



# Power Amplifier

## Model: PA-0G7-6G-50

0.7-6GHz 50W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

### Features:

- Frequency range: 0.7-6GHz
- High output power at saturation, 50W Min.
- High gain, 47 dB Min.
- 50 Ohm Matched Input / Output.

### Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

### Product Overview:

The PA-0G7-6G-50 is a power amplifier with a minimum power gain of 47 dB and a minimum Psat of 50W across the frequency range of 0.7 to 6 GHz. The DC power requirement for the amplifier is +36 VDC/400 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	0.7		6	GHz
Power Gain	47			dB
Gain Flatness		±3		dB
Output Psat	47			dBm
Spurious@Pout=47dBm			-60	dBc
Harmonic@Pout=47dBm			-10	dBc
Input VSWR			2	:1
DC Voltage		36		V DC
Power Consumption			400	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-SUB7W2	A1:+36V 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	262*182*107.5(With heatsink)	mm

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

## Absolute Maximum Ratings:

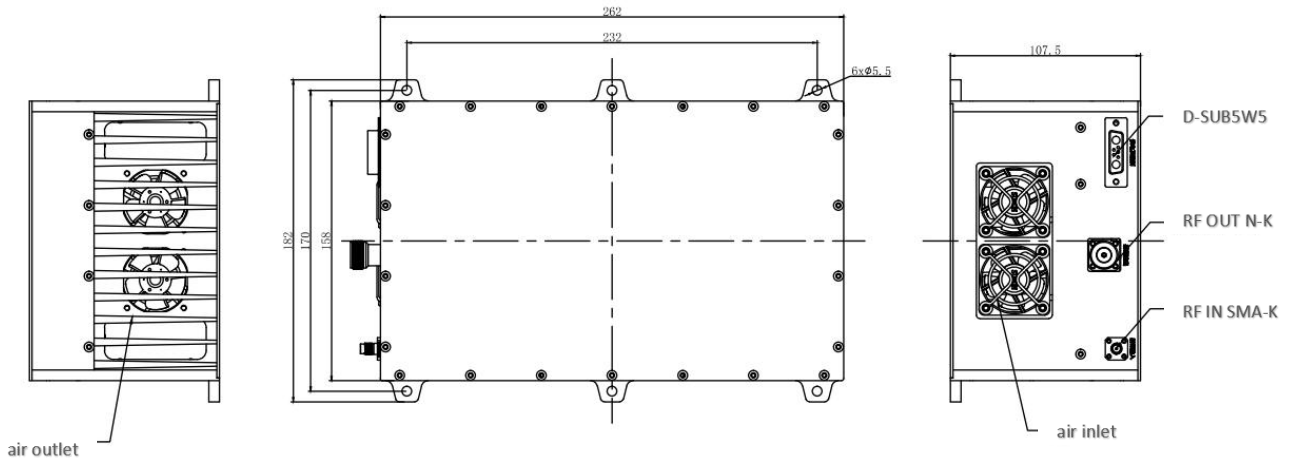
Parameter	Value
Supply Bias Voltage	+36 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



## Outline Drawing:

Unit:mm

PA-0G7-6G-50-HS



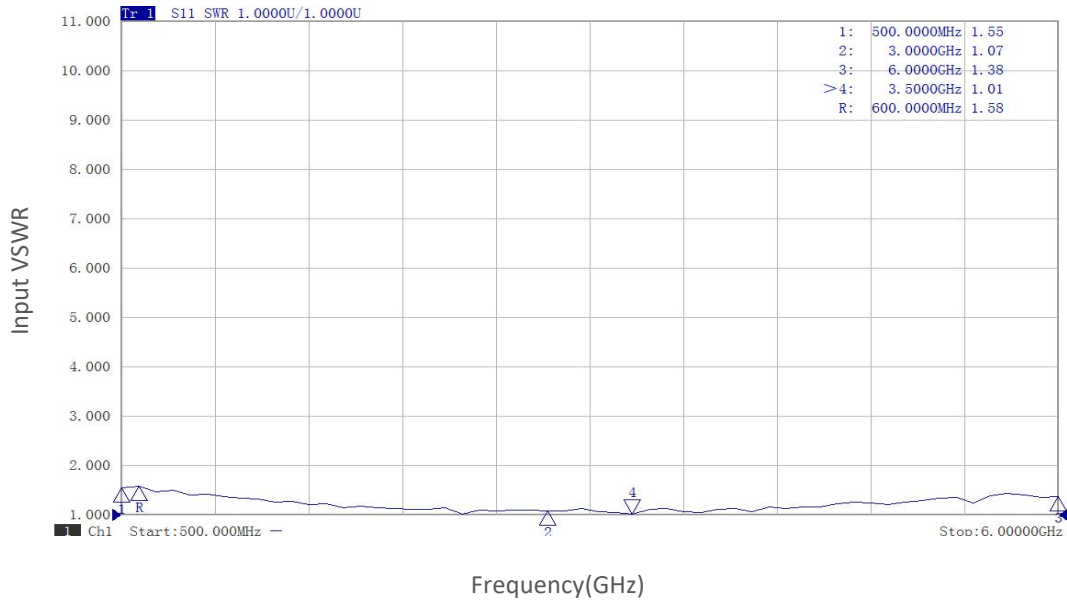
## Ordering Information:

Base Number	Description	Optional
PA-0G7-6G-50	Power Amplifier, 0.7-6GHz, Gain:47dB,Psat:50W,+36V DC	Without Heatsink
PA-0G7-6G-50-HS	Power Amplifier, 0.7-6GHz, Gain:47dB,Psat:50W,+36V DC	With Heatsink

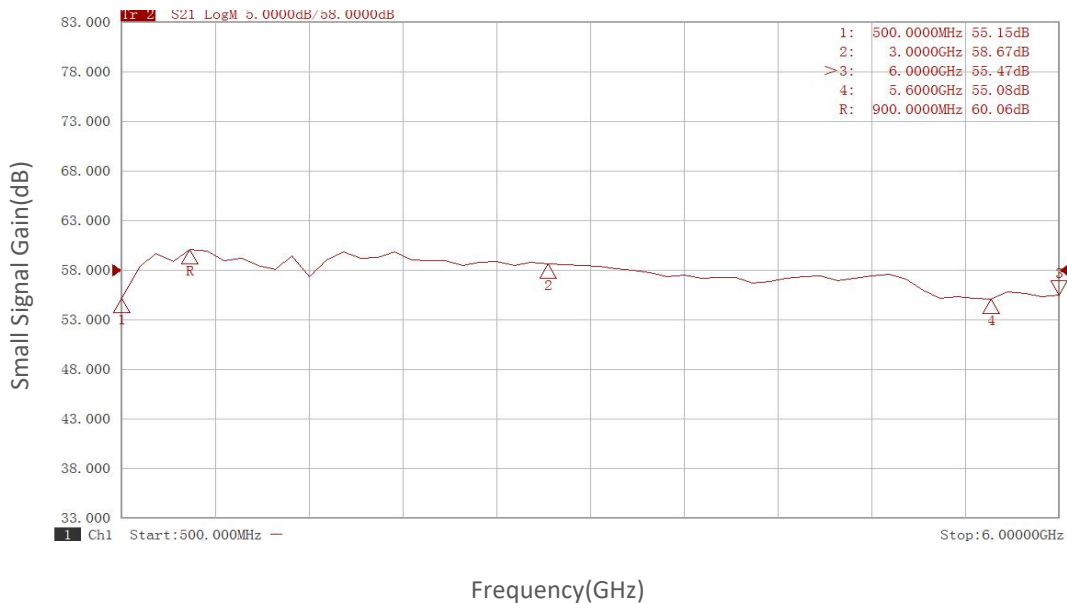


## Typical Performance Data:

### Input VSWR vs Frequency



### Small Signal Gain vs Frequency

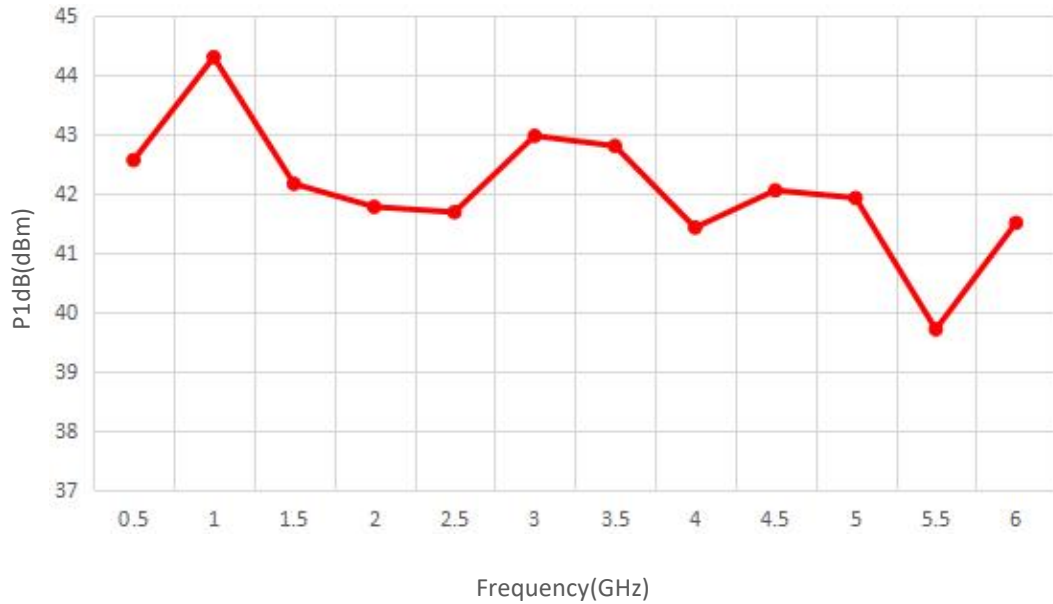


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

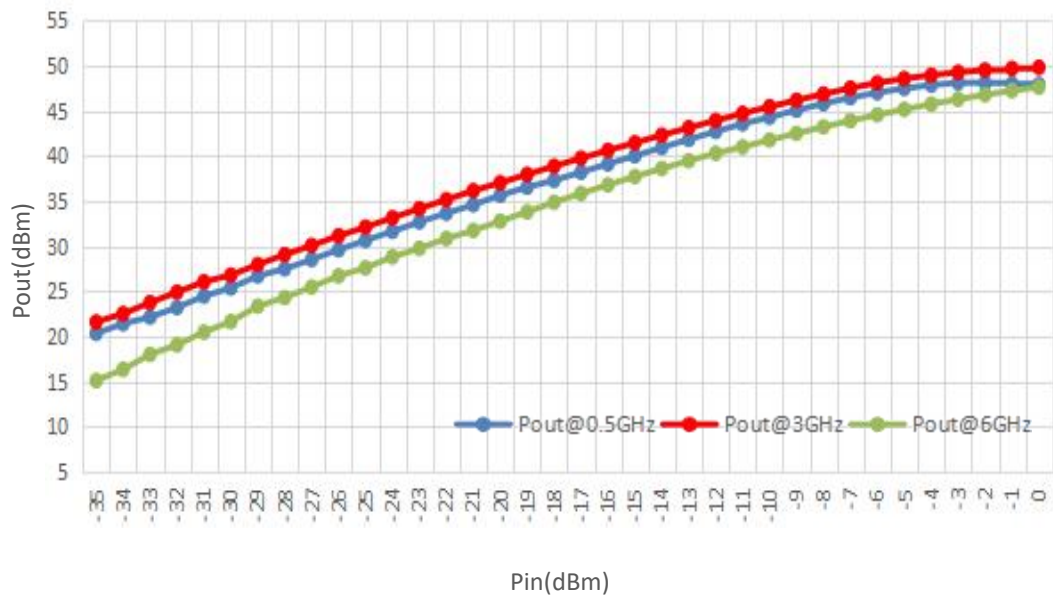


## Typical Performance Data:

### P1dB vs Frequency



### Pout@Pin

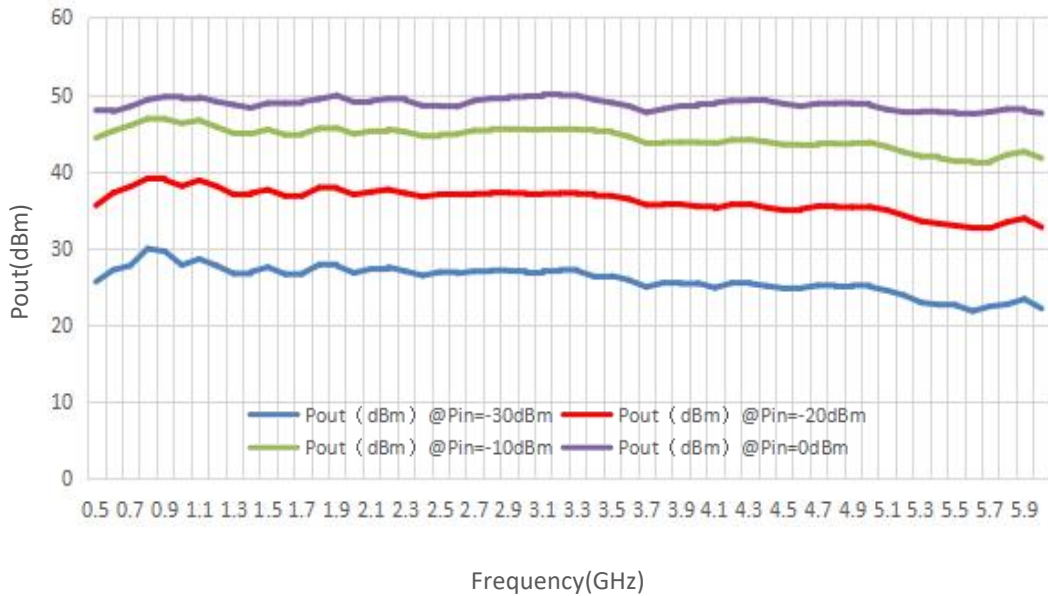


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

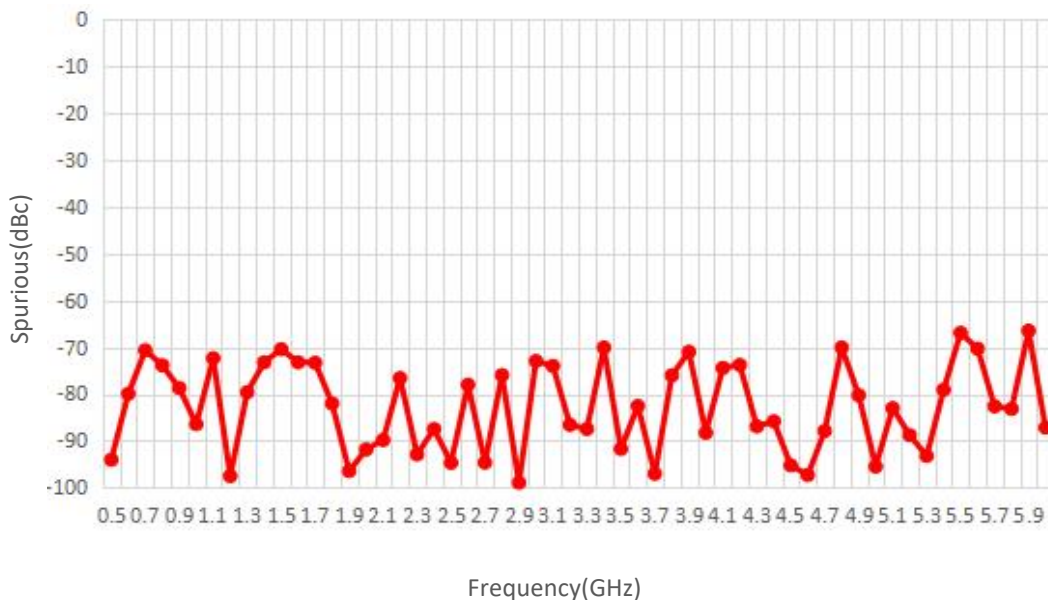


## Typical Performance Data:

### Pout@Equal\_Pin



### Spurious vs Frequency

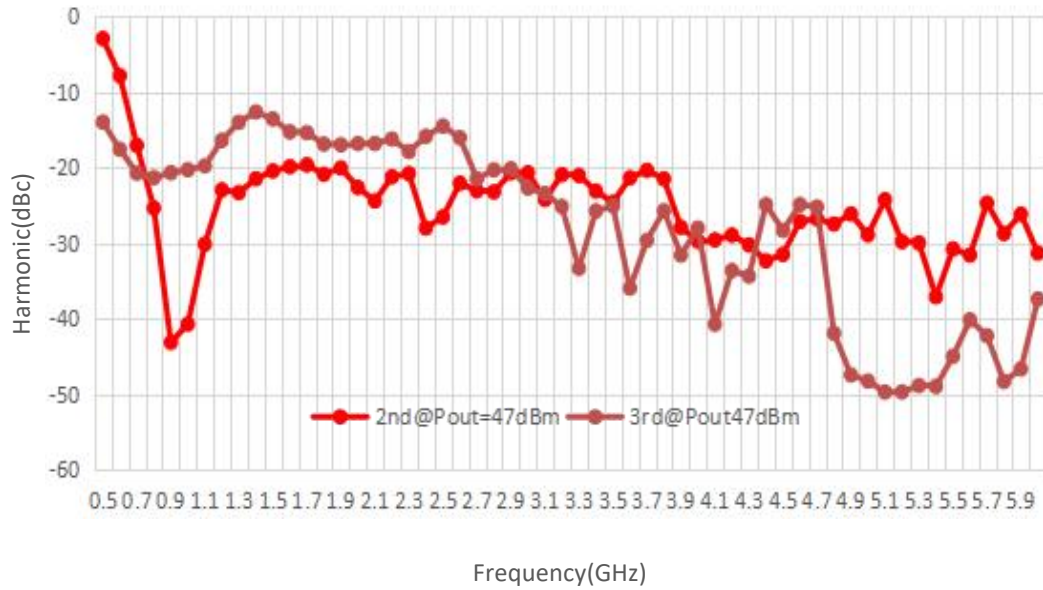


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.



## Typical Performance Data:

### Harmonic 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.