



Power Amplifier

Model: PA-6G-18G-125

6-18GHz 125W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 6-18GHz
- High output power at saturation, 125W Typ.
- High gain, 50 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-6G-18G-125 is a power amplifier with a minimum power gain of 50 dB and a nominal Psat of 125W across the frequency range of 6 to 18 GHz. The DC power requirement for the amplifier is +28 VDC/1500 W. The input port configuration offers coax adapter structure with SMA female and output port is WRD500.



Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
Frequency range	6		18	GHz
Power Gain	50			dB
Gain Flatness		±3.5	±5	dB
Output Psat	50.5	51		dBm
Spurious@Pout=50dBm			-60	dBc
Harmonic@Pout=50dBm			-10	dBc
Input VSWR			2	:1
DC Voltage		+28		V DC
Power Consumption			1500	W
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temperature*	-20°C to +65°C	
Non-operating Temperature*	-30°C to +75°C	
Relative humidity	95	%
RF Input/Output Connector	SMA Female/WRD500	
DC Bias	DSUB-5W5	
Control Connector	J30J-15ZKSP	
Forward/Reverse Coupling	SMA Female/SMA Female	
Altitude	10,000	
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*300*113	mm
Weight	11	Kg

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



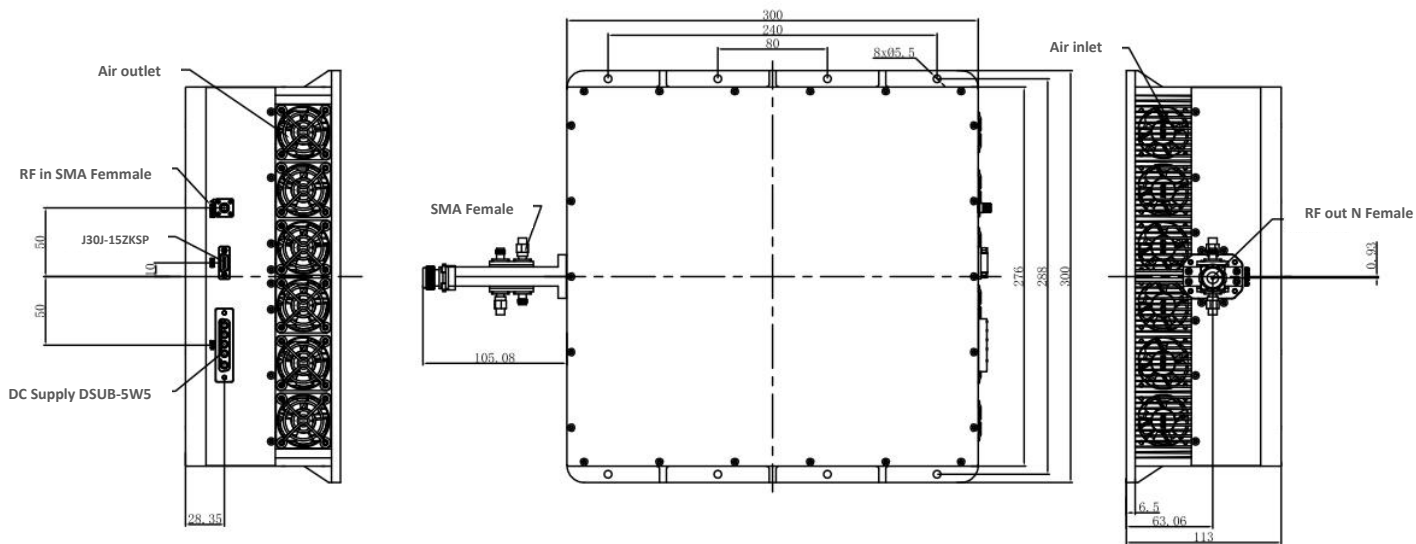
Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm

PA-6G-18G-125





Control Connector(J30J-15ZKP Define):

Pin	Function
1	Voltage Monitor
2	Current Monitor
3	Temperature Monitor
4	0.5dB Attenuation
5	1dB Attenuation
6	2dB Attenuation
7	4dB Attenuation
8	8dB Attenuation
9	16dB Attenuation
10	TTL(high for open,low for close)
11~15	GND

DC Supply Connector(DSUB-5W5):

Pin	Name	Function
A1	+28V	+28V
A2	+28V	+28V
A3~A5	GND	GND

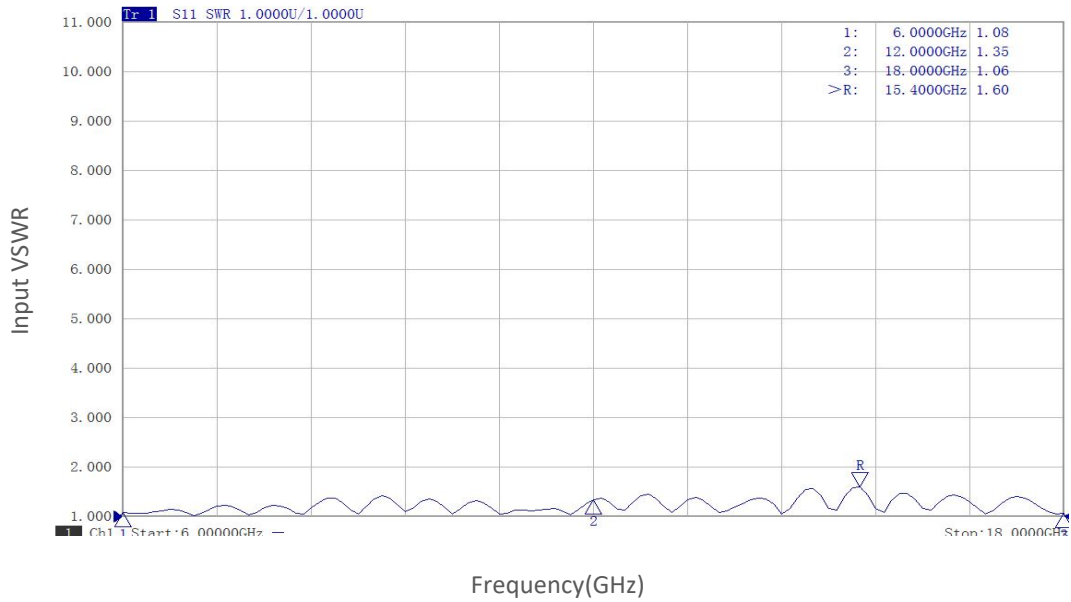
Ordering Information:

Base Number	Description	Optional
PA-6G-18G-125	Power Amplifier, 6-18GHz, Gain:50dB,Psat:125W,+28V DC	With Heatsink

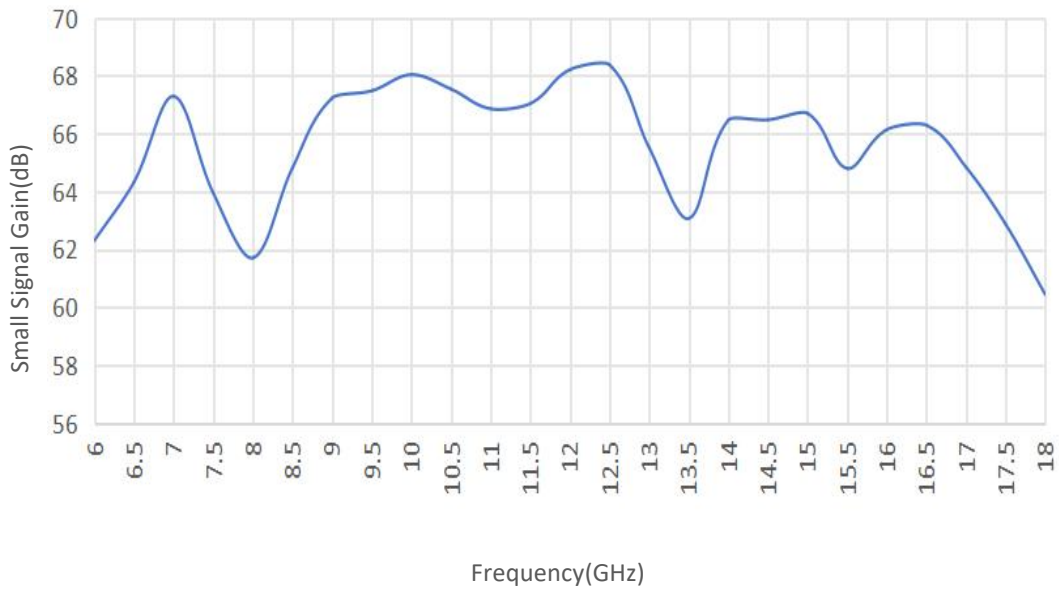


Typical Performance Data:

Input VSWR vs Frequency



Small Signal Gain vs Frequency

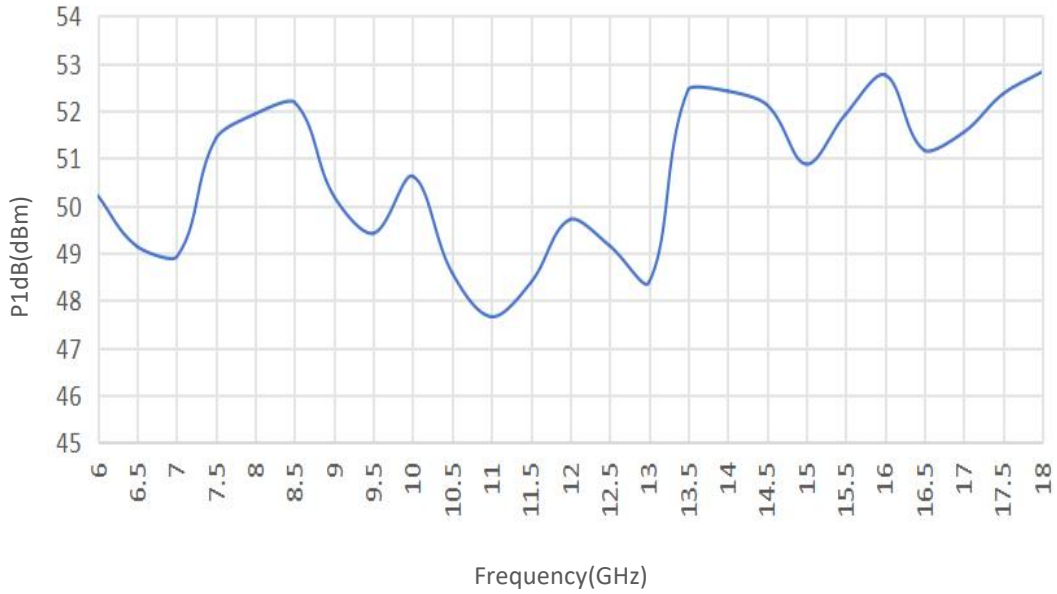


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

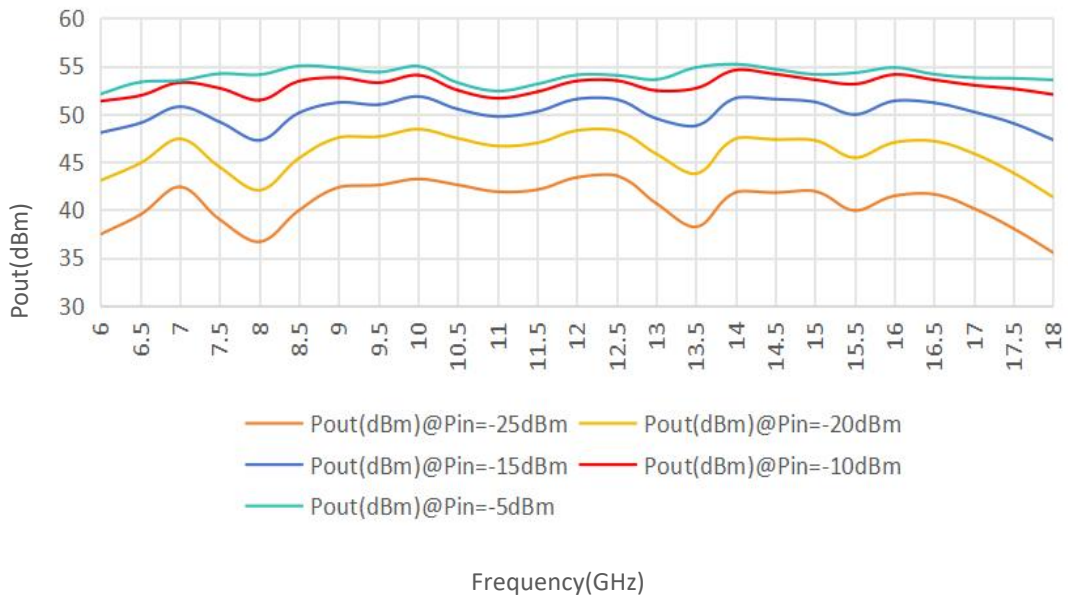


Typical Performance Data:

P1dB vs Frequency



Pout@Equal_Pin

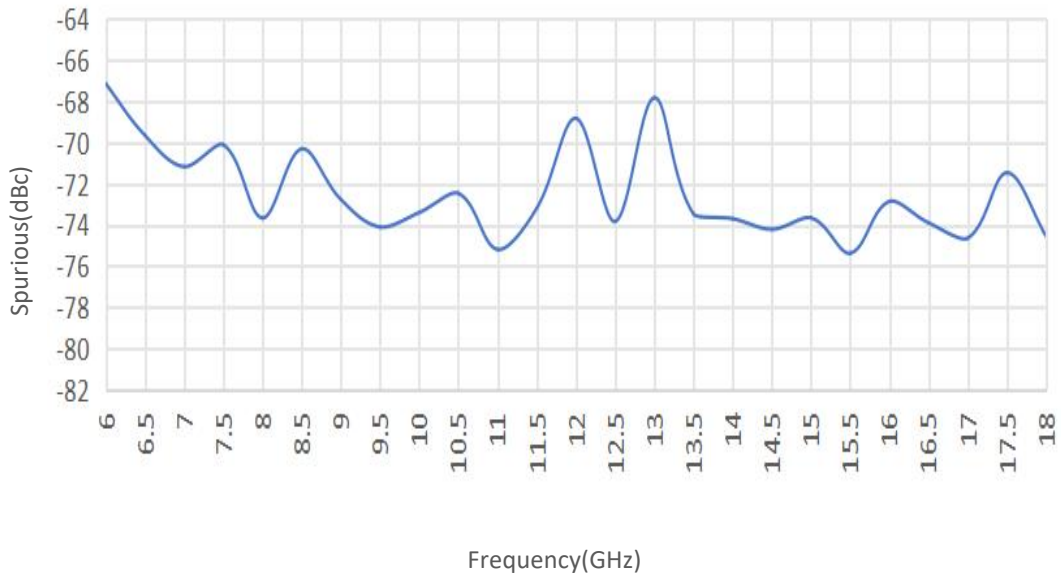


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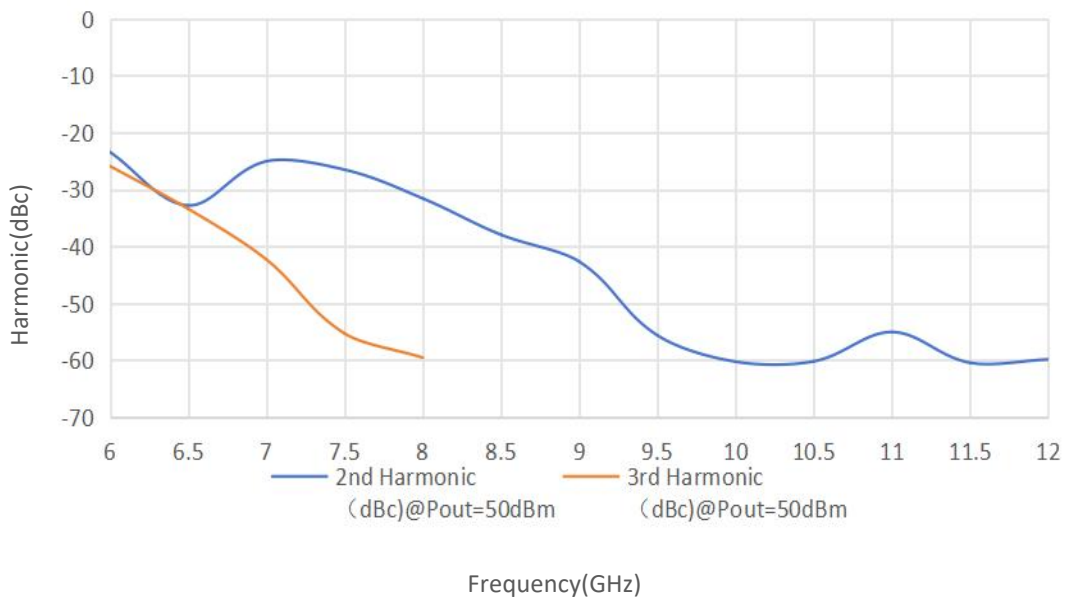


Typical Performance Data:

Spurious vs Frequency



Harmonic vs Frequency



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