



Power Amplifier

Model: PA-1G-18G-20

1-18GHz 20W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 1-18GHz
- High output power at saturation, 20W Typ.
- High gain, 43 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-1G-18G-20 is a power amplifier with a minimum power gain of 43 dB and a nominal P_{sat} of 20W across the frequency range of 1 to 18GHz. The DC power requirement for the amplifier is +28 VDC/2A. 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		18	GHz
Power Gain	43			dB
Power Gain Flatness		±3	±4	dB
Output P1dB	39	40		dBm
Output Psat	42.5	43		dBm
Input VSWR		1.5	2	:1
DC Voltage		+28	+30	V DC
Static Current		2		A
Saturation current		2	6	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	10,000	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	170*110*24.5(Without heatsink) 232*140*86.5(With heatsink)	mm
Weight	700	g

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

Absolute Maximum Ratings:

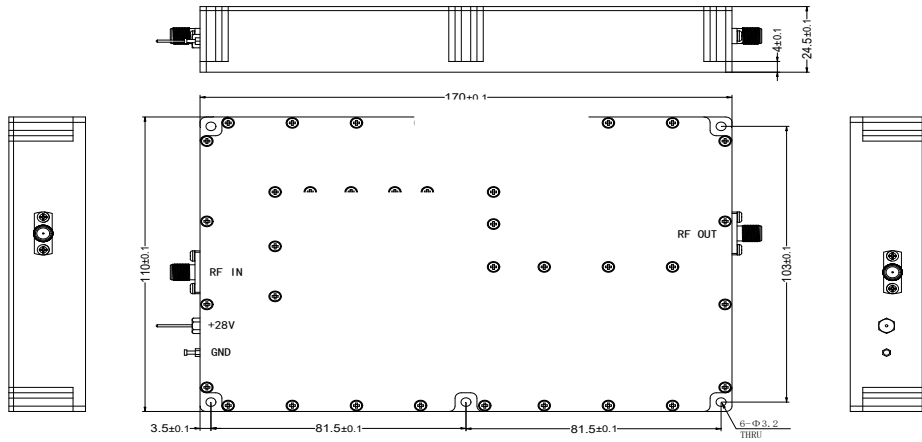
Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



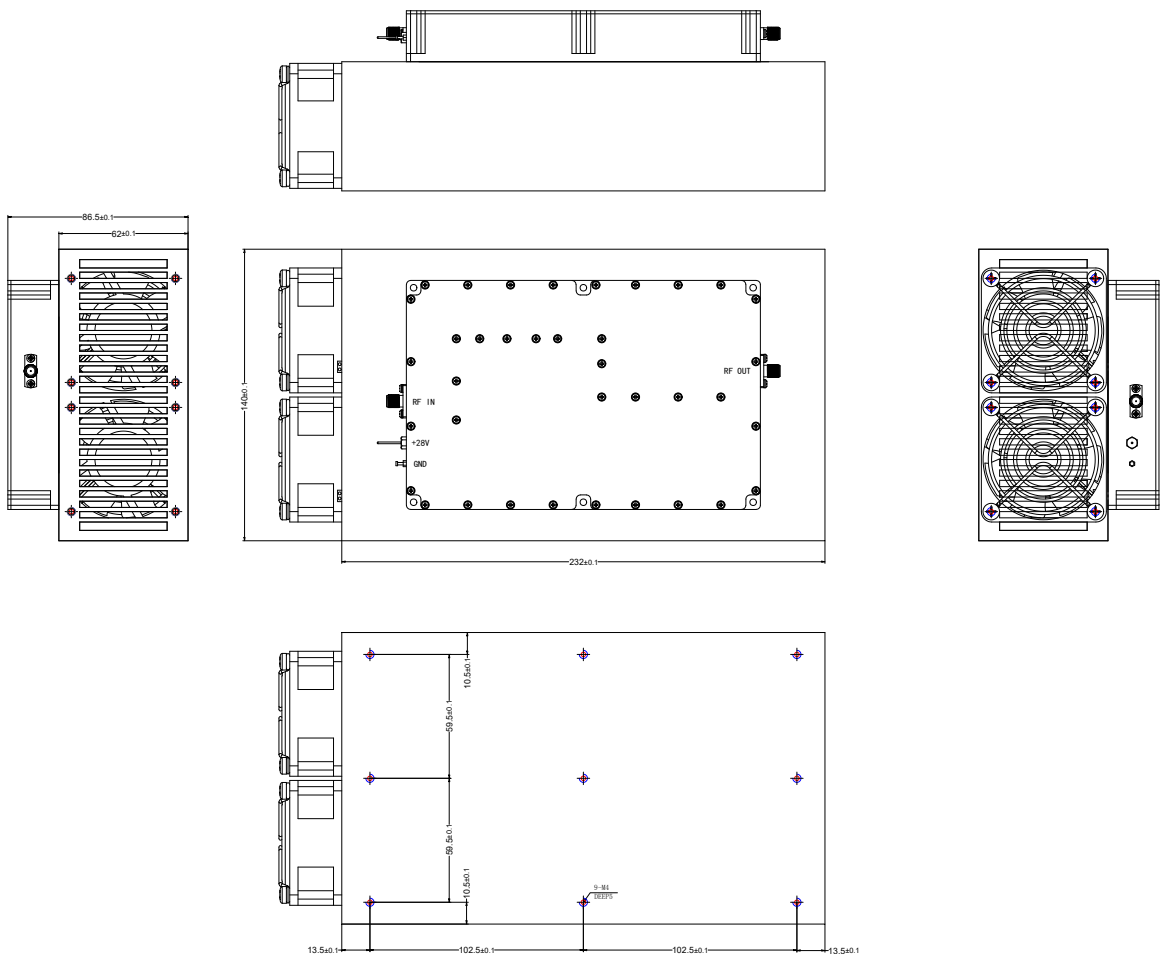
Outline Drawing:

Unit:mm

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Fan power supply:

Fan power supply	
Red line	Power supply positive,+24.0-28.0VDC DC current: 0.3A
Black line	Ground

Ordering Information:

Base Number	Description	Optional
PA-1G-18G-20	Power Amplifier, 1-18GHz, Gain:43dB,Psat:20W,+28V DC	Without Heatsink
PA-1G-18G-20-HS	Power Amplifier, 1-18GHz, Gain:43dB,Psat:20W,+28V DC	With Heatsink