



Power Amplifier

Model: PA-20M-1G-20-H

0.02-1GHz 20W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 0.02-1GHz
- High output power at saturation, 20W Typ.
- High gain, 50 dB Typ.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-20M-1G-20-H is a power amplifier with a typical small signal gain of 50 dB and a nominal P_{sat} of 20W across the frequency range of 0.02 to 1GHz. The DC power requirement for the amplifier is +24 VDC/3 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	0.02		1	GHz
Small Signal Gain	46	50		dB
Gain Flatness		±1	±2	dB
Input P1dB	39	41		dBm
Output Psat	40	43		dBm
Noise Figure		3.5		dB
Input VSWR		1.5	2	:1
Switching Time		5		us
DC Voltage	+22	+24	+28	V DC
DC Supply Current		3		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	120.6*50.8*28.5(Without Heatsink) 120.6*80*108.5(With Heatsink)	mm
Weight	150	g

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

Absolute Maximum Ratings:

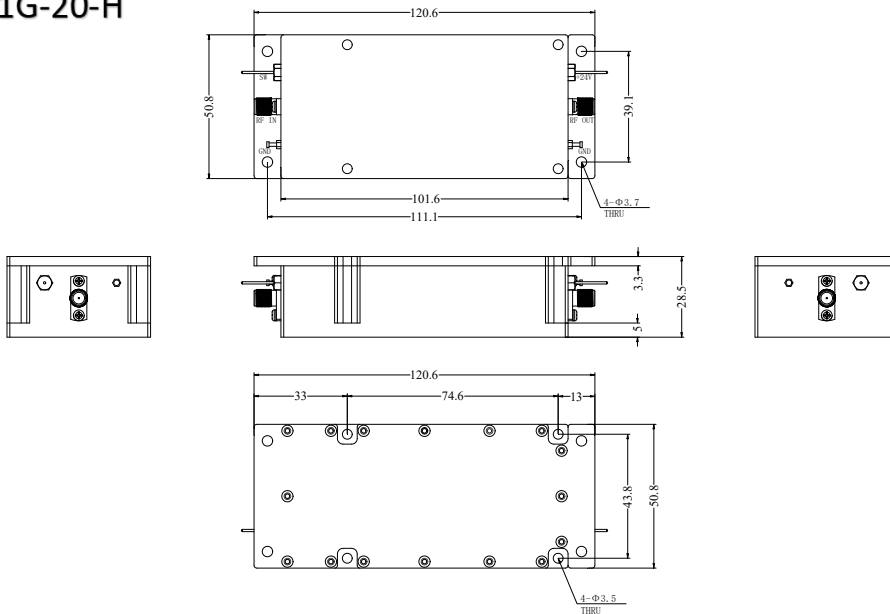
Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	-3 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



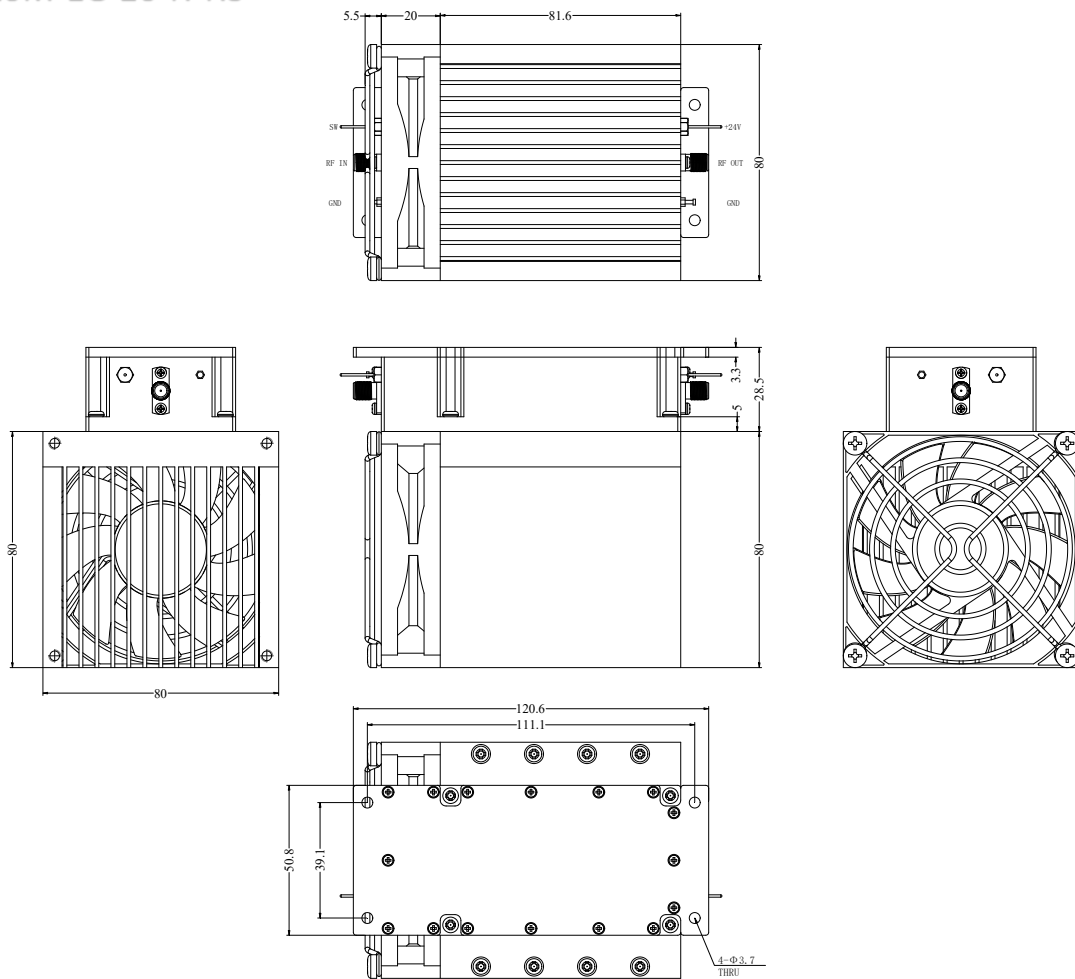
Outline Drawing:

Unit:mm

PA-20M-1G-20-H



PA-20M-1G-20-H-HS





DC Supply Connector:

Name	Function
+24V	+22.0-28.0VDC
SW	Amplifier Enable: TTL High (5V) (Internally Pulled-High) Amplifier Disable: Short to ground
GND	Ground
GND	Ground

Ordering Information:

Base Number	Description	Optional
PA-20M-1G-20-H	Power Amplifier, 20M-1GHz, Gain:50dB,Psat:32W,+24V DC	Without Heatsink
PA-20M-1G-20-H-HS	Power Amplifier, 20M-1GHz, Gain:50dB,Psat:32W,+24V DC	With Heatsink