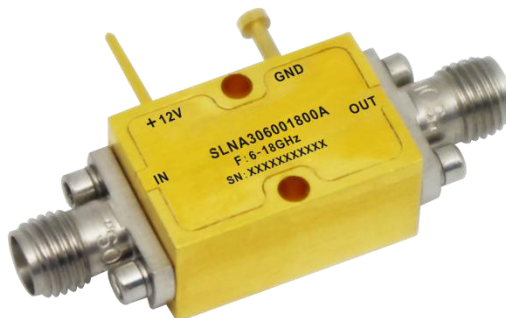


Wide Band Low Noise Amplifier 6GHz-18GHz

Features

- Gain: 39dB Typical
- Noise Figure: 2.2dB Typical
- P1dB Output Power: +16dBm Typical
- Supply Voltage: +12V @ 180mA
- 50 Ohm Matched Input / Output
- Size: 0.79" x 0.51" x 0.39"



Typical Applications

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

RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	6 - 8			8 - 12			12 - 18			GHz
Gain	35	39		35	38		35	38		dB
Gain Flatness		±0.5	±0.8		±1.5	±2.0		±1.5	±2.0	dB
Gain Variation Over Temperature(-40°C~+85°C)		±1.0			±1.0			±1.5		dB
Noise Figure		2.8	3.0		2.2	2.5		2.4	3.0	dB
Input Return Loss	10	12		10	12		9	11		dB
Output Return Loss	6	8		10	15		12	18		dB
Output Power for 1 dB Compression (P1dB)	13	15		14	16		14	16		dBm
Saturated Output Power (Psat)		16			17			17		dBm
Output Third Order Intercept (OIP3)		24			26			26		dBm
Isolation S12		-60			-60			-55		dB
Supply Current (Idd) (Vcc=+12V)		180	220		180	220		180	220	mA
Input Max Power(no damage)		-12			-12			-12		dBm

Weight	0.35 ounces	Impedance	50ohms
Input /Output Connectors	SMA-Female	Material	Aluminum
Finish	Gold Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Option with extra charge)

Wide Band Low Noise Amplifier 6GHz-18GHz

Absolute Maximum Ratings

Operating Voltage	+12V±10%
RF Input Power (Vcc= +12V)	-10dB 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

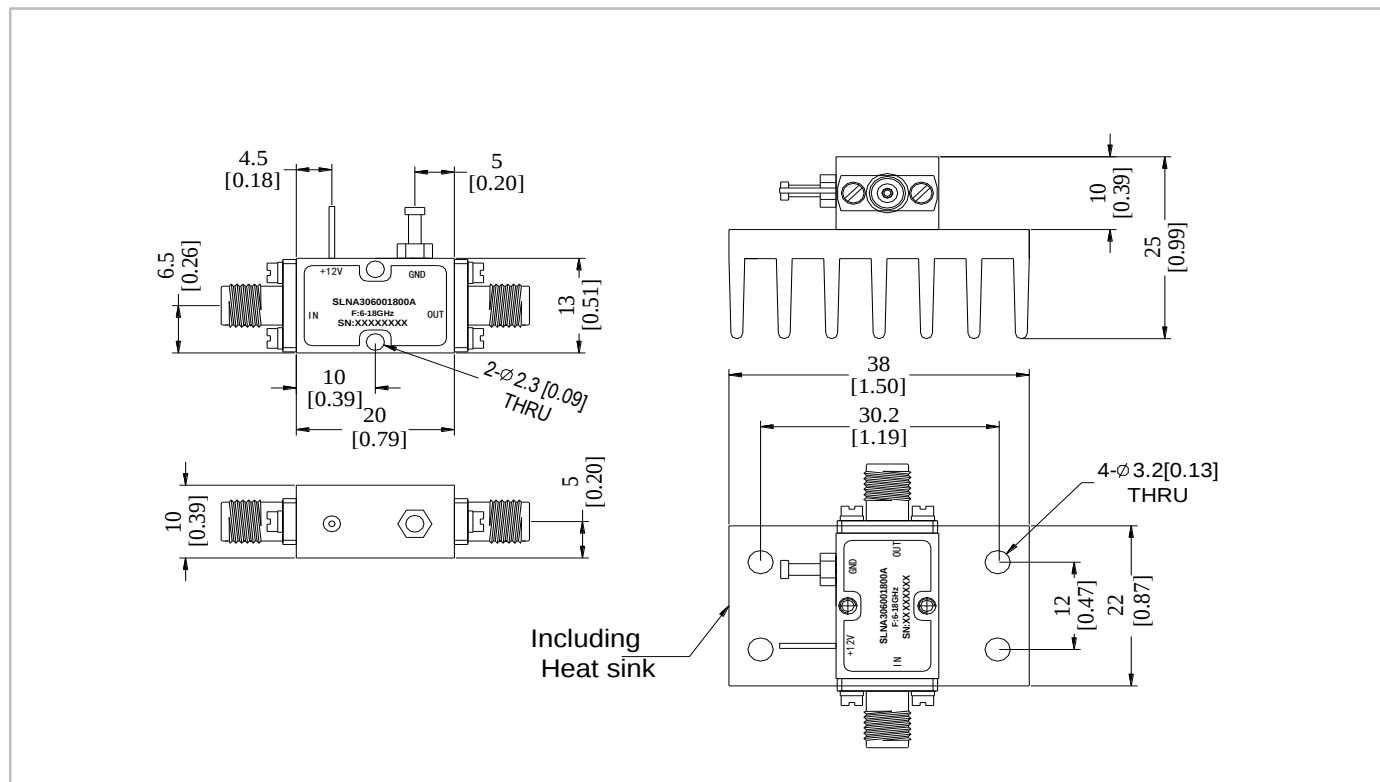
Environmental Specifications

Operational Temperature	-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:

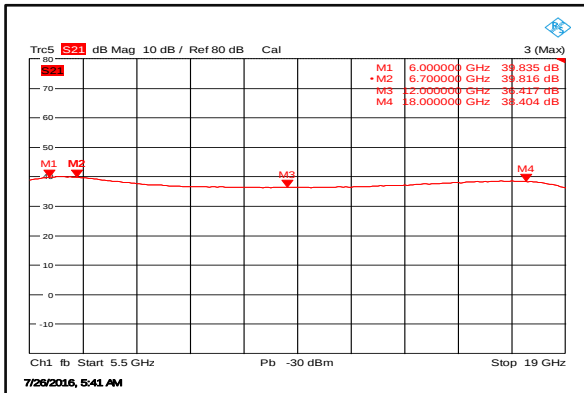
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

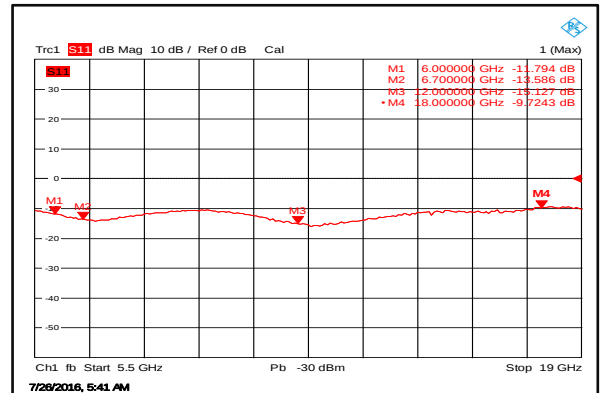


Wide Band Low Noise Amplifier 6GHz-18GHz

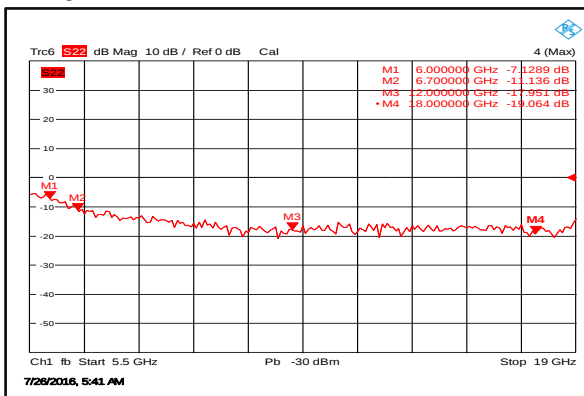
Gain



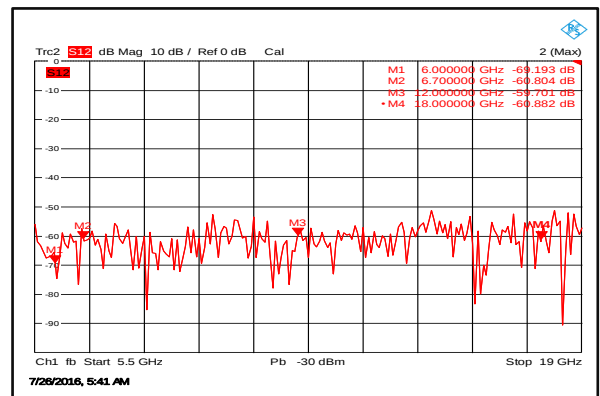
Input VSWR



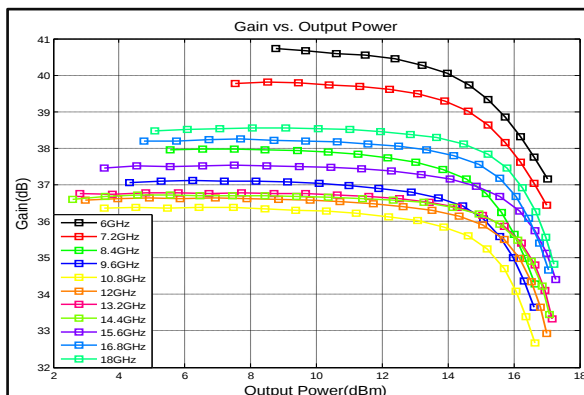
Output VSWR



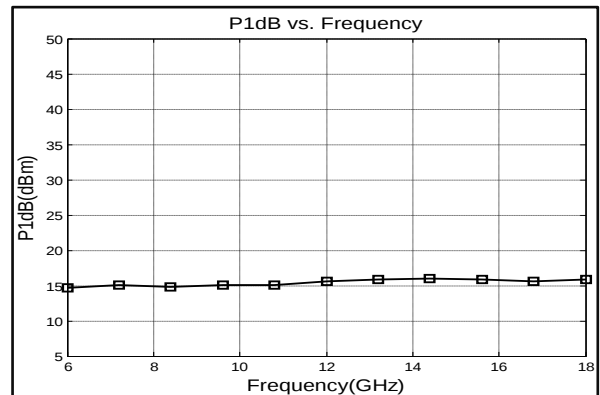
Isolation



Gain vs. Output Power

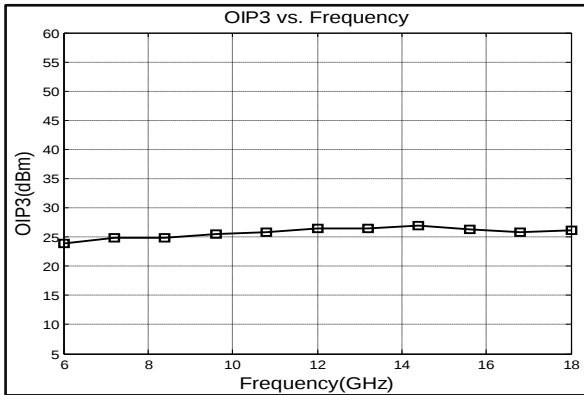


P1dB vs. Frequency

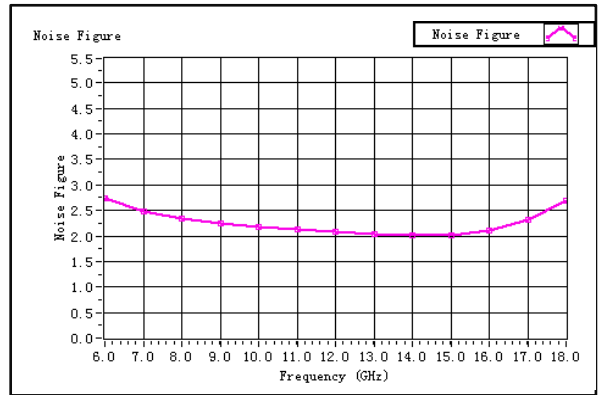


Wide Band Low Noise Amplifier 6GHz-18GHz

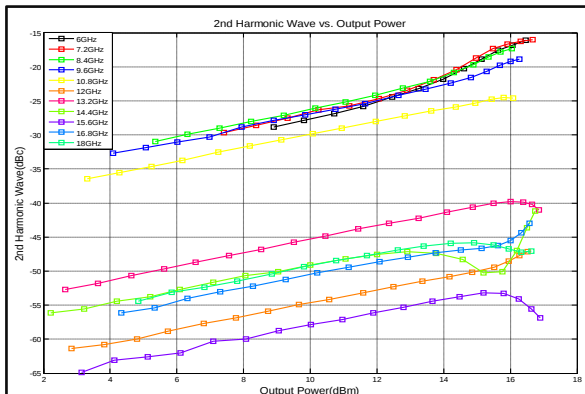
Output Third Order Intercept (OIP3)



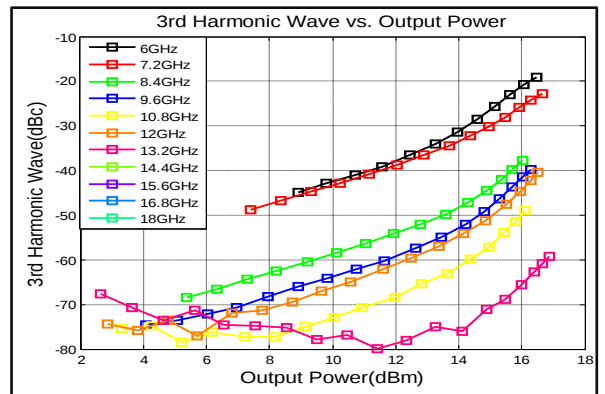
Noise Figure



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power

