

SBP-1834034440-KFKF-EP

18 to 40 GHz Power Amplifier, 44 dB Gain, +40 dBm P_{sat}

SBP-1834034440-KFKF-EP is a power amplifier with a typical small gain of 44 dB and a nominal P_{sat} of +40 dBm across the frequency range of 18 to 40 GHz. The DC power requirement for the amplifier is +18 V_{DC}/5.5 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	18 GHz		40 GHz
Small Signal Gain		44 dB	
Power Gain		34 dB	
P _{sat}		+40 dBm	
P _{in}			+12 dBm
Input Return Loss		10 dB	
Output Return Loss		5 dB	
DC Supply Voltage (VDD)	+16 V _{DC}	+18 V _{DC}	+20 V _{DC}
DC Supply Current		5.5 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	2.92 mm (K) Female
Output	2.92 mm (K) Female
Power Supply	Solder Pin
Case Material	Copper
Finish	Gold Plated
Size	2.99" (L) X 3.15" (W) X 3.30" (H)
Outline	BP-HC-H3

ECCN

3A001.b.4

FEATURES

- Class AB GaN Technique
- Broadband Performance
- High Gain
- High Output Power

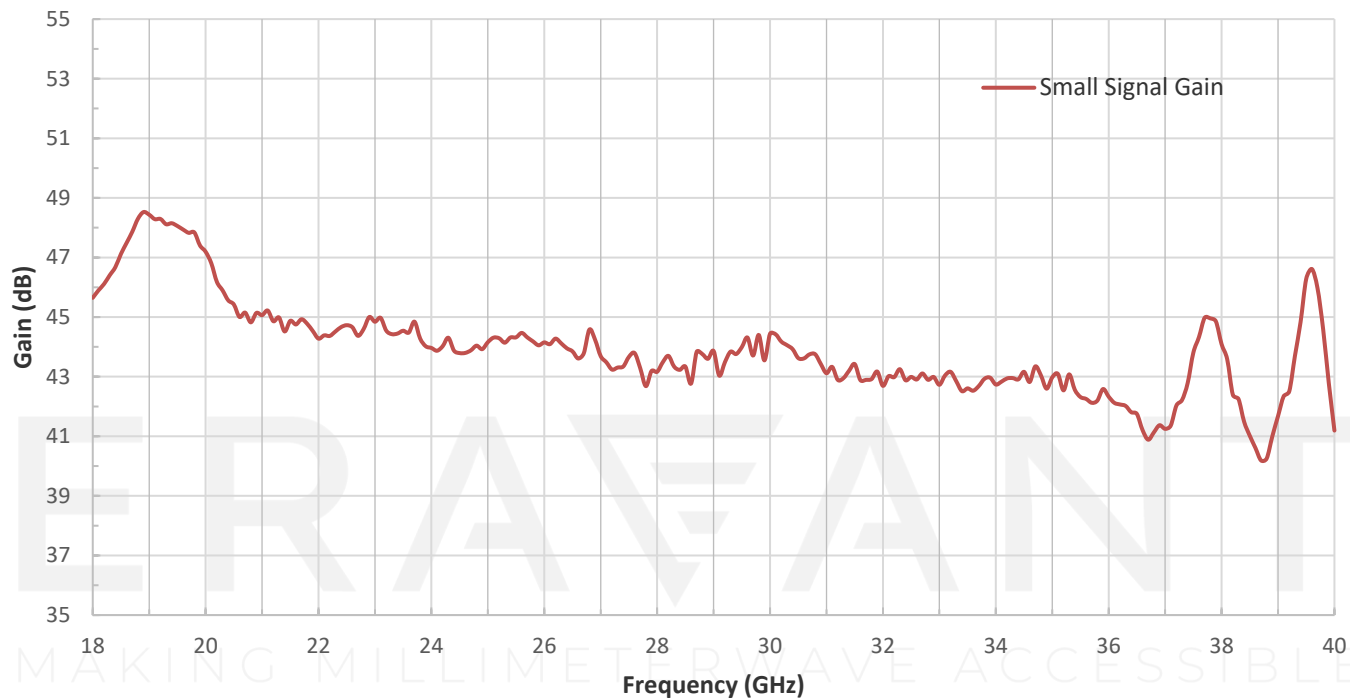
APPLICATIONS

- Radar Systems
- Communication Systems
- Test Equipment

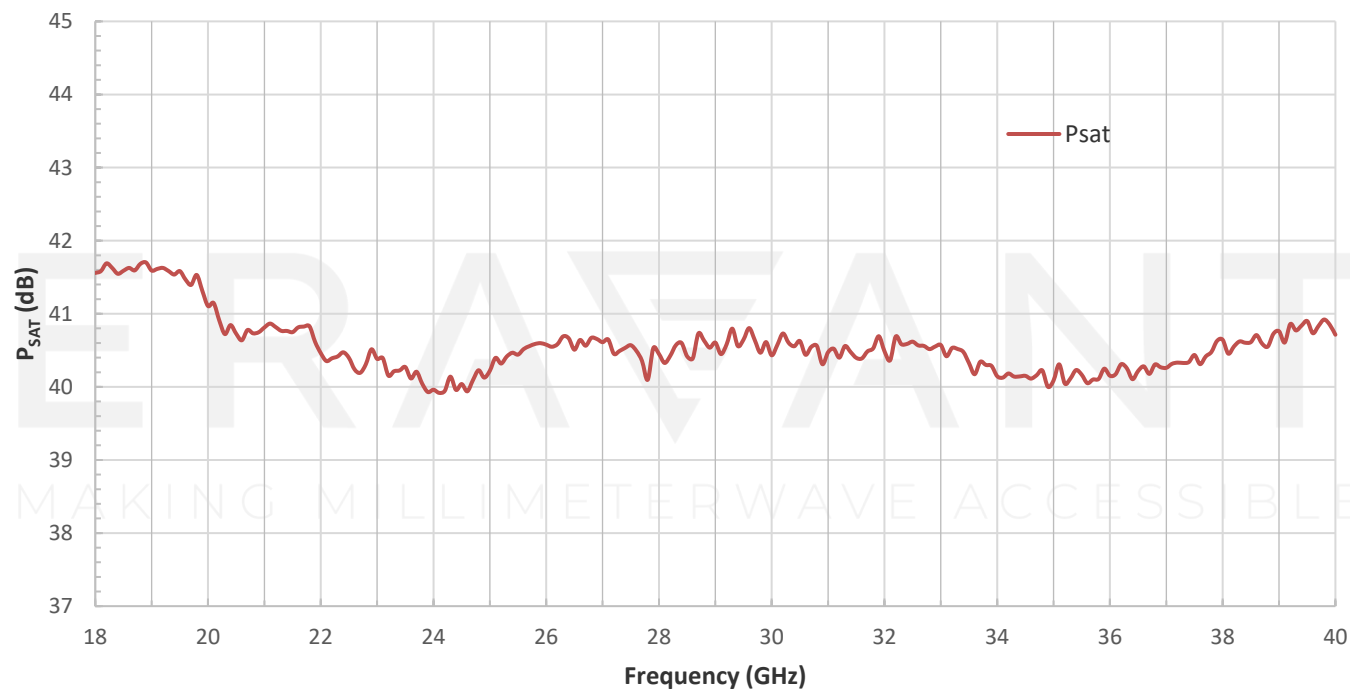
SUPPLEMENTAL DETAILS



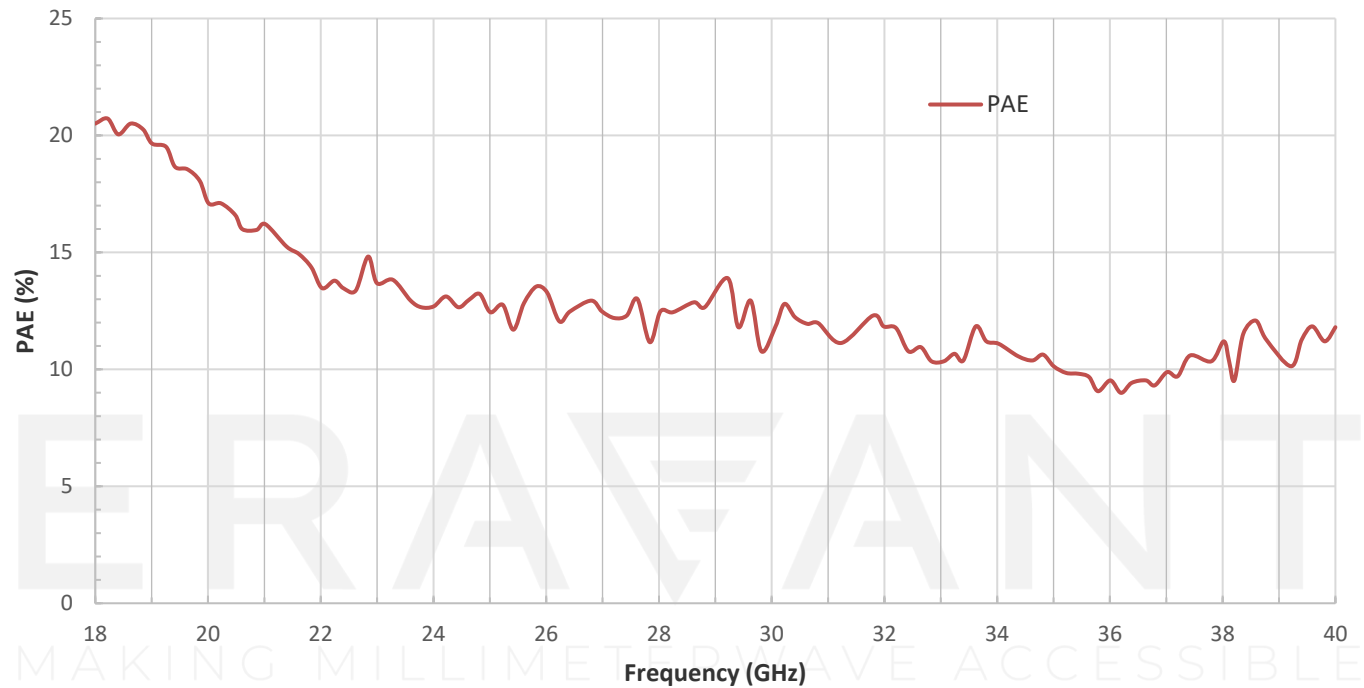
Typical Gain vs. Frequency



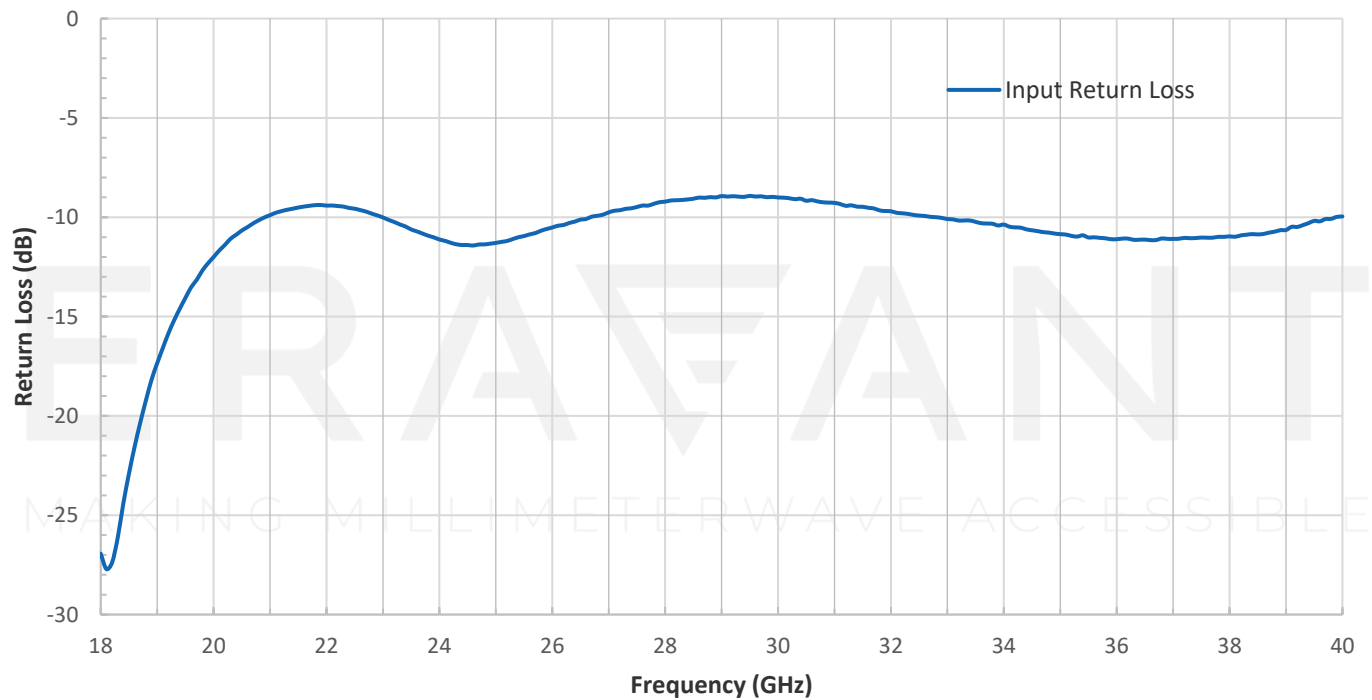
Typical P_{SAT} vs. Frequency



Typical PAE vs. Frequency

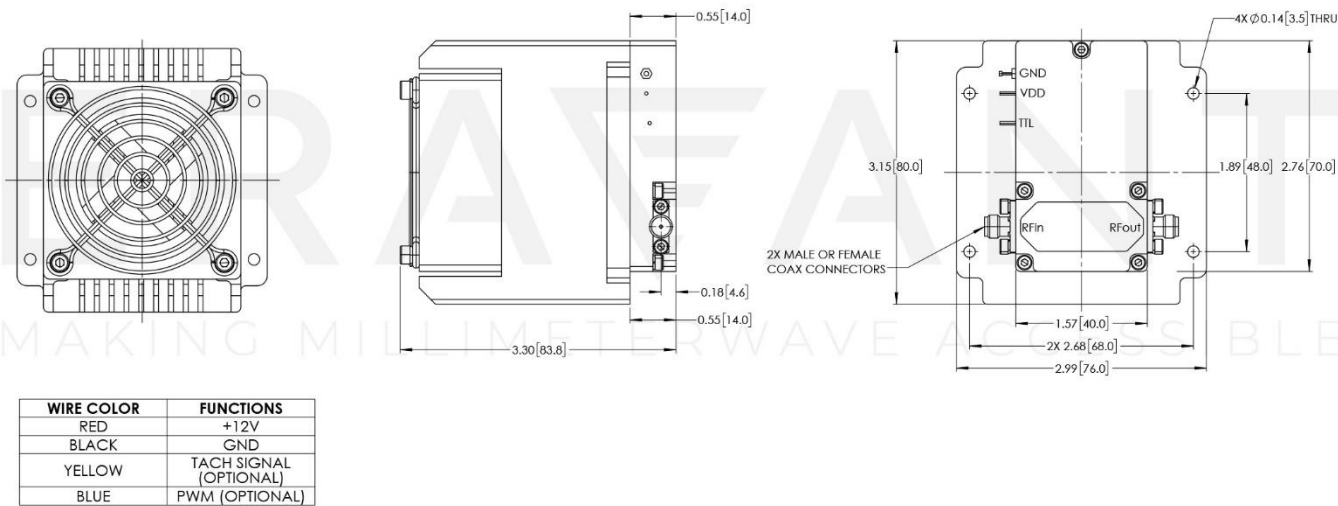


Typical Return Loss vs. Frequency



SBP-1834034440-KFKF-EP

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.
- 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.