Power Amplifier

Model: PA-8G-12G-40

8-12GHz 40W CW

Ultrabroad frequency range, high performanceand exceptional RF characteristics

Features:

- Frequency range: 8-12GHz
- High output power at saturation, 40W Typ.
- High gain, 47 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview：

The PA-8G-12G-40 is a power amplifier with a minimum power gain of 47 dB and a nominal Psat of 40W across the frequency range of 8 to 12GHz. The DC power requirement for the amplifier is +28 VDC/7 A. The input and output port configuration offers coax adapter structure with SMA female.

Electrical Specifications at 25℃:

Parameter	Min	Typ	Max	Units
Frequency range	8		12	GHz
Power Gain	47			dB
Power Gain Flatness		±2		dB
Output Psat	45.5	46		dBm
Spurious@Pout=46dBm			-60	dBc
Harmonic@Pout=46dBm		-25		dBc
Input VSWR			2	:1
DC Voltage		+28		V DC
DC Supply Current			7	A
Impedance		50		Ohms

Mechanical Specifications:

ParameterKg	Value	Notes
Operating Temerature*	-40℃ to +50℃	
Non-operating Temperature*	-50℃ to +60℃	
Relative humidity	95%	
RF Input/Output Connector	SMA Female/SMA Female	
DC Supply Connector	Feedthru capacitors	
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	60*60*11(Without heatsink) 188*125*146(With heatsink)	mm
Weight	≤200	g

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

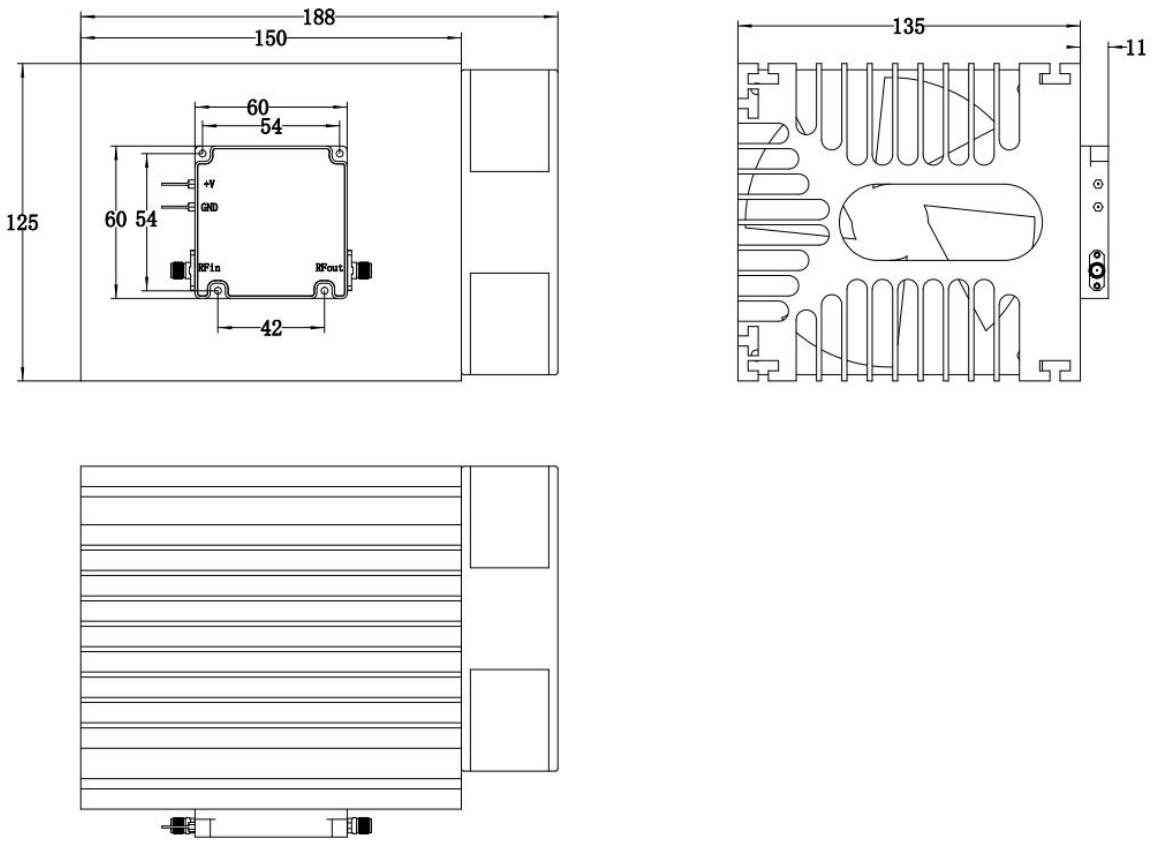
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+29 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

PA-8G-12G-40-HS

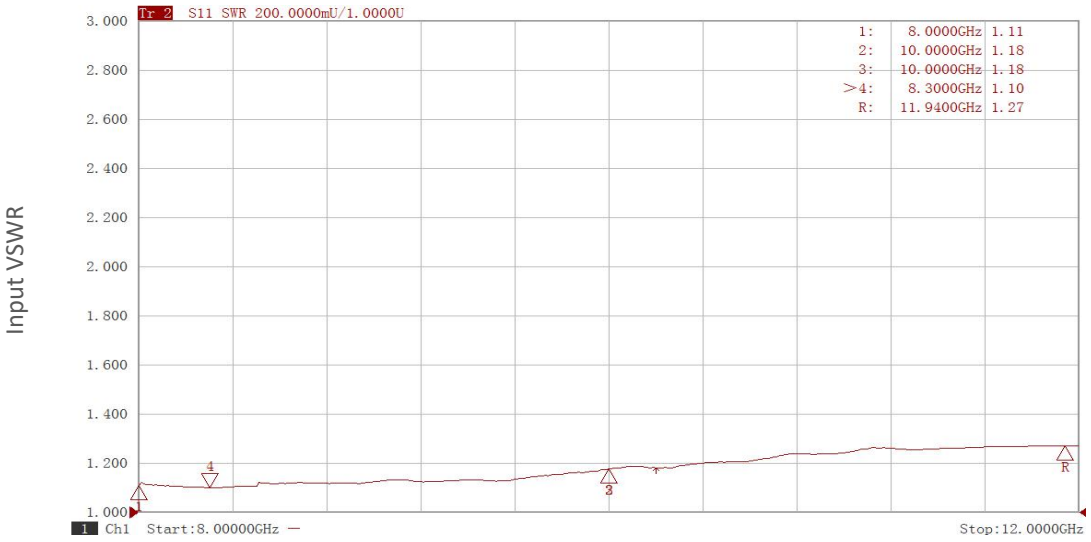


Ordering Information:

Base Number	Description	Optional
PA-8G-12G-40	Power Amplifier, 8-12GHz, Gain:47dB,Psat:40W,+28V DC	Without Heatsink
PA-8G-12G-40-HS	Power Amplifier, 8-12GHz, Gain:47dB,Psat:40W,+28V DC	With Heatsink

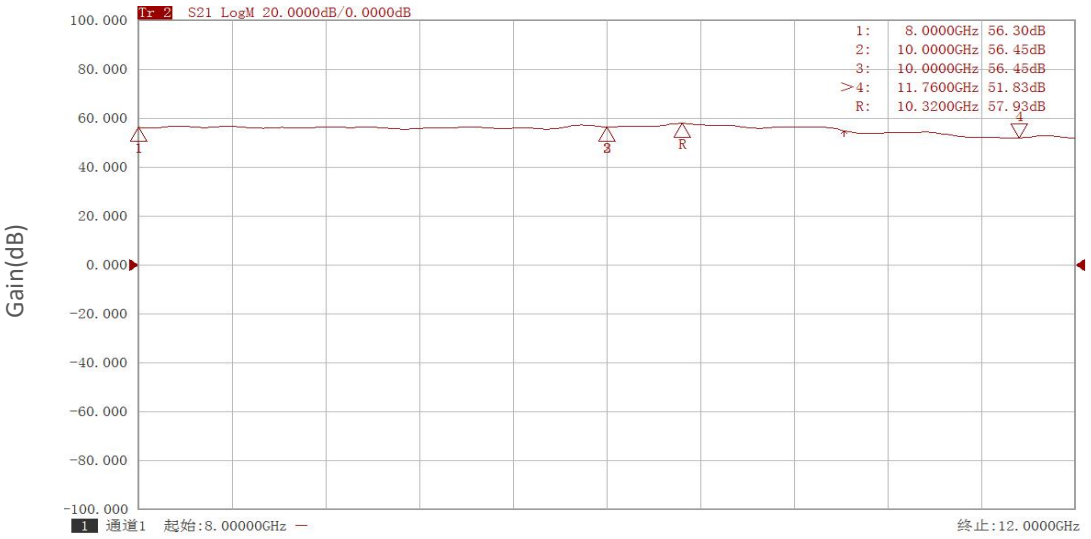
Typical Performance Data(Vdc=+28V):

Input VSWR vs Frequency



Frequency(GHz)

Small Signal Gain vs Frequency



Frequency(GHz)

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.

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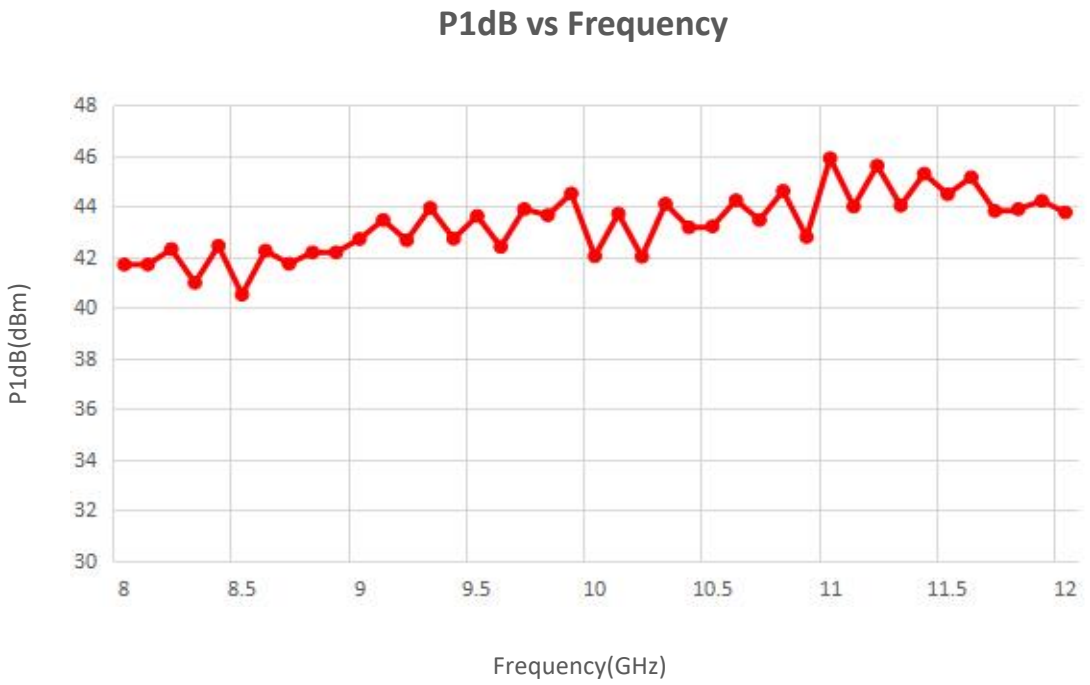

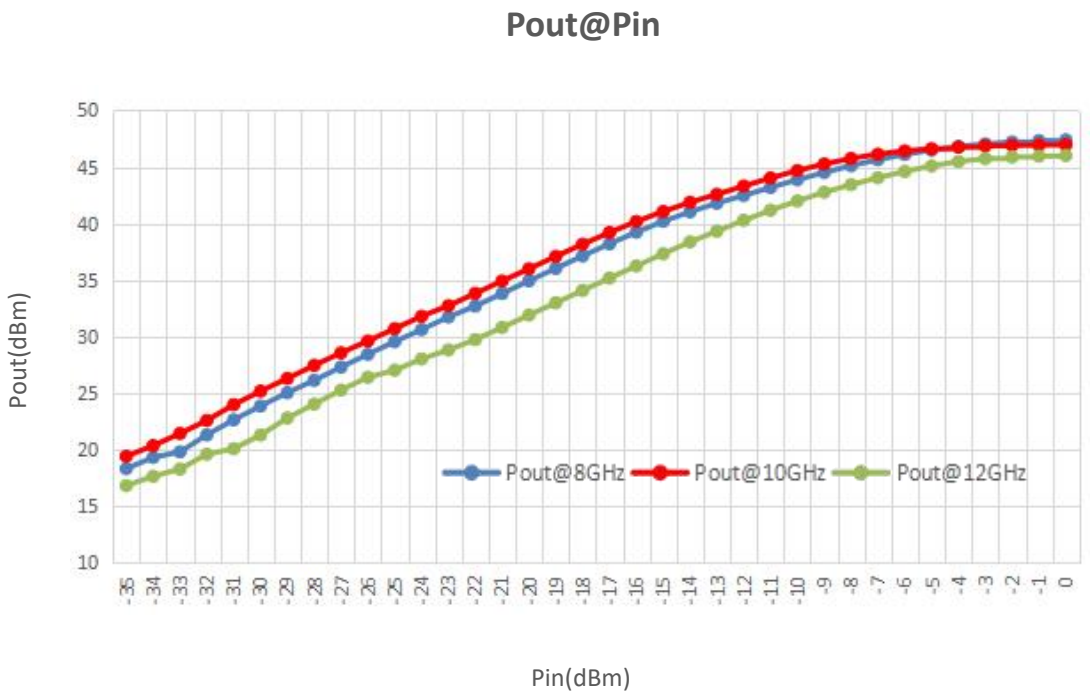

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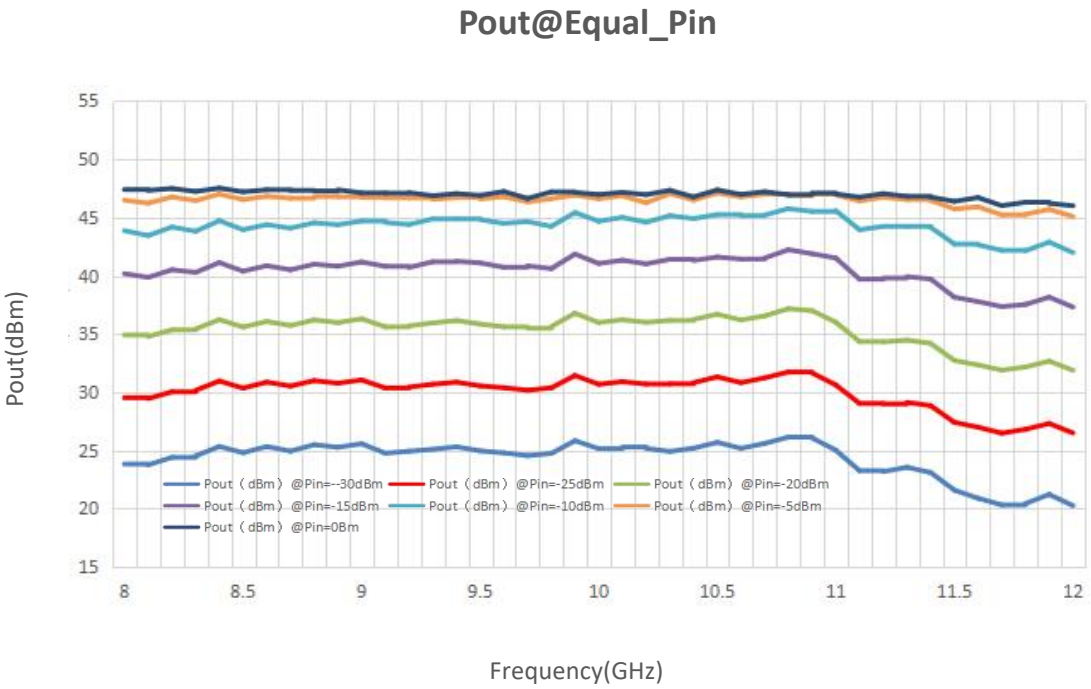

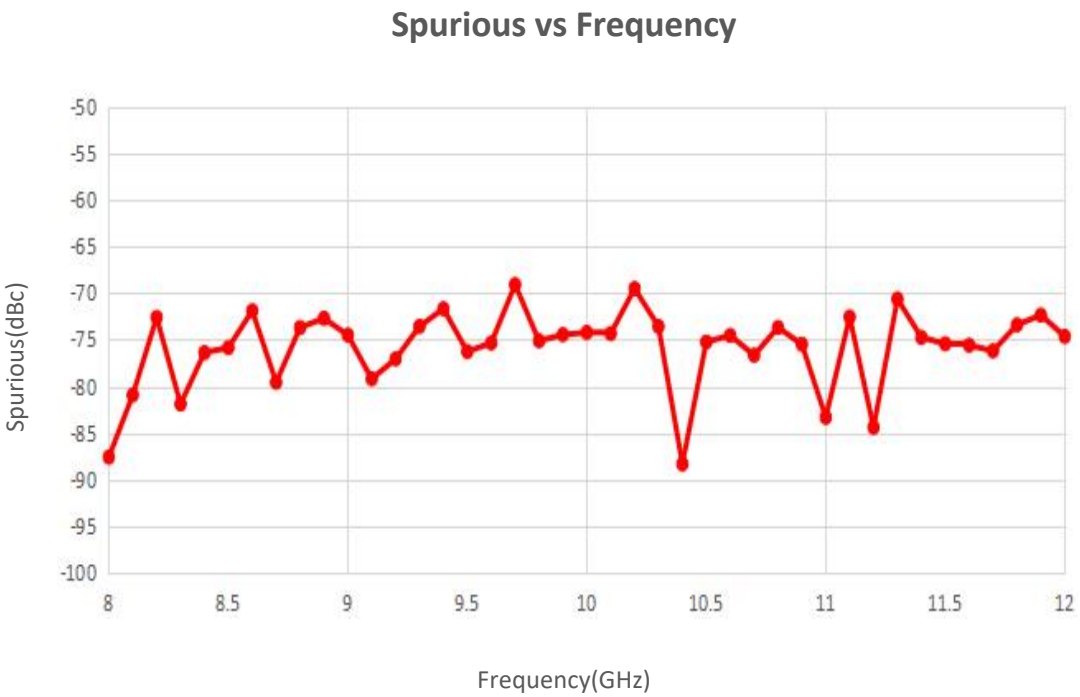

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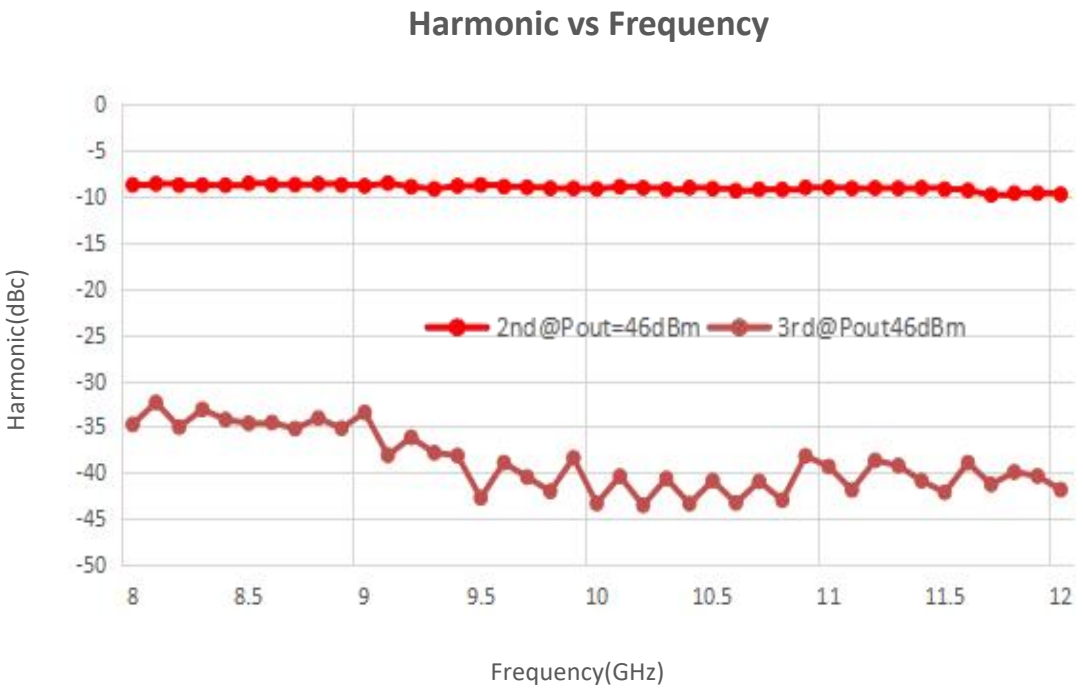

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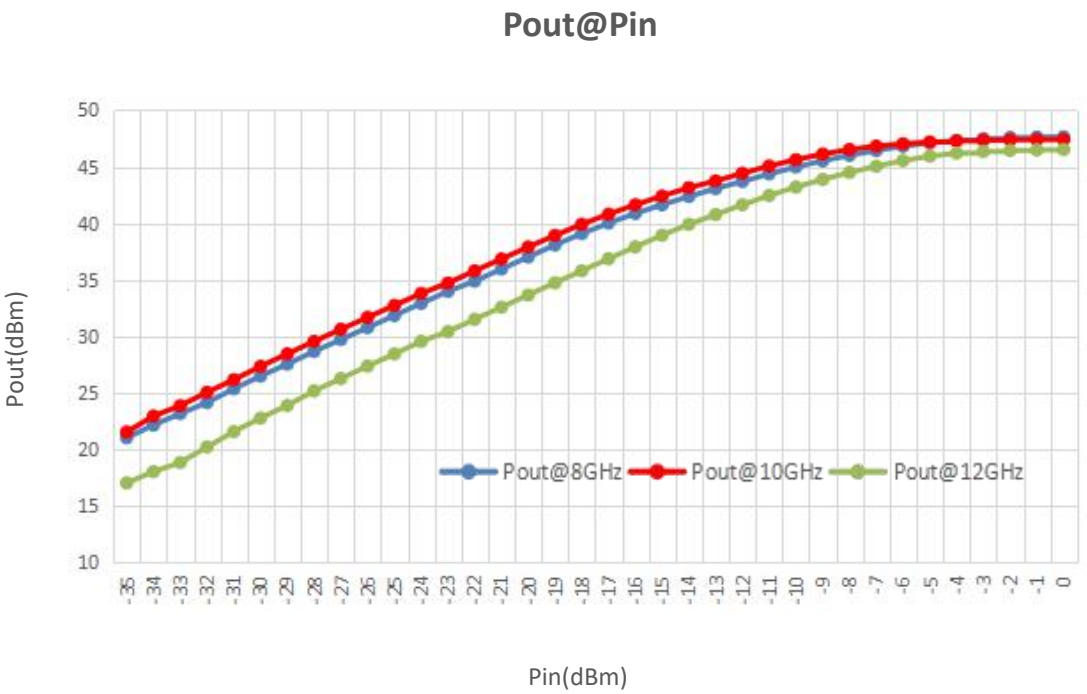

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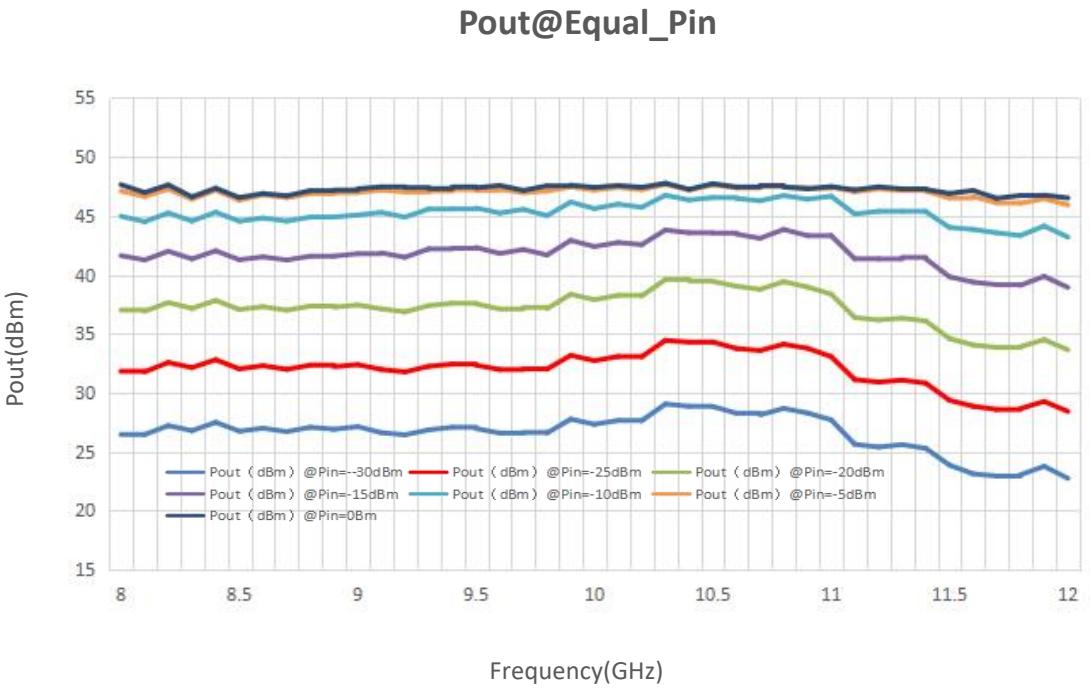

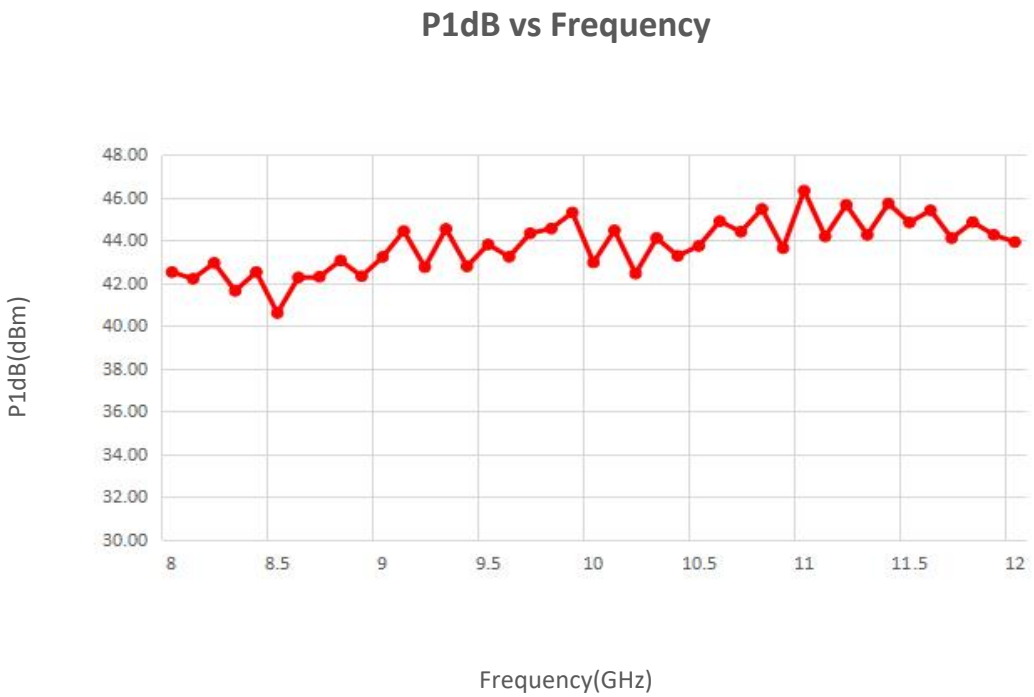

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