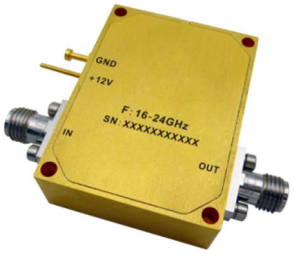
Wide Band Low Noise Amplifier
16GHz~24GHz



Features

- Gain: 44dB Typical
- Noise Figure: 1.8dB Typical
- P1dB Output Power: +23.5dBm Typical
- Supply Voltage: +12V

Typical Applications

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

RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Units
Frequency Range	16		24	GHz
Gain	40	44	48	dB
Gain Flatness		±1.5	±2.5	dB
Gain Variation Over Temperature (-40ºC~+85ºC)		±2.0		dB
Noise Figure		1.8	2.3	dB
Input VSWR		2.0	3.0	: 1
Output VSWR		1.8	2.2	: 1
Output 1dB Compression Point (P1dB)	20	23.5		dBm
Saturated Output Power (Psat)		25		dBm
Output Third Order Intercept (OIP3)		32.5		dBm
Supply Current (Vcc=+12V)		280	500	mA
Isolation S12		-60		dB

Weight	1.71 Max. ounces	Impedance	50ohms
Input / Output Connectors	2.92mm-Female	Material	copper
Finish	Gold Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Optional)

Absolute Maximum Ratings

Operating Voltage	+15V
RF Input Power (Vcc= +12V)	+6dBm

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

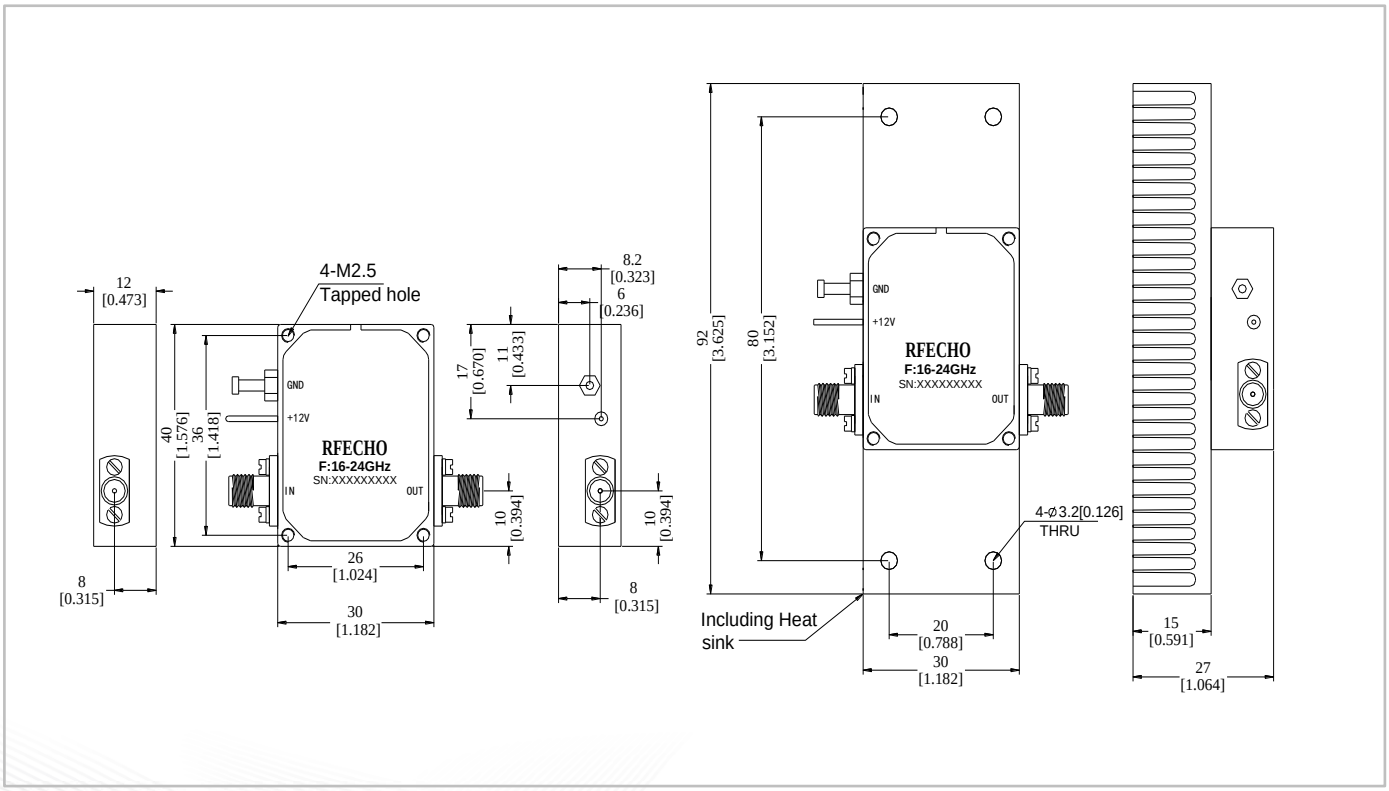
Environmental Specifications

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 35ºc, 95%RH at 40ºc
Shock	20G for 11msec half sine wave,3 axis both directions

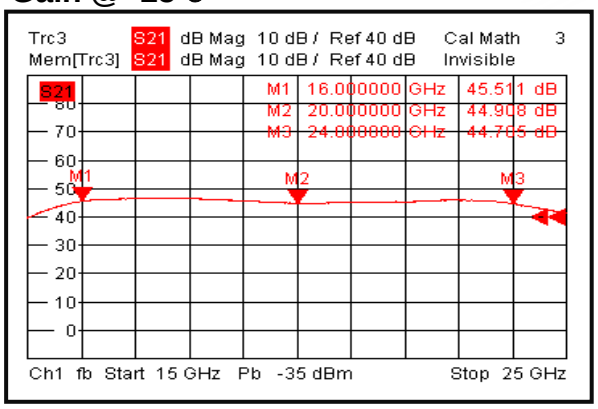
Outline Drawing:

All Dimensions in mm (inches)

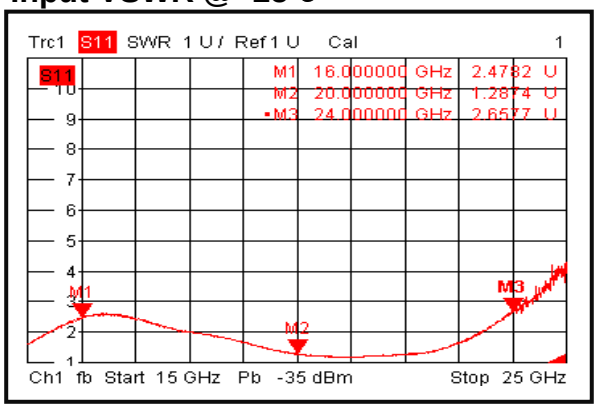
Heat Sink required during operation(Sold Separately)



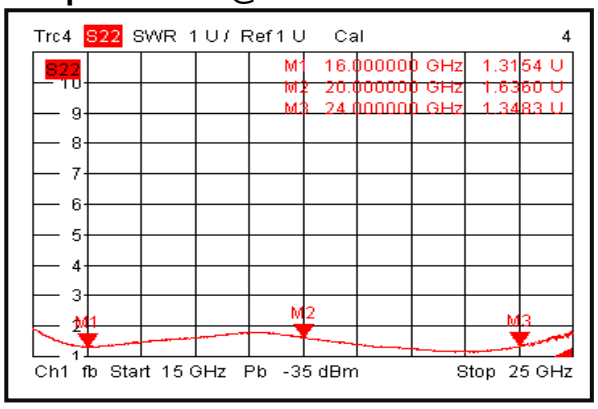
Gain @+25℃



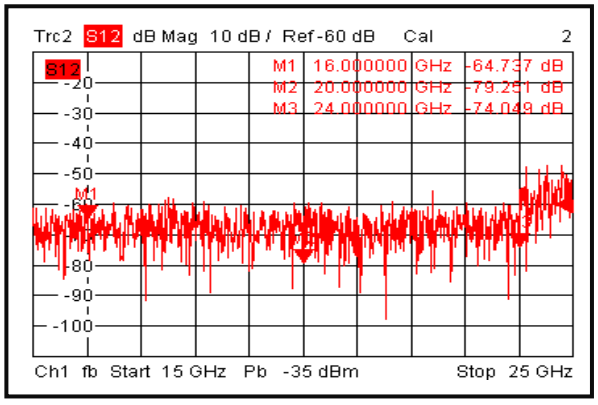
Input VSWR @+25℃



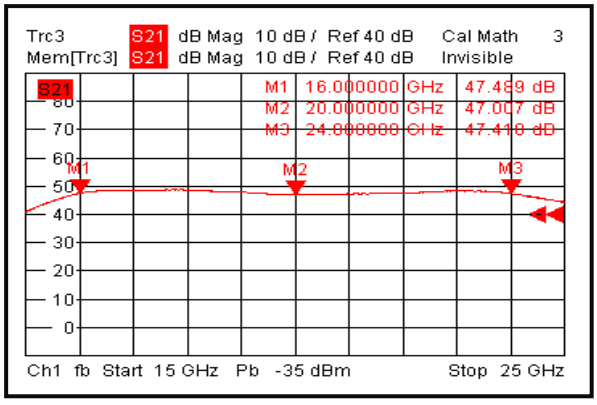
Output VSWR @+25℃



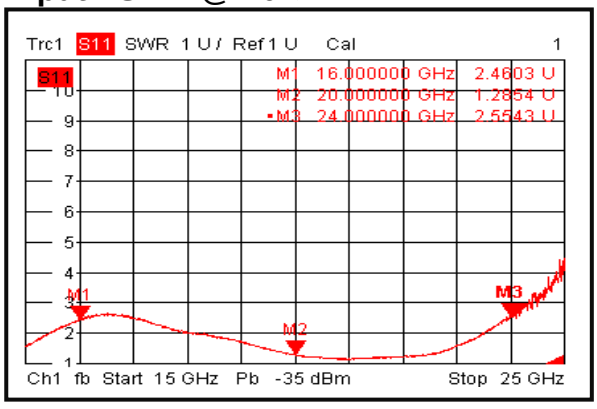
Isolation @+25℃



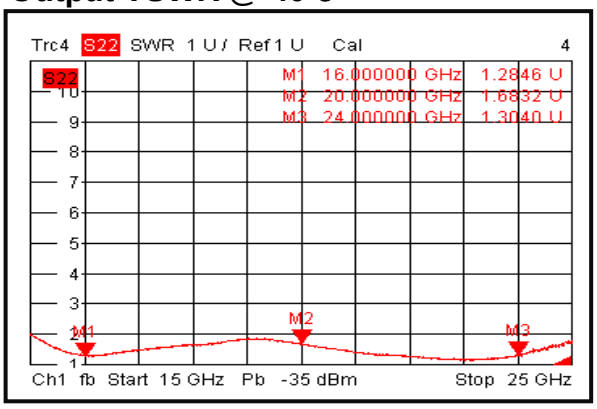
Gain @-40℃



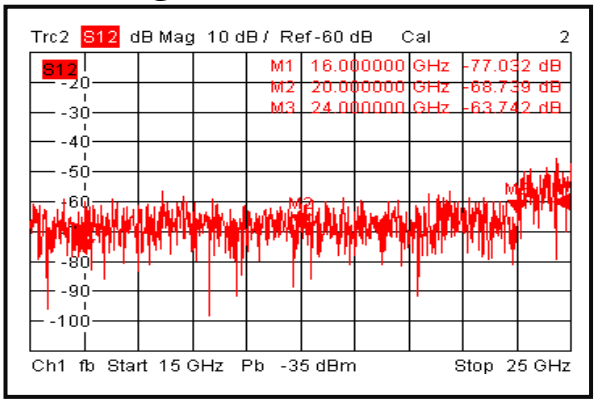
Input VSWR @-40℃



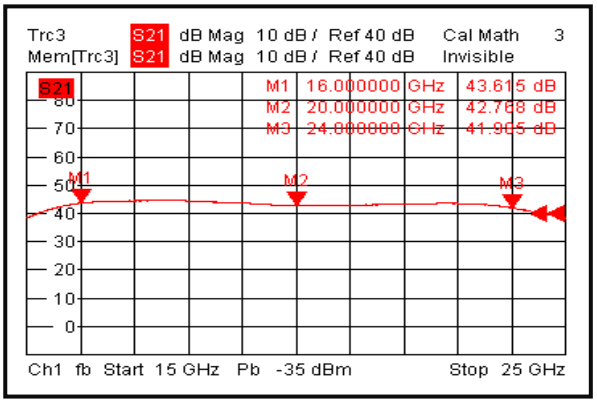
Output VSWR @-40℃



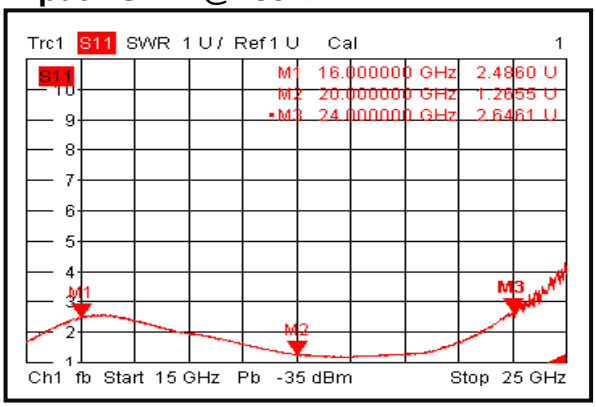
Isolation @-40℃



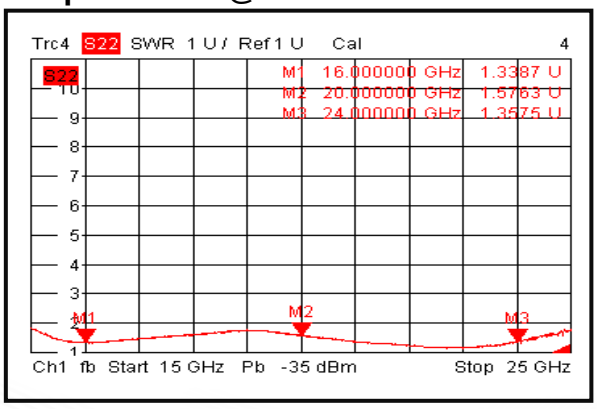
Gain @+85℃



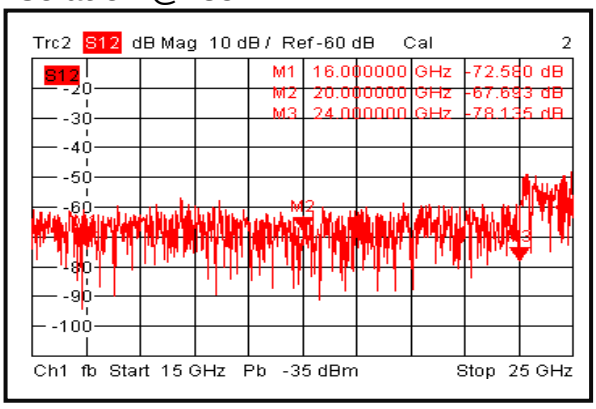
Input VSWR @+85℃



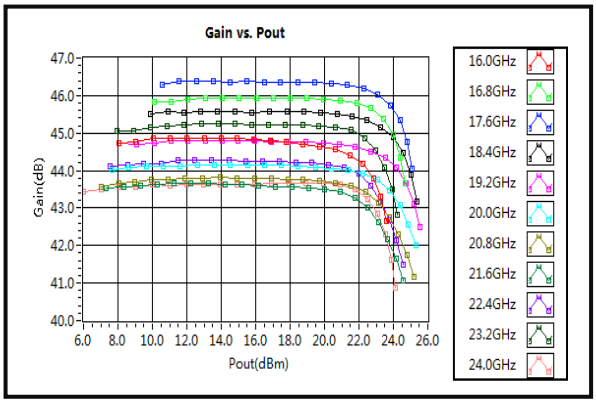
Output VSWR @+85℃



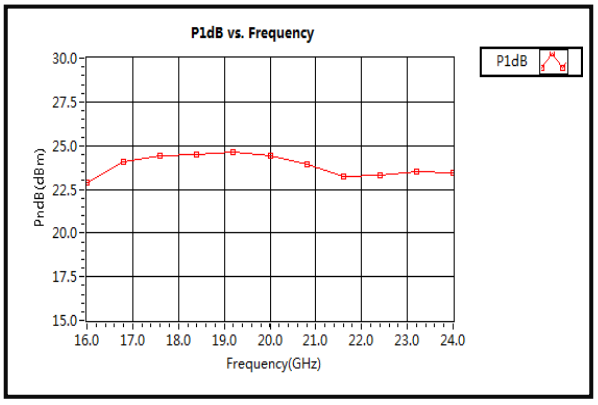
Isolation @+85℃



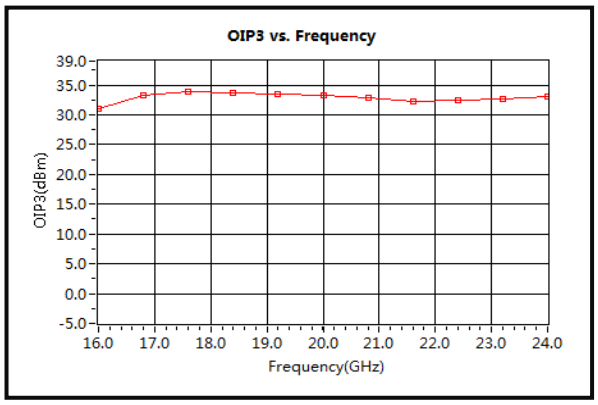
Gain vs. Output Power



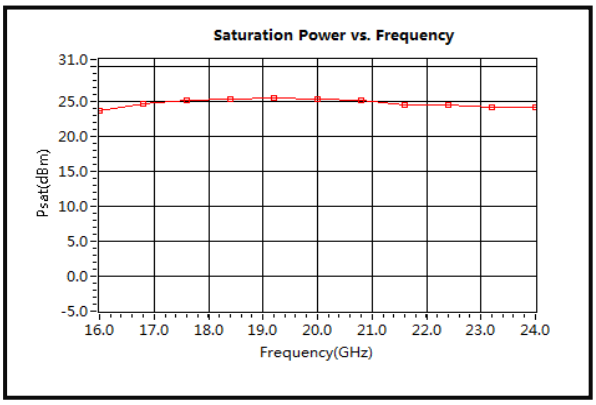
P1dB vs. Frequency



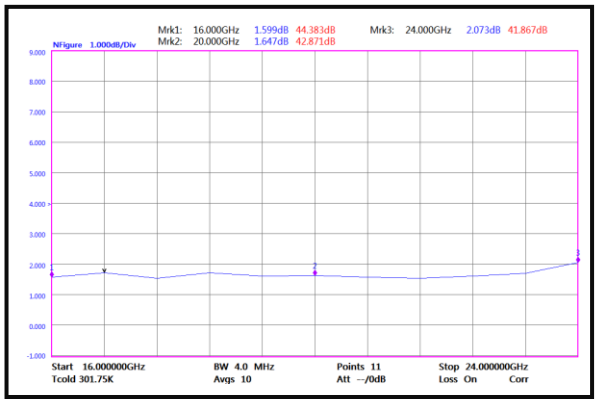
Output Third Order Intercept (OIP3)



Saturation Power vs. Frequency



Noise Figure(16-24GHz)



2nd Harmonic Wave Output Power