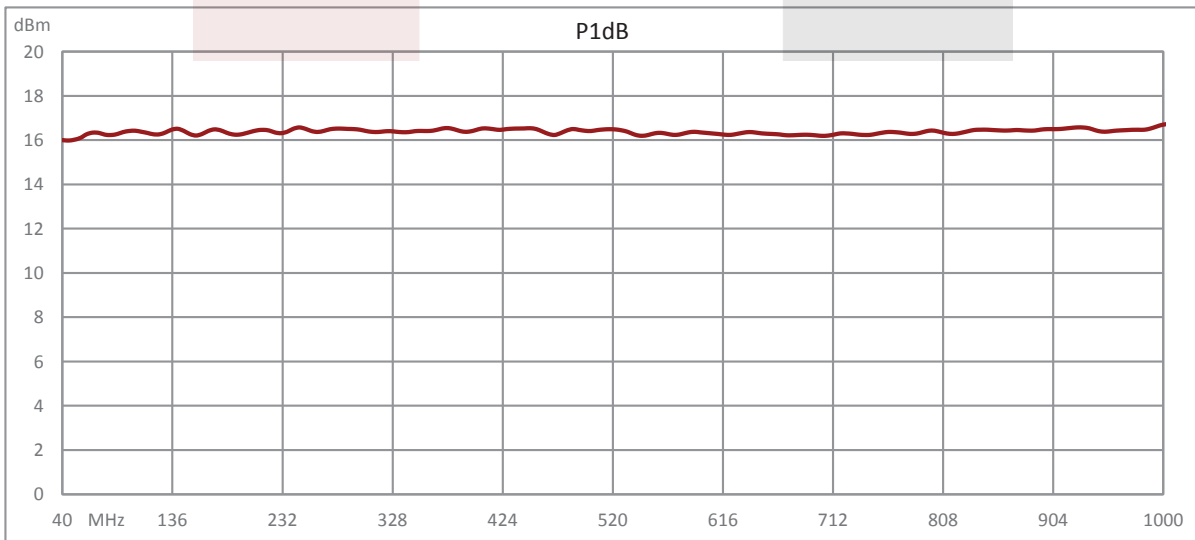
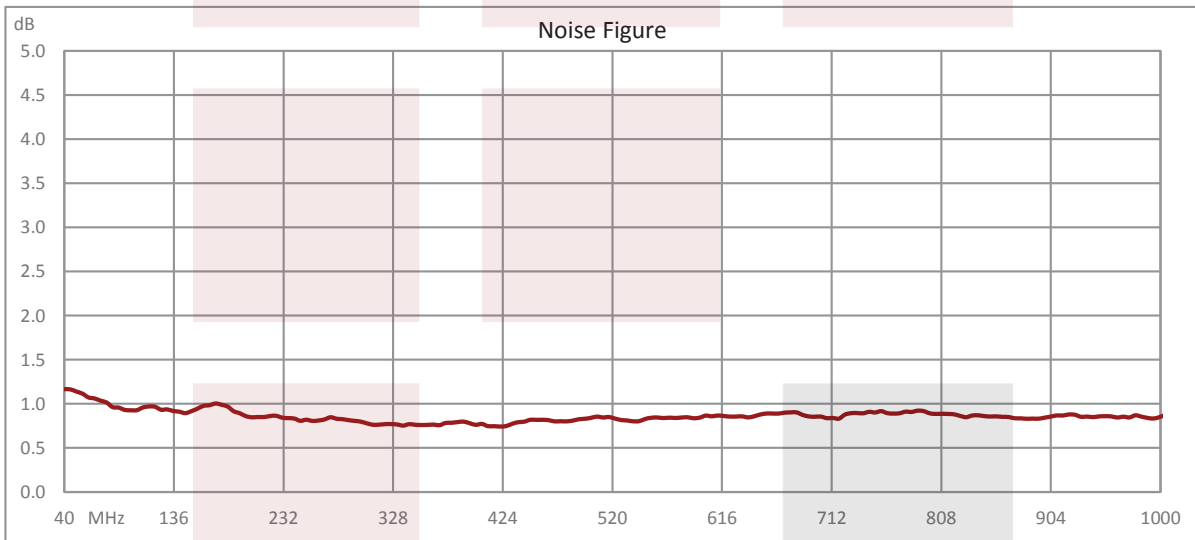
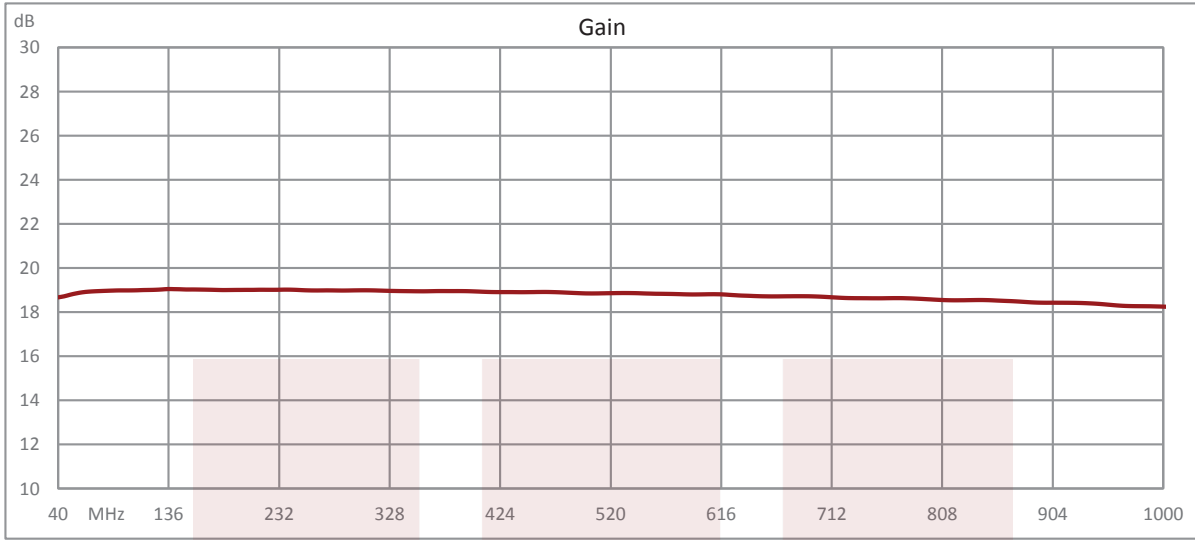
Plotted and Other Data

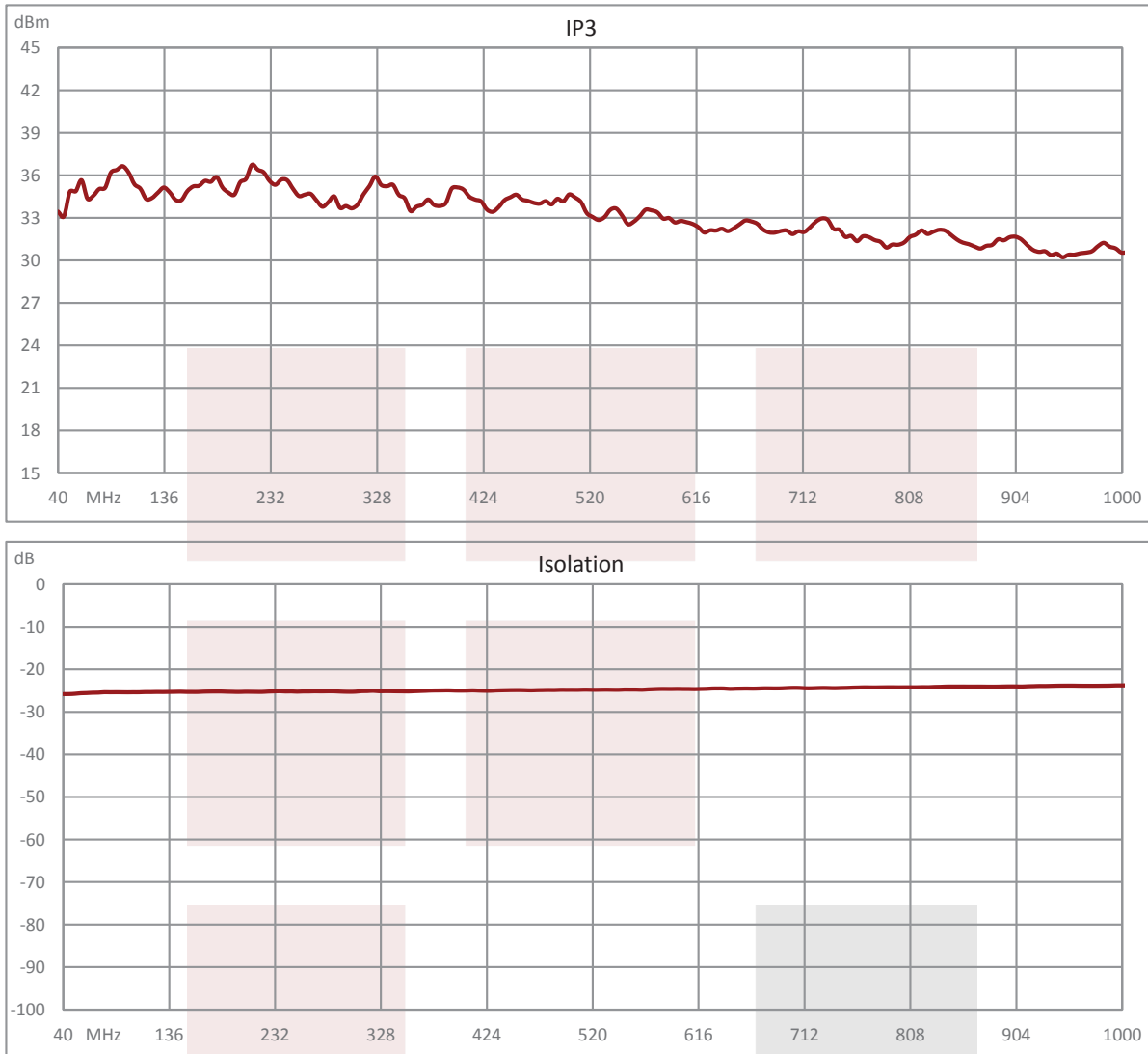
Notes:

- Values at 25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

Typical Performance Data







1.2 dB NF Low Noise Amplifier, Operating from 50 MHz to 1 GHz with 18 dB Gain, 16 dBm P1dB and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [1.2 dB NF Low Noise Amplifier, Operating from 50 MHz to 1 GHz with 18 dB Gain, 16 dBm P1dB and SMA FMAM1050](#)

URL: <https://www.fairviewmicrowave.com/1.2db-nf-low-noise-amplifier-18db-fmam1050-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.