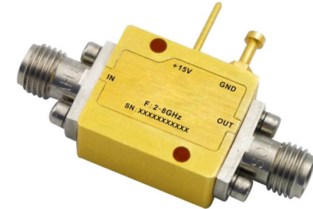




Wide Band Ultra Low Noise Amplifier 2GHz~8GHz

Features

- Gain: 36dB Typical
- Noise Figure: 0.6dB Typical
- Output P1dB: 13dBm Typical
- Supply Voltage: +15V
- 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.	Min.
Frequency Range	2		6	6		8	GHz
Gain	32	36	40	32	36	40	dB
Gain Flatness		±0.5	±1.5		±0.5	±1.5	dB
Gain Variation Over Temperature (-40°C~+85°C)		±1.0			±1.0		dB
Noise Figure	0.4	0.8	1.1	0.4	0.8	1.1	dB
Input VSWR		1.6	3.0		2.5	4.0	: 1
Output VSWR		1.3	2.0		1.7	2.0	: 1
Output 1dB Compression Point (P1dB)	7	10		10	13		dBm
Saturated Output Power (Psat)		12			15		dBm
Output Third Order Intercept (OIP3)		18			20		dBm
Supply Current (Vcc=+15V)		100	130		100	130	mA
Isolation S12		-60			-55		dB

Weight	Net	0.65 Max. ounces	Impedance	50 ohms
	Including Heat sink	1.25Max. ounces		
Input / Output Connectors		SMA-Female	Material	Aluminum
Finish	Gold Plated	Package Sealing	Epoxy Sealed (Standard)	
			Hermetically Sealed (Optional)	



Absolute Maximum Ratings

Operating Voltage	+15.5V
RF Input Power (RFIN)	-25dBm

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +15V biasing

Power OFF Procedure

Step 1	Turn off +15V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

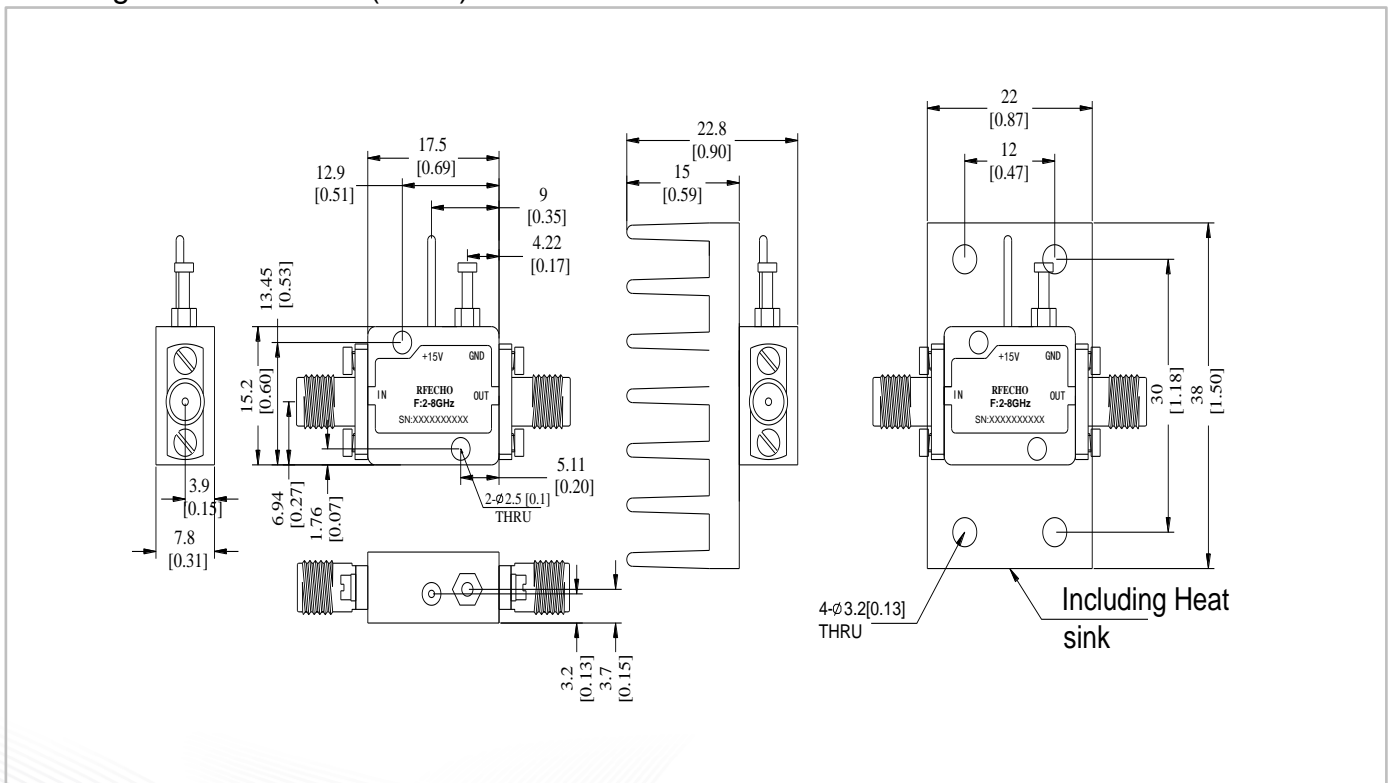
Environmental Specifications

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:

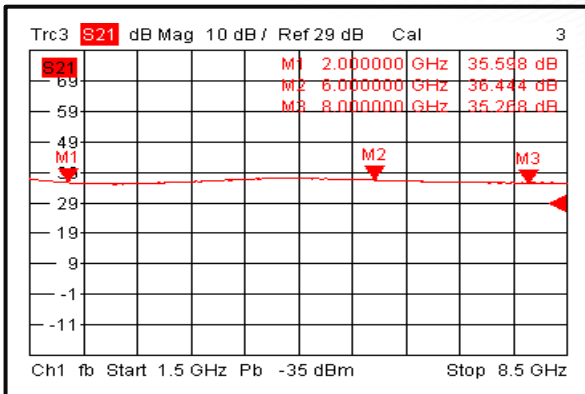
All Dimensions in mm (inches)
Housing Tolerances ± 0.1 (0.004)

Heat Sink required during operation (Sold Separately)

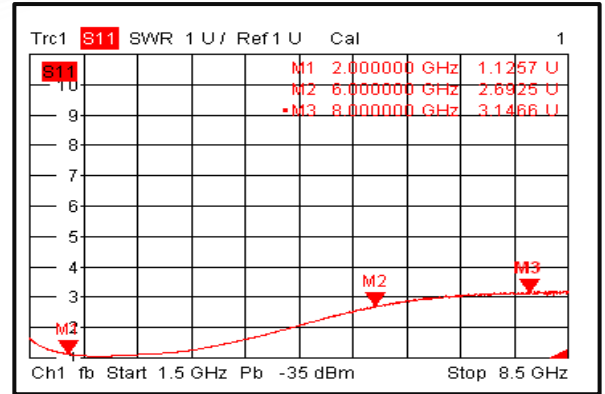




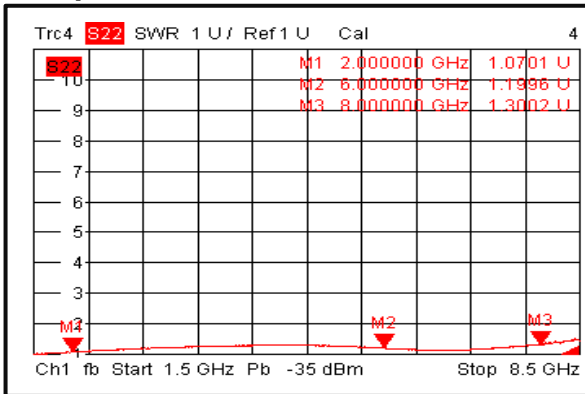
Gain @+25°C



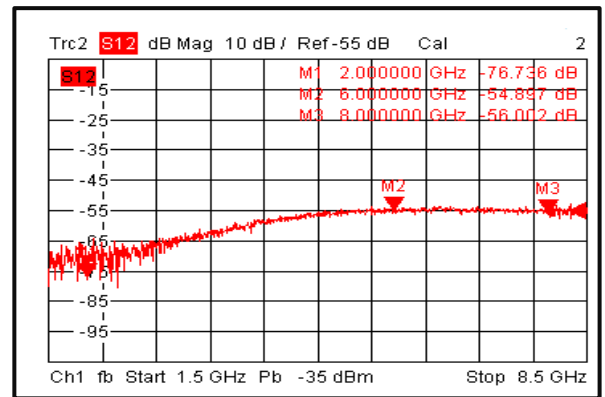
Input VSWR @+25°C



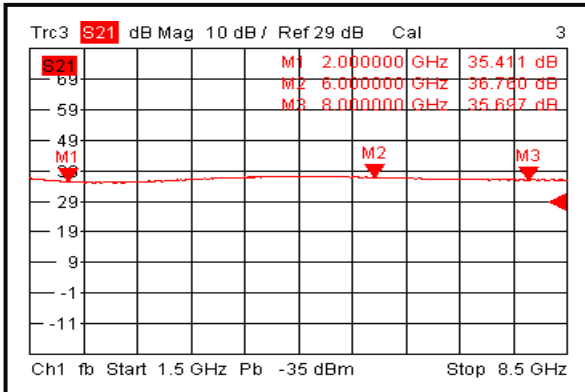
Output VSWR @+25°C



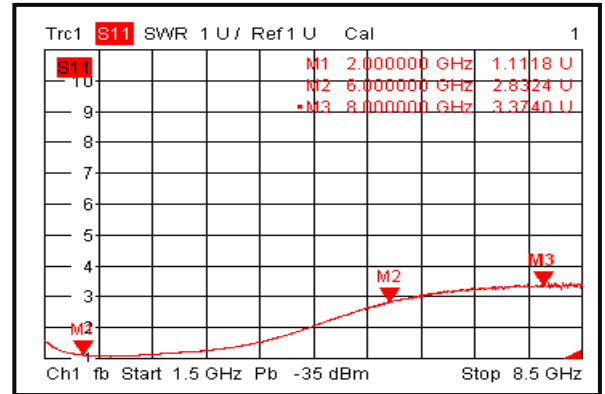
Isolation @+25°C



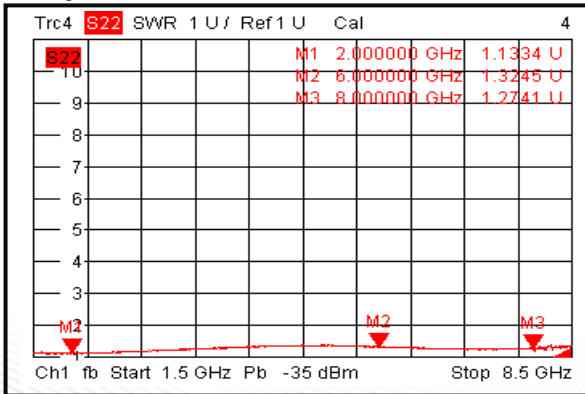
Gain @-40°C



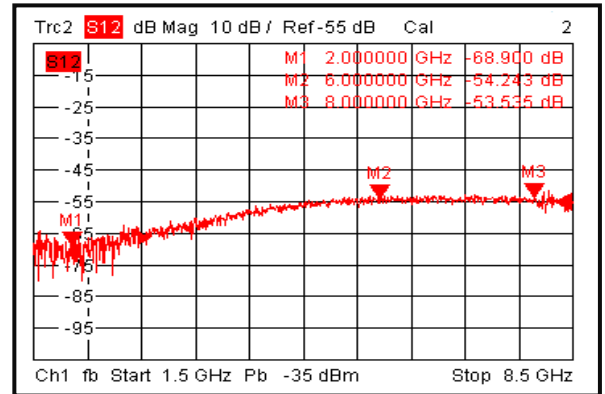
Input VSWR @-40°C



Output VSWR @-40°C

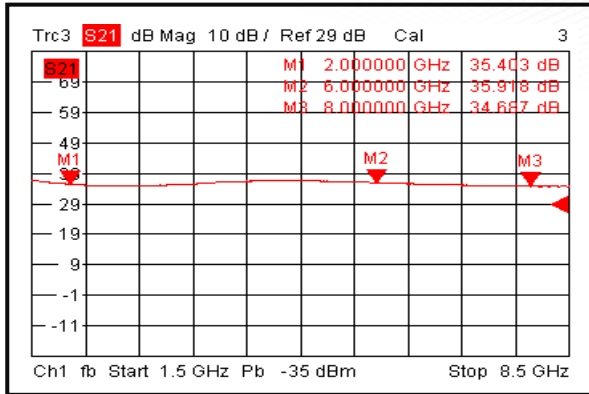


Isolation @-40°C

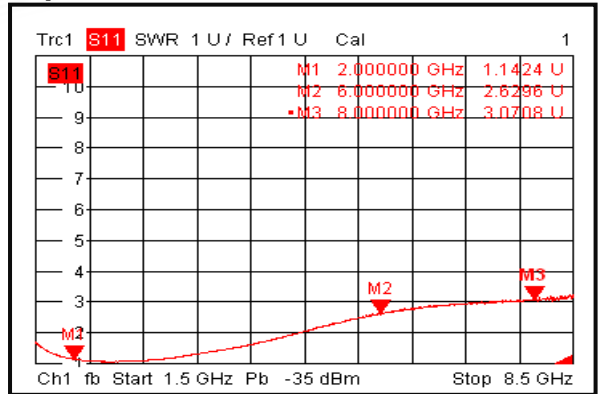




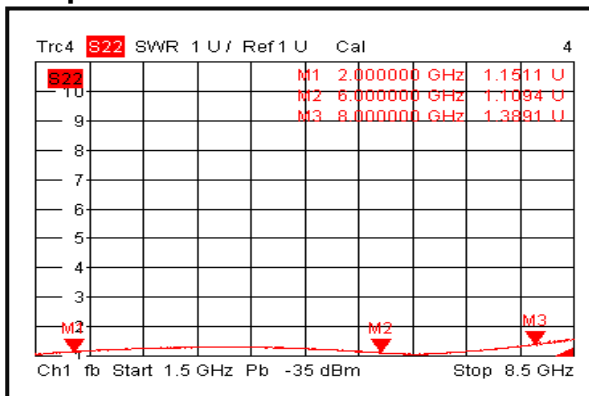
Gain @+85°C



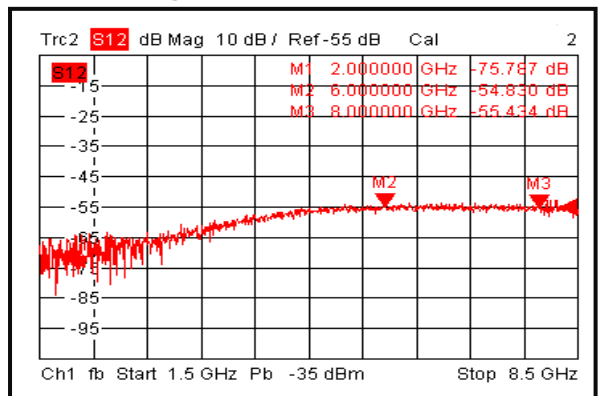
Input VSWR @+85°C



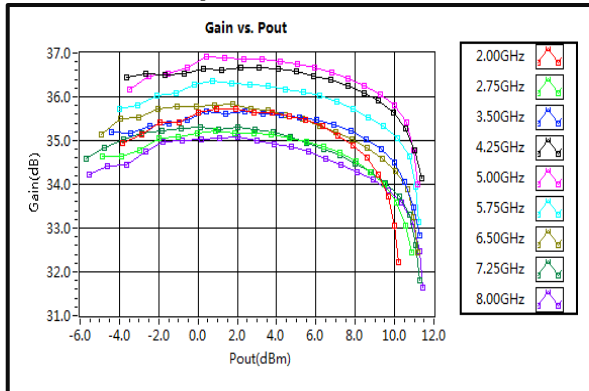
Output VSWR @+85°C



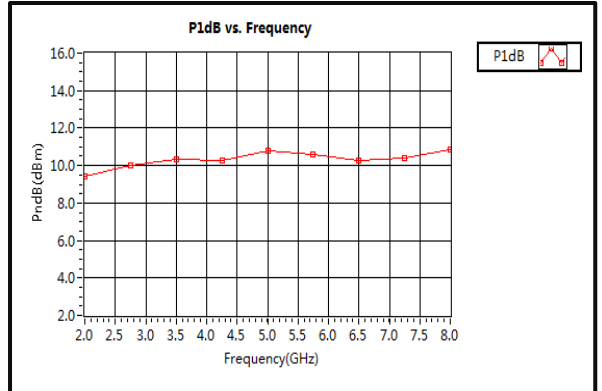
Isolation @+85°C



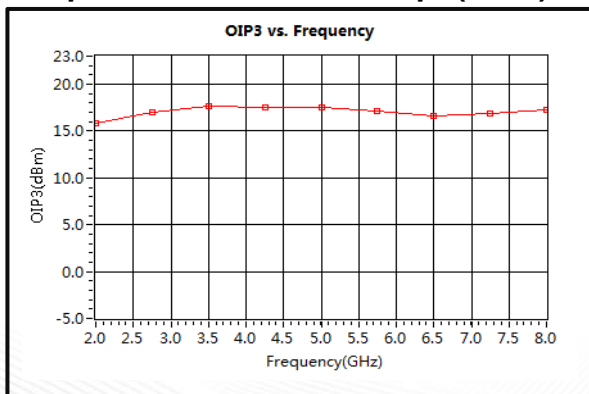
Gain vs. Output Power



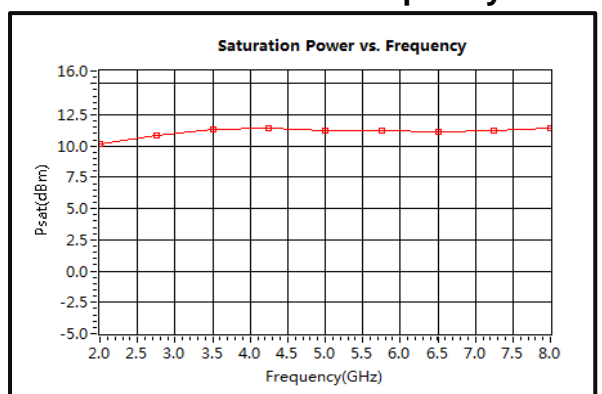
P1dB vs. Frequency



Output Third Order Intercept (OIP3)

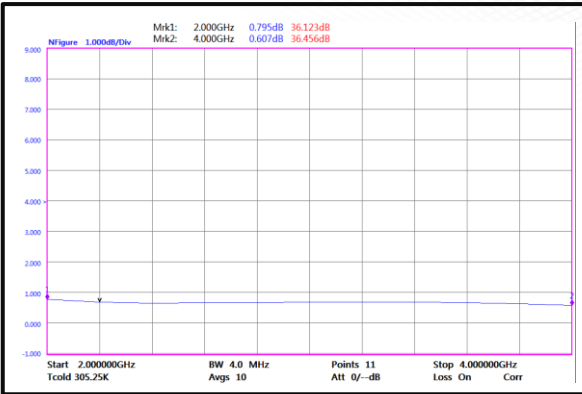


Saturation Power vs. Frequency





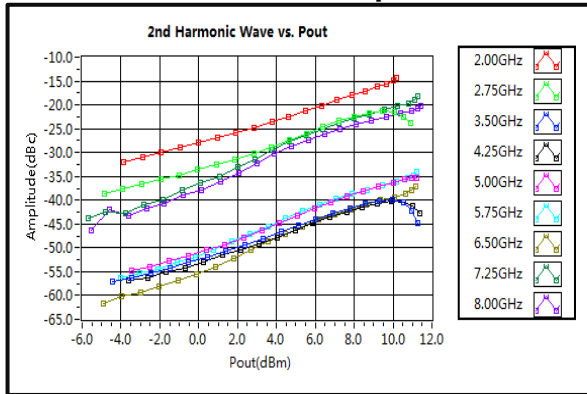
Noise Figure(2-4GHz)



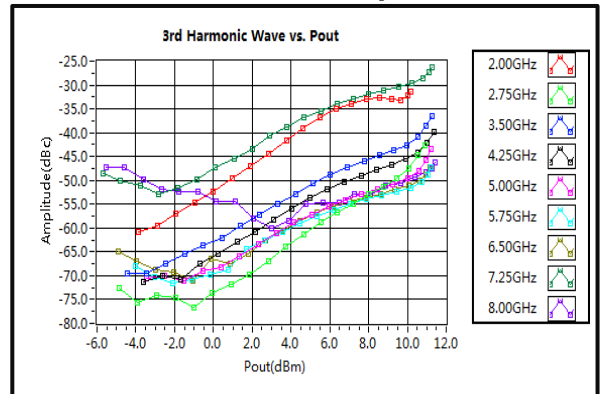
Noise Figure(4-8GHz)



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power

