



Power Amplifier

Model: PA-6G-40G-0.15

6-40GHz 0.15W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 6-40GHz
- High output power at saturation, 0.15W Typ.
- High gain, 26 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-6G-40G-0.15 is a power amplifier with a typical small signal gain of 26 dB and a minimum P_{sat} of 0.15W across the frequency range of 6 to 40GHz. The DC power requirement for the amplifier is +12 VDC/255 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.



Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
Frequency range	6		40	GHz
Small Signal Gain	26	28		dB
Small Signal Gain Flatness		±2		dB
Output Psat		22		dBm
Spurious		-60		dBc
Noise Figure		6		dB
Input VSWR		1.7	2.3	:1
Output VSWR		1.7	2.3	:1
DC Voltage		+12		V DC
DC Supply Current		255		mA
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	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
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	44*36*12	mm

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

Absolute Maximum Ratings:

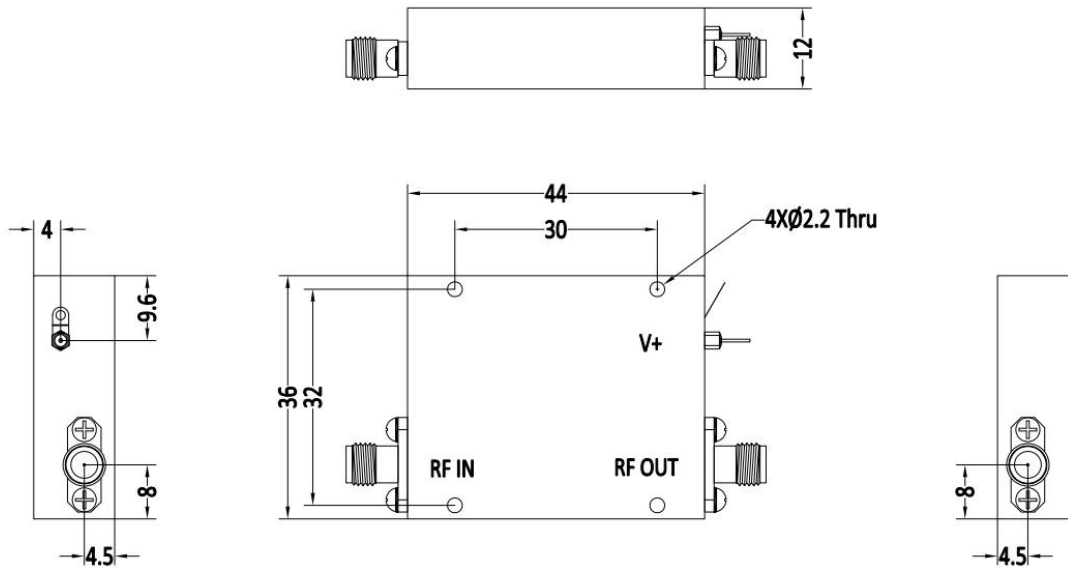
Parameter	Value
Supply Bias Voltage	+13 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-6G-40G-0.15



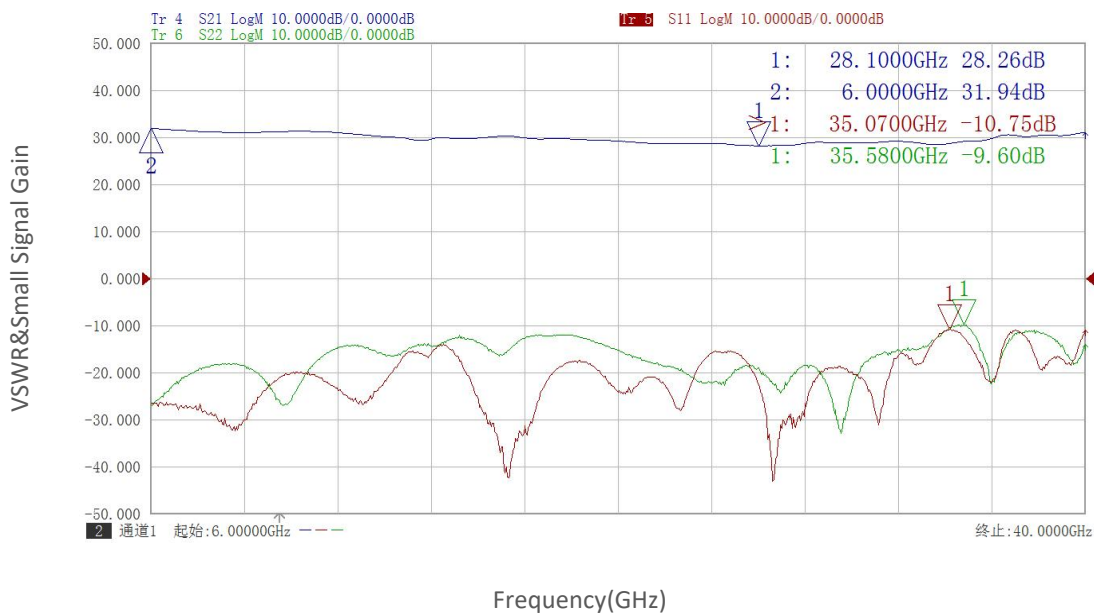
Ordering Information:

Base Number	Description	Optional
PA-6G-40G-0.15	Power Amplifier, 6-40GHz, Gain:26dB,Psat:0.15W,+12V DC	Without Heatsink
PA-6G-40G-0.15-HS	Power Amplifier, 6-40GHz, Gain:26dB,Psat:0.15W,+12V DC	With Heatsink

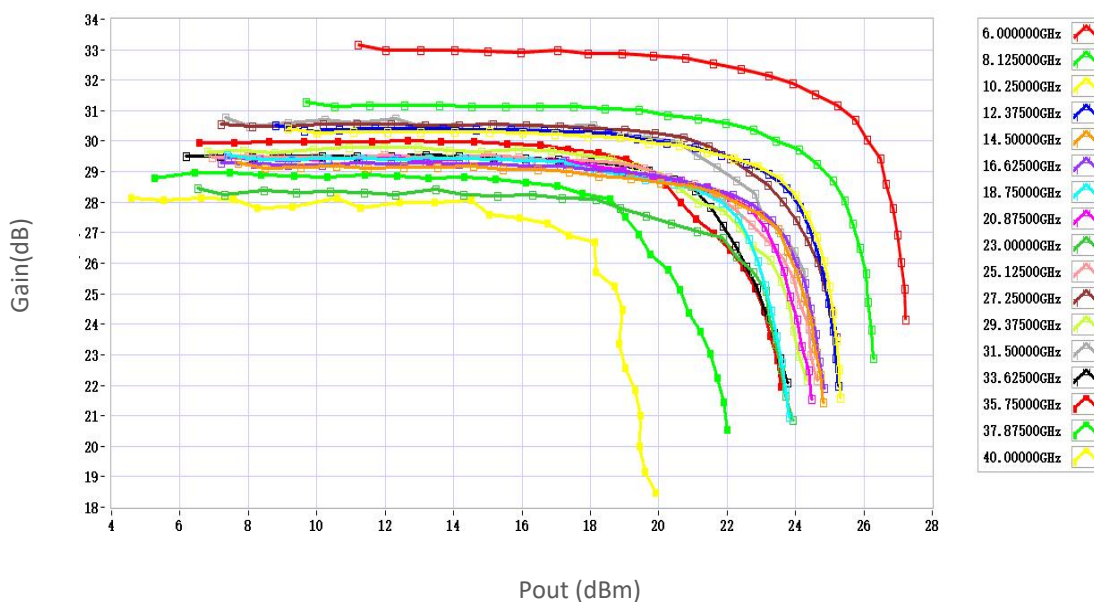


Typical Performance Data:

VSWR&Small Signal Gain vs Frequency



Gain vs Output Power

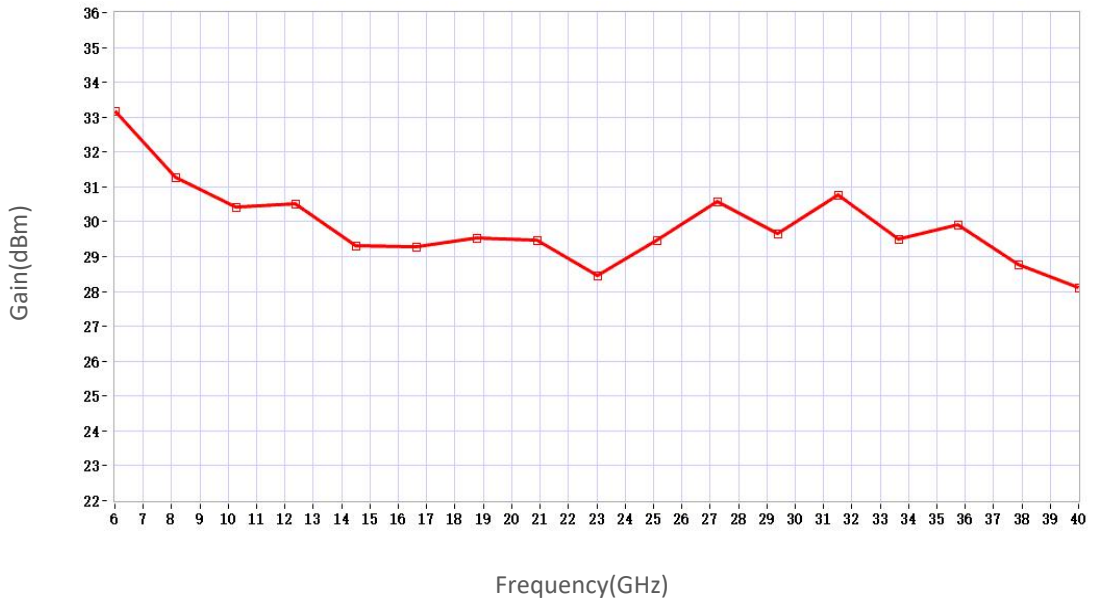


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

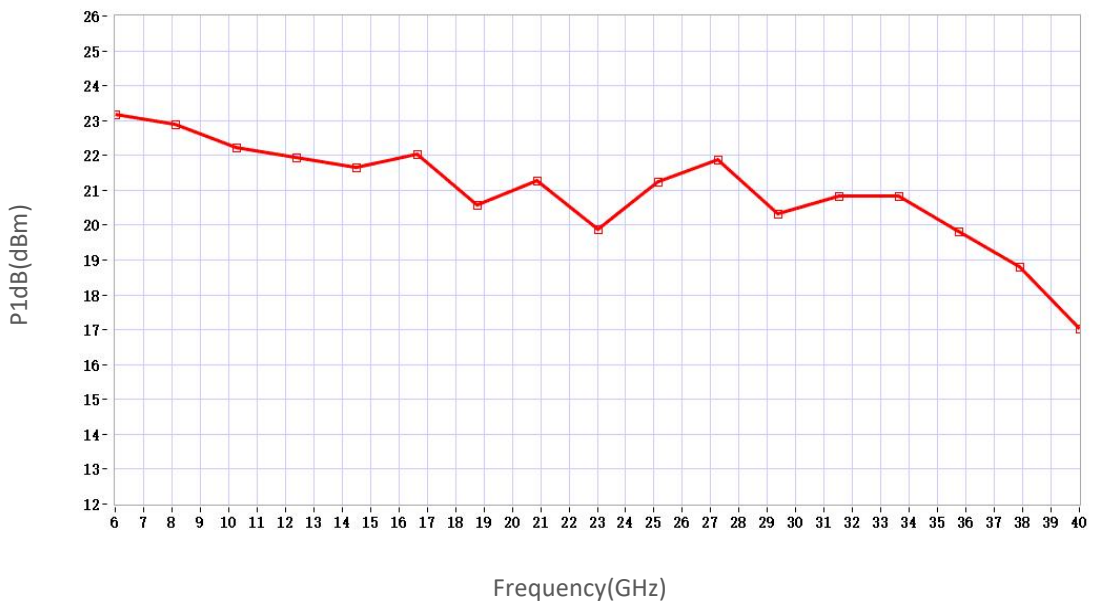


Typical Performance Data:

Gain vs Frequency



P1dB vs Frequency

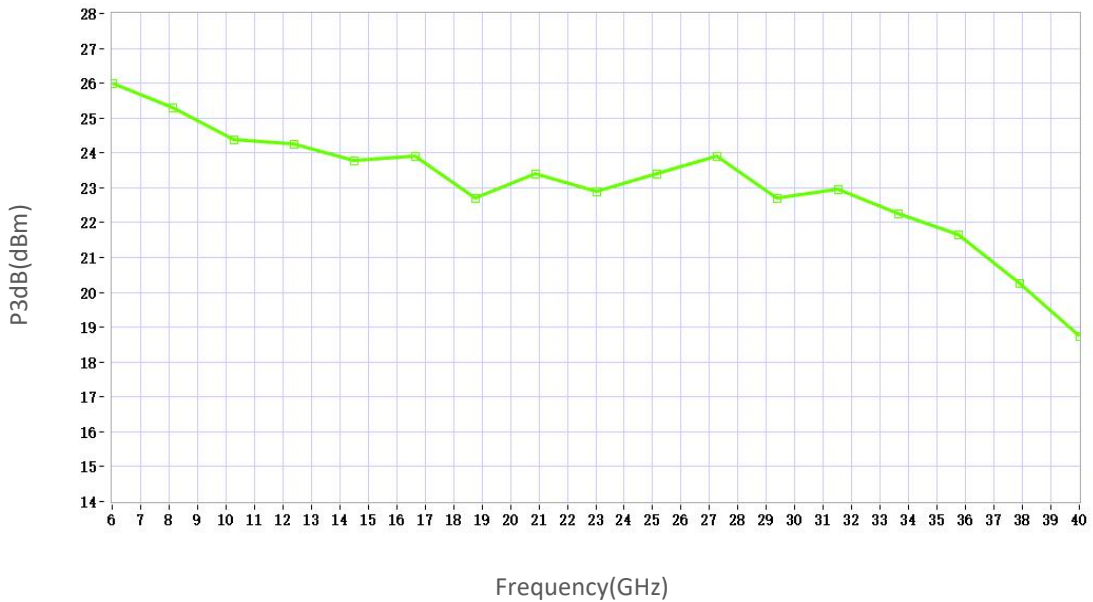


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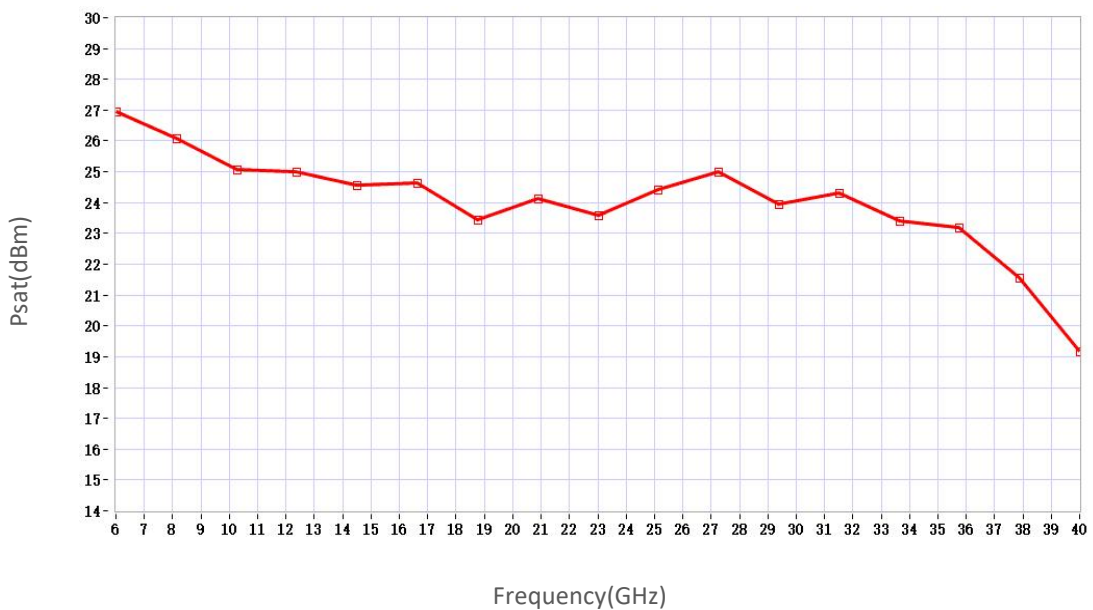


Typical Performance Data:

P3dB vs Frequency



Psat vs Frequency

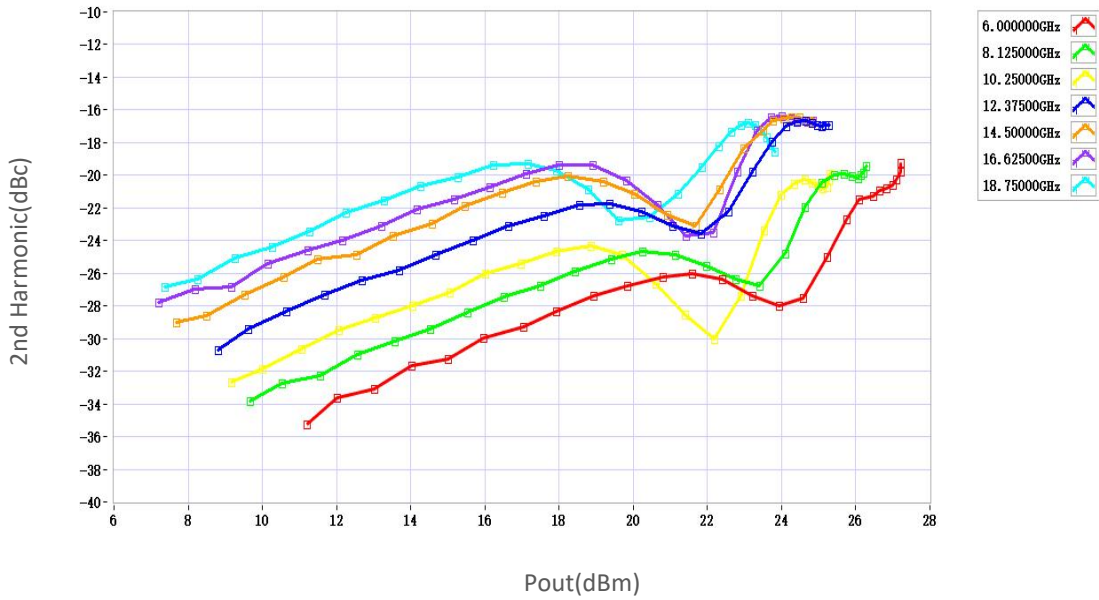


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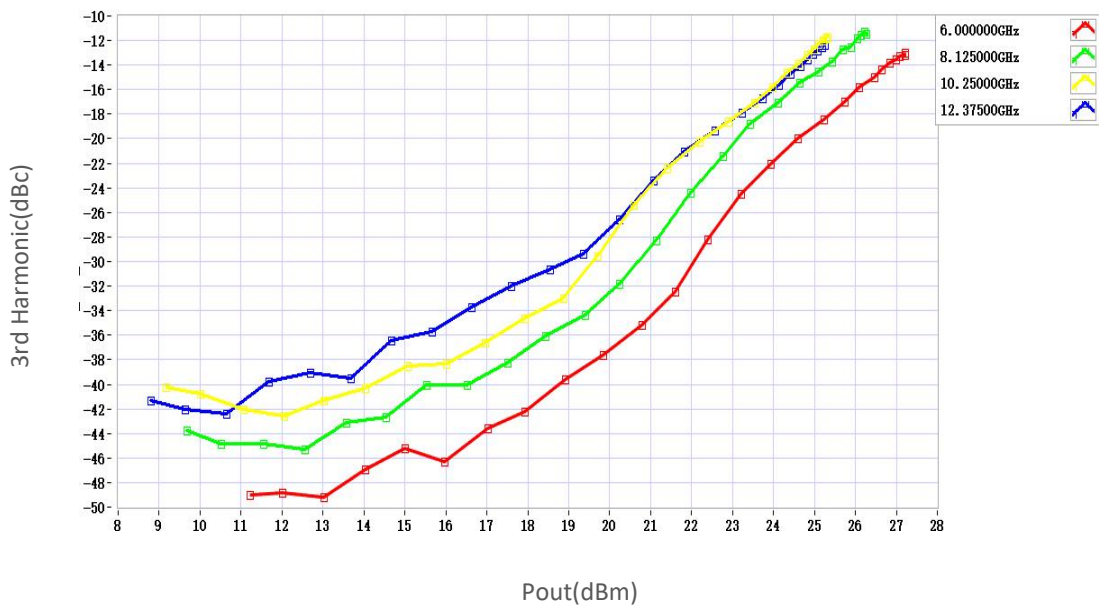


Typical Performance Data:

2nd Harmonic vs Output Power



3rd Harmonic vs Output Power



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