SALUKI TECHNOLOGY

P/N:SLNA400101800A

Ultra Wide Band Low Noise Amplifier 0.1GHz-18GHz

Features

- Gain: 32dB Typical
- Functional Bandwidth : 0.1 GHz to 18 GHz
- Noise Figure: 2.2dB Typical
- P1dB Output Power: +26dBm Typical
- Supply Voltage: +12V @ 320 mA
- 50 Ohm Matched Input / Output
- Size: 1.58” x 1.18” x 0.39”

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	0.1 - 10			10 - 18			GHz
Gain	28	32	36	28	30	36	dB
Gain Flatness		±2.0			±2.0		dB
Gain Variation Over Temperature (-40ºC to +85ºC)		±1.0			±1.5		dB
Noise Figure		2.2	4.5		2.8	4.0	dB
Input VSWR		1.8			1.8		: 1
Output VSWR		1.8			1.8		: 1
Output 1dB Compression Point (P1dB)	23.5	26		20	22		dBm
Saturated Output Power (Psat)		28			24		dBm
Output Third Order Intercept (OIP3)		35			32		dBm
Isolation S12		-60			-55		dB
Supply Current (Vcc=+12V)		320	400		320	400	mA

Weight	3.5 ounces (Max.)	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)	+3dBm

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

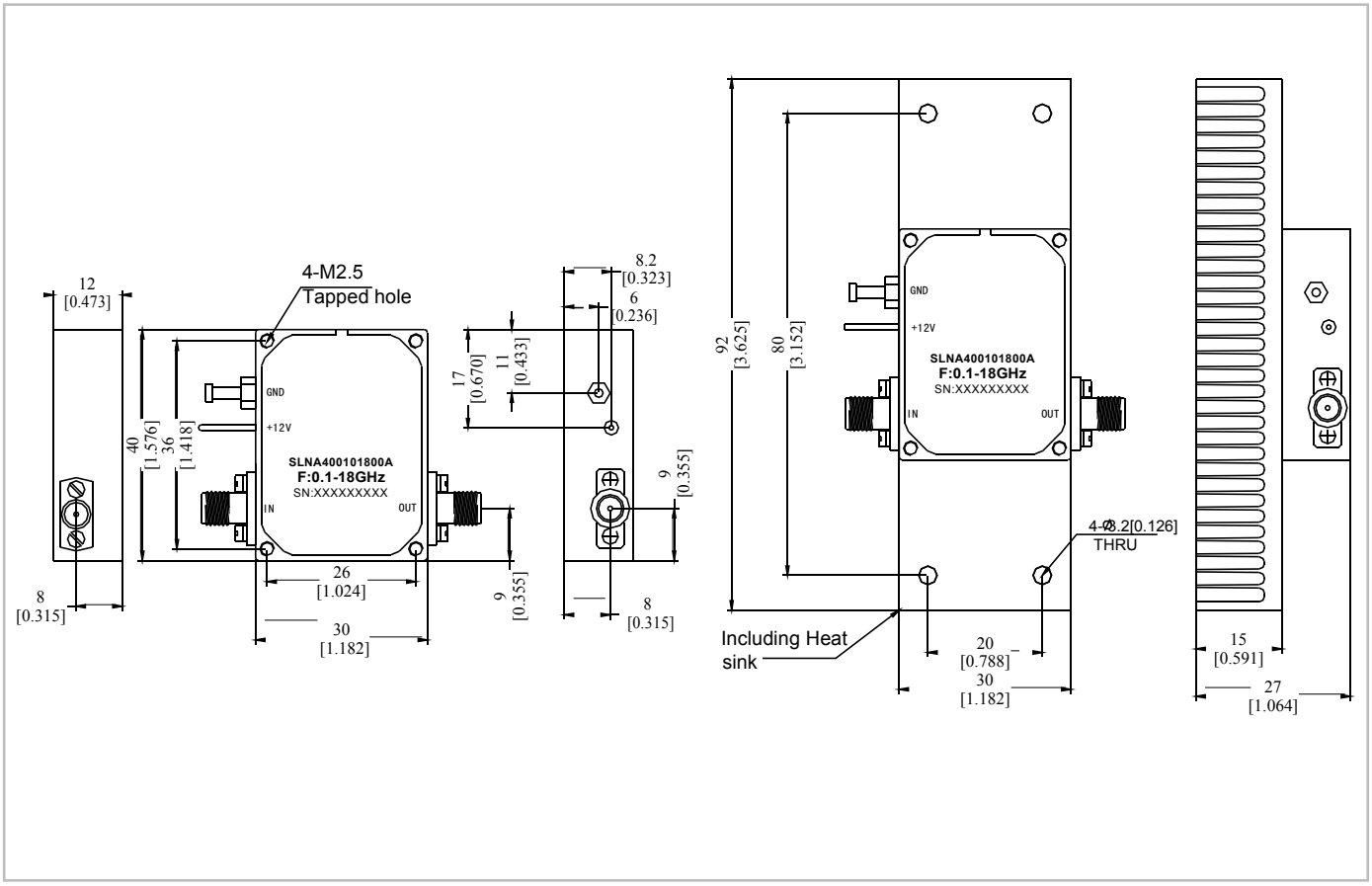
Environmental Specifications

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)

Heat Sink required during operation(Sold Separately)



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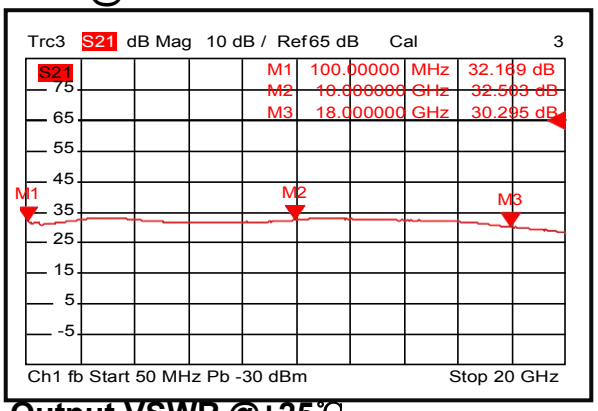
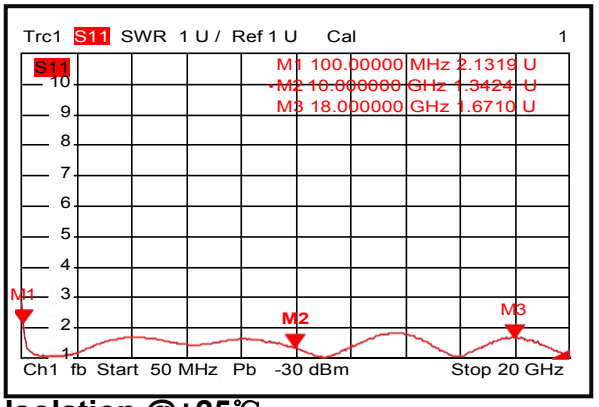
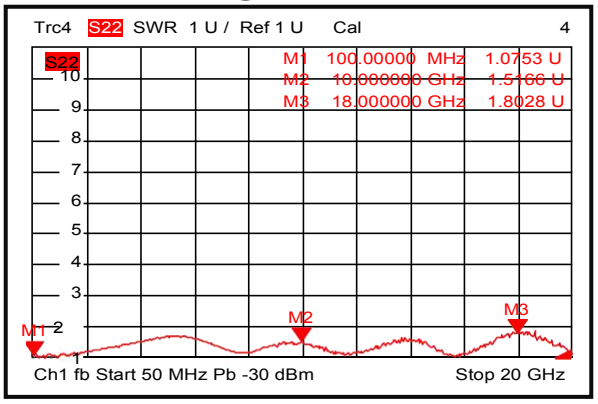
Gain @+25℃



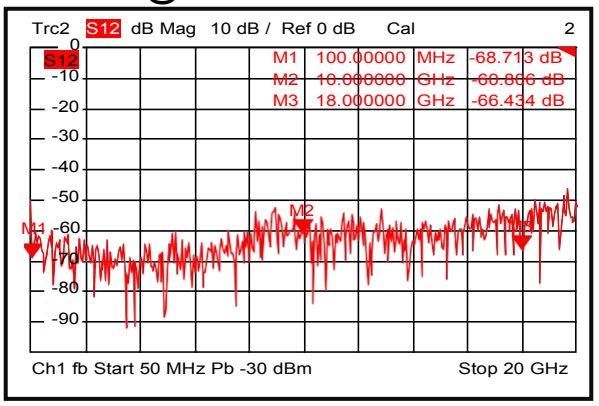
Input VSWR @+25℃



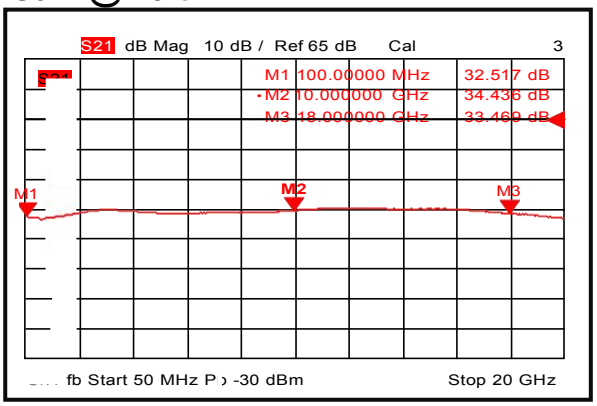
Output VSWR @+25℃



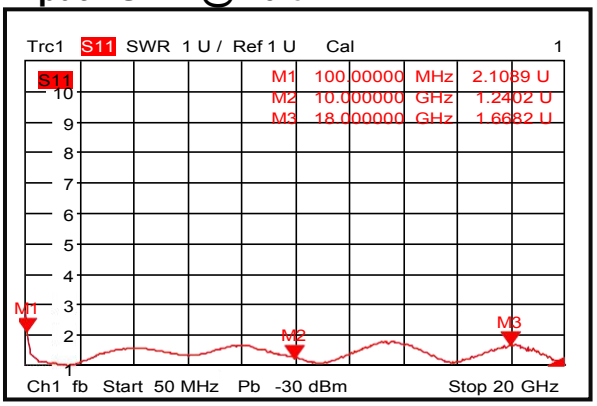
Isolation @+25℃



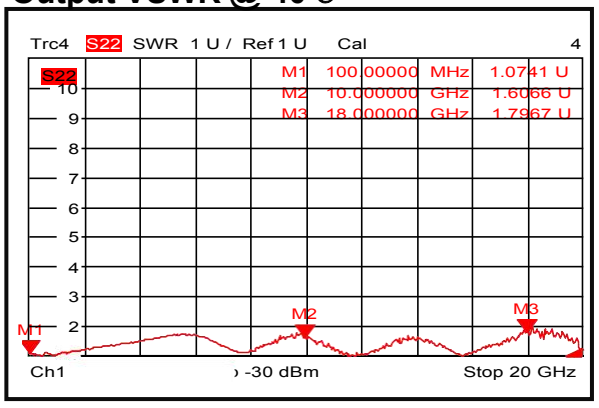
Gain @-40℃



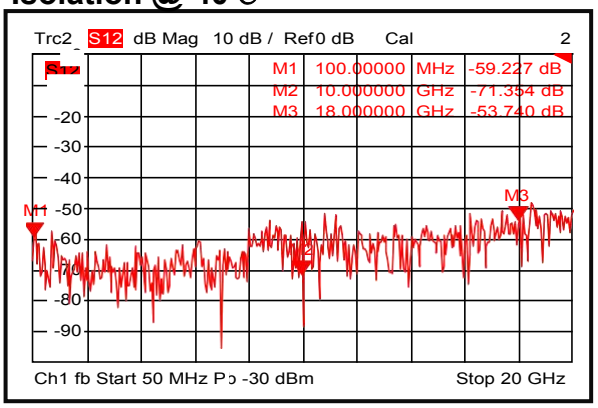
Input VSWR @-40℃



Output VSWR @-40℃



Isolation @-40℃



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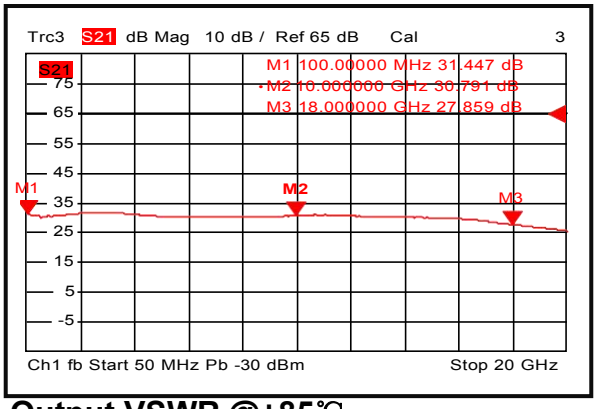
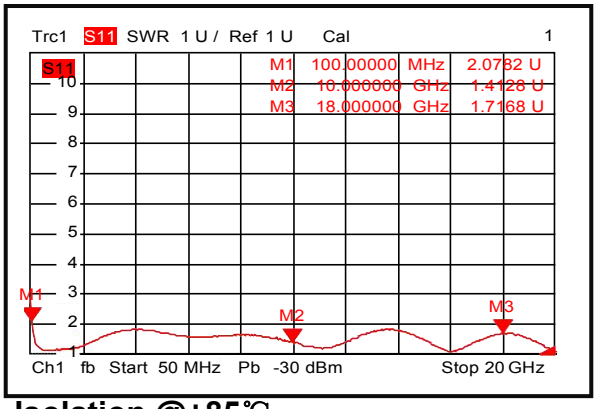
Ultra Wide Band Low Noise Amplifier 0.1GHz-18GHz

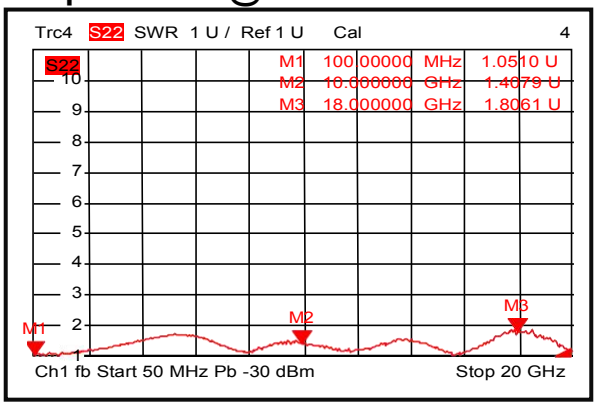
Gain @+85℃



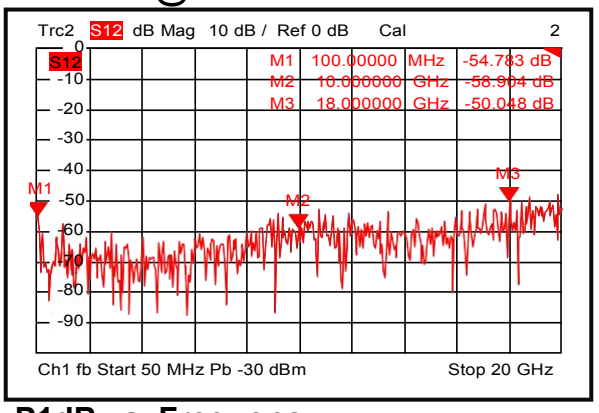
Input VSWR @+85℃



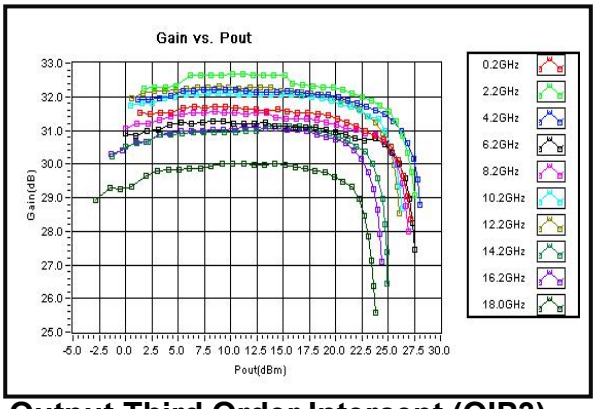
Output VSWR @+85℃



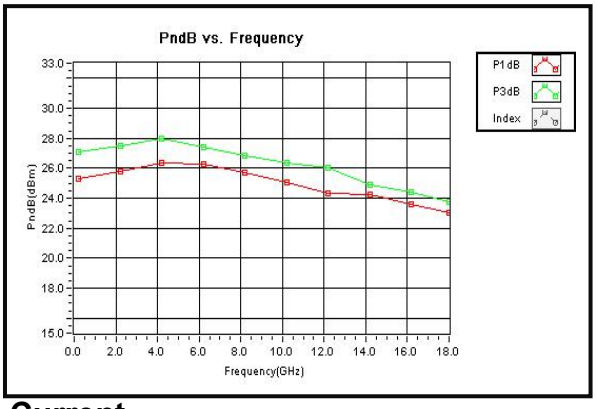
Isolation @+85℃



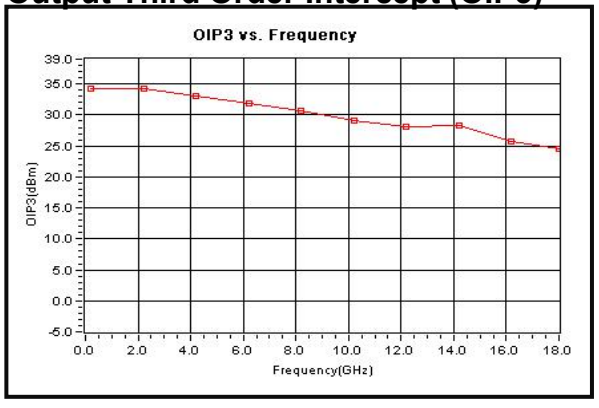
Gain vs. Output Power



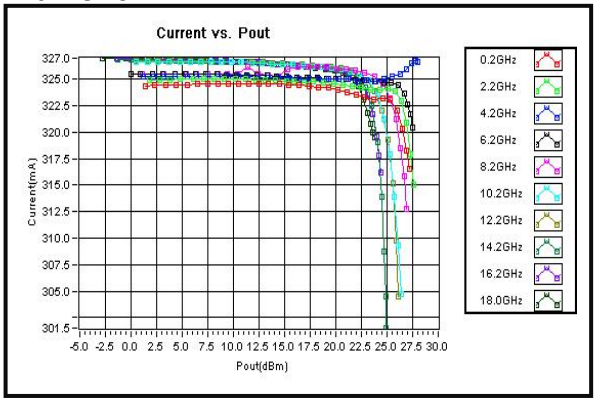
P1dB vs. Frequency



Output Third Order Intercept (OIP3)



Current



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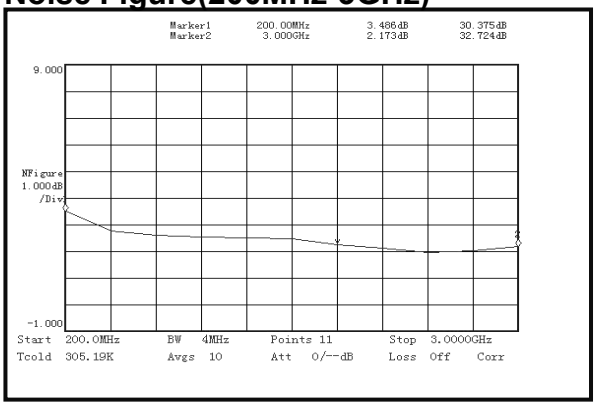
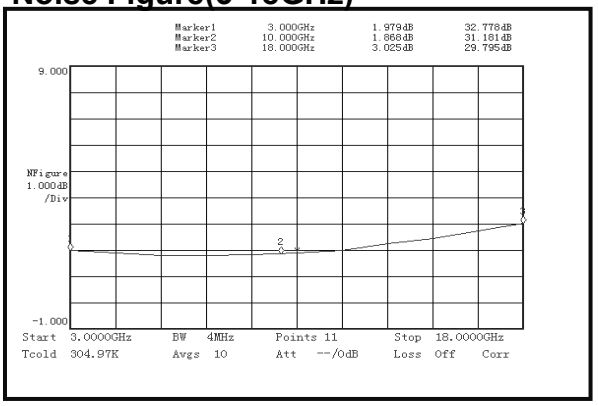
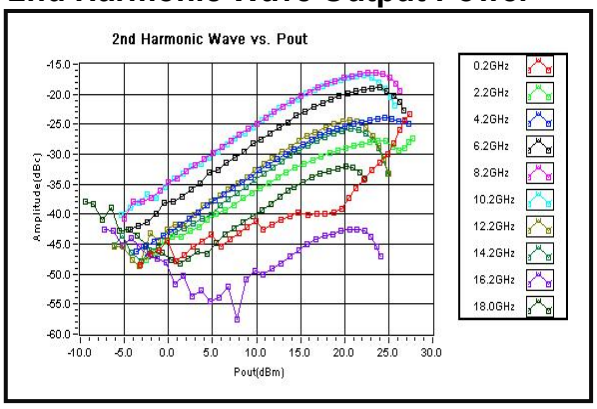
Noise Figure(200MHz-3GHz)



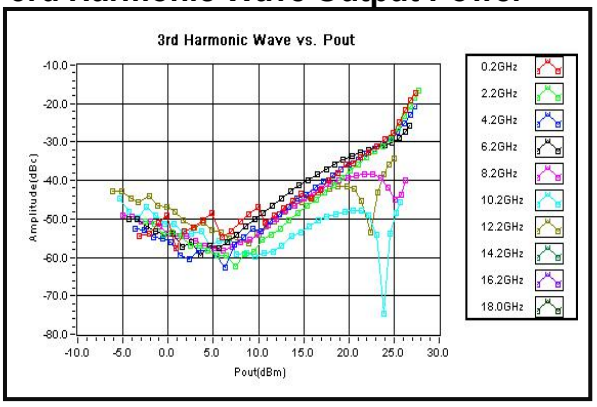
Noise Figure(3-18GHz)



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power