SALUKI TECHNOLOGY

P/N:SLNA300011800A

Ultra Wide Band Low Noise Amplifier 0.01GHz-18GHz

Features

- Gain: 31dB Typical
- Noise Figure: 2.5dB Typical
- P1dB Output Power: +26dBm Typical
- Supply Voltage: +12V @ 320 mA
- 50 Ohm Matched Input / Output

RoHS COMPLIANT

ESD

Typical Applications

- Wireless Infrastructure
- 5G communication
- Test and measurement Instrument

RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range		0.01 - 10			10 - 18		GHz
Gain	27	31		25	27		dB
Gain Flatness		±2.0			±2.0		dB
Gain Variation Over Temperature (-40ºC to +85ºC)		±1.0			±1.0		dB
Noise Figure		2.5	5.5		3.0	4.0	dB
Input VSWR		2.0			1.4	1.8	:1
Output VSWR		2.0			1.8	2.1	:1
Output 1dB Compression Point (P1dB)	24	26		20	22		dBm
Saturated Output Power (Psat)		27			24		dBm
Output Third Order Intercept (OIP3)		35			28		dBm
Supply Current (Vcc=+12V)		320	400		320	400	mA
Isolation S12		-65			-60		dB

Weight	1.5 Max. ounces(Net) 3.5 Max. ounces(Including Heat sink)	Impedance	50ohms
Input /Output Connectors	SMA-Female	Material	Aluminum
Finish	Gold Plated	Package Sealing	Epoxy Sealed (Standard) Hermetically Sealed (Option with extra charge)

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Absolute Maximum Ratings

Operating Voltage	+15V
RF Input Power (RFIN)	+3dB m

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +12V biasing

Power OFF Procedure

Step 1	Turn off +12V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

Environmental Specifications

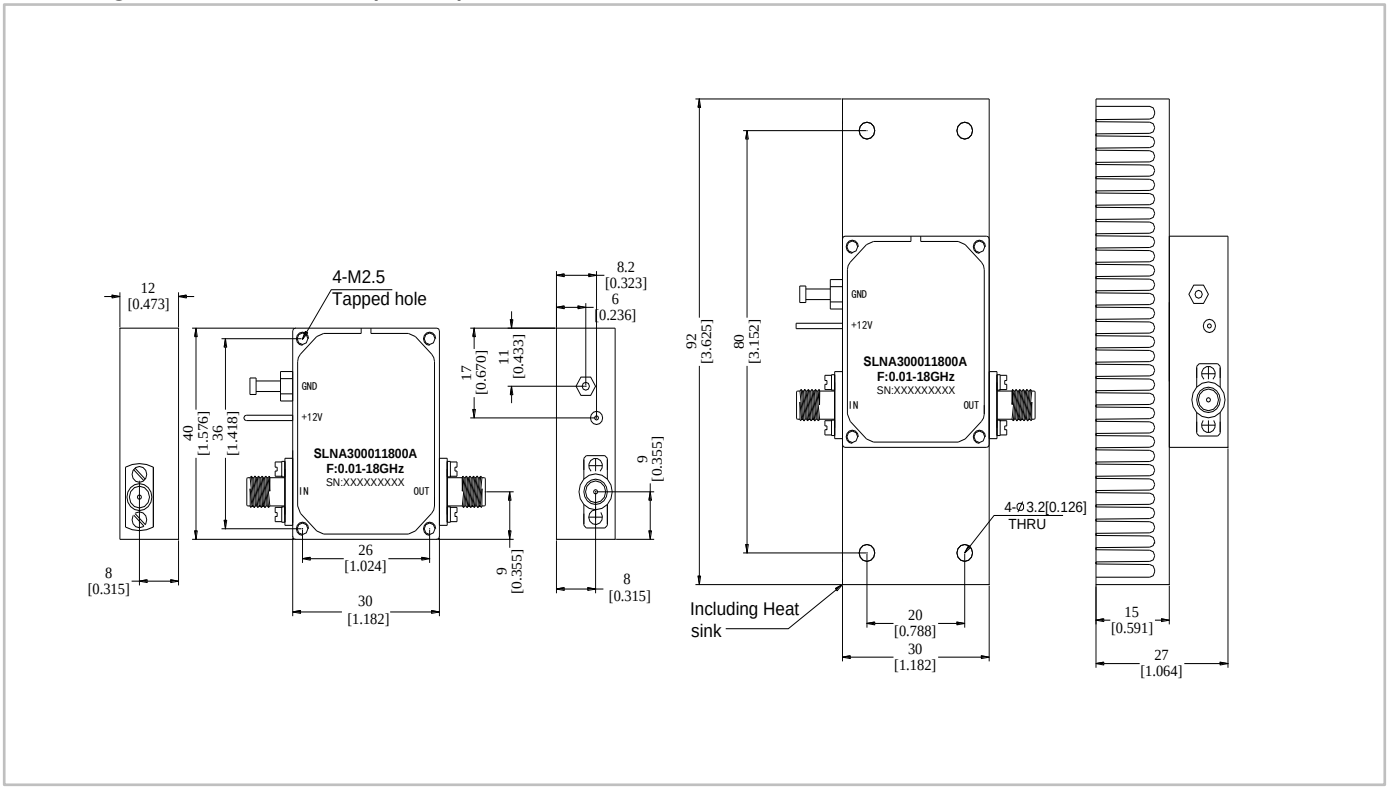
Operational Temperature	-40ºC to +85ºC
Storage Temperature	-50ºC to +105ºC
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35ºc, 95%RH at 40ºc
Shock	20G for 11msec half sine wave,3 axis both directions

Outline Drawing:

All Dimensions in mm (inches)

Housing Tolerances ±0.1(0.004)

Heat Sink required during operation(Sold Separately)



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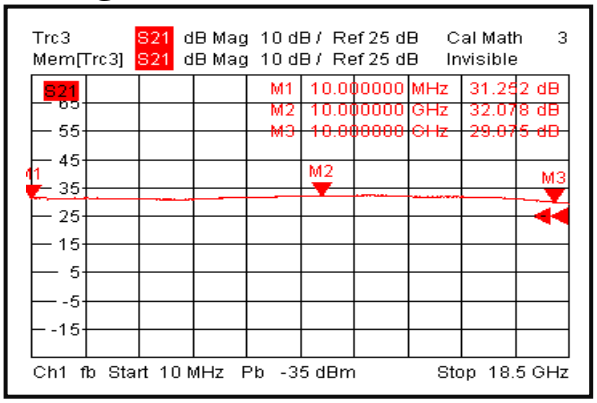
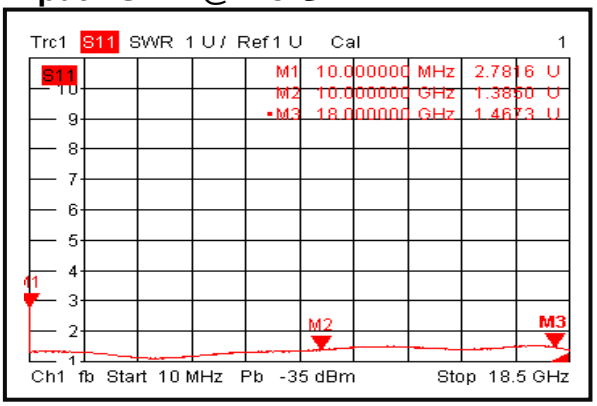
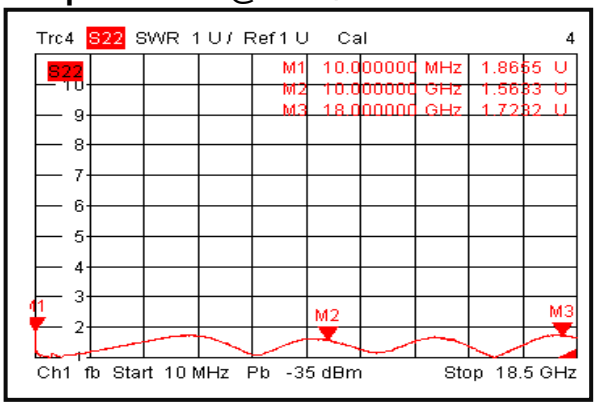
Gain @+25℃



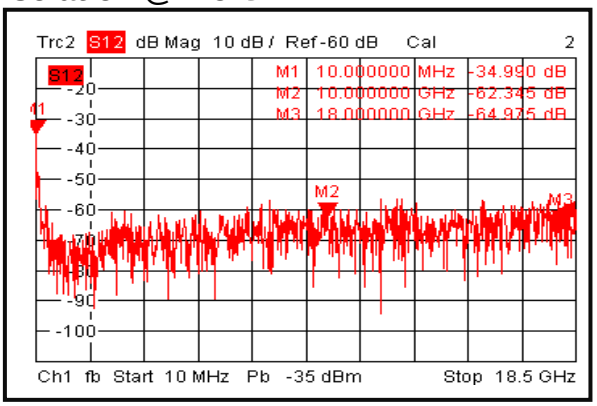
Input VSWR @+25℃



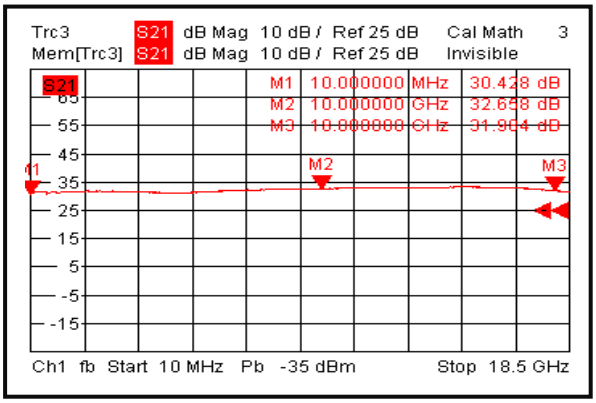
Output VSWR @+25℃



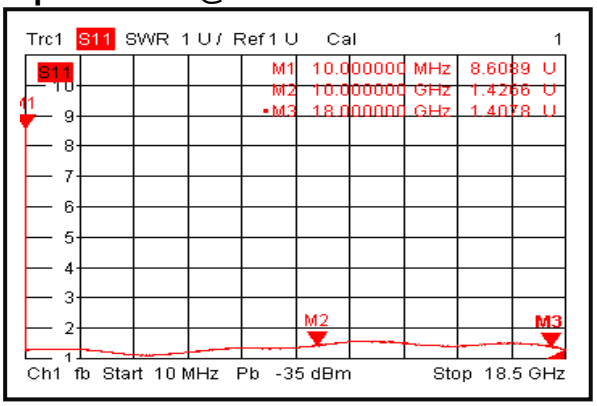
Isolation @+25℃



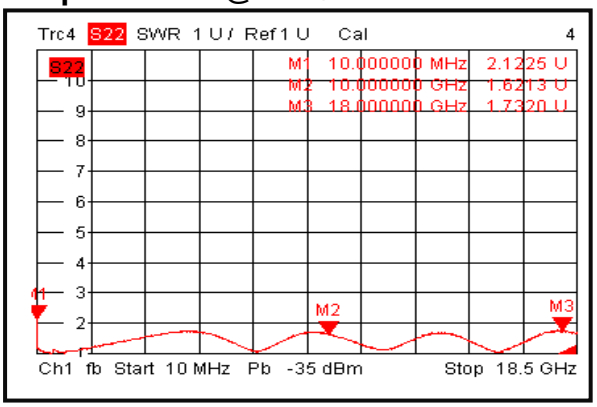
Gain @-40℃



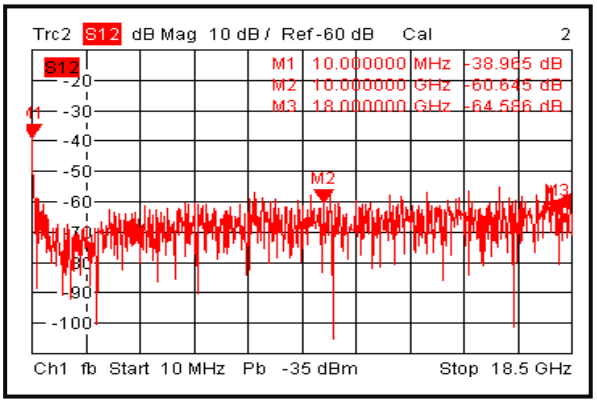
Input VSWR @-40℃



Output VSWR @-40℃



Isolation @-40℃



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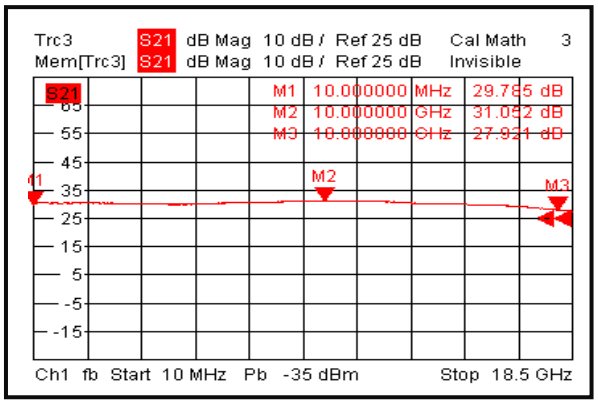
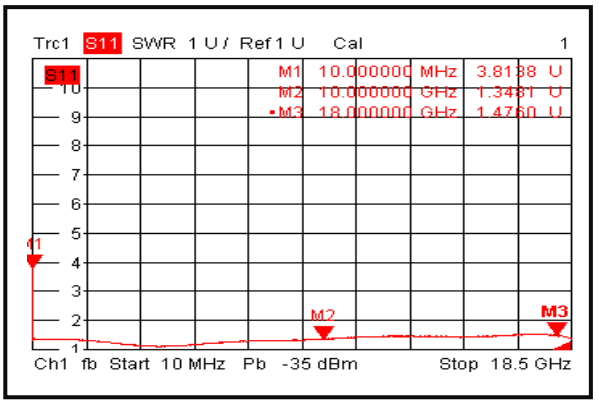
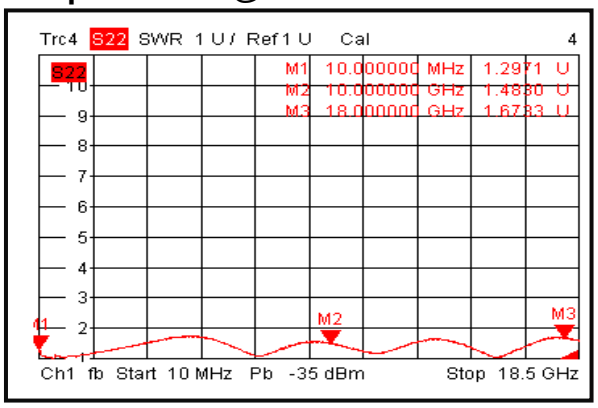
Gain @+85℃



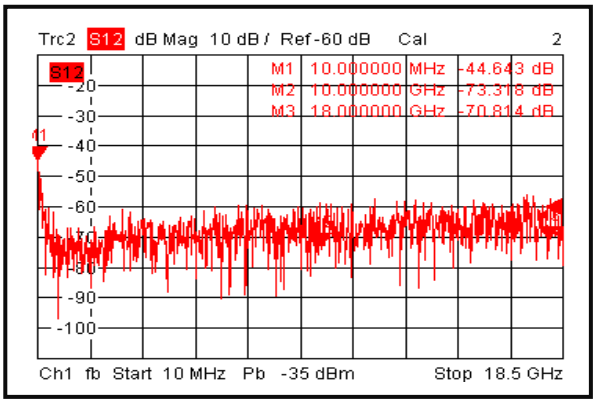
Input VSWR @+85℃



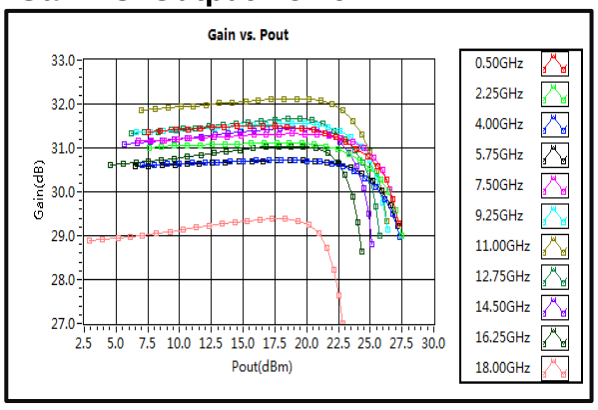
Output VSWR @+85℃



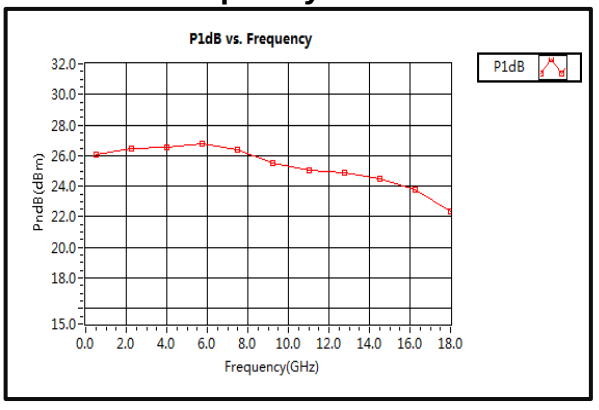
Isolation @+85℃



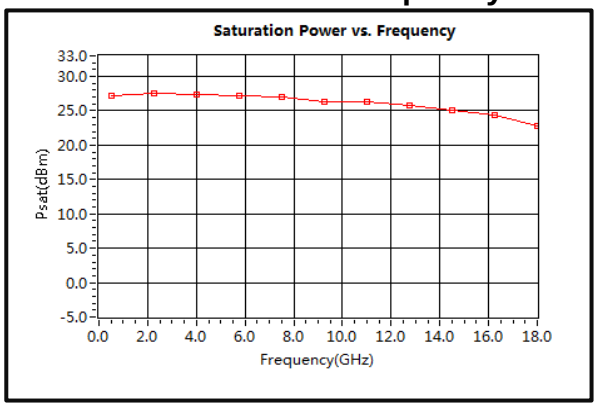
Gain vs. Output Power



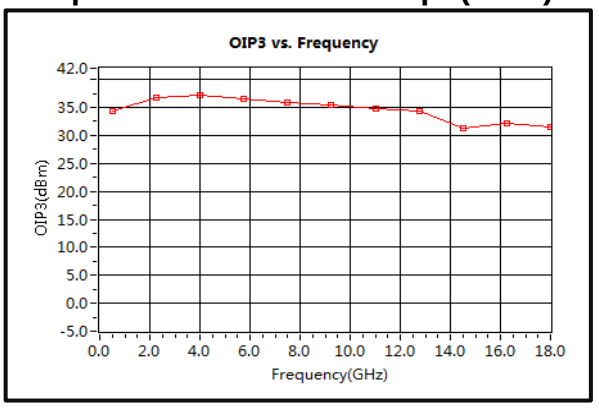
P1dB vs. Frequency



Saturation Power vs. Frequency



Output Third Order Intercept (OIP3)



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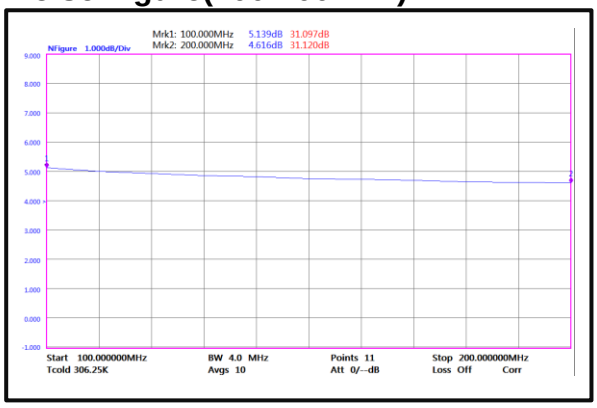
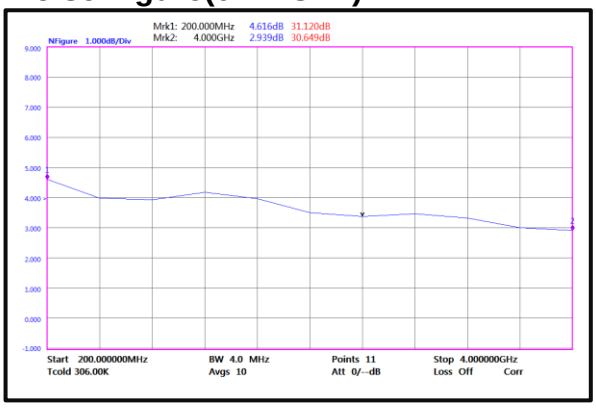
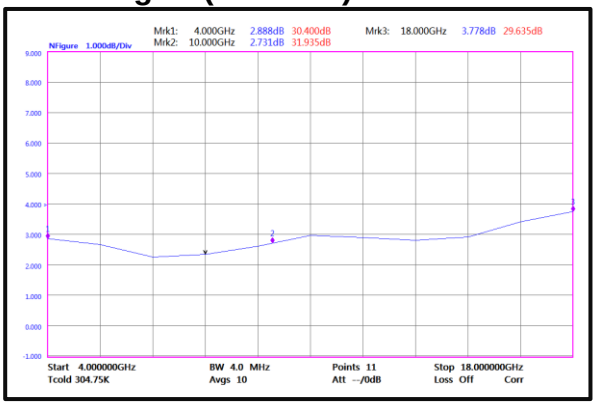
Noise Figure(100-200MHz)



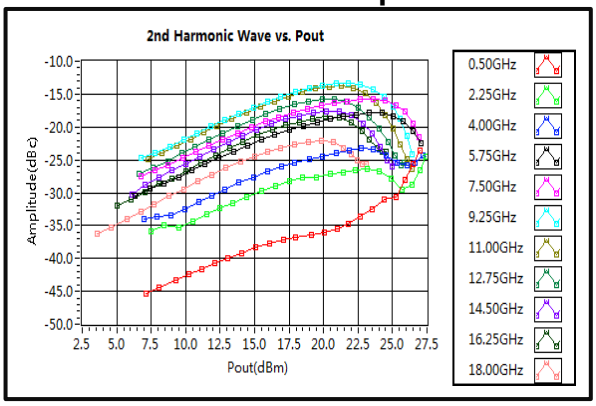
Noise Figure(0.2-4GHz)



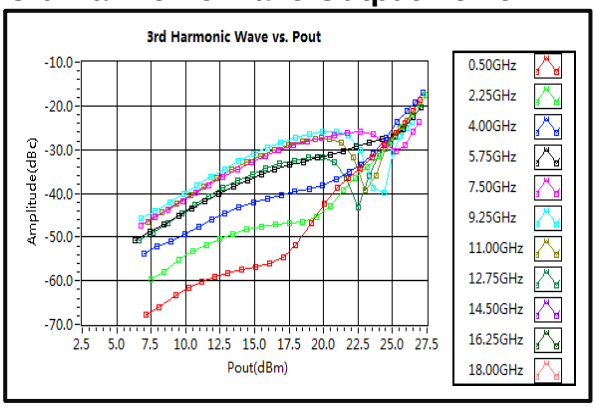
Noise Figure(4-18GHz)



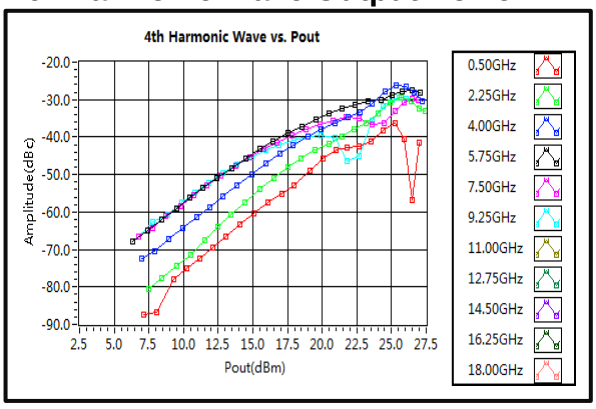
2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power



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