Power Amplifier

Model: PA-100M-2G-0.5

0.1-2GHz 0.5W CW

Ultrabroad frequency range, high performanceand exceptional RF characteristics

Features:

- Frequency range: 0.1-2GHz
- Input 1 dB Gain Compression Point, 0.5W Min.
- High gain, 20 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview：

The PA-100M-2G-0.5 is a power amplifier with a minimum small signal gain of 20 dB and a minimum P1dB of 0.5W across the frequency range of 0.1 to 2GHz. The DC power requirement for the amplifier is +12 VDC/700 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	0.1		2	GHz
Small Signal Gain	20	22		dB
Small Signal Gain Flatness		±0.5	±0.75	dB
Output P1dB	27	28		dBm
Harmonics		-20		dBc
Input VSWR		1.5	2.0	:1
DC Voltage		+12	+13	V DC
DC Supply Current		700	1000	mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temerature*	-45℃ to +85℃	
Non-operating Temperature*	-55℃ to +125℃	
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	120*70*15	mm
Weight	200	g

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

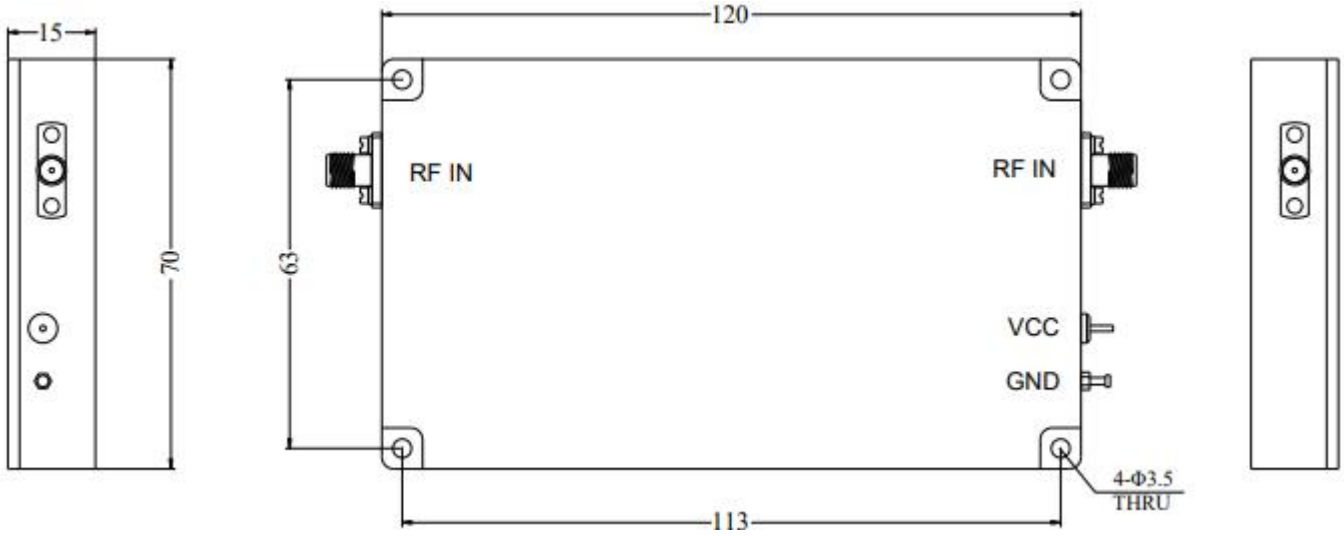
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+13 V
RF Input Power	+16 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

PA-100M-2G-0.5

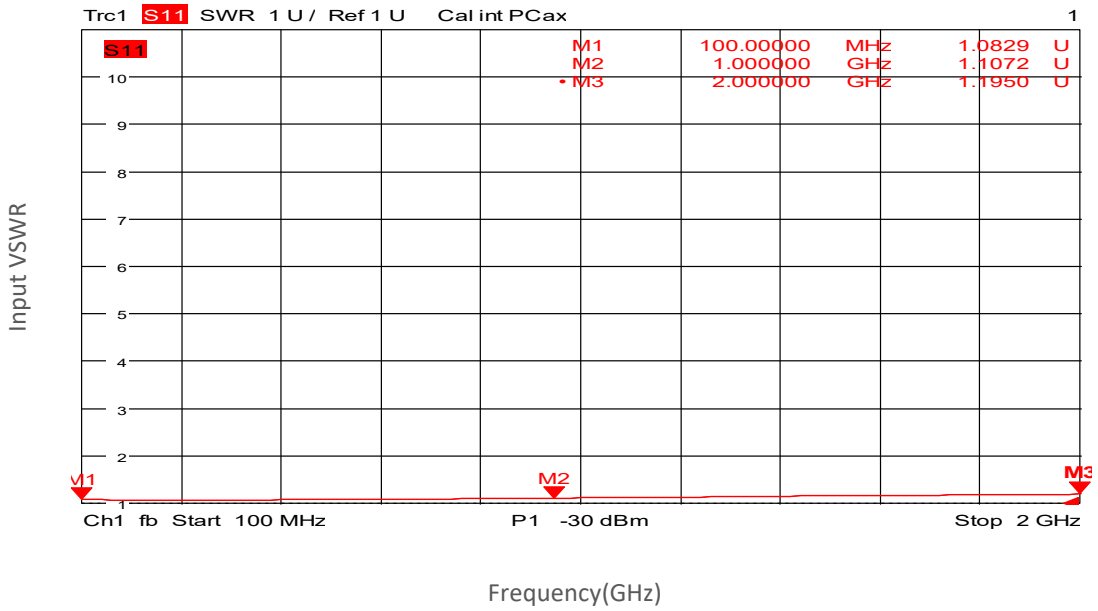


Ordering Information:

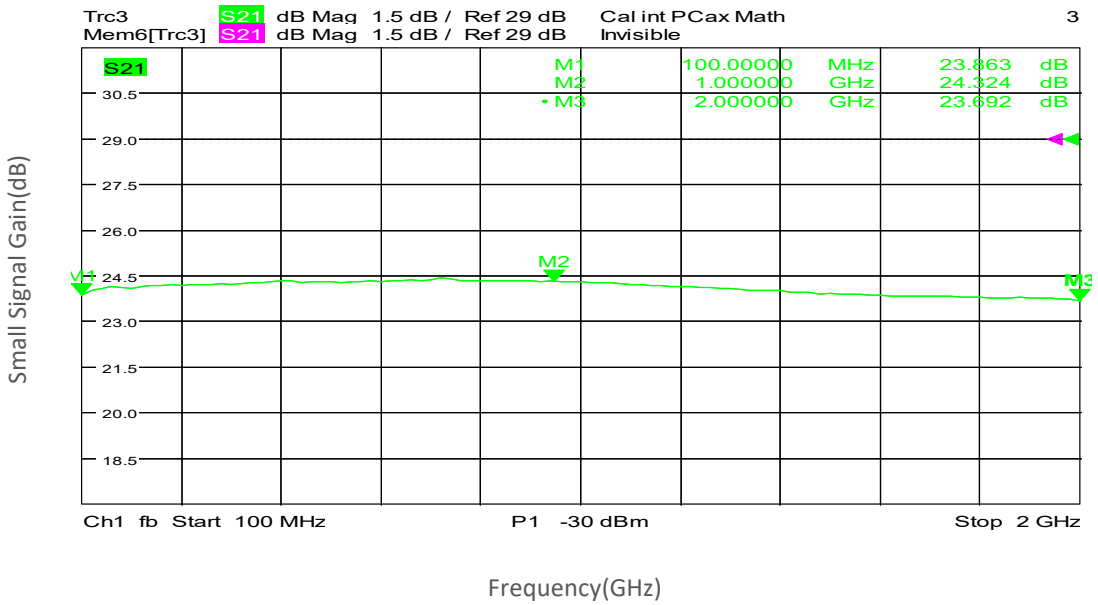
Base Number	Description	Optional
PA-100M-2G-0.5	Power Amplifier, 0.1-2GHz, Gain:20dB,Psat:0.5W,+12V DC	Without Heatsink
PA-100M-2G-0.5-HS	Power Amplifier, 0.1-2GHz, Gain:20dB,Psat:0.5W,+12V DC	With Heatsink

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.

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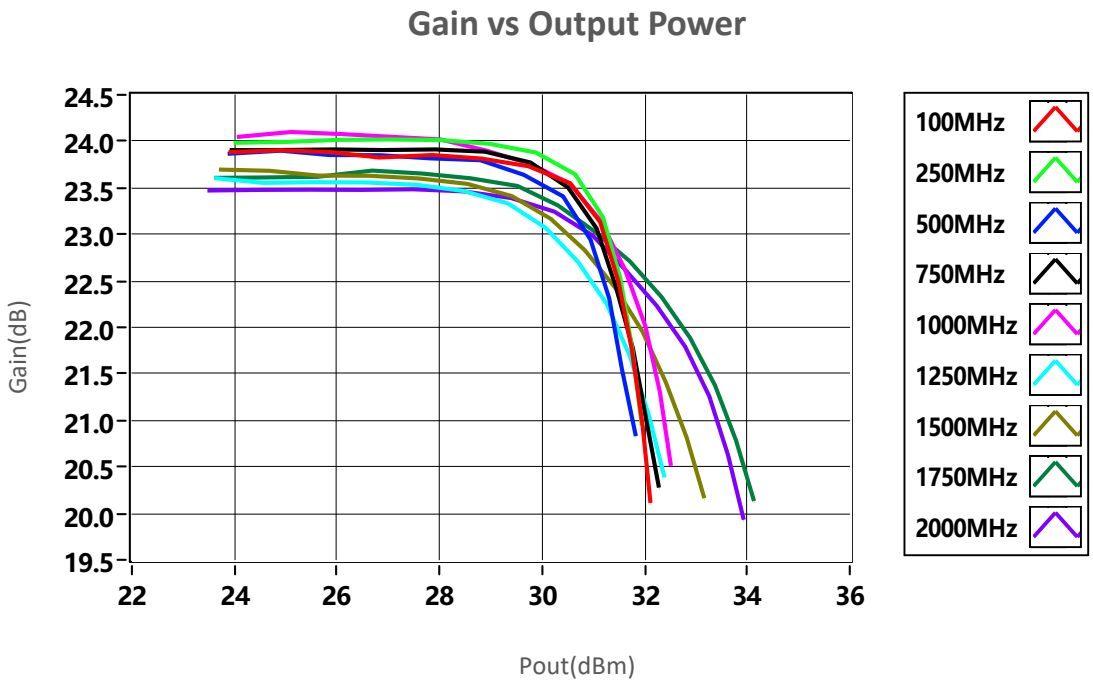

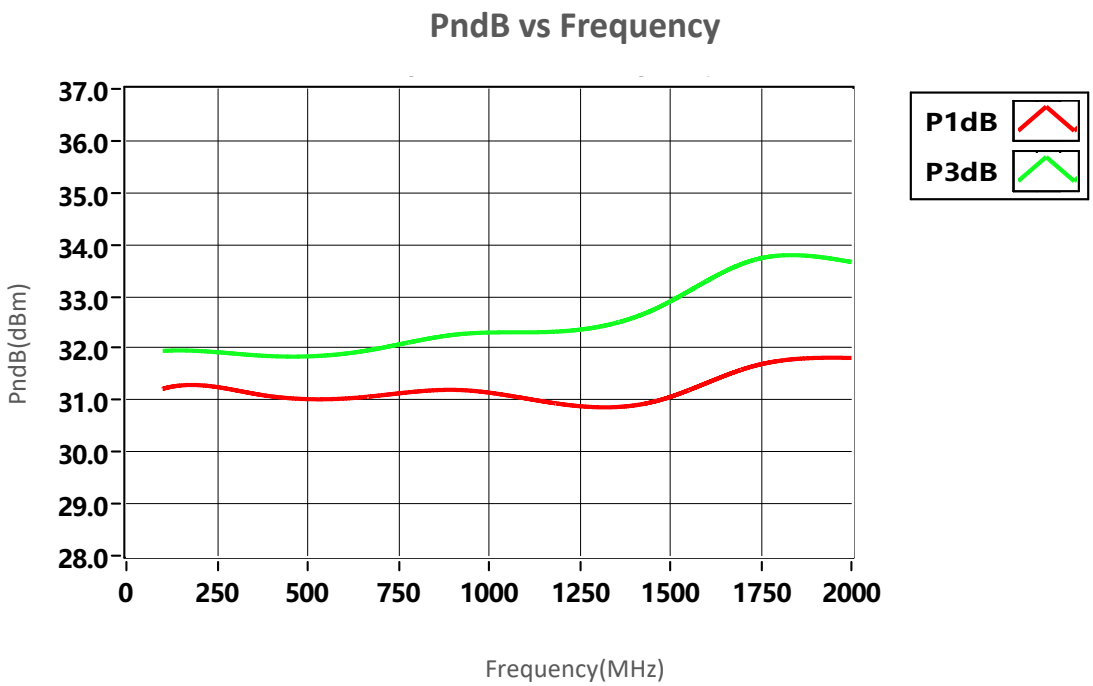

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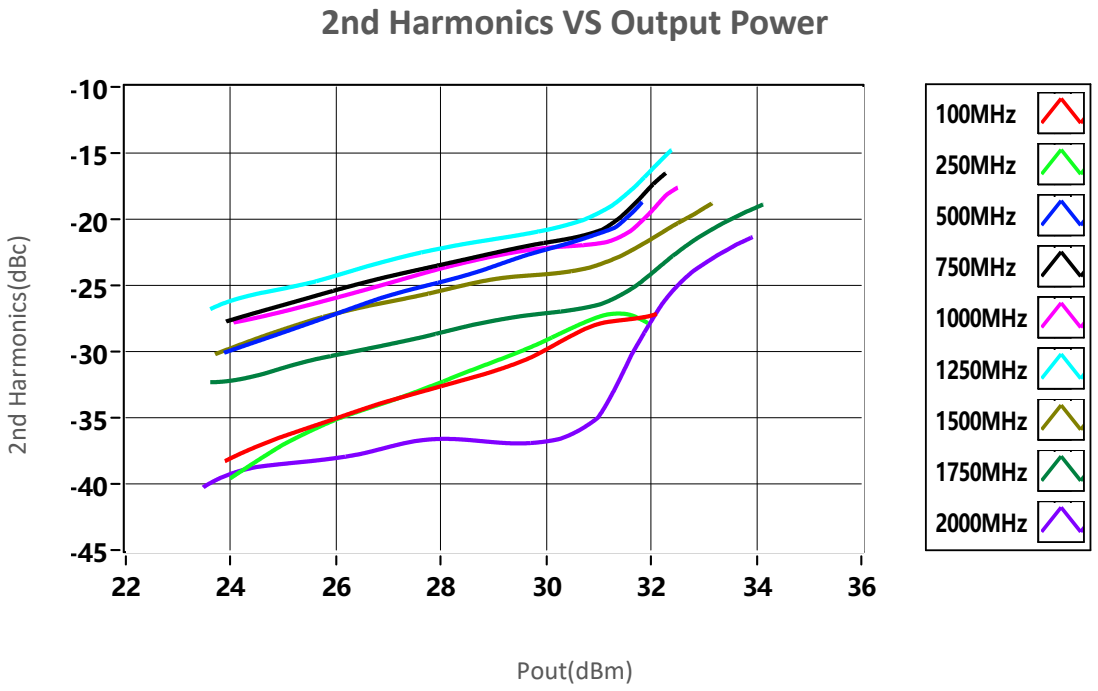

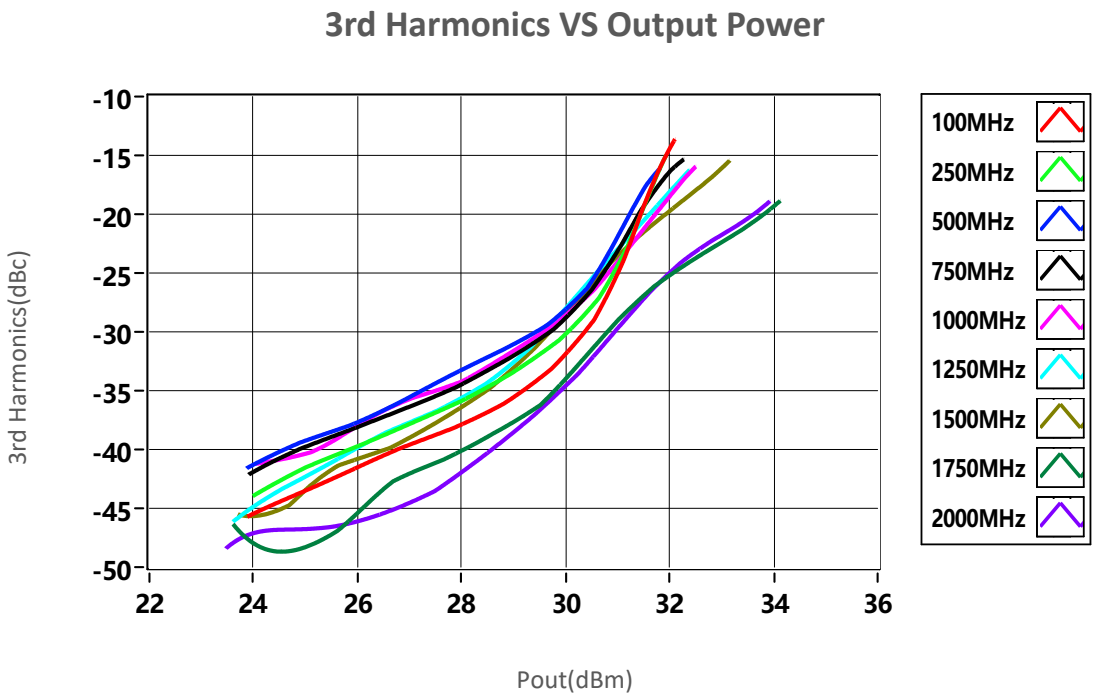

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