High Power Amplifier

Model:RPA-2M-2G-80

2MHz-2GHz 80W CW

Ultrabroad frequency range, high performanceand exceptional RF characteristics

Features:

- Frequency range1: 2MHz-500MHz
- Frequency range2: 500MHz-2GHz
- High output power at saturation, 49dBm Min
- High gain, 60dB Min
- Operates from AC line power: 110-220V

Applications:

- Laboratory test instrument
- RF Power stress test
- EMI and antenna testing
- Reliability testing

Product Overview：

The RPA-2M-2G-80 is a high power, rack mount amplifier with a self-contained AC power supply which can be used for a wide variety of laboratory testing applications. This rugged amplifier is capable of amplifying signals up to 80W output power over its entire operating bandwidth of 2MHz to 2GHz. Built-in safety features include fans alarms and automatic shut down mechanism to prevent damage in the event of excessive internal temperatures. The amplifier's output stage is further protected in the event of a fault condition, allowing high power operation for up to 5 minutes into an open or short load (refer to the maximum input power specifications).

Electrical Specifications at 25℃:

Parameter	Symbol	Min	Typ	Max	Units
Frequency range1	BW1	2-500			MHz
Frequency range2	BW2	500-2000			MHz
Gain	GP	60	65		dB
Gain flatness	ΔGL		±3	±4	dB
Output Psat	Psat	49	50		dBm
Output P1dB	P1dB		47		dBm
Spurious	Spur			-60	dBc
Harmonics	HAM			-10	dBc
Gain Adjust Range	ΔGR		30		dB
Input VSWR	VSWRin		1.5	2.0	:1
AC Voltage	Vac	110	220		V AC
AC Supply Current	Iac		3		A
Impedance	I/O-IMP	50			Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temerature	-40 to +50	℃
Non-operating Temperature	-55 to +125	℃
Relative humidity	95	%
RF Input/Output Connector	N Female/N Female	
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	3U*500 depth	mm
Weight	27	Kg

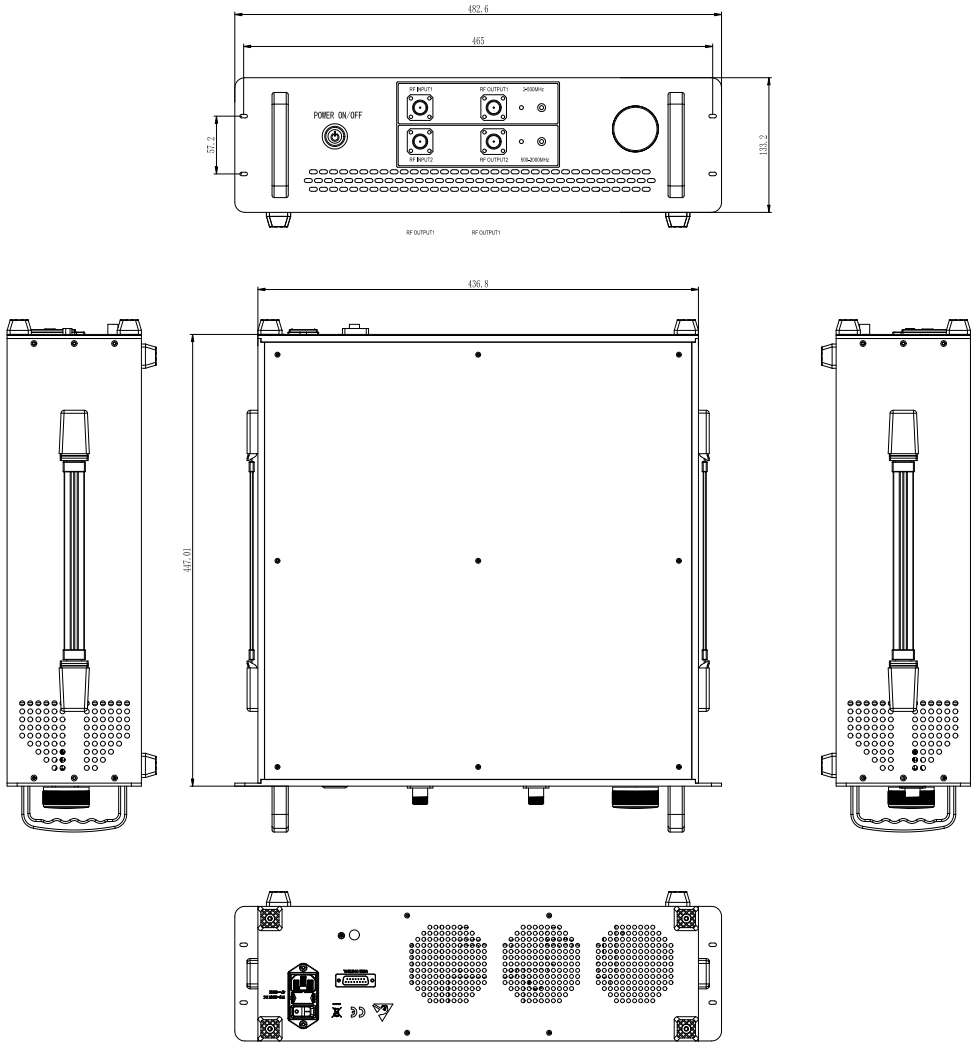
Absolute Maximum Ratings:

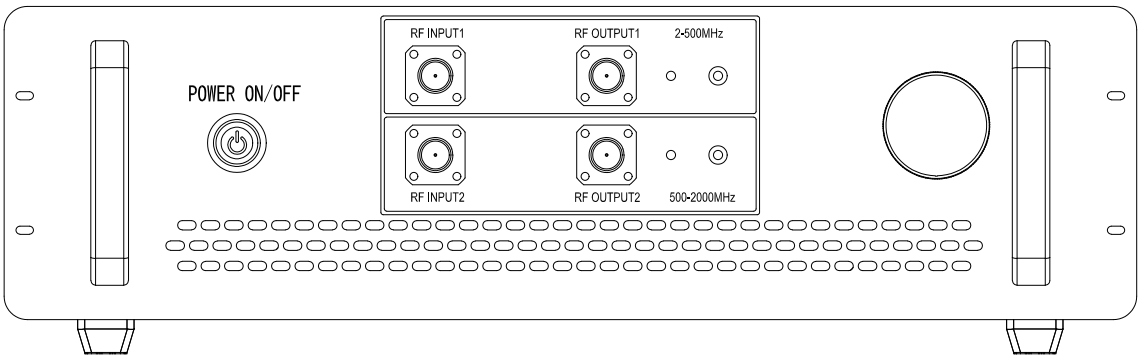
Parameter	Value
RF Input Power	5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

RPA-2M-2G-80





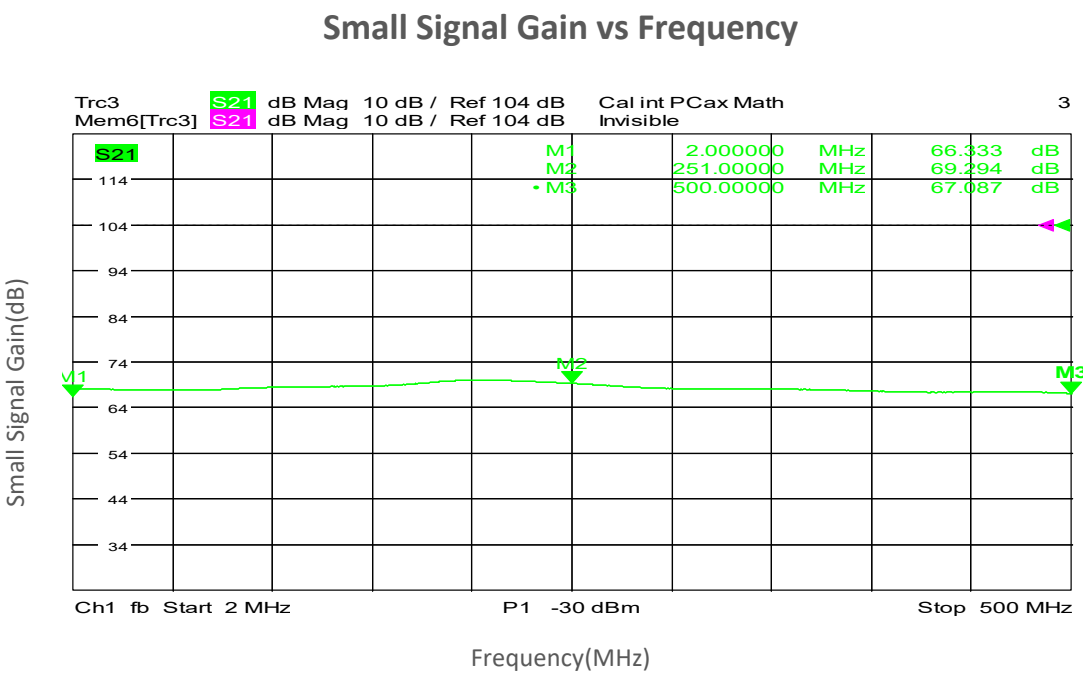
Optional items:

Number	Parameter
1	LCD display touchscreen
2	Ingress protection grad
3	Customized operating temperature range
4	Built in Cooling system(air or liquid)
5	Types of RF,coupling and monitor&control interfaces

Ordering Information:

Base Number	Description	Optional
RPA-2M-2G-80	High Power Amplifier, 2MHz-2GHz, 80W, Built in air or liquid cooling, without LCD and IP grad.	Basic version
RPA-2M-2G-80-M	High Power Amplifier, 2MHz-2GHz, 80W, Built in air or liquid cooling, with LCD.	Add LCD display touchscreen
RPA-2M-2G-80-IPxx	High Power Amplifier, 2MHz-2GHz, 80W, Built in air or liquid cooling, with LCD and IP grad.	Add Ingress protection grad

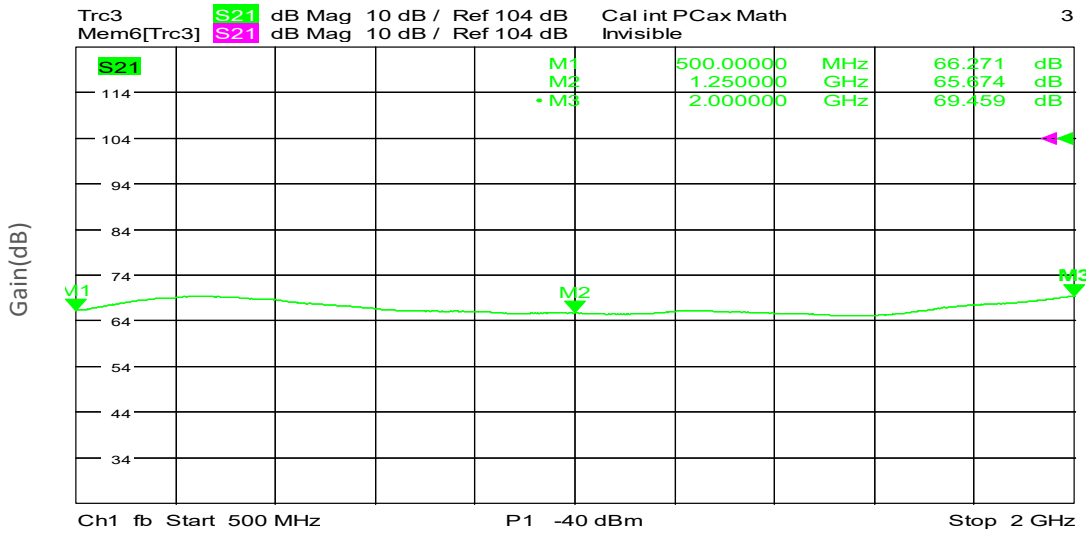
Typical Performance Data:



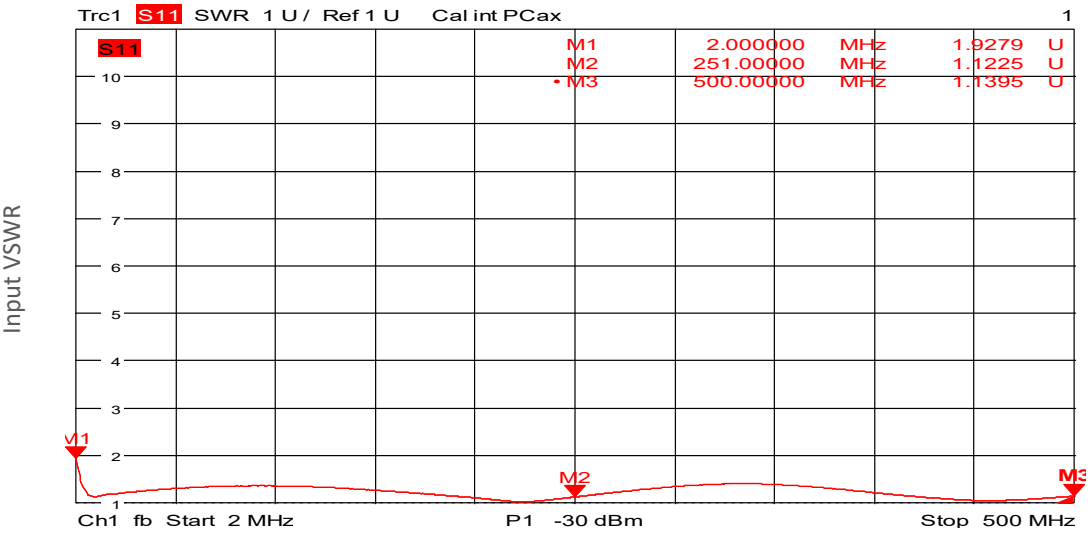
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Small Signal Gain vs Frequency



Input VSWR vs Frequency



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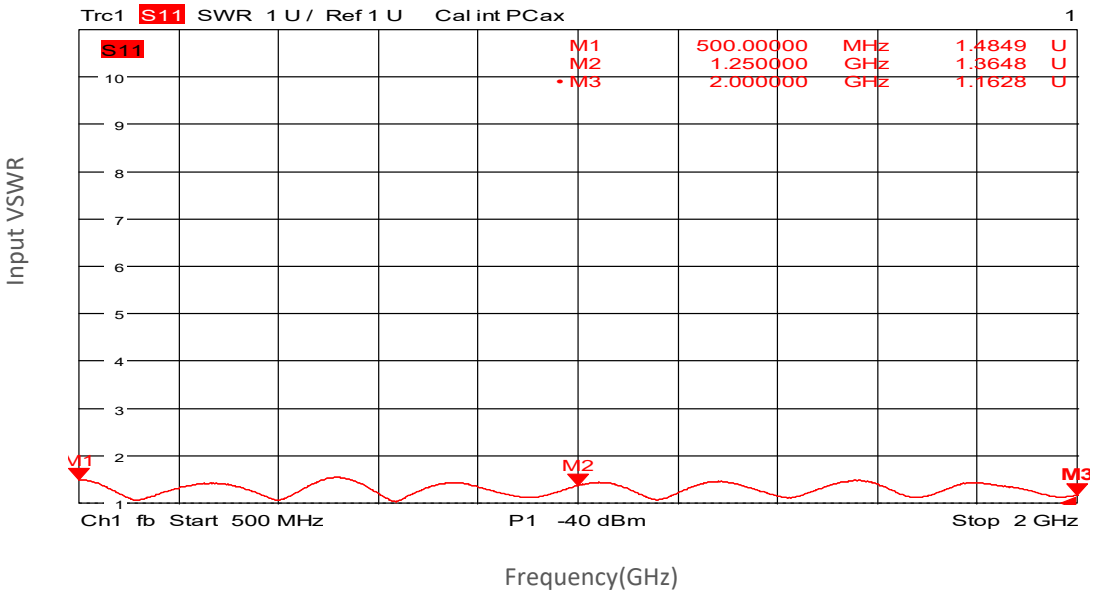
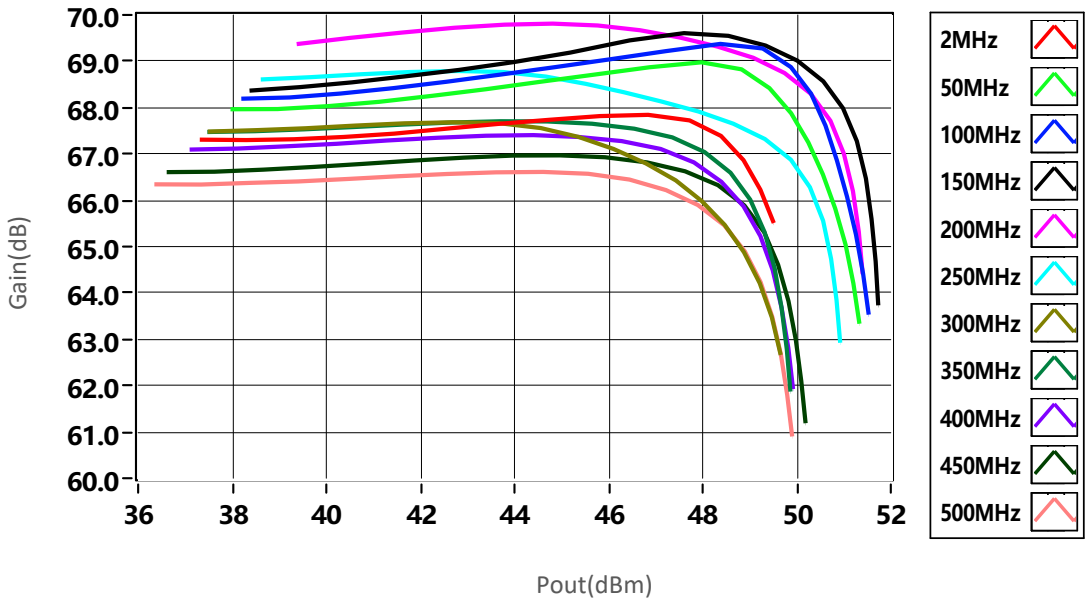


Gain vs Output Power



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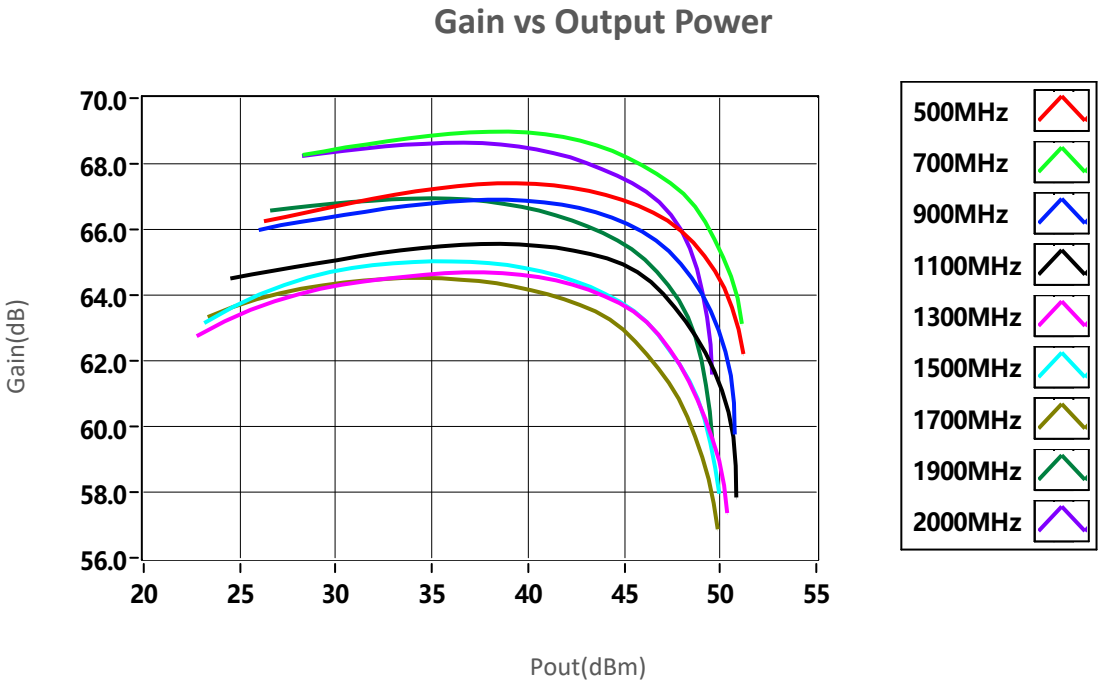

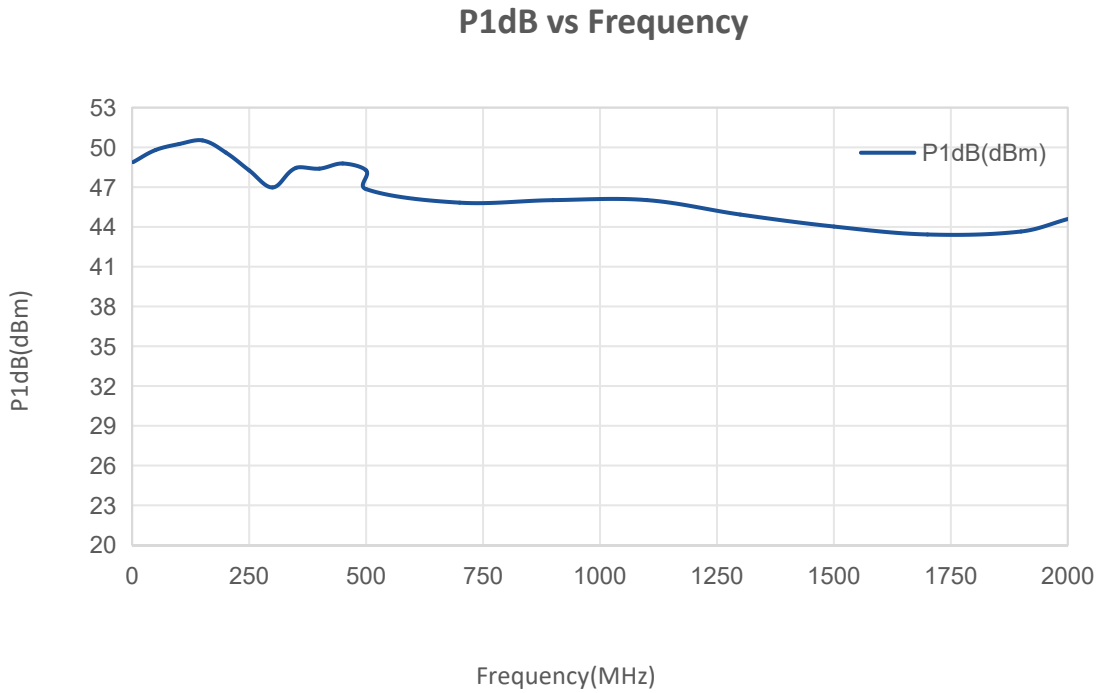

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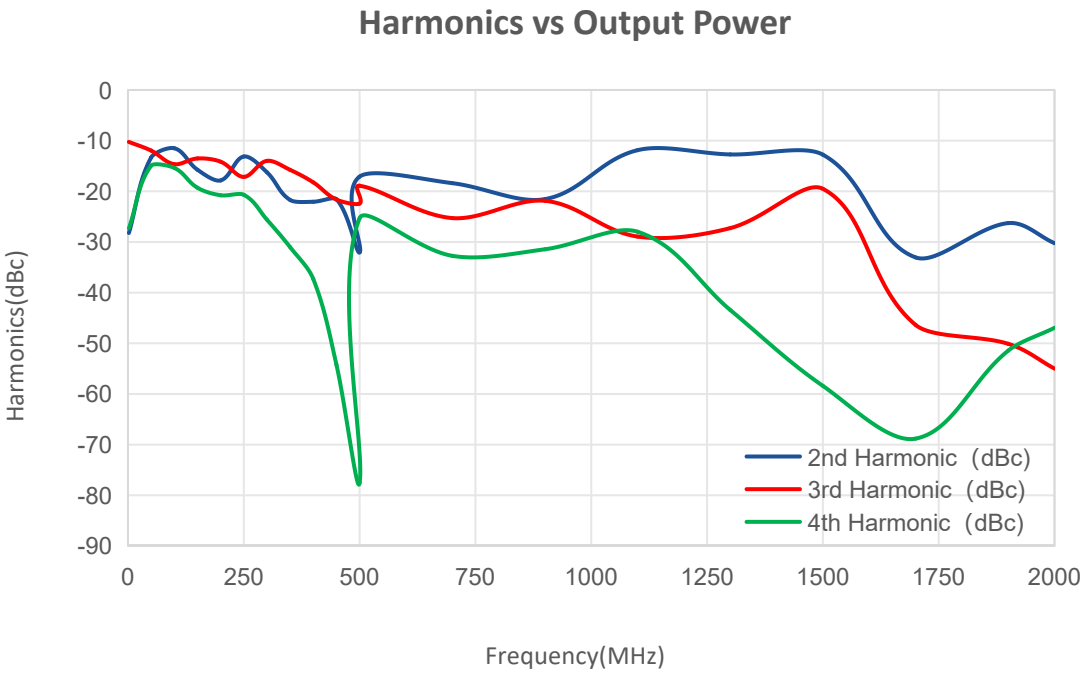

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