



# Power Amplifier

## Model: PA-0G5-3G-50

0.5-3GHz 50W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

### Features:

- Frequency range: 0.5-3GHz
- 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-0G5-3G-50 is a power amplifier with a minimum small signal gain of 47 dB and a minimum Psat of 50W across the frequency range of 0.5 to 3 GHz. The DC power requirement for the amplifier is +32 VDC/10 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	0.5		3	GHz
Small Signal Gain	47			dB
Gain Flatness			±3	dB
Output Psat	47			dBm
Spurious@Pout=50dBm			-65	dBc
Harmonics@Pout=50dBm			-10	dBc
Input VSWR			1.8	:1
DC Voltage		+32	+33	V DC
DC Supply Current		10		A
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/SMA Female	
DC Bias	Cap Feed	
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	210*101.3*28.5	mm

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

## Absolute Maximum Ratings:

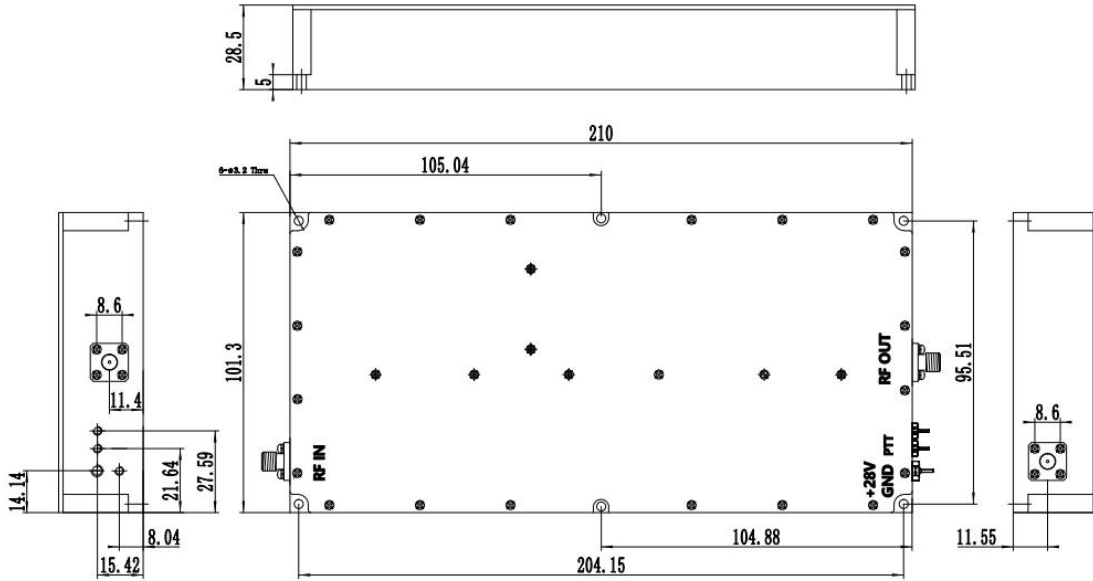
Parameter	Value
Supply Bias Voltage	+33 V
RF Input Power	+6 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



## Outline Drawing:

Unit:mm

PA-0G5-3G-50



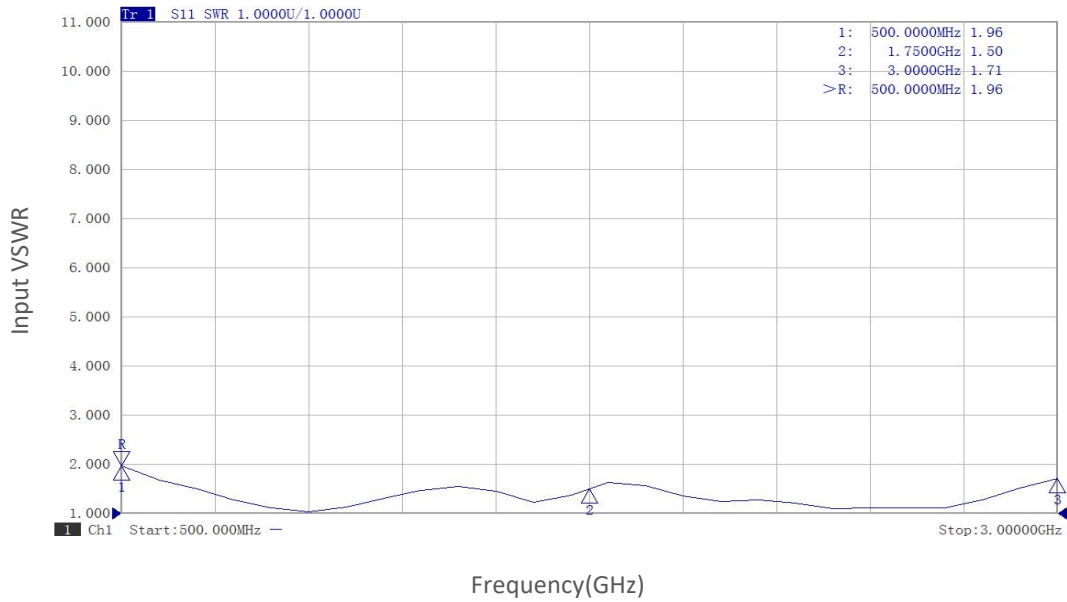
## Ordering Information:

Base Number	Description	Optional
PA-0G5-3G-50	Power Amplifier, 0.5-3GHz, Gain:47dB,Psat:50W,+32V DC	Without Heatsink
PA-0G5-3G-50-HS	Power Amplifier, 0.5-3GHz, Gain:47dB,Psat:50W,+32V DC	With Heatsink

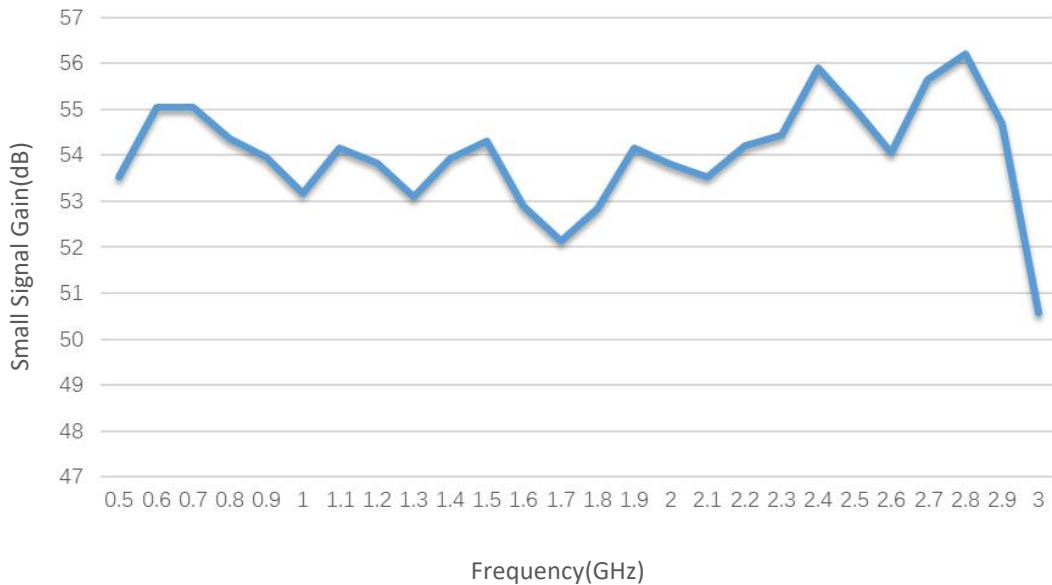


## Typical Performance Data:

### Input VSWR vs Frequency



### Small Signal Gain vs Frequency

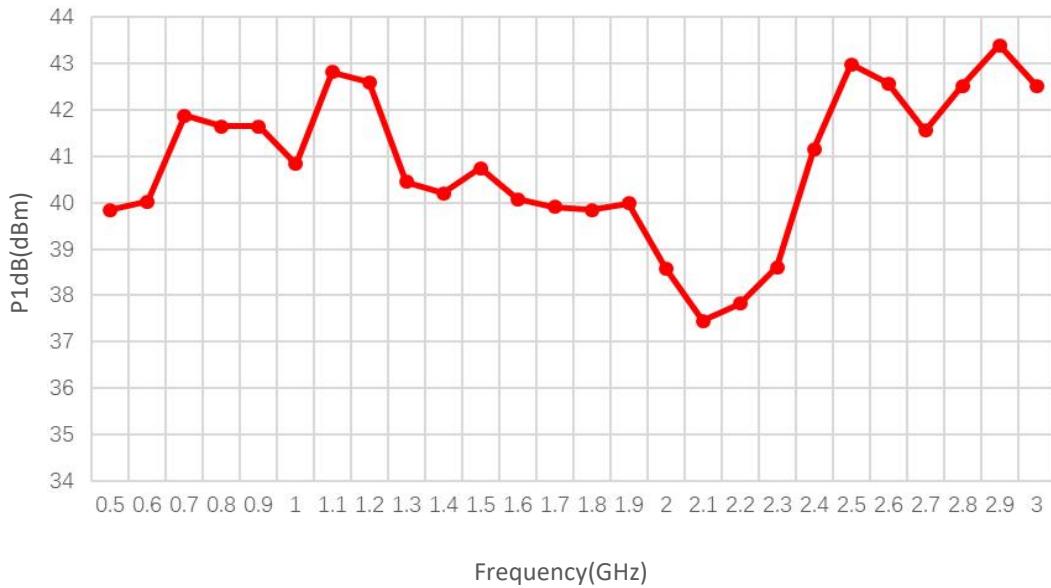


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

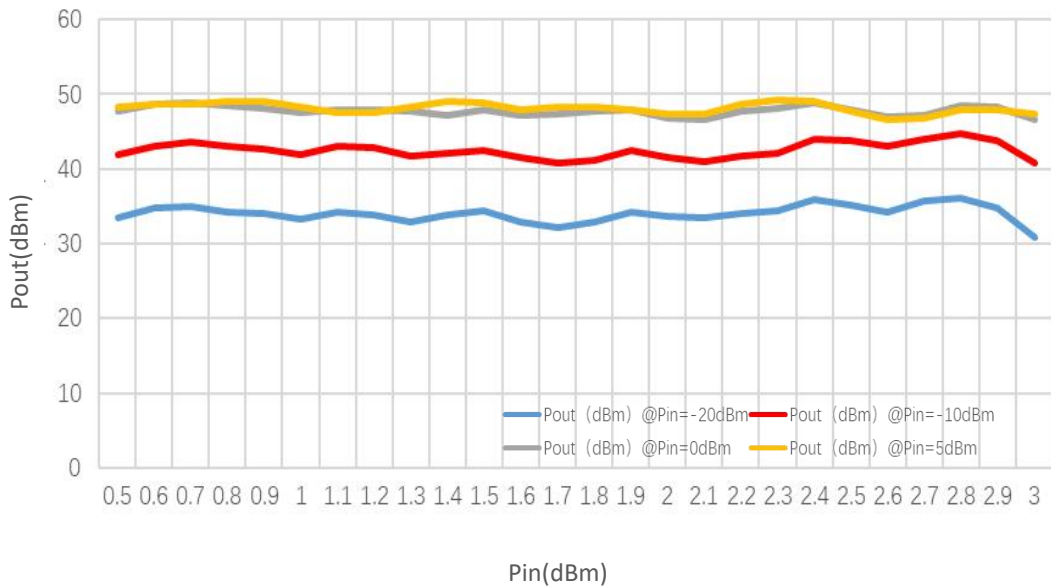


## Typical Performance Data:

### P1dB vs Frequency



### Pout@Equal\_Pin

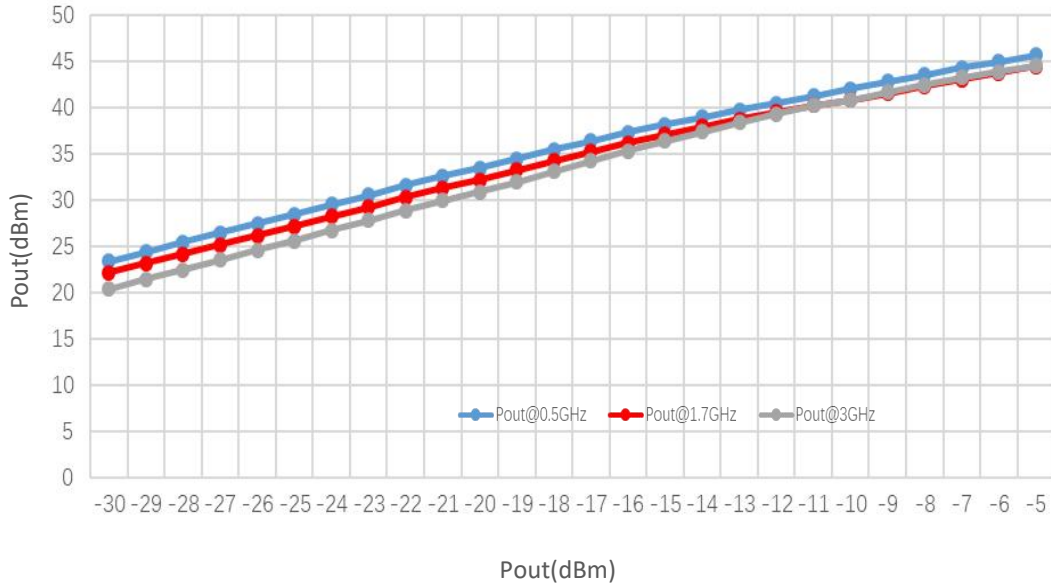


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

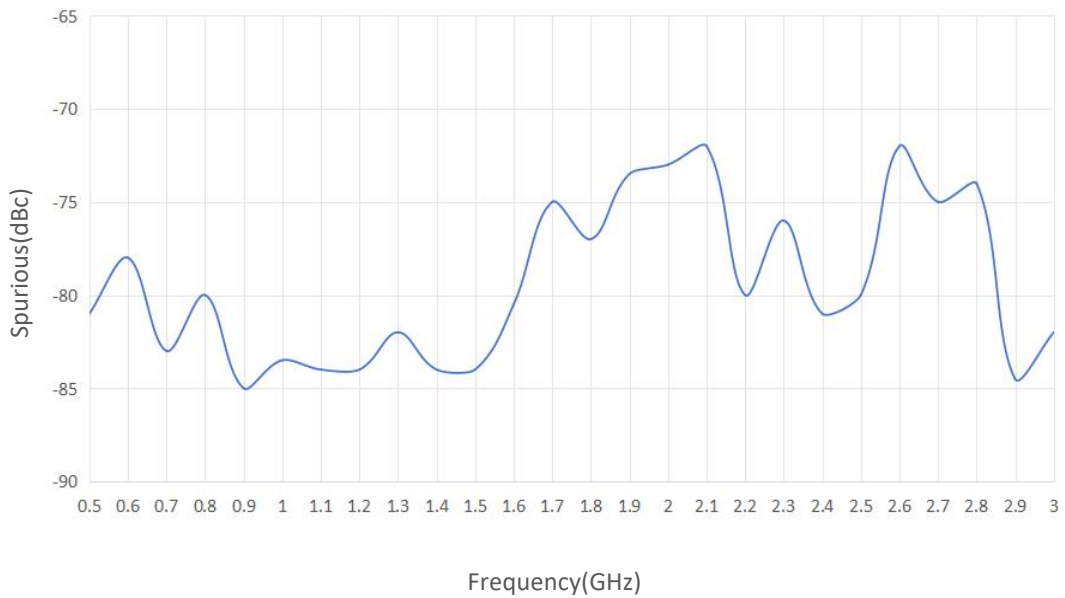


## Typical Performance Data:

### Pout@Pin



### 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.