



Wide Band Low Noise Amplifier 22GHz~26.5GHz

Features

- Gain: 24dB Typical
- Noise Figure: 2.5dB Typical
- P1dB Output Power: +12dBm Typical
- Supply Voltage: +3V @ 55mA
- 50 Ohm Matched Input / Output
- Size: 0.63" x 0.59" x 0.41"



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	22		24	24		26.5	GHz
Gain	22	24		21.5	23		dB
Gain Flatness		±0.5	±1.0		±1.0	±1.5	dB
Gain Variation Over Temperature (-40°C~+85°C)		±0.5			±0.8		dB
Noise Figure		3.0	4.5		2.5	3.5	dB
Input VSWR		1.5	2.0		1.6	2.0	: 1
Output VSWR		1.6	1.8		1.5	1.8	: 1
Output Power for 1 dB Compression (P1dB)	8	12		8	12		dBm
Saturated Output Power (Psat)		13			13		dBm
Output Third Order Intercept (OIP3)		20			20		dBm
Isolation S12		-40			-35		dB
Supply Current (Idd) (Vcc=+3V)		55	65		55	65	mA

Weight	0.88 ounces	Impedance	50 ohms
Input /Output Connectors	SMA-Female	Material	Aluminum
Finish	Gold Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Option with extra charge)



Absolute Maximum Ratings

Operating Voltage	+5V
RFInput Power	-7dBm

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect -5V biasing
Step 4	Connect +3V biasing

Power OFF Procedure

Step 1	Turn off +3V biasing
Step 2	Turn off -5V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

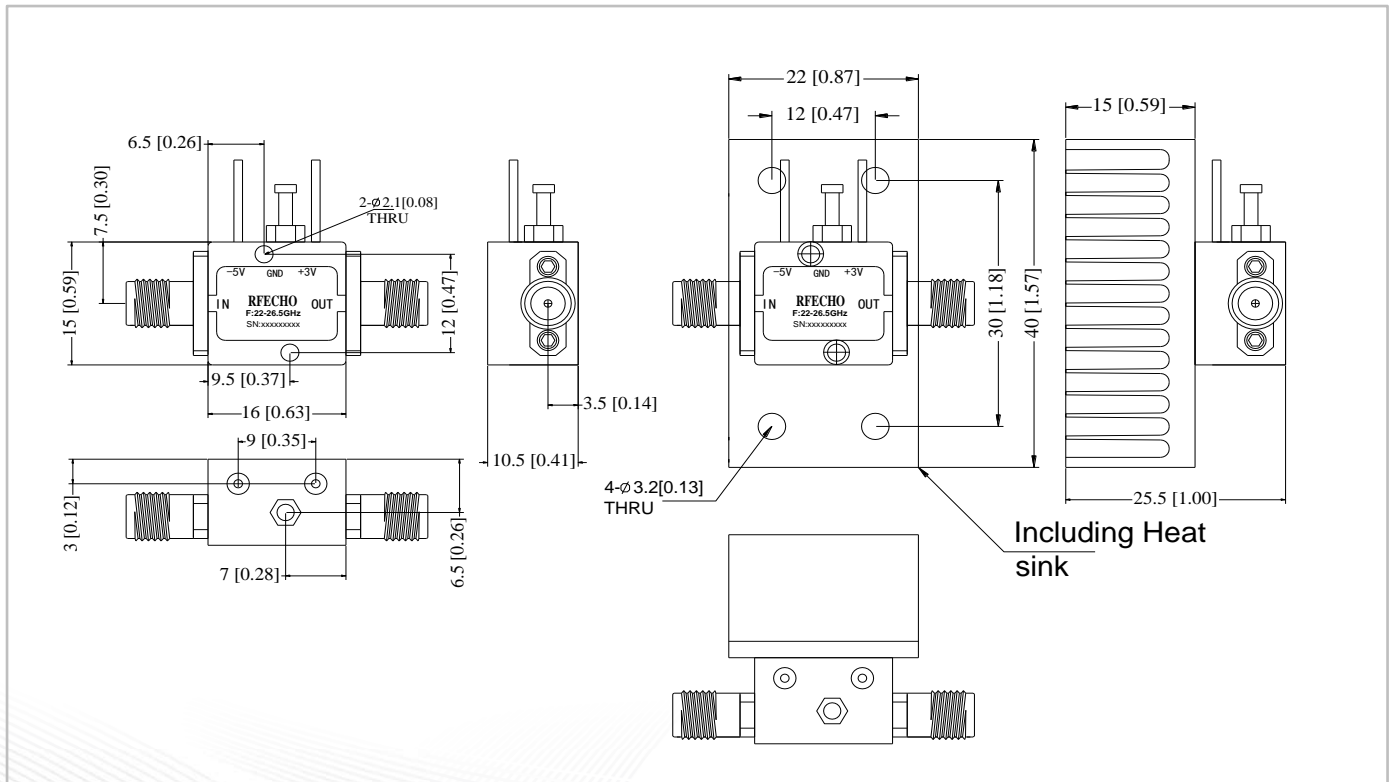
Environmental Specifications

Operational Temperature	-40°C~+85°C
Storage Temperature	-50°C~+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:

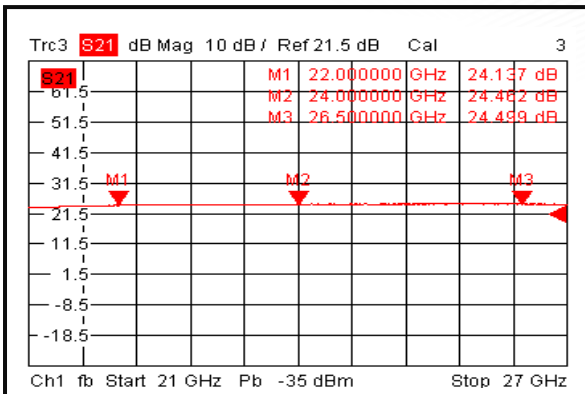
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

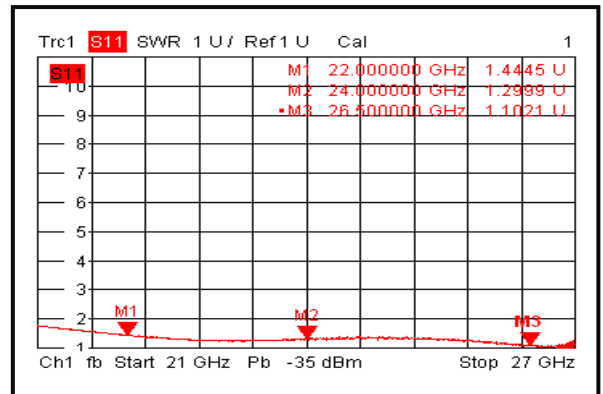




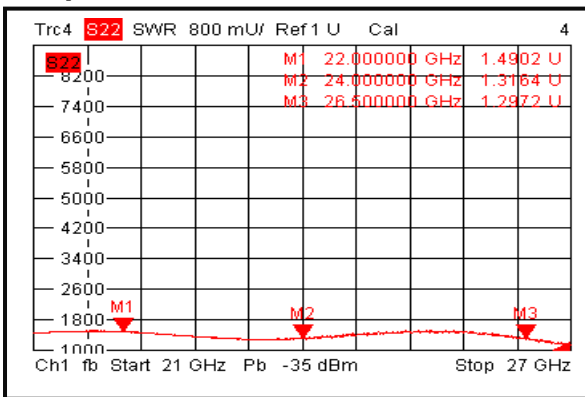
Gain @+25°C



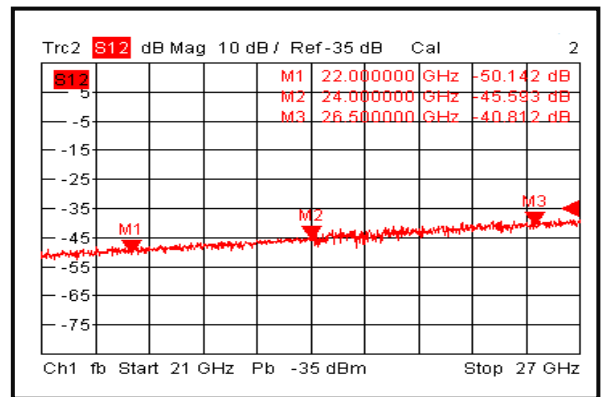
Input VSWR @+25°C



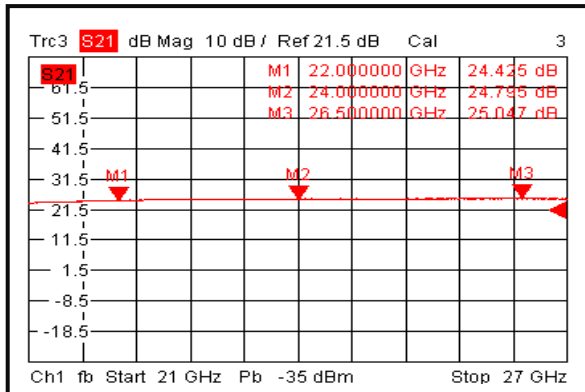
Output VSWR @+25°C



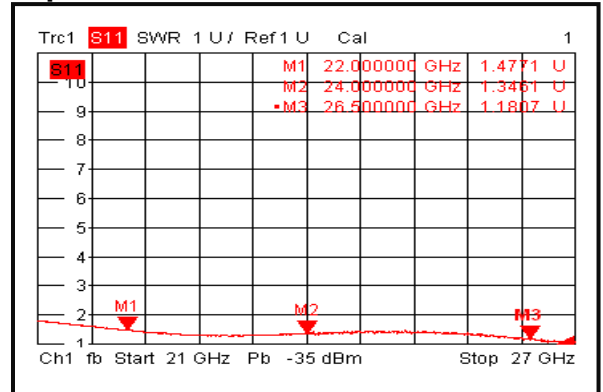
Isolation @+25°C



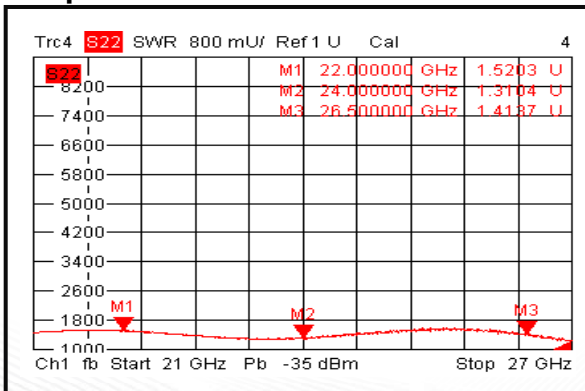
Gain @-40°C



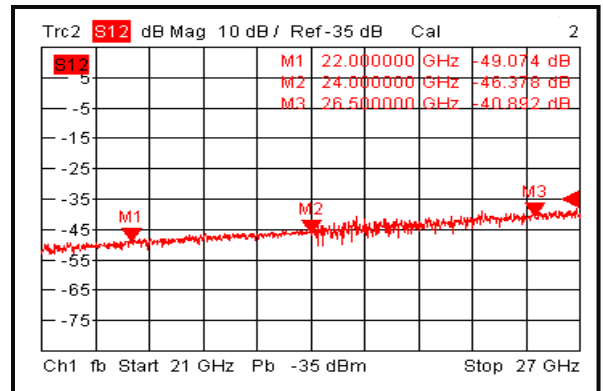
Input VSWR @-40°C



Output VSWR @-40°C

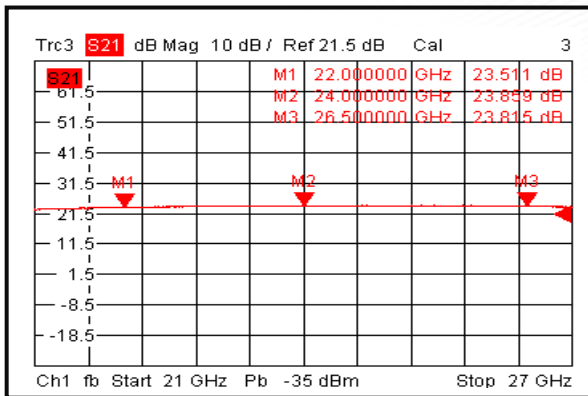


Isolation @-40°C

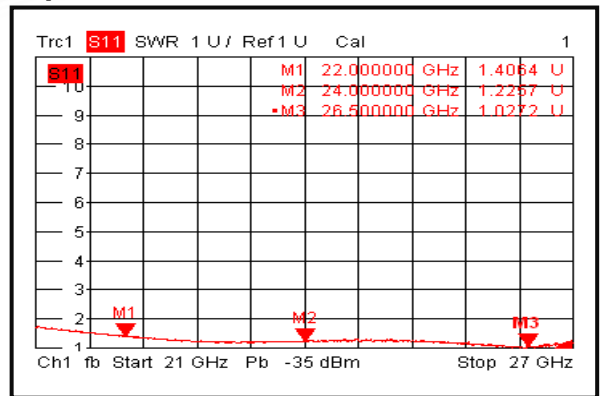




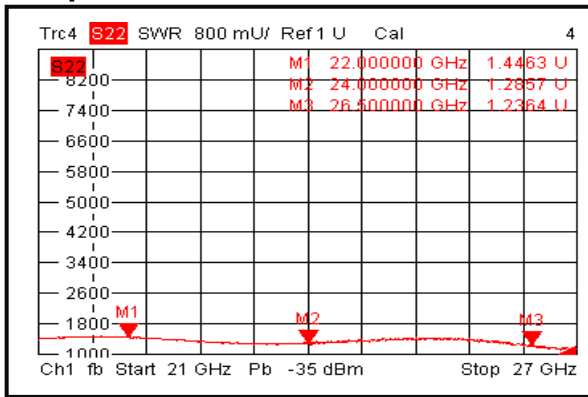
Gain @+85°C



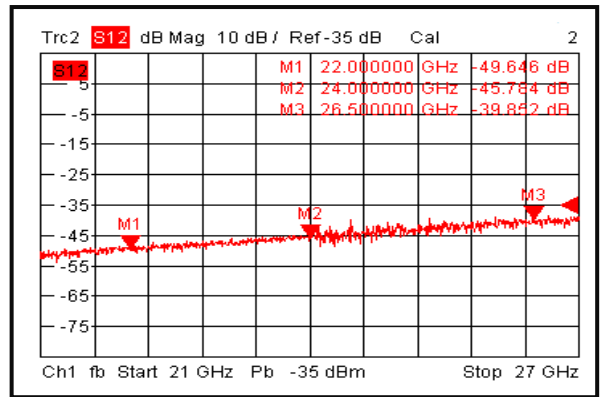
Input VSWR @+85°C



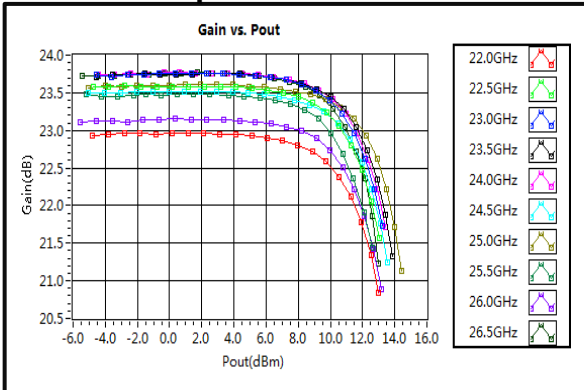
Output VSWR @+85°C



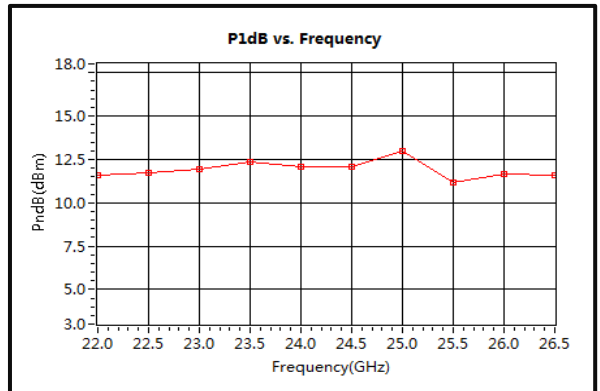
Isolation @+85°C



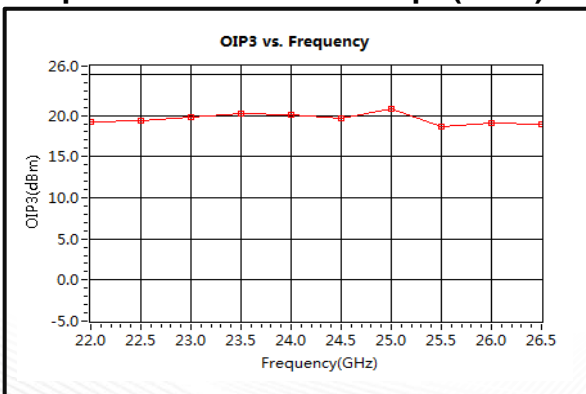
Gain vs. Output Power



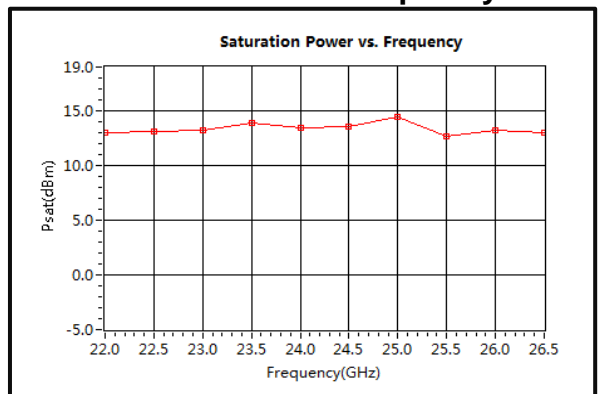
P1dB vs. Frequency



Output Third Order Intercept (OIP3)



Saturation Power vs. Frequency





Noise Figure

