Fairview Microwave
RF COMPONENTS ON DEMAND. Done!

FMAM1068
DATA SHEET

0.9 dB NF Low Noise Amplifier, Operating from 500 MHz to 4 GHz with 24 dB Gain, 20 dBm Psat 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

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

Electrical Specifications (TA = +25°C , DC Voltage = 12Vdc , DC Current = 65mA)

Description	Min	Typ	Max	Unit
Frequency Range	0.5		4	GHz
Small Signal Gain	17	24		dB
Gain Flatness		±2.5	±3	dB
Gain Variation Over Temperature		0.014		dB/°C
Output at 1 dB Compression Point	+17	+17		dBm
Saturated Output Power (Psat)	+18	+20		dBm
Output 3rd Intercept Point	+32	+34		dBm
Noise Figure			0.9	dB
Input VSWR		1.8:1	2.5:1	
Output VSWR		1.2:1	2:1	
Reverse Isolation		-33		dB
Operating DC Voltage	9	12	15	Volts
Operating DC Current		65	75	mA
Operating Temperature Range	-40		+85	°C

RF Characteristic

Description	F1	F2	F3	Units
Frequency Range	0.5 to 0.5	0.5 to 2.2	2.2 to 4	GHz
Small Signal Gain	24	22	19	dB

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Absolute Maximum Rating

Parameter	Rating	Units
Supply Voltage	+16	V
RF Input Power	+27	dBm
Operating Temperature	-40 to +85	°C
Storage Temperature	-55 to +125	°C

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

Mechanical Specifications

Size

Weight	0.049 lbs [22.23 g]
Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +125 deg C

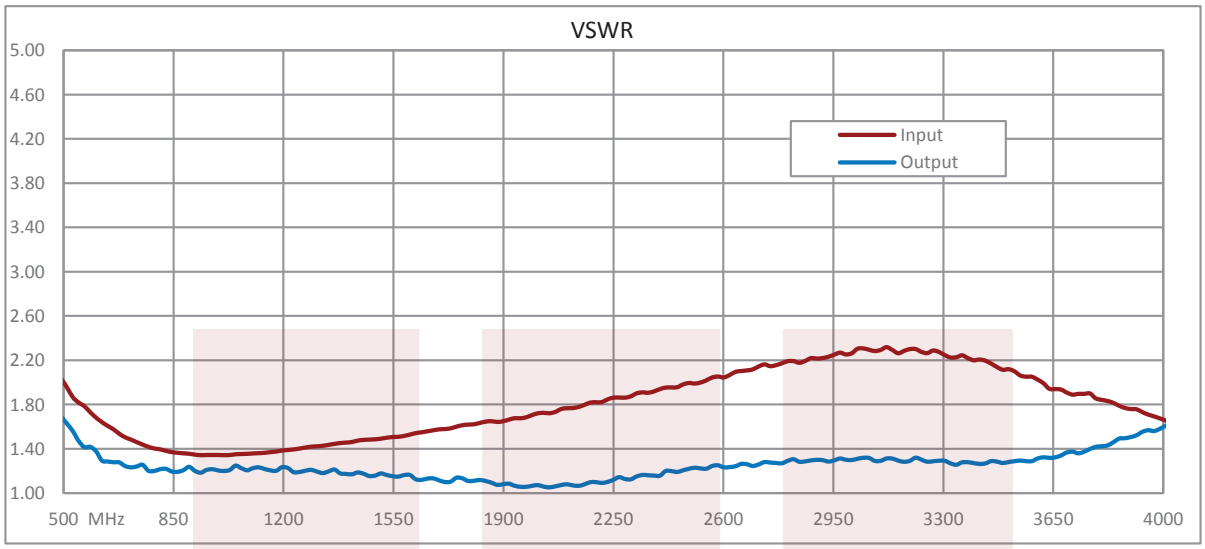
Compliance Certifications (see product page for current document)

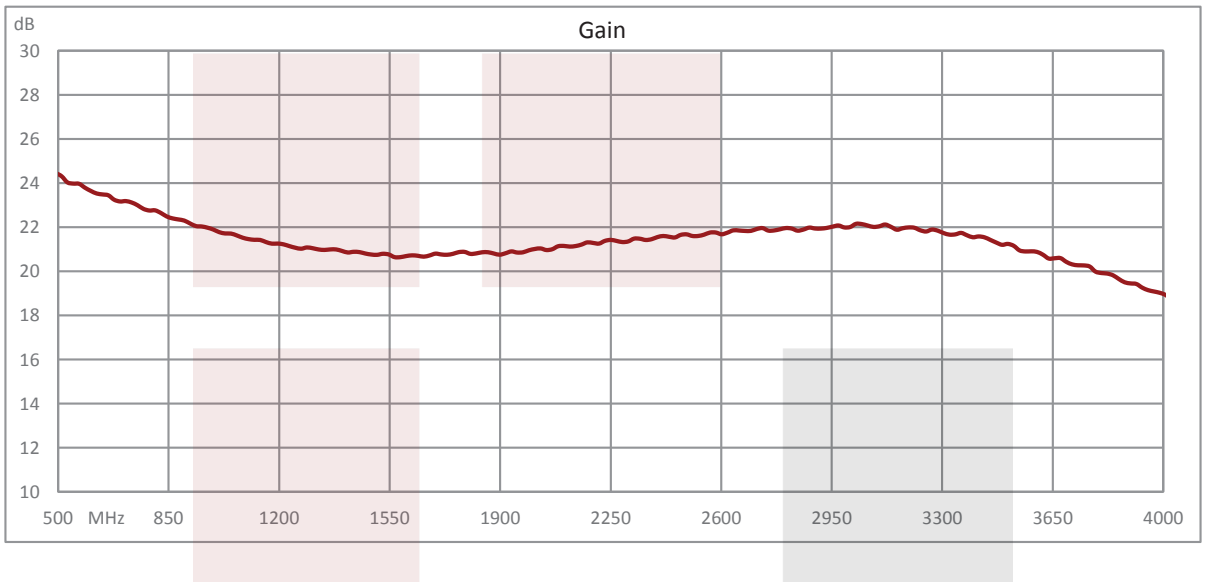
Plotted and Other Data

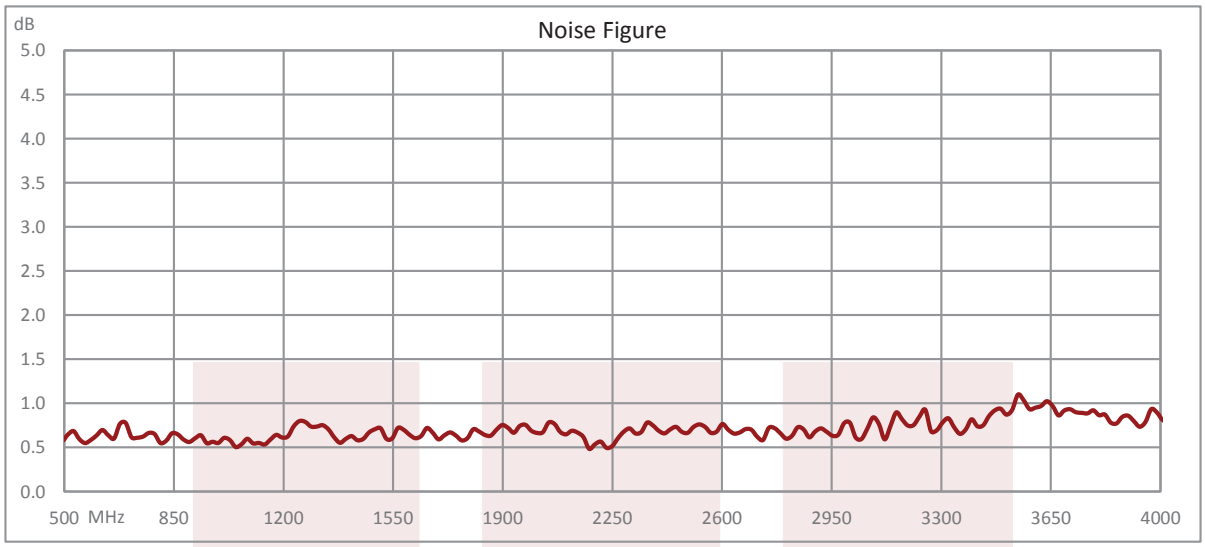
Notes:

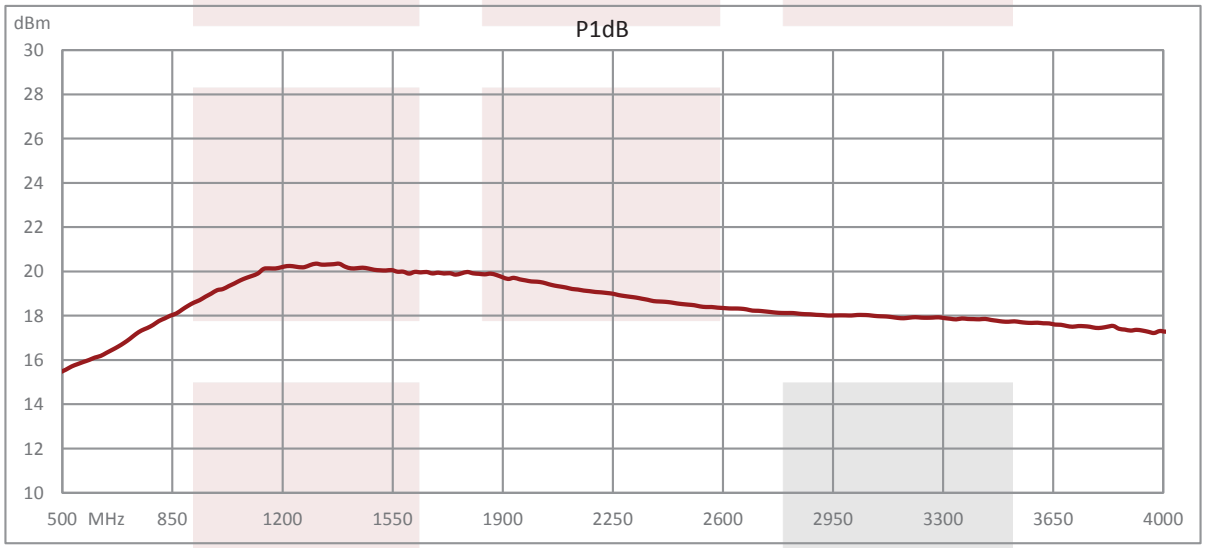
- Values at 25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

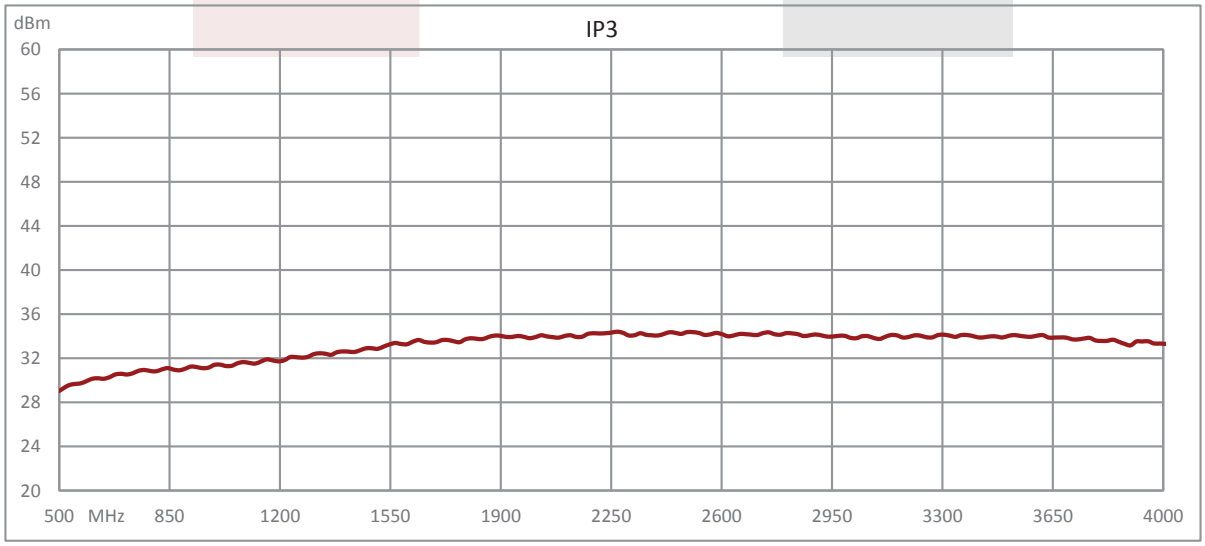
Typical Performance Data











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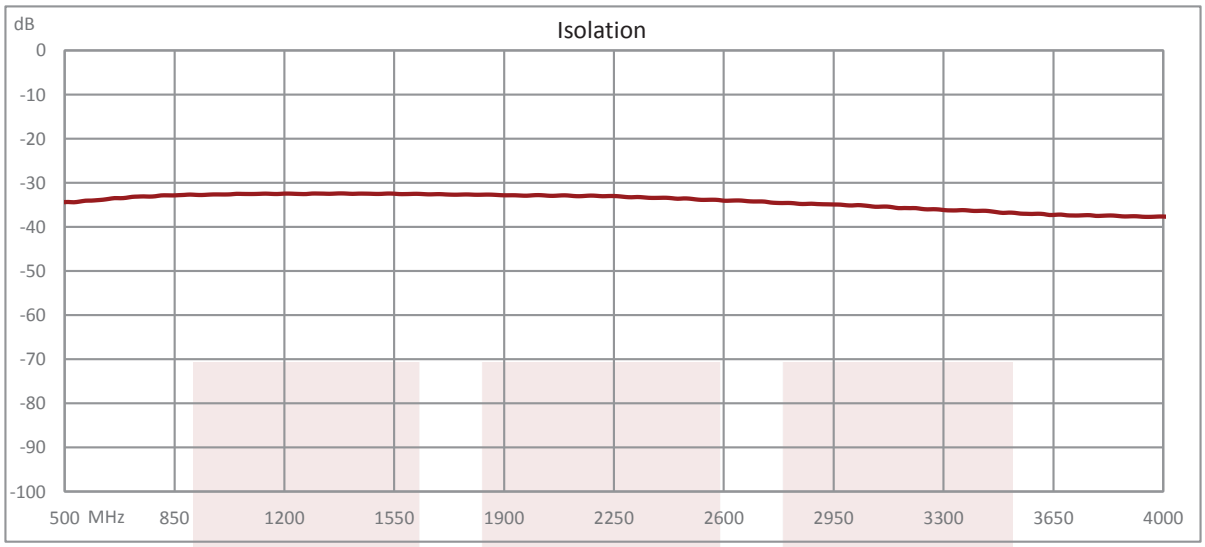

0.9 dB NF Low Noise Amplifier, Operating from 500 MHz to 4 GHz with 24 dB Gain, 20 dBm Psat and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: 0.9 dB NF Low Noise Amplifier, Operating from 500 MHz to 4 GHz with 24 dB Gain, 20 dBm Psat and SMA FMAM1068

URL: https://www.fairviewmicrowave.com/0.9db-nf-low-noise-amplifier-24db-fmam1068-p.aspx