SBL-6531241550-1F1F-S1

Coax Low Noise Amplifier, 65 to 116 GHz, 15 dB Gain, 5 dB NF

SBL-6531241550-1F1F-S1 is a low noise amplifier with a typical small signal gain of 15 dB across the frequency range of 65 to 116 GHz and a nominal noise figure of 5 dB. The DC power requirement for the amplifier is +8 V_{DC}/35 mA. The input and output port configurations are both female 1.0 mm connectors. Other port configurations, such as inline and right-angle waveguides, are also available under different model numbers.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	65 GHz		116 GHz
Gain		15 dB	
Noise Figure		5 dB	
P_{1dB}		-5 dBm	
Operational P_{in}			+10dBm
Input Return Loss		8 dB	
Output Return Loss		8 dB	
DC Voltage	+6 V_{DC}	+8 V_{DC}	+15 V_{DC}
DC Supply Current		35 mA	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

Item	Specification
RF Ports	1.0 mm (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.3 Oz
Size	1.20” (W) x 1.20” (L) x 0.38” (H)
Outline	BU-SC-1

ECCN

EAR99

FEATURES

- High Gain
- Full Waveguide Band Performance

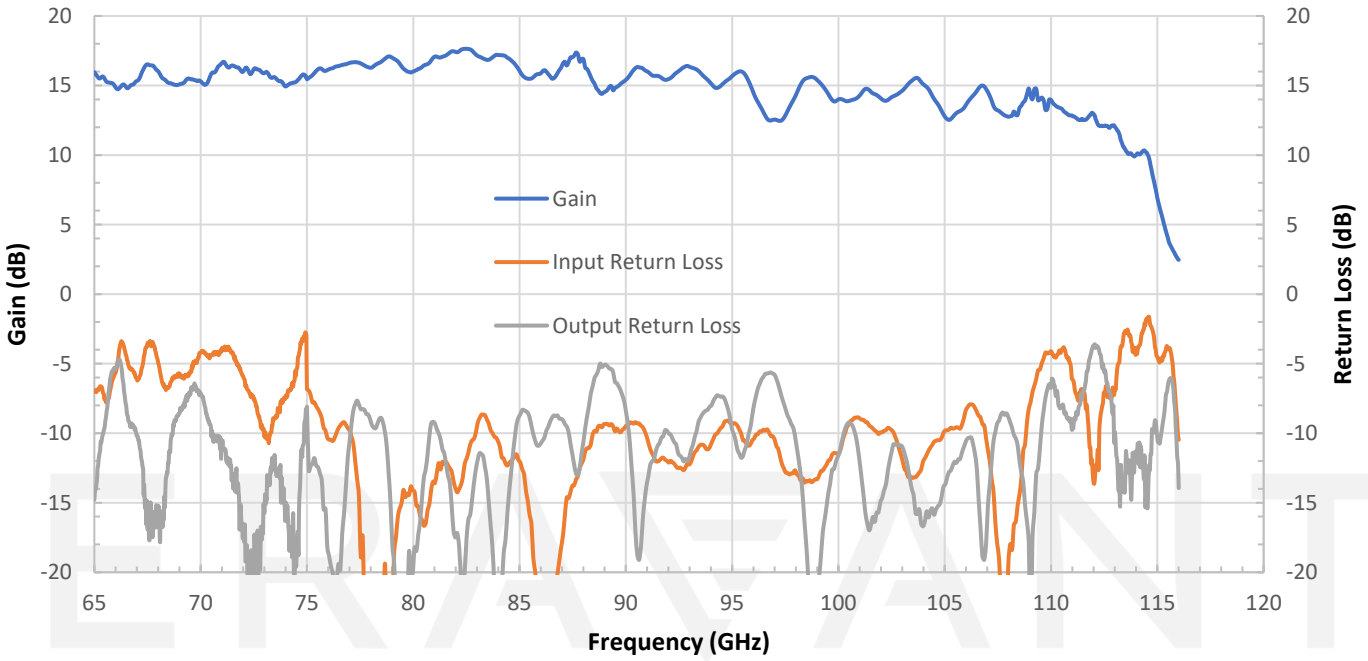
APPLICATIONS

- Low Noise Receivers
- Communication Systems
- IEEE 802.11.ad WiGig

SUPPLEMENTAL DETAILS

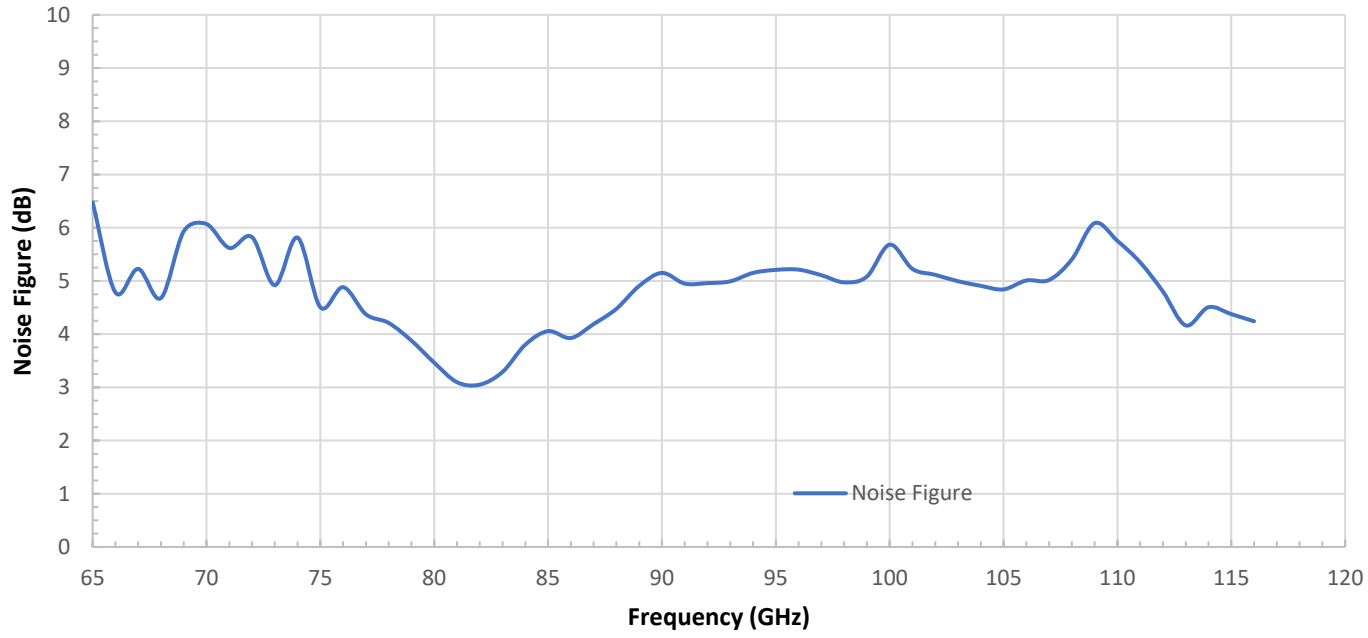
Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/47 mA



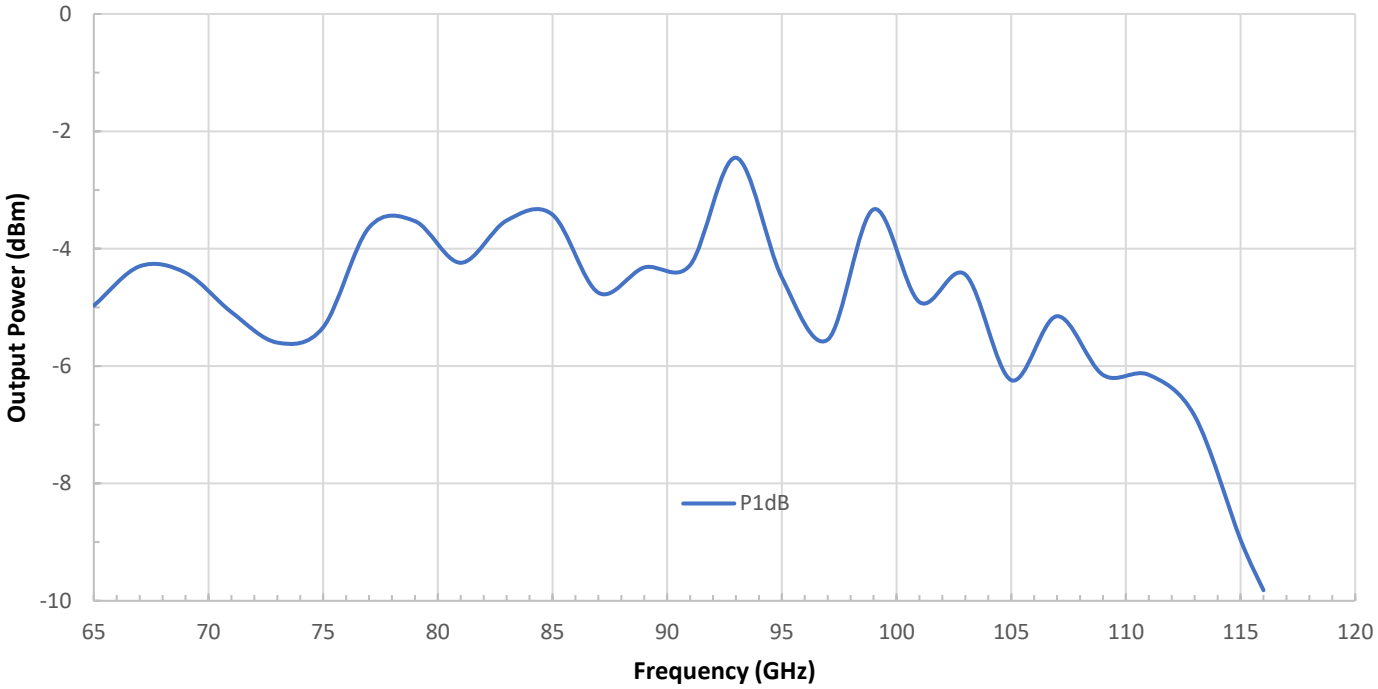
Noise Figure vs. Frequency

Bias: +8V_{DC}/47 mA

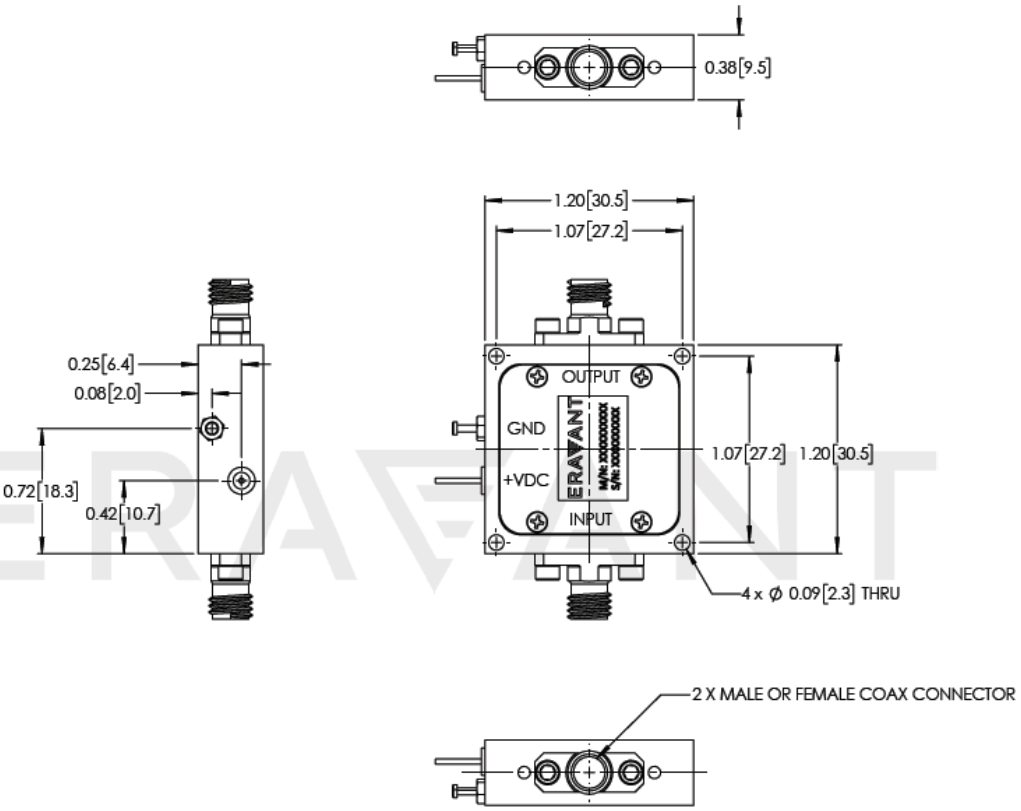


Output Power vs. Frequency

Bias: +8V_{DC}/47 mA



Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Other configurations are available under different model numbers.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- Exceeding absolute maximum rating shown will damage the device.
- The device is static sensitive. Always follow ESD rules when working with the device.
- The case temperature of the device shall never exceed +50 °C. Use proper heatsink or fan if necessary.
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model SCH-08008-S1 is highly recommended.