

0.9 dB NF Low Noise Amplifier Operating From 2 GHz to 6 GHz with 40 dB Gain, 14 dBm P1dB and SMA

SLNA-060-40-09-SMA is a wideband ultra-low noise coaxial amplifier operating in the 2 GHz KHz to 6 GHz frequency range. The amplifier offers 0.9 dB noise figure, 14 dBm of P1dB and 40 dB high small signal gain with the excellent gain flatness of ±1dB. This exceptional technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. The low noise amplifier requires typically a +12V DC power supply. The connectorized SMA module is unconditionally stable and includes built-in voltage regulation, bias sequencing, and reverse bias protection for added reliability. The amplifier operates over the temperature range of -40°C and +75°C.

Electrical Specifications (TA = +25°C , DC Voltage = 15Volts , DC Current = 90mA)

Description	Min	Typ	Max	Unit
Frequency Range	2		6	GHz
Small Signal Gain	37	40		dB
Gain Flatness		±1	±1.25	dB
Gain Variance at OTR*		1.5		dB
Output at 1 dB Compression Point	+12	+14		dBm
Output at 1 dB Compression Point	+12	+14		dBm
Output 3rd Intercept Point	+22	+25		dBm
Noise Figure			0.9	1.1 dB
Input VSWR		1.5:1	2:1	
Output VSWR		1.6:1	2:1	
Reverse Isolation	55	60		dB
Operating DC Voltage	8		15	Volts
Operating DC Current	80	90	110	mA
Operating Temperature Range	-40		+75	°C

*OTR= Base Plate Operating Temperature Range

Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+5	dBm
Operating Temperature (base-plate)	-45 to +75	°C
Storage Temperature	-55 to +125	°C



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



Features:

- 2 GHz to 6GHz Frequency Range
- P1dB: 14 dBm
- High Small Signal Gain: 40 dB
- Gain Flatness: ±1 dB
- Gain Variance over OTR: ±1.5
- Noise Figure: 0.9dB
- IP3 25 dBm typ
- Reverse Isolation: 60 dB
- 50 Ohms Input and Output Matched
- -40 to 75°C Operating Temperature
- Unconditionally Stable
- Regulated Supply & Bias Sequencing
- Overvoltage Protection

Applications:

- Laboratory Applications
- R&D Labs
- Military Radio
- Radar Systems
- Electronic Warfare
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- Communication Systems
- Wireless Communication
- Microwave Radio Systems
- Low Noise Amplifier
- General Purpose Amplification
- General Purpose Wireless
- Wideband Gain Block
- RF Driver Amplifier
- RF Pre-amplification

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Mechanical Specifications

Size

Length	1.5 in [38.1 mm]
Width	0.85 in [21.59 mm]
Height	0.375 in [9.53 mm]
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 (visit www.FairviewMicrowave.com for current document)

RoHS Compliant Yes

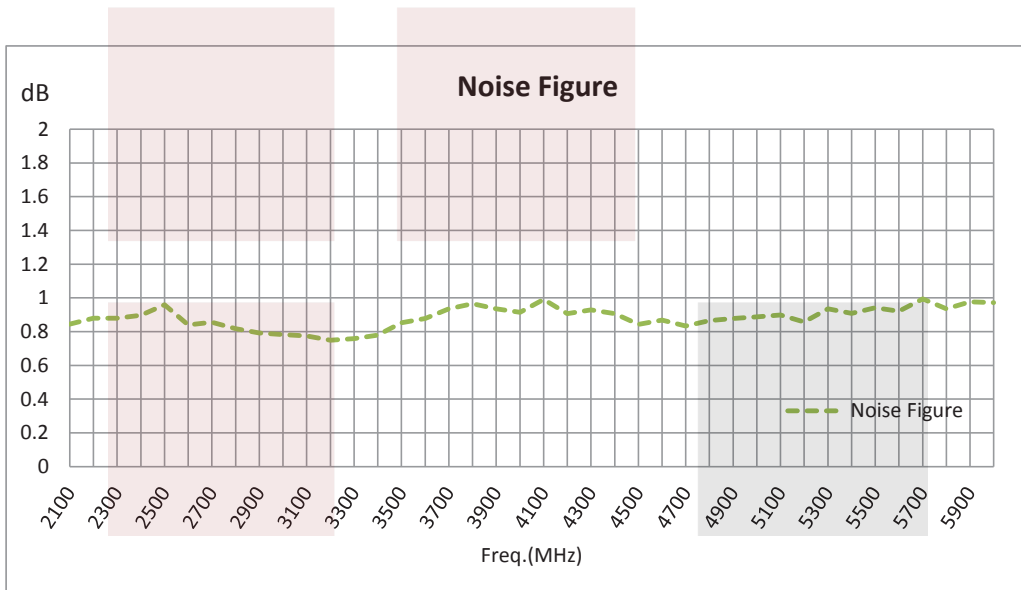
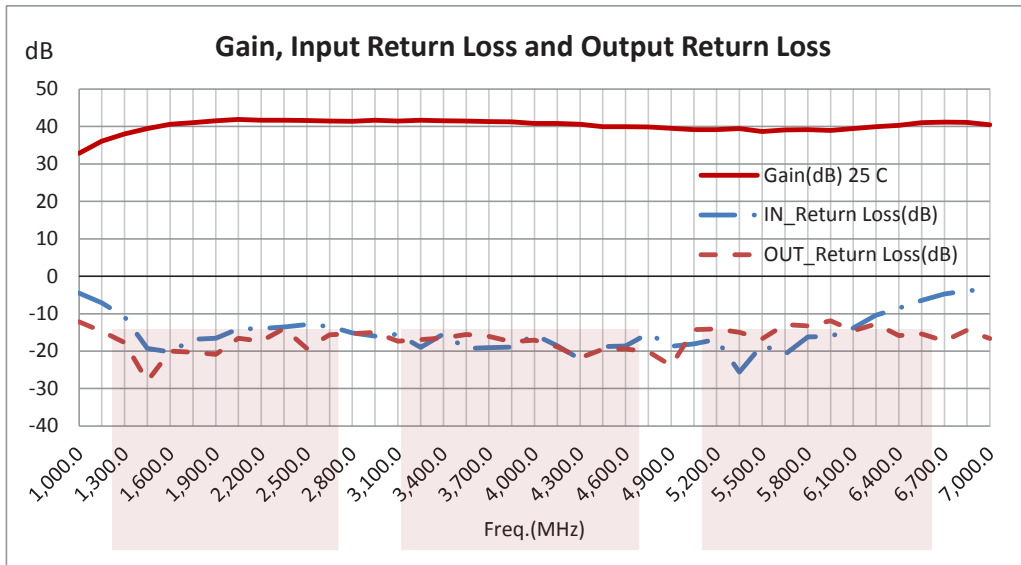
Plotted and Other Data

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



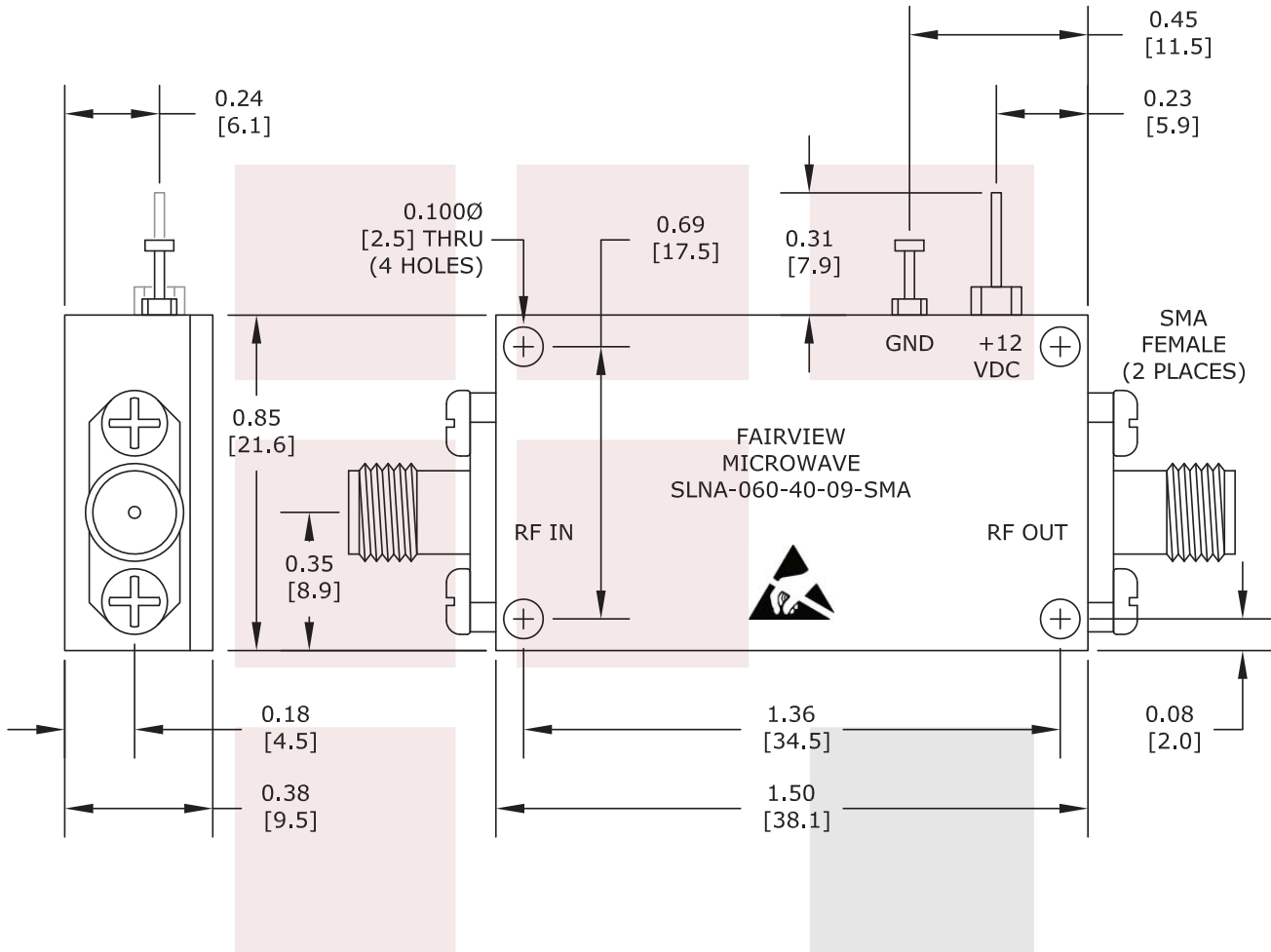
0.9 dB NF Low Noise Amplifier Operating From 2 GHz to 6 GHz with 40 dB Gain, 14 dBm P1dB and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [0.9 dB NF Low Noise Amplifier Operating From 2 GHz to 6 GHz with 40 dB Gain, 14 dBm P1dB and SMA SLNA-060-40-09-SMA](#)

URL: <http://www.fairviewmicrowave.com/0.9db-nf-low-noise-amplifier-40db-slna-060-40-09-sma-p.aspx>

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NOTE:
 HEAT SINK REQUIRED FOR PROPER OPERATION,
 UNIT IS COOLED BY CONDUCTING TO HEAT SINK.

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NOTES:
 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
 3. DIMENSIONS ARE IN INCHES [mm].

TITLE
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 to 6 GHz with 40 dB Gain, 14 dBm P1dB and SMA

DWG NO SLNA-060-40-09-SMA CAGE CODE 3FKR5

CAD FILE	071414	SHEET	SCALE	N/A	SIZE	A	2233
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