Power Amplifier

Model: PA-2G7-3G5-400

2.7-3.5GHz 400W CW

Ultrabroad frequency range, high performanceand exceptional RF characteristics

Features:

- Frequency range: 2.7-3.5GHz
- High output power at saturation, 400W Min.
- High gain,25 dB Typ.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview：

The PA-2G7-3G5-400 is a power amplifier with a typical small signal gain of 25 dB and a minimum Psat of 400W across the frequency range of 2.7 to 3.5 GHz. The DC power requirement for the amplifier is +28 VDC/50 A. The input port configuration offers coax adapter structure with SMA female and output port configuration offers coax adapter structure with N female.

Electrical Specifications at 25℃:

Parameter	Min	Typ	Max	Units
Frequency range	2.7		3.5	GHz
Small Signal Gain	20	25		dB
Gain Flatness		±1	±2	dB
Output P1dB		50		dBm
Output Psat	56	57		dBm
Harmonics @Pout=56dBm			20	dBc
Input VSWR		1.5	2.0	:1
DC Voltage	+26	+28	+30	V DC
DC Supply Current		50	70	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temerature*	-20℃ to +50℃	
Non-operating Temperature*	-30℃ to +60℃	
Relative humidity	95	%
RF Input/Output Connector	SMA Female/N Female	
DC Bias	Four core avionics	
Altitude	10,000	feet
Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth	
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions	
Dimensions W x H x D	366*358*141	mm
Weight	14	Kg

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

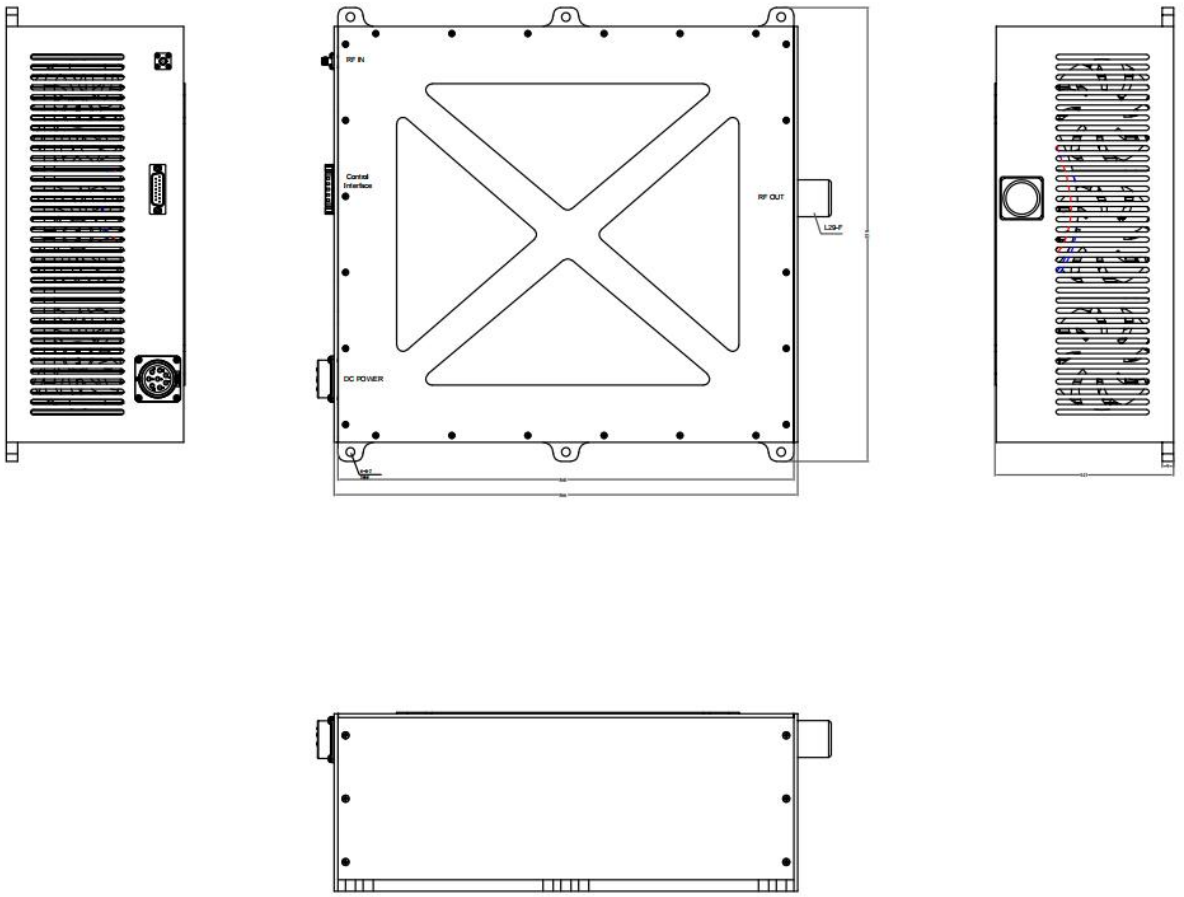
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+40 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

PA-2G7-3G5-400-HS



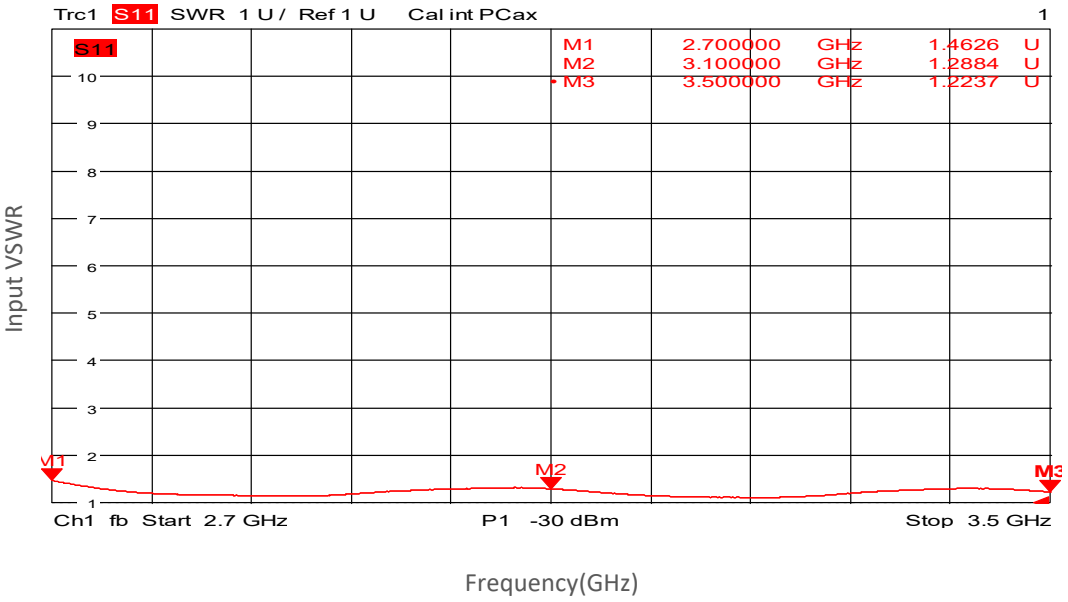
Ordering Information:

Base Number	Description	Optional
PA-2G7-3G5-400	Power Amplifier, 2.7-3.5GHz, Gain:25dB,Psat:400W,+28V DC	Without Heatsink
PA-2G7-3G5-400-HS	Power Amplifier, 2.7-3.5GHz, Gain:25dB,Psat:400W,+28V DC	With Heatsink

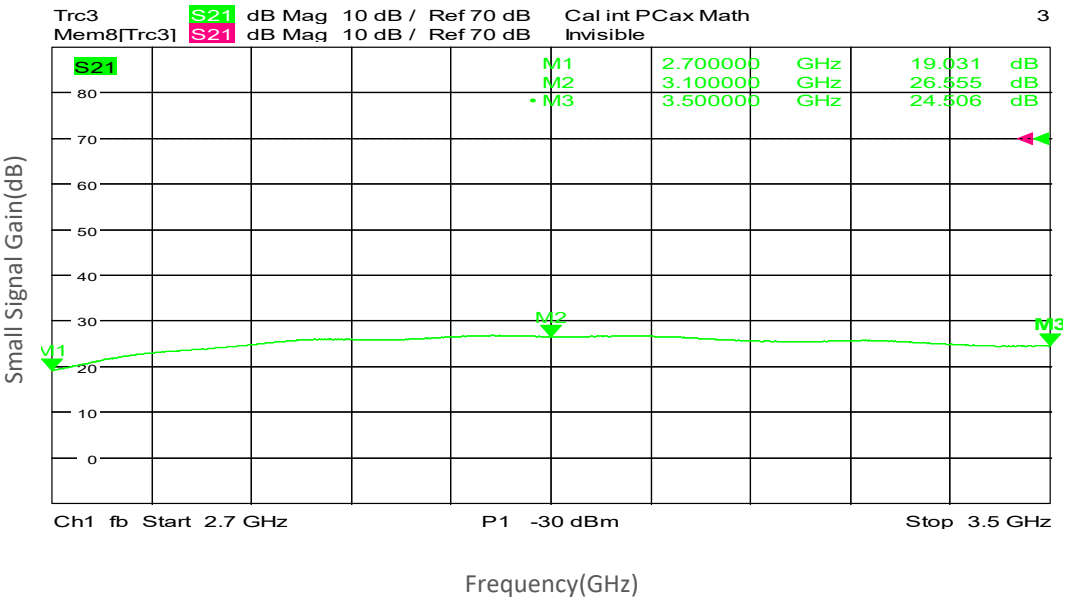
Typical Performance Data:

Test TEM=25℃:

Input VSWR vs Frequency



Small Signal Gain vs Frequency

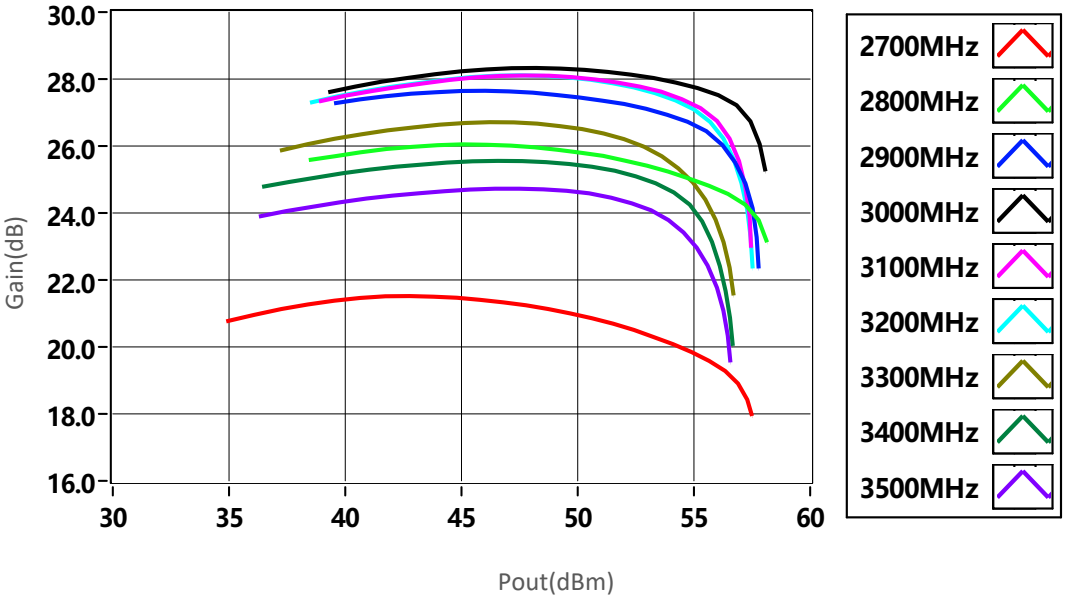


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

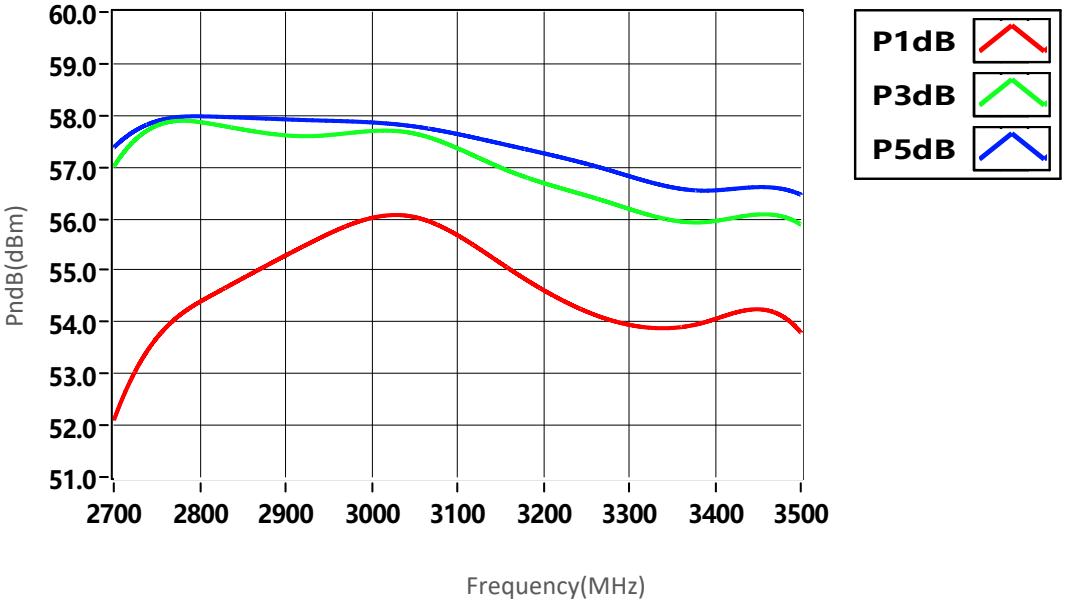
Typical Performance Data:

Test TEM=25℃:

Gain vs Output Power



PndB vs Frequency



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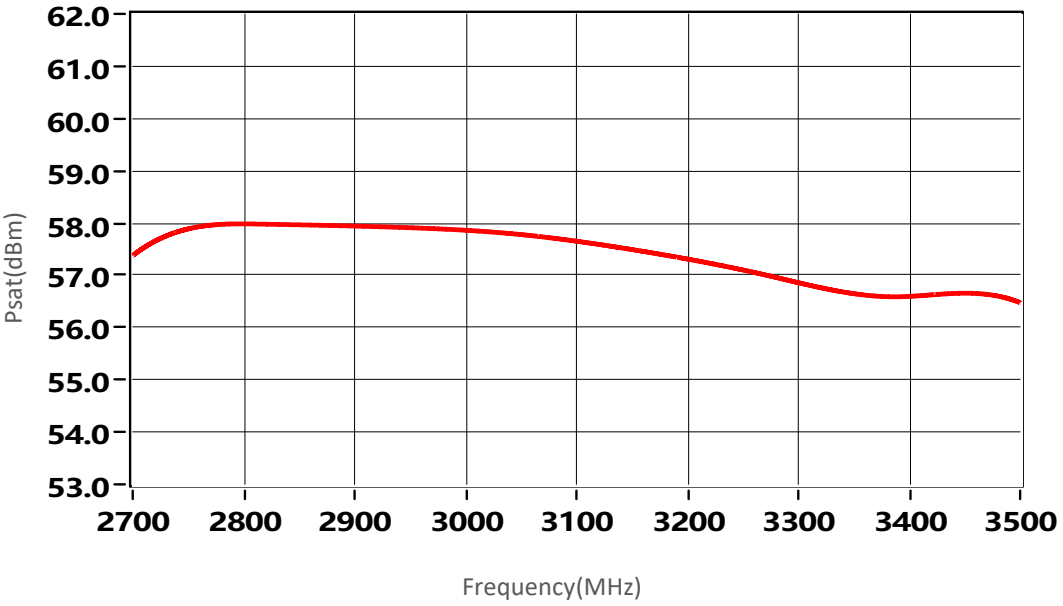
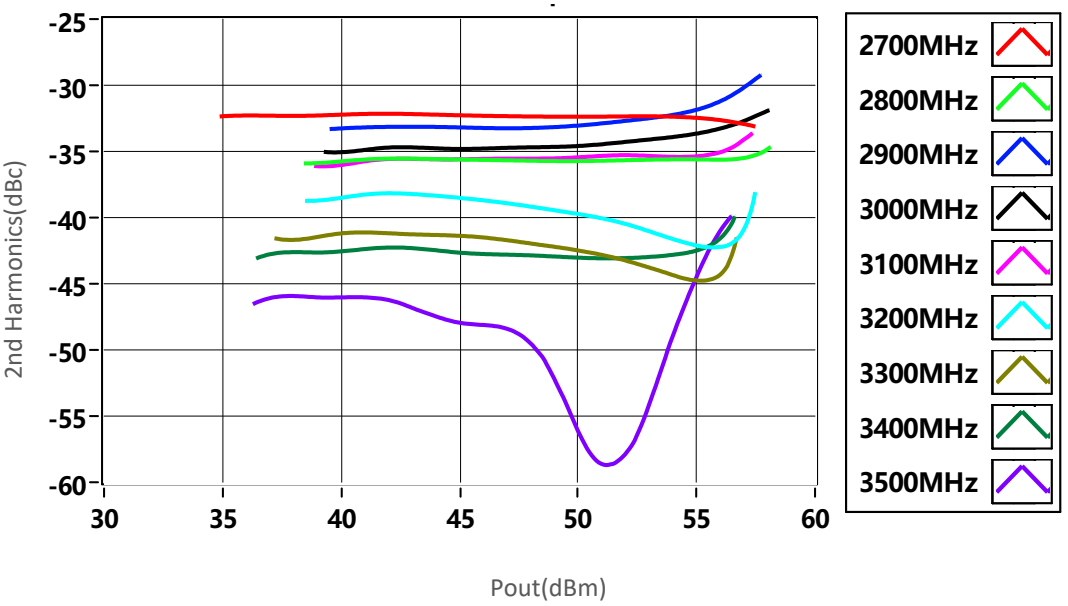
Typical Performance Data:

Test TEM=25℃:

Psat vs Frequency



2nd Harmonics vs Output Power



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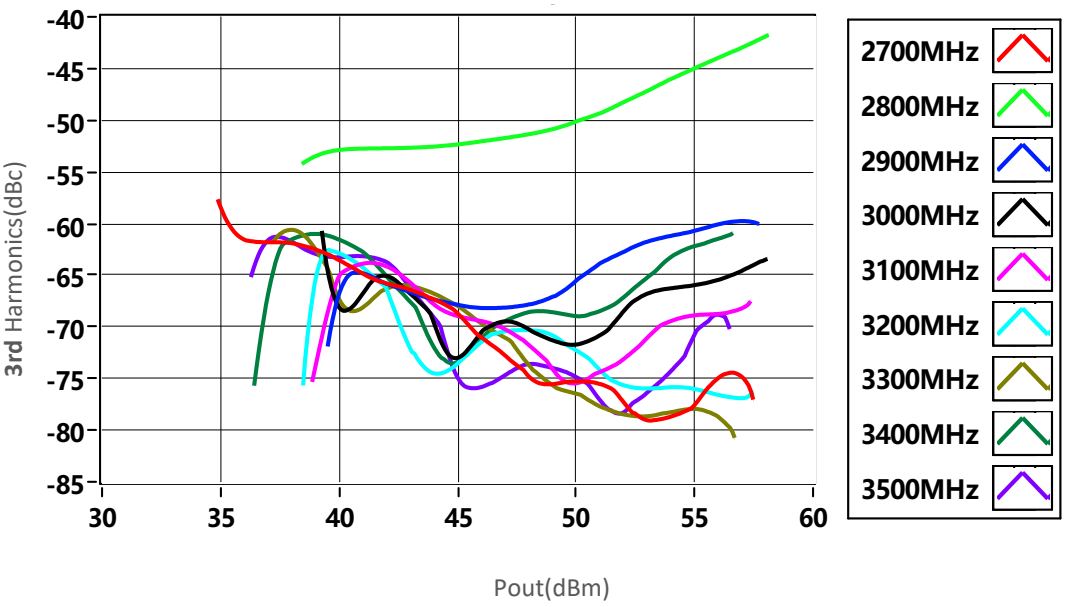
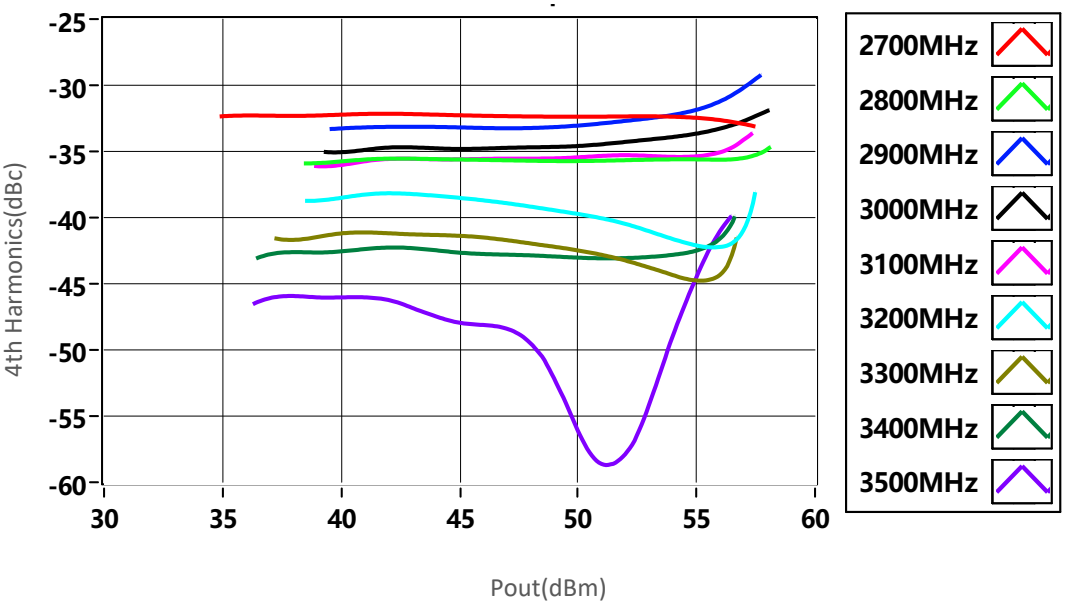
Typical Performance Data:

Test TEM=25℃:

3rd Harmonics vs Output Power



4th Harmonics vs Output Power



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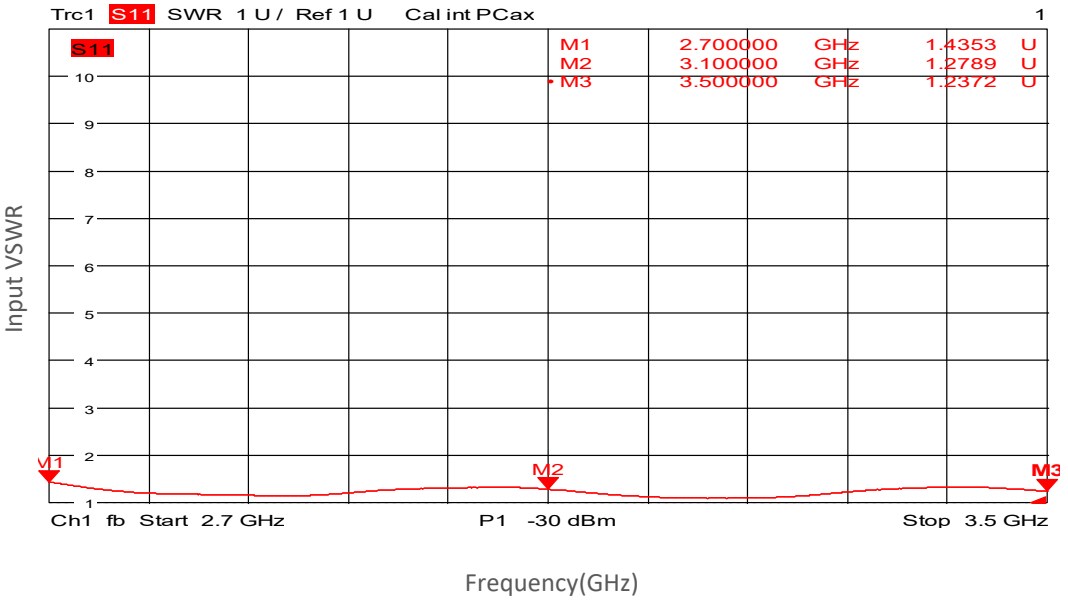
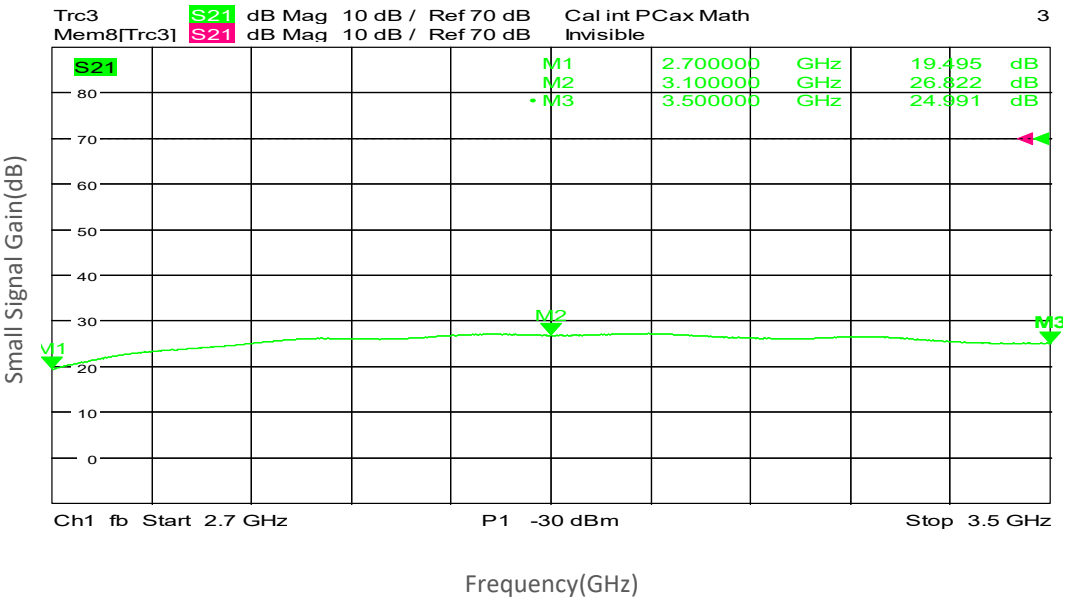
Typical Performance Data:

Test TEM=-20℃: Input VSWR vs Frequency



Small Signal Gain vs Frequency



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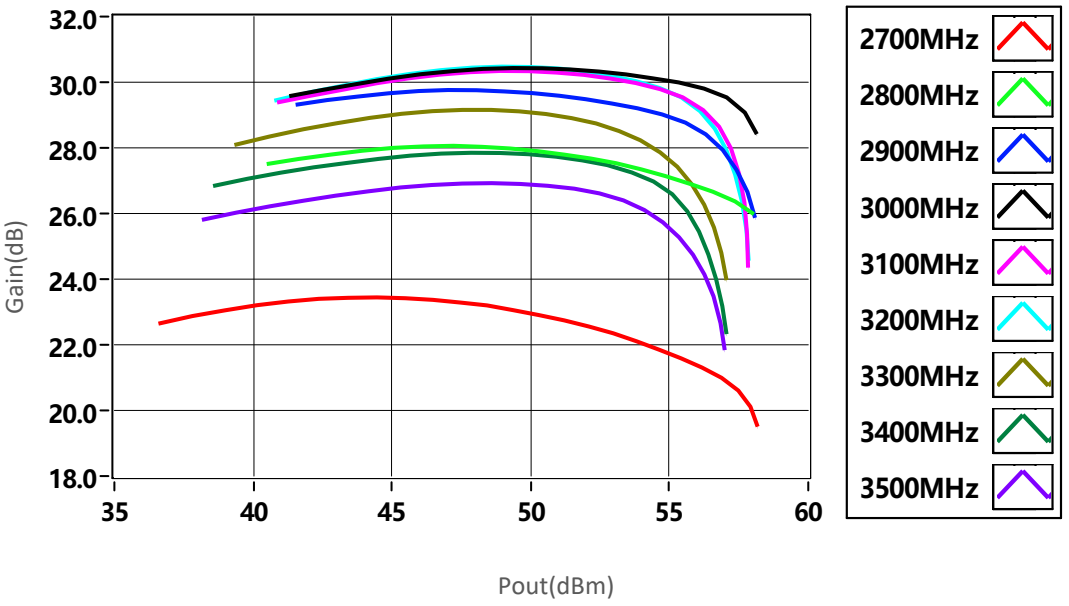
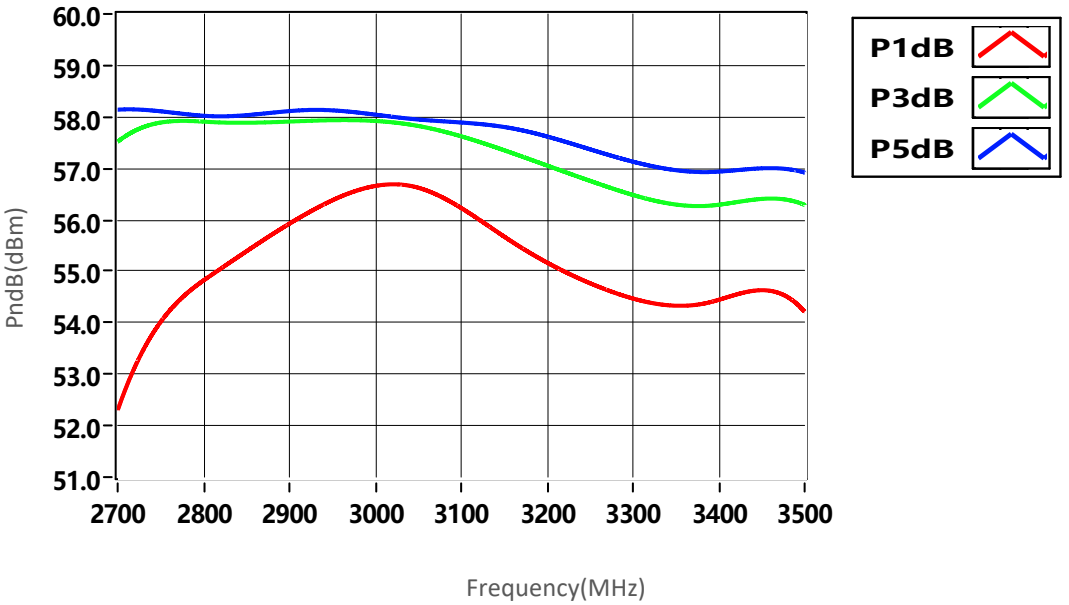
Typical Performance Data:

Test TEM=-20℃:

Gain vs Output Power



PndB vs Frequency



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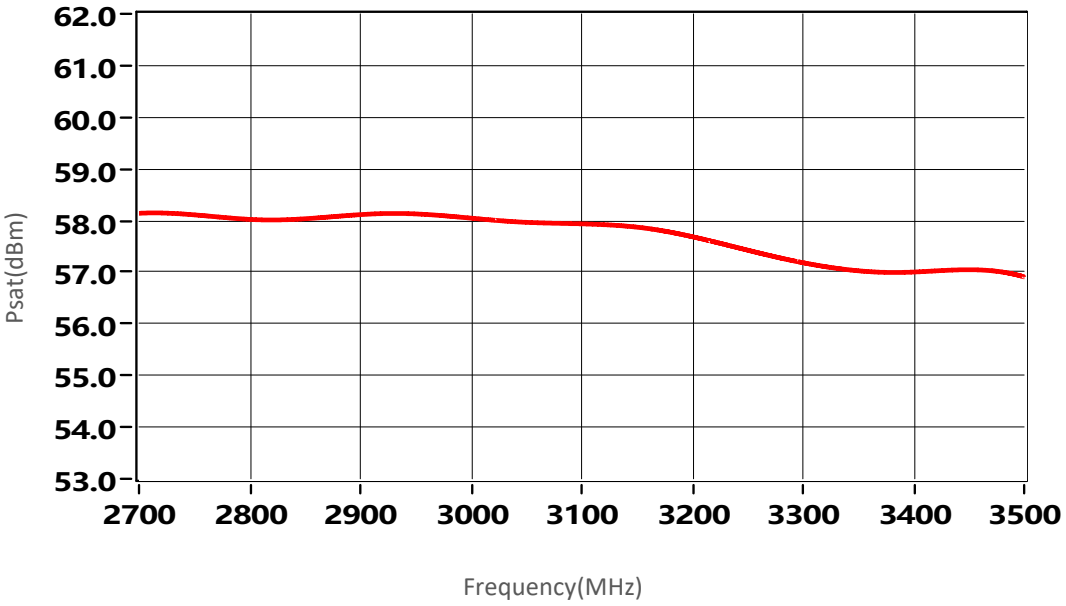
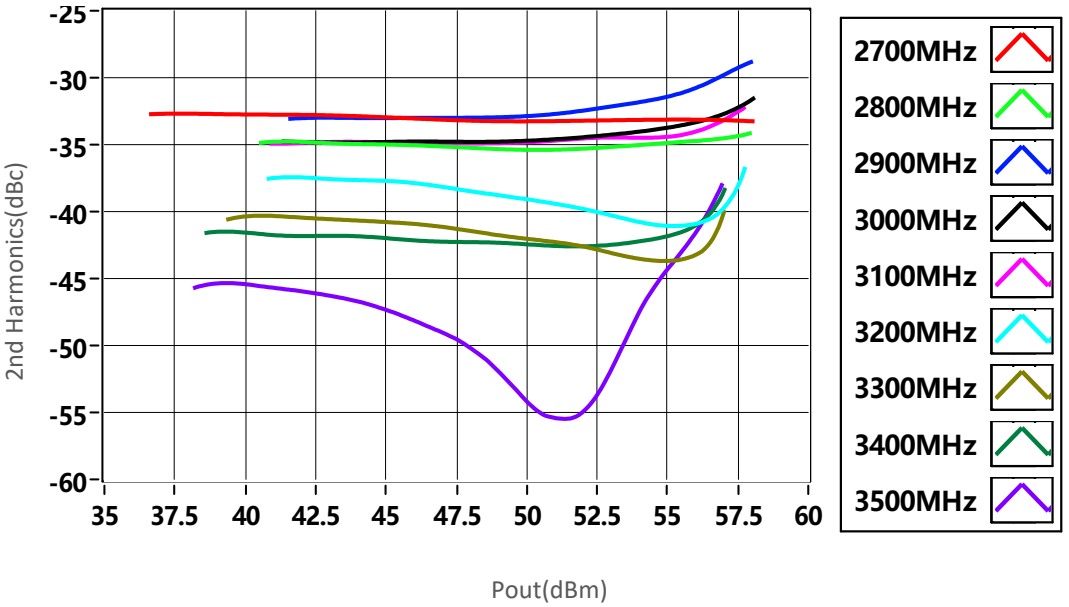
Typical Performance Data:

Test TEM=-20℃:

Psat vs Frequency



2nd Harmonics vs Output Power



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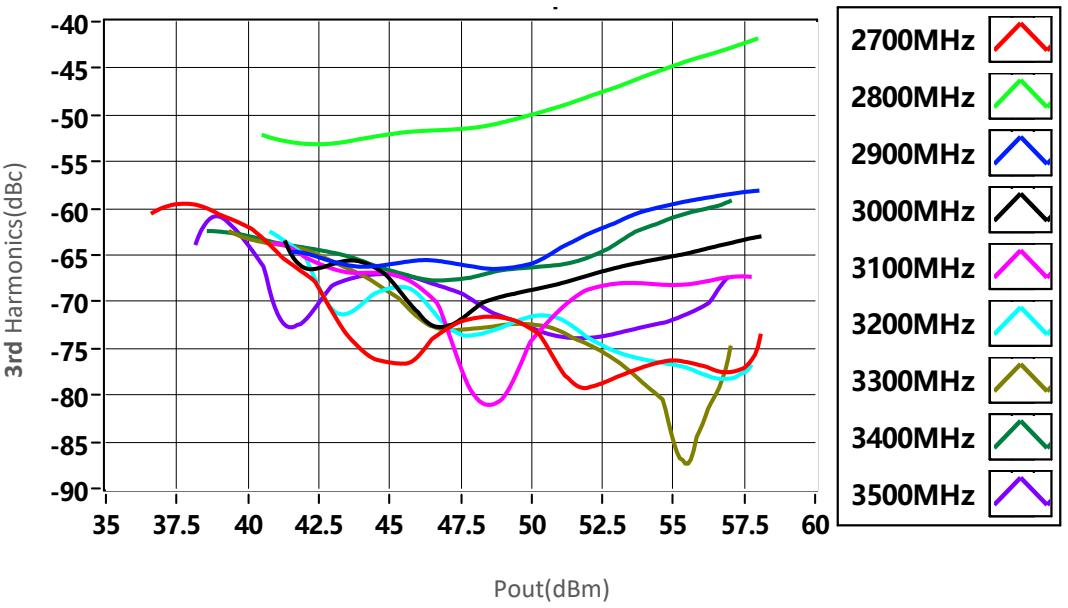
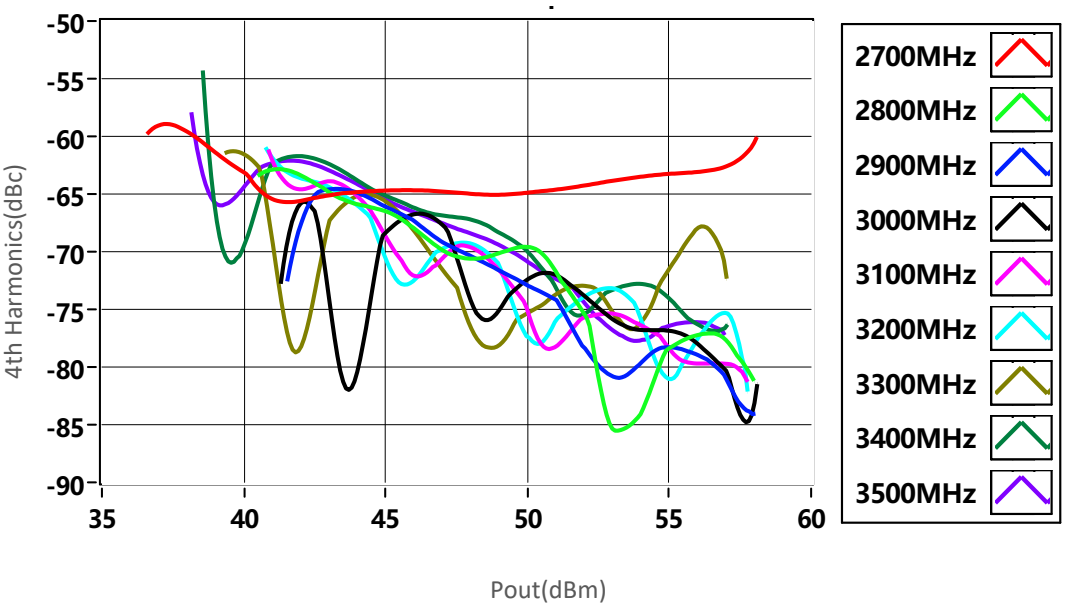
Typical Performance Data:

Test TEM=-20℃:

3rd Harmonics vs Output Power



4th Harmonics vs Output Power



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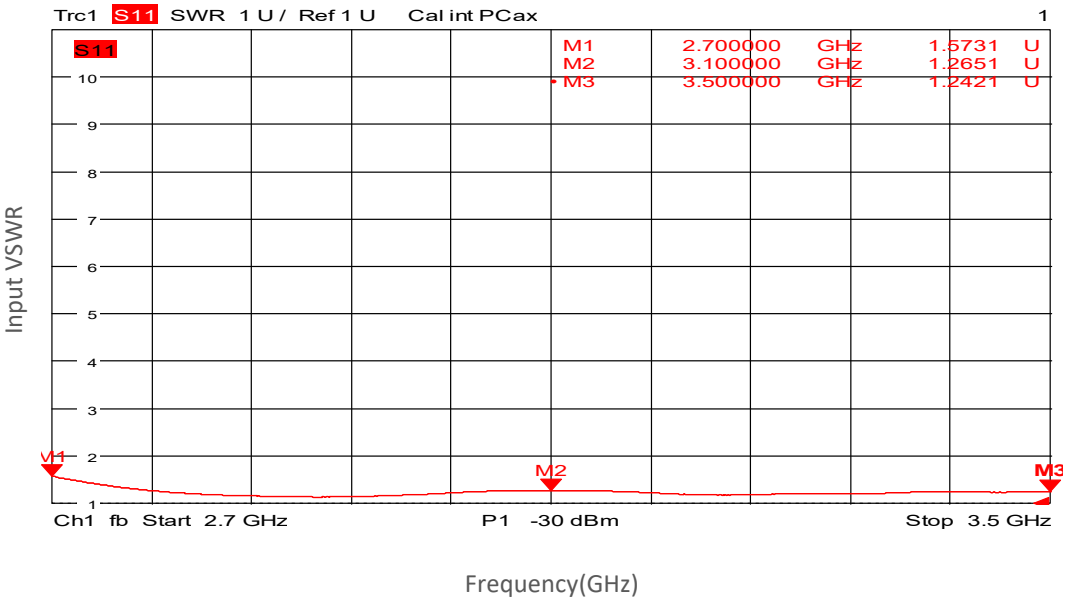
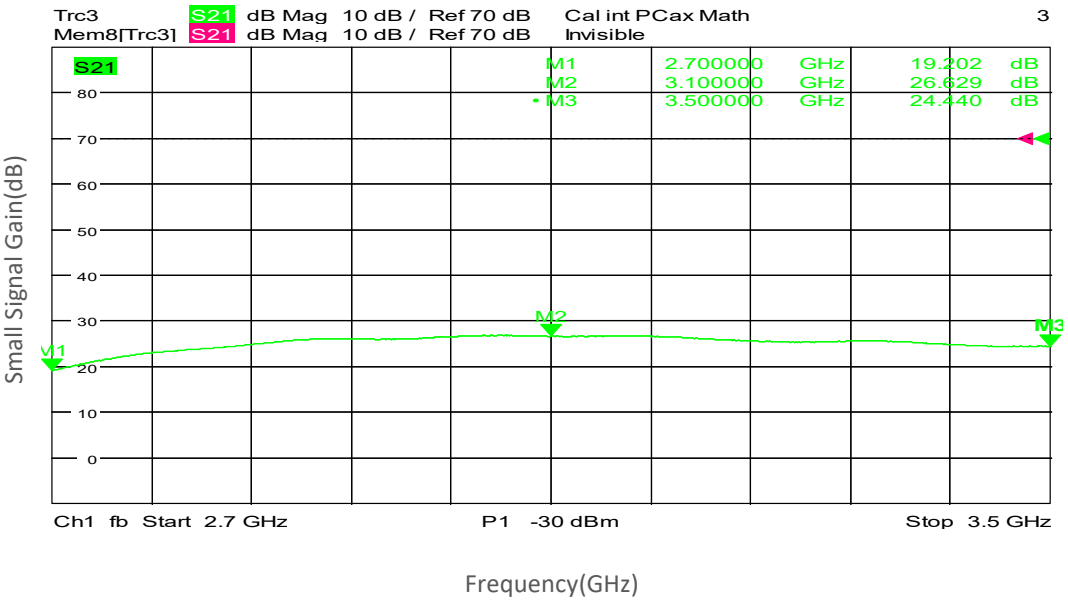
Typical Performance Data:

Test TEM=50℃:

Input VSWR vs Frequency



Small Signal Gain vs Frequency



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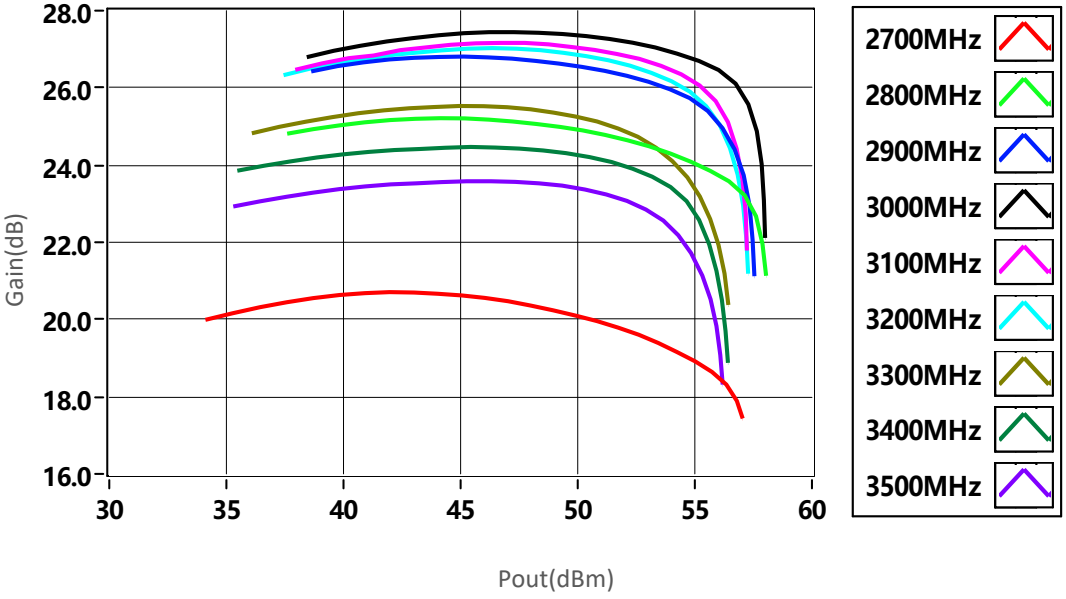
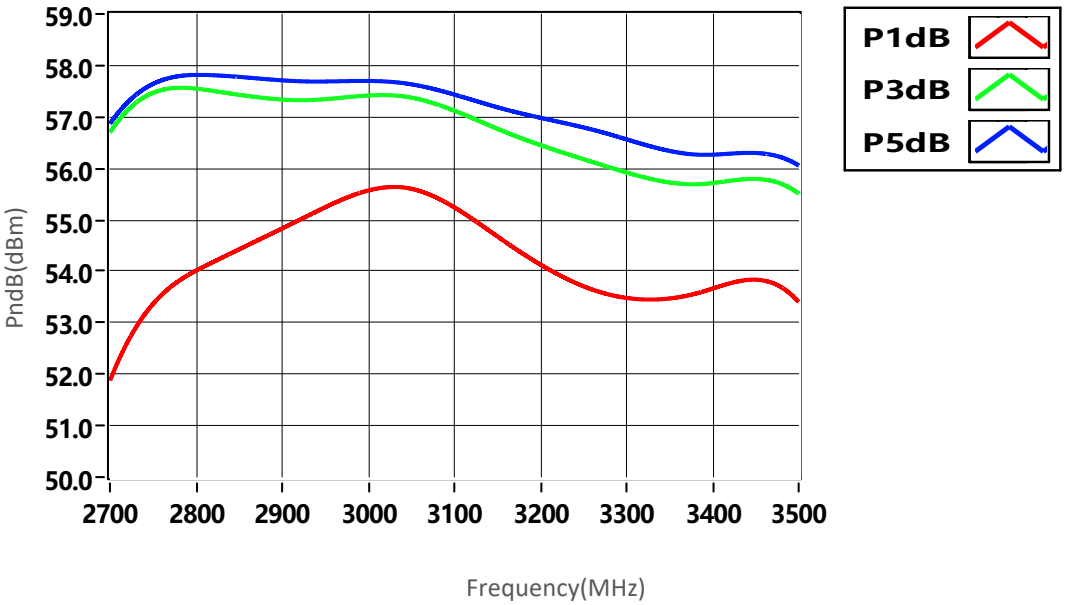
Typical Performance Data:

Test TEM=50℃:

Gain vs Output Power



PndB vs Frequency



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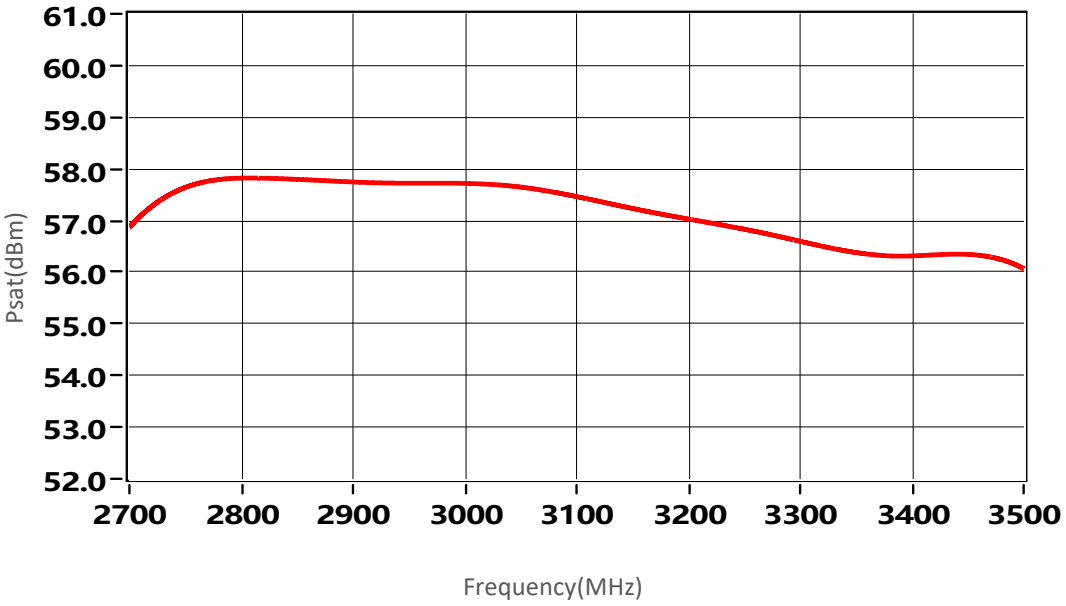
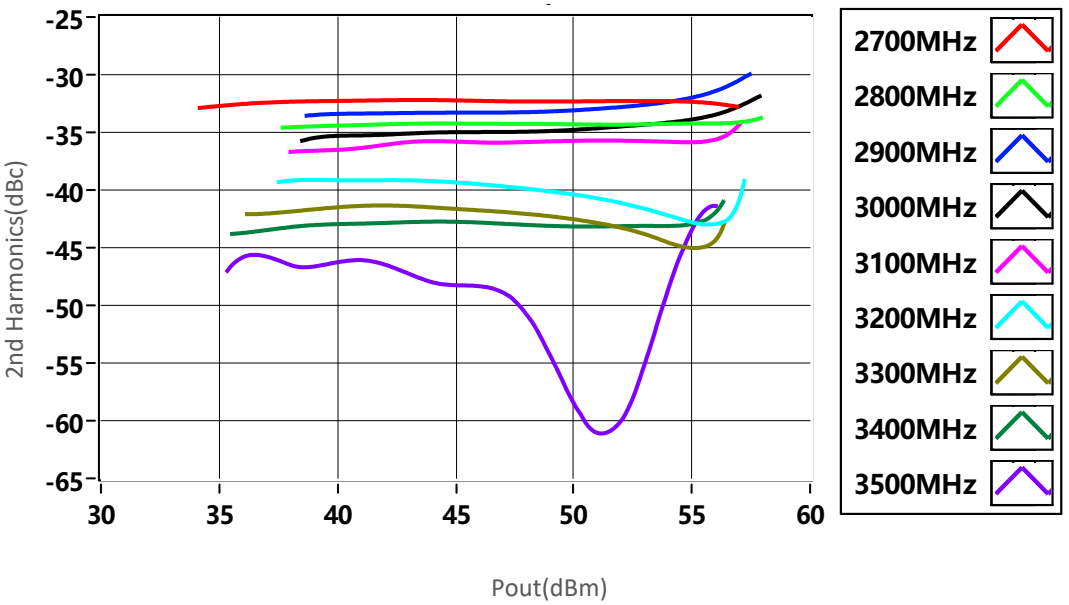
Typical Performance Data:

Test TEM=50℃:

Psat vs Frequency



2nd Harmonics vs Output Power



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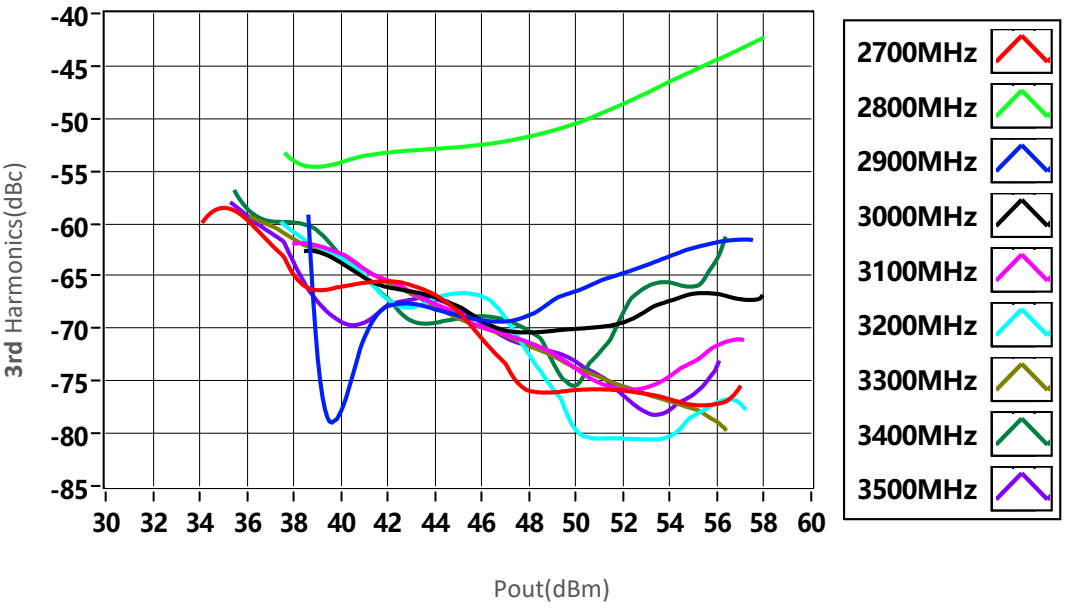
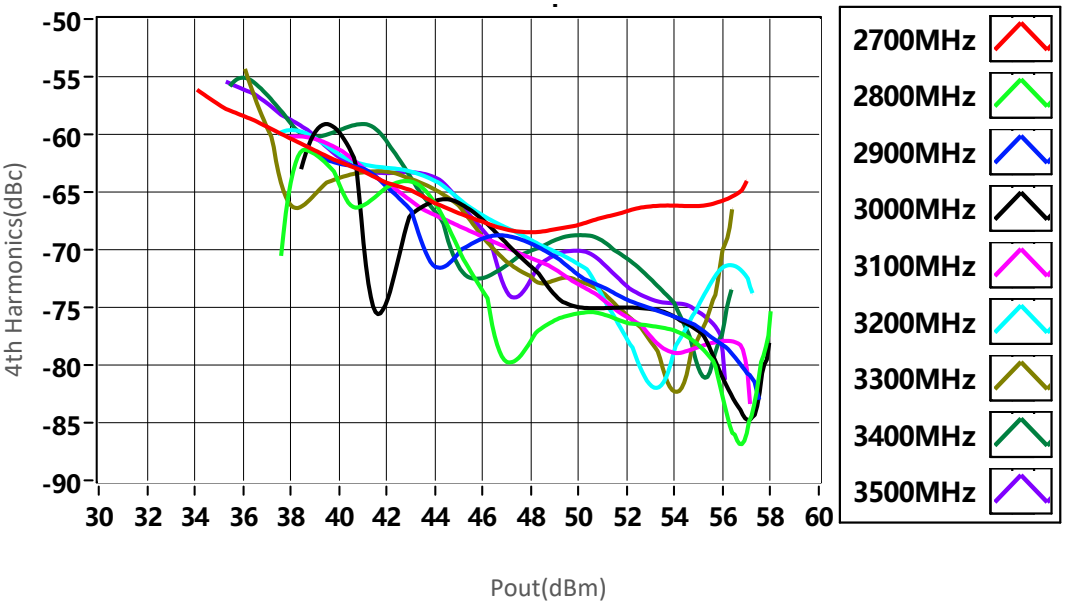
Typical Performance Data:

Test TEM=50℃:

3rd Harmonics vs Output Power



4th Harmonics vs Output Power



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