



# Power Amplifier

## Model: PA-2G-6G-4

2-6GHz 4W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

### Features:

- Frequency range: 2-6GHz
- High output power at saturation, 4W Typ.
- High gain, 30 dB Min.
- 50 Ohm Matched Input / Output.

### Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

### Product Overview:

The PA-2G-6G-4 is a power amplifier with a minimum small signal gain of 30 dB and a nominal  $P_{sat}$  of 4W across the frequency range of 2 to 6 GHz. The DC power requirement for the amplifier is +28 VDC/0.6 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		6	GHz
Small Signal Gain	30	33		dB
Small Signal Gain Flatness		±2	±2.5	dB
Output P1dB	33	35		dBm
Output Psat		36		dBm
Spurious		-60		dBc
IP3		42		dBm
Input VSWR		1.6	2.0	:1
DC Voltage		+28		V DC
DC Supply Current		0.6	1.0	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	100%RH at 35°C, 95%RH at 40°C	%
RF Input/Output Connector	SMA Female/SMA Female	
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	67*80*12	mm

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

## Absolute Maximum Ratings:

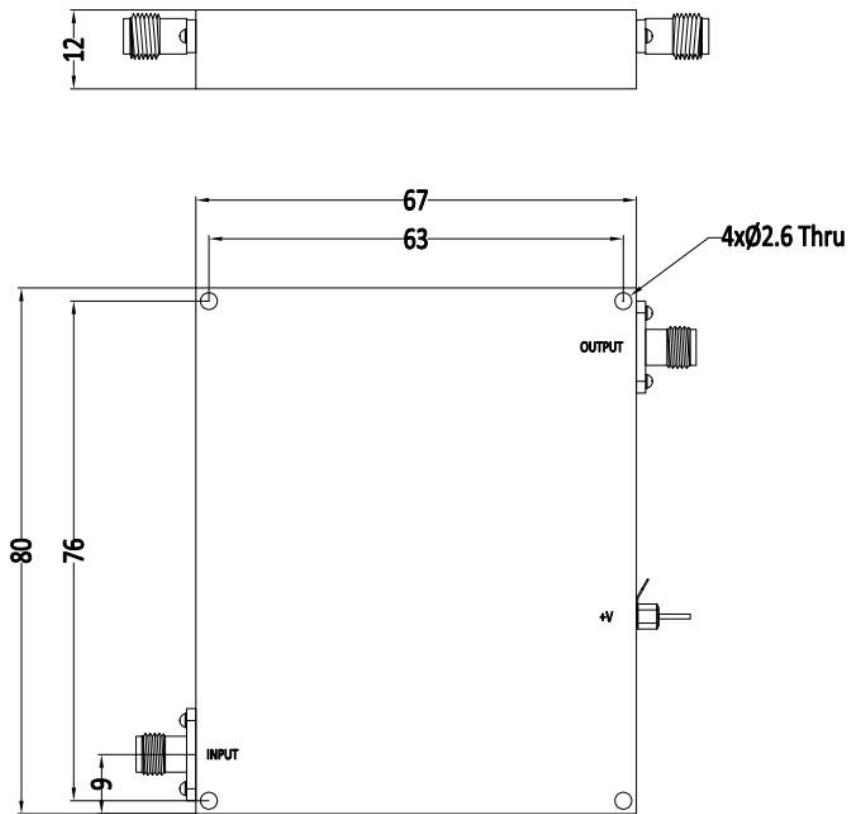
Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	0 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



## Outline Drawing:

Unit:mm

PA-2G-6G-4



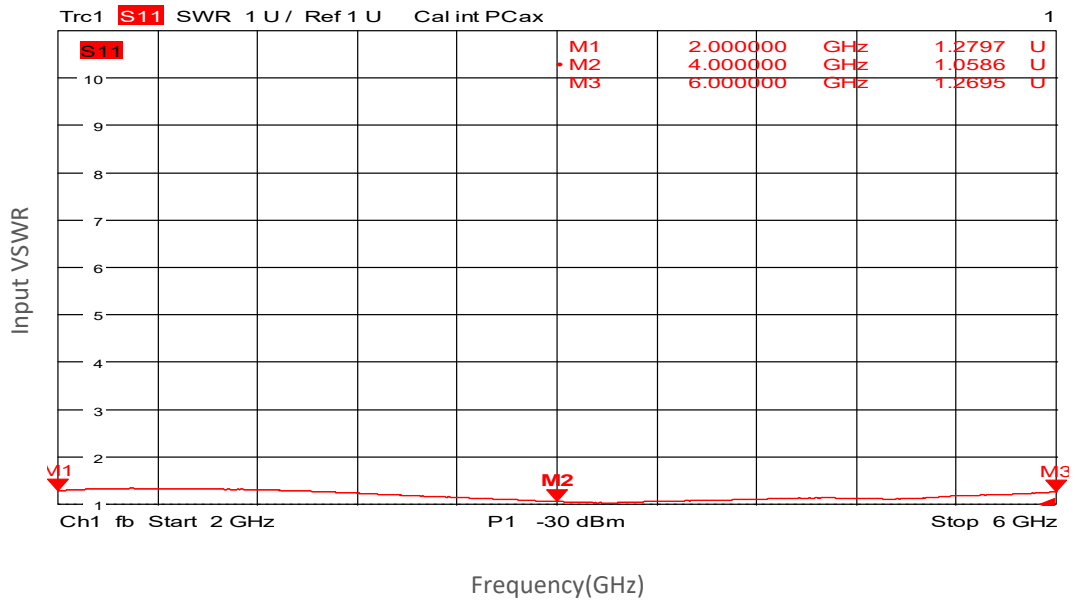
## Ordering Information:

Base Number	Description	Optional
PA-2G-6G-4	Power Amplifier, 2-6GHz, Gain:33dB,Psat:4W,+28V DC	Without Heatsink
PA-2G-6G-4-HS	Power Amplifier, 2-6GHz, Gain:33dB,Psat:4W,+28V DC	With Heatsink

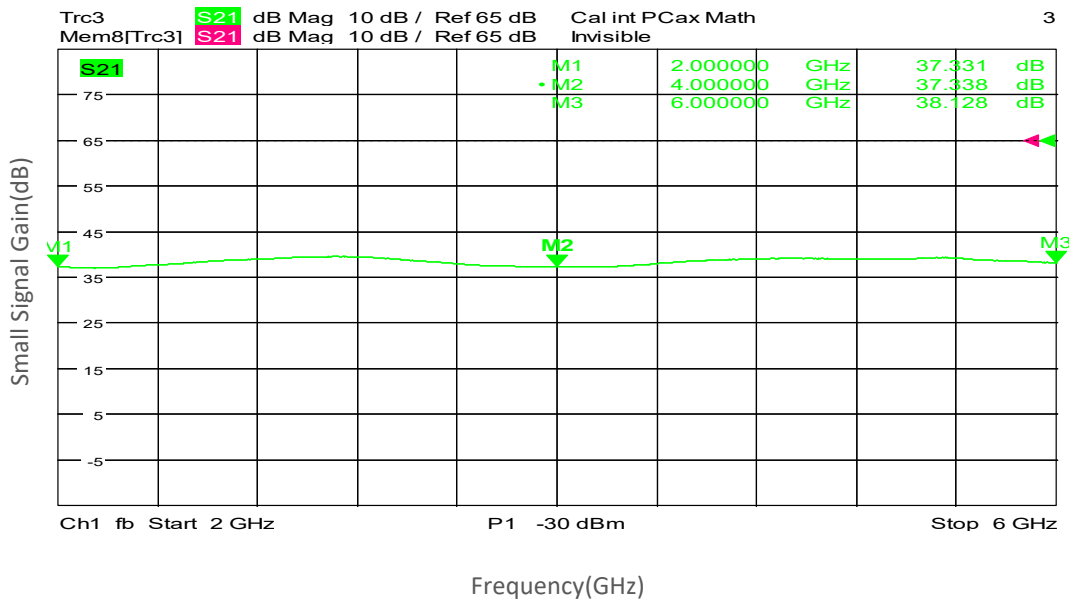


## Typical Performance Data:

### Input VSWR vs Frequency



### Small Signal Gain vs Frequency

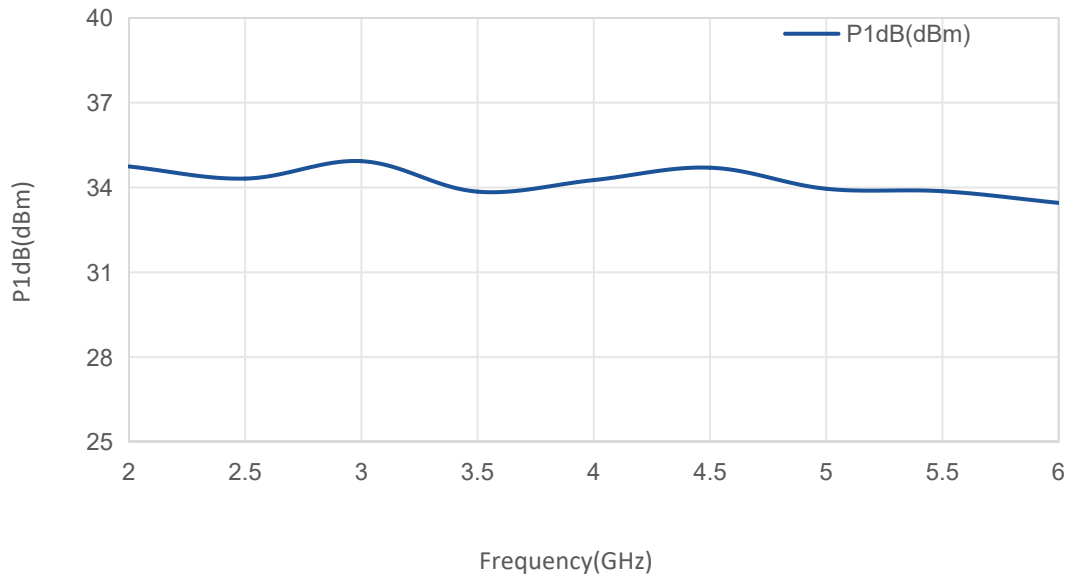


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

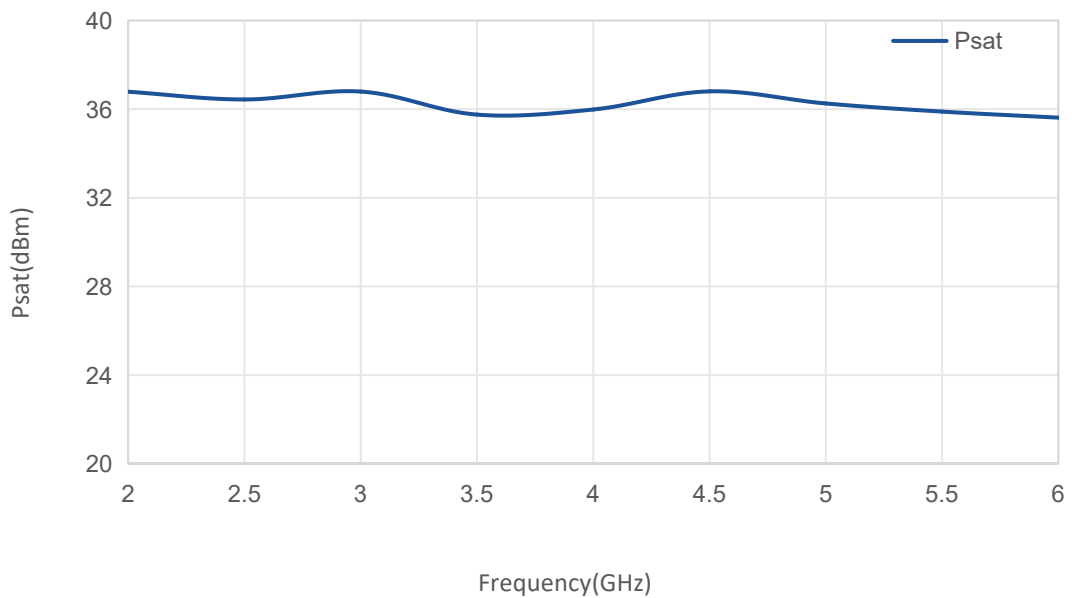


## Typical Performance Data:

### P1dB vs Frequency



### Psat vs Frequency

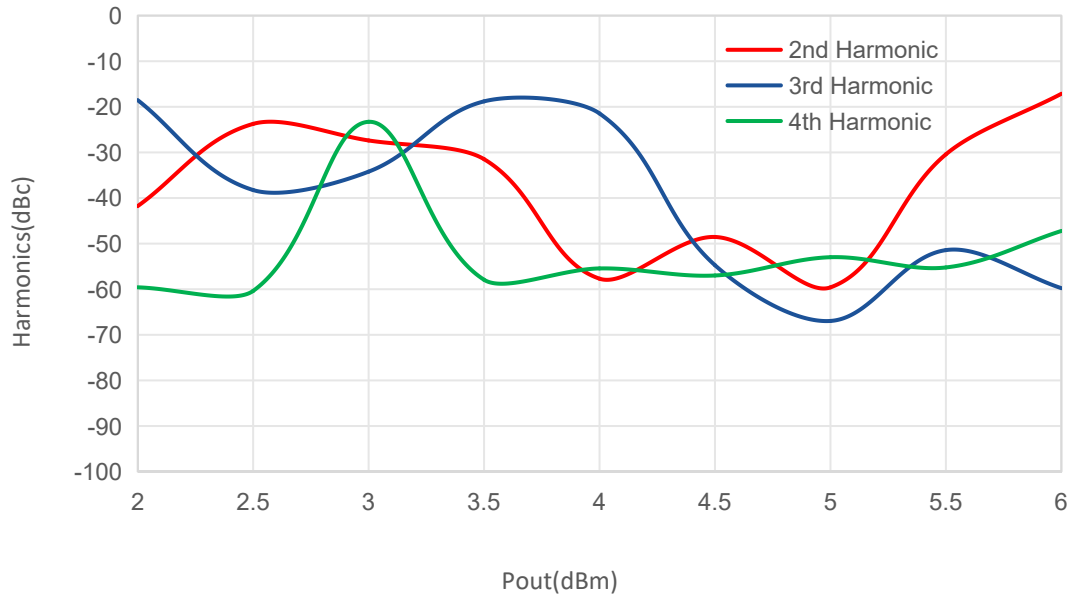


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## Typical Performance Data:

### Harmonics vs Output Power



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