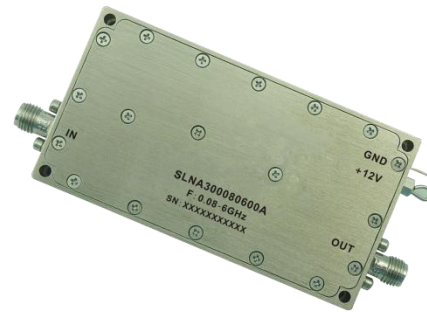


Ultra wide band Low Noise Amplifier 0.08GHz-6GHz

Features

- Gain: 50dB Typical
- Noise Figure: 2.5dB Typical
- P1dB Output Power: 26dBm Typical
- Supply Voltage: +12V @ 380mA
- 50 Ohm Matched Input / Output
- Size: 2.92" x 1.58" x 0.47"



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	0.08 - 3		3 - 6				GHz
Gain	48	50		46	50		dB
Gain Flatness		±1.5	±2.5		±1.5	±2.5	dB
Gain Variation Over Temperature (-40°C to +85°C)		±1.0			±2.0		dB
Noise Figure		2.5	3.5		3.0	4.5	dB
Input VSWR		2.5			2.5		: 1
Output VSWR		1.8			1.8		: 1
Output 1dB Compression Point (P1dB)	24	26		23	26		dBm
Saturated Output Power (Psat)		28			27		dBm
Output Third Order Intercept (OIP3)		32			32		dBm
Supply Current (Vcc=+12V)		380	550		380	550	mA
Isolation S12		-65			-65		dB

Weight	3.0 Max. ounces	Impedance	50 ohms
Input /Output Connectors	SMA-Female	Material	Aluminum
Finish	Nickel Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Optional)

Ultra wide band Low Noise Amplifier 0.08GHz-6GHz

Absolute Maximum Ratings

Operating Voltage	+15V
RF Input Power (RFIN)	-20dBm

Biassing 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

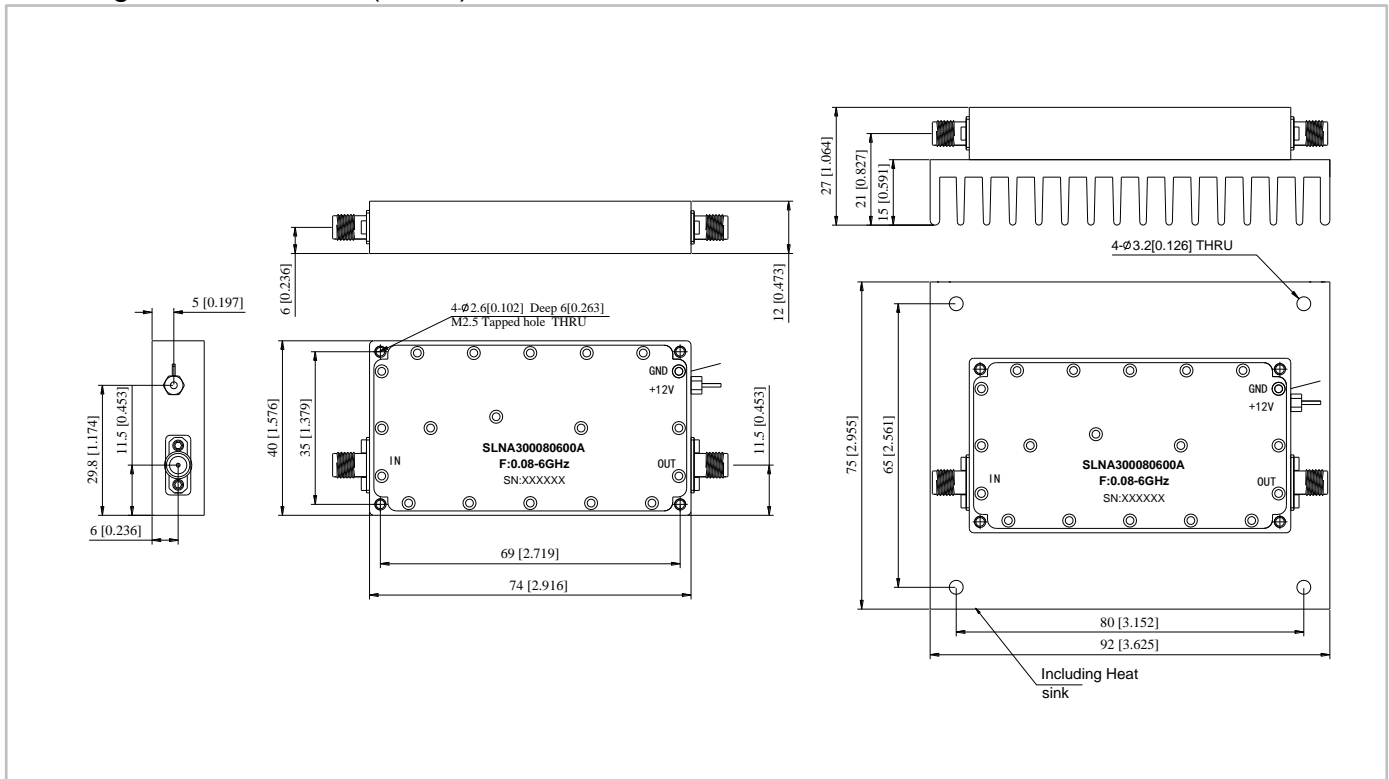
Environmental Specifications

Operational Temperature	-40°C to +85°C
Storage Temperature	-50°C to +105°C
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 35°C, 95%RH at 40°C
Shock	20G for 11msec half sine wave, 3 axis both directions

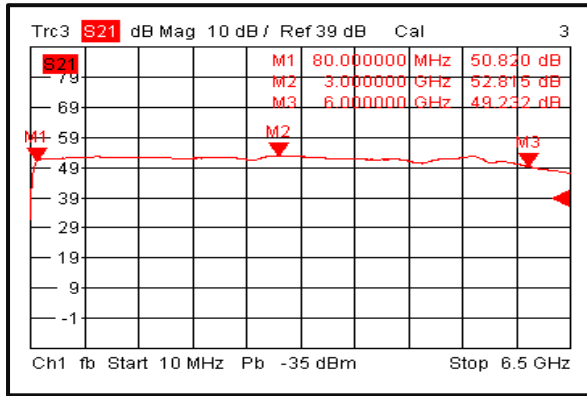
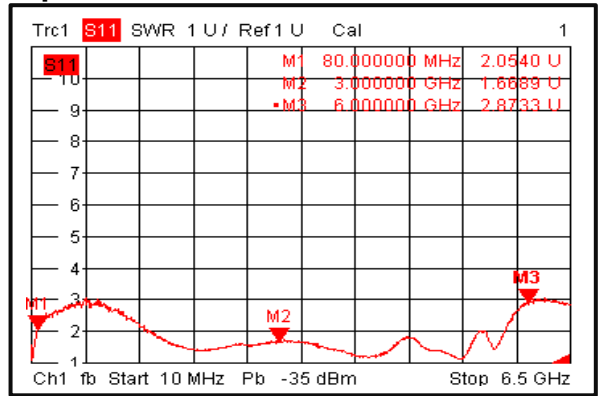
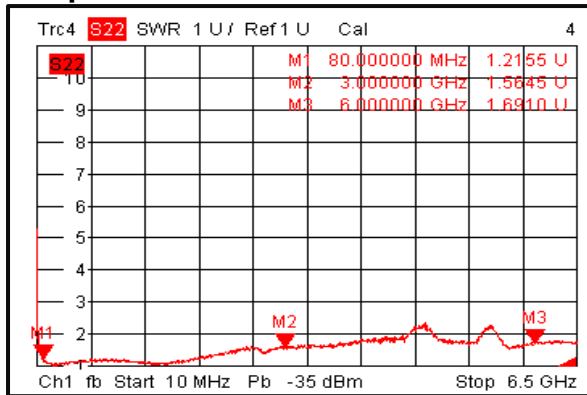
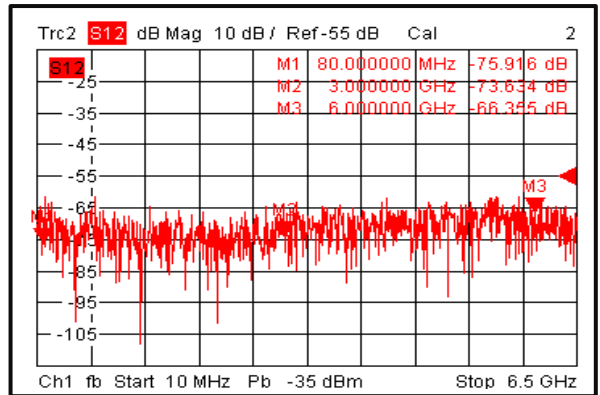
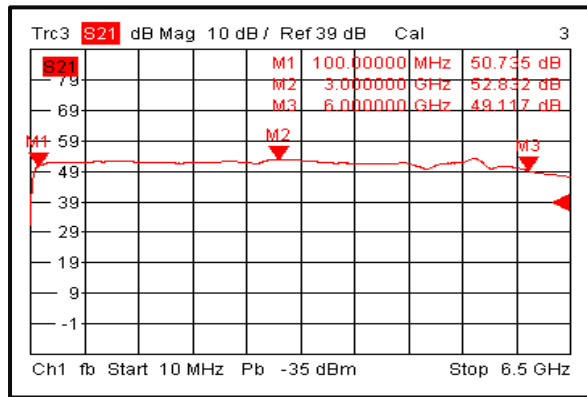
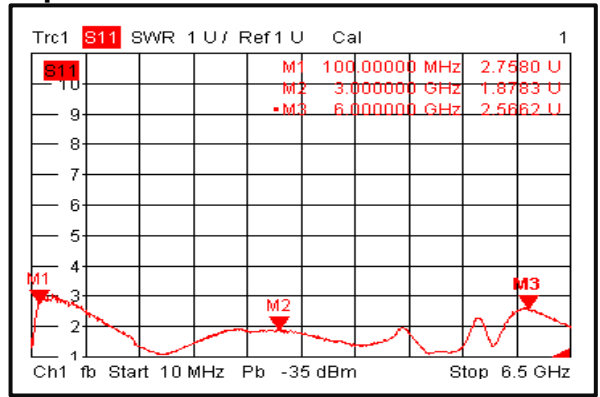
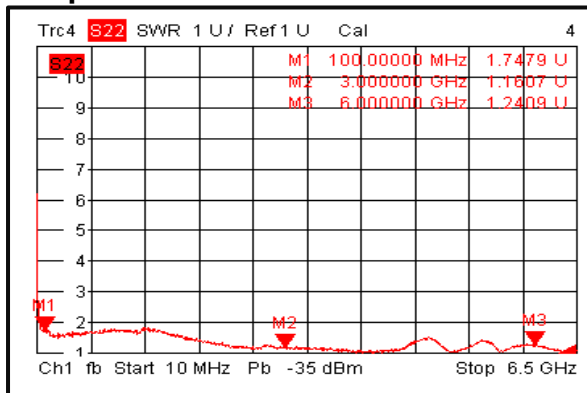
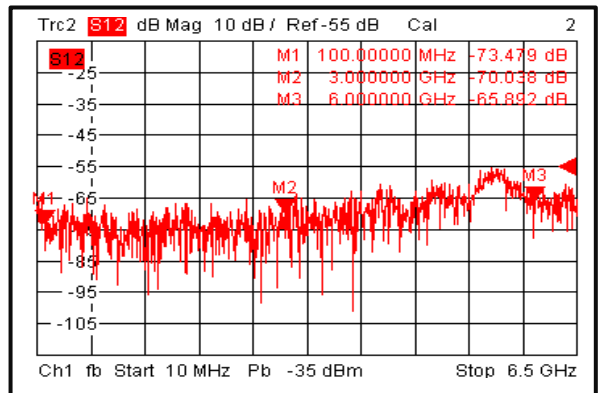
Outline Drawing:

All Dimensions in mm (inches)
Housing Tolerances $\pm 0.2(0.008)$

Heat Sink required during operation(Sold Separately)

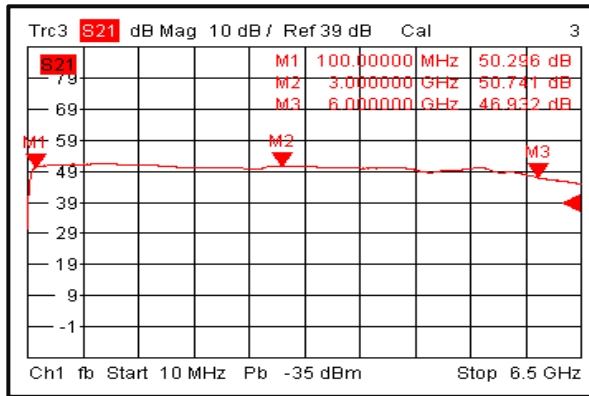


Ultra wide band Low Noise Amplifier 0.08GHz-6GHz

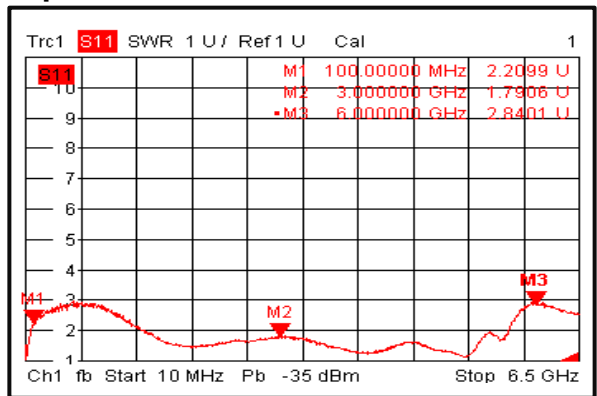
Gain @+25°C

Input VSWR @+25°C

Output VSWR @+25°C

Isolation @+25°C

Gain @-40°C

Input VSWR @-40°C

Output VSWR @-40°C

Isolation @-40°C


Ultra wide band Low Noise Amplifier 0.08GHz-6GHz

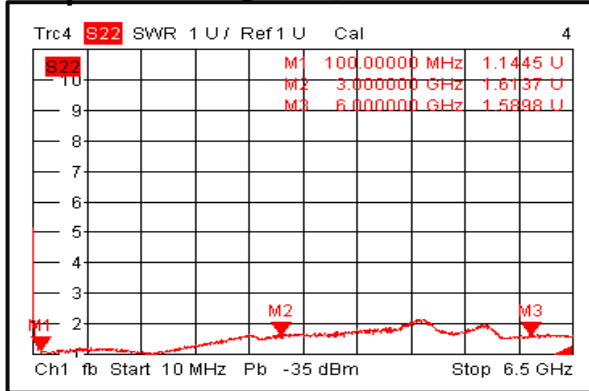
Gain @+85°C



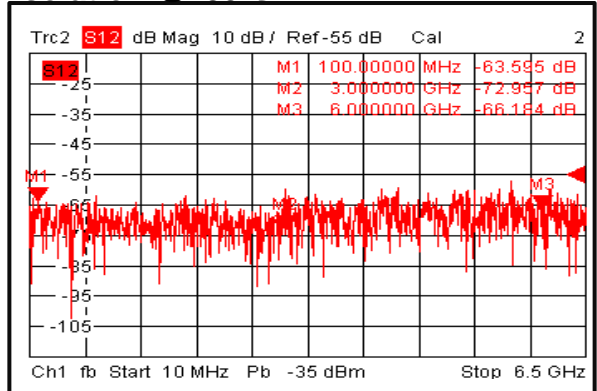
Input VSWR @+85°C



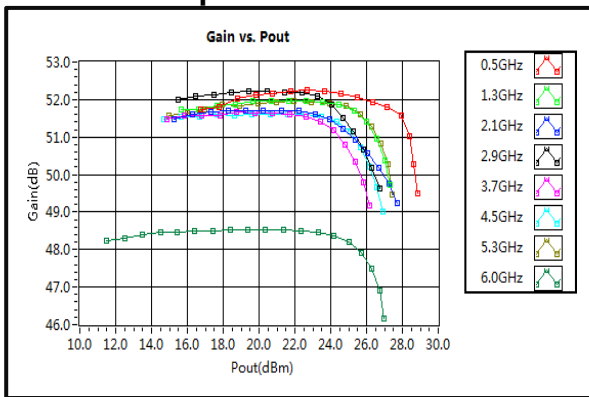
Output VSWR @+85°C



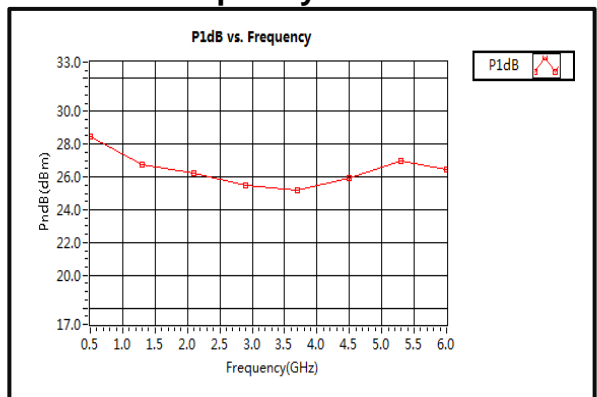
Isolation @+85°C



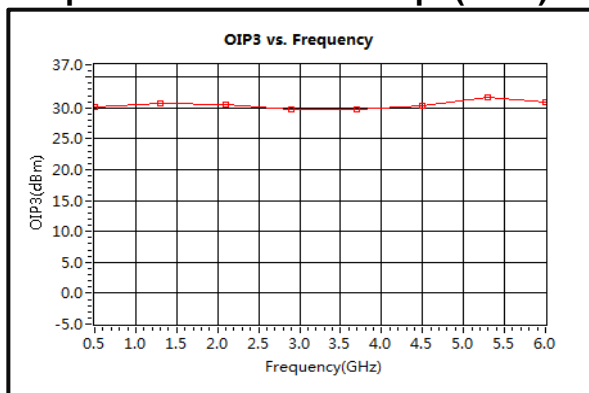
Gain vs. Output Power



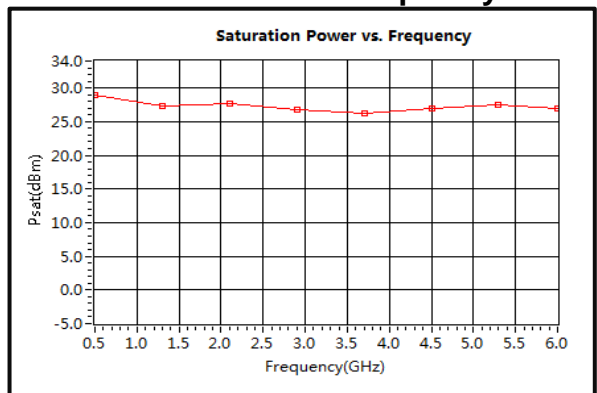
P1dB vs. Frequency



Output Third Order Intercept (OIP3)

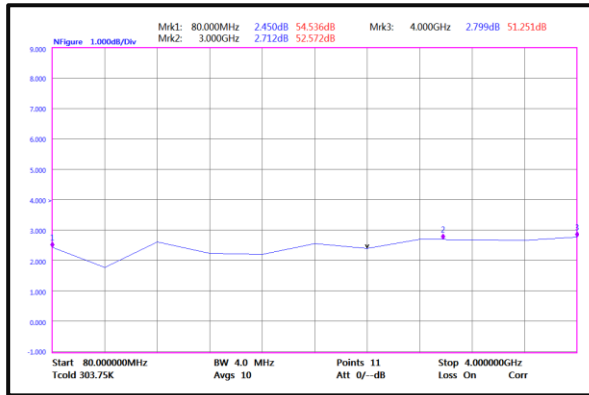


Saturation Power vs. Frequency



Ultra wide band Low Noise Amplifier 0.08GHz-6GHz

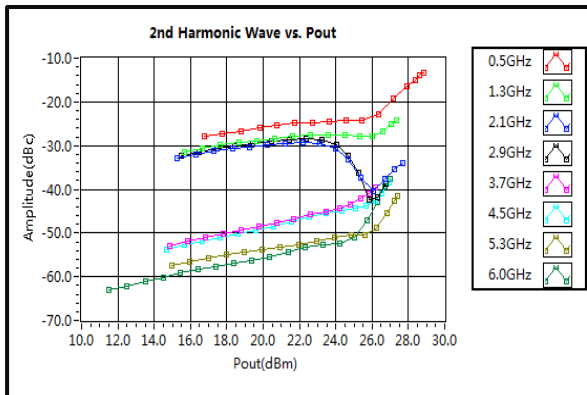
Noise Figure (80MHz-4GHz)



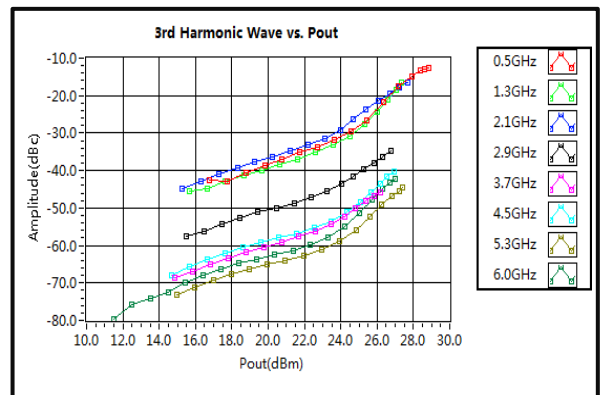
Noise Figure ((4GHz-6GHz)



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power

