



Power Amplifier

Model: PA-40G-52G-10

40-52GHz 10W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 40-52GHz
- High output power at saturation, 10W Min.
- High gain, 40 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-40G-52G-10 is a power amplifier with a minimum power gain of 40 dB and a minimum Psat of 10W across the frequency range of 40 to 52 GHz. The DC power requirement for the amplifier is +18 VDC/350 W. The input port configuration offers coax adapter structure with 1.85mm female and output port configuration offers coax adapter structure with WR19.



Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
Frequency range	40		52	GHz
Power Gain	40			dB
Power Gain Flatness		±5		dB
Output Psat	40			dBm
Spurious			-50	dBc
Input VSWR		2		:1
DC Voltage		18		V DC
Power Consumption			350	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	1.85mm Female/WR19	
DC Supply	DSUB-5W5	A1~3:+18V A4~5:GND
Control Connector	J30J-15ZKP	1:TTL(power switch) 2~5:GND 6~15:NC
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	300*262*92	mm
Weight	≤20	Kg

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

Absolute Maximum Ratings:

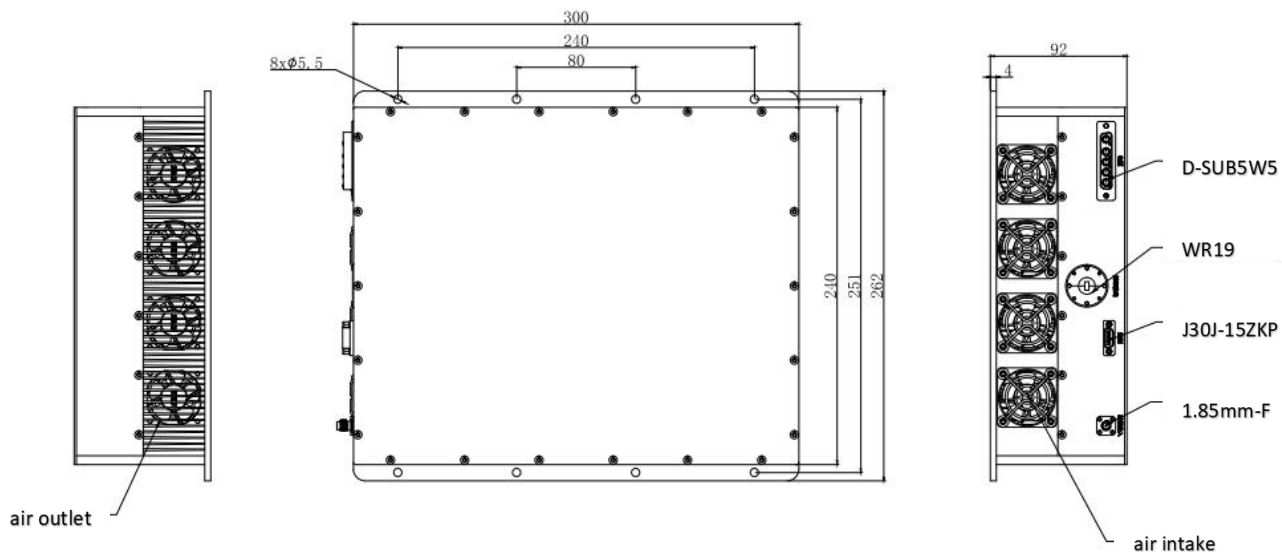
Parameter	Value
Supply Bias Voltage	+19 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-40G-52G-10-HS



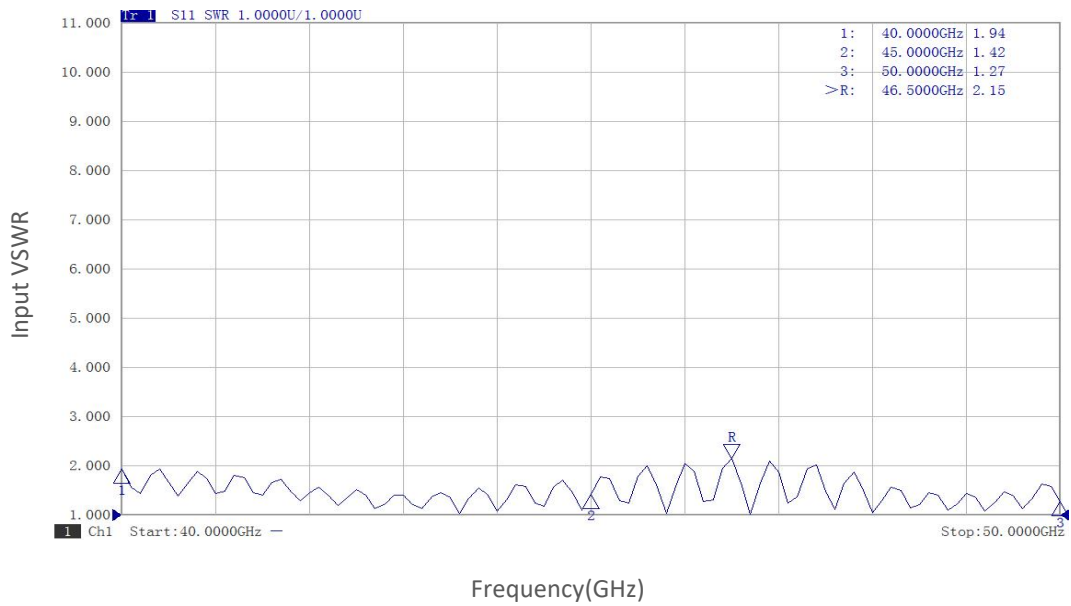
Ordering Information:

Base Number	Description	Optional
PA-40G-52G-10	Power Amplifier, 40-52GHz, Gain:40dB,Psat:10W,+18V DC	Without Heatsink
PA-40G-52G-10-HS	Power Amplifier, 40-52GHz, Gain:40dB,Psat:10W,+18V DC	With Heatsink

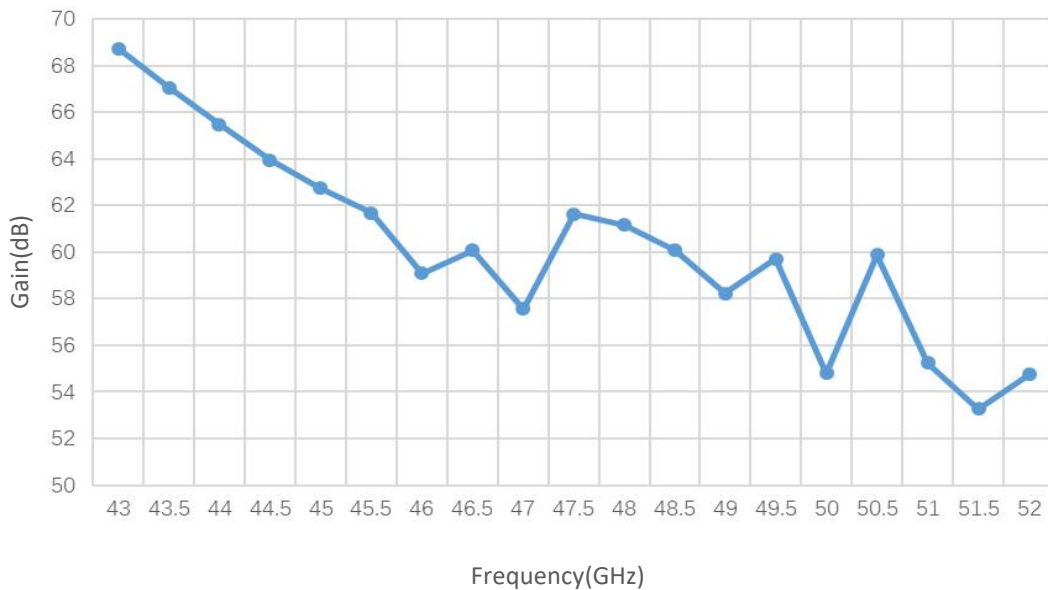


Typical Performance Data:

Input VSWR vs Frequency



Small Signal Gain vs Frequency

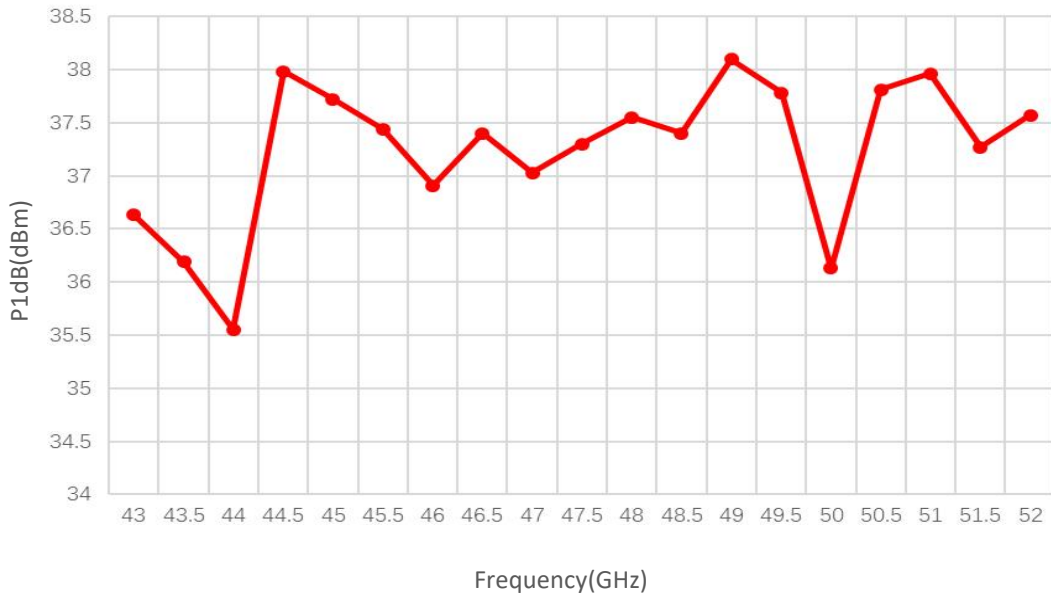


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

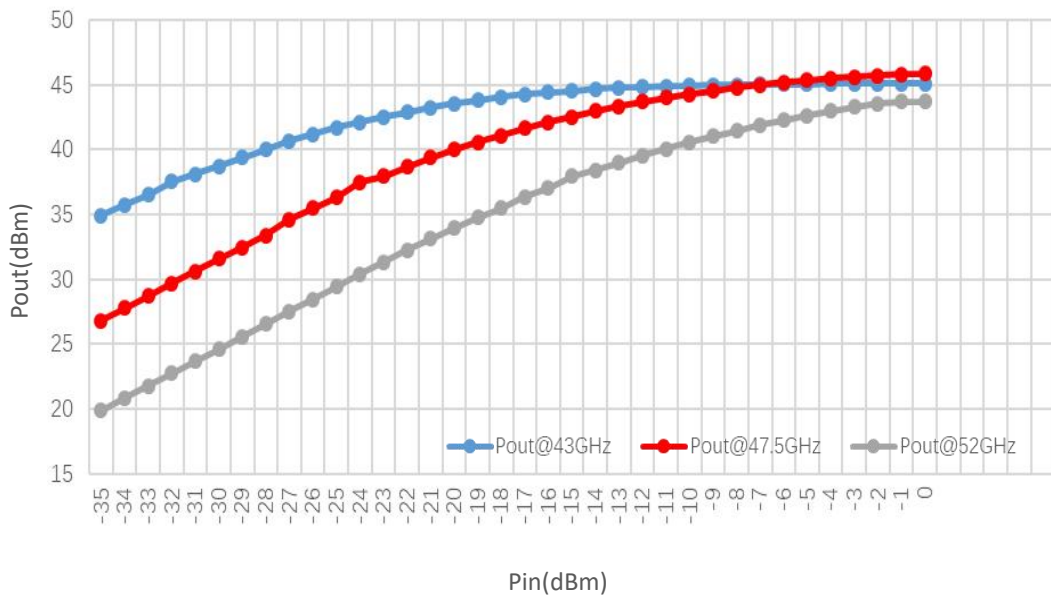


Typical Performance Data:

P1dB vs Frequency



Pout@Pin

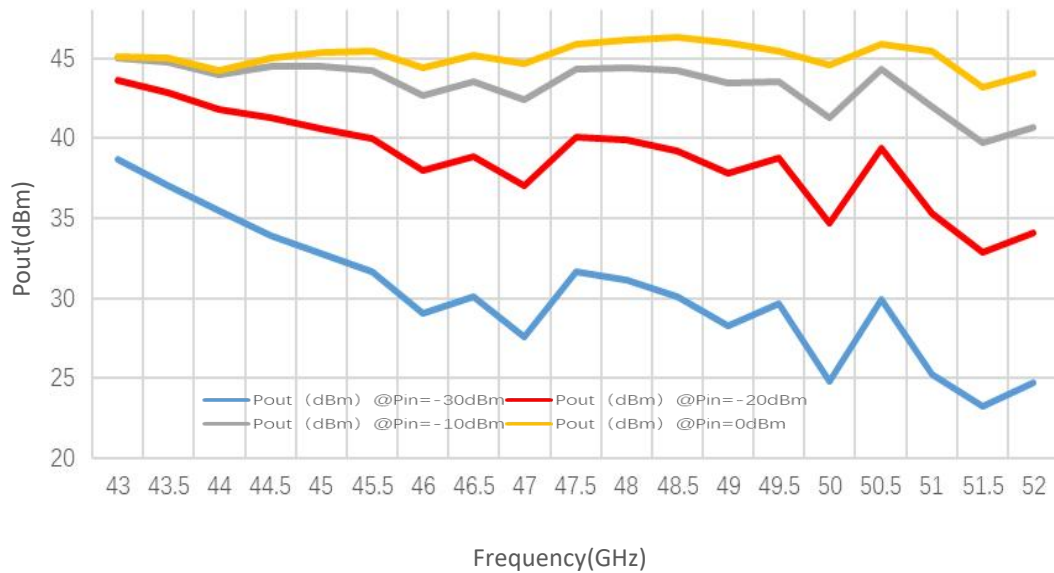


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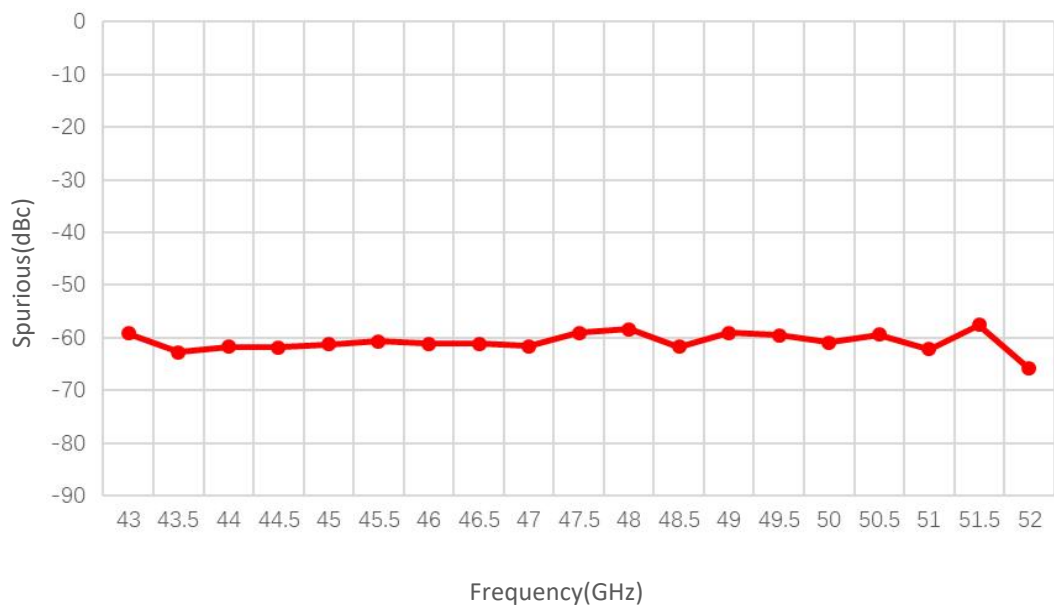


Typical Performance Data:

Pout@Equal_Pin



Spurious 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.