



Power Amplifier

Model: PA-2G-18G-20

2-18GHz 20W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 2-18GHz
- High output power at saturation, 20W Typ.
- High gain, 45 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-2G-18G-20 is a power amplifier with a minimum small signal gain of 45 dB and a nominal P_{sat} of 20W across the frequency range of 2 to 18GHz. The DC power requirement for the amplifier is +28 VDC/5 A. The input and output port configuration offers coax adapter structure with SMA female.



Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
Frequency range	2		18	GHz
Small Signal Gain	45			dB
Small Signal Gain Flatness		±3		dB
Output Psat	42.5	43		dBm
Spurious			-50	dBc
Harmonic			-10	dBc
Input VSWR			2	:1
DC Voltage		+28		V DC
DC Supply Current			5	A
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	Feedthru capacitors	
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	60*60*11(Without heatsink) 188*125*146(With heatsink)	mm
Weight	≤200	g

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

Absolute Maximum Ratings:

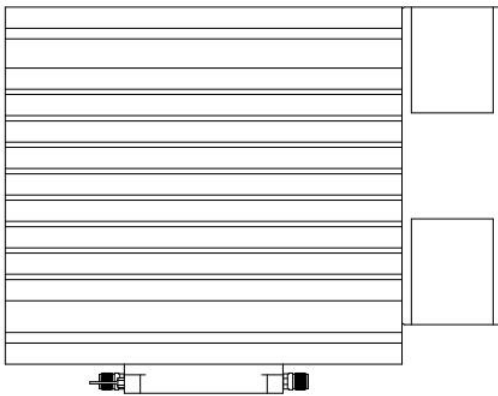
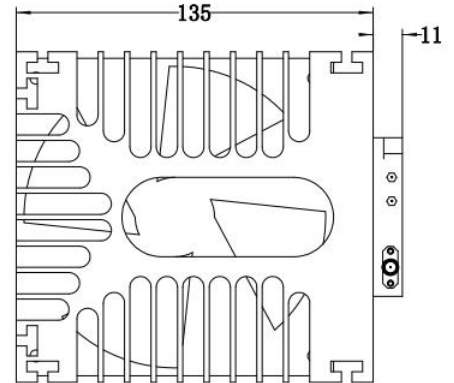
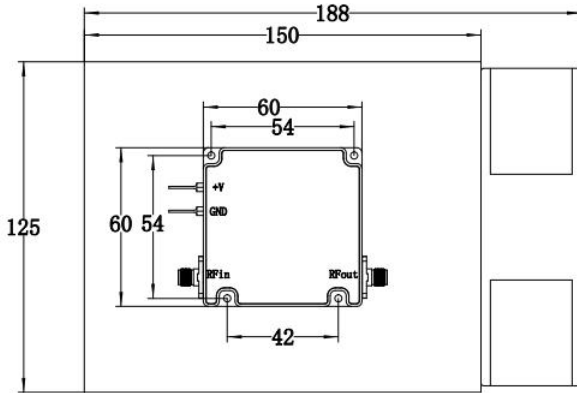
Parameter	Value
Supply Bias Voltage	+29 V
RF Input Power	+3 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-2G-18G-20-HS



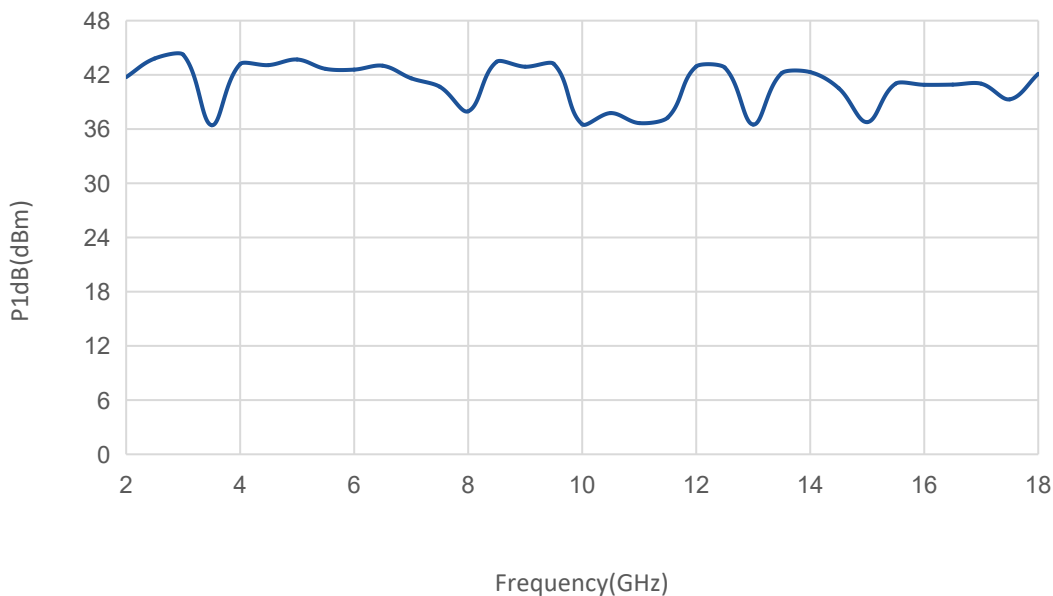
Ordering Information:

Base Number	Description	Optional
PA-2G-18G-20	Power Amplifier,2-18GHz, Gain:45dB,Psat:20W,+28V DC	Without Heatsink
PA-2G-18G-20-HS	Power Amplifier,2-18GHz, Gain:45dB,Psat:20W,+28V DC	With Heatsink

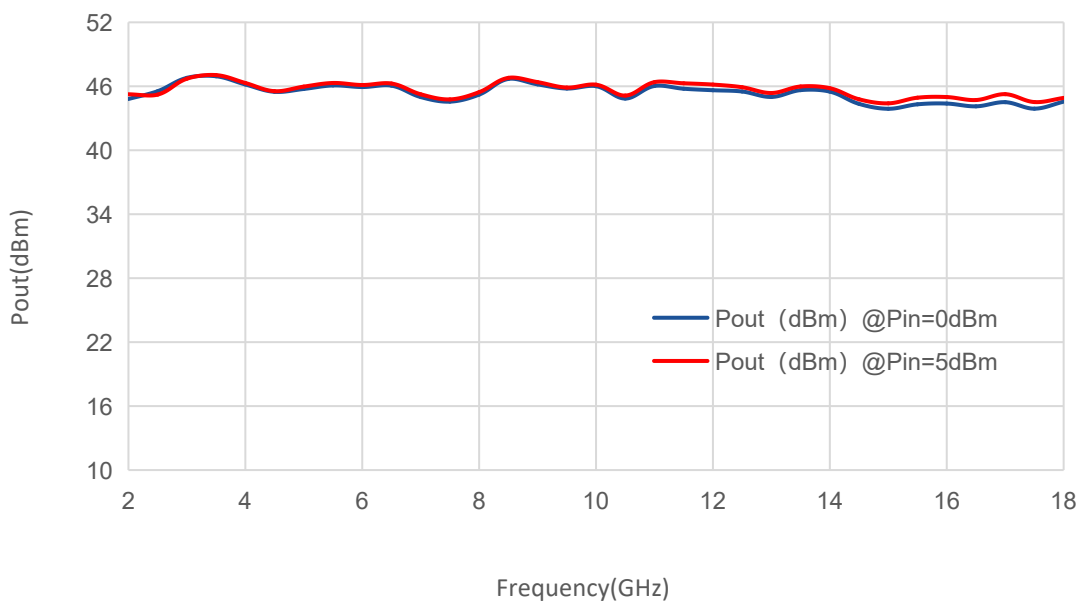


Typical Performance Data:

P1dB vs Frequency



Pout@Equal_Pin

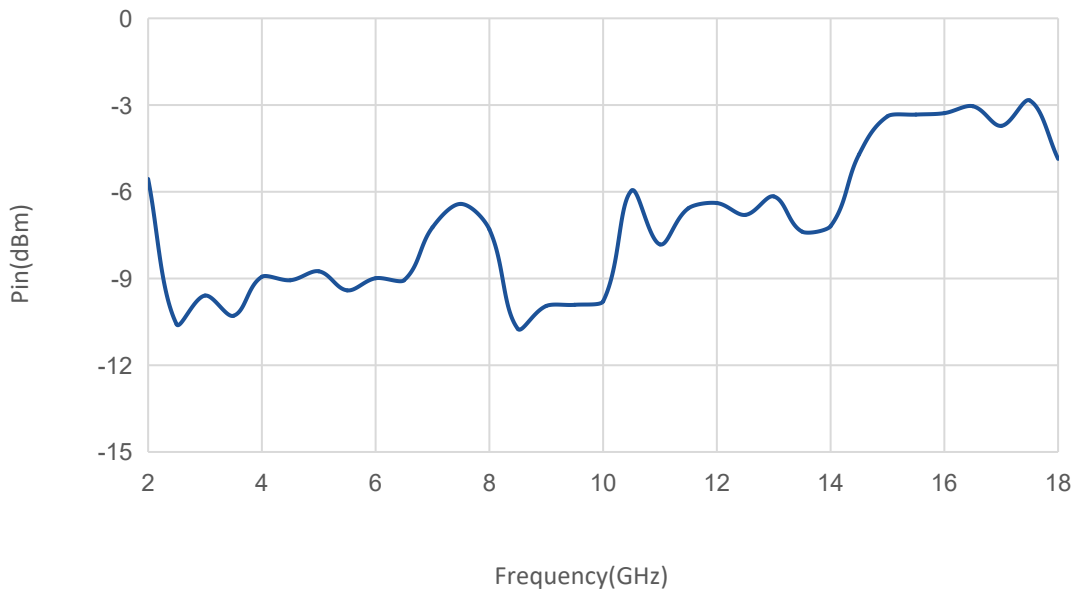


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

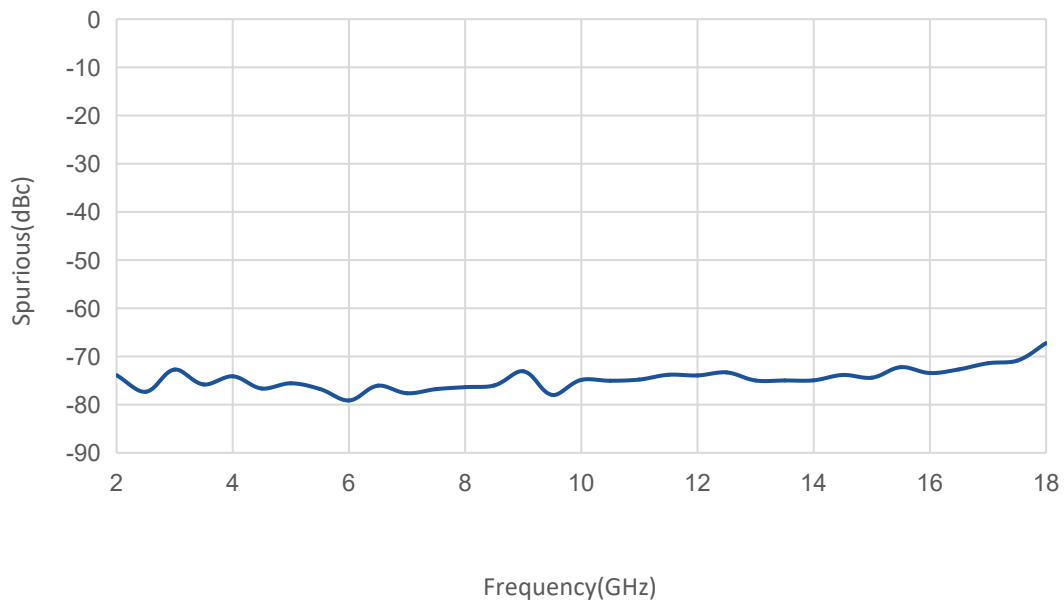


Typical Performance Data:

Pin@Psat vs Frequency



Spurious vs Frequency

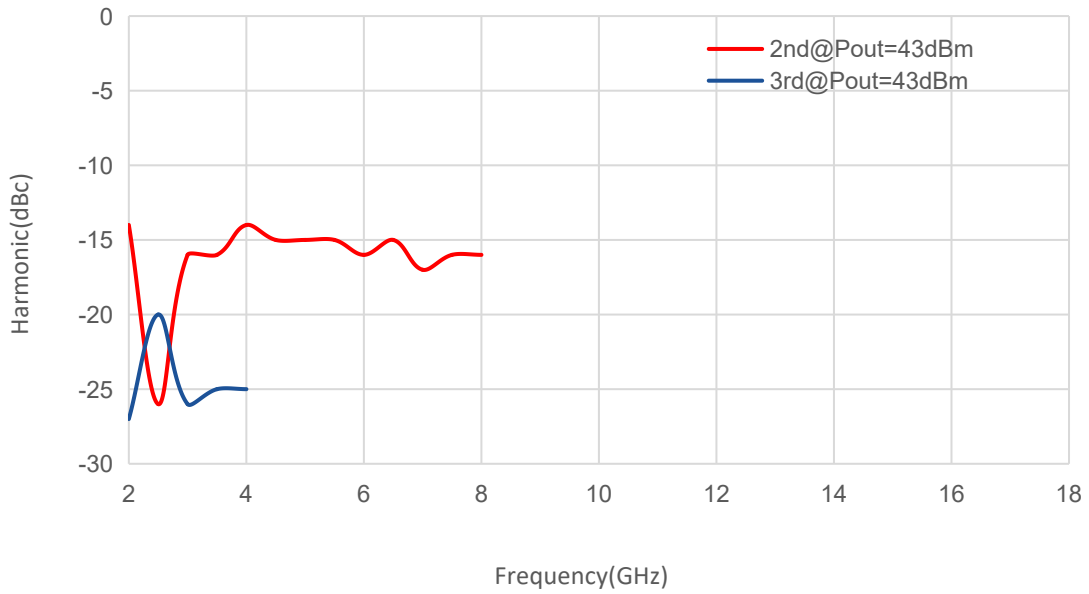


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Typical Performance Data:

Harmonic vs Frequency



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