SBP-2733135035-KFKF-EA

Ka-Band Power Amplifier, 27 to 31 GHz, 50 dB Gain, +37 dBm P_{sat}

SBP-2733135035-KFKF-EA is a power amplifier with a typical small signal gain of 50 dB and a nominal P_{sat} of +37 dBm across the frequency range of 27 to 31 GHz. The DC power requirement for the amplifier is +24V V_{DC}/1.5 A. The mechanical configurations is an inline structure with K(F) connector as its input port and output port. Other port configurations, such as K(M) connectors and WR-28 waveguides for either the input or output port, are also available under different model numbers.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	27 GHz		31 GHz
Small Signal Gain	45 dB	50 dB	
Power Gain	40 dB		50 dB
Gain Flatness		±2 dB	
P_{1dB}		+35 dBm	
P_{sat}		+37 dBm	
P_{in}			+15 dBm
Input Return Loss		9 dB	
DC Supply Voltage	+20 V_{DC}	+24 V_{DC}	+28 V_{DC}
DC Supply Current		1.5 A	
Specification Temperature		+25 ˚C	
Operating Temperature	0˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
Input	2.92 mm (K) Female
Output	2.92 mm (K) Female
Power Supply	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Size	2.21” (L) X 1.97” (W) X 0.51” (H)
Outline	BP-LC-1

ECCN

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FEATURES

- High Gain
- Good Gain Flatness
- High Output Power

APPLICATIONS

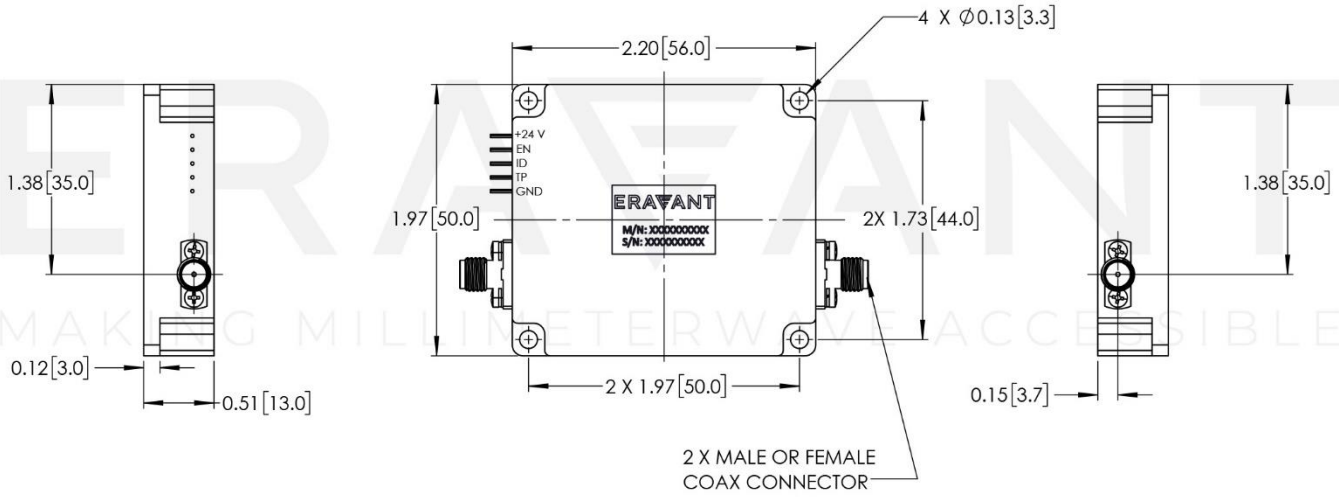
- 5G Systems
- Radar Systems
- Communication Systems
- Test Equipment

SUPPLEMENTAL DETAILS

Pin Definitions:

Pin	Name	Description
1	+24 V	DC Power Supply, +24 V
2	EN	Amplifier Enable: TTL “High” (Logic 1) Amplifier Disable: TTL “Low” (Logic 0)
3	ID	Current Detection, I = (V-2.5)/0.1, Unit: A
4	TP	Temperature Detection: T = (V-0.5)/0.01, Unit: ˚C
5	GND	DC Power Ground

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



NOTE:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- All testing was performed under +25 ˚C case temperature.
- 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. Eravant M/N SUA-95-S2-4 is recommended heatsink for this amplifier.
- 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.