ERAWANT

SBL-3735232445-19VF-E1

U-Band Low Noise Amplifier, 24 dB Gain, 4.5 dB NF

SBL-3735232445-19VF-E1 is a low noise amplifier with a typical small signal gain of 24 dB and a nominal noise figure of 4.5 dB across the frequency range of 37 to 51.5 GHz. The DC power requirement for the amplifier is +6 VDC/130 mA. The mechanical configuration offers a in-line structure with a WR-19 Uni-Guide[™] waveguide input and 1.85mm (F) connector. Other port configurations, such as a right angle structure with WR-19 waveguides or 1.85 mm connectors, are also available under different model numbers.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	37 GHz		51.5 GHz
Gain		24 dB	
Noise Figure		4.5 dB	
P _{in}			0 dBm
P _{1db}		12 dBm	
Input Return Loss		8 dB	
Output Return Loss		8 dB	
DC Voltage		$6 V_{DC}$	$15 V_{DC}$
DC Supply Current		130 mA	
Specification Temperature		+25 °C	
Operation Temperature	0°C		+50 °C

Mechanical Specifications:

Specification	
WR-19 Uni-Guide™ waveguide	
1.85mm (F)	
UG-383/U-M Anti-CockingFlange	
Aluminum	
Gold Plated	
2.0 Oz	
1.59" (L) X 1.20" (W) X 1.13" (H)	
BG-SU-2WC-A	

ECCN

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FEATURES

- Good Gain Flatness
- State-of-the-Art Noise Figure

APPLICATIONS

- 5G Systems
- 47.5 51.2 GHz Satcom
- Communication Systems
- Radar Systems

SUPPLEMENTAL DETAILS



Advanced

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Mechanical Outline:

Unless otherwise specified, all dimensions are in inches [millimeters])



NOTE:

- The amplifier employs Eravant's trademarked and patent pending technology, the **Uni-Guide™**, as its waveguide interfaces. The orientation of the input and the output waveguides can be specified through corresponding model numbers. For example, the model number for a vertical input waveguide and horizontal output waveguide configuration would be SBL-3735232445-1919H-E1 instead of the default SBL-3735232445-1919-E1 which indicates vertical orientation for both input and output.
- Other mechanical configurations are available under different model numbers.
- · Eravant reserves the right to change the information presented without notice.

CAUTION:

- Exceeding absolute maximum ratings 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.
- Any foreign objects in the waveguide will cause performance degradation and may damage the device
- 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 <u>SCH-08008-S1</u> is highly recommended.