

**1.4 dB NF Low Noise Amplifier Operating From 10 MHz to 3 GHz with 34 dB Gain, 11 dBm P1dB and SMA**

SLNA-030-34-14-SMA is a wideband low noise RF coaxial power amplifier operating in the 10 MHz to 3 GHz frequency range. The amplifier offers 1.4 dB typical noise figure, 11 dBm of P1dB and 34 dB small signal gain with the excellent gain flatness of  $\pm 0.75$  dB max. 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 +85°C.

**Electrical Specifications** (TA = +25°C , DC Voltage = 12Volts , DC Current = 95mA)

Description	Min	Typ	Max	Unit
Frequency Range	0.01		3	GHz
Small Signal Gain	32.5	34		dB
Gain Flatness		$\pm 0.75$	$\pm 1$	dB
Gain Variance at OTR*			$\pm 1.25$	dB
Output at 1 dB Compression Point	+11	+11		dBm
Output at 1 dB Compression Point	+11	+11		dBm
Noise Figure (50 MHz to 3 GHz)		1.4	1.7	dB
Input VSWR		1.4:1	1.6:1	
Output VSWR		1.4:1	1.6:1	
Reverse Isolation	40	50		dB
Operating DC Voltage	10	12	15	Volts
Operating DC Current	85	95	105	mA
Operating Temperature Range	-40		+85	°C

\*OTR= Base Plate Operating Temperature Range

**Absolute Maximum Rating**

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+10	dBm
Operating Temperature (base-plate)	-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**

<b>Size</b>	
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



**Features:**

- 10 MHz to 3 GHz Frequency Range
- P1dB: 11 dBm
- Flat Small Signal Gain: 34 dB
- Gain Flatness:  $\pm 0.75$  dB
- Gain Variance over OTR:  $\pm 1.25$  dB
- Noise Figure: 1.4 dB typ
- Reverse Isolation: 50 dB
- 50 Ohms Input and Output Matched
- -40 to 85°C Operating Temperature
- Unconditionally Stable
- Regulated Supply & Bias Sequencing
- Overvoltage Protection

**Applications:**

- Laboratory Applications
- R&D Labs
- Military Radio
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- 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

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**Environmental Specifications**

**Temperature**

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

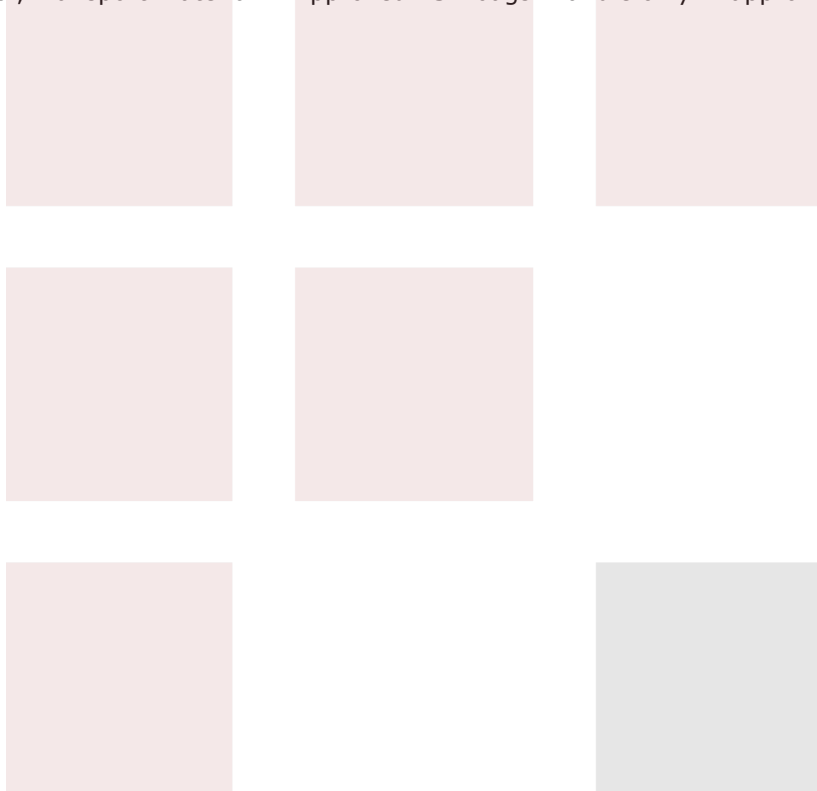
**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

RoHS Compliant Yes

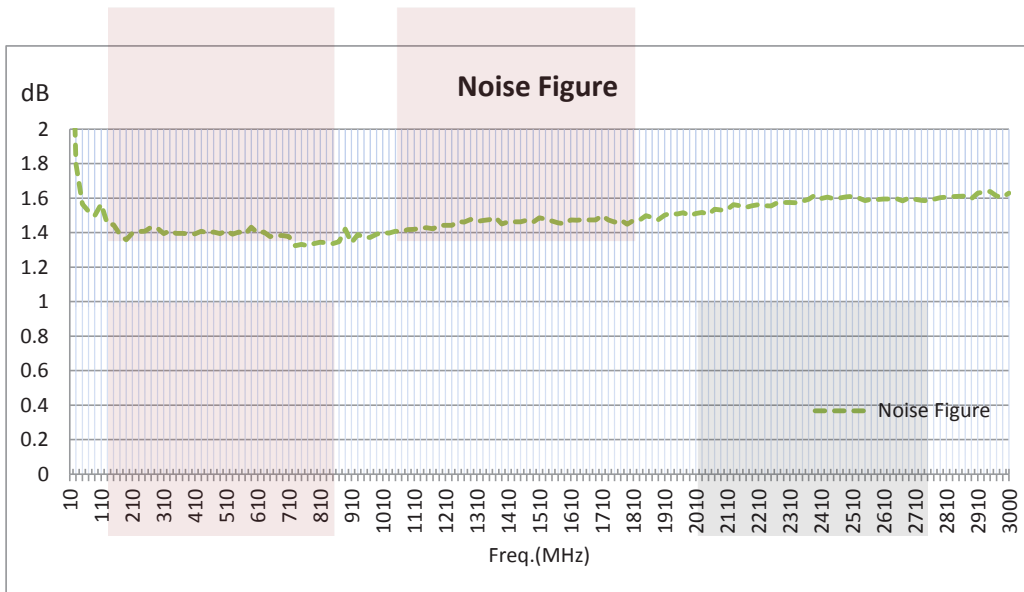
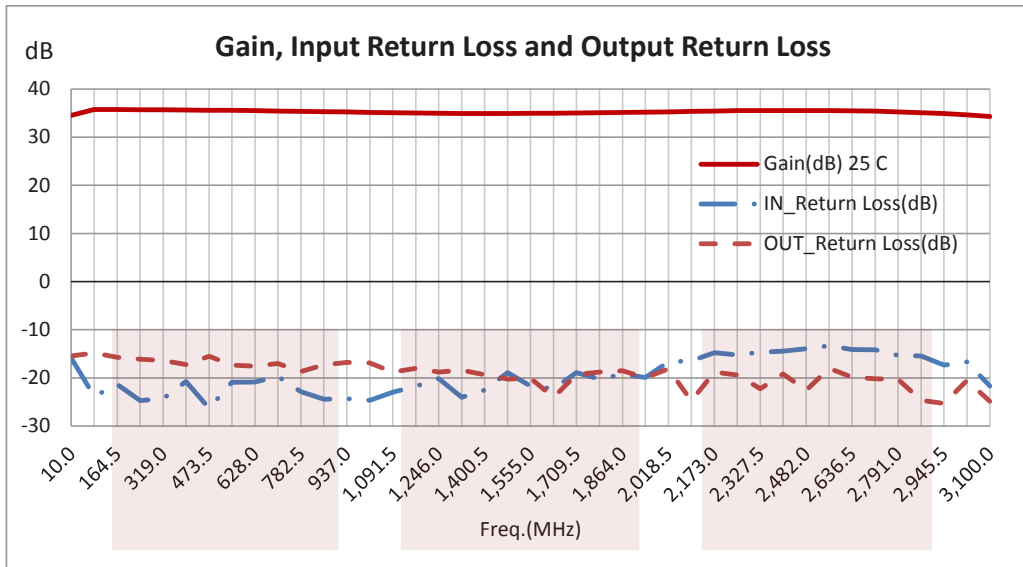
**Plotted and Other Data**

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**

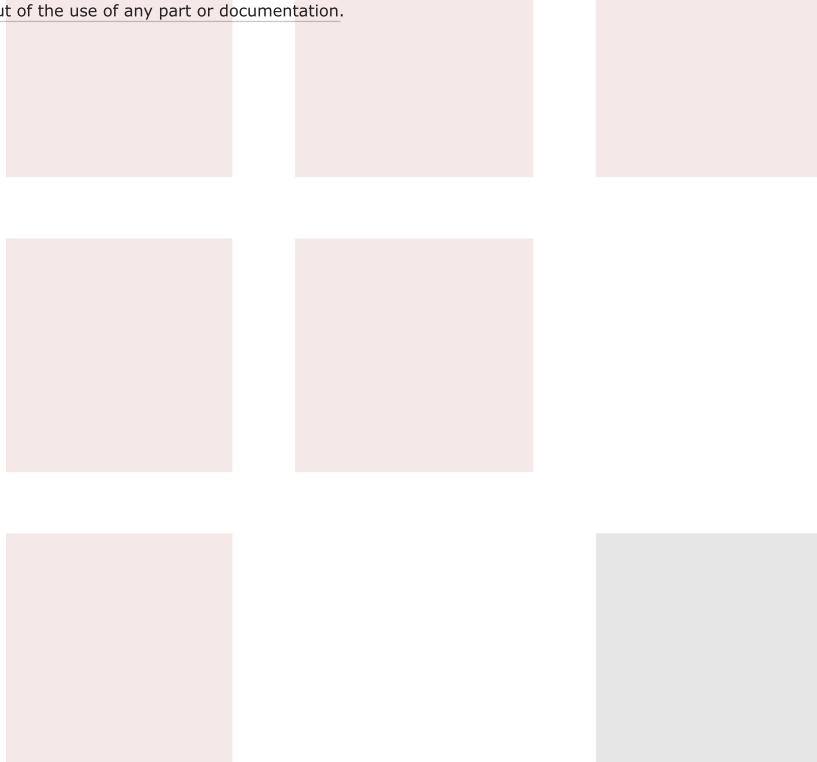


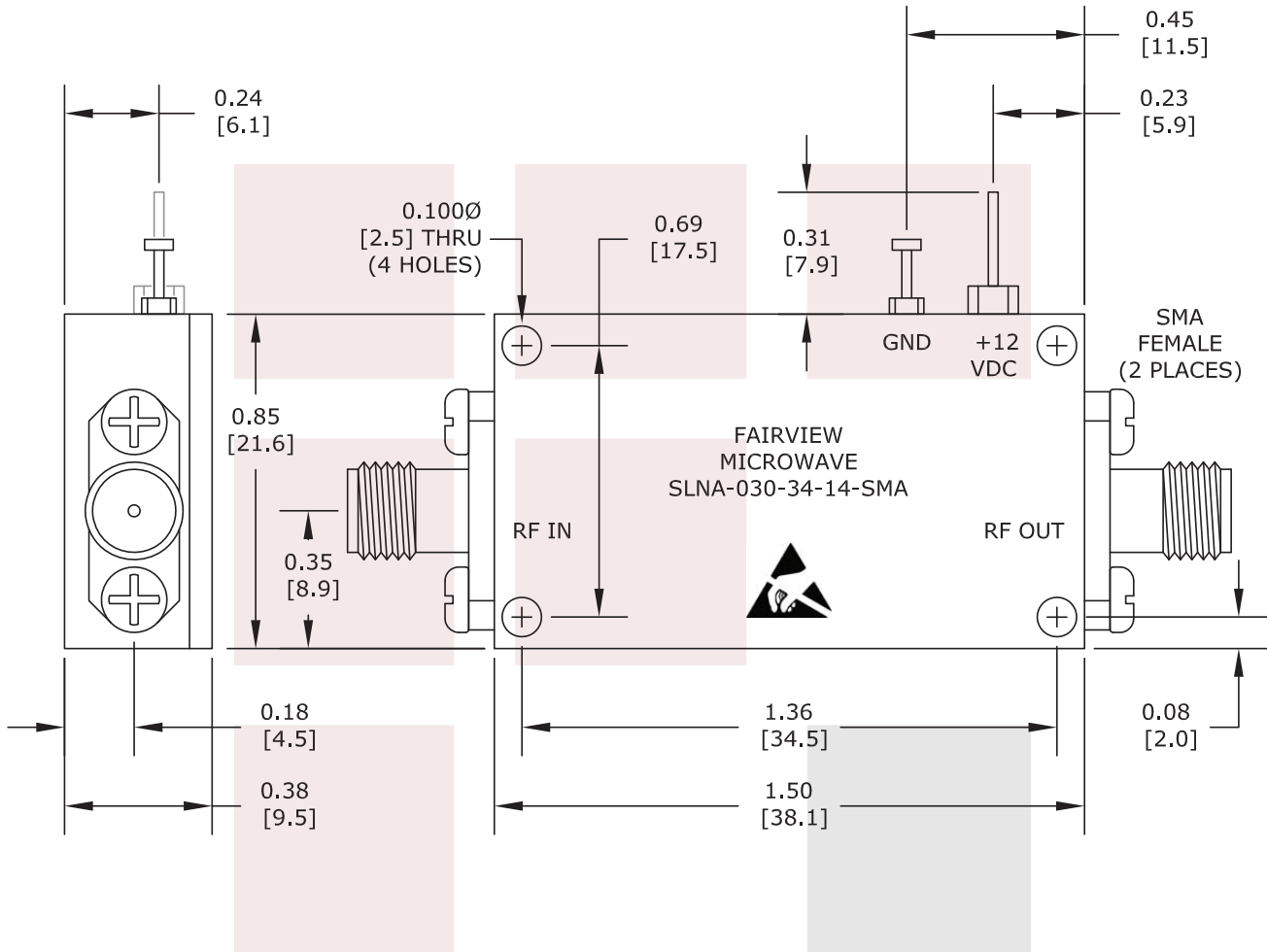
1.4 dB NF Low Noise Amplifier Operating From 10 MHz to 3 GHz with 34 dB Gain, 11 dBm P1dB and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [1.4 dB NF Low Noise Amplifier Operating From 10 MHz to 3 GHz with 34 dB Gain, 11 dBm P1dB and SMA SLNA-030-34-14-SMA](#)

URL: <http://www.fairviewmicrowave.com/1.4db-nf-low-noise-amplifier-34db-slna-030-34-14-sma-p.aspx>

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TITLE 1.4 dB NF Low Noise Amplifier Operating From 10 MHz to 3 GHz with 34 dB Gain, 11 dBm P1dB and SMA		DWG NO SLNA-030-34-14-SMA		CAGE CODE 3FKR5	
CAD FILE 071414 SHEET		SCALE N/A		SIZE A 2233	