

Low Noise Amplifier 17GHz~26GHz

Features

- Gain: 19dB Typical
- Noise Figure: 2.2dB Typical
- P1dB Output Power: +14dBm Typical
- Supply Voltage: +3V @ 65mA
- 50 Ohm Matched



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	17		22	22		26	GHz
Gain	17	19		16	18		dB
Gain Flatness		±0.5	±1.0		±1.0	±1.5	dB
Gain Variation Over Temperature (-40°C~+85°C)		±1.0			±1.0		dB
Noise Figure		2.2	2.5		2.4	3.0	dB
Input VSWR		1.8	2.0		1.6	2.0	: 1
Output VSWR		1.6	2.0		1.3	1.6	: 1
Output 1dB Compression Point (P1dB)	11	13		12	14		dBm
Saturated Output Power (Psat)		15			16		dBm
Output Third Order Intercept (OIP3)		23			23		dBm
Supply Current (I _{dd}) (V _{cc} =+3V)		65	88		65	88	mA
Isolation S12		-45			-40		dB

Weight	0.35 ounces	Impedance	50ohms
Input / Output Connectors	2.92mm-Female	Material	Aluminum
Finish	Gold Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Option with extra charge)



Absolute Maximum Ratings

Operating Voltage	+5V
RF Input Power (RFIN)	+2dBm

Biassing Up Procedure

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

Power OFF Procedure

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

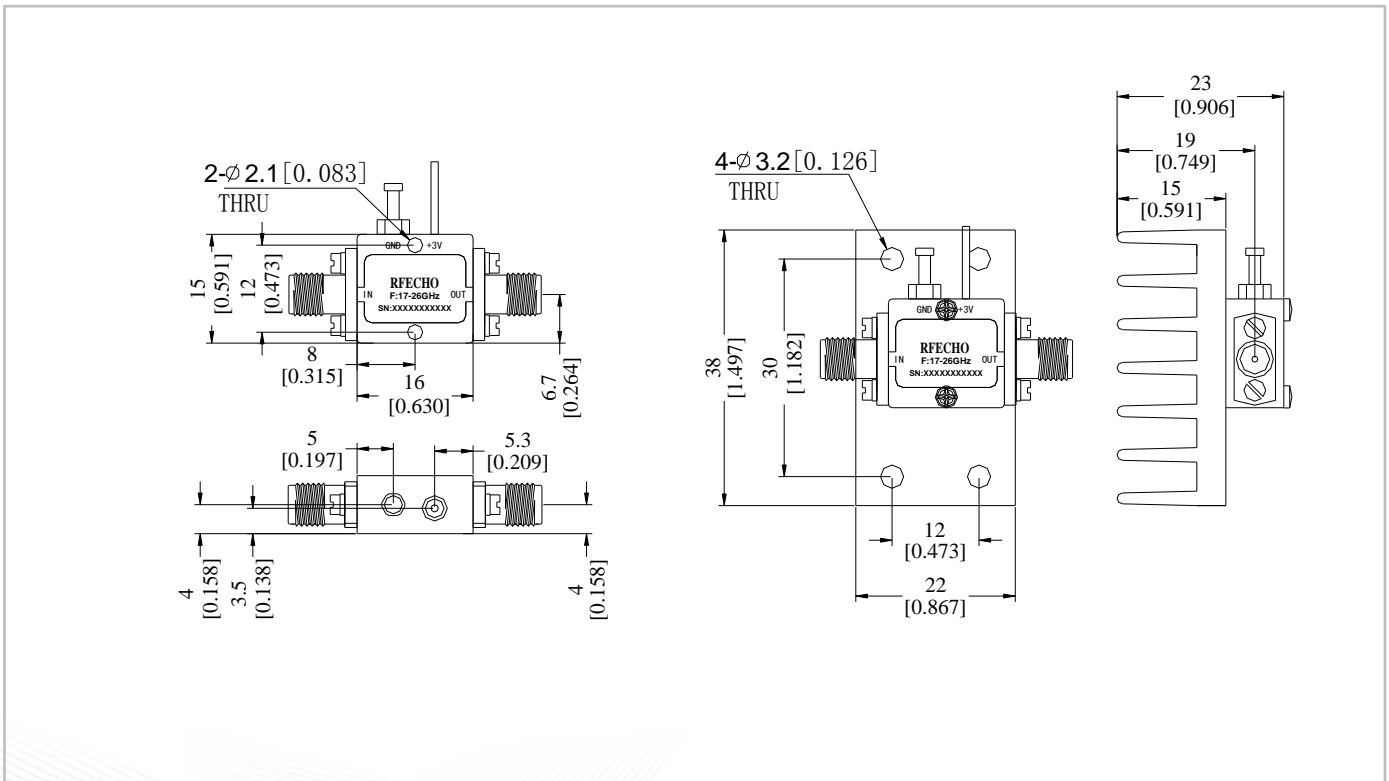
Environmental Specifications

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:

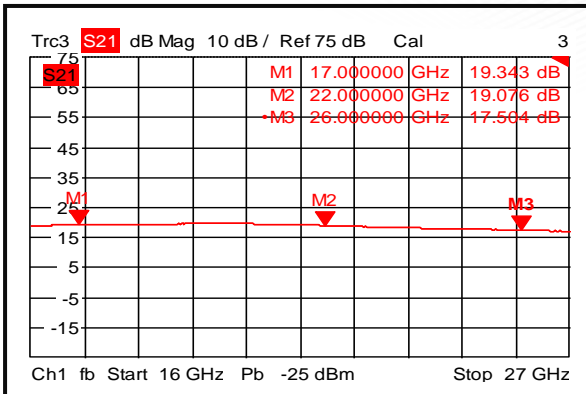
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

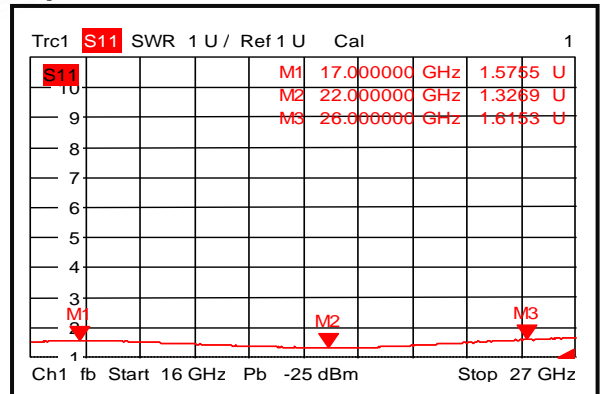




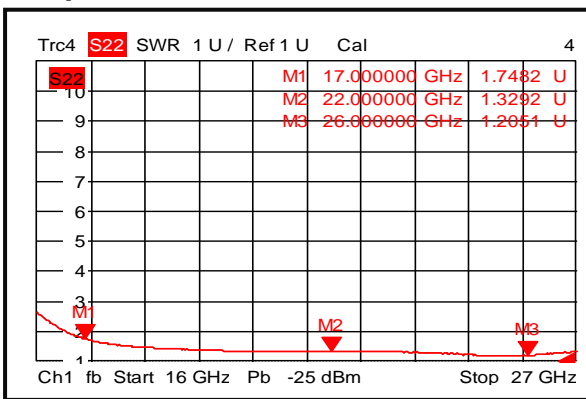
Gain @+25°C



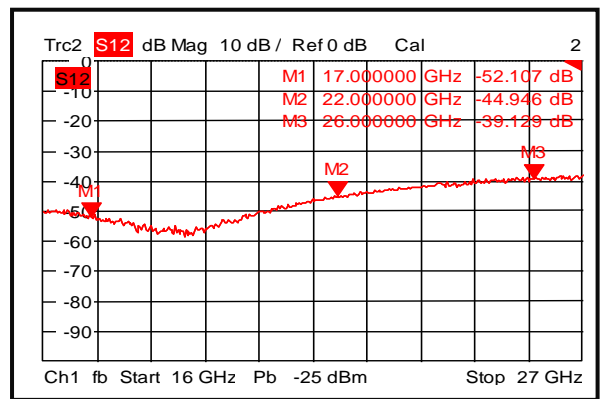
Input VSWR @+25°C



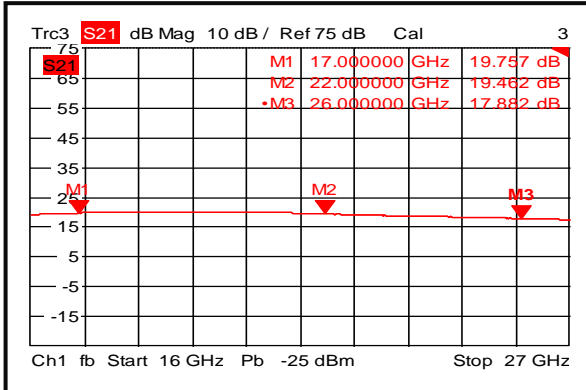
Output VSWR @+25°C



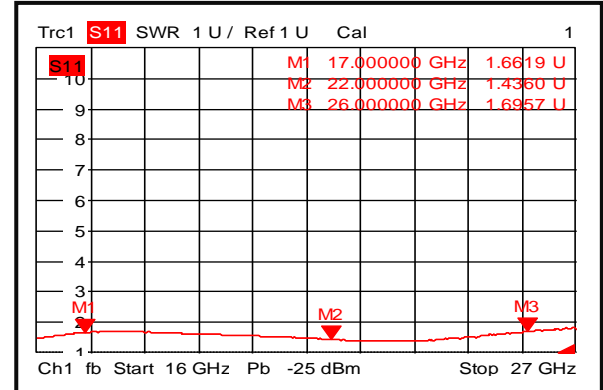
Isolation @+25°C



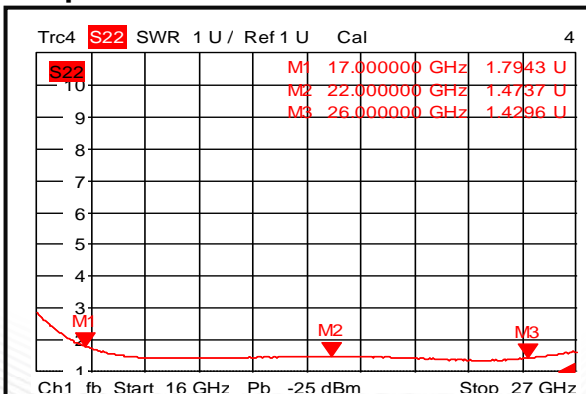
Gain @-40°C



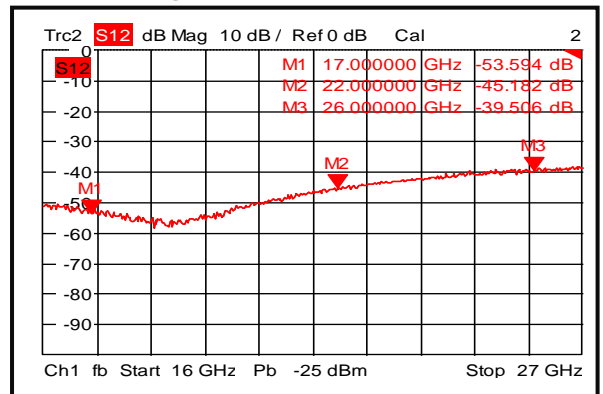
Input VSWR @-40°C



Output VSWR @-40°C

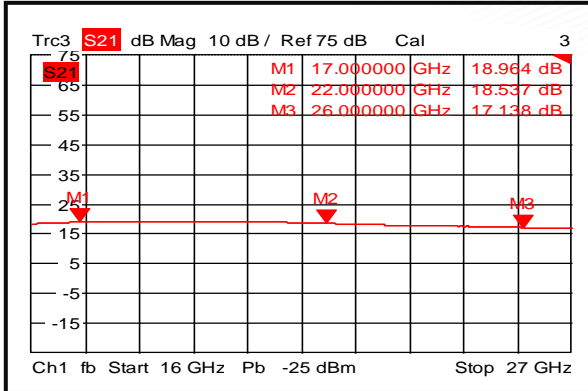


Isolation @-40°C

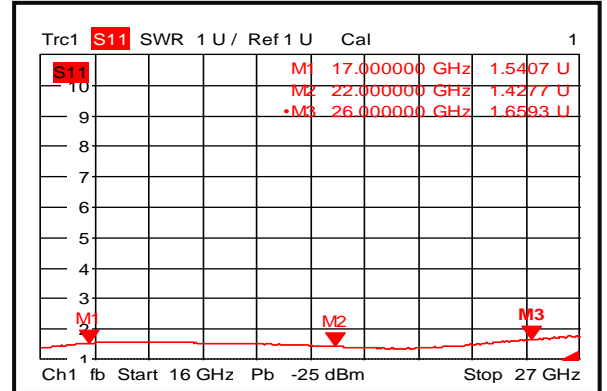




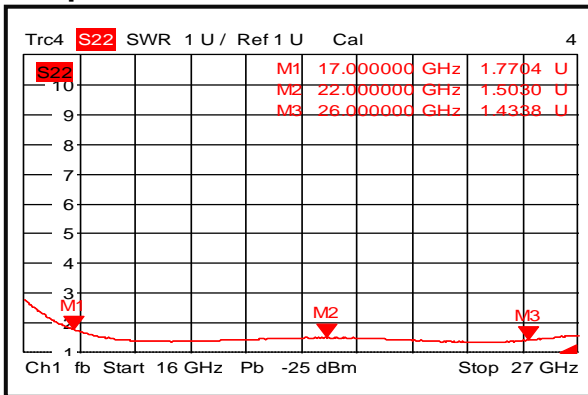
Gain @+85°C



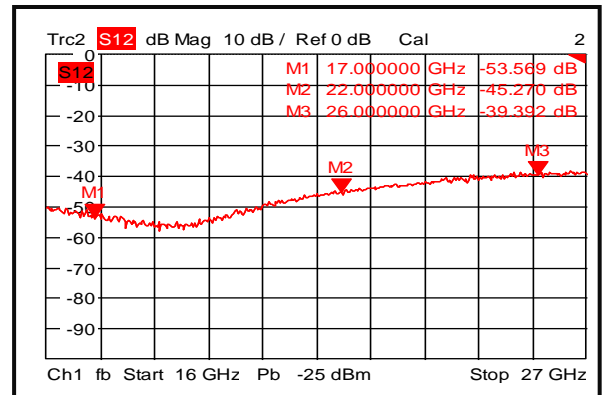
Input VSWR @+85°C



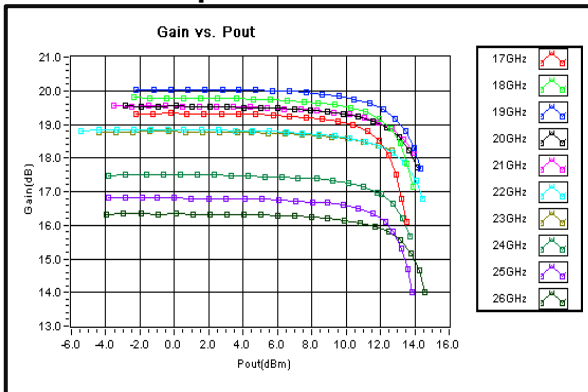
Output VSWR @+85°C



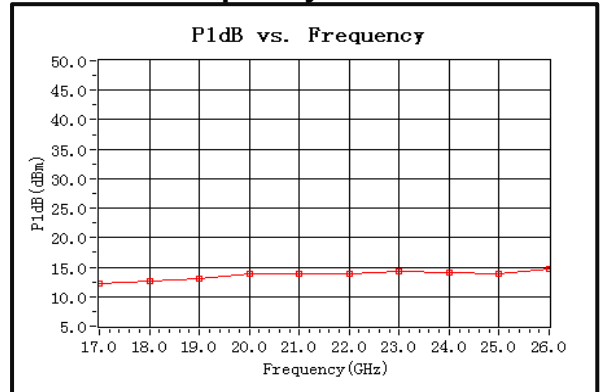
Isolation @+85°C



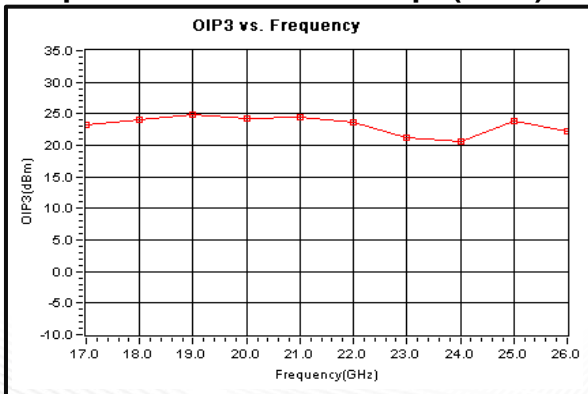
Gain vs. Output Power



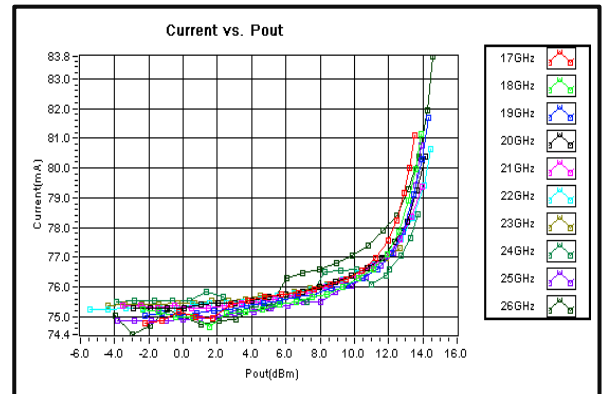
P1dB vs. Frequency



Output Third Order Intercept (OIP3)

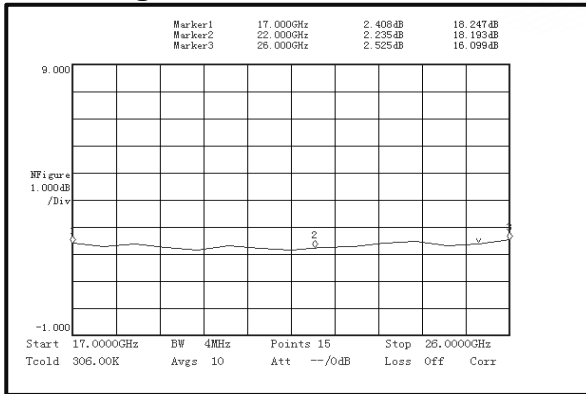


Current

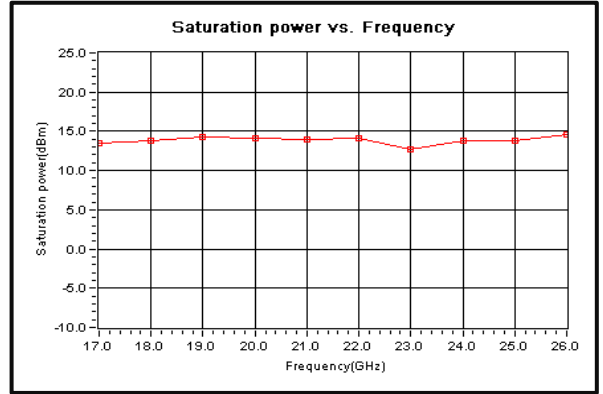




Noise Figure



Saturation Power vs. Frequency



2nd Harmonic Wave Output Power

