



# Power Amplifier

## Model: PA-6G-40G-0.2

6-40GHz 0.2W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

### Features:

- Frequency range: 6-40GHz
- High output power at saturation, 0.2W Typ.
- High gain, 32 dB Typ.
- 50 Ohm Matched Input / Output.

### Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

### Product Overview:

The PA-6G-40G-0.2 is a power amplifier with a typical small signal gain of 32 dB and a minimum  $P_{sat}$  of 0.2W 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		32		dB
Small Signal Gain Flatness		±2		dB
Output P1dB	20	22		dBm
Output Psat		23		dBm
Noise Figure		6		dB
Input VSWR		1.7		:1
Output VSWR		1.7		: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 x 36 x 12(Without Heatsink) 65 x 45 x 39(With Heatsink)	mm
Weight	25	g

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

## Absolute Maximum Ratings:

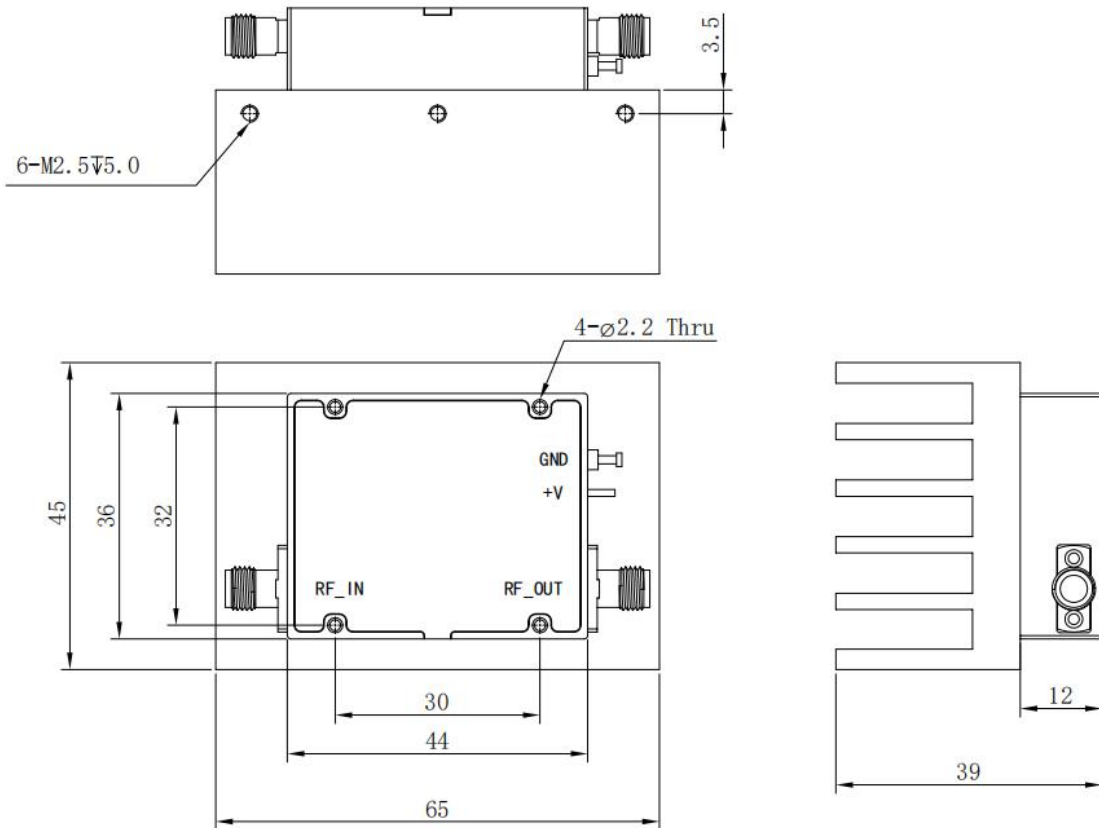
Parameter	Value
Supply Bias Voltage	+13 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



## Outline Drawing:

Unit:mm

PA-6G-40G-0.2



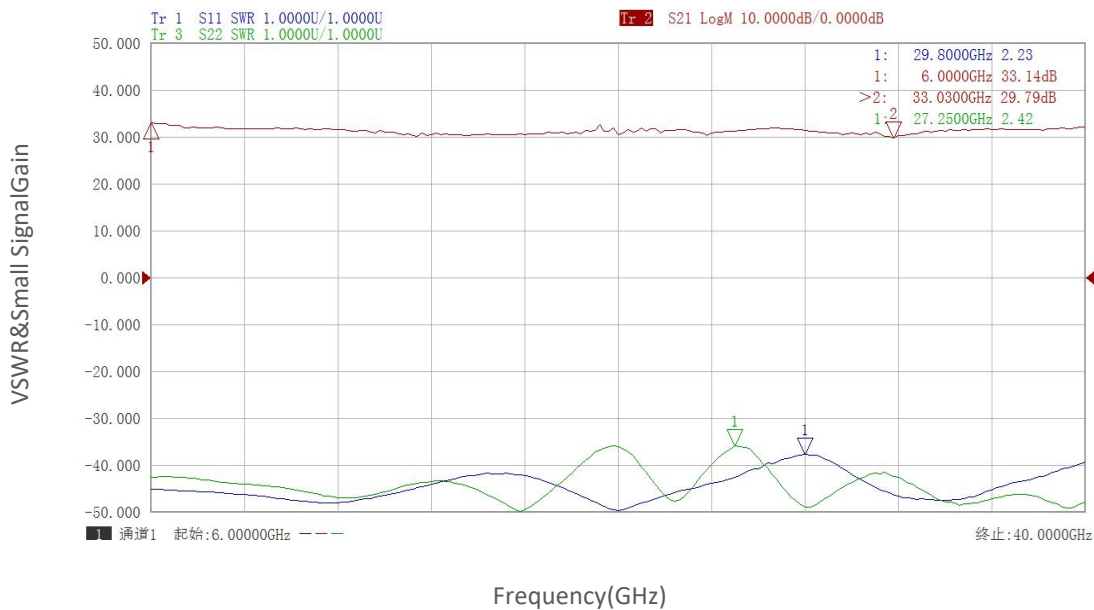
## Ordering Information:

Base Number	Description	Optional
PA-6G-40G-0.2	Power Amplifier, 6-40GHz, Gain:32dB,Psat:0.2W,+12V DC	Without Heatsink
PA-6G-40G-0.2-HS	Power Amplifier, 6-40GHz, Gain:32dB,Psat:0.2W,+12V DC	With Heatsink



## Typical Performance Data:

### VSWR&Small Signal Gain vs Frequency



### Gain vs Output Power

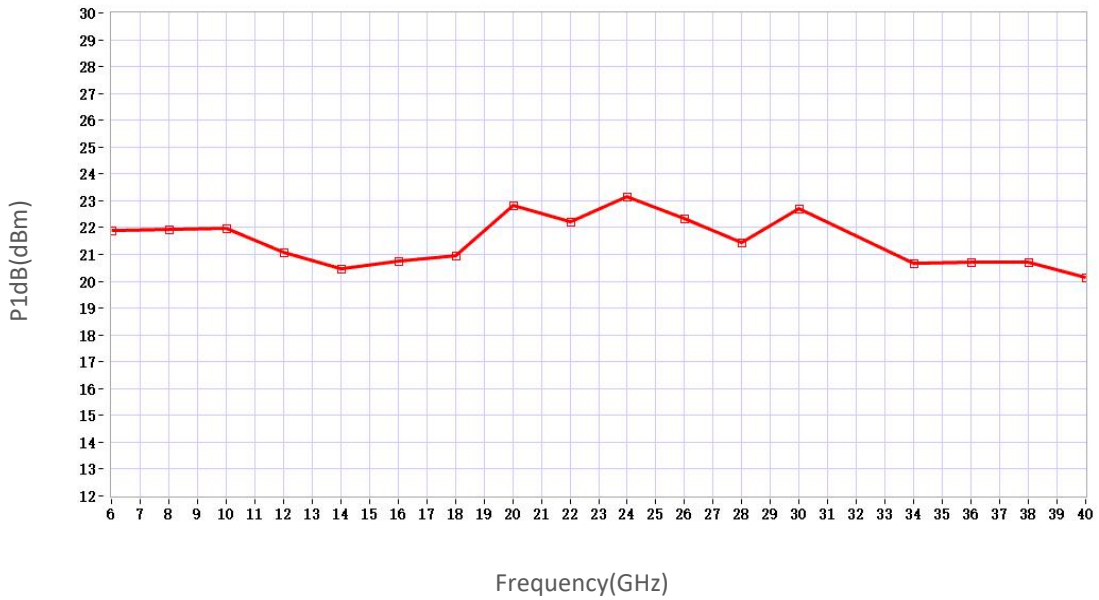


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.



## Typical Performance Data:

### P1dB vs Frequency



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