

**3 dB NF, 2 GHz to 18 GHz, Low Noise Broadband Amplifier with 14 dBm, 26 dB Gain, 24 dBm IP3 and SMA**

SLNA-180-26-30-SMA is a broadband high gain GaAs PHEMT MMIC-based coaxial low noise amplifier, operating in the 2 to 18 GHz frequency range. The amplifier offers 14 dBm of P1dB and 26 dB small signal gain, with the gain flatness of  $\pm 2.0$  dB, along with 24 dBm pf IP3 performance. This low noise amplifier requires only a single positive DC supply, unconditionally stable, operates over the temperature range of  $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$ , and characterized by a light weight (25 g) and small size (1.2"x1.0"x0.4").

**Electrical Specifications** (TA =  $+25^{\circ}\text{C}$ , DC Voltage = 12Volts, DC Current = 140mA)

Description	Min	Typ	Max	Unit
Frequency Range	2		18	GHz
Gain		26		dB
Gain Flatness		$\pm 2$		dB
Gain Variance at OTR*		$\pm 1.5$		dB
P1dB		+14		dBm
IP3		+24		dBm
Spurious			-60	dBc
Noise Figure		3	5	dB
Input VSWR		2:1		
Output VSWR		2:1		
Operating DC Voltage		12		Volts
Operating DC Current		140		mA
Operating Temperature Range (OTR)	-40		+85	$^{\circ}\text{C}$

\*OTR= Base Plate Operating Temperature Range

**Absolute Maximum Rating**

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-45 to +75	$^{\circ}\text{C}$
Storage Temperature	-55 to +125	$^{\circ}\text{C}$



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



**Features:**

- 2 to 18 GHz Frequency Range
- P1dB: 14 dBm
- Small Signal Gain: 26 dB
- Gain Flatness:  $\pm 2.0$  dB
- Gain Variation Over the Temperature Range:  $\pm 1.5$  dB
- P1dB: 14 dBm
- IP3: 24 dBm
- Noise Figure: 3 dB typ
- 50 Ohm Input and Output Matched
- $-40$  to  $+85^{\circ}\text{C}$  Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in DC Voltage Regulator
- Small Size & Light Weight

**Applications:**

- Laboratory Applications
- R&D Labs
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- Communication Systems
- Satellite Communications
- Wireless Communications
- Microwave Radio Systems
- Power Amplifier
- General Purpose Amplification
- RF Front Ends

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**Configuration**

- Connector 1 SMA Female
- Connector 2 SMA Female

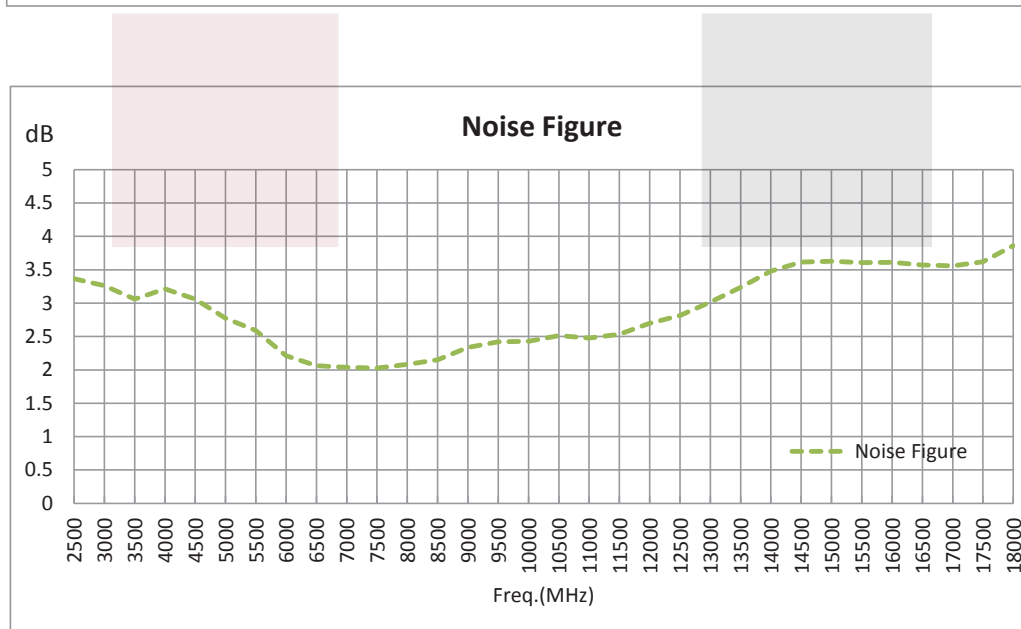
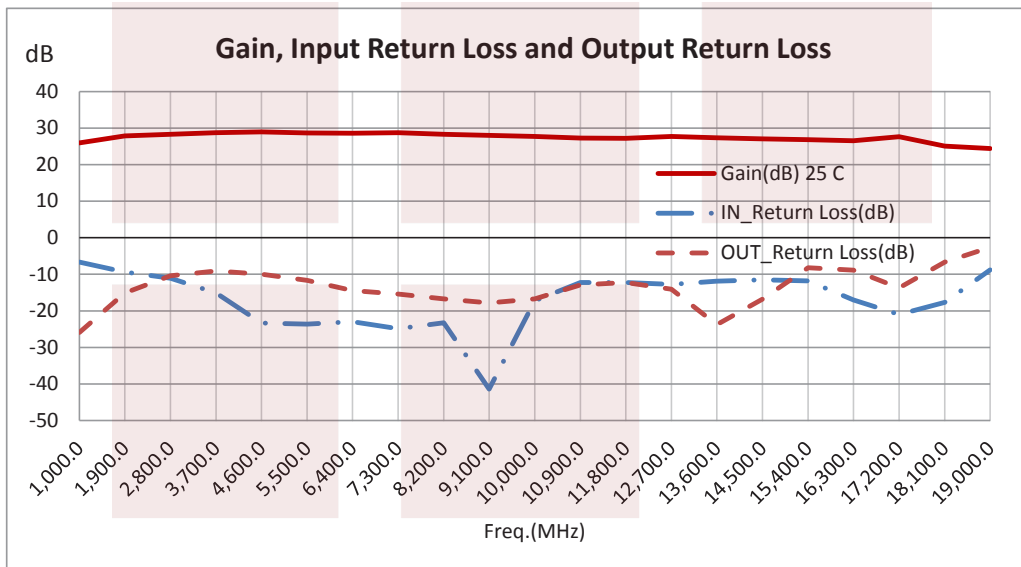
**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

**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.

**Power Data**



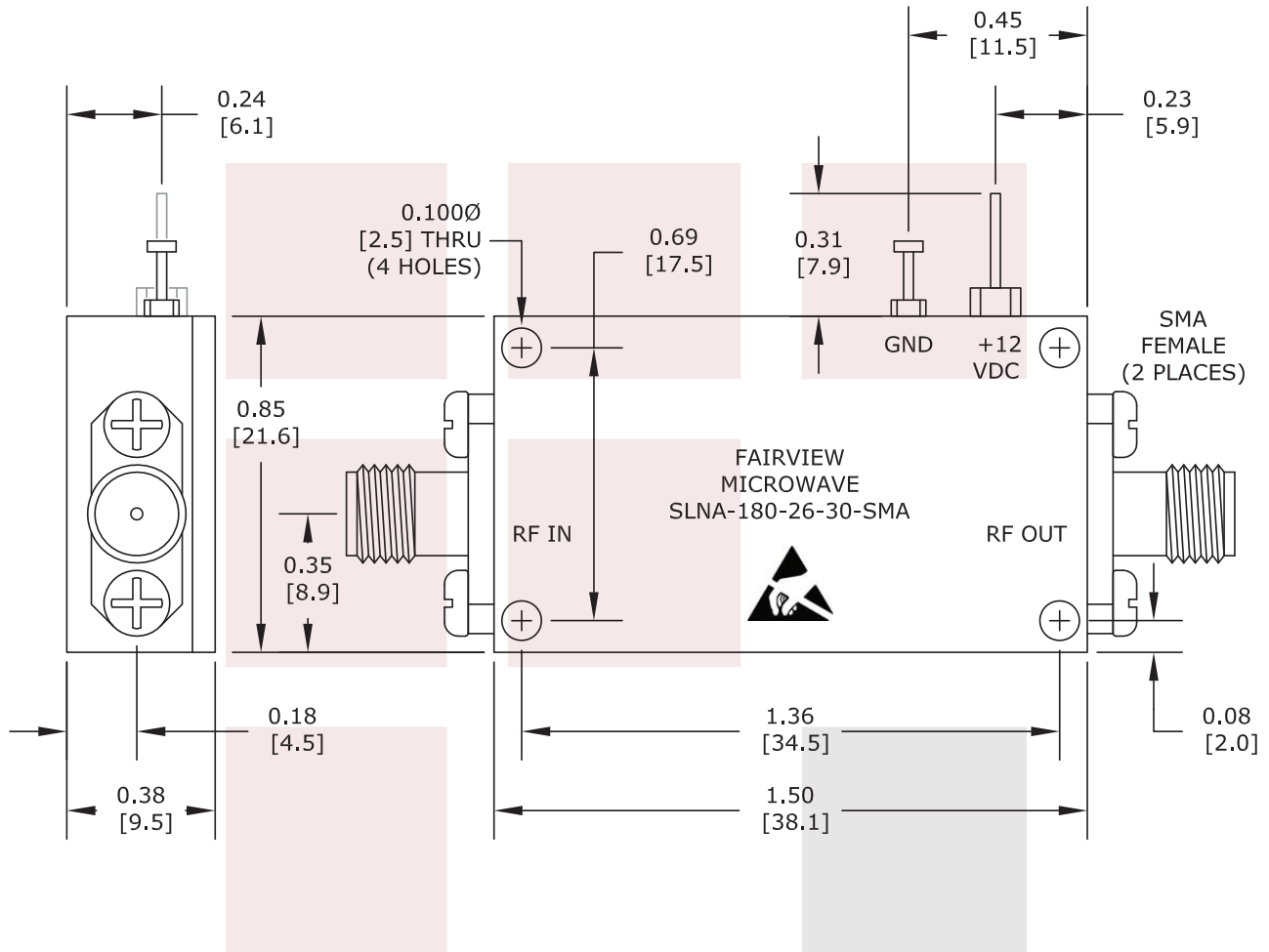
3 dB NF, 2 GHz to 18 GHz, Low Noise Broadband Amplifier with 14 dBm, 26 dB Gain, 24 dBm IP3 and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [3 dB NF, 2 GHz to 18 GHz, Low Noise Broadband Amplifier with 14 dBm, 26 dB Gain, 24 dBm IP3 and SMA SLNA-180-26-30-SMA](#)

URL: <http://www.fairviewmicrowave.com/2-18-ghz-low-noise-broadband-amplifier-slna-180-26-30-sma-p.aspx>

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

**FAIRVIEW MICROWAVE INC.**  
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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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 Amplifier with 14 dBm, 26 dB Gain, 24 dBm IP3 and  
 SMA

<b>DWG NO</b>	SLNA-180-26-30-SMA	<b>CAGE CODE</b>	3FKR5		
<b>CAD FILE</b>	071414	<b>SHEET</b>	<b>SCALE</b> N/A	<b>SIZE</b> A	2233