SBP-2733134536-KFKF-EP

Ka-Band Power Amplifier, 27 to 31 GHz, 45 dB Gain, +36 dBm P_{1dB}

SBP-2733134536-KFKF-EP is a power amplifier with a typical small signal gain of 45 dB and a nominal P_{1dB} of +36 dBm across the frequency range of 27 to 31 GHz. The DC power requirement for the amplifier is +12 V_{DC}/2.7 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	
P_{1dB}		+36 dBm	
P_{sat}		+37 dBm	
P_{in}			0 dBm
Input Return Loss		10 dB	
Output Return Loss		5 dB	
DC Supply Voltage	+9 V_{DC}	+12 V_{DC}	+15 V_{DC}
DC Supply Current		2.7 A	
TTL, Enable	Default +5 V, internally pulled up to +5 V		
TTL, Disable	0 V, support drain modulation		
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, Diameter 0.04”
TTL	Solder Pin, Diameter 0.04”
Case Material	Aluminum
Finish	Gold Plated
Size	1.57” (L) X 2.76” (W) X 0.55” (H)
Outline	BP-HC-3

ECCN

EAR99

FEATURES

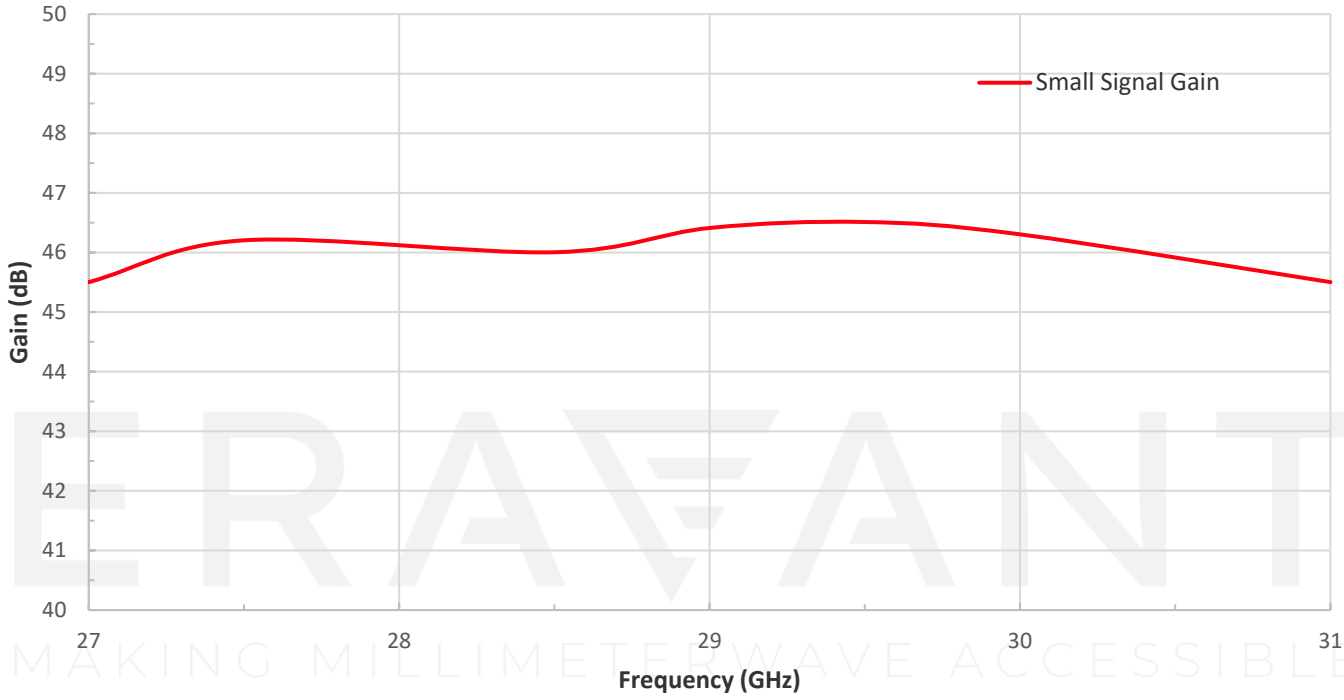
- Class AB GaAs Technique
- High Gain
- Good Gain Flatness
- High Output Power
- Support Drain Modulation

APPLICATIONS

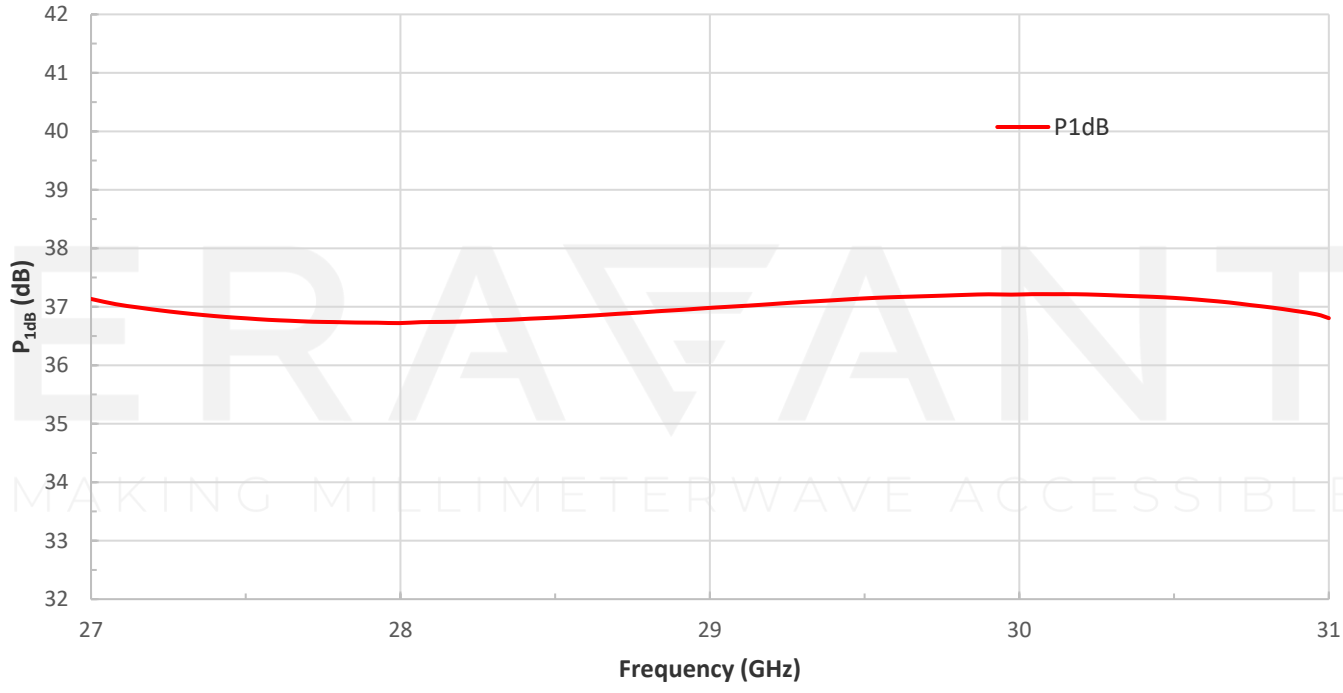
- 5G Systems
- Radar Systems
- Communication Systems
- Test Equipment

SUPPLEMENTAL DETAILS

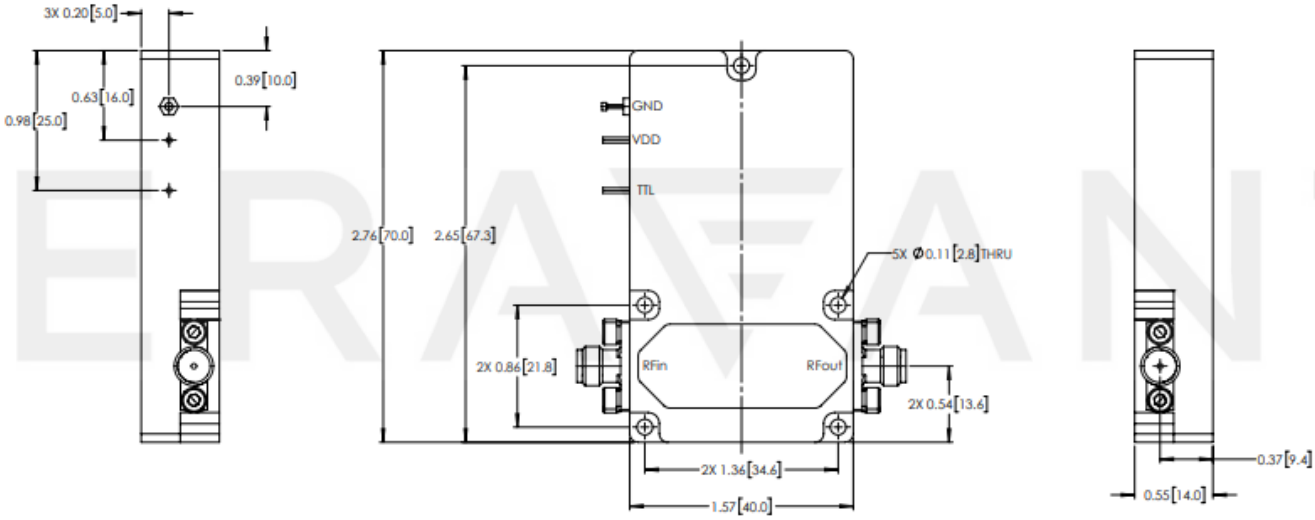
Typical Gain vs. Frequency



Typical P_{1dB} vs. Frequency



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.