



Power Amplifier

Model: PA-2G-4G-4

2-4GHz 4W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 2-4GHz
- High output power at saturation, 4W Min.
- High gain, 43 dB Typ.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-2G-4G-4 is a power amplifier with a typical small signal gain of 43 dB and a minimum Psat of 4W across the frequency range of 2 to 4 GHz. The DC power requirement for the amplifier is +28 VDC/0.7 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	2		4	GHz
Small Signal Gain	42	43		dB
Small Signal Gain Flatness		±2	±3	dB
Output P1dB		34		dBm
Output Psat	36	37		dBm
Harmonic@Pout=36dBm			-10	dBc
Input VSWR		1.5	2.0	:1
DC Voltage		+28		V DC
DC Supply Current		0.7	2.0	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temperature*	-40°C to +60°C	
Non-operating Temperature*	-50°C to +70°C	
Relative humidity	95	%
RF Input/Output Connector	SMA Female/SMA Female	
DC Supply Connector	J30J-9ZKP	
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	100*70*15	mm
Weight	150	g

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

Absolute Maximum Ratings:

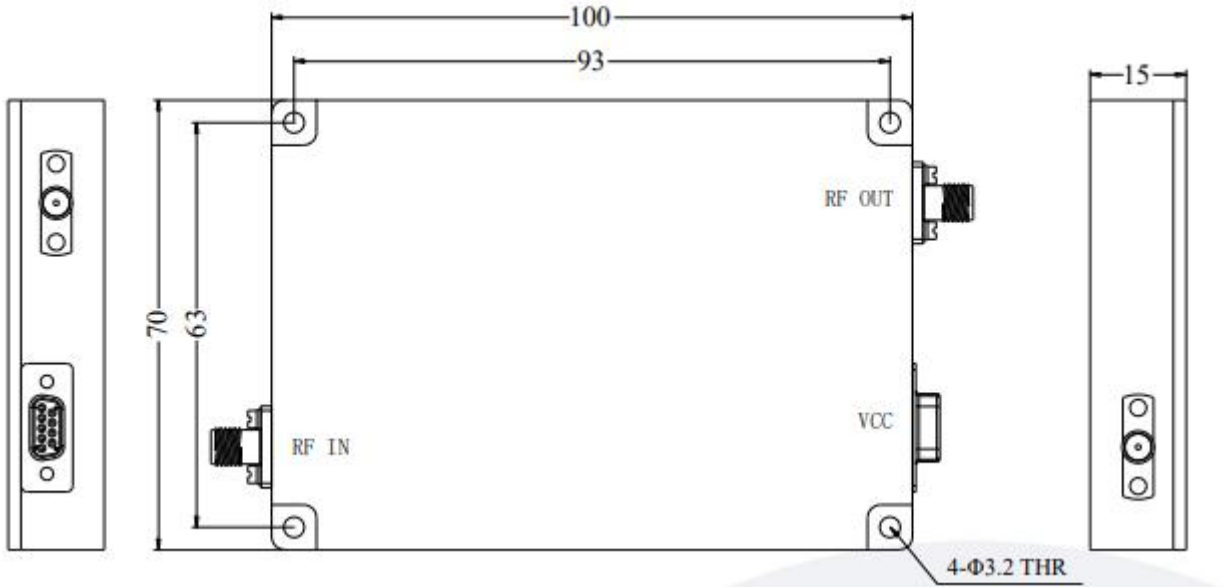
Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	0 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-2G-4G-4



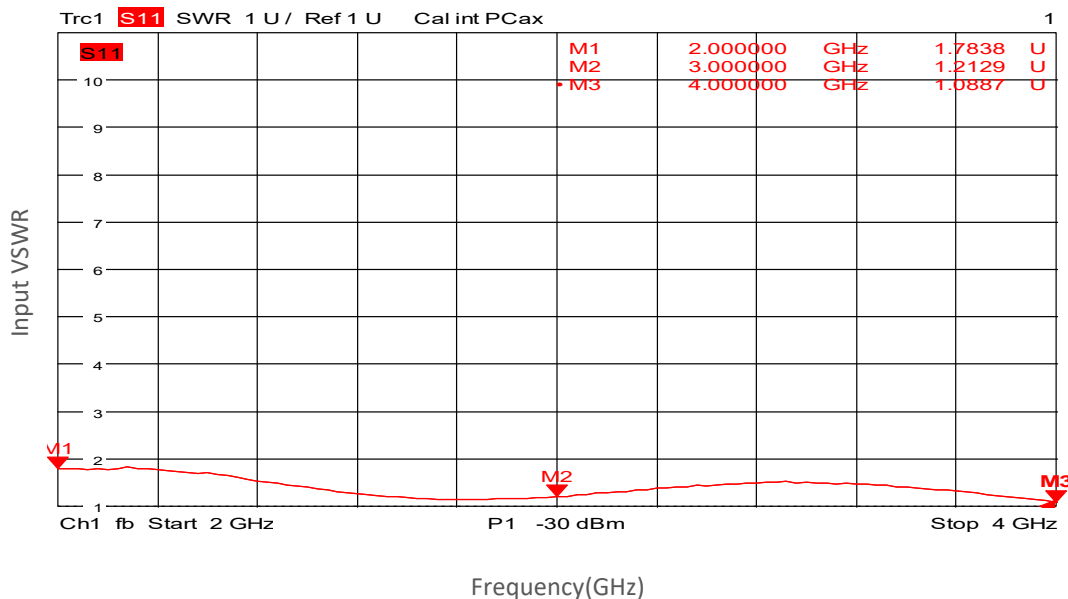
Ordering Information:

Base Number	Description	Optional
PA-2G-4G-4	Power Amplifier, 2-4GHz, Gain:43dB,Psat:4W,+28V DC	Without Heatsink
PA-2G-4G-4-HS	Power Amplifier, 2-4GHz, Gain:43dB,Psat:4W,+28V DC	With Heatsink

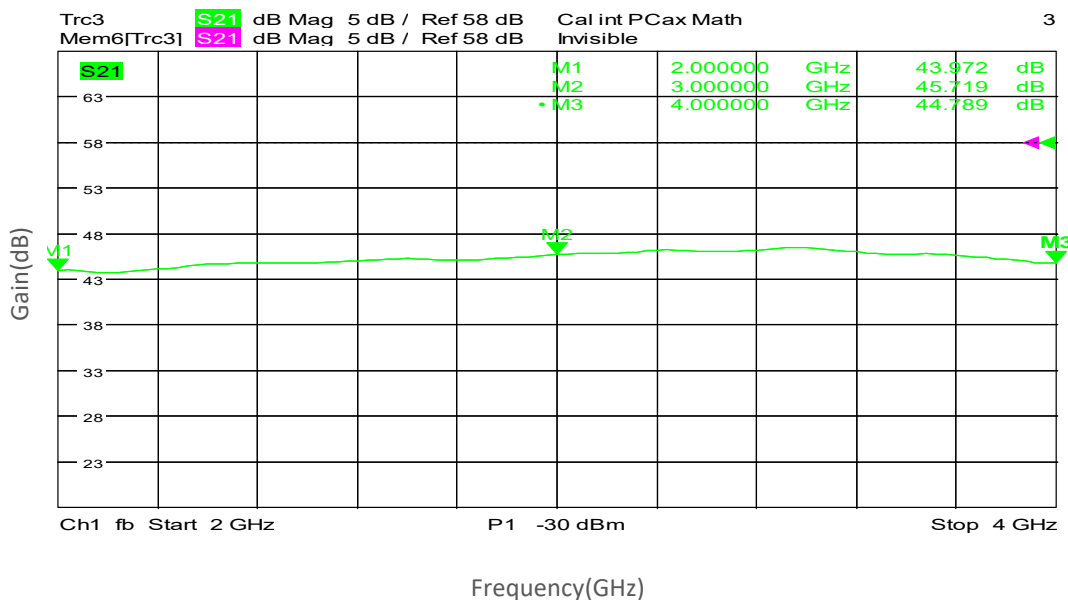


Typical Performance Data:

Input VSWR vs Frequency



Gain vs Frequency

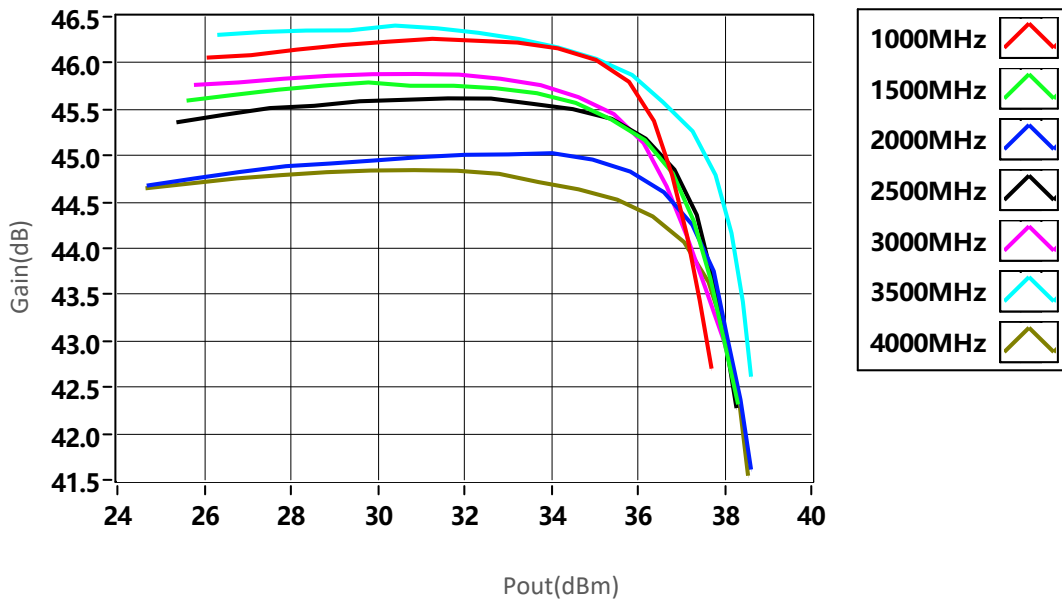


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

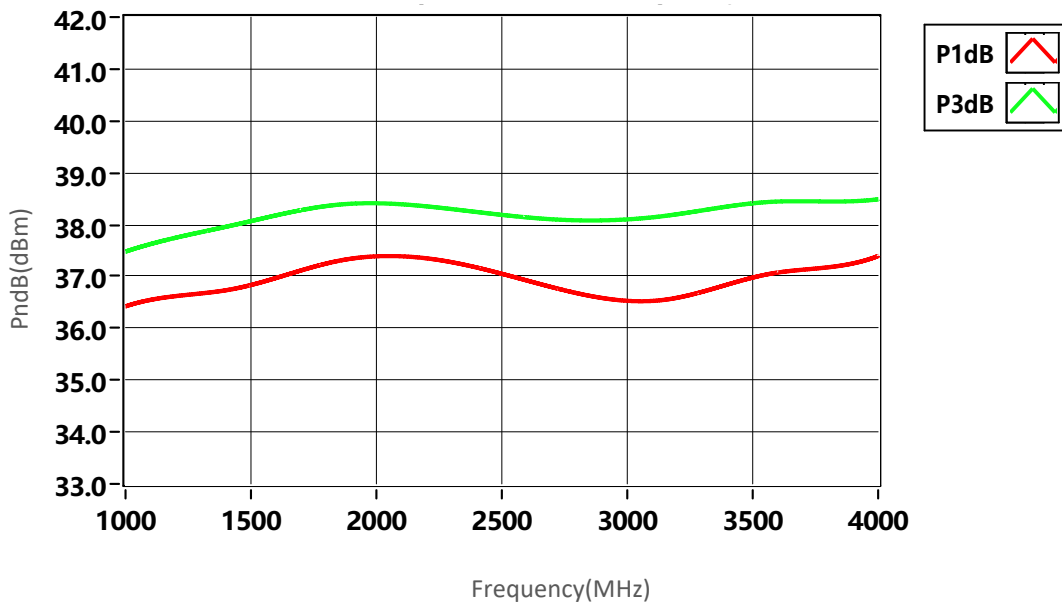


Typical Performance Data:

Gain vs Output Power



PndB vs Frequency

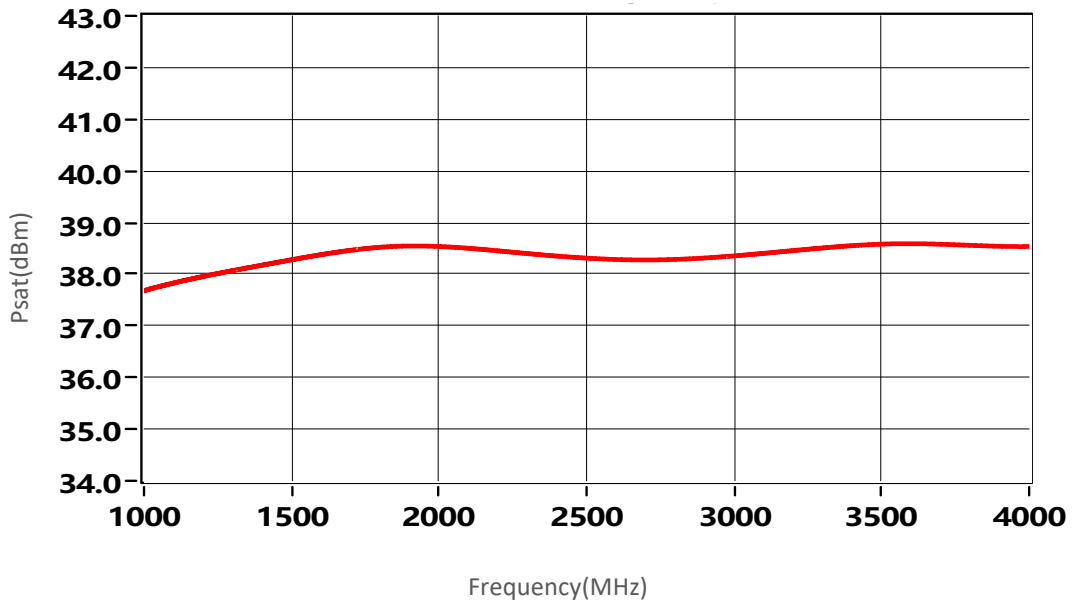


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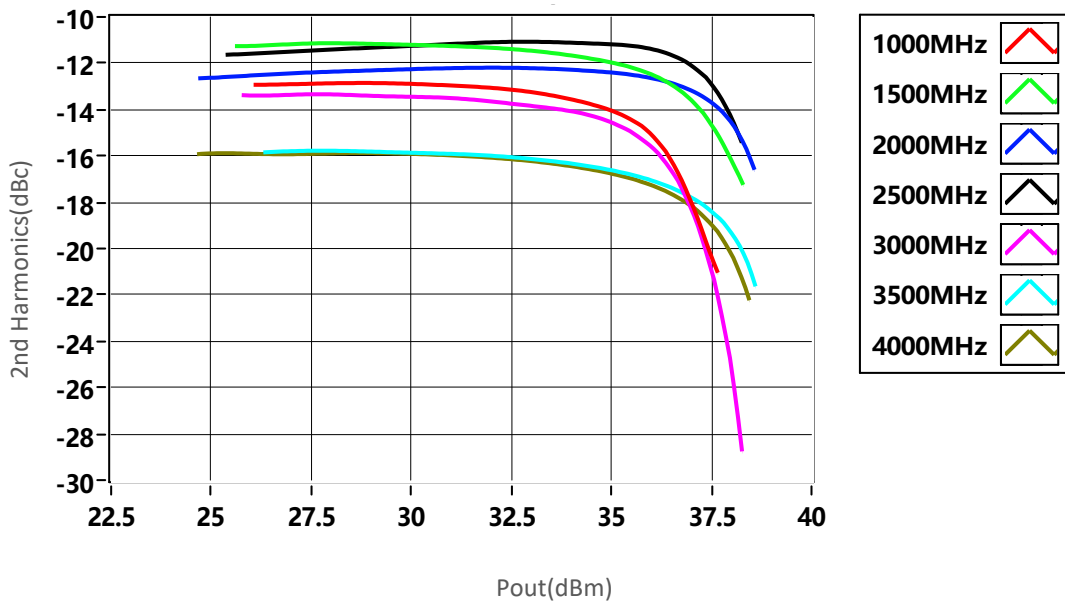


Typical Performance Data:

Psat vs Frequency



2nd Harmonics vs Output Power

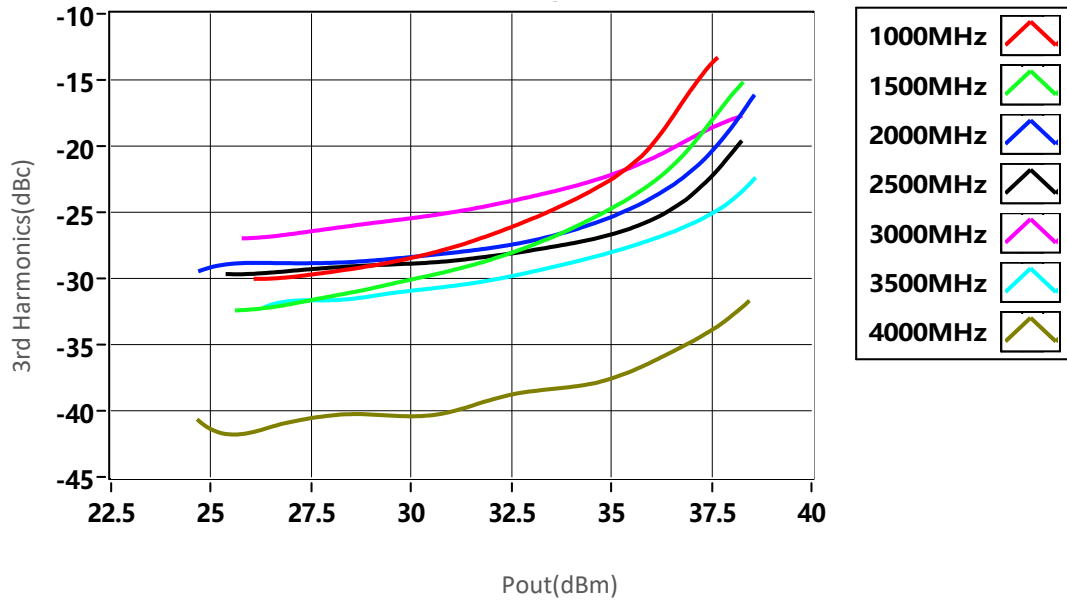


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Typical Performance Data:

3rd Harmonics vs Output Power



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.