

Model:TLPA2.7G3.5G-25-56

Power Amplifier

2.7GHz-3.5GHz, Gain:25dB, Psat:56dBm

Feature:

- Wide Band: 2.7GHz-3.5GHz
- Gain: 25dB Typ
- Psat Output Power: 56 dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Electrical Specifications:

Parameter	Min	Typ	Max	Units
Frequency range	2.7-3.5			GHz
Power 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	Units
Input /Output Connector	SMA/N Female	
DC Bias	Four core avionics	
Size	366*358*141	mm
Weight	14	Kg

Absolute Maximum Ratings:

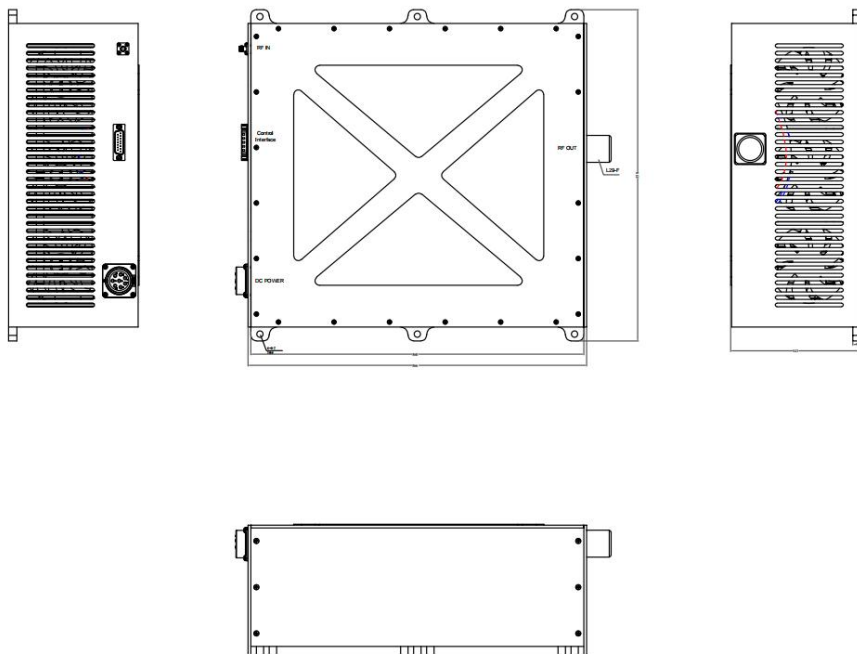
Parameter	Value
Supply Bias Voltage	30V
RF Input Power	40 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Available 220V System
Benchtop Amplifier

Outline Drawing:

Unit: mm



*****Heat Sink Required During Operation**



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+50	°C
Non-operating Temperature*	-30		+60	°C
Relative humidity		95		%
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			

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

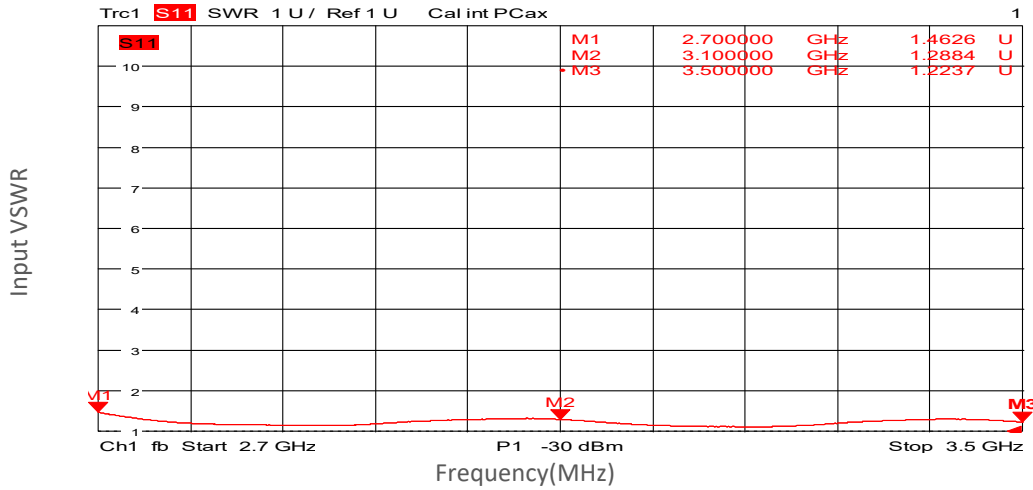
Ordering Information:

Part Number	Description	Revision
TLPA2.7G3.5G-25-56	Power amplifier 2.7GHz-3.5GHz,Gain:25dB,Psat:56dBm,28V DC, Without Heatsink	Rev.1.0
TLPA2.7G3.5G-25-56-HS	Power amplifier 2.7GHz-3.5GHz,Gain:25dB,Psat:56dBm,28V DC, With Heatsink	Rev.1.0

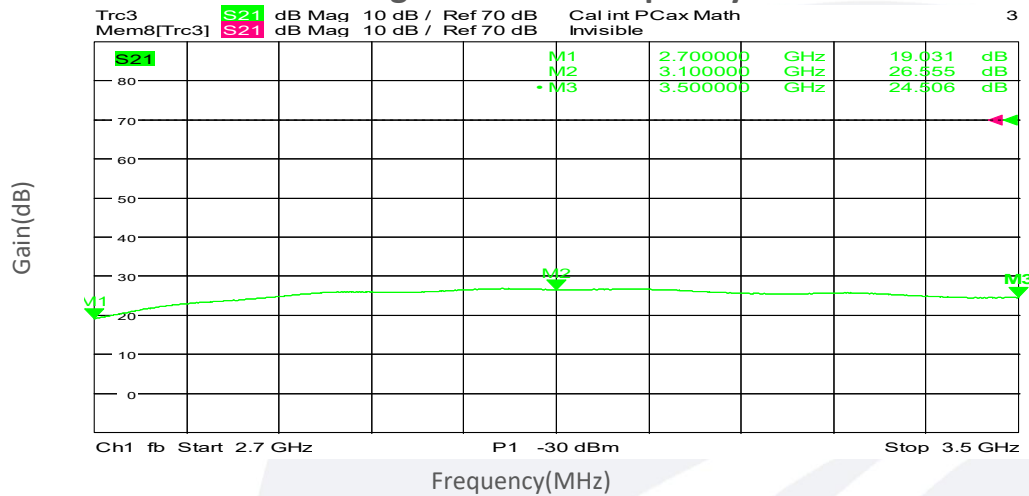
Typical Performance Data:

Test TEM=25°C:

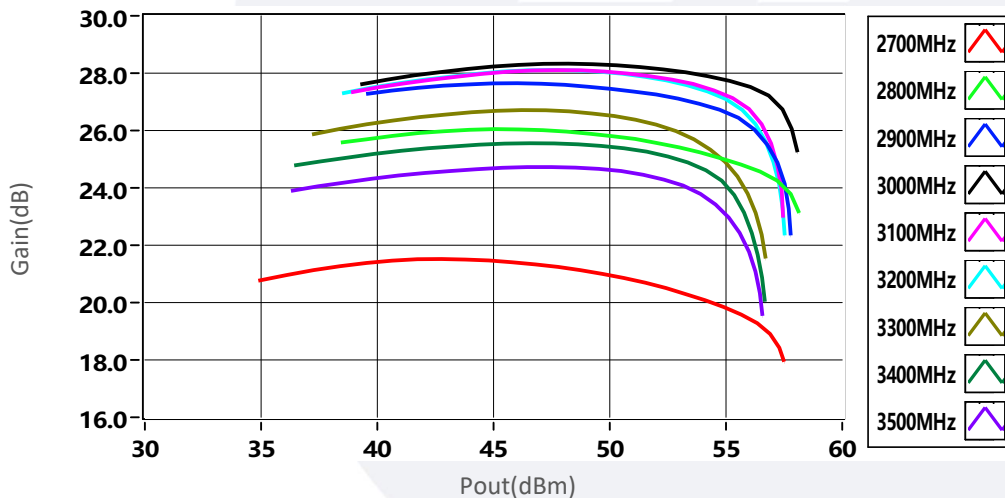
Input VSWR vs Frequency



Small Signal Gain vs Frequency



Gain vs Output Power

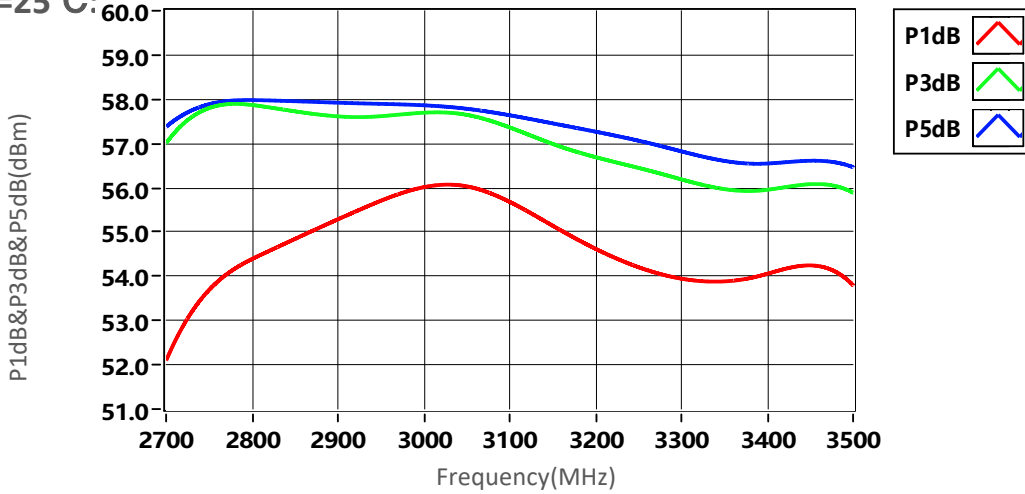


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

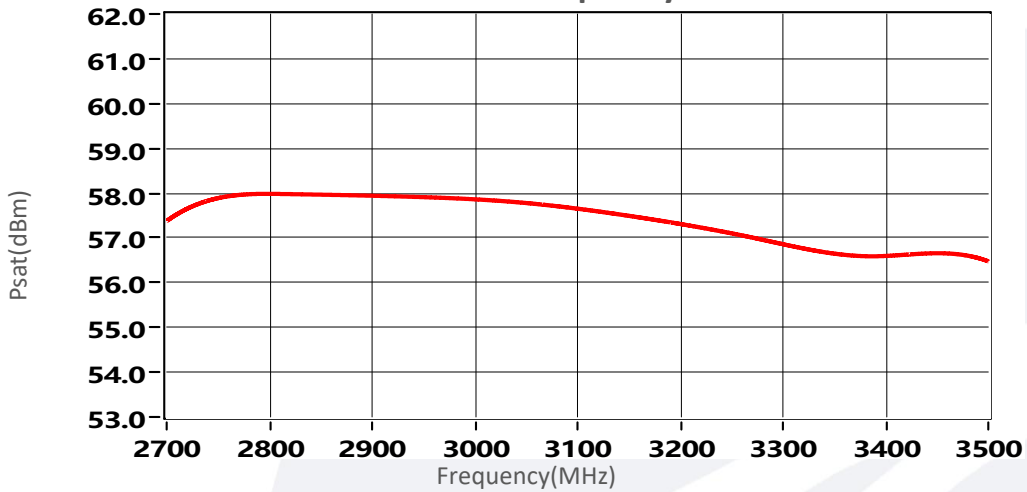
Typical Performance Data:

P1dB&P3dB&P5dB vs Frequency

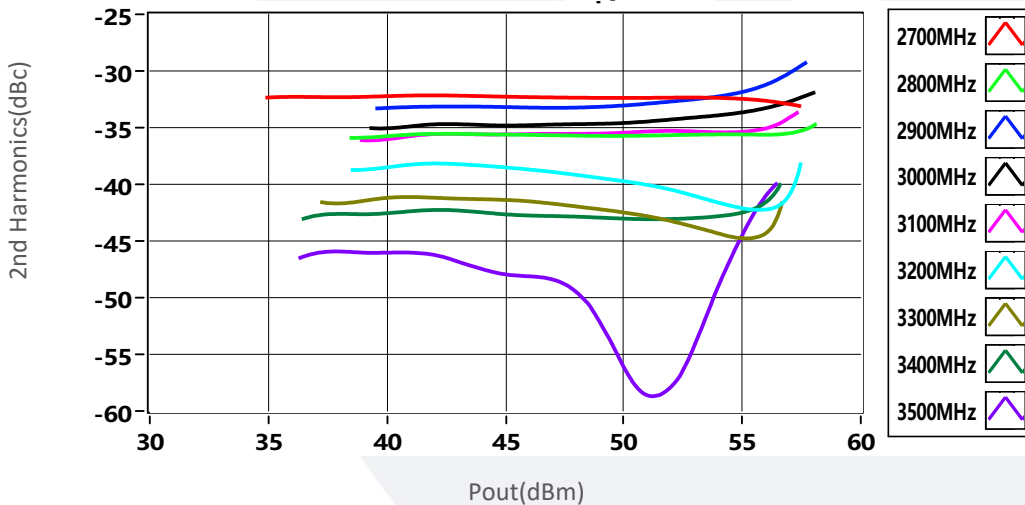
Test TEM=25°C:



Psat vs Frequency



2nd Harmonics vs Output Power

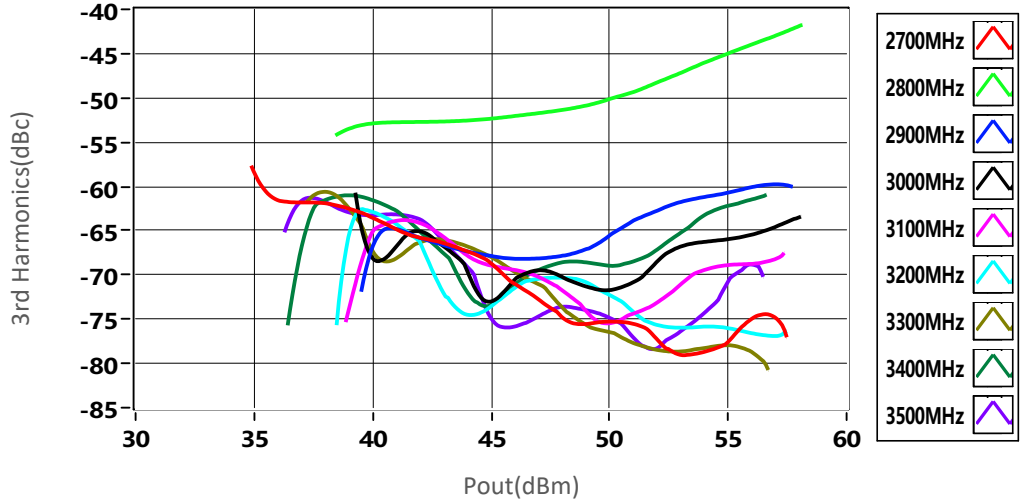


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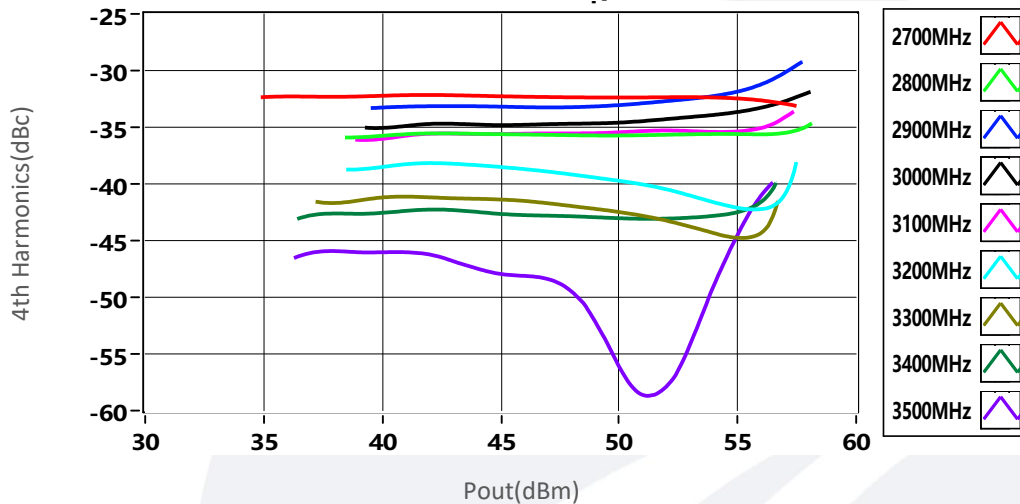
Typical Performance Data:

Test TEM=25°C:

3rd Harmonics vs Output Power

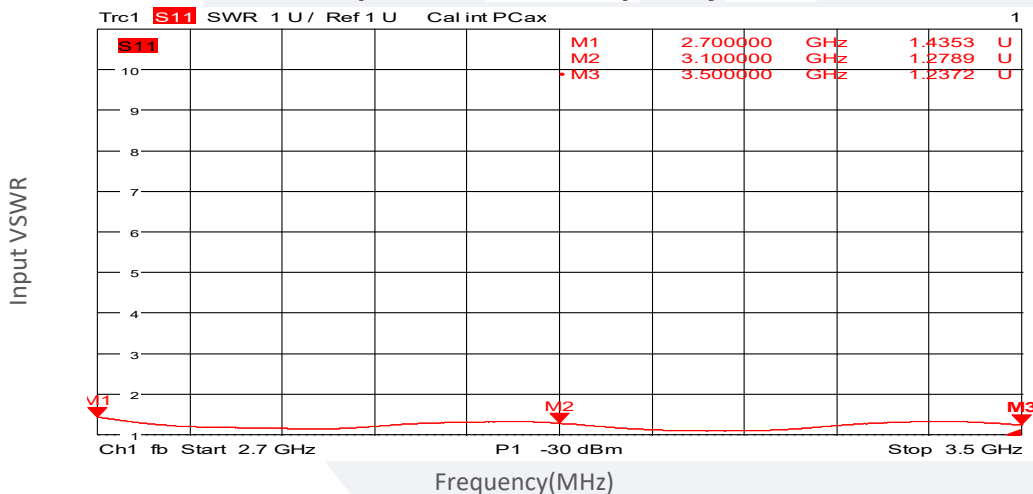


4th Harmonics vs Output Power



Test TEM=-20°C:

Input VSWR vs Frequency

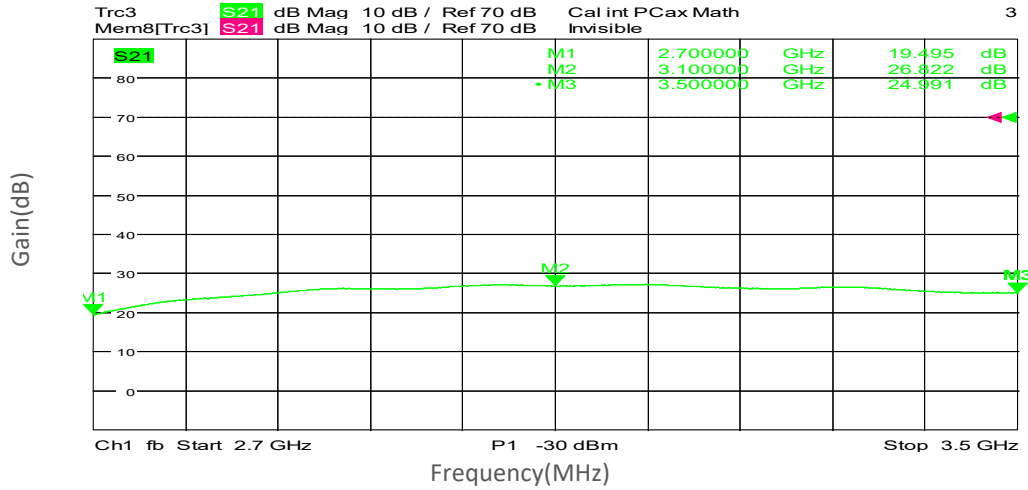


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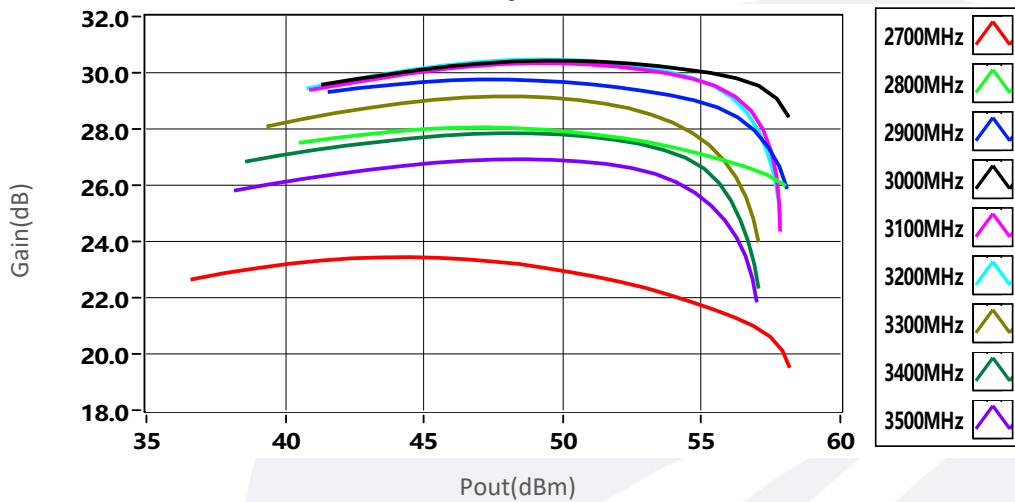
Typical Performance Data:

Test TEM=-20°C:

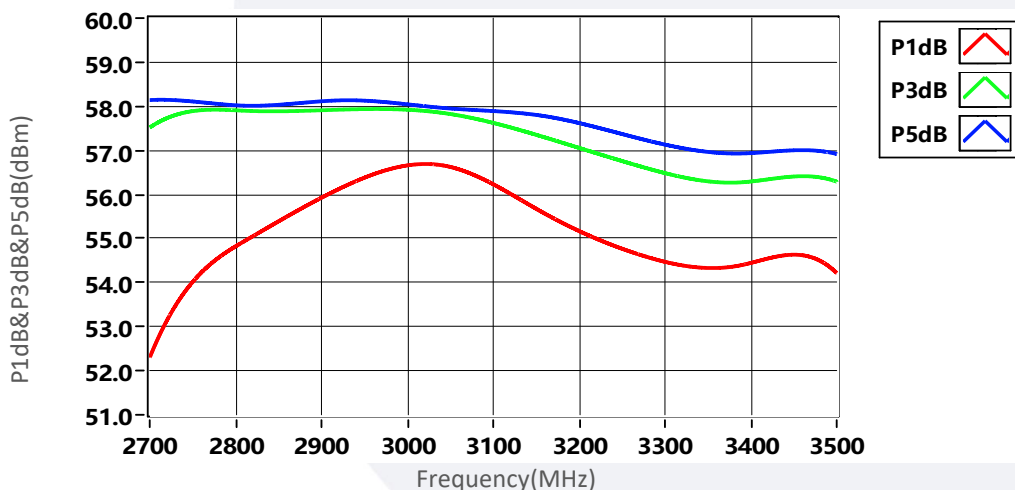
Small Signal Gain vs Frequency



Gain vs Output Power



P1dB&P3dB&P5dB vs Frequency

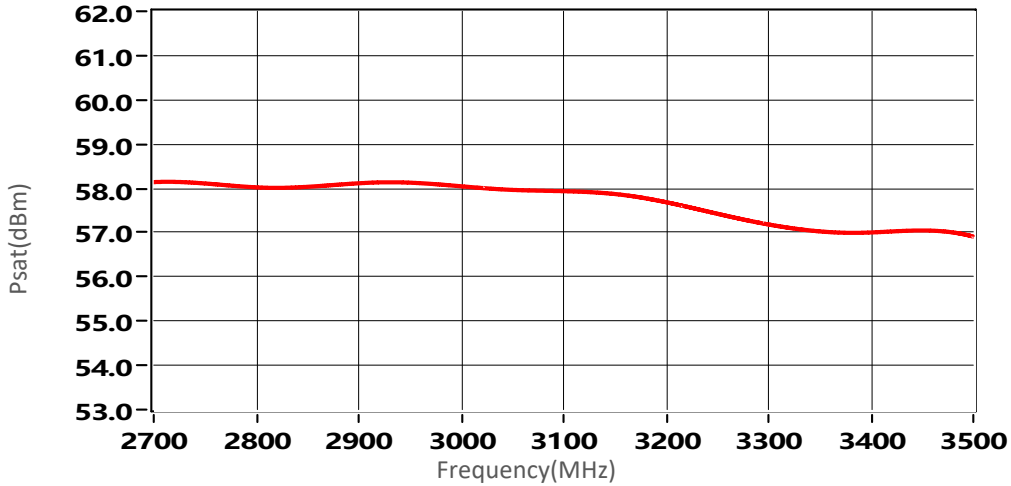


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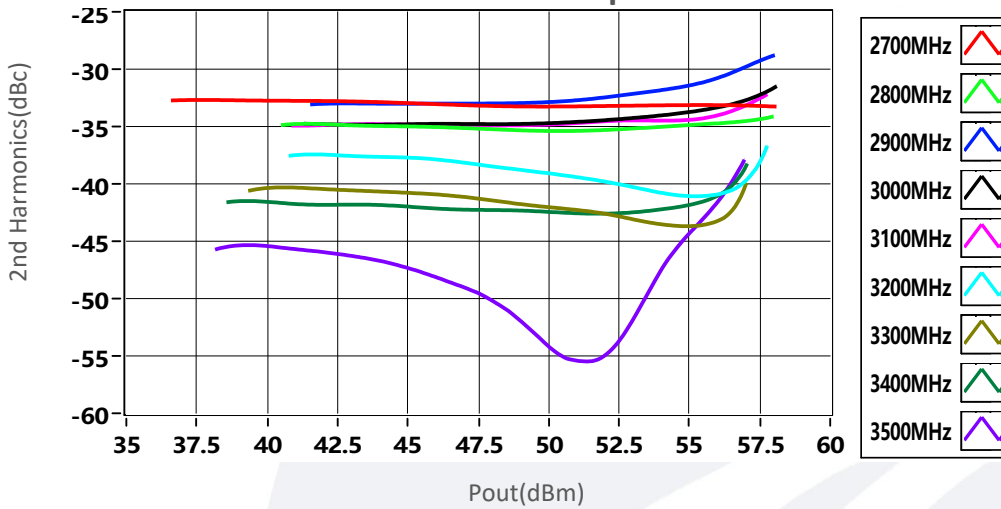
Typical Performance Data:

Test TEM=-20°C:

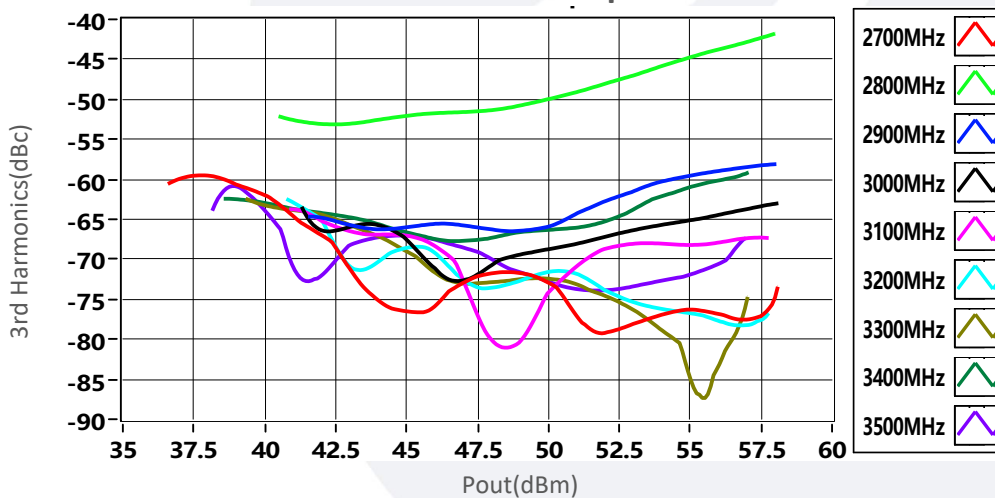
Psat vs Frequency



2nd Harmonics vs Output Power



3rd Harmonics vs Output Power

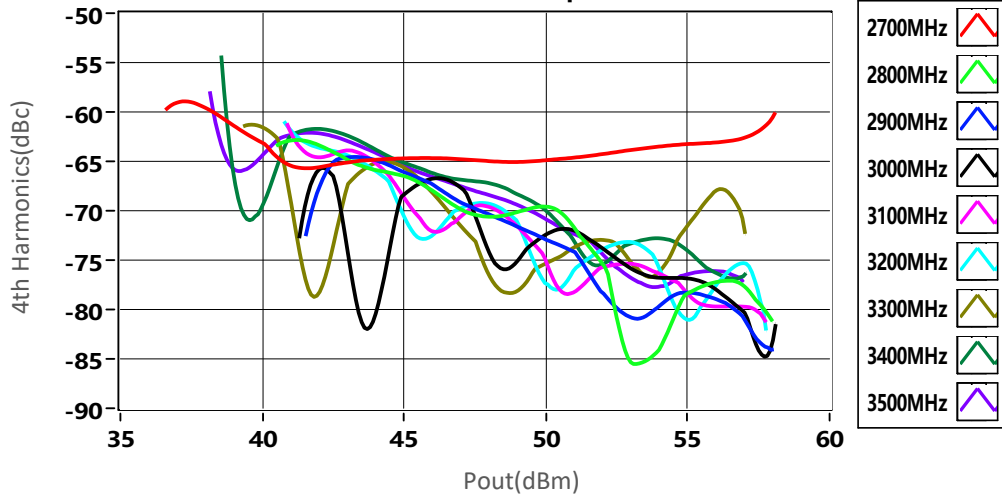


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Typical Performance Data:

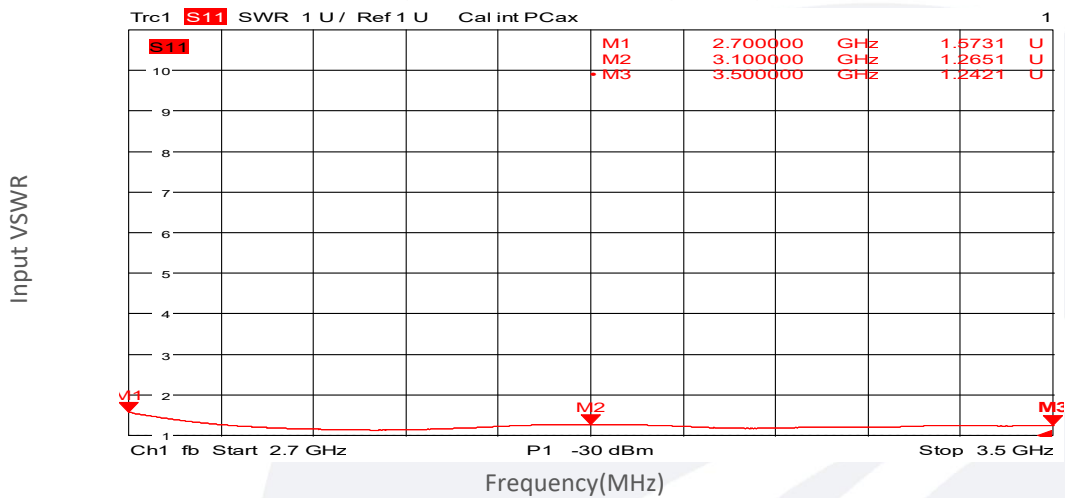
Test TEM=-20°C:

4th Harmonics vs Output Power

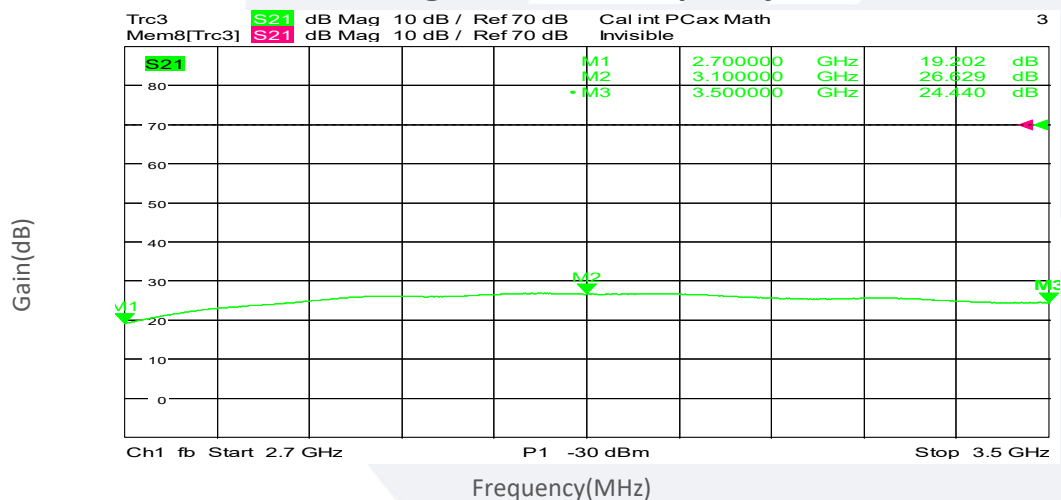


Test TEM=50°C:

Input VSWR vs Frequency



Small Signal Gain vs Frequency

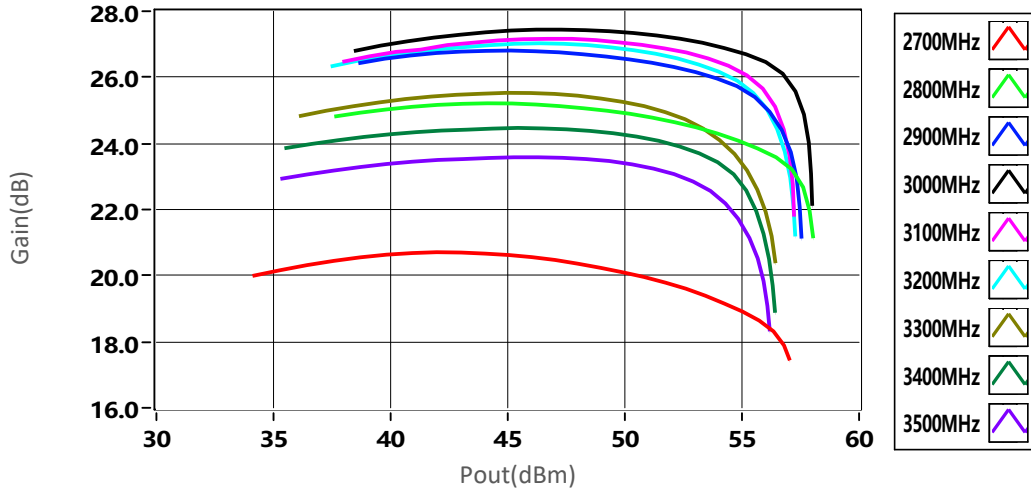


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

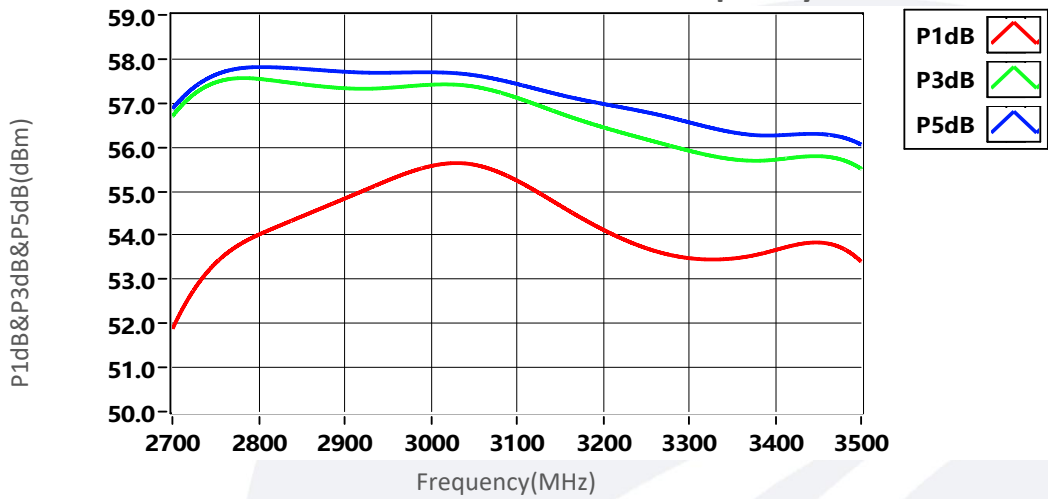
Typical Performance Data:

Test TEM=50°C:

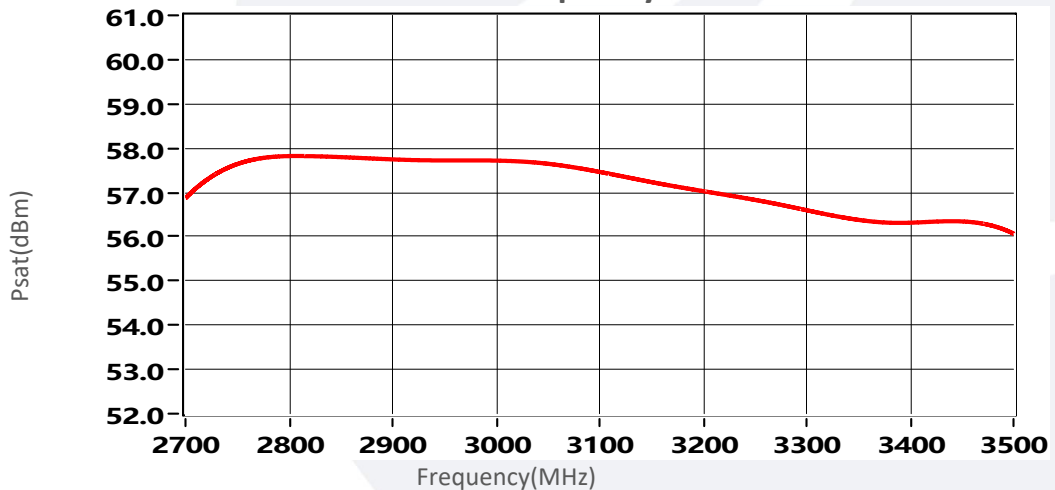
Gain vs Output Power



P1dB&P3dB&P5dB vs Frequency



Psat vs Frequency

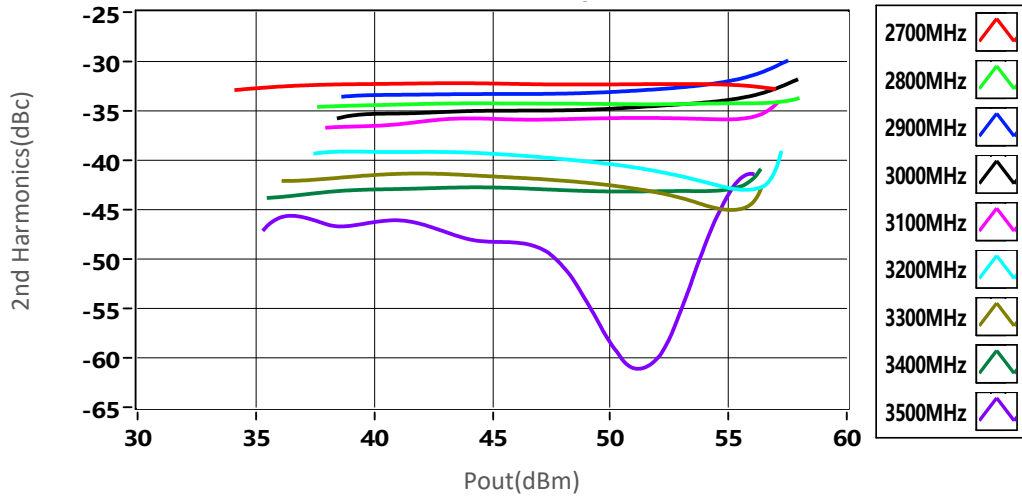


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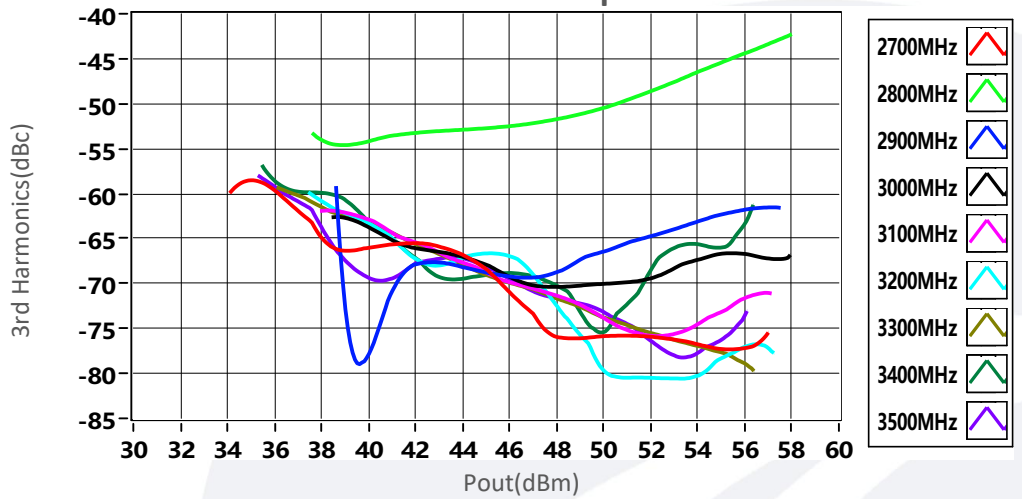
Typical Performance Data:

Test TEM=50°C:

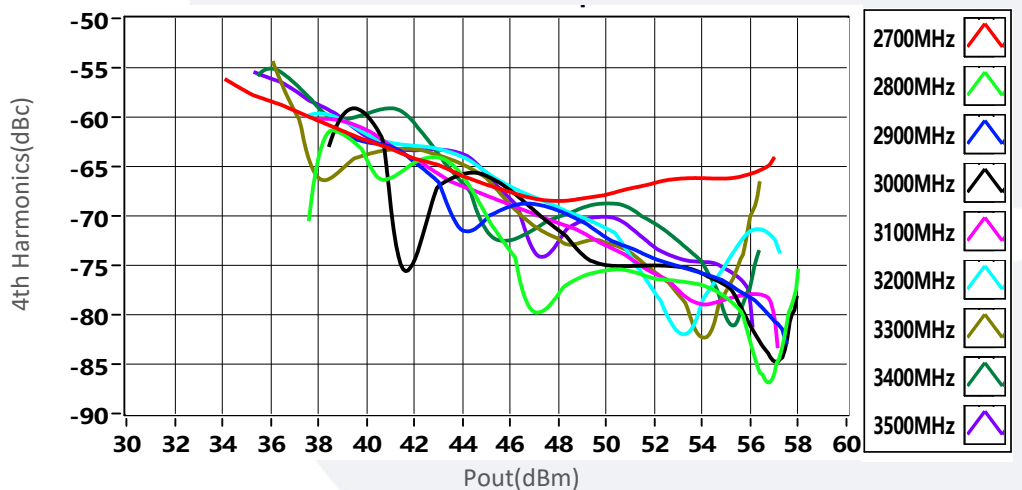
2nd Harmonics vs Output Power



3rd Harmonics vs Output Power



4th Harmonics vs Output Power



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