



Power Amplifier

Model: PA-0G5-6G-100-

WATERPROOF

0.5-6GHz 100W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 0.5-6GHz
- 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-0G5-6G-100-WATERPROOF is a power amplifier with a minimum power gain of 50 dB and a minimum P_{sat} of 100W across the frequency range of 0.5 to 6 GHz. The DC power requirement for the amplifier is +36 VDC/800 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	0.5		6	GHz
Operating Mode	CW/PULSE compatible			
Power Gain	50			dB
Gain Flatness		±3.5		dB
Output Psat	50			dBm
Spurious@Pout=50dBm			-60	dBc
2rd Harmonics@Pout=50dBm		-10		dBc
Input VSWR			2	:1
DC Voltage		+36		V DC
Power Consumption			800	W
Ingress Protection Grade	IP-65			
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	
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	350*206*110	mm
Weight	≤7.5	Kg

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

Absolute Maximum Ratings:

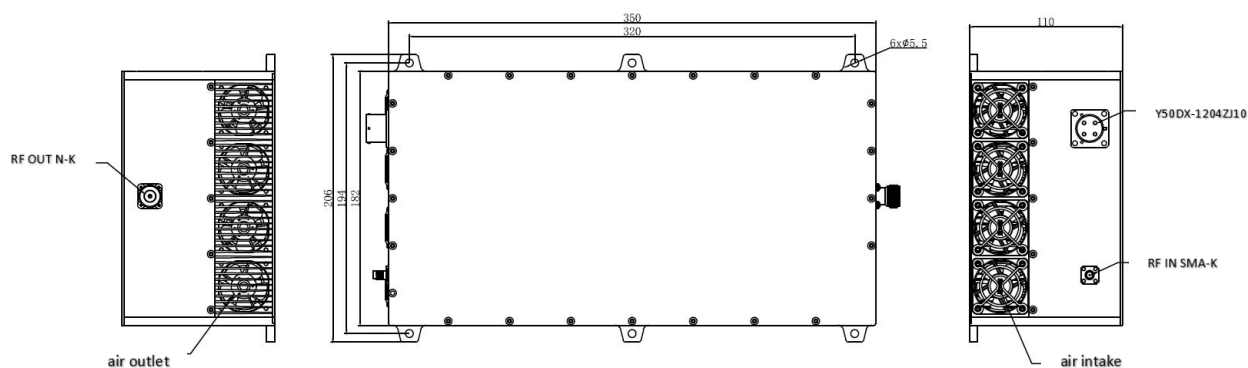
Parameter	Value
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-0G5-6G-100-WATERPROOF



DC Interface Connector(Y50DX-1204ZJ10):

Pin	Name	Function
1	VCC	+36 V DC
2	VCC	+36 V DC
3	GND	Ground
4	GND	Ground

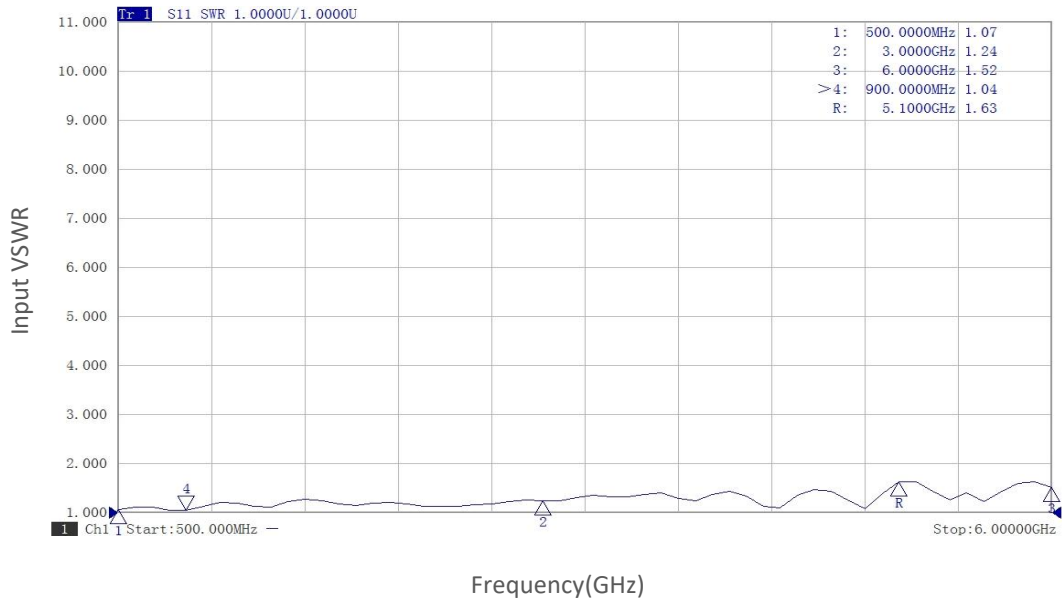
Ordering Information:

Base Number	Description	Optional
PA-0G5-6G-100-WATERPROOF-HS	Power Amplifier, 0.5-6GHz, Gain:50dB,Psat:100W,+36V DC	With Heatsink

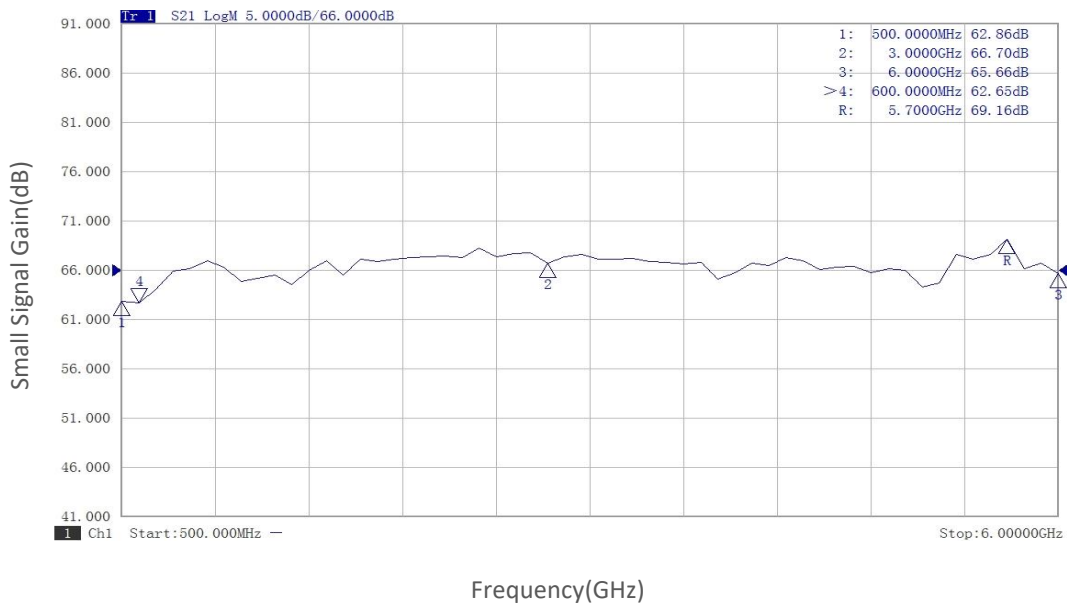


Typical Performance Data:

Input VSWR vs Frequency



Small Signal Gain vs Frequency

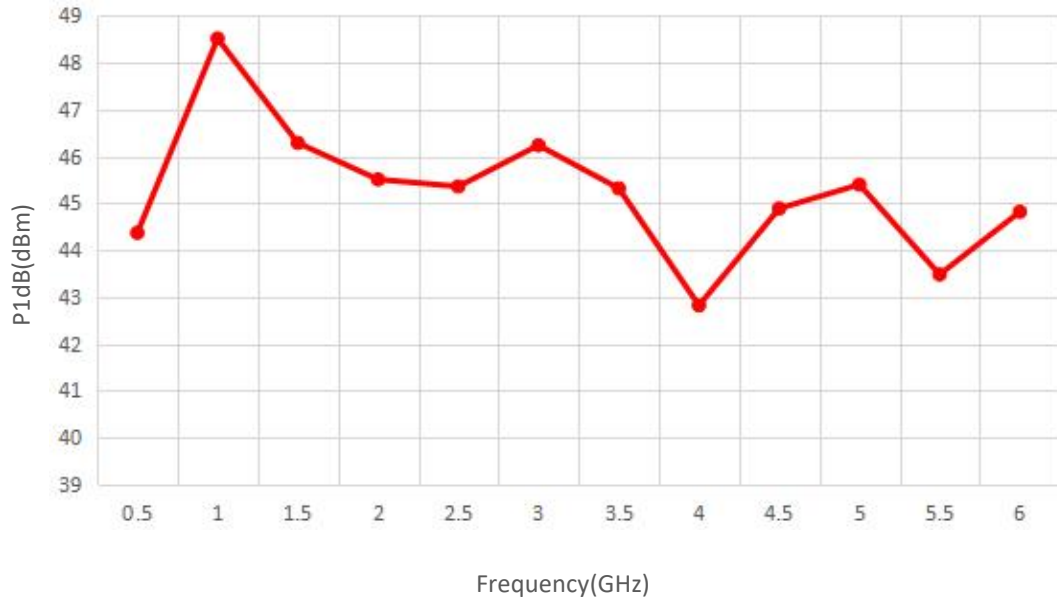


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

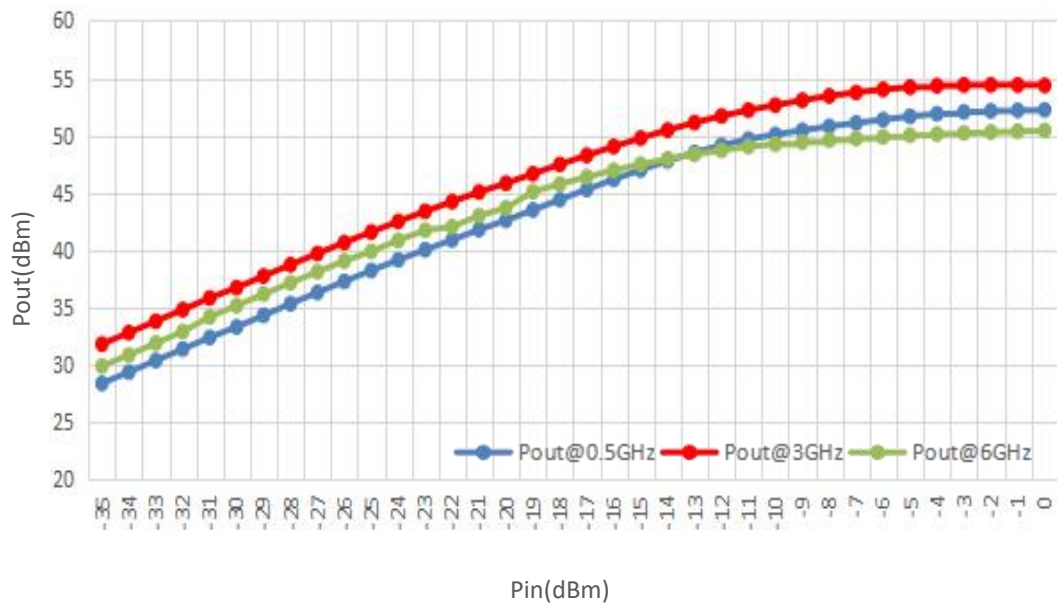


Typical Performance Data:

P1dB vs Frequency



Pout@Pin

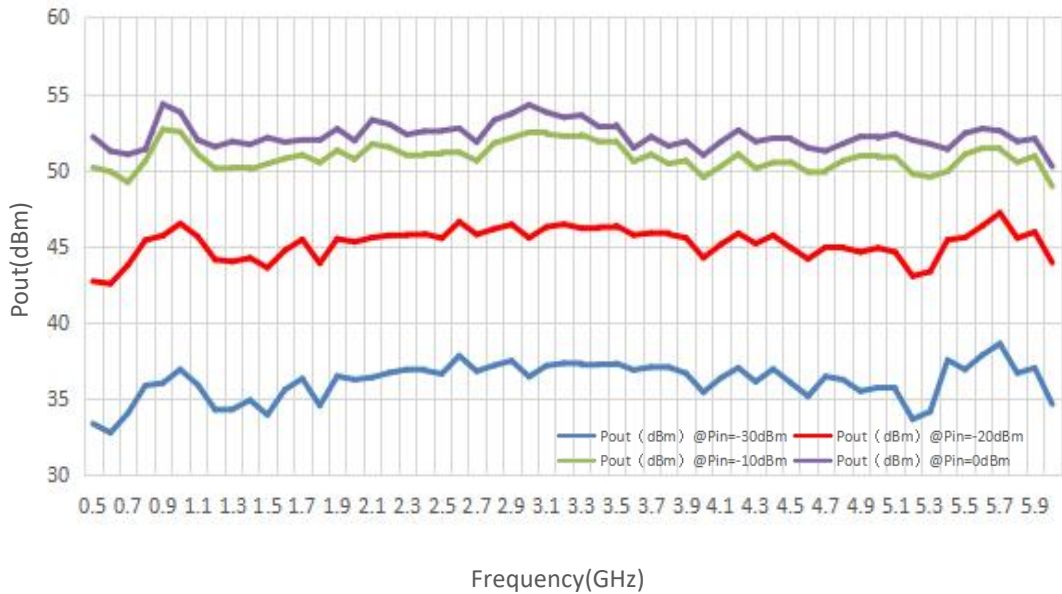


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

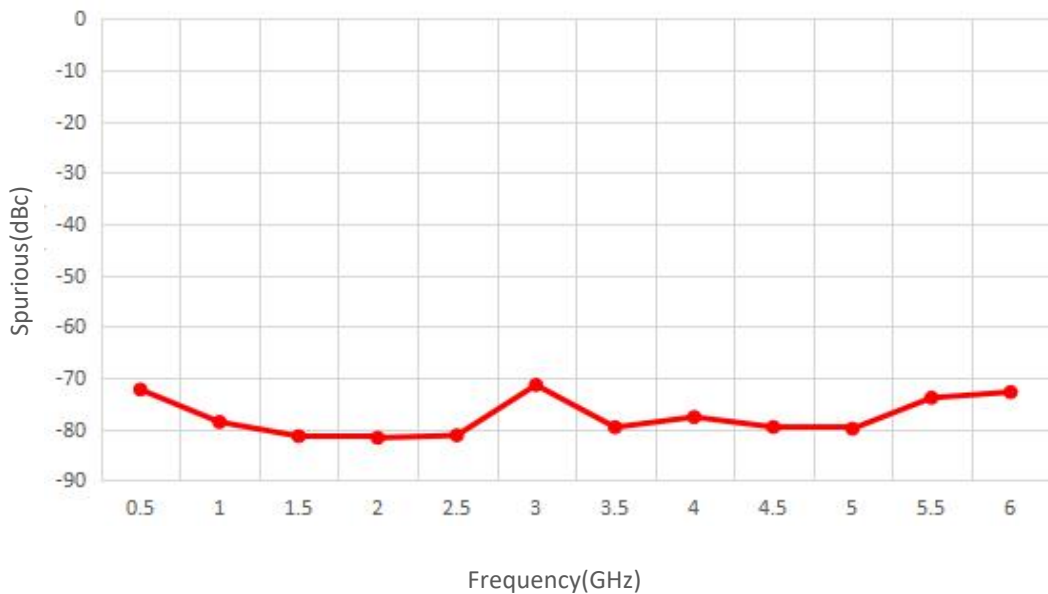


Typical Performance Data:

Pout@Equal_Pin



Spurious vs Frequency

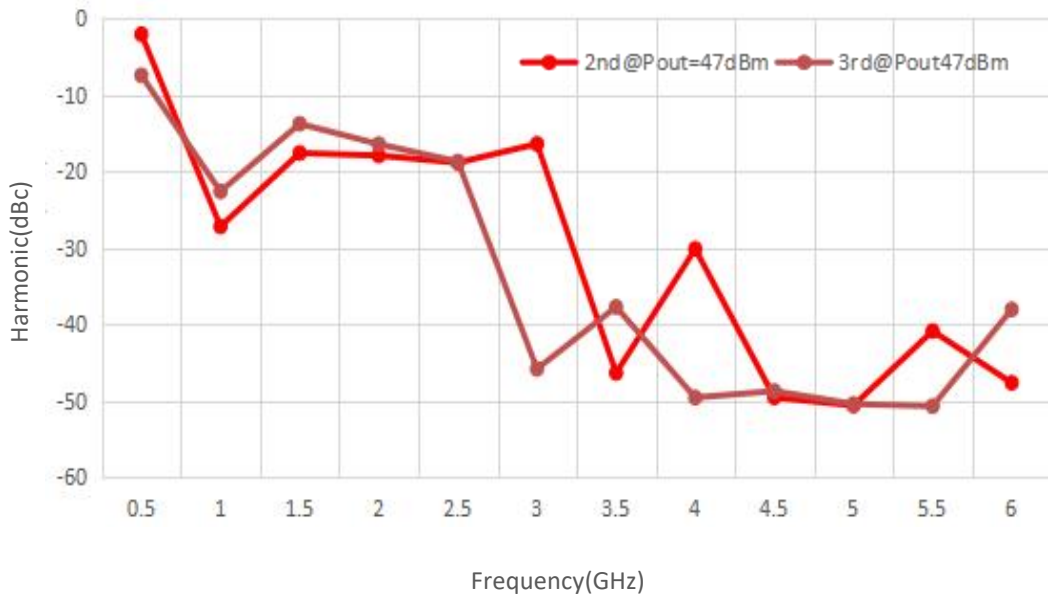


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

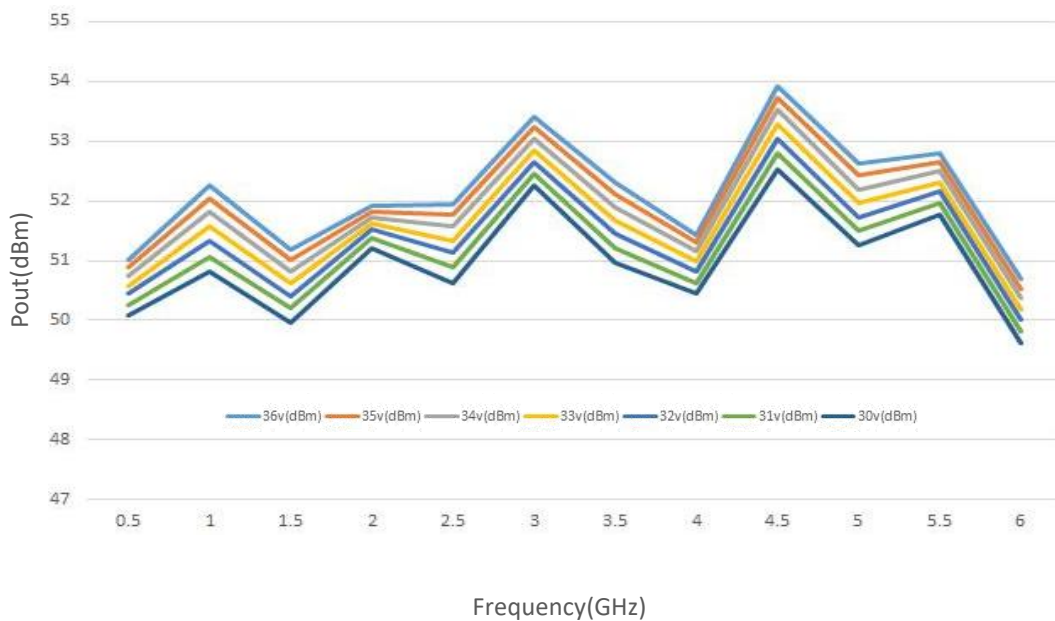


Typical Performance Data:

Harmonic vs Frequency



Pout@Voltage



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.