Power Amplifier

Model: PA-2G-6G-30mW-GCR20

2-6GHz 30mW CW

Ultrabroad frequency range, high performanceand exceptional RF characteristics

Features:

- Frequency range: 2-6GHz
- High output power at saturation, 30mW Min.
- High gain, 40 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview：

The PA-2G-6G-30mW-GCR20 is a power amplifier with a minimum power gain of 40 dB and a minimum P1dB of 30mW @no gain control across the frequency range of 2 to 6GHz. The DC power requirement for the amplifier is +12 V DC/360 mA. The input and output port configuration offers coax adapter structure with SMA female.

Electrical Specifications at 25℃:

Parameter	Min	Typ	Max	Units
Frequency range	2		6	GHz
Power Gain	40			dB
Power Gain Control range	20			dB
Power Gain Flatness			±2.25	dB
Output P1dB@no gain control	15			dBm
Output P1dB@max gain control		12		dBm
Noise Figure@no gain control			3	dB
Noise Figure@max gain control		4		dB
VSWR			2	:1
DC Voltage		+12	+15	V DC
DC Supply Current		360		mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temerature*	-40℃ to +60℃	
Non-operating Temperature*	-50℃ to +70℃	
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	1.48*1.28*0.35	Inch

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

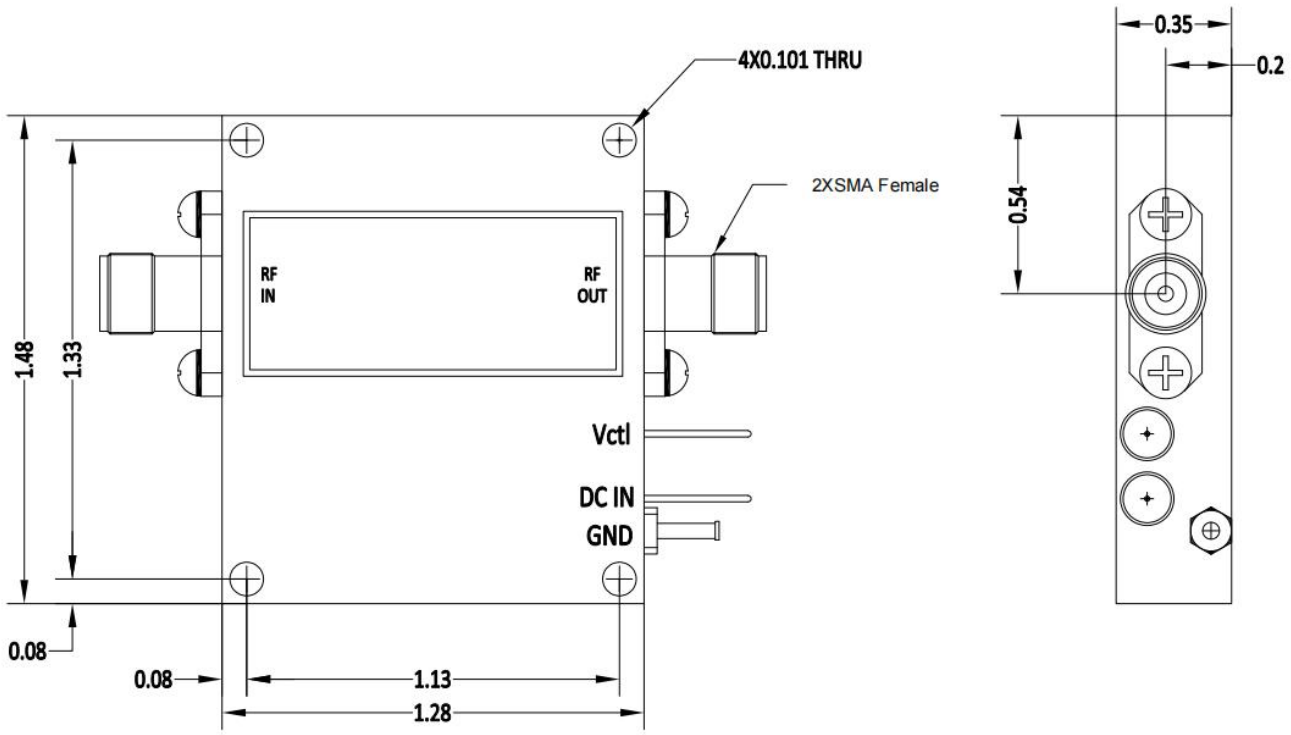
Absolute Maximum Ratings:

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

Outline Drawing:

Unit:Inch

PA-2G-6G-30mW-GCR20

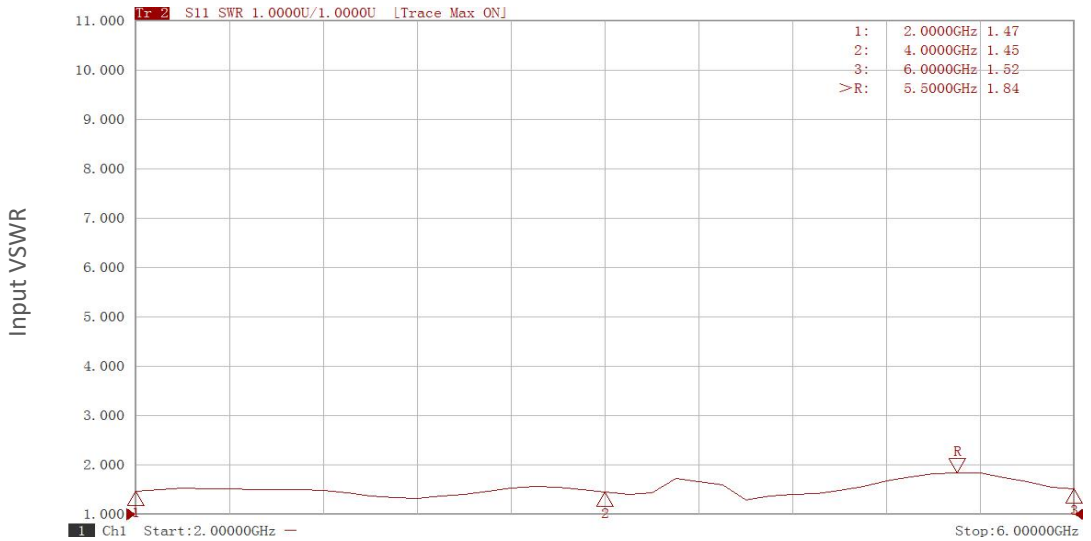


Ordering Information:

Base Number	Description	Optional
PA-2G-6G-30mW-GCR20	Power Amplifier, 2-6GHz, Gain:40dB,Psat:30mW,+12V DC	Without Heatsink

Typical Performance Data:

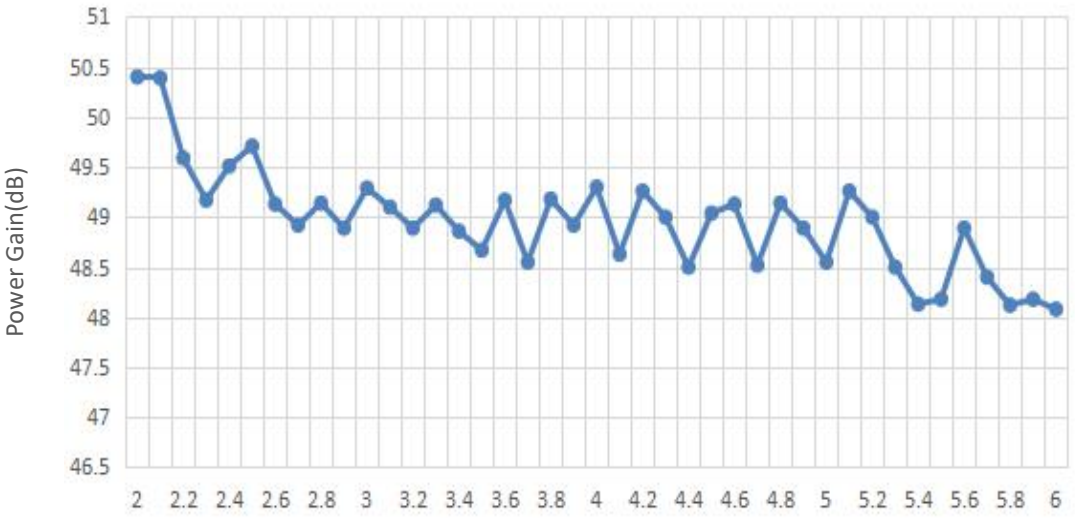
Input VSWR vs Frequency



Input VSWR

Frequency(GHz)

Power Gain vs Frequency

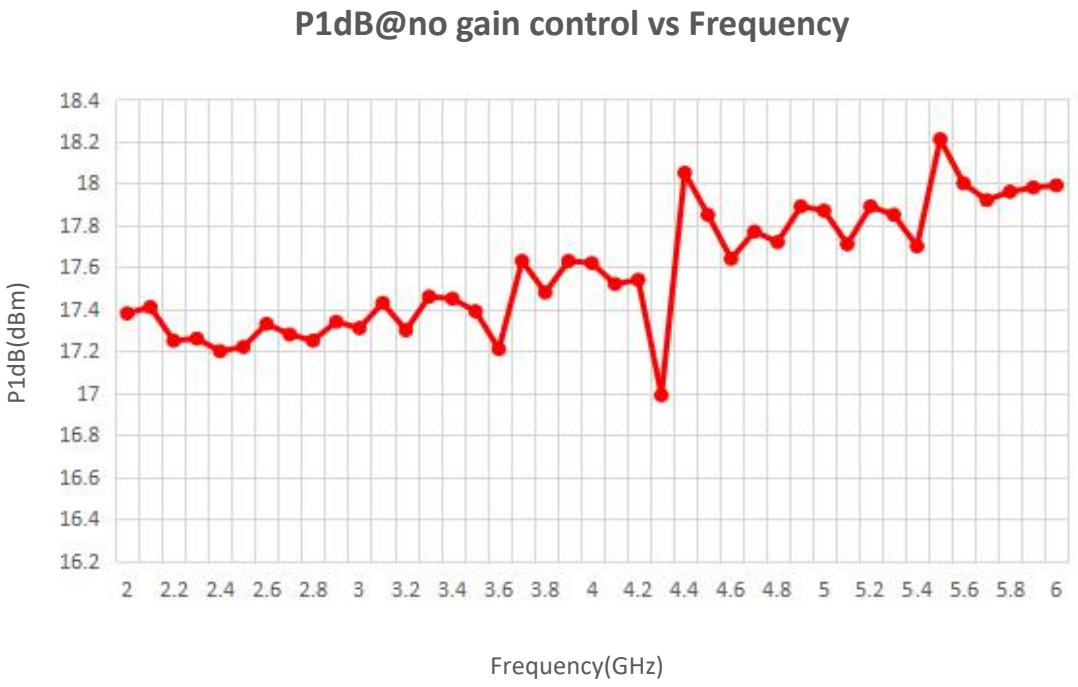


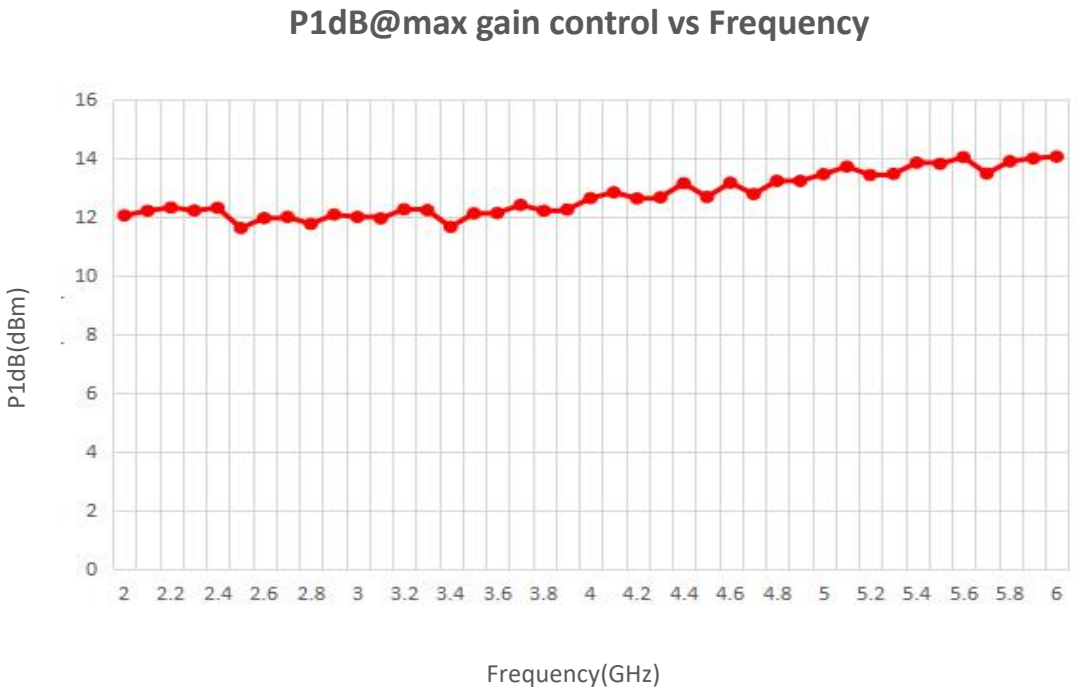
Power Gain(dB)

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.

Typical Performance Data:





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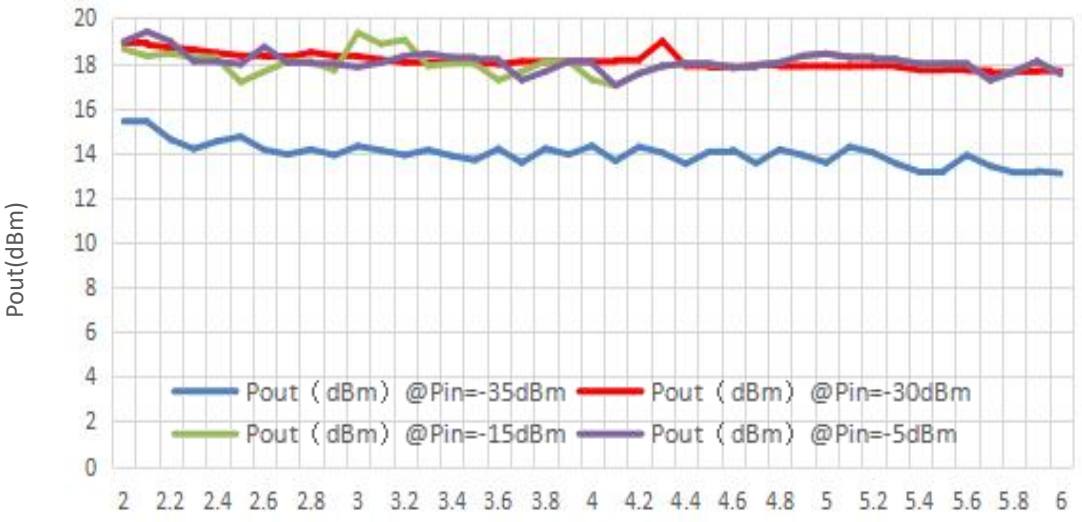
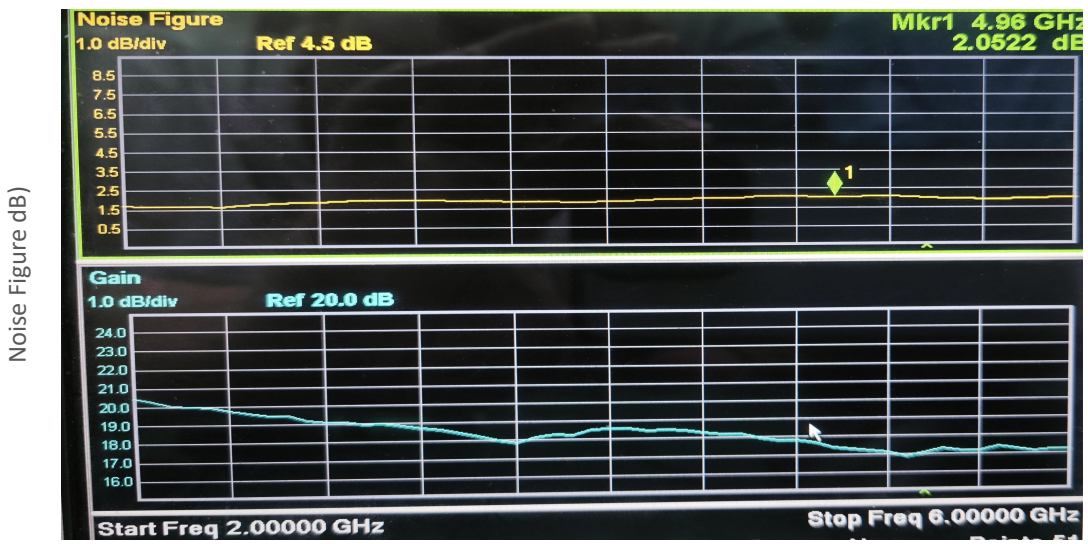
Typical Performance Data:

Pout@Equal_Pin



Frequency(GHz)

NF@min attenuation vs Frequency



Frequency(GHz)

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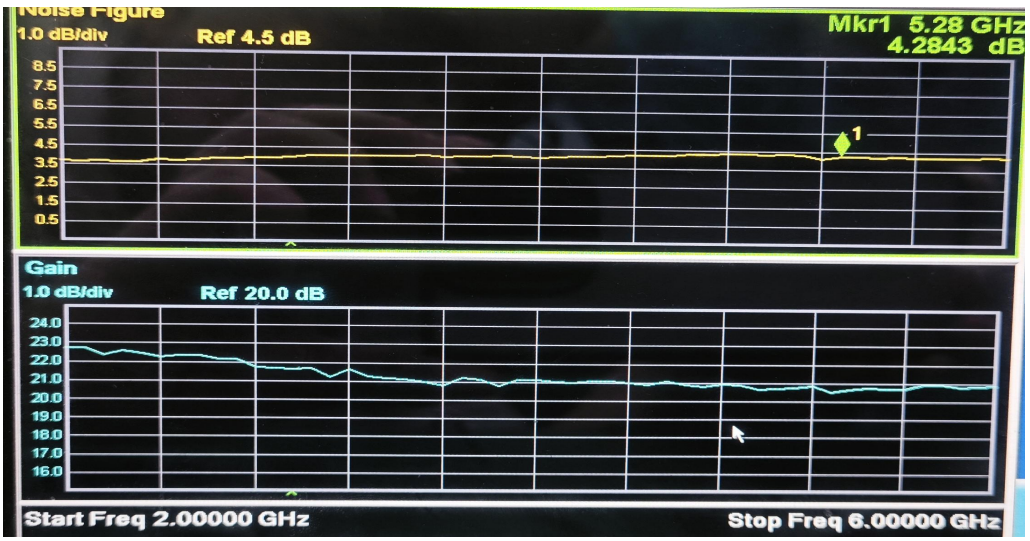
Typical Performance Data:

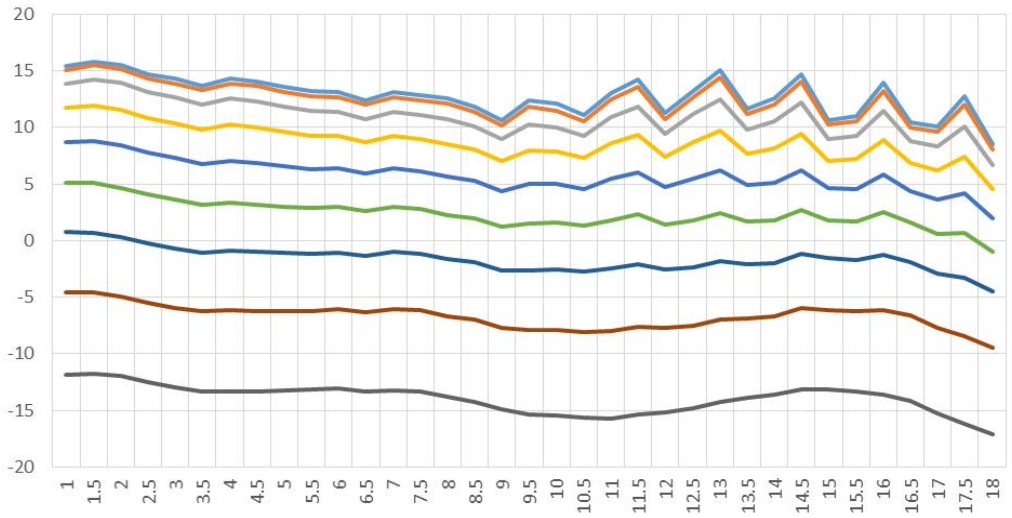
NF@max attenuation vs Frequency



Noise Figure dB)

Frequency(GHz)

Attenuation@Vctrl vs Frequency



Pout(dBm)

Frequency(GHz)

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