



Power Amplifier

Model: PA-17G-27G5-20

17-27.5GHz 20W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 17-27.5GHz
- High output power at saturation, 20W Min.
- High gain, 43 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-17G-27G5-50 is a power amplifier with a minimum small signal gain of 43 dB and a minimum Psat of 20W across the frequency range of 17 to 27.5GHz. The DC power requirement for the amplifier is +22 VDC/7 A. The input and output port configuration offers coax adapter structure with 2.92mm 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	17		27.5	GHz
Small Signal Gain	43			dB
Small Signal Gain Flatness		±3		dB
Output Psat	43			dBm
Spurious@Pout=43dBm			-60	dBc
Harmonic@Pout=43dBm			-20	dBc
DC Voltage		+22		V DC
DC Supply Current			7	A
Impedance		50		Ohms

Mechanical Specifications:

ParameterKg	Value	Notes
Operating Temperature*	-20°C to +50°C	
Non-operating Temperature*	-30°C to +60°C	
Relative humidity	95%	
RF Input/Output Connector	2.92mm Female/2.92mm Female	
DC Supply Interface	J30J-9ZKP	Pin1~5:+22V Pin6~9: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	150*90*20(Without heatsink) 188*125*155(With heatsink)	mm
Weight	≤300	g

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

Absolute Maximum Ratings:

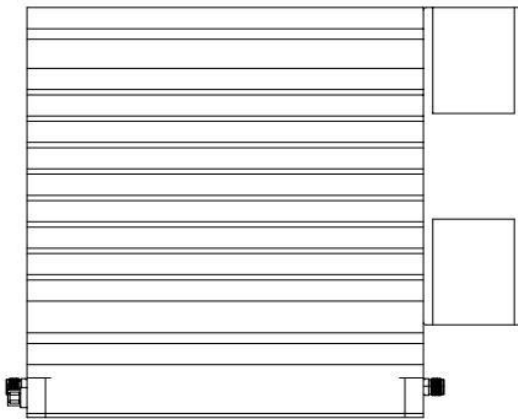
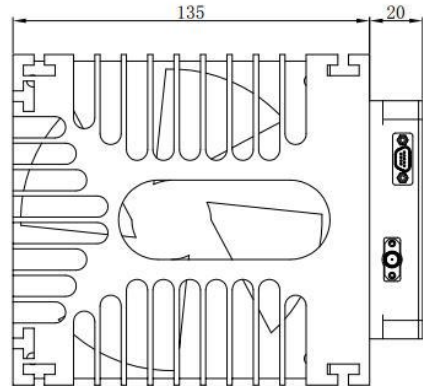
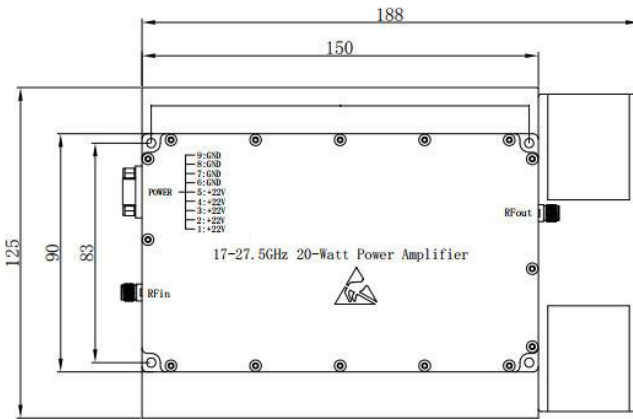
Parameter	Value
Supply Bias Voltage	+24 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-17G-27G5-20-HS



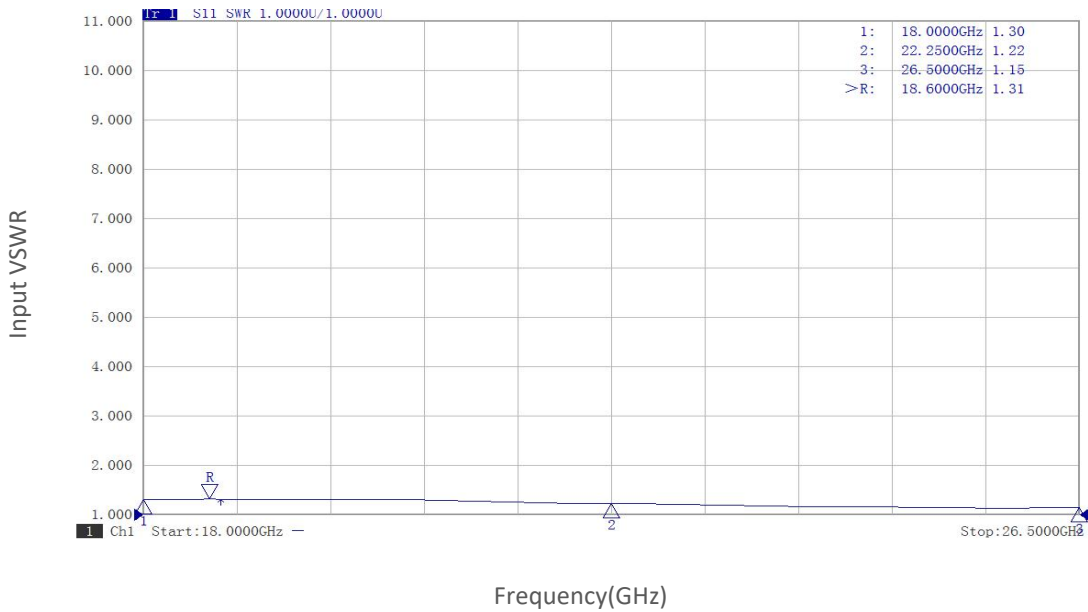
Ordering Information:

Base Number	Description	Optional
PA-17G-27G5-20	Power Amplifier, 17-27.5GHz, Gain:43dB,Psat:20W,+22V DC	Without Heatsink
PA-17G-27G5-20-HS	Power Amplifier, 17-27.5GHz, Gain:43dB,Psat:20W,+22V DC	With Heatsink

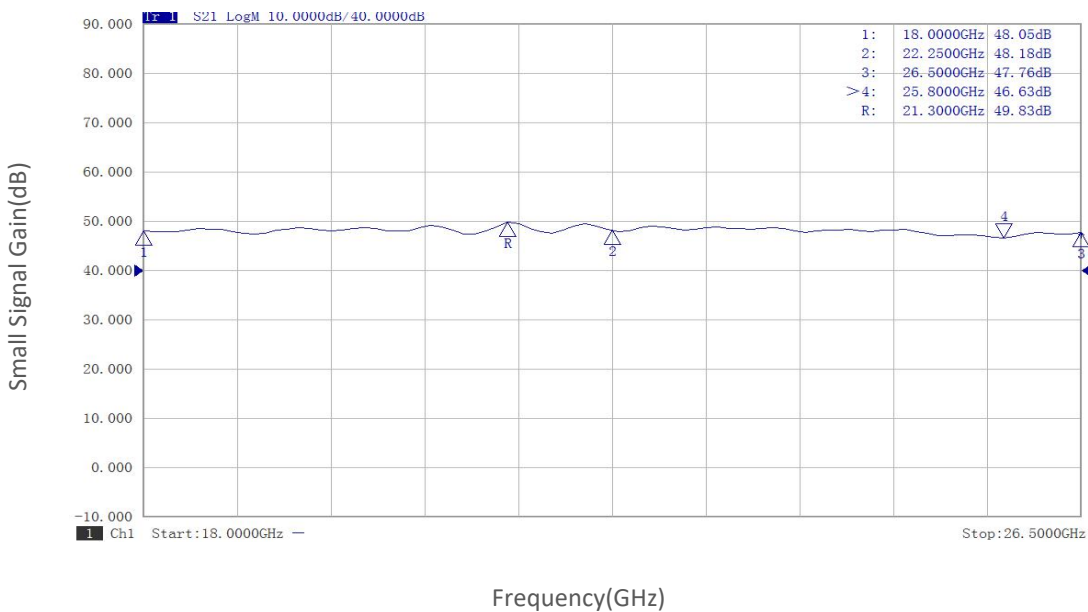


Typical Performance Data:

Input VSWR vs Frequency



Small Signal Gain vs Frequency

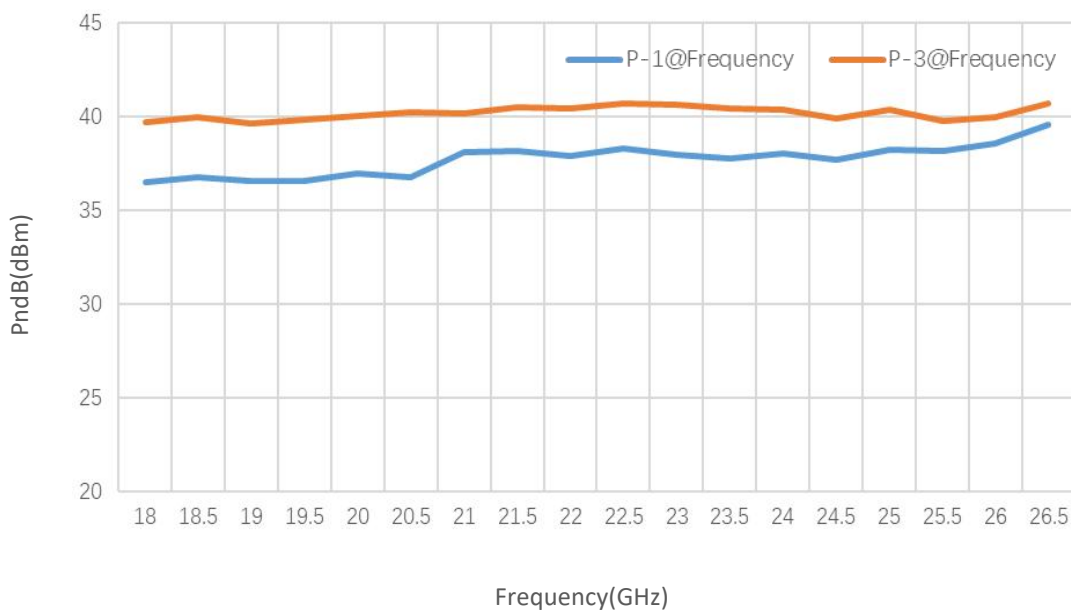


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.



Typical Performance Data:

PndB vs Frequency



Pout@Pin

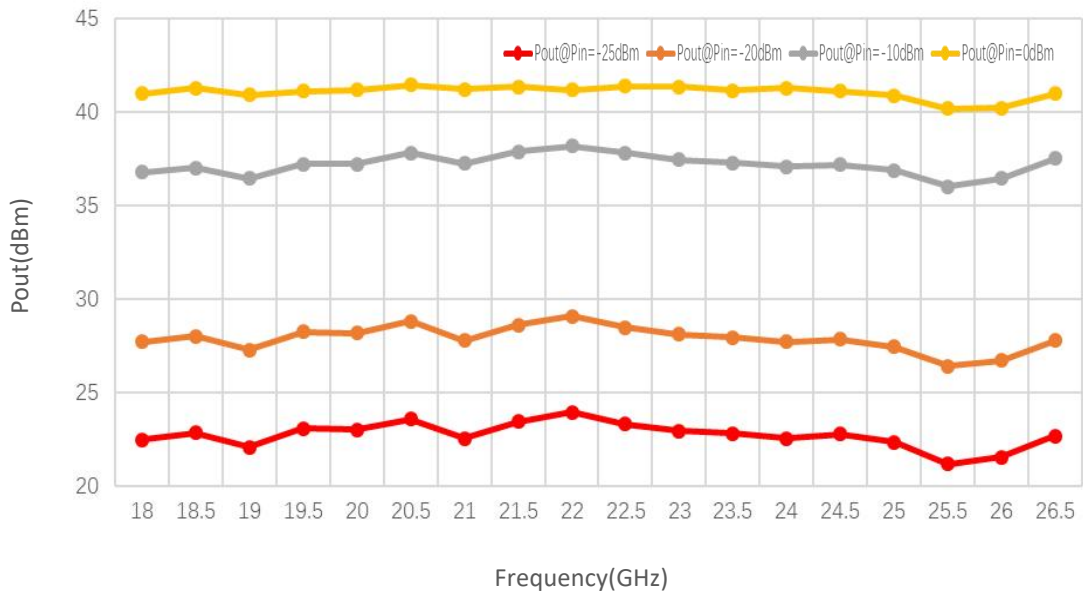


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

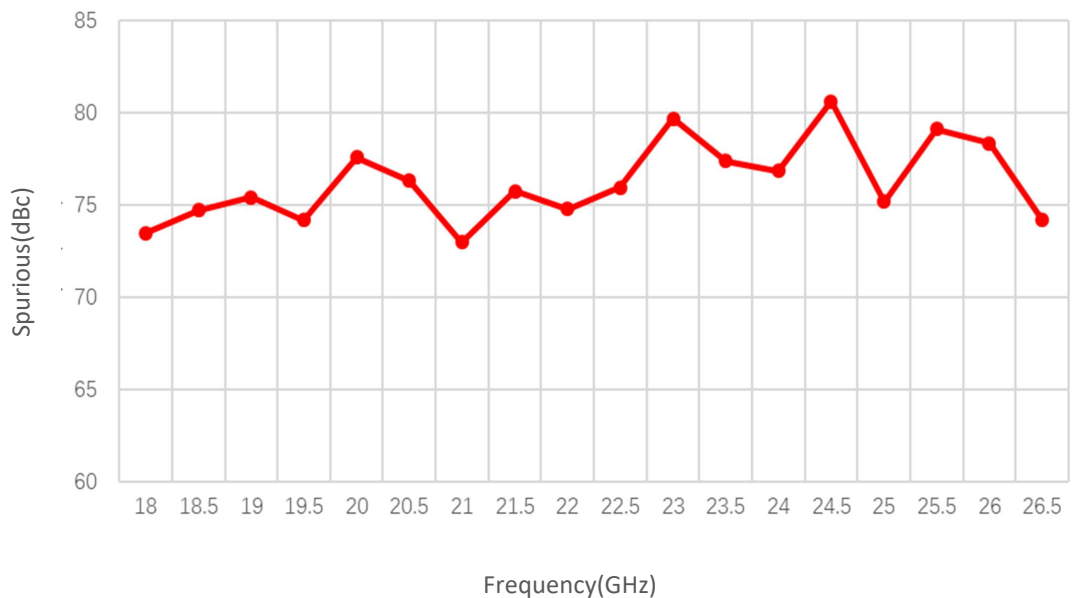


Typical Performance Data:

Pout@Equal_Pin



Spurious vs Frequency

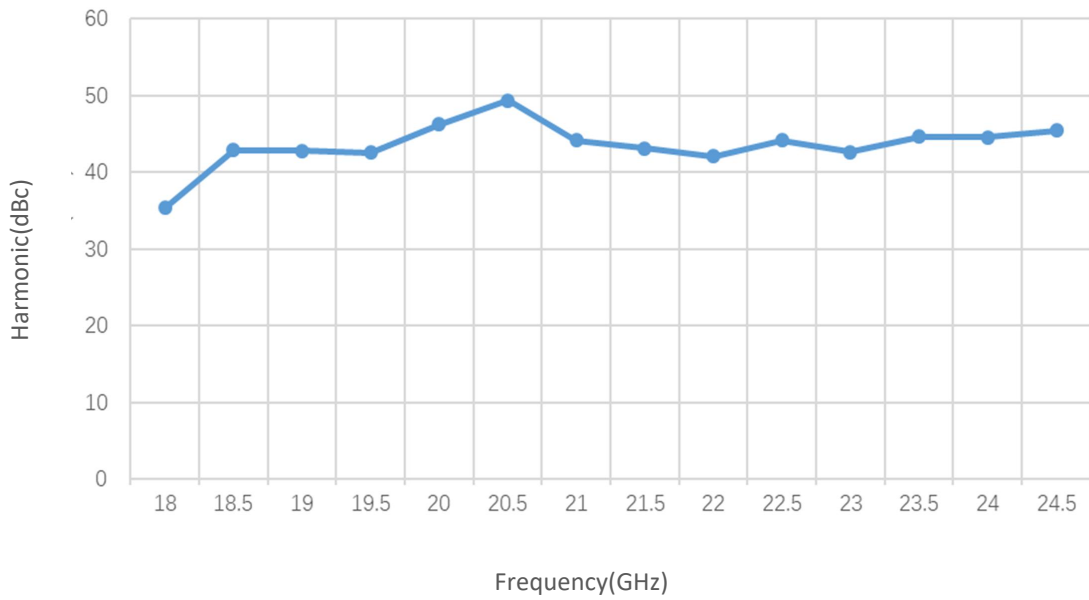


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Typical Performance Data:

Harmonic vs Frequency



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