



Power Amplifier

Model: PA-1G-6G-50-V2

1-6GHz 50W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 1-6GHz
- High output power at saturation, 50W Typ.
- High gain, 47 dB Typ.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-1G-6G-50-V2 is a power amplifier with a typical small signal gain of 47 dB and a nominal P_{sat} of 50W across the frequency range of 1 to 6 GHz. The DC power requirement for the amplifier is +28 VDC/7 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		6	GHz
Small Signal Gain	45	47		dB
Gain Flatness		±4	±5	dB
Output P1dB	44.5	45.5		dBm
Output Psat		47		dBm
Harmonic		-15	-13	dBc
Input VSWR		1.5	2	:1
DC Voltage		+28		V DC
DC Supply Current		6	7	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temperature*	-20°C to +50°C	
Non-operating Temperature*	-30°C to +60°C	
Relative humidity	95	%
RF Input/Output Connector	SMA Female/SMA Female	
DC Supply Connector	DSUB-9 Male	
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	220*180*25(Without heatsink) 300*200*70(With heatsink)	mm

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

Absolute Maximum Ratings:

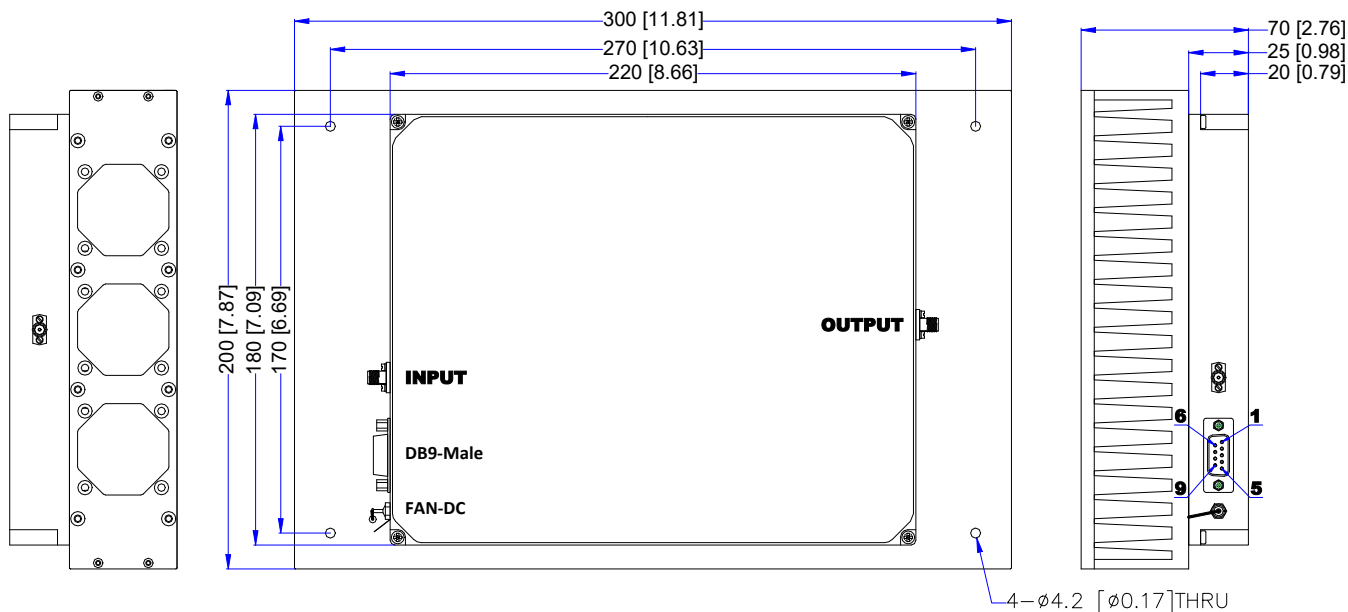
Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	+8 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-1G-6G-50-V2



DC Supply Connector(DSUB-9 Male):

Pin	Name	Function
1	+28V	+28.0-30.0VDC
2	+28V	+28.0-30.0VDC
3	+28V	+28.0-30.0VDC
4	GND	Ground
5	GND	Ground
6	GND	Ground
7	NC	NC
8	NC	NC
9	NC	NC

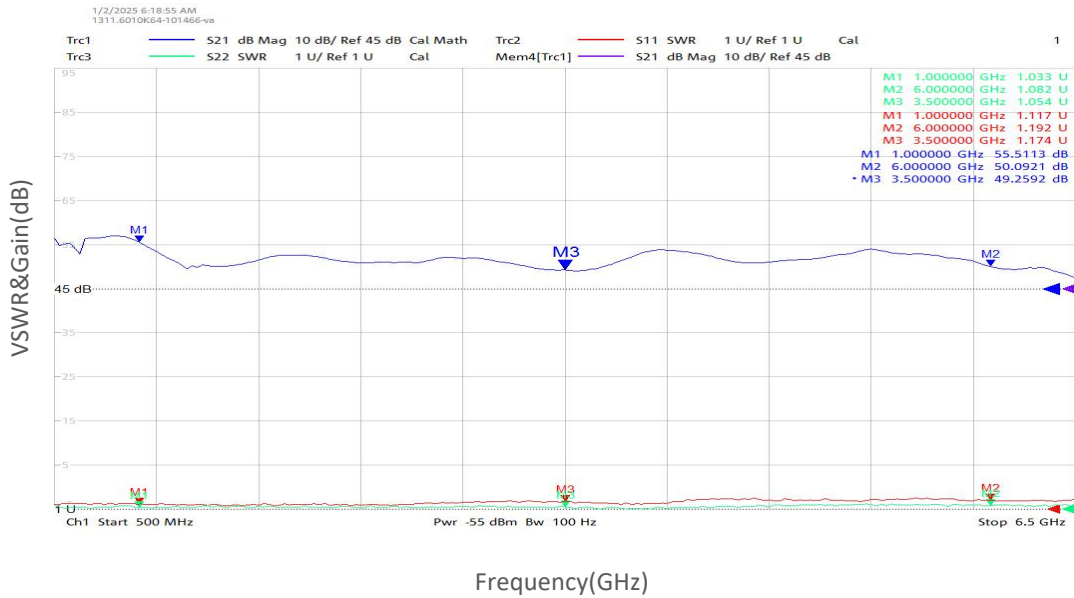


Ordering Information:

Base Number	Description	Optional
PA-1G-6G-50-V2	Power Amplifier, 1-6GHz, Gain:47dB,Psat:50W,+28V DC	Without Heatsink
PA-1G-6G-50-V2-HS	Power Amplifier, 1-6GHz, Gain:47dB,Psat:50W,+28V DC	With Heatsink

Typical Performance Data:

VSWR&Gain vs Frequency



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.