



Power Amplifier

Model: PA-6G-18G-20-HS-T

6-18GHz 20W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 6-18GHz
- High output power at saturation, 20W Min.
- High gain, 50 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-6G-18G-20-HS-T is a power amplifier with a minimum small signal gain of 50 dB and a minimum Psat of 20W across the frequency range of 6 to 18GHz. The DC power requirement for the amplifier is +28 VDC/350 W. The input and output port configuration offers coax adapter structure with SMA female. And it has built-in protection functions included over TEM, over voltage and over current protection.



Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
Frequency range	6		18	GHz
Small Signal Gain	50			dB
Small Signal Gain Flatness@Full band		±4		dB
Output Psat	43			dBm
Spurious@Pout=43dBm			-60	dBc
Harmonics@Pout=43dBm			-10	dBc
Input VSWR			2	:1
DC Voltage		+28		V DC
Static Current			350	W
Impedance		50		Ohms

Mechanical Specifications:

ParameterKg	Value	Notes
Operating Temperature*	-40°C to +50°C	
Non-operating Temperature*	-50°C to +60°C	
Relative humidity	95%	
RF Input/Output Connector	SMA Female/SMA Female	
DC Bias	D-SUB7W2	A1+28V;A2: GND Pin1:TTL;Pin2~5:NC
Altitude	10,000	feet
Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth	
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions	
Dimensions W x H x D	200*100*69.5	mm
Weight	≤3.5	Kg

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

Absolute Maximum Ratings:

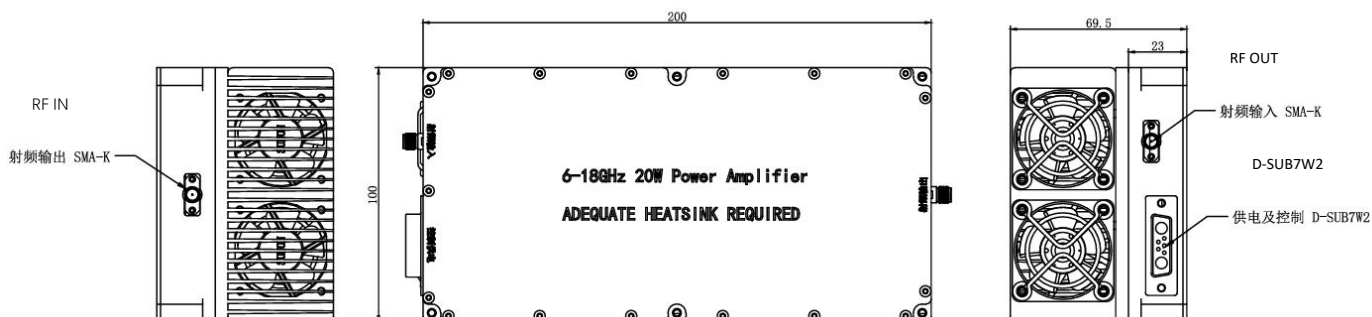
Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-6G-18G-20-HS-T



Key Features:

Parameter	Advantageas
Protrction Functions	1.Over TEM 2.Over Voltage 3.Over Current

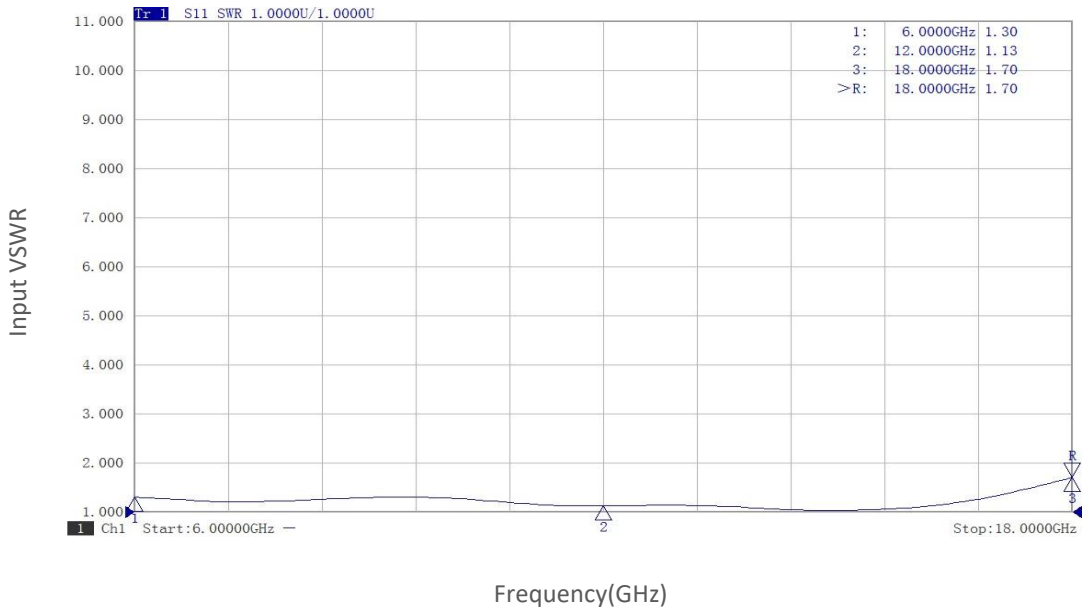
Ordering Information:

Base Number	Description	Optional
PA-6G-18G-20-HS-T	Power Amplifier,6-18GHz, Gain:43dB,Psat:20W,+28V DC	With Heatsink, Operating Temperature -40~+70°C

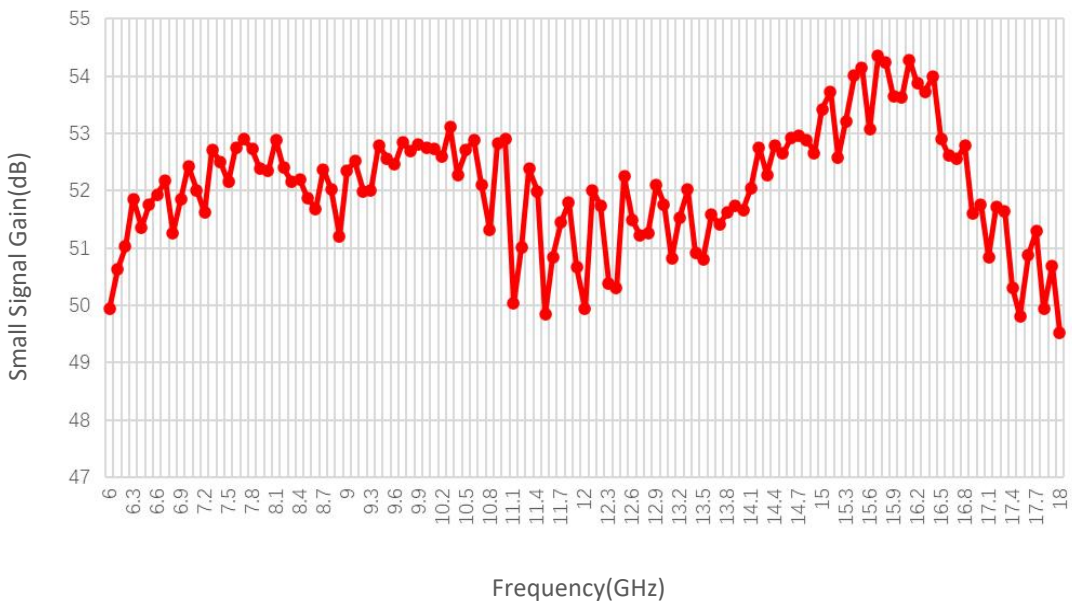


Typical Performance Data:

Input VSWR vs Frequency



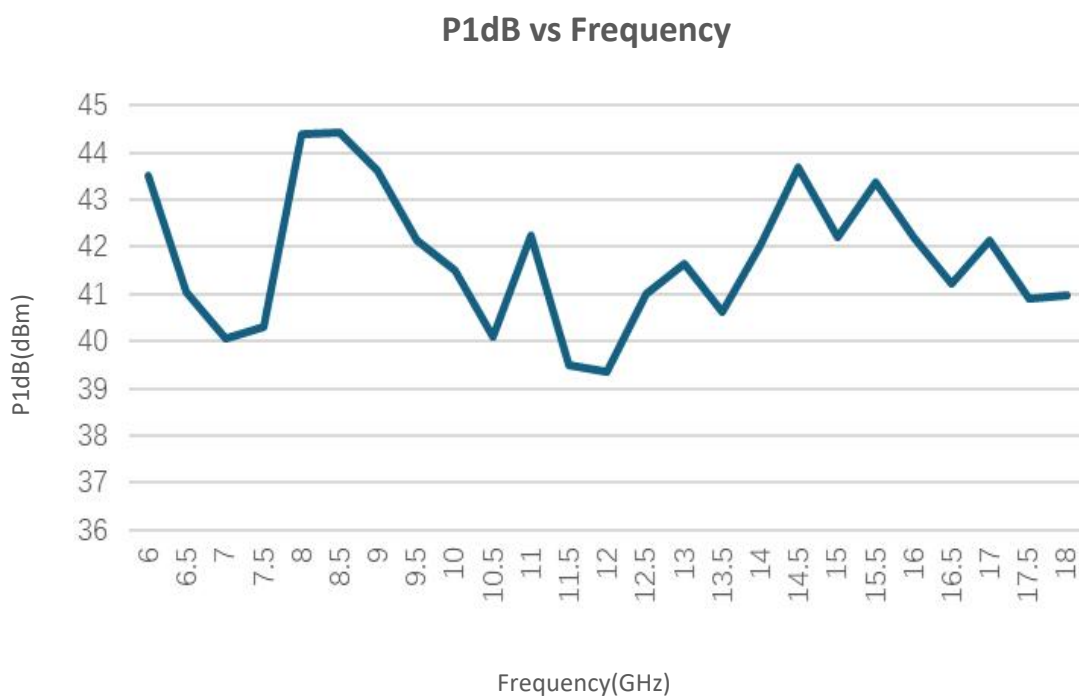
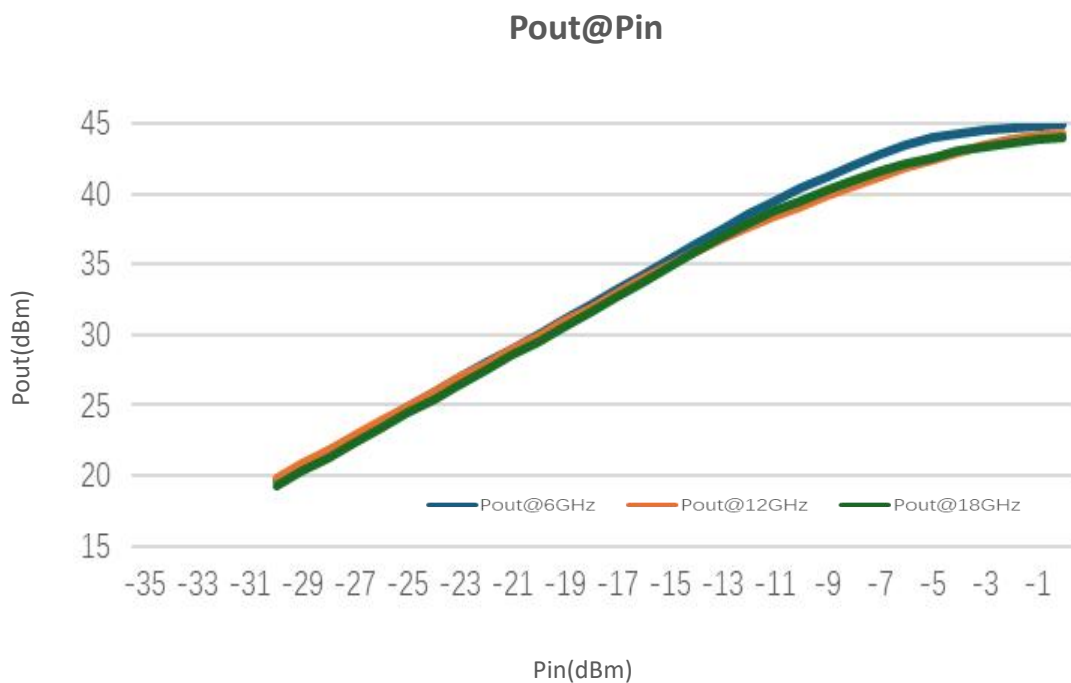
Small Signal Gain vs Frequency



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:

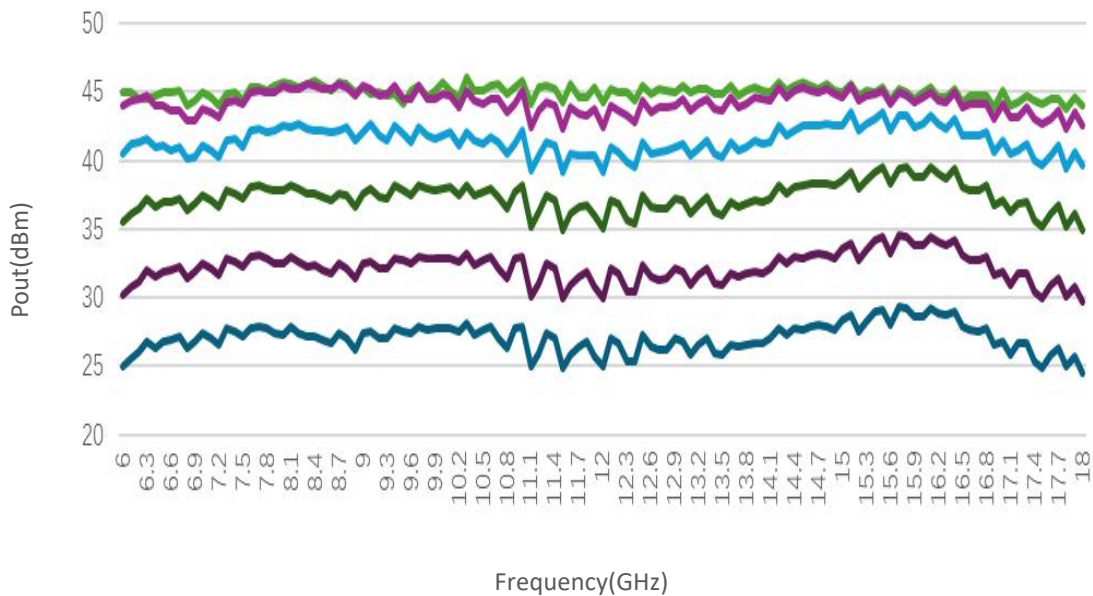


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

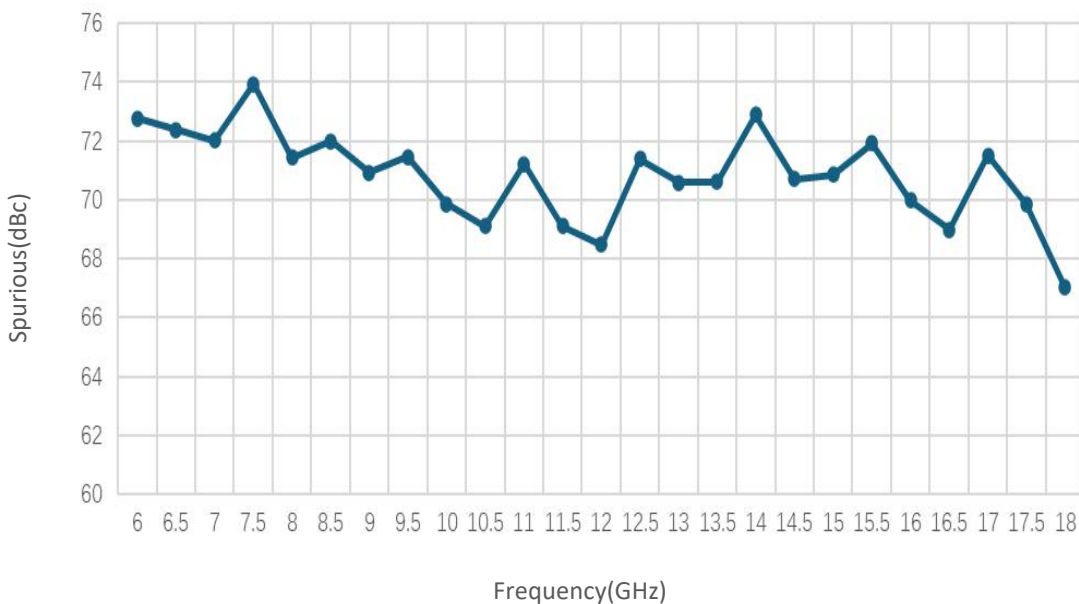


Typical Performance Data:

Pout@Equal_Pin



Spurious vs Frequency

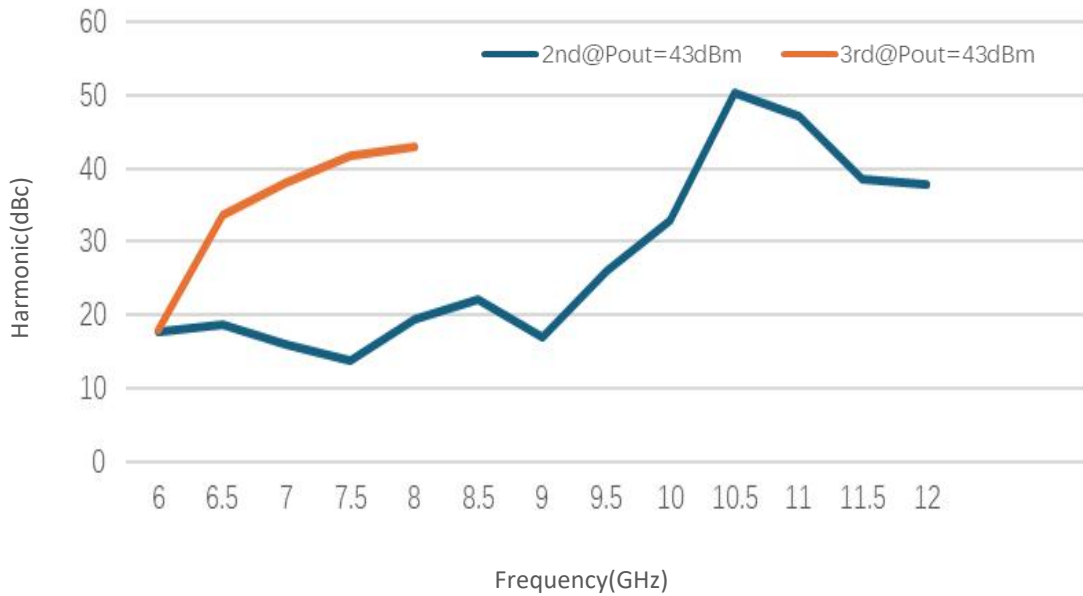


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.



Typical Performance Data:

Harmonic vs Frequency



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