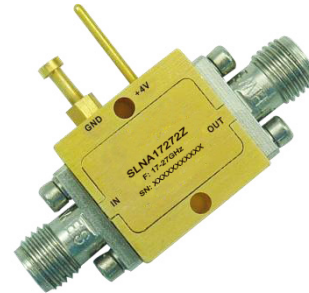


**Low Noise Amplifier 17GHz-27GHz**
**Features**

- Gain: 25dB Typical
- Noise Figure: 2.5dB Typical
- P1dB Output Power: +12dBm Typical
- Supply Voltage: +4V @ 75mA
- 50 Ohm Matched


**Typical Applications**

- Wireless Infrastructure
- Military & Aerospace
- Fiber Optics

RF Microwave & VSAT  
Test Instrument

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	17 - 20		20 - 27				GHz
Gain	20	24		22	25		dB
Gain Flatness		±1.5			±1.0		dB
Gain Variation Over Temperature (-45°C~+85°C)		±1.0			±1.0		dB
Noise Figure		2.5	3.0		2.8	3.3	dB
Input VSWR		1.3	1.8		1.6	2.0	: 1
Output VSWR		1.6	2.0		1.8	2.5	: 1
Output 1dB Compression Point (P1dB)	9	11		10	12		dBm
Saturated Output Power (Psat)		13			14		dBm
Output Third Order Intercept (IP3)		18			20		dBm
Supply Current (Idd) (Vcc=+4V)		75	100		75	100	mA
Isolation S12		-40			-35		dB

Weight	0.35 ounces	Impedance	50ohms
Input / Output Connectors	2.92mm-Female	Material	Aluminum
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)

**Low Noise Amplifier 17GHz-27GHz**

**Absolute Maximum Ratings**

Operating Voltage	+5.5V
RF Input Power (RFIN)	-5dBm

**Biassing Up Procedure**

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +4V biasing

**Power OFF Procedure**

Step 1	Turn off +4V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

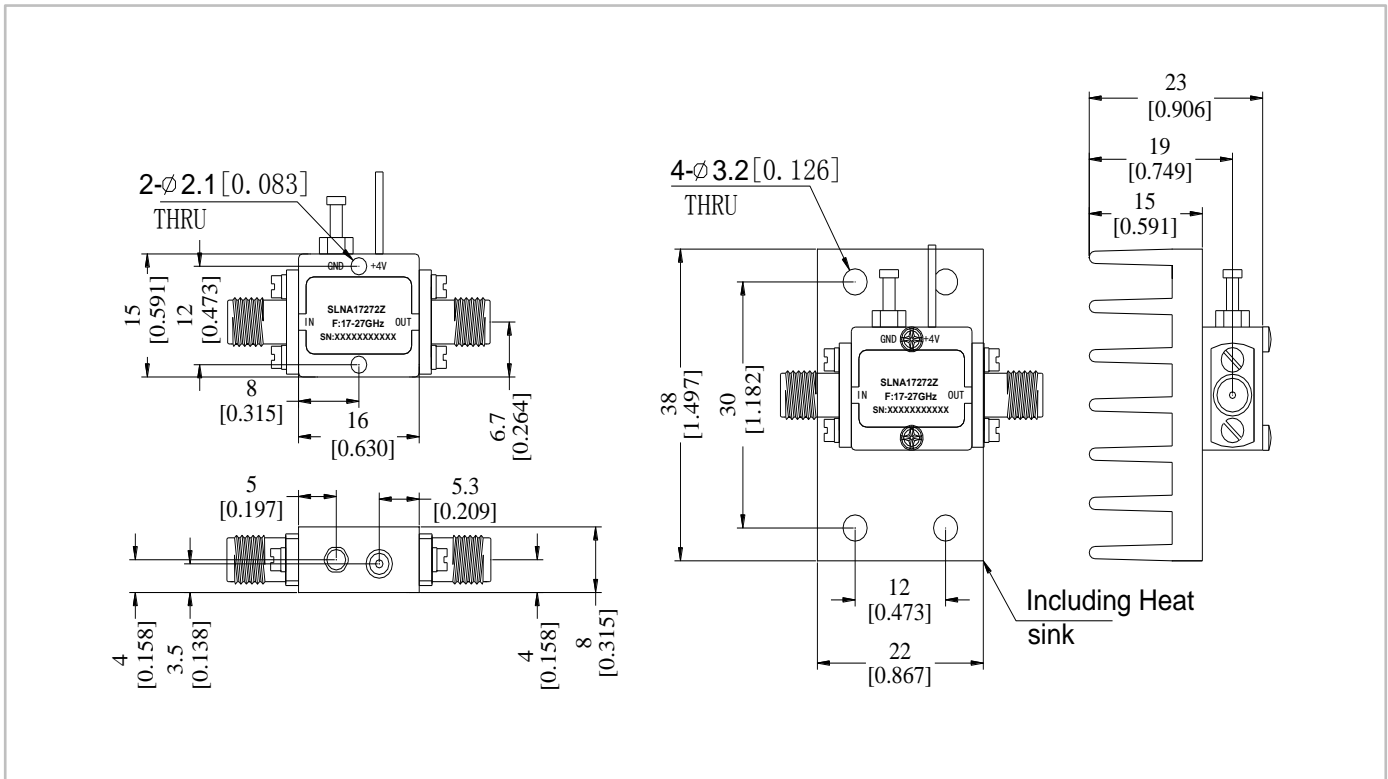
**Environmental Specifications**

Operational Temperature	-45°C to +85°C
Storage Temperature	-55°C to +125°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 35c, 95%RH at 40c
Shock	20G for 11msec half sine wave,3 axis both directions

**Outline Drawing:**

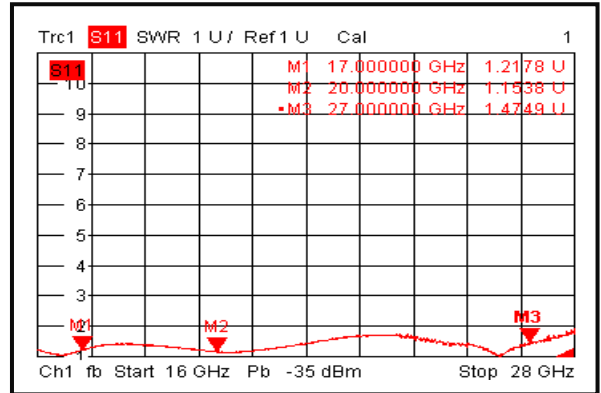
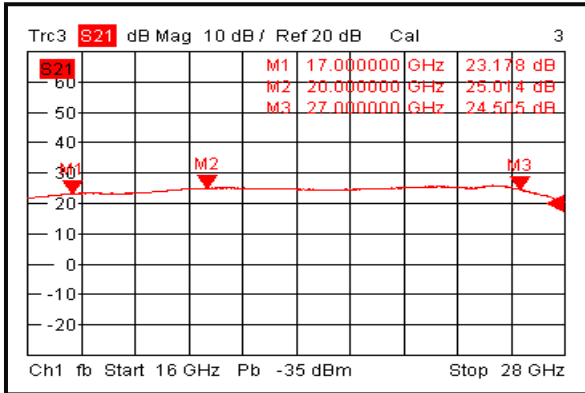
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

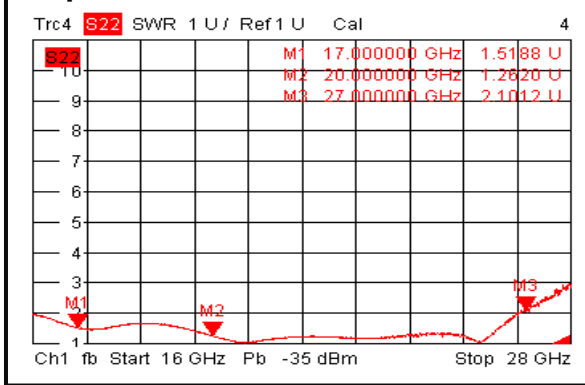


**Low Noise Amplifier 17GHz-27GHz**  
**Input VSWR @+25°C**

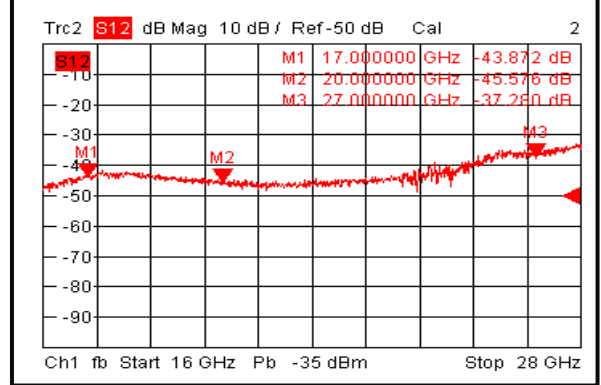
**Gain @+25°C**



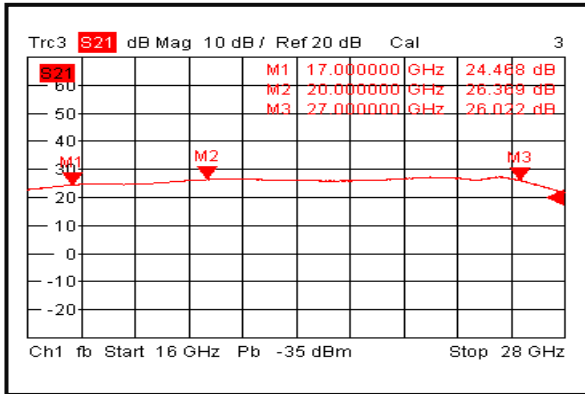
**Output VSWR @+25°C**



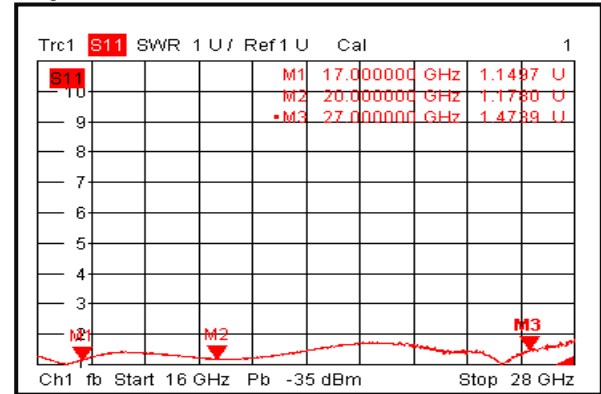
**Isolation @+25°C**



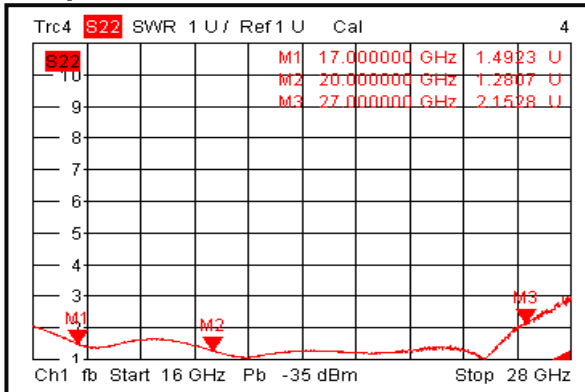
**Gain @-45°C**



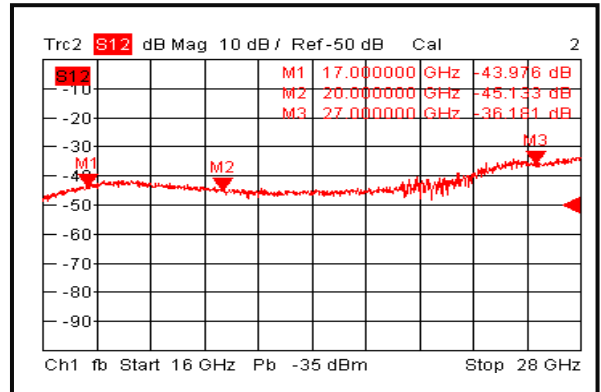
**Input VSWR @-45°C**



**Output VSWR @-45°C**

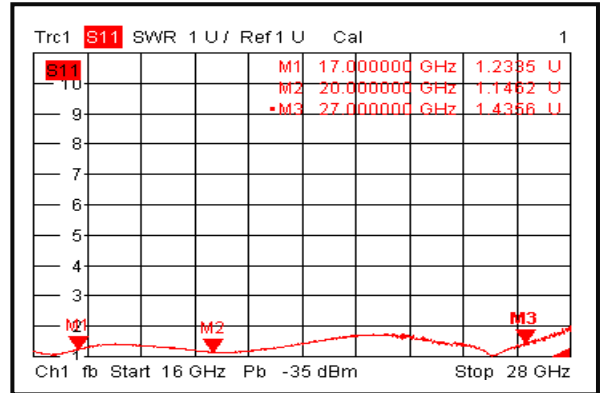
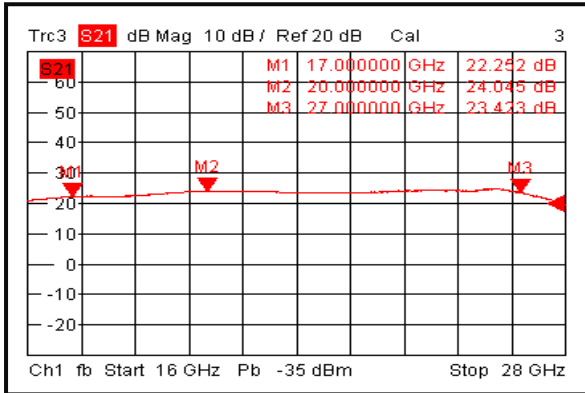


**Isolation @-45°C**

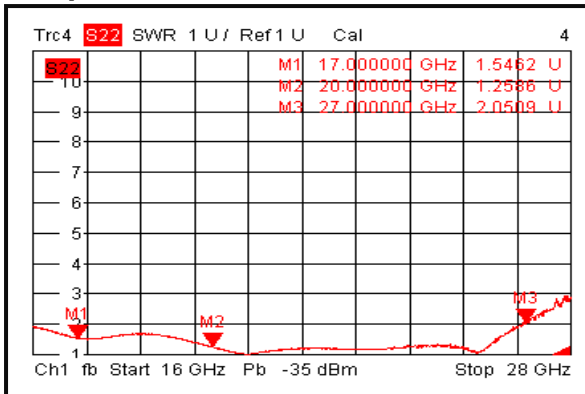


**Low Noise Amplifier 17GHz-27GHz**  
**Input VSWR @+85°C**

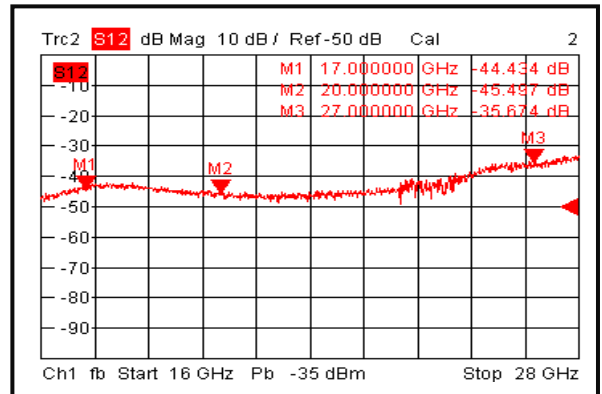
**Gain @+85°C**



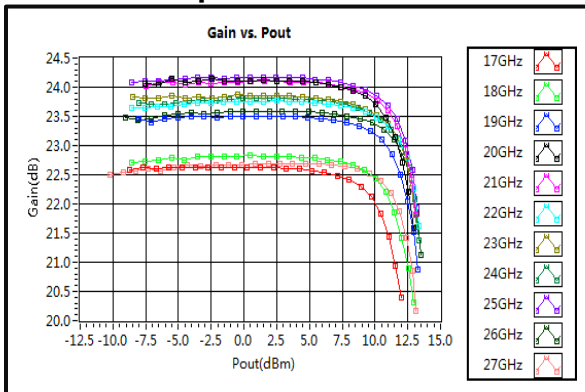
**Output VSWR @+85°C**



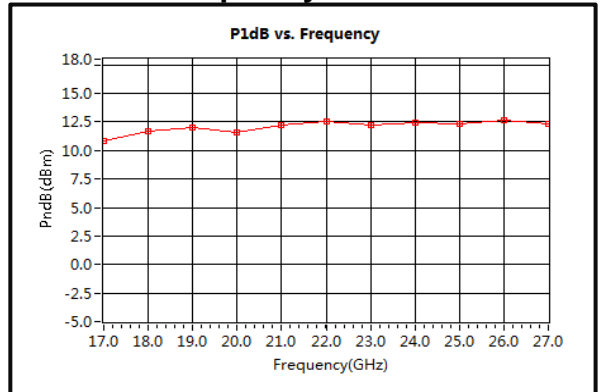
**Isolation @+85°C**



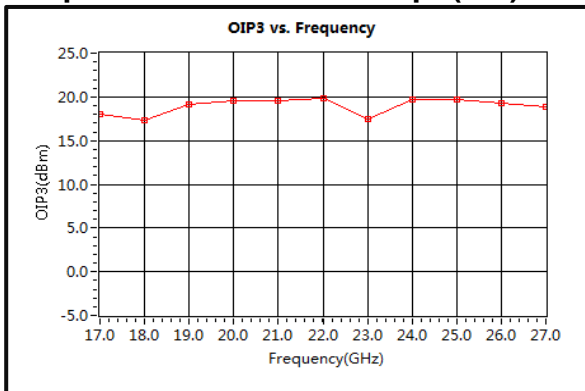
**Gain vs. Output Power**



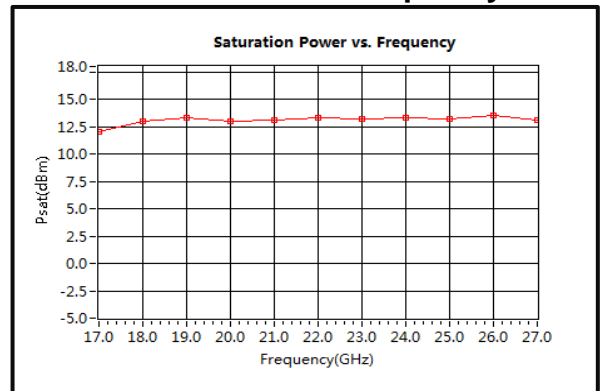
**P1dB vs. Frequency**



**Output Third Order Intercept (IP3)**



**Saturation Power vs. Frequency**



Low Noise Amplifier 17GHz-27GHz

**Noise Figure**



**2nd Harmonic Wave Output Power**

