SBP-3233834038-KFKF-EP-HR

32 to 38 GHz Power Amplifier, 40 dB Gain, +38 dBm P_{sat}

SBP-3233834038-KFKF-EP-HR is designed and manufactured for radar systems. This product is a power amplifier with a typical small gain of 40 dB and a nominal P_{sat} of +38 dBm across the frequency range of 32 to 38 GHz. The DC power requirement for the amplifier is +28 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	32 GHz		38 GHz
Gain		40 dB	
P_{sat}		+38 dBm	
P_{in}			+12 dBm
Input Return Loss		10 dB	
Output Return Loss		8 dB	
Pulse Repetition Frequency			25 kHz
Pulse Width	200 ns		
Switching Speed		250 ns	
DC Supply Voltage	+25 V_{DC}	+28 V_{DC}	+42 V_{DC}
DC Supply Current (P_{sat})		1.5 A	
Supply Voltage to Fan		+12 V_{DC}	
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
Pulsed Input (TTL)	SMA 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-H1

ECCN

3A001.b.4

FEATURES

- Pulsed Capability
- High Output Power
- Good Output Power Flatness

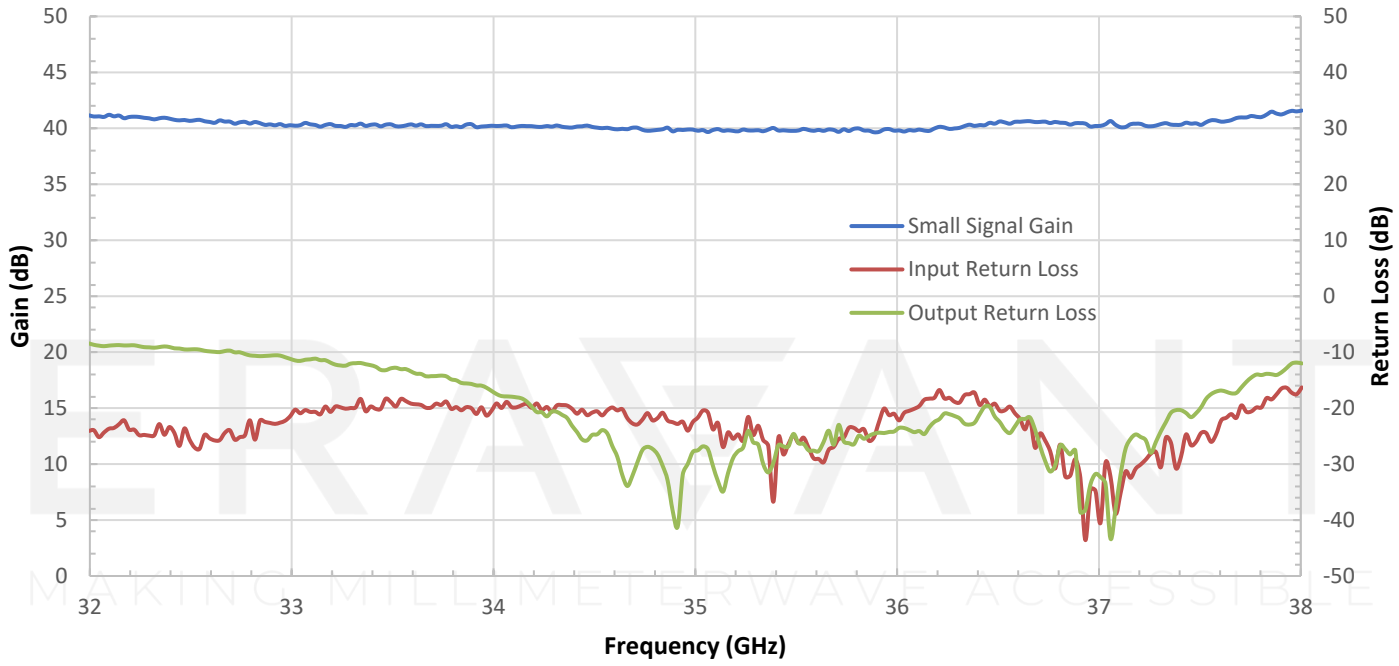
APPLICATIONS

- 5G Systems
- Radar Systems

SUPPLEMENTAL DETAILS

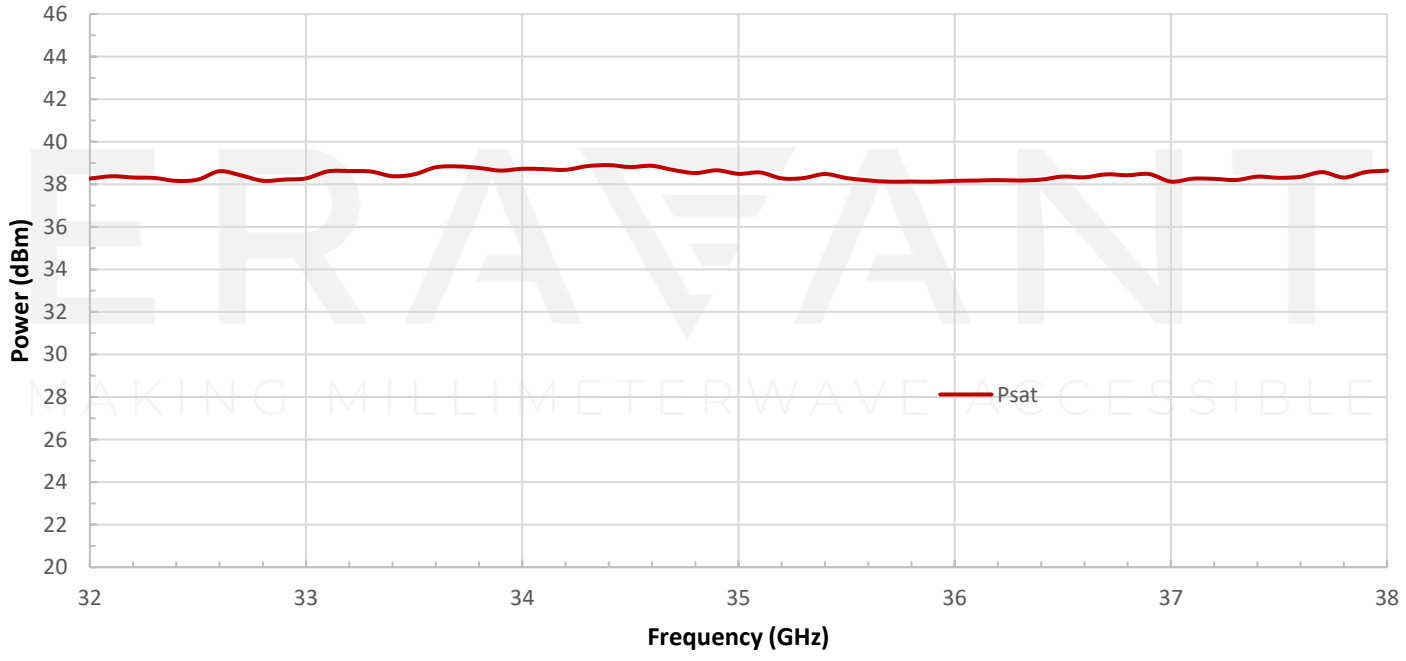
Gain and Return Loss vs. Frequency

Bias: +28 V_{DC}/1060 mA

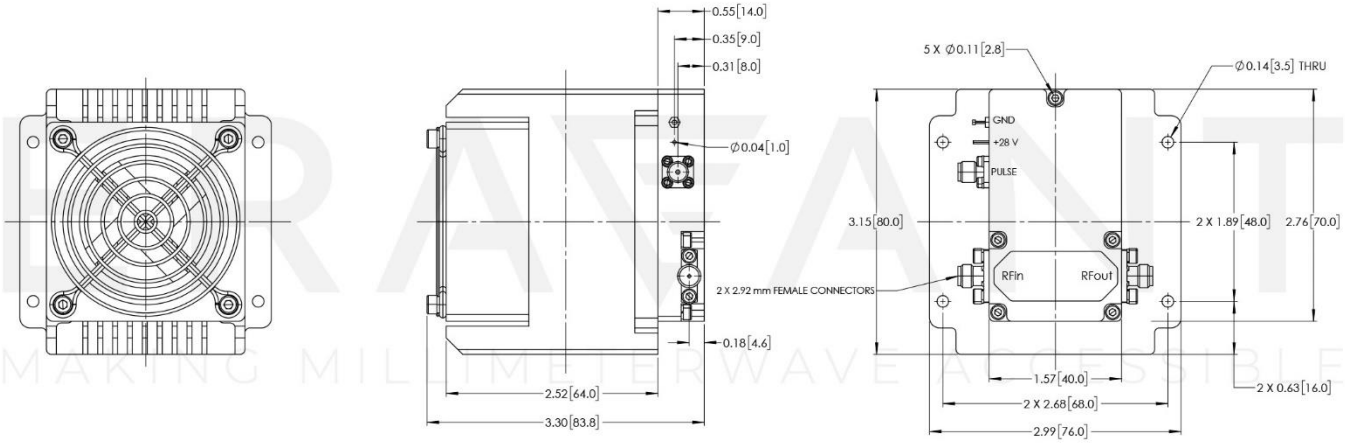


Typical Output Power Psat vs. Frequency

Bias: +28V_{DC} / 1500 mA



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



WIRE COLOR	FUNCTIONS
RED	+12 VDC
BLACK	GND
YELLOW	TACH
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.