



# Power Amplifier

## Model: PA-40G-67G-2.5

40-67GHz 2.5W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

### Features:

- Frequency range: 40-67GHz
- High output power at saturation, 2.5W Typ.
- High gain, 39 dB Typ.
- 50 Ohm Matched Input / Output.

### Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

### Product Overview:

The PA-40G-67G-2.5 is a power amplifier with a typical power gain of 39 dB and a nominal  $P_{sat}$  of 2.5W across the frequency range of 40 to 67 GHz. The DC power requirement for the amplifier is +24 VDC/2.05 A. The input and output port configuration offers coax adapter structure with 1.85mm female.



## Electrical Specifications at 25°C:

Parameter		Min	Typ	Max	Units
Frequency range		40		67	GHz
Power Gain	@40-60GHz	35	39		dB
	@60-67GHz	33	35		dB
Output P1dB			29		dBm
Output Psat		33	34		dBm
Input VSWR			5.8		:1
IOutput VSWR			2.3		:1
DC Voltage			+20	+24	V DC
DC Supply Current			2.05		A
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	1.85 mm Female/1.85 mm Female	
DC Bias	Solder Pin	
Altitude	10,000	feet
Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth	
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions	
Dimensions W x H	50*80*13	mm

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

## Absolute Maximum Ratings:

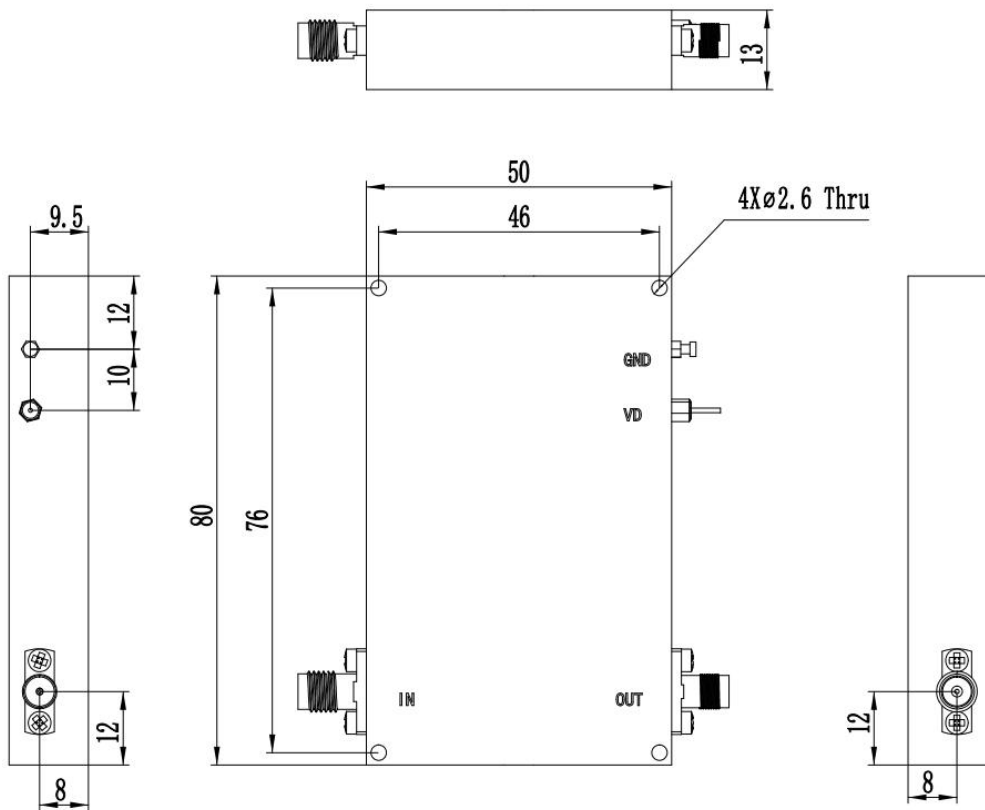
Parameter	Value
Supply Bias Voltage	+24 V
RF Input Power	+15 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



## Outline Drawing:

Unit:mm

PA-40G-67G-2.5



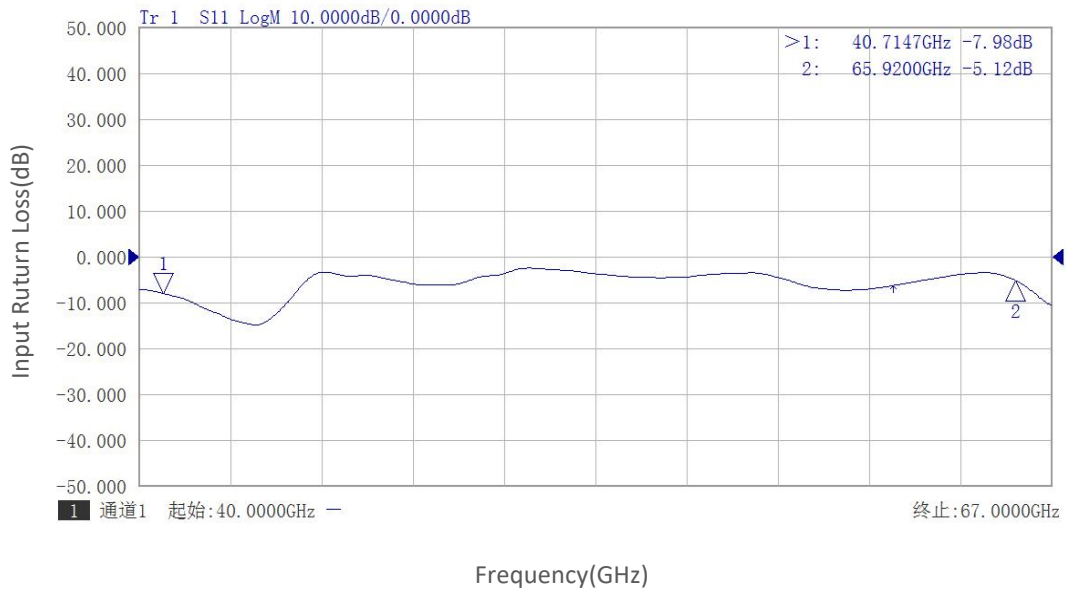
## Ordering Information:

Base Number	Description	Optional
PA-40G-67G-2.5	Power Amplifier, 40-67GHz, Gain:39dB,Psat:2.5W,+20V DC	Without Heatsink
PA-40G-67G-2.5-HS	Power Amplifier, 40-67GHz, Gain:39dB,Psat:2.5W,+20V DC	With Heatsink

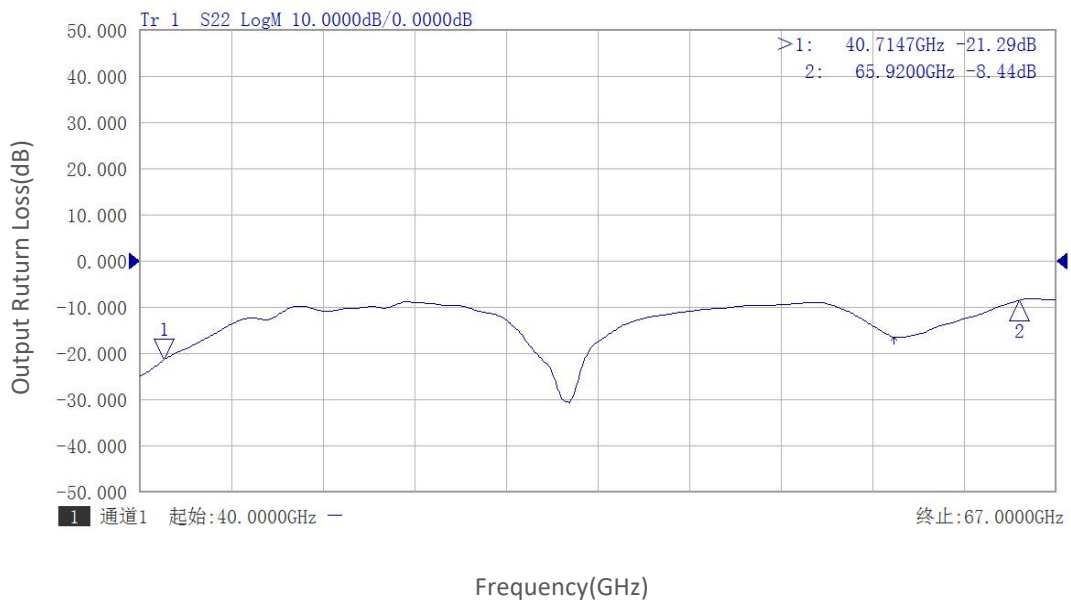


## Typical Performance Data:

### Input Return Loss vs Frequency



### Output Return Loss vs Frequency

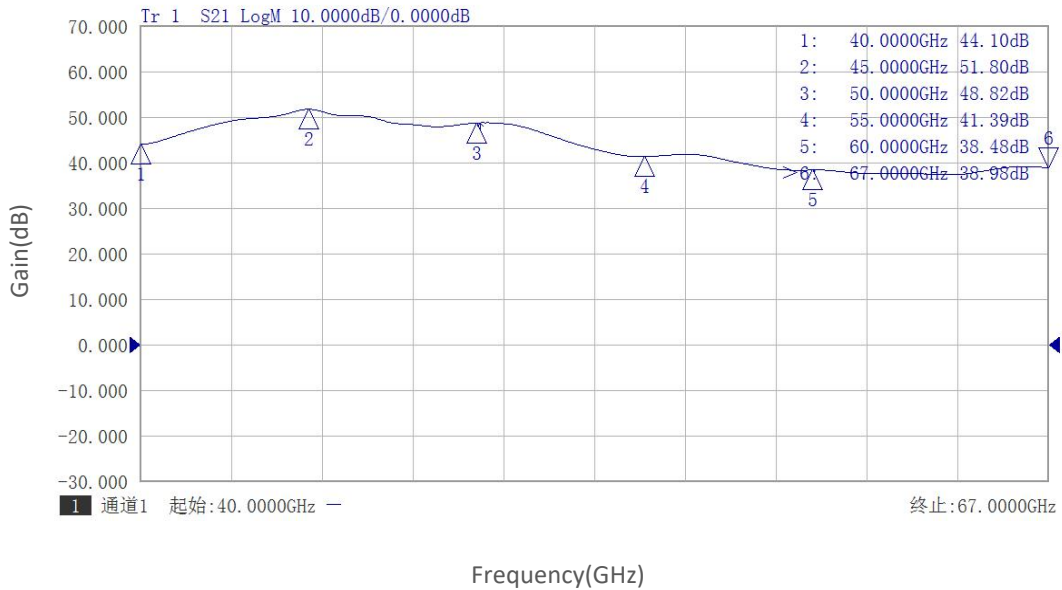


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

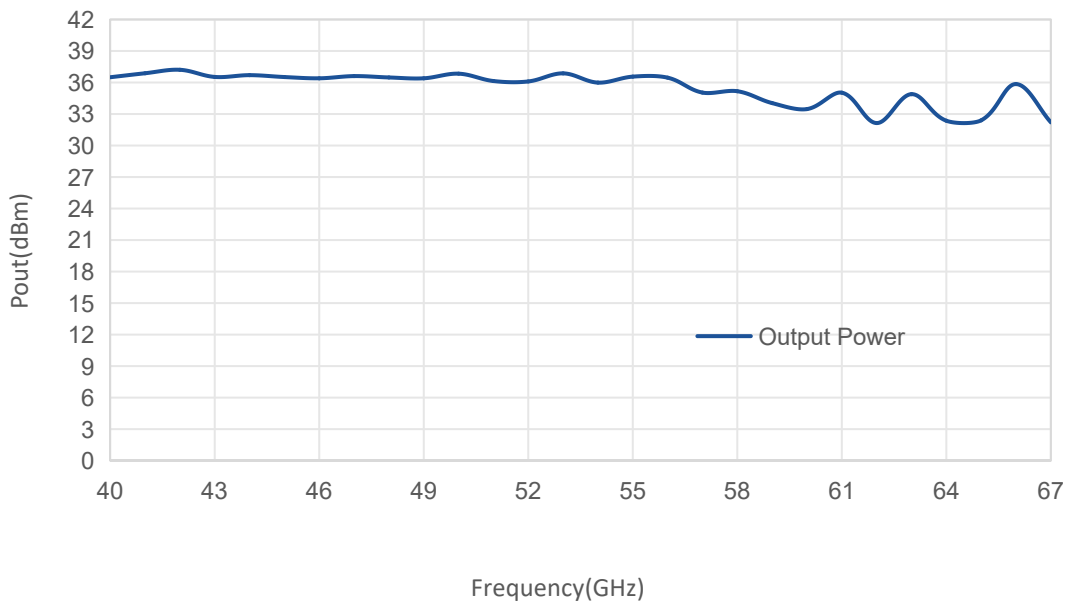


## Typical Performance Data:

### Small Signal Gain vs Frequency



### Pout vs Frequency

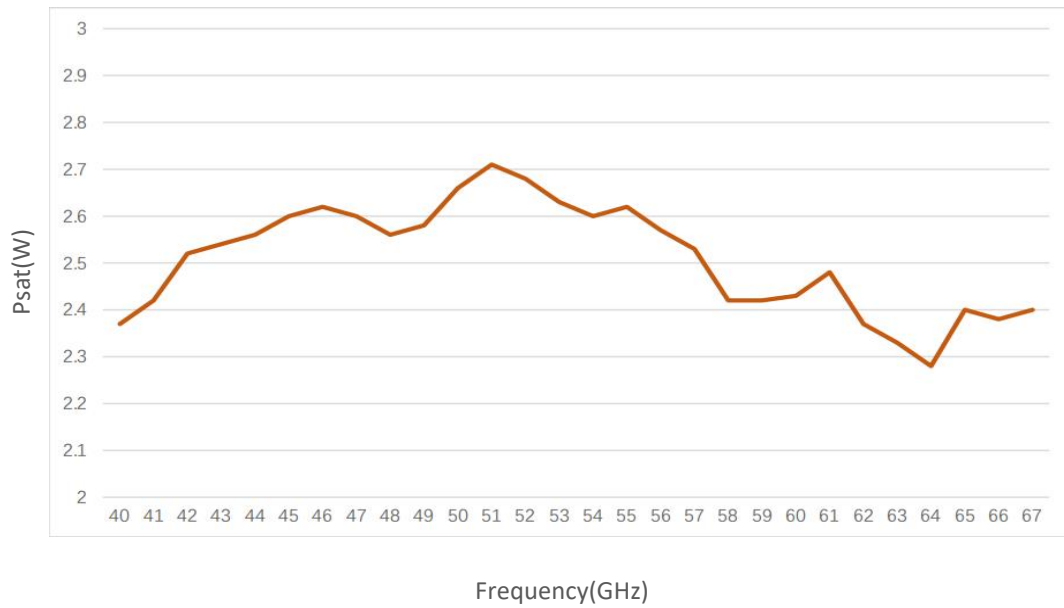


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## Typical Performance Data:

### Psat vs Frequency



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