



# Power Amplifier

## Model: PA-6G-18G-63

6-18GHz 63W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

### Features:

- Frequency range: 6-18GHz
- High output power at saturation, 63W Min.
- High gain, 50 dB Typ.
- 50 Ohm Matched Input / Output.

### Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

### Product Overview:

The PA-6G-18G-63 is a power amplifier with a typical power gain of 50 dB and a minimum Psat of 63W across the frequency range of 6 to 18 GHz. The DC power requirement for the amplifier is +28 VDC/18 A. 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	6		18	GHz
Power Gain	46	50		dB
Gain Flatness		±4	±5	dB
Output P1dB		30		dBm
Output Psat	48			dBm
Spurious@Pout=47dBm		-60	-50	dBc
2nd Harmonic@Pout=48dBm		-20	-12	dBc
Input VSWR			2	:1
DC Voltage		+28		V DC
DC Current		18		A
Power Consumption		800		W
Impedance		50		Ohms

## Mechanical Specifications:

Parameter	Value	Notes
Operating Temperature*	-20°C to +40°C	
Non-operating Temperature*	-30°C to +50°C	
Relative humidity	95	%
RF Input/Output Connector	SMA Female/N Female	
Forward/Reverse Coupling	SMA Female/ SMA Female	
DC Supply	DSUB-5W5	A1~2:+28V A3~5:GND
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	300*240*120	mm
Weight	5	kg

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



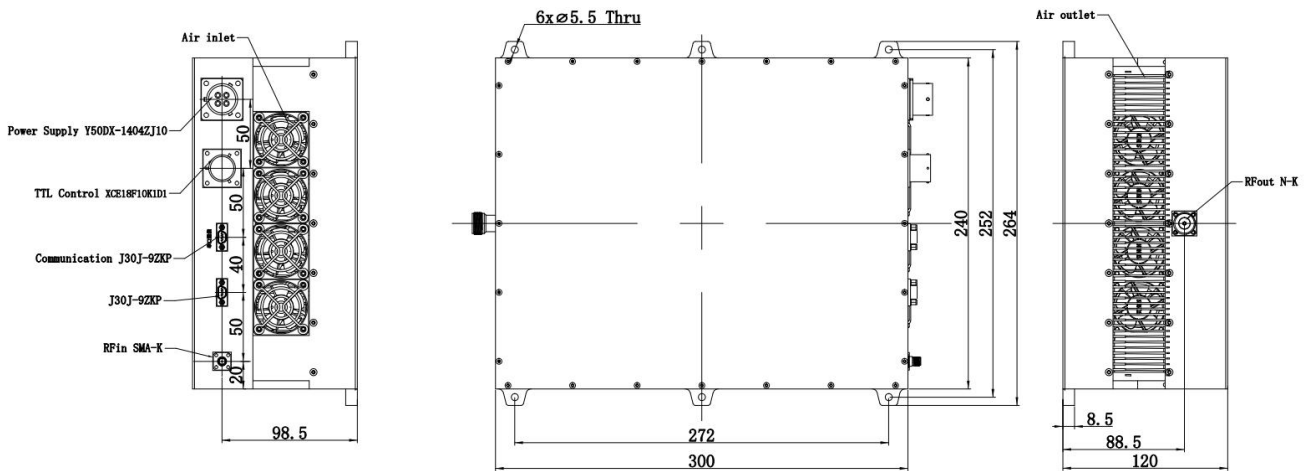
## Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	-2 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

## Outline Drawing:

Unit:mm

PA-6G-18G-63-HS





## Control Connector(J30J-9ZKP):

Pin	Function
1	TTL(High level conduction, low level cutoff)
2	0.5dB attenuation
3	1dB attenuation
4	2dB attenuation
5	4dB attenuation
6	8dB attenuation
7	16dB attenuation
8~9	GND

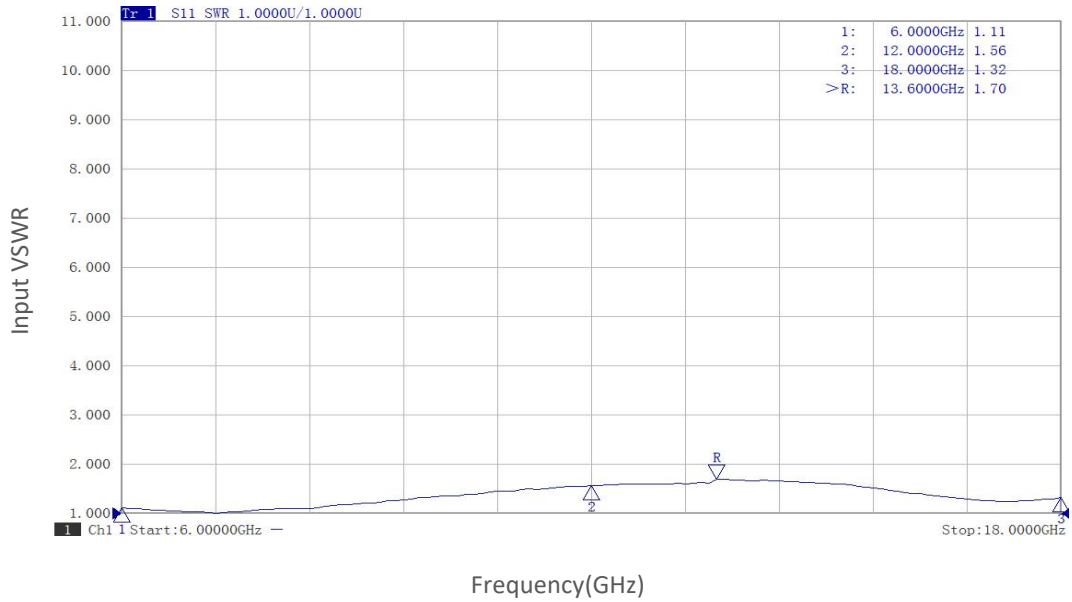
## Ordering Information:

Base Number	Description	Optional
PA-6G-18G-63	Power Amplifier, 6-18GHz, Gain:50dB,Psat:63W,+28V DC	With Heatsink

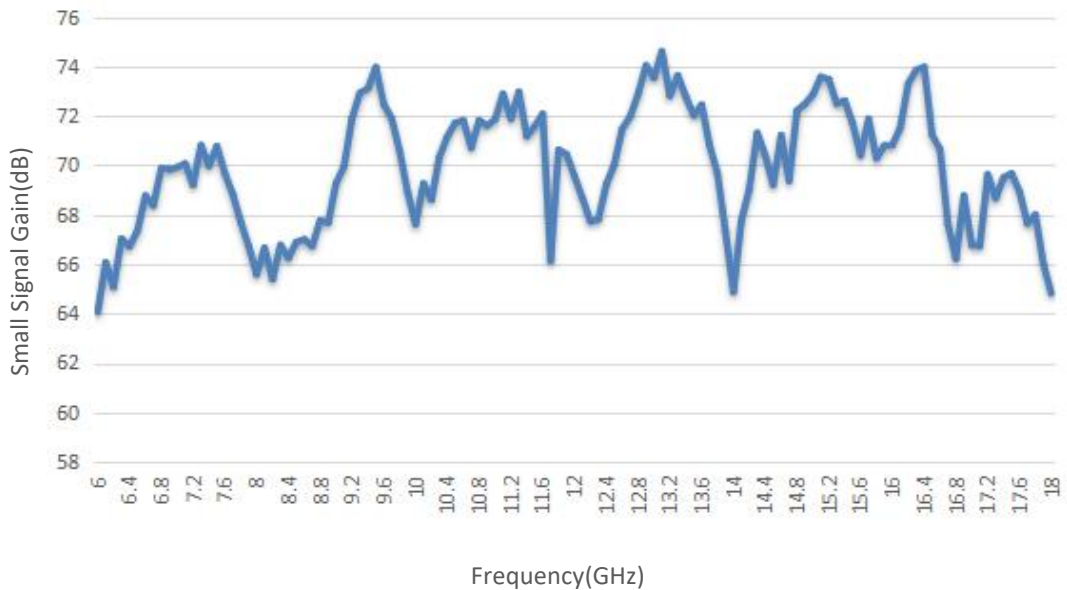


## Typical Performance Data:

### 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.

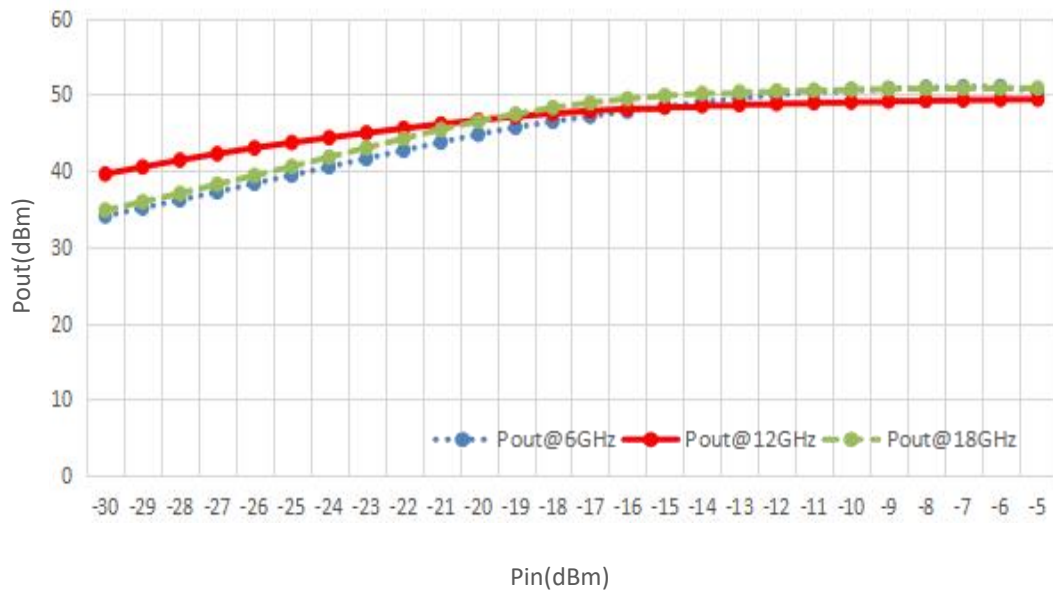


## Typical Performance Data:

### P1dB vs Frequency



### Pout@Pin

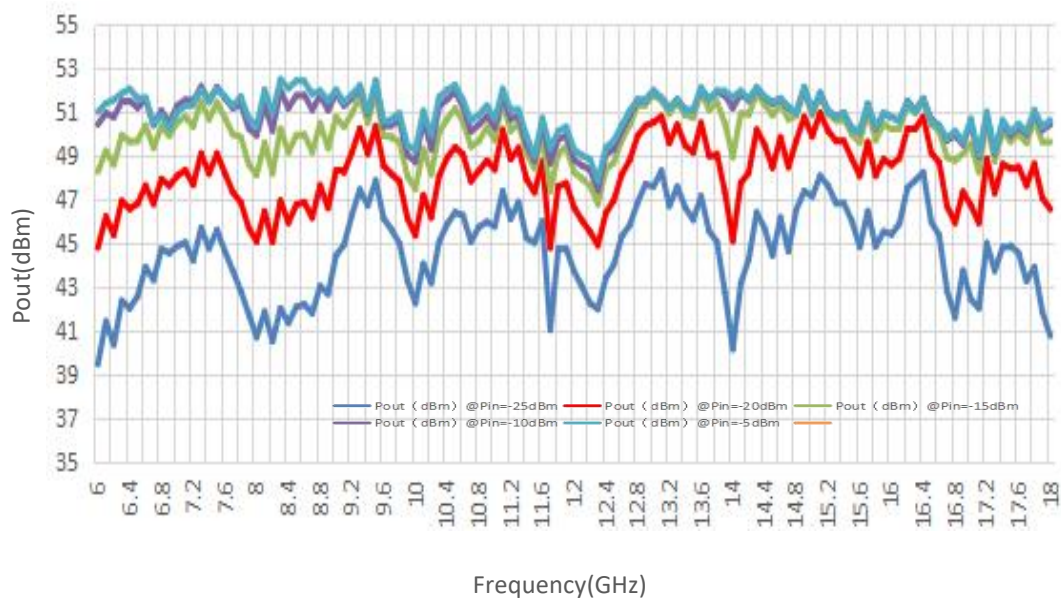


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

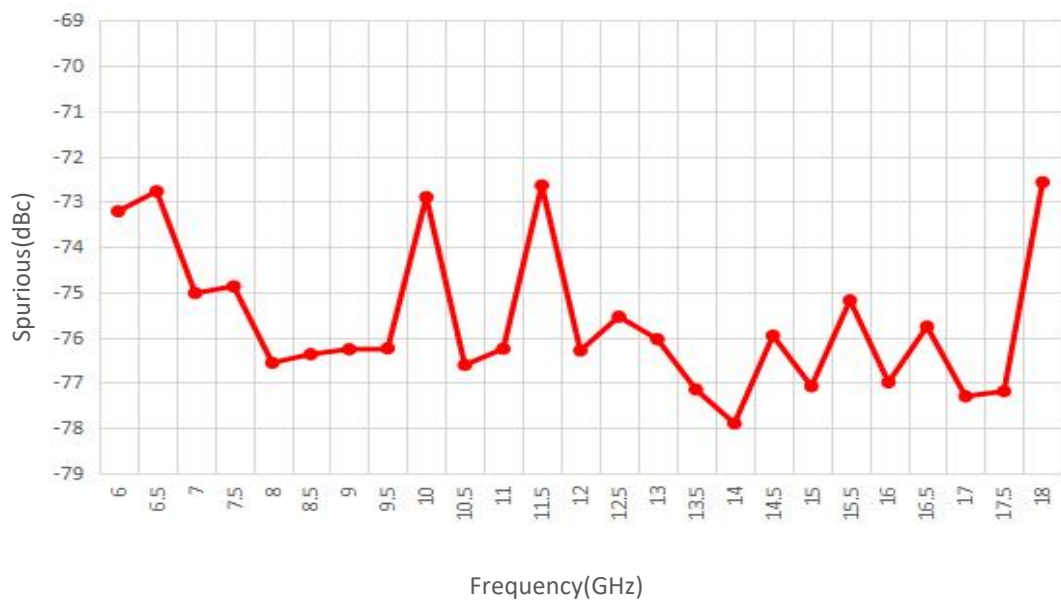


## Typical Performance Data:

### Pout@Equal\_Pin



### Spurious vs Frequency

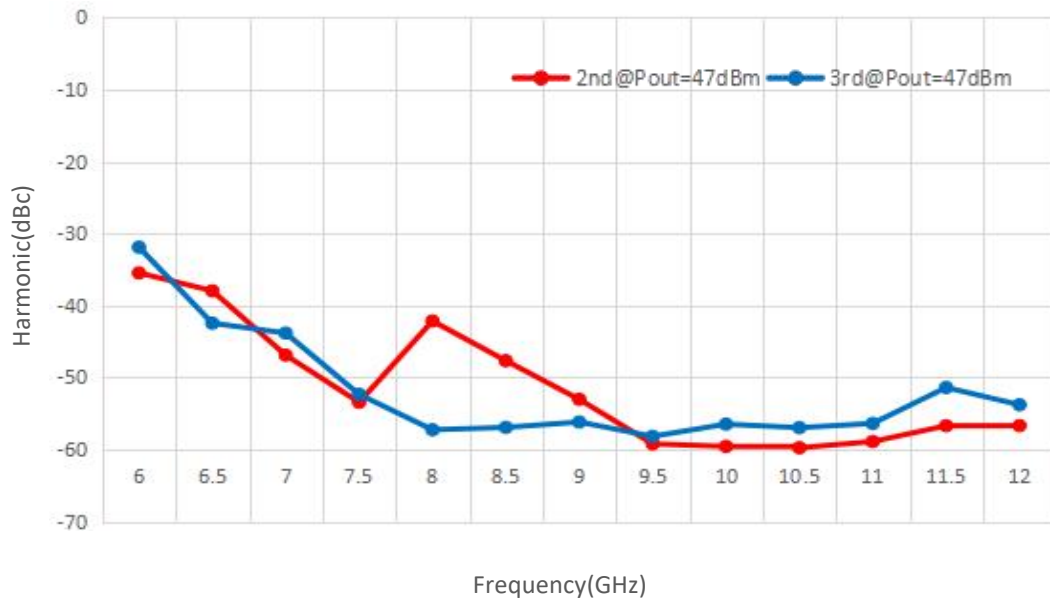


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.



## 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.