



Power Amplifier

Model: PA-0G3-2G-100

0.3-2GHz 100W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 0.3-2GHz
- High output power at saturation, 100W Min.
- High gain, 50 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-0G3-2G-100 is a power amplifier with a minimum gain of 50 dB and a minimum Psat of 100W across the frequency range of 0.3 to 2 GHz. The DC power requirement for the amplifier is +28 VDC/850 W. The input port configuration offers coax adapter structure with SMA female and output port configuration offers coax adapter structure with N Female. And it has built-in protection functions included over TEM, over voltage, over current, and over VSWR protection.



Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
Frequency range	0.3		2	GHz
Gain	50			dB
Gain Flatness		±3		dB
Output Psat	50			dBm
Spurious@Pout=50dBm			-60	dBc
Harmonics@Pout=50dBm			-10	dBc
Input VSWR			2.0	:1
DC Voltage		+28		V DC
Power Consumption			850	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	D-SUB5W5	
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	271*264*113.5	mm
Weight	15	g

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

Absolute Maximum Ratings:

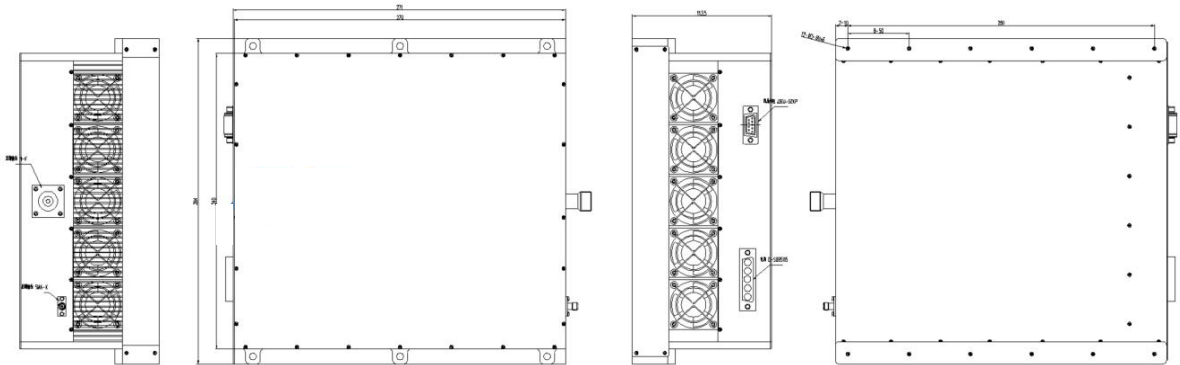
Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	0 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-0G3-2G-100



SUB-5W5 Define:

Pin	Function
A1-A2	+28V
A3-A5	GND

Key Features:

Parameter	Advantages
Built-in protections	1,OutputPower 2,Temperature 3,Voltage 4,Current
Protection functions	1,Over TEM 2,Over voltage 3,Over current 4,Over VSWR
Built-in Control	Shutdown

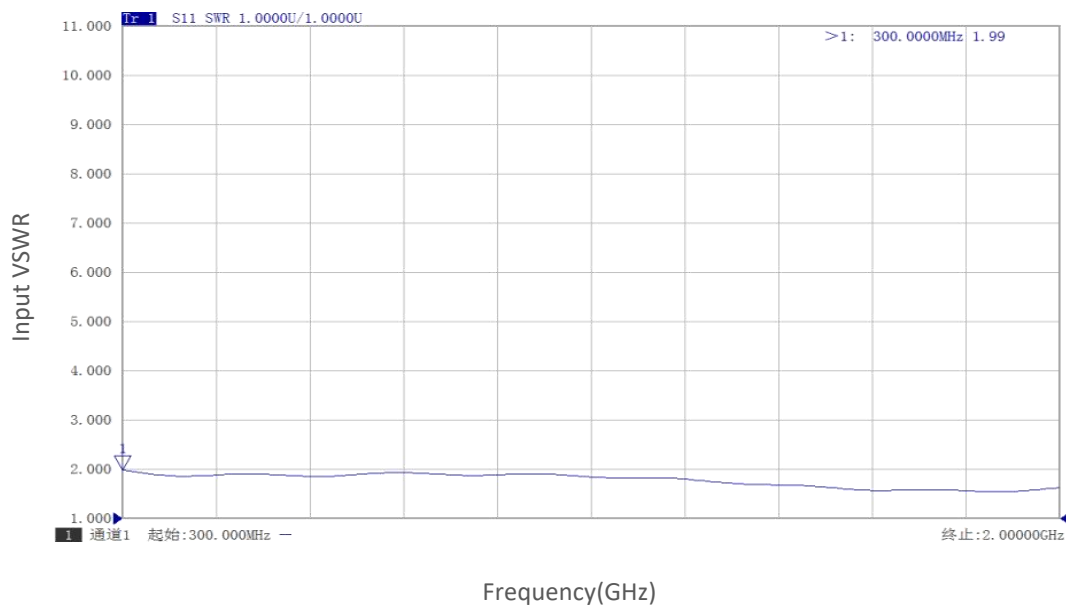
Ordering Information:

Base Number	Description	Optional
PA-0G3-2G-100	Power Amplifier, 0.3-2GHz, Gain:50dB,Psat:100W,+28V DC	Without Heatsink
PA-0G3-2G-100-HS	Power Amplifier, 0.3-2GHz, Gain:50dB,Psat:100W,+28V DC	With Heatsink

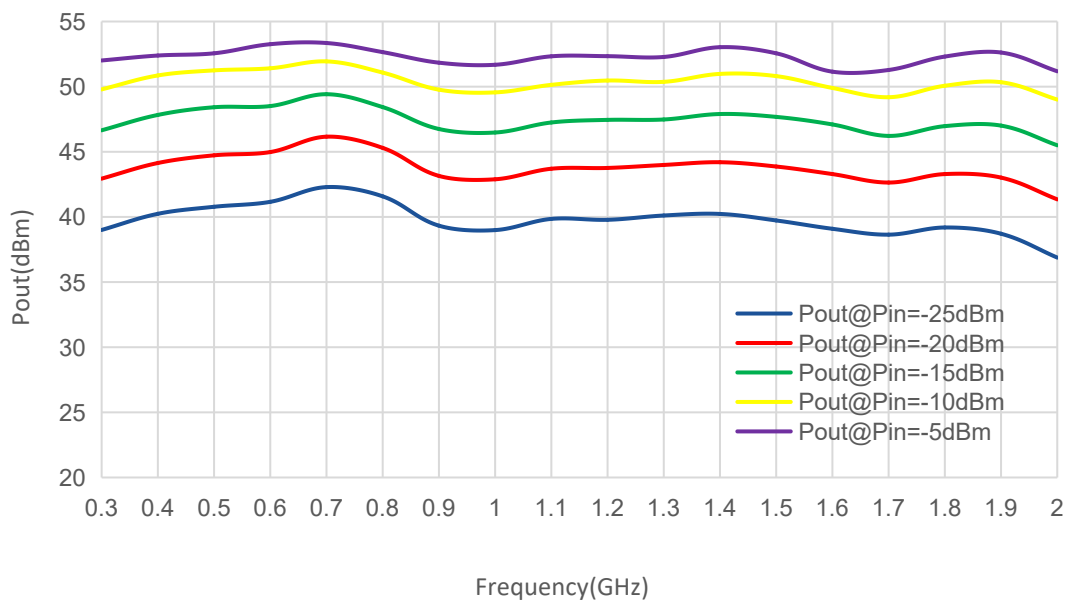


Typical Performance Data:

Input VSWR vs Frequency



Pout@Equal_Pin

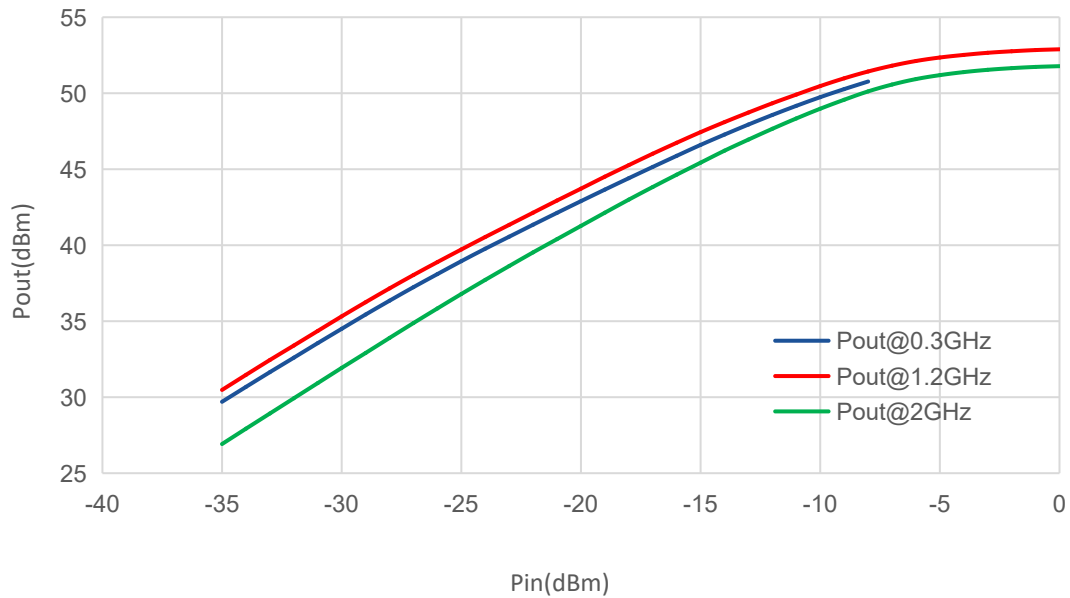


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

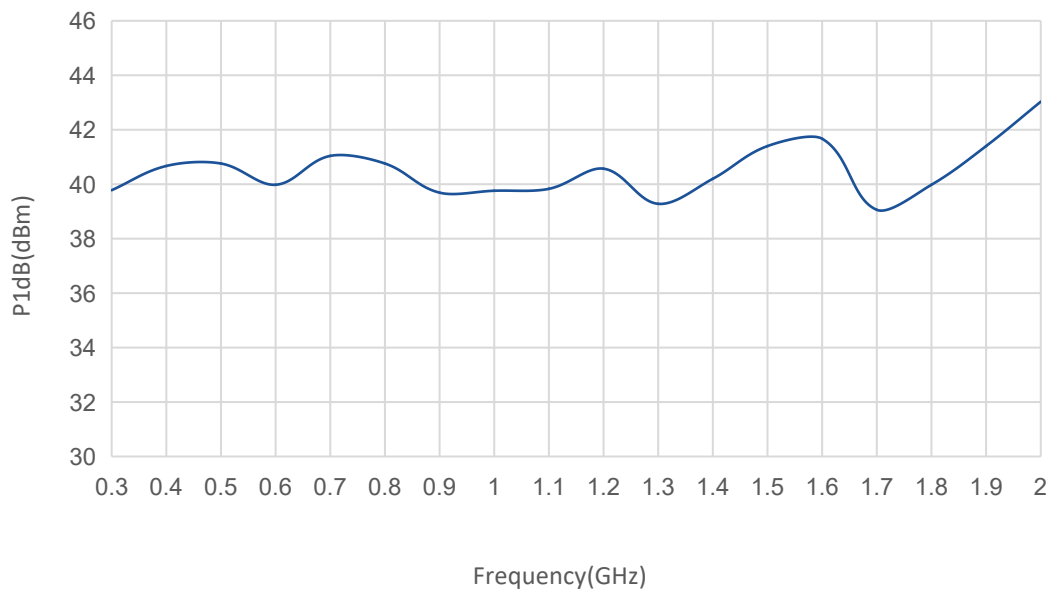


Typical Performance Data:

Pout@Pin



P1dB vs Frequency

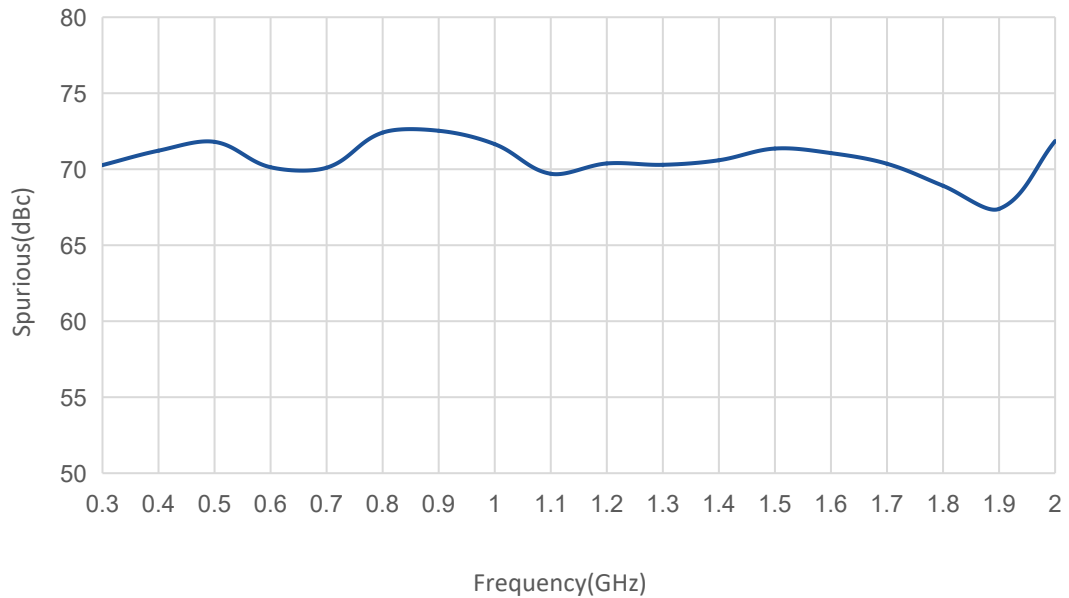


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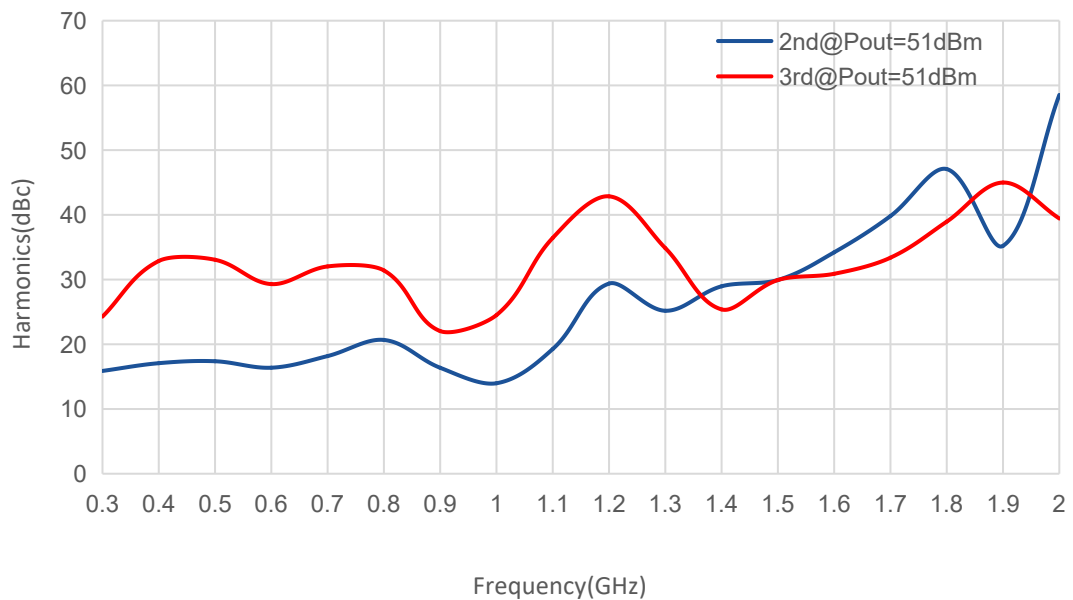


Typical Performance Data:

Spurious vs Frequency



Harmonics VS Frequency



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