



Power Amplifier

Model: PA-2G-8G-50

2-8GHz 50W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 2-8GHz
- High output power at saturation, 50W Min.
- High gain, 50 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-2G-8G-50 is a power amplifier with a minimum power gain of 50 dB and a minimum Psat of 50W across the frequency range of 2 to 8 GHz. The DC power requirement for the amplifier is +28 VDC/600 W. The input port configuration offers coax adapter structure with SMA female and output port configuration offers coax adapter structure with N female.



Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
Frequency range	2		8	GHz
Power Gain	50			dB
Gain Flatness		±3	±5	dB
Output P1dB		40		dBm
Output Psat	47			dBm
Spurious@Pout=47dBm			-60	dBc
Harmonic@Pout=47dBm		-10	-15	dBc
Input VSWR			2	:1
DC Voltage		+28		V DC
Power Consumption			600	W
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/N Female	
DC Bias	SUB-7W2	A1:+28V A2:GND Pin1~5:NC
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	200*100*23(Without Heatsink) 200*100*69.5(With Heatsink)	mm
Weight	≤4	Kg

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



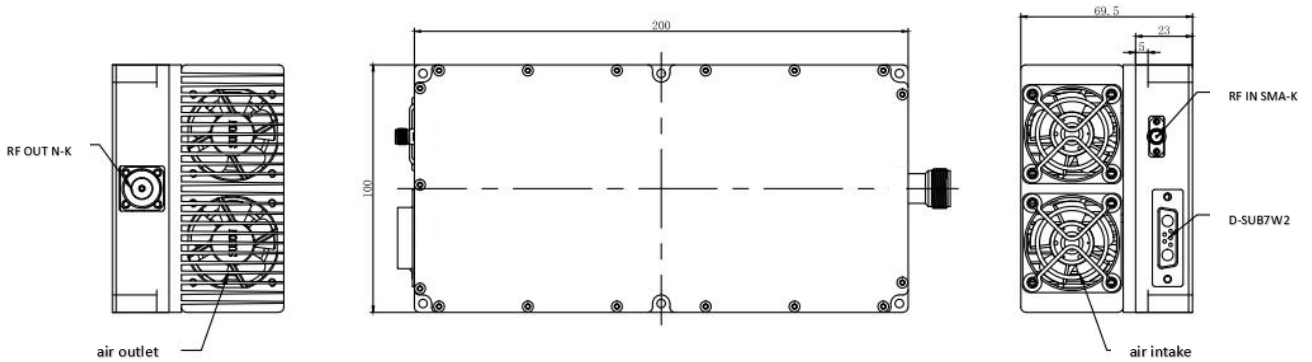
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

PA-2G-8G-50-HS



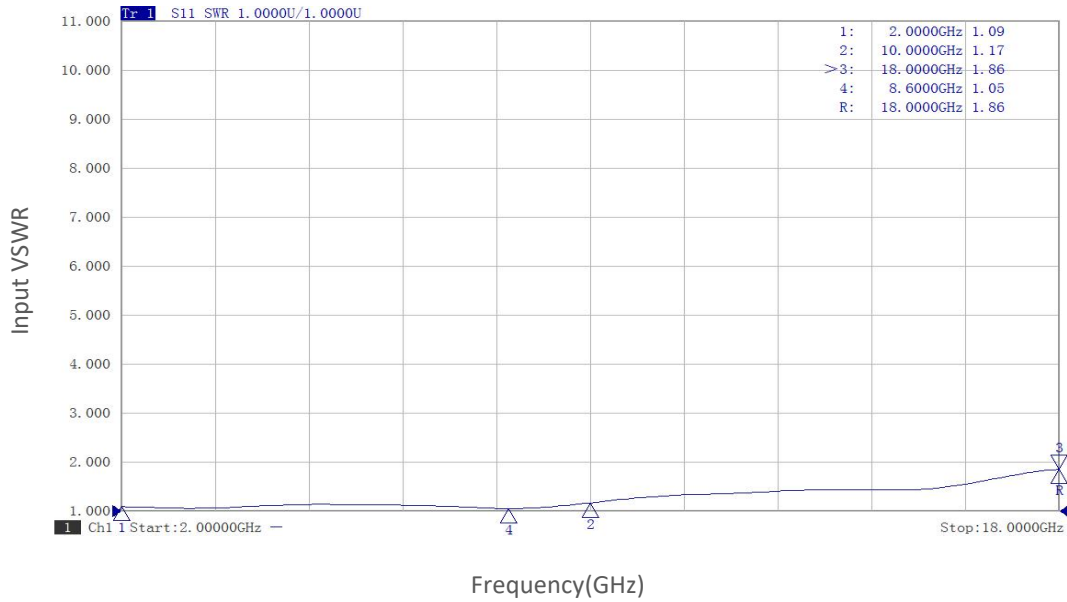
Ordering Information:

Base Number	Description	Optional
PA-2G-8G-50	Power Amplifier, 2-8GHz, Gain:50dB,Psat:50W,+28V DC	Without Heatsink
PA-2G-8G-50-HS	Power Amplifier, 2-8GHz, Gain:50dB,Psat:50W,+28V DC	With Heatsink

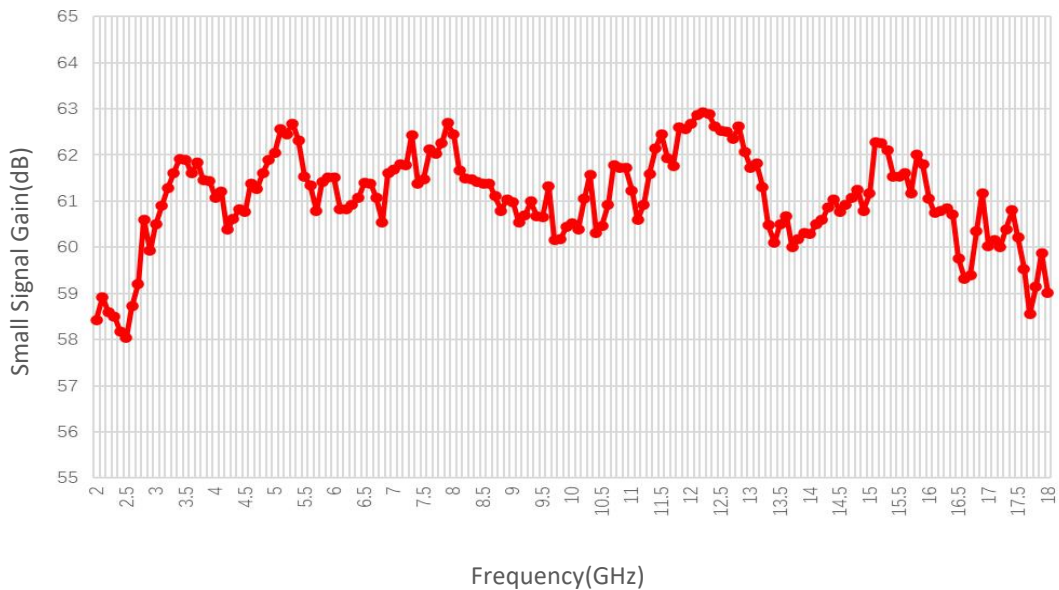


Typical Performance Data:

Input VSWR vs Frequency



Small Signal Gain vs Frequency

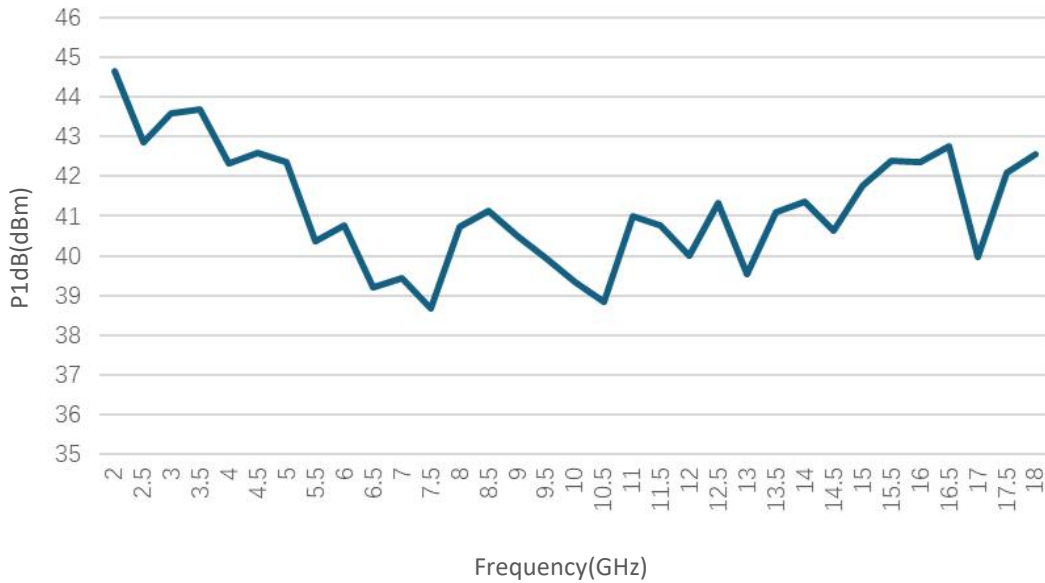


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

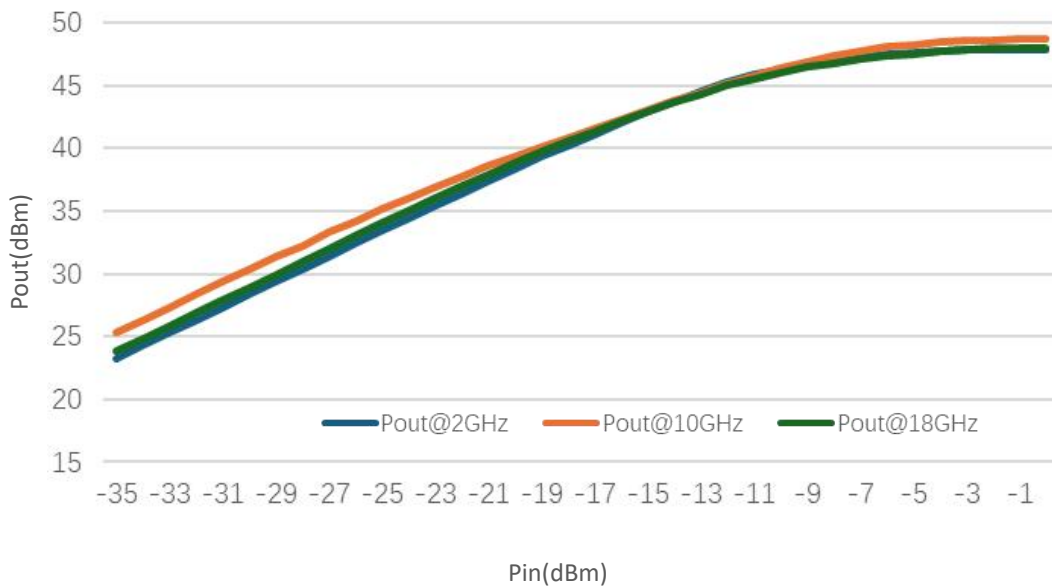


Typical Performance Data:

P1dB vs Frequency



Pout@Pin

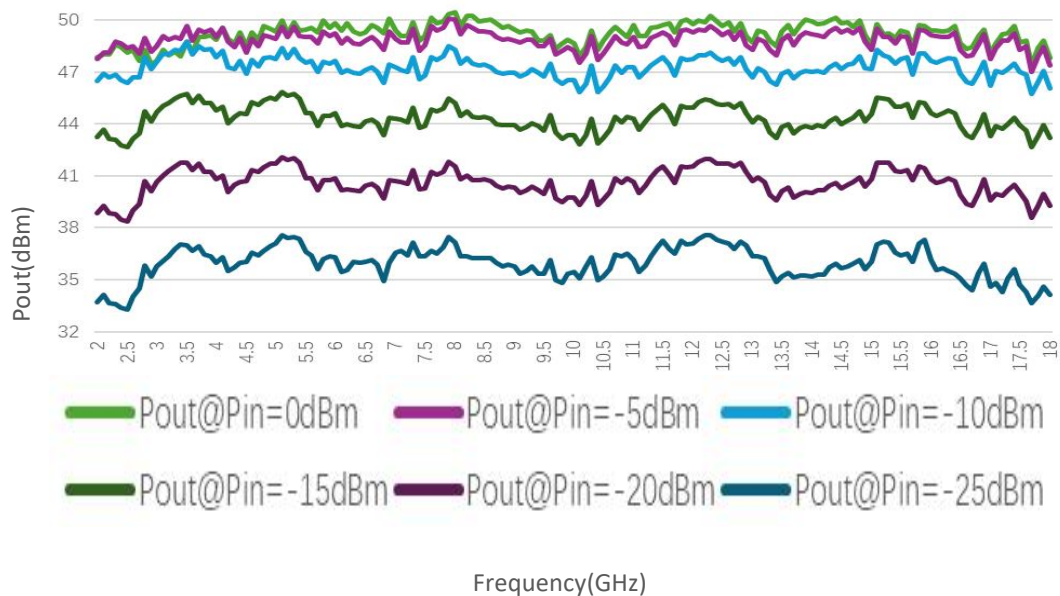


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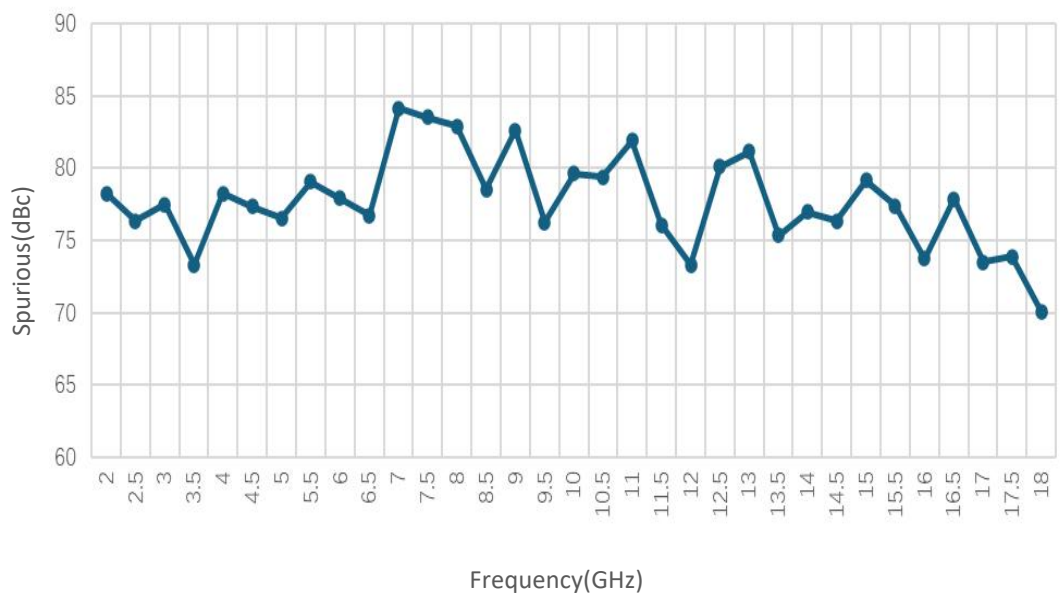


Typical Performance Data:

Pout@Equal_Pin



Spurious vs Frequency

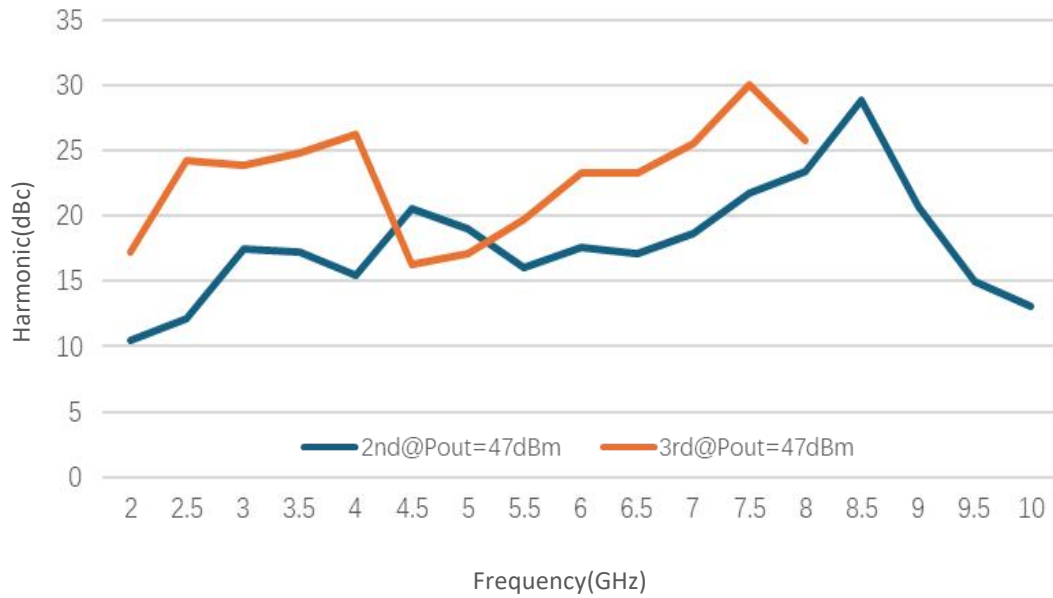


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Typical Performance Data:

Harmonic vs Frequency



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