Power Amplifier

Model: PA-8G-12G-10-EN

8-12GHz 10W CW

Ultrabroad frequency range, high performanceand exceptional RF characteristics

Features:

- Frequency range: 8-12GHz
- 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-8G-12G-10-EN is a power amplifier with a minimum small signal gain of 40 dB and a minimum Psat of 10W across the frequency range of 8 to 12 GHz. The DC power requirement for the amplifier is +28 VDC/3 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
Small Signal Gain	40	42		dB
Small Signal Gain Flatness		±2		dB
Output P1dB		38		dBm
Output Psat	40	41		dBm
Harmonic		-15		dBc
Input VSWR		1.5	2	:1
DC Voltage		28		V DC
DC Supply Current		3		A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	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 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	60*60*11.5(Without heatsink) 150*127*74.5(With heatsink)	mm
Weight	≤200	g

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

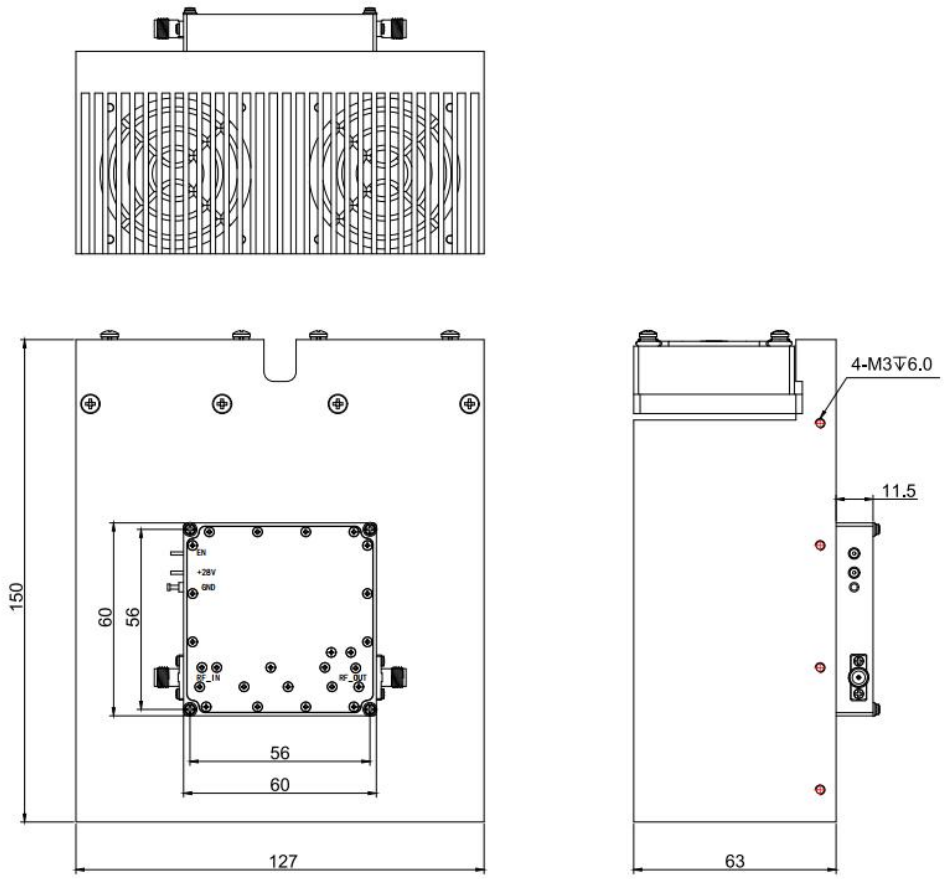
Absolute Maximum Ratings:

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-10-EN-HS



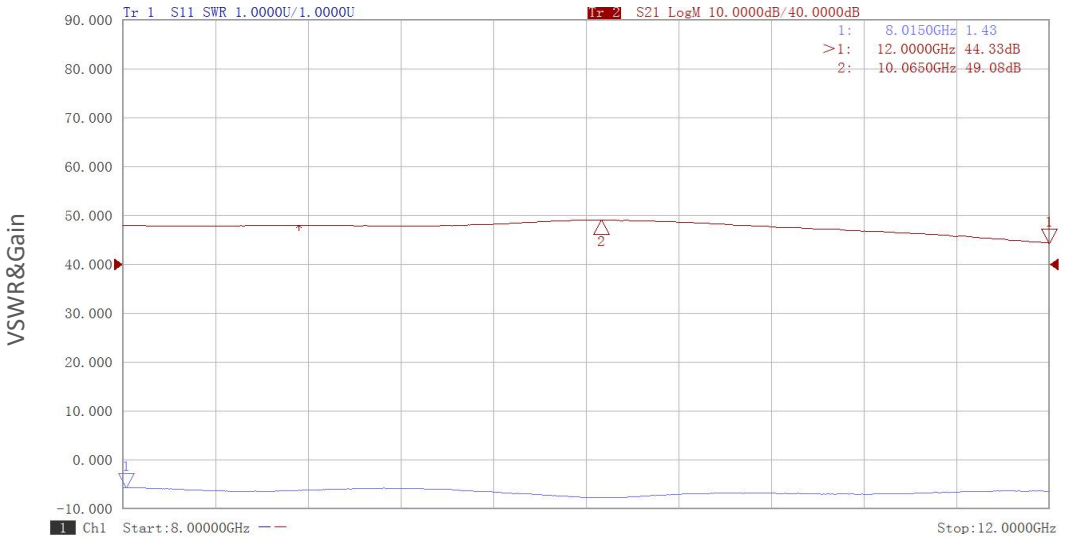
EN	Function
0(0~+0.2V)	PA off
1(+3.3~+5V)	PA on

Ordering Information:

Base Number	Description	Optional
PA-8G-12G-10-EN	Power Amplifier, 8-12GHz, Gain:40dB,Psat:10W,+28V DC	Without Heatsink
PA-8G-12G-10-EN-HS	Power Amplifier, 8-12GHz, Gain:40dB,Psat:10W,+28V DC	With Heatsink

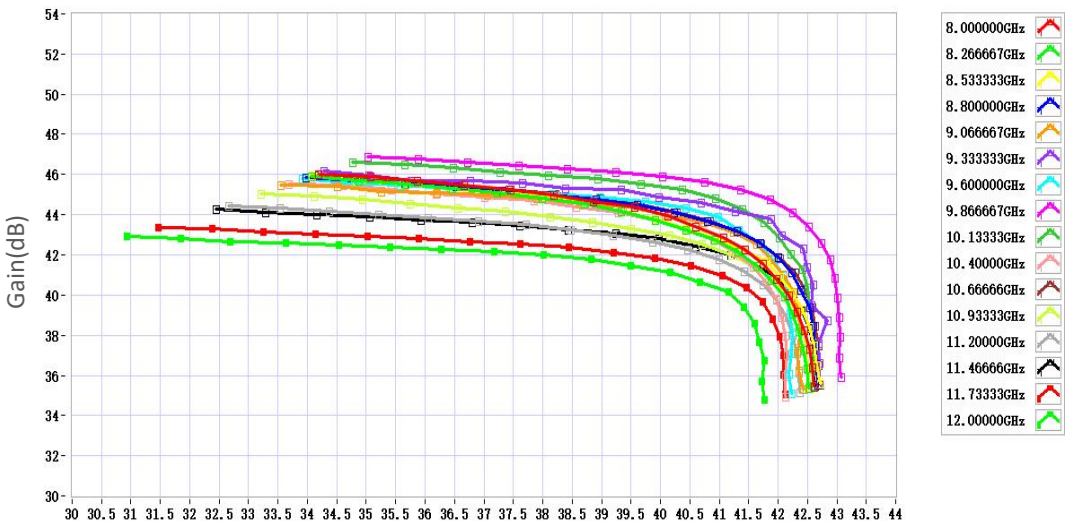
Typical Performance Data:

VSWR&Gain vs Frequency



Frequency(GHz)

Gain vs Output Power

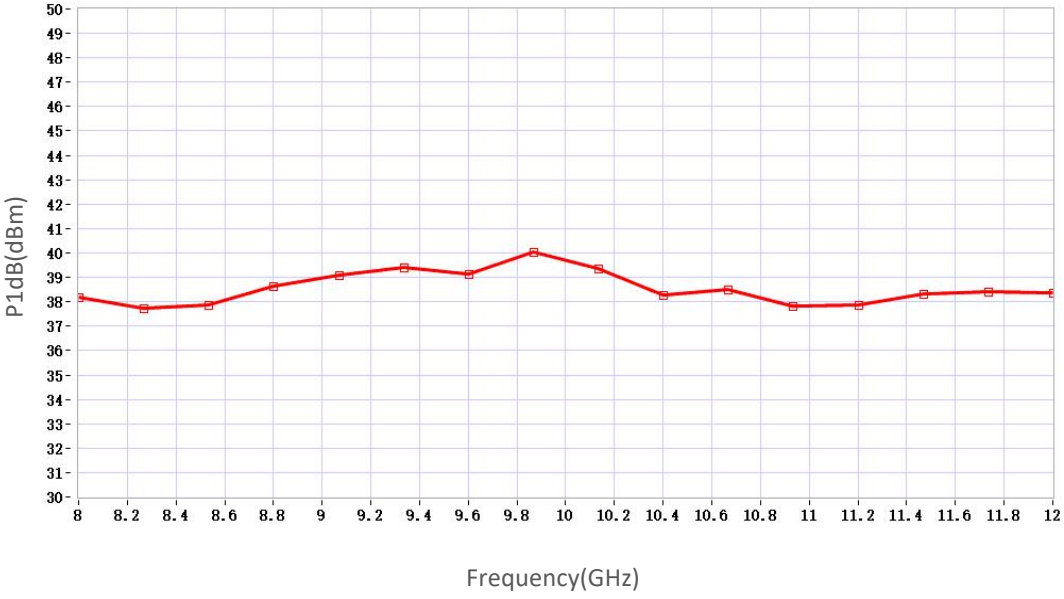


Pout(dBm)

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:

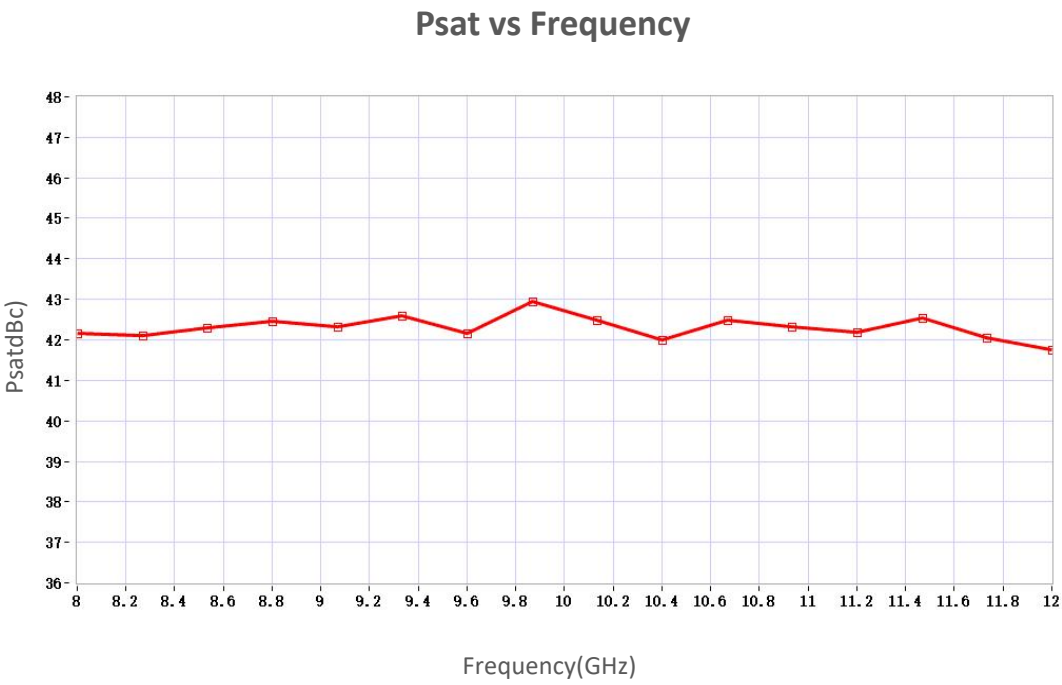
P1dB vs Frequency



P3dB 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:



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