

**1 dB NF Low Noise Amplifier Operating From 10 MHz to 1,000 MHz with 30 dB Gain, 17 dBm P1dB and SMA**

SLNA-010-30-12-SMA is a wideband low noise RF coaxial power amplifier operating in the 10 MHz to 1 GHz frequency range. The amplifier offers 1 dB noise figure, 17 dBm of P1dB and 30 dB small signal gain with the excellent gain flatness of  $\pm 0.7$  dB. 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, is unconditionally stable and operates over the temperature range of -40°C and +75°C.

**Electrical Specifications** (TA = +25°C , DC Voltage = 12Volts , DC Current = 110mA)

Description	Min	Typ	Max	Unit
Frequency Range	10		1,000	MHz
Small Signal Gain	28	30		dB
Gain Flatness		$\pm 0.7$	$\pm 1$	dB
Gain Variance at OTR*		1		dB
Output at 1 dB Compression Point	+16	+17		dBm
Noise Figure		1	1.2	dB
Input VSWR		1.3:1	1.5:1	
Output VSWR		1.2:1	1.5:1	
Reverse Isolation	45	49		dB
Spurious			-60	dBc
Operating DC Voltage	9	12	15	Volts
Operating DC Current	90	110	130	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	+15	dBm
Operating Temperature (base-plate)	-40 to +75	°C
Storage Temperature	-55 to +125	°C



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

**Configuration**

Connector 1  
Connector 2

SMA Female  
SMA Female

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



**Features:**

- 10 MHz to 1 GHz Frequency Range
- P1dB: 17 dBm
- Flat Small Signal Gain: 30 dB
- Gain Flatness:  $\pm 0.7$  dB
- Gain Variance:  $\pm 1$  dB
- Noise Figure: 1 dB
- Reverse Isolation: 49 dB
- 50 Ohm Input and Output Matched
- -40 to 75°C Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in Voltage Regulator

**Applications:**

- 10 MHz to 1 GHz Frequency Range
- P1dB: 17 dBm
- Flat Small Signal Gain: 30 dB
- Gain Flatness:  $\pm 0.7$  dB
- Gain Variance:  $\pm 1$  dB
- Noise Figure: 1 dB
- Reverse Isolation: 49 dB
- 50 Ohm Input and Output Matched
- -40 to 75°C Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in Voltage Regulator

Fairview Microwave  
1130 Junction Dr. #100  
Allen, TX 75013  
Tel: 1-800-715-4396 / (972) 649-6678  
Fax: (972) 649-6689  
[www.fairviewmicrowave.com](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

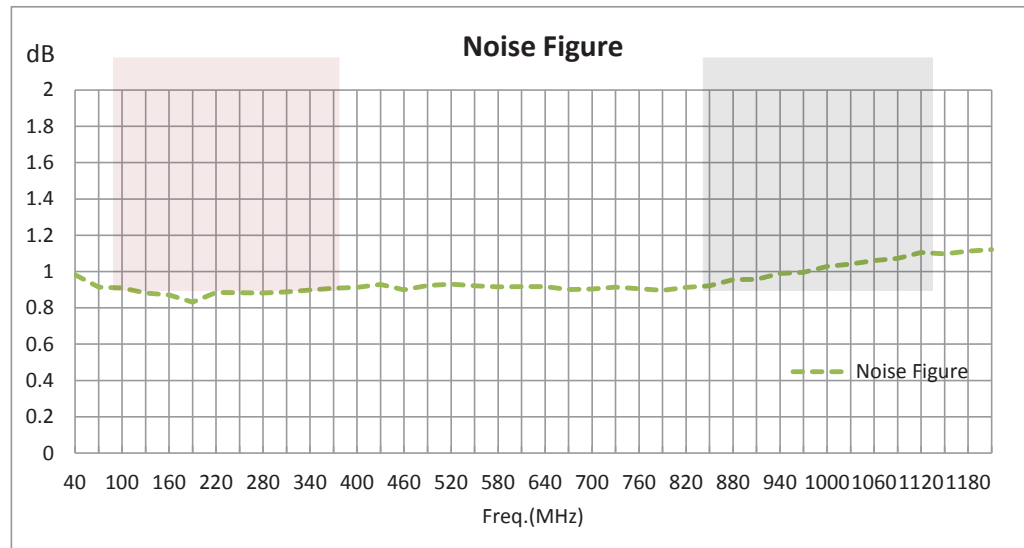
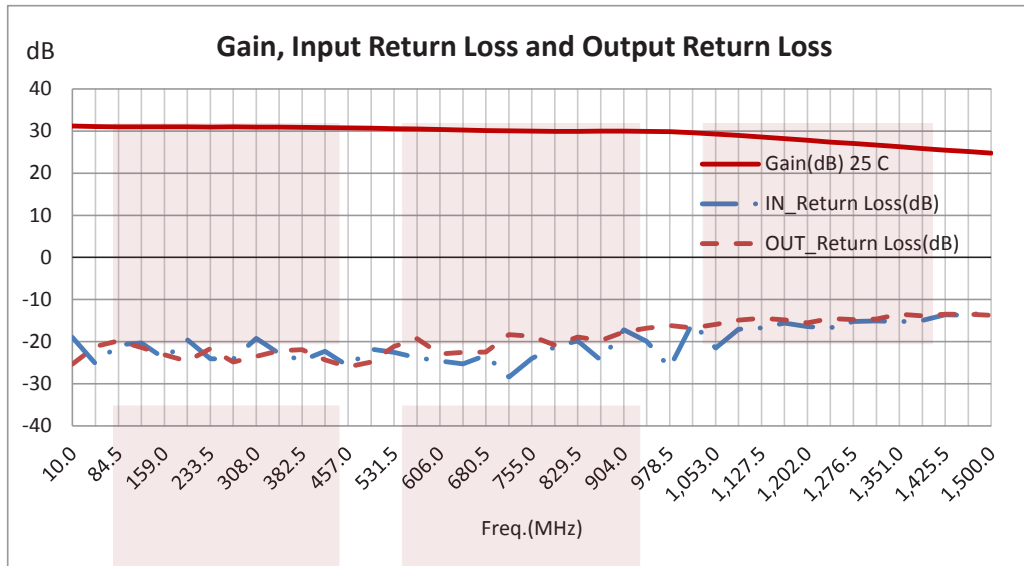
document)

## 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.

## Power Data



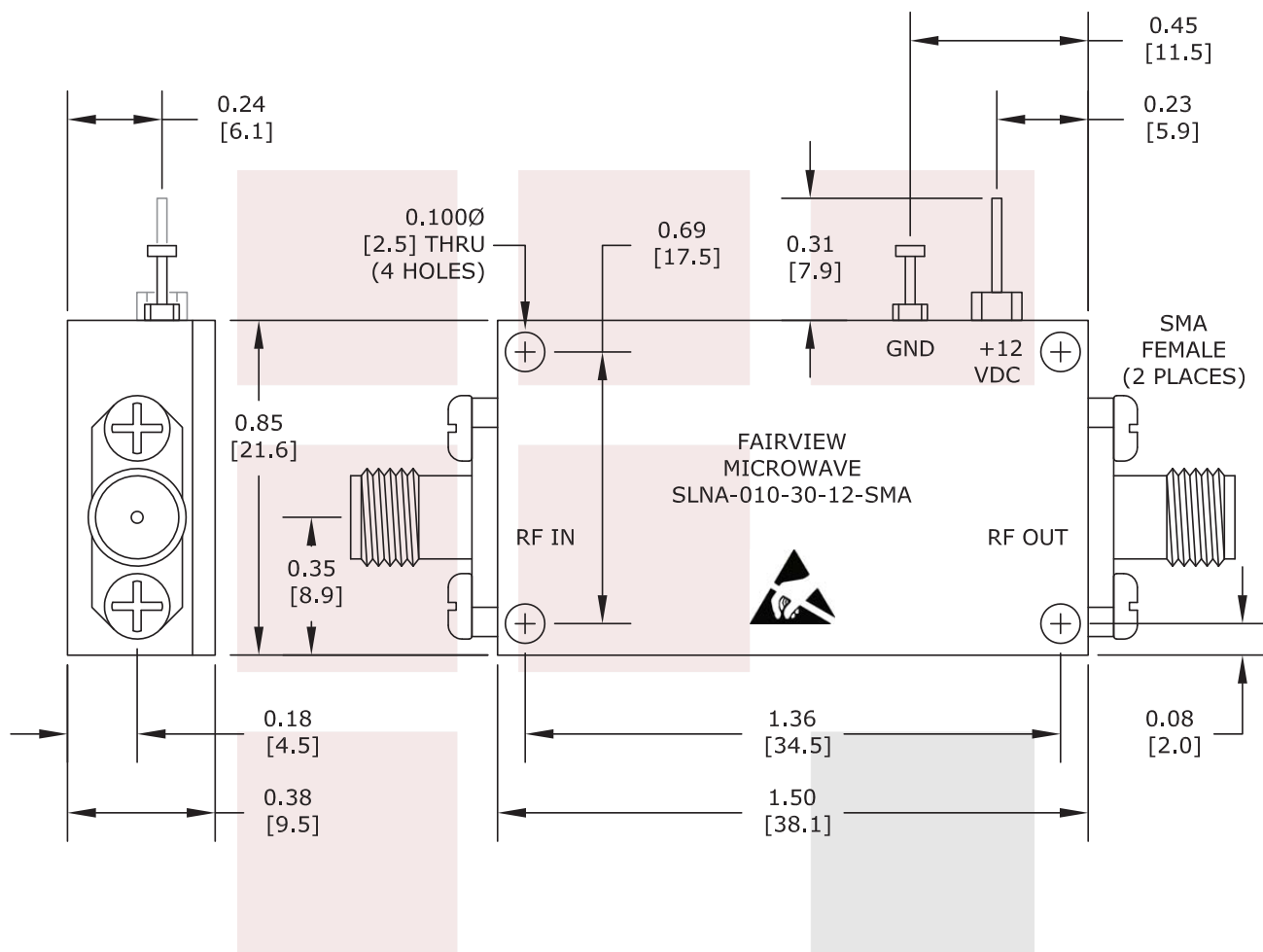
1 dB NF Low Noise Amplifier Operating From 10 MHz to 1,000 MHz with 30 dB Gain, 17 dBm P1dB and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [1 dB NF Low Noise Amplifier Operating From 10 MHz to 1,000 MHz with 30 dB Gain, 17 dBm P1dB and SMA SLNA-010-30-12-SMA](#)

URL: <http://www.fairviewmicrowave.com/1db-nf-low-noise-amplifier-30db-slna-010-30-12-sma-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.





## FAIRVIEW MICROWAVE INC.

ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM

### 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

1 dB NF Low Noise Amplifier Operating From 10 MHz to 1,000 MHz with 30 dB Gain, 17 dBm P1dB and SMA

### DWG NO

SLNA-010-30-12-SMA

### CAGE CODE

3FKR5

### CAD FILE

050914

### SHEET

1

### SCALE

N/A

### SIZE

A

2233