SBP-3734333841-2F2F-EP

Q-Band Power Amplifier, 37 to 43 GHz, 38 dB Gain, +41 dBm P_{sat}

SBP-3734333841-2F2F-EP is a power amplifier with a typical power gain of 38 dB and a nominal P_{sat} of +41 dBm across the frequency range of 37 to 43 GHz. The DC power requirement for the amplifier is +28 V_{DC}/4.5 A. The mechanical configurations is an inline structure with 2.4 mm (F) connector as its input port and output port. Other port configurations, such as 2.4 mm (M) connectors and WR-22 waveguides for either the input or output port, are also available under different model numbers.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	37 GHz		43 GHz
Small Signal Gain		38 dB	
Power Gain		33 dB	
P_{sat}		+41 dBm	
P_{in}			+15 dBm
Input Return Loss		10 dB	
Output Return Loss		5 dB	
DC Supply Voltage (VDD)	+26 V_{DC}	+28 V_{DC}	+32 V_{DC}
DC Supply Current		4.5 A	
Supply Voltage to Fan		+12 V_{DC}/1.8 A	
Specification Temperature		+25 ˚C	
Operating Temperature	0˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
Input	2.4 mm Female
Output	2.4 mm Female
Power Supply	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Size	2.99” (L) X 3.15” (W) X 3.30” (H)
Outline	BP-HC-H3

ECCN

3A001.b.4

FEATURES

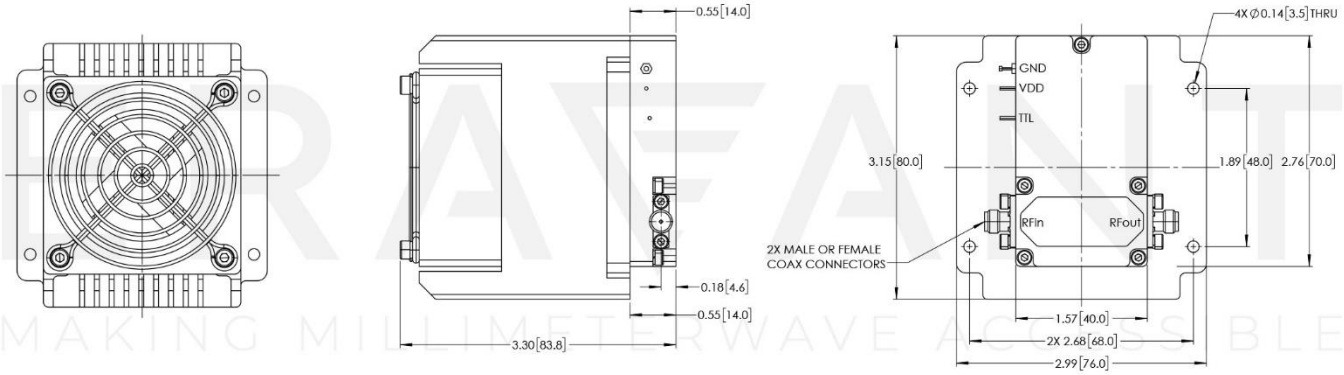
- Broadband Performance
- High Gain
- High Output Power

APPLICATIONS

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

SUPPLEMENTAL DETAILS

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



WIRE COLOR	FUNCTIONS
RED	+12V
BLACK	GND
YELLOW	TACH SIGNAL (OPTIONAL)
BLUE	PWM (OPTIONAL)

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.
- Do not block the air inlets and outlets.
- The device is static sensitive. Always follow ESD rules when working with the device.
- Do not plug or unplug any connectors when amplifier is activated. All connectors must be connected/disconnected when amplifier is off.
- 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 degrade performance and/or damage the device.
- 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.