



Power Amplifier

Model: PA-2G-18G-5

2-18GHz 5W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 2-18GHz
- High output power at saturation, 5W Min.
- High gain, 40 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-2G-18G-5 is a power amplifier with a minimum small signal gain of 40 dB and a minimum Psat of 5W across the frequency range of 2 to 18 GHz. The DC power requirement for the amplifier is +28 VDC/80 W. 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	40			dB
Small Signal Gain Flatness		±3		dB
Output Psat	37			dBm
Spurious			-60	dBc
Input VSWR			2	:1
DC Voltage		28	29	V DC
Power Consumption			80	W
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temperature*	-40°C to +60°C	
Non-operating Temperature*	-50°C to +70°C	
Relative humidity	95	%
RF Input/Output Connector	SMA Female/SMA Female	
DC Bias	J30J-9ZKP	
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	143.4*85*16	mm
Weight	1	Kg

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

Absolute Maximum Ratings:

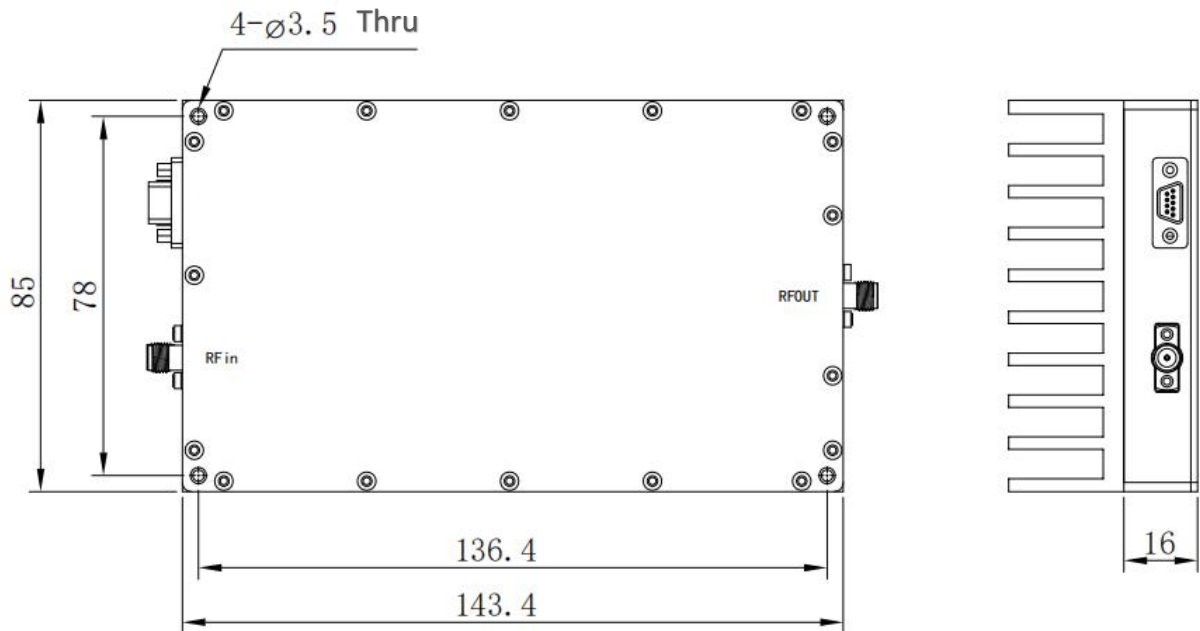
Parameter	Value
Supply Bias Voltage	+29 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-2G-18G-5-HS



J30J-9ZKP Define

Pin	Function
1~4	+28 V
5	TTL high level: +3.3V to +5V, amplifier enable; TTL low level: 0V, amplifier disable
6~9	GND

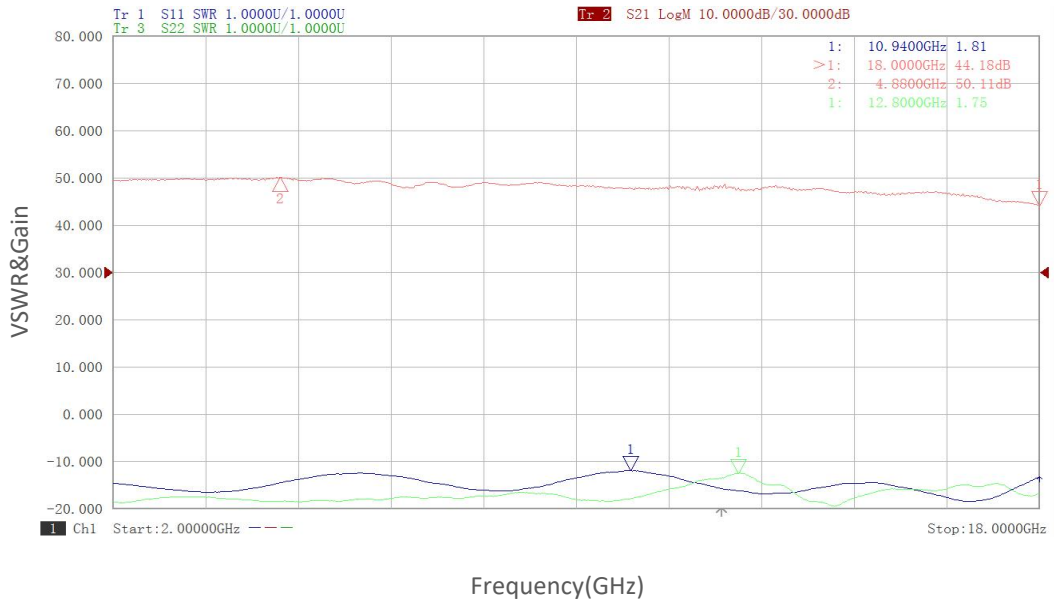
Ordering Information:

Base Number	Description	Optional
PA-2G-18G-5	Power Amplifier, 2-18GHz, Gain:40dB,Psat:5W,+28V DC	Without Heatsink
PA-2G-18G-5-HS	Power Amplifier, 2-18GHz, Gain:40dB,Psat:5W,+28V DC	With Heatsink

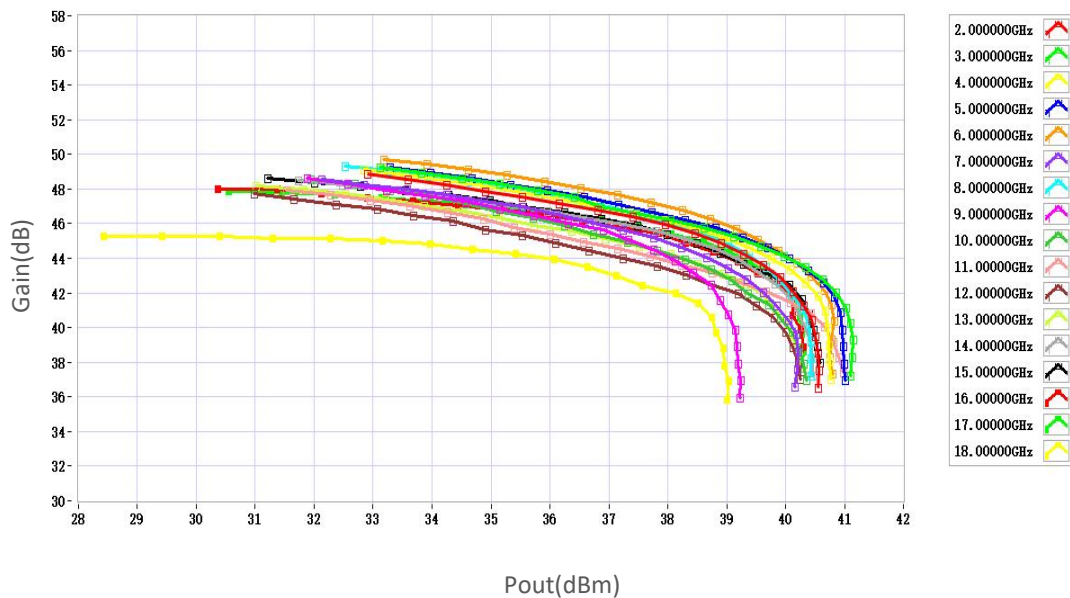


Typical Performance Data:

VSWR&Gain vs Frequency



Gain vs Output Power

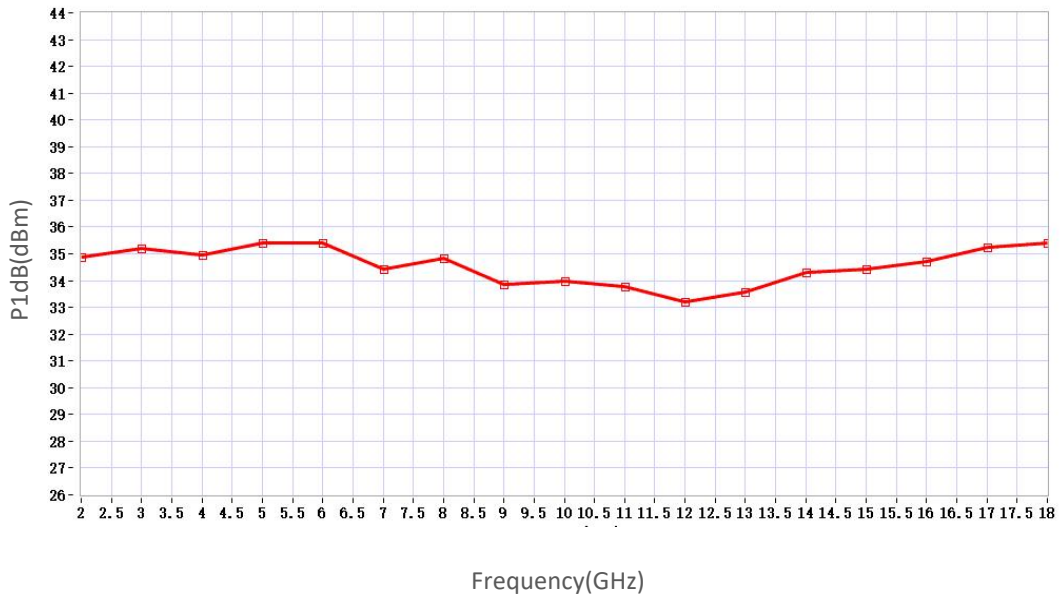


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.



Typical Performance Data:

P1dB vs Frequency



P3dB vs Frequency

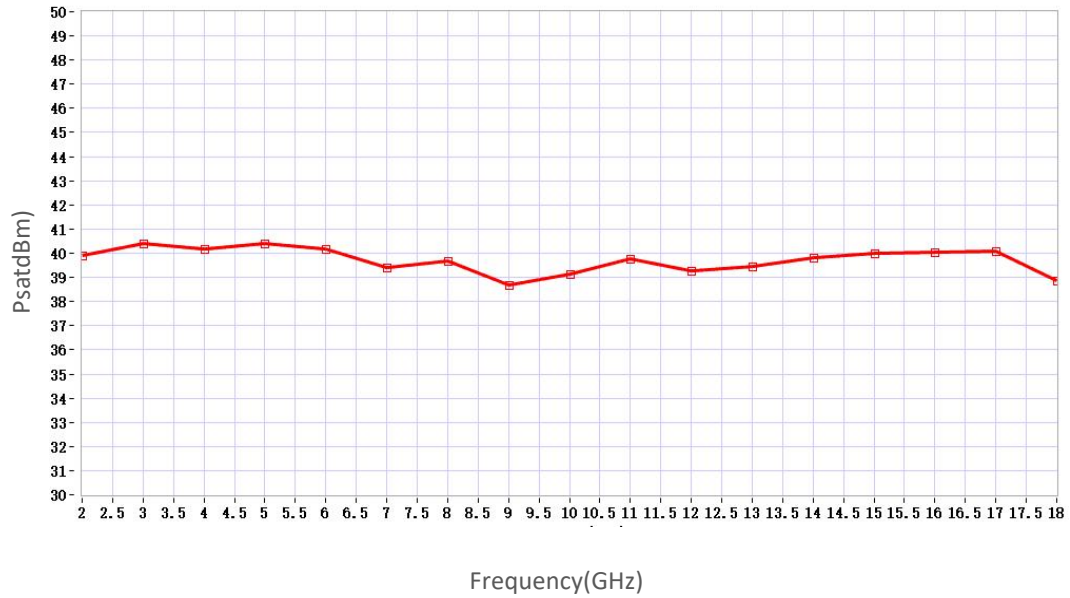


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.



Typical Performance Data:

Psatd 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.