



Power Amplifier

Model: PA-1G-2G-32

1-2GHz 32W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 1-2GHz
- High output power at saturation, 32W Typ.
- High gain, 40 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-1G-2G-32 is a power amplifier with a minimum gain of 40 dB and a nominal Psat of 32W across the frequency range of 1 to 2GHz. The DC power requirement for the amplifier is +36 VDC/1.2 A. The input and output port configuration offers coax adapter structure with SMA female.



Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
Frequency range	1		2	GHz
Gain	40	43		dB
Gain Flatness		±1	±1.5	dB
Output P1dB	43	44		dBm
Output Psat	44	45		dBm
IMD3 @ 37dBm/Tone, 7MHz	30			dBc
Harmonics @Pout=43dBm		-17	-15	dBc
Input VSWR		1.3	1.5	:1
DC Voltage	+34	+36	+38	V DC
DC Supply Current		1.2	5	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temperature*	-40°C to +50°C	
Non-operating Temperature*	-50°C to +60°C	
Relative humidity	95%	
RF Input/Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Altitude	30,000	feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis	
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions	
Dimensions W x H x D	138*97*20	mm
Weight	700	g

*Note: For a wider temperature range, please consult the manufacturer.

Absolute Maximum Ratings:

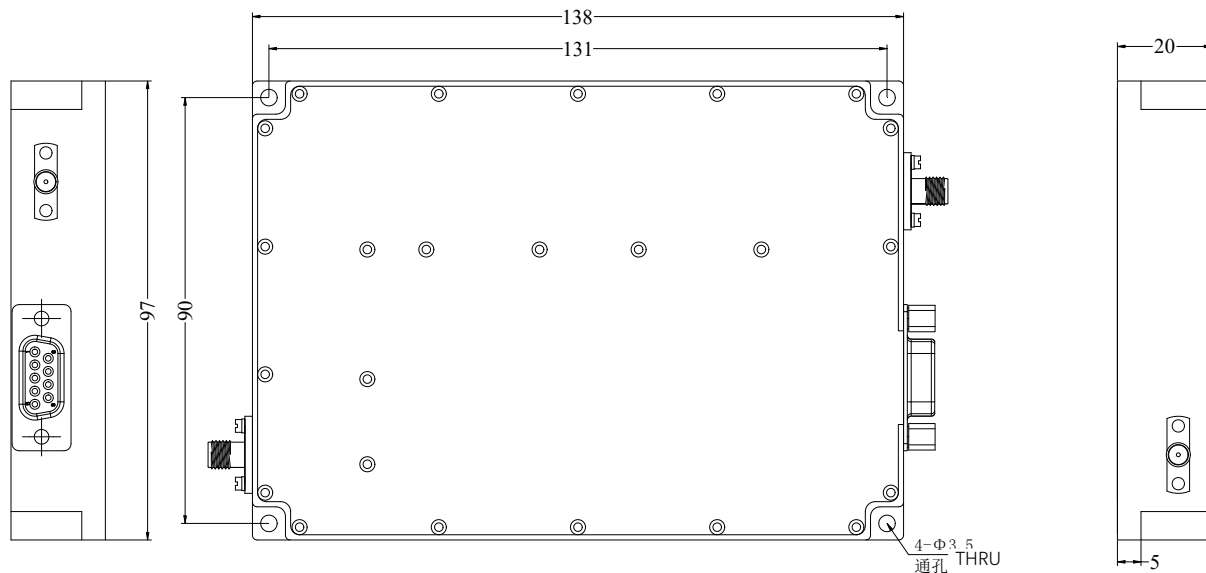
Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-1G-2G-32



DC Supply Connector J30J-9ZKW-J(with J30J-9TJL):

Pin	Name	Function
1	VCC	Power supply positive,+34.0-38.0VDC
2	VCC	Power supply positive,+34.0-38.0VDC
3	VCC	Power supply positive,+34.0-38.0VDC
4	GND	Ground
5	GND	Ground
6	NC	Not connected
7	Over TEM	When the temperature of the case exceeds 70 °C, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 60°C, the power amplifier will return to normal operation, and this pin will be pulled low.
8	NC	Not connected
9	+28V	Amplifier Enable: TTL High (5V) (Internally Pulled-High) Amplifier Disable: Short to ground



Ordering Information:

Base Number	Description	Optional
PA-1G-2G-32	Power Amplifier, 1-2GHz, Gain:40dB,Psat:32W,+36V DC	Without Heatsink
PA-1G-2G-32-HS	Power Amplifier, 1-2GHz, Gain:40dB,Psat:32W,+36V DC	With Heatsink