SALUKI TECHNOLOGY INC.

Ultra Wide Band Low Noise Amplifier 0.01GHz~18GHz

Features

- Gain: 34dB Typical
- Noise Figure: 2.5dB Typical
- P1dB Output Power: +26dBm Typical
- Supply Voltage: +12V @ 400 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	30	34		30	33		dB
Gain Flatness		±2.0			±2.0		dB
Gain Variation Over Temperature (-40℃~+85℃)		±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)		400	500		400	500	mA
Isolation S12		-65			-60		dB

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

*Noise Figure at 0.01-0.1GHz is 5dB Typical.

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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~+85ºC(Case Temperature)
Storage Temperature	-50ºC~+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

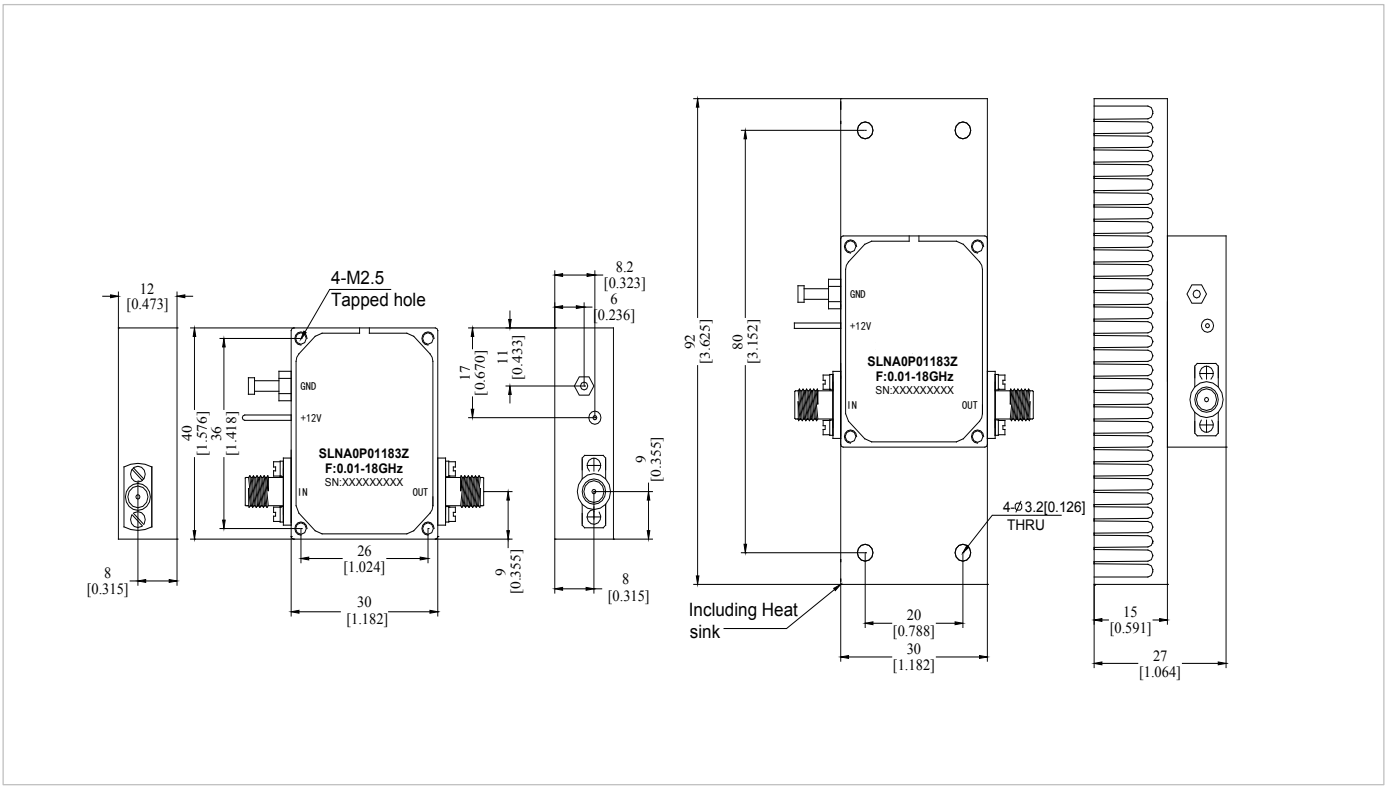
Outline Drawing:

All Dimensions in mm (inches)

Housing Tolerances±0.1(0.004)

(Excl Heat Sink)

Heat Sink required during operation(Sold Separately)



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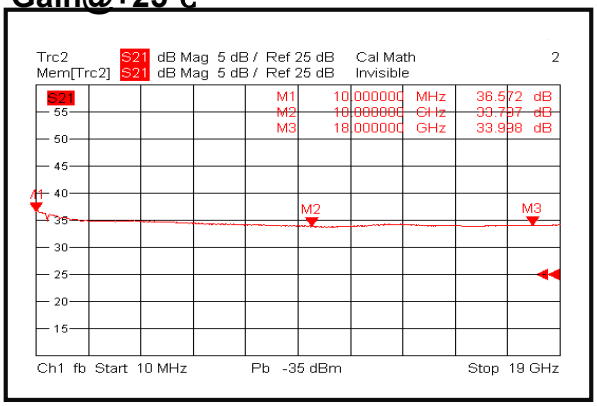
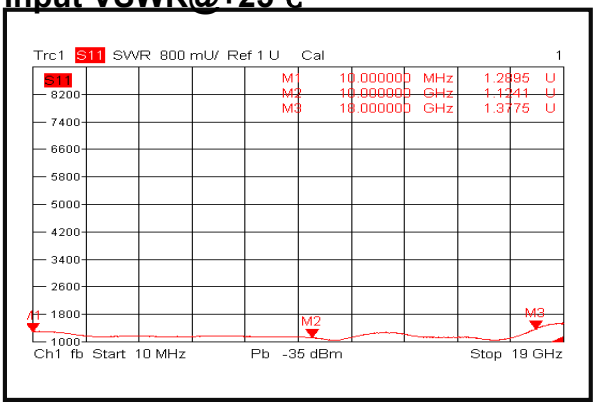
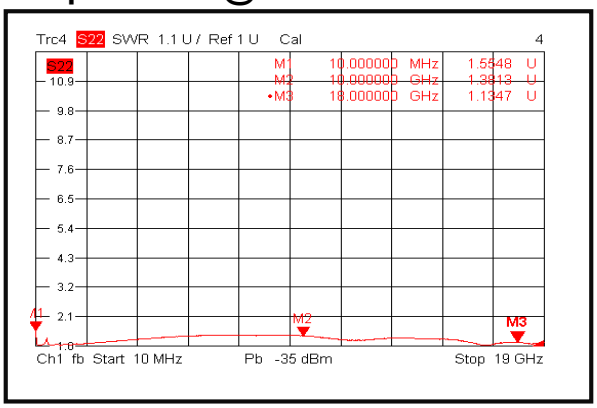
Gain@+25℃



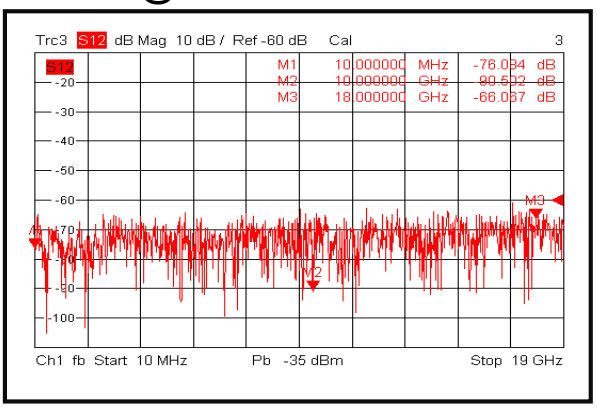
Input VSWR@+25℃



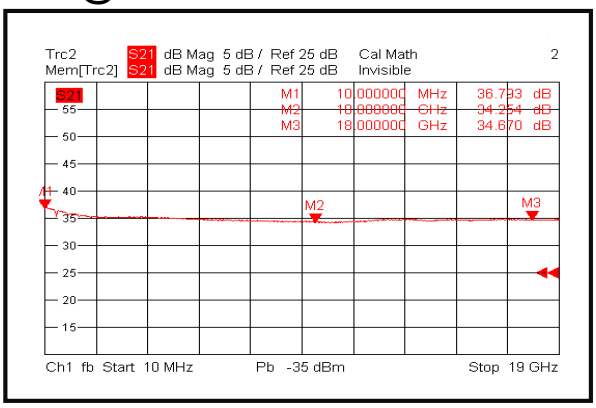
Output VSWR@+25℃



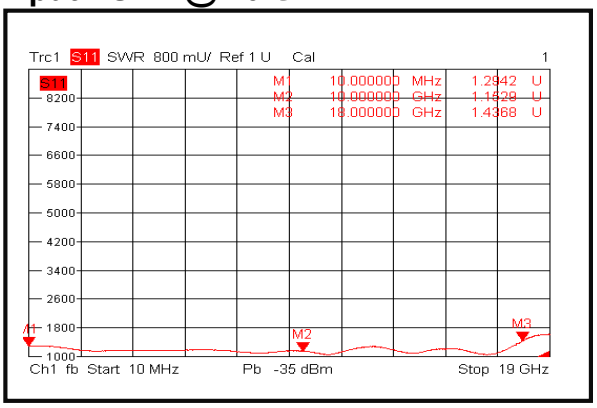
Isolation@+25℃



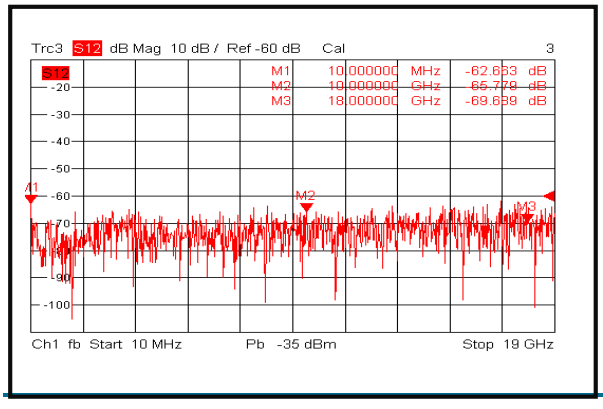
Gain@-40℃



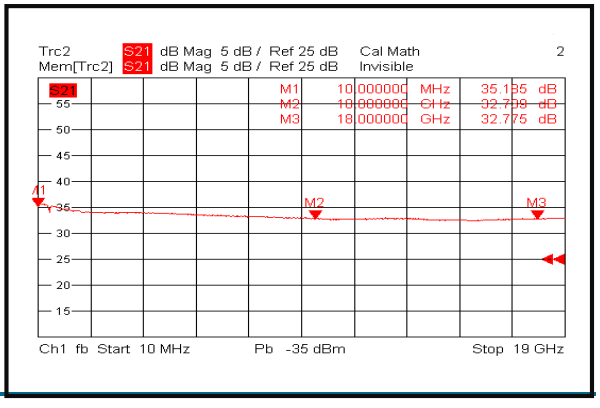
Input VSWR@-40℃



Isolation@-40℃



Gain@+85℃



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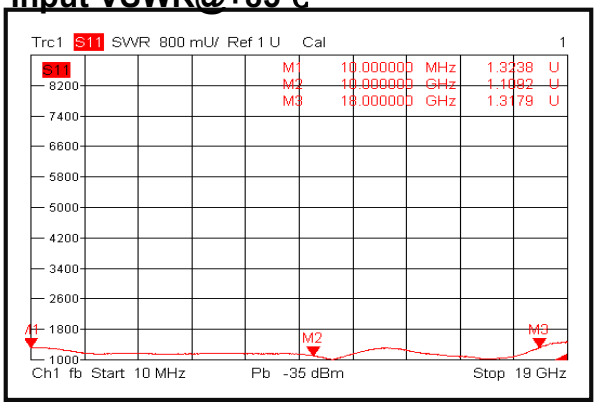
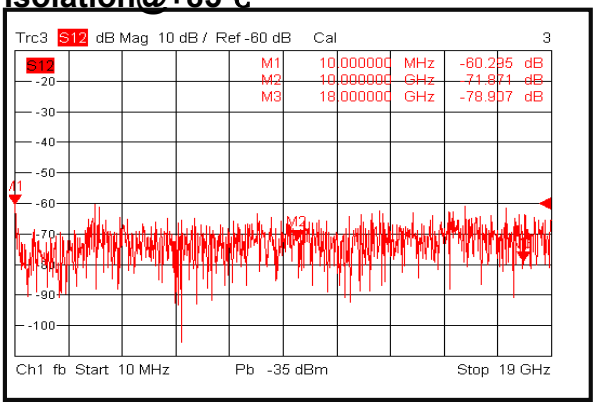
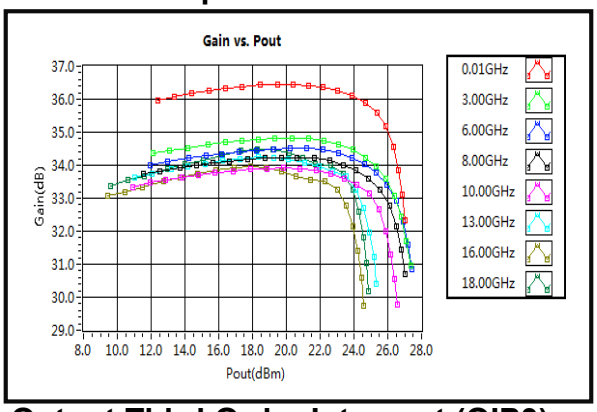
Input VSWR@+85℃



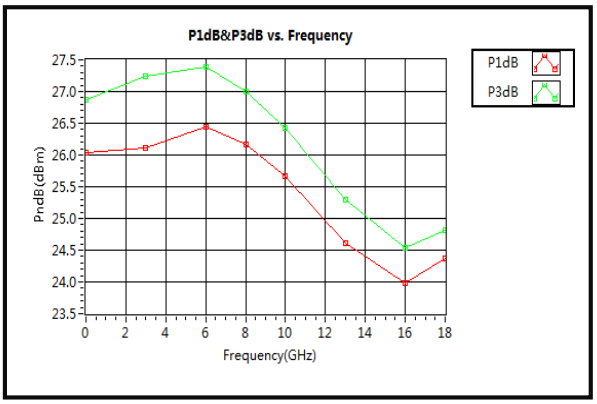
Isolation@+85℃



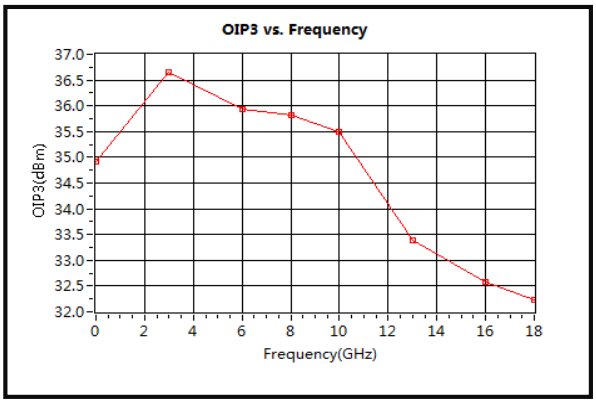
Gain vs. Output Power



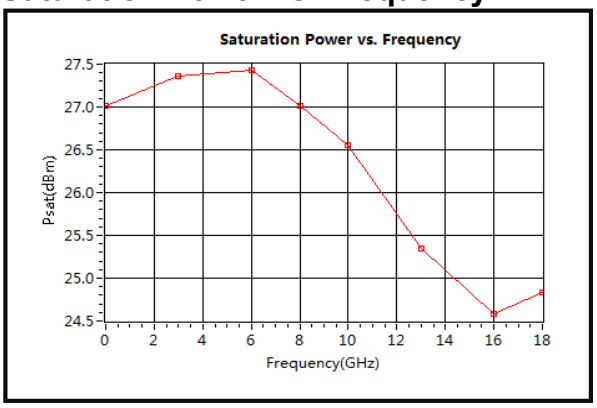
P1dB & P3dB vs. Frequency



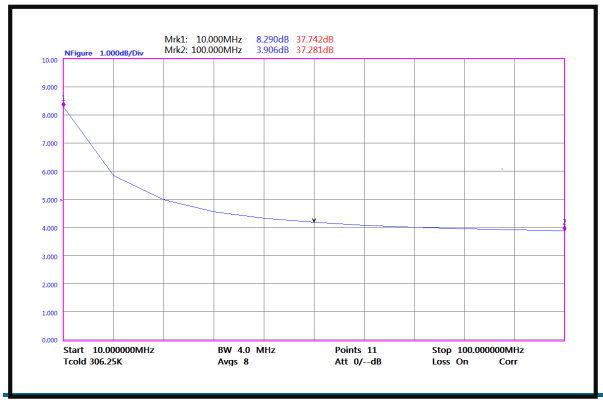
Output Third Order Intercept (OIP3)



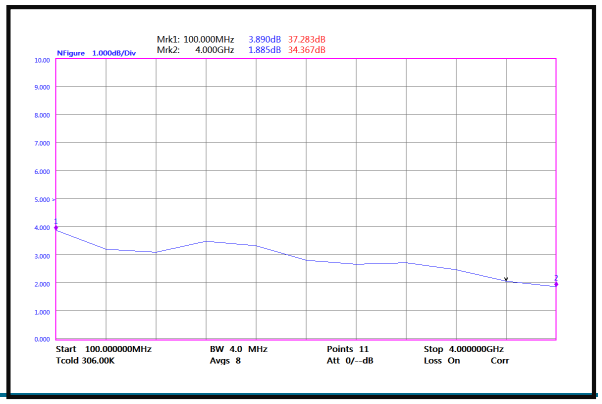
Saturation Power vs. Frequency



Noise Figure (10MHz-100MHz)



Noise Figure (100MHz-4GHz)



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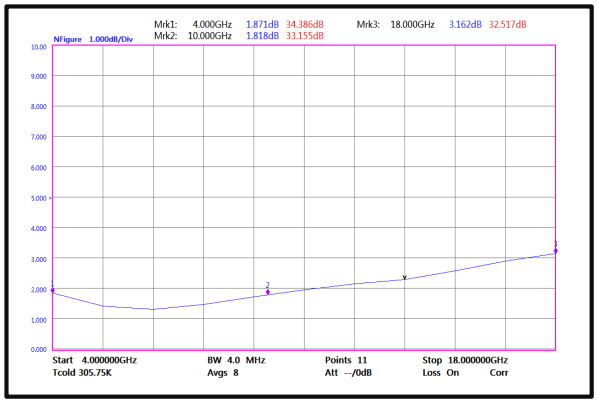
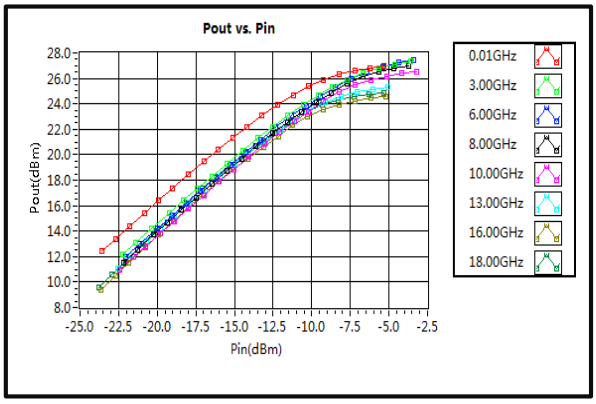
Noise Figure (4GHz-18GHz)



Pout vs. Pin



Current vs. Pout