SALUKI TECHNOLOGY

P/N:SLNA01122X

SALUKI TECHNOLOGY INC.

Wide Band Low Noise Amplifier 1GHz~12GHz

Features

- Gain: 36dB Typical
- Noise Figure: 1.8dB Typical
- P1dB Output Power:+26dBm Typical
- Supply Voltage: +12V
- 50 Ohm Matched

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	1		6	6		12	GHz
Gain	33	36		33	35		dB
Gain Flatness		±1.0	±1.5		±1.0	±1.5	dB
Gain Variation Over Temperature (-45ºC~+85ºC)		±0.8			±1.0		dB
Noise Figure		1.8	2.0		1.8	2.3	dB
Input VSWR		1.6	2.0		1.7	2.0	: 1
Output VSWR		1.5	2.0		1.5	2.0	: 1
Output 1dB Compression Point (P1dB)	24	26		24	25		dBm
Saturated Output Power (Psat)		27			26		dBm
Output Third Order Intercept (IP3)		35			30		dBm
Supply Current (Vcc=+12V)		350	450		350	450	mA
Isolation S12		-65			-60		dB

Weight	3.53 ounces	Impedance	50ohms
Input / Output Connectors	SMA-Male/SMA-Female	Material	Copper
Finish	Standard: Gold 40 micron; Nickel 220 micron thickness	Package Sealing	Epoxy Sealing (Standard)
	Option: Gold 80 micron; Nickel 180 micron thickness		Hermetically Sealed (Option with extra charge)

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Absolute Maximum Ratings

Operating Voltage	+15V
RF Input Power (RFIN)	+2dBm

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

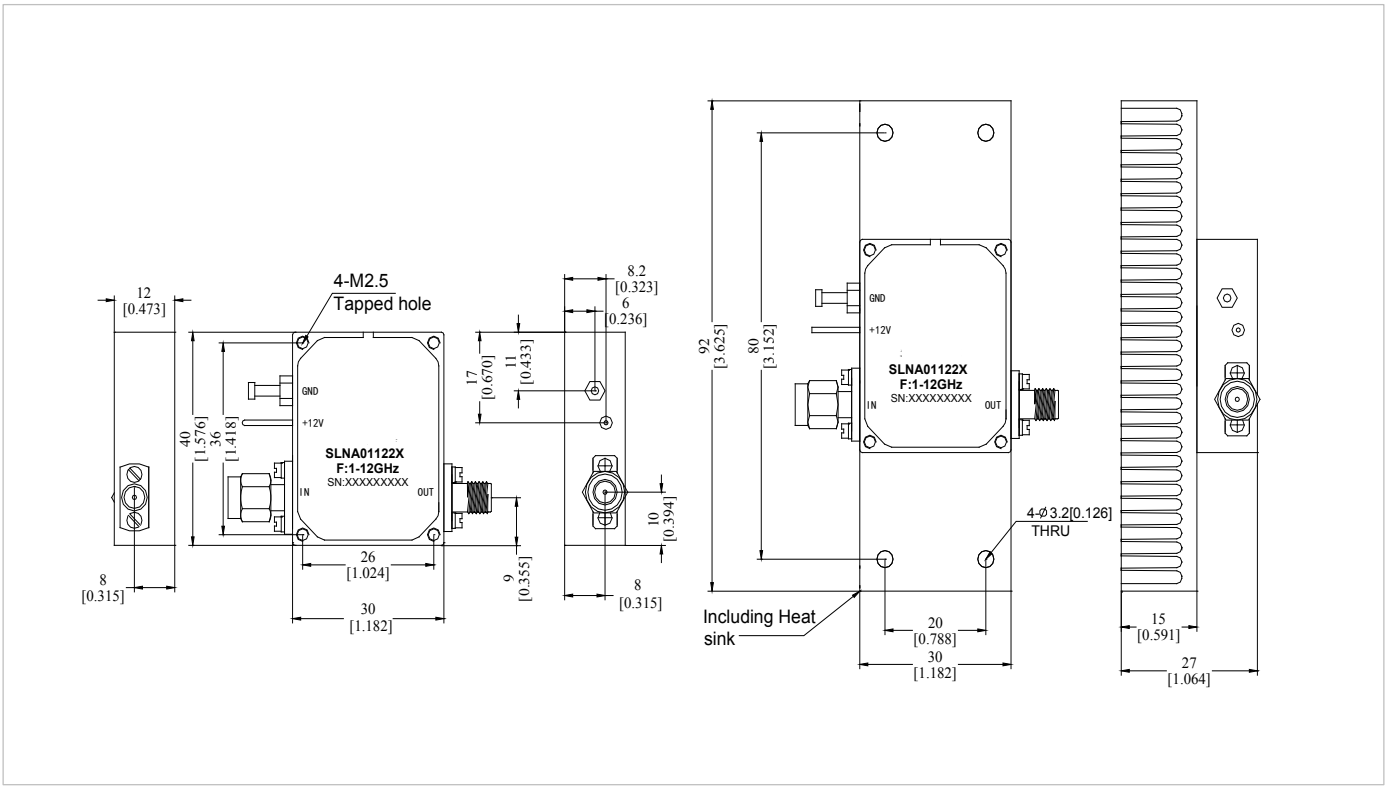
Environmental Specifications

Operational Temperature	-40ºC~+85ºC
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 35c, 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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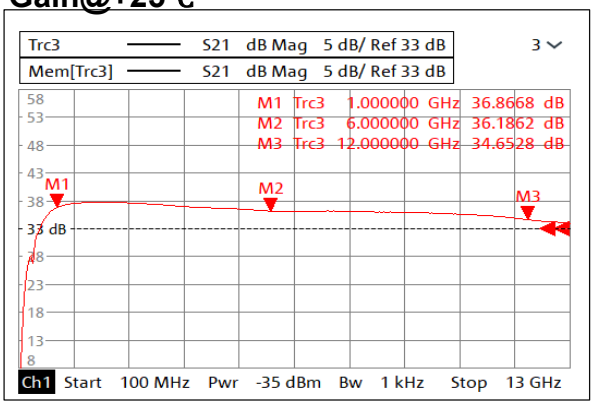
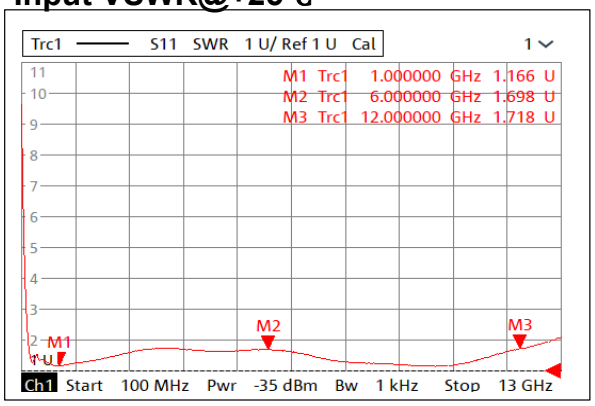
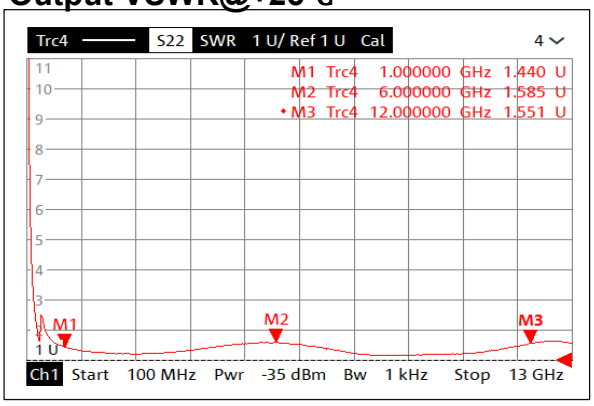
Gain@+25℃



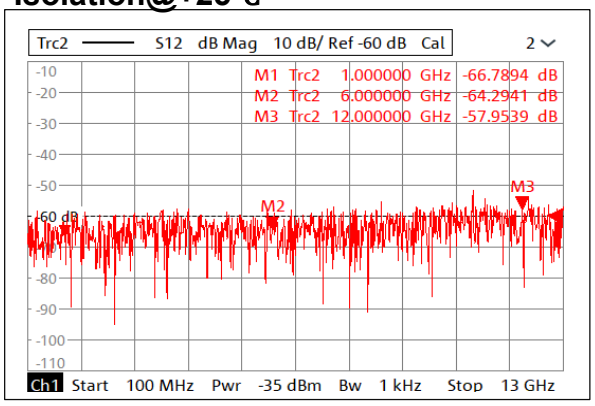
Input VSWR@+25℃



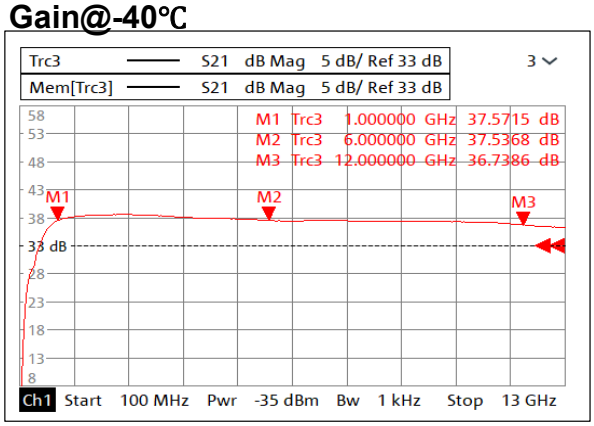
Output VSWR@+25℃



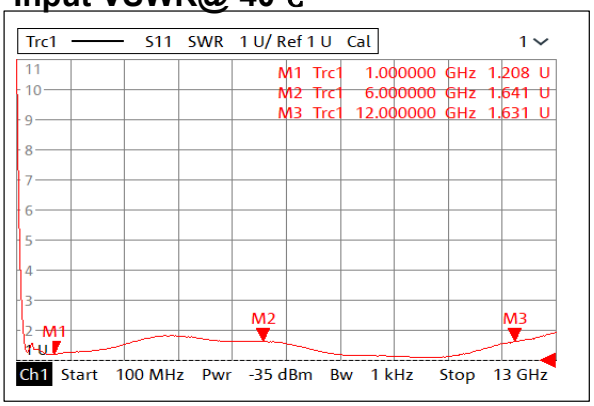
Isolation@+25℃



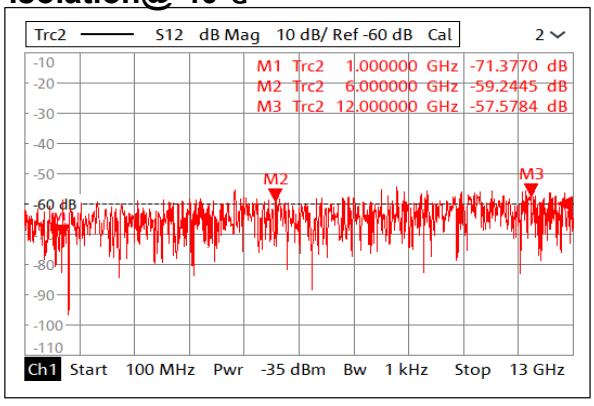
Gain@-40℃



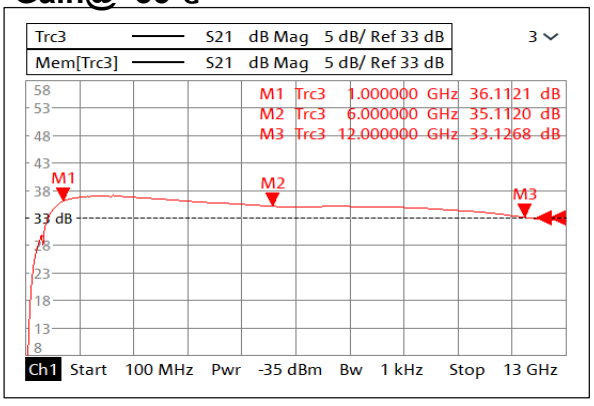
Input VSWR@-40℃



Isolation@-40℃



Gain@+85℃



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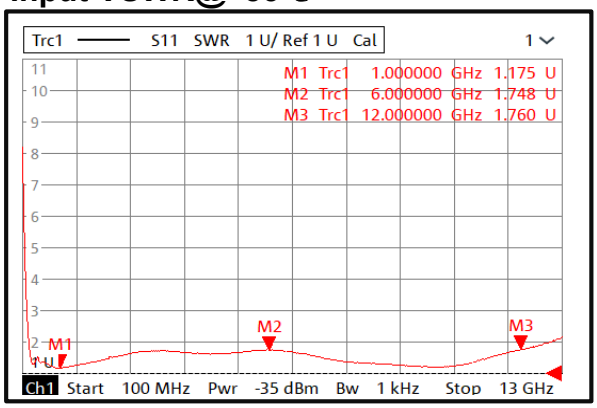
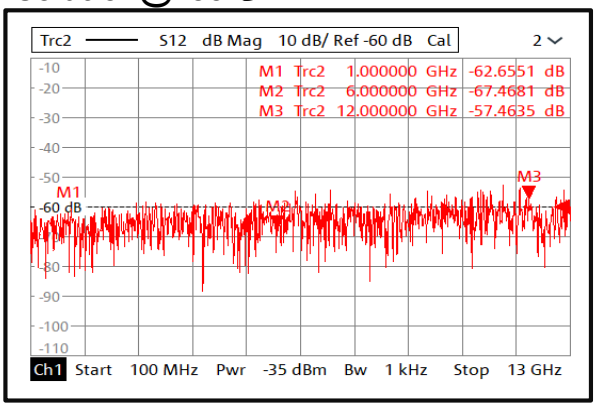
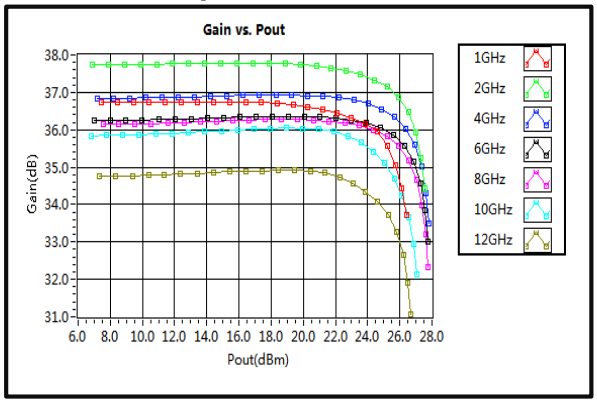
Input VSWR@+85℃



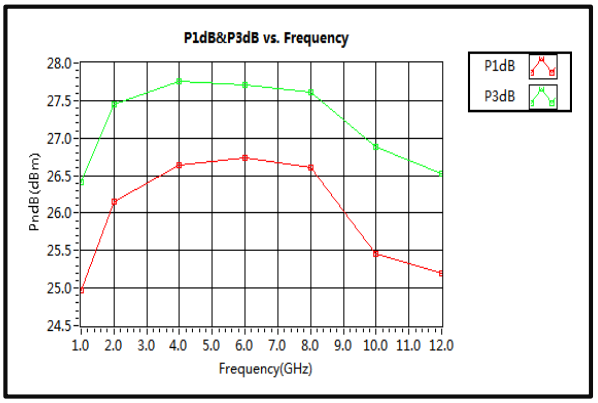
Isolation@+85℃



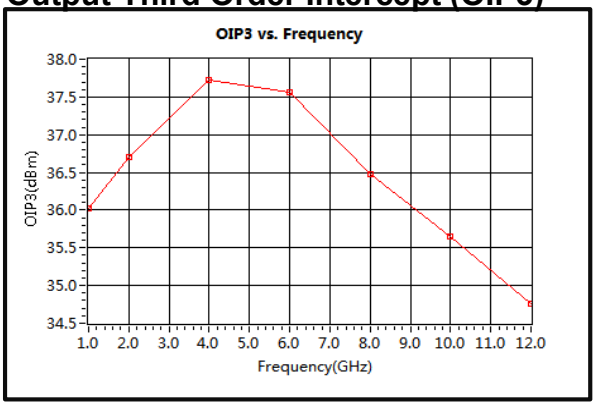
Gain vs. Output Power



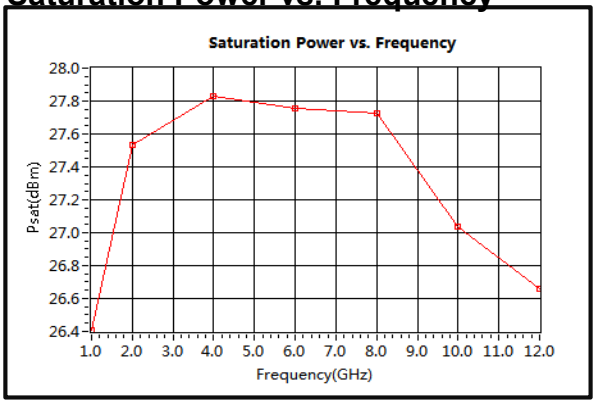
P1dB & P3dB vs. Frequency



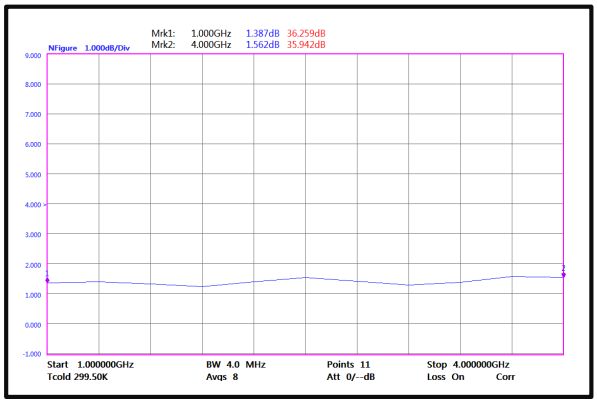
Output Third Order Intercept (OIP3)



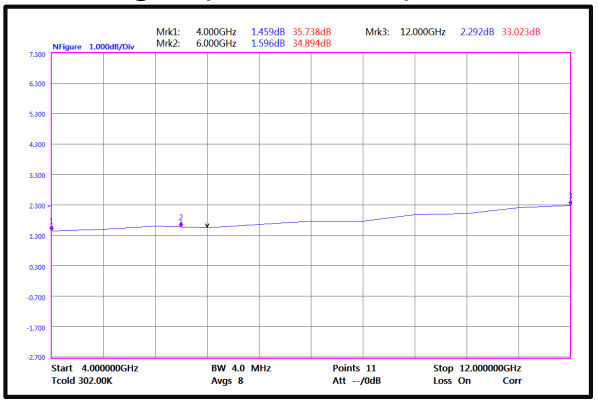
Saturation Power vs. Frequency



Noise Figure(1GHz-4GHz)



Noise Figure(4GHz-12GHz)



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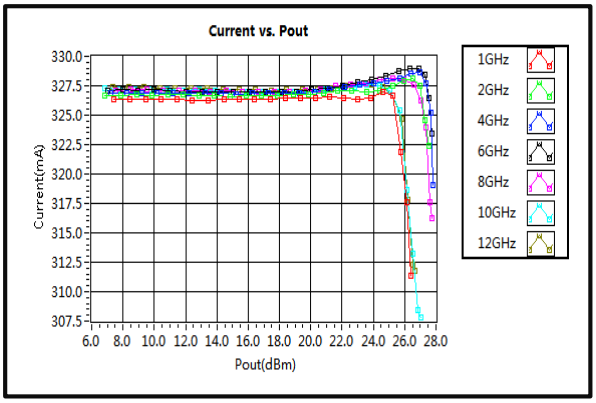
Current vs. Pout



Pout vs. Pin