



Power Amplifier

Model: PA-100M-2G-1

0.1-2GHz 1W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 0.1-2GHz
- Input 1 dB Gain Compression Point, 1W Min.
- High gain, 27 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-100M-2G-1 is a power amplifier with a minimum small signal gain of 27 dB and a minimum P1dB of 1W across the frequency range of 0.1 to 2GHz. The DC power requirement for the amplifier is +15 VDC/700 mA. The input and output port configuration offers coax adapter structure with SMA female.



Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
Frequency range	0.1		2	GHz
Small Signal Gain	27	30		dB
Small Signal Gain Flatness		±0.5	±0.75	dB
Output P1dB	30	31		dBm
Harmonics		-25	-20	dBc
Input VSWR		1.5	2.0	:1
DC Voltage		+15	+16	V DC
DC Supply Current		700	1000	mA
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	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:

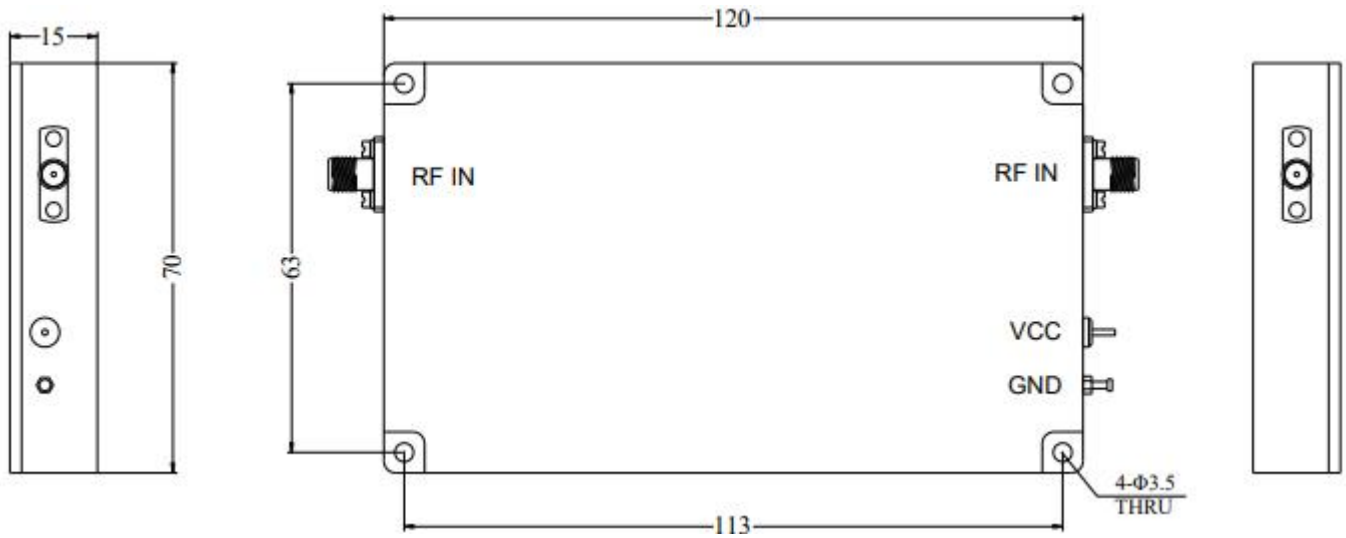
Parameter	Value
Supply Bias Voltage	+16 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm

PA-100M-2G-0.5



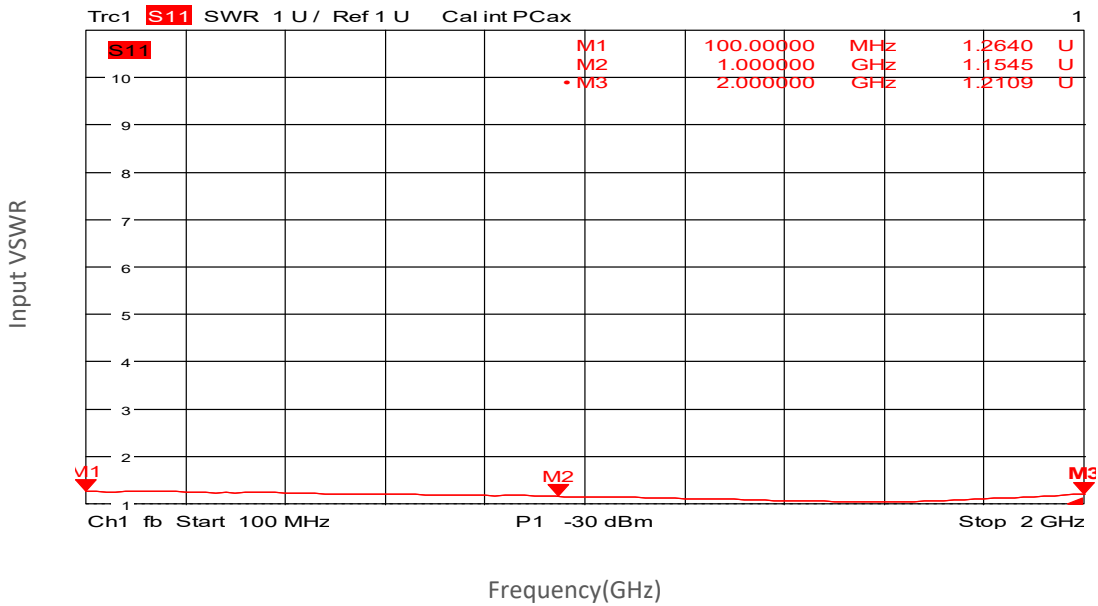
Ordering Information:

Base Number	Description	Optional
PA-100M-2G-1	Power Amplifier, 0.1-2GHz, Gain:27dB,Psat:1W,+15V DC	Without Heatsink
PA-100M-2G-1-HS	Power Amplifier, 0.1-2GHz, Gain:27dB,Psat:1W,+15V DC	With Heatsink

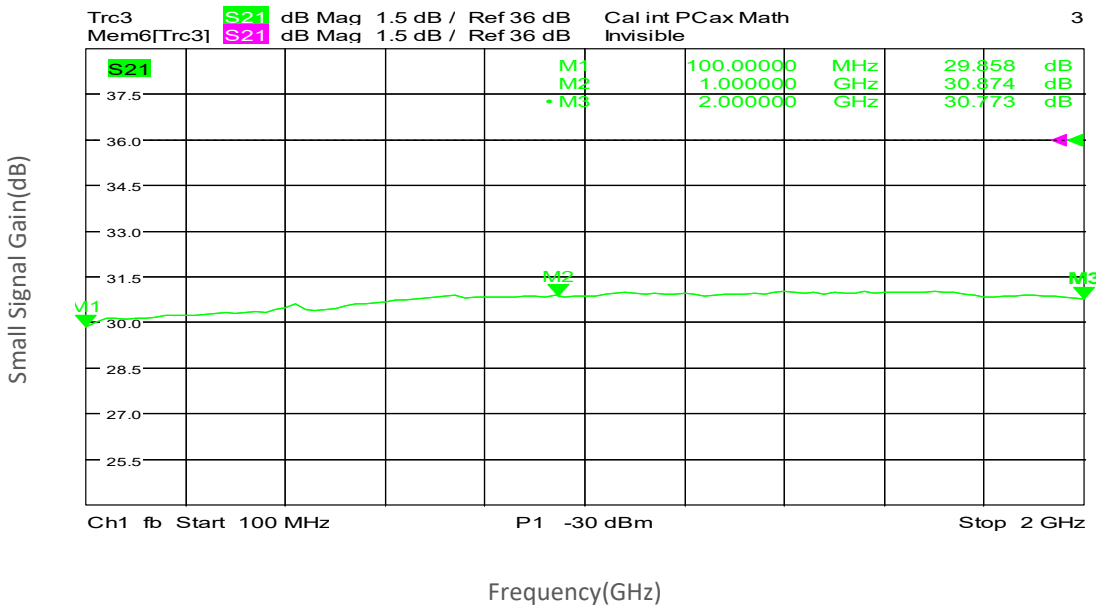


Typical Performance Data:

Input VSWR vs Frequency



Small Signal Gain vs Frequency

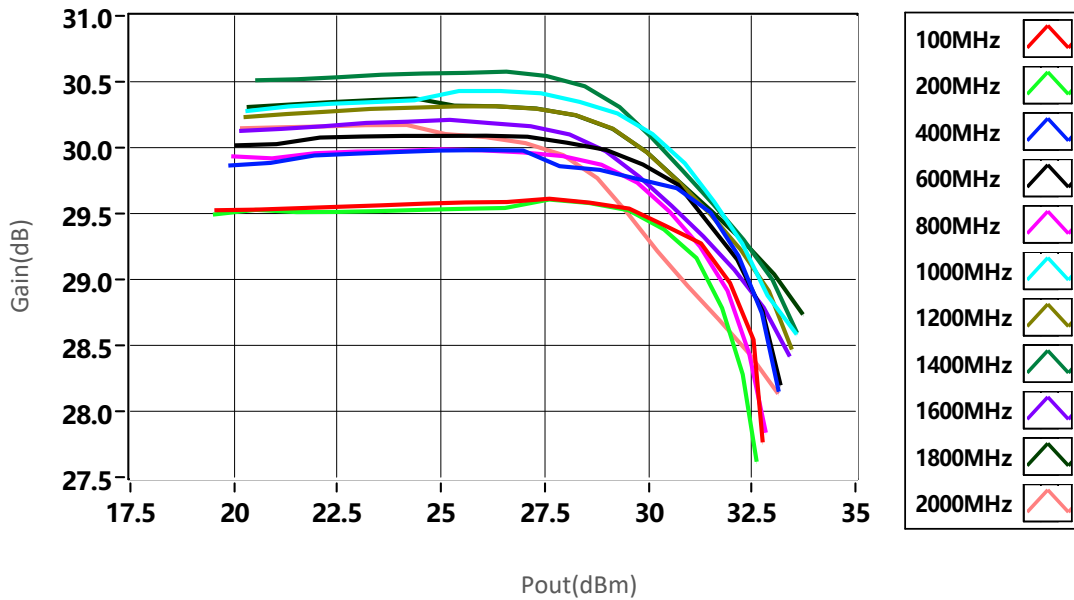


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

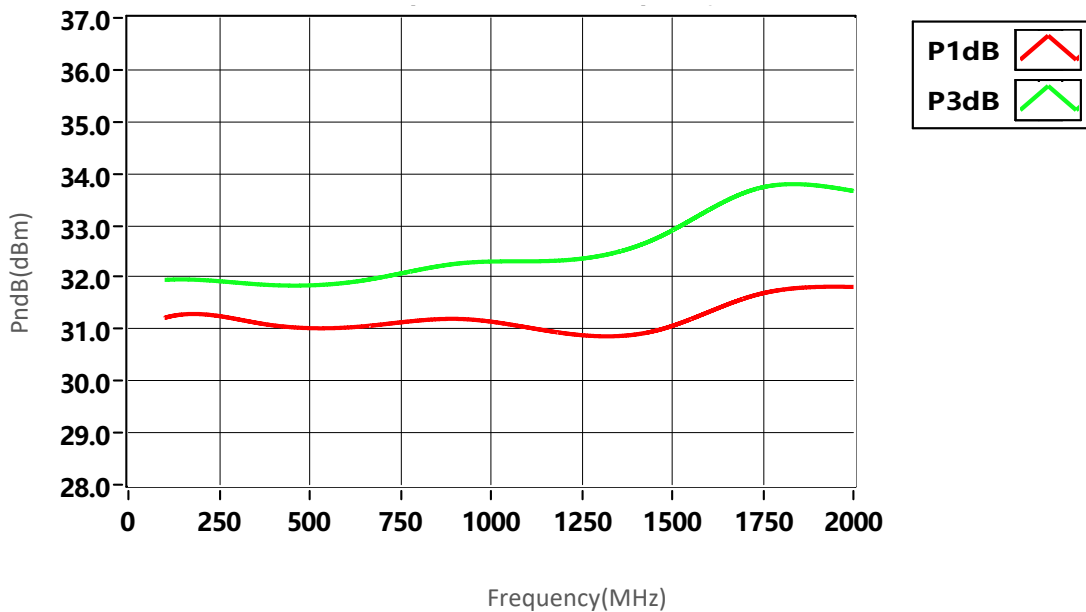


Typical Performance Data:

Gain vs Output Power



PndB vs Frequency

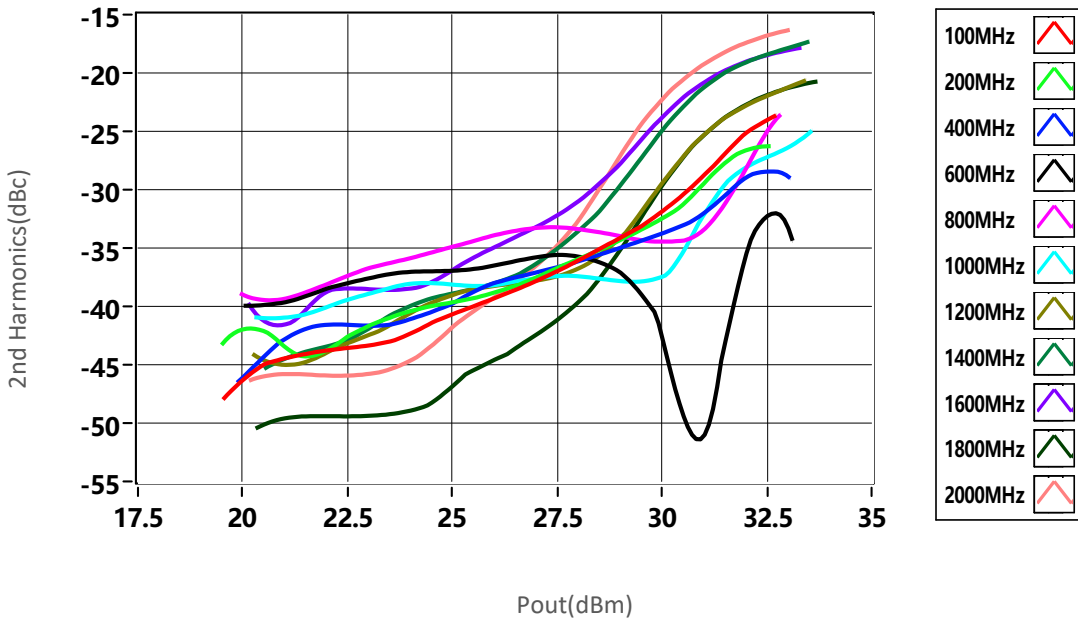


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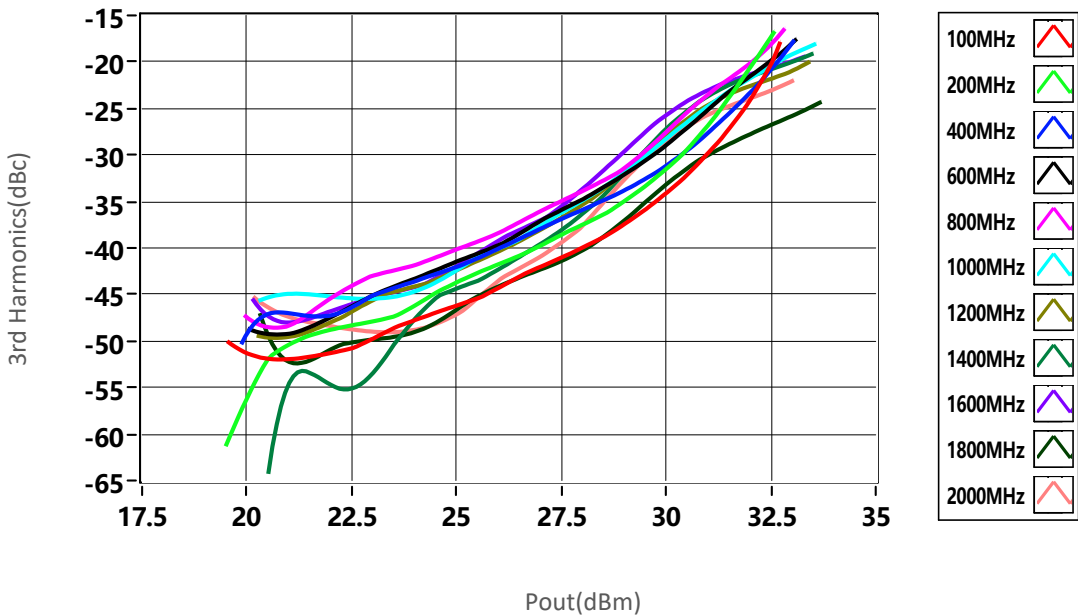


Typical Performance Data:

2nd Harmonics VS Output Power



3rd Harmonics VS Output Power



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.