



Wide Band Low Noise Amplifier 6GHz~18GHz

Features

- Gain: 19dB Typical
- Noise Figure: 1.8dB Typical
- P1dB Output Power: +15dBm Typical
- Supply Voltage: +4V



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	6		12	12		18	GHz
Gain	17	20		17	19		dB
Gain Flatness		±1.2	±1.5		±0.8	±1.2	dB
Gain Variation Over Temperature(-40°C~+85°C)		±0.5			±0.5		dB
Noise Figure		2.0	2.8		1.8	2.5	dB
Input VSWR		1.8	2.1		1.8	2.1	: 1
Output VSWR		1.9	2.2		1.8	2	: 1
Output 1dB Compression Point (P1dB)	13	15		13	16		dBm
Saturated Output Power (Psat)		16			17		dBm
Output Third Order Intercept (OIP3)		25			25		dBm
Supply Current (Vcc=+4V)		90	120		90	120	mA
Isolation S12		-35			-36		dB

Weight	Net	0.29 Max. ounces	Impedance	50ohms
	Including Heat sink	0.9 Max. ounces		
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	+4.5V
RF Input Power (Vcc= +4V)	+10dBm

Biasing 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

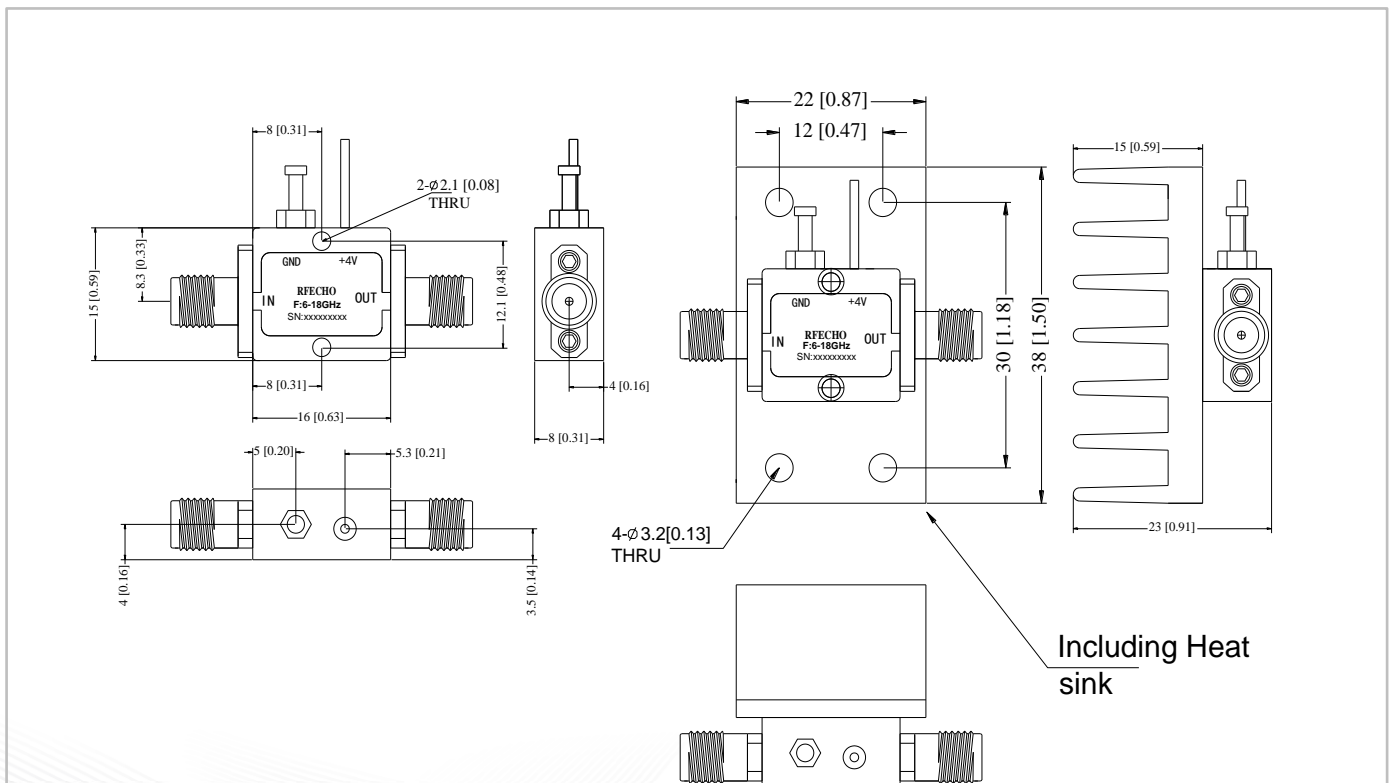
Environmental Specifications

Operational Temperature	-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:

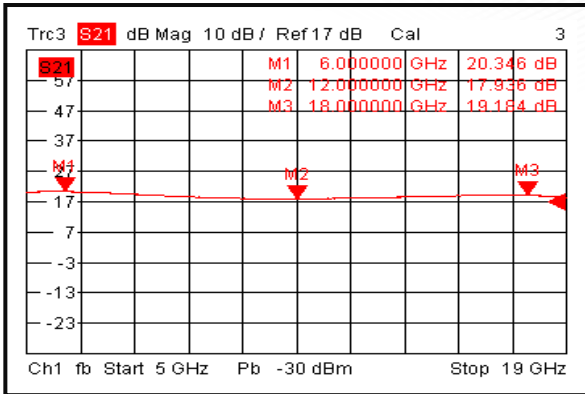
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

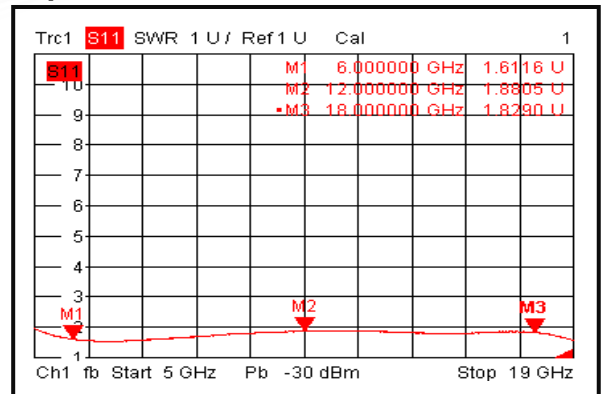




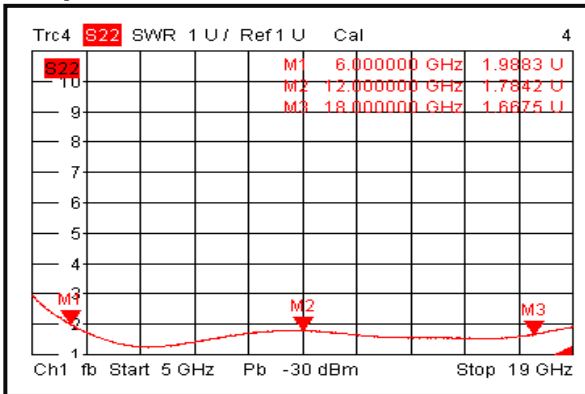
Gain @+25°C



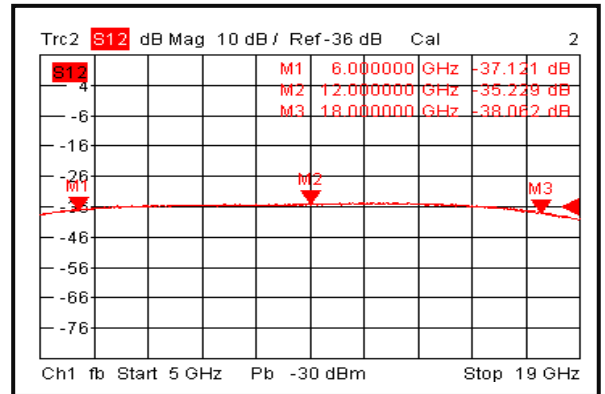
Input VSWR @+25°C



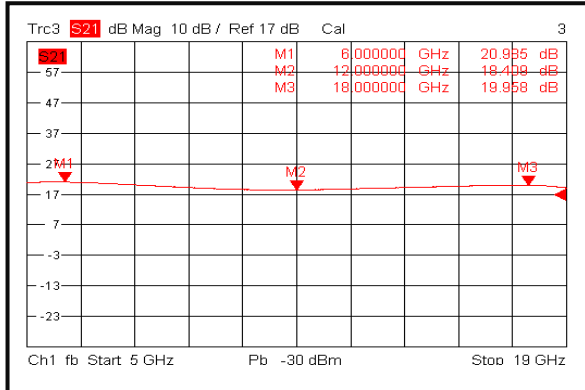
Output VSWR @+25°C



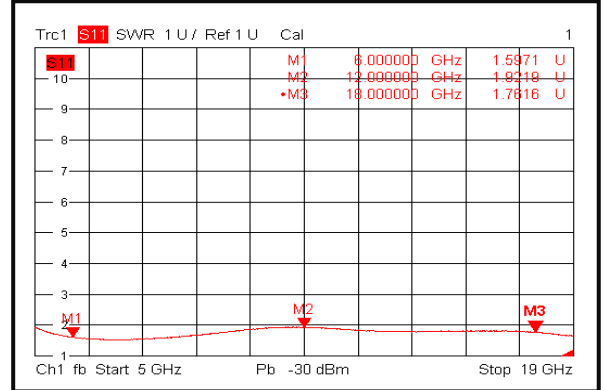
Isolation @+25°C



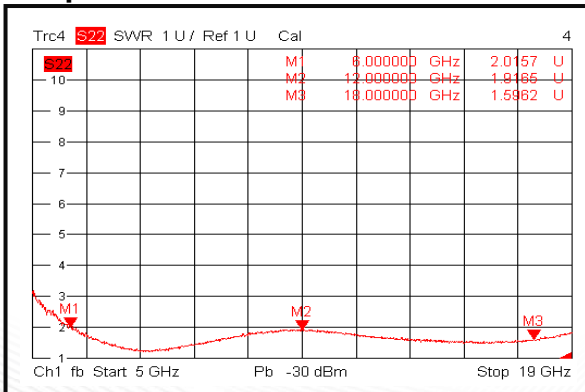
Gain @-40°C



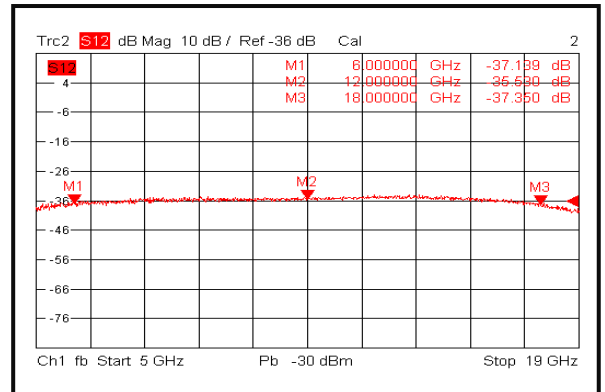
Input VSWR @-40°C



Output VSWR @-40°C

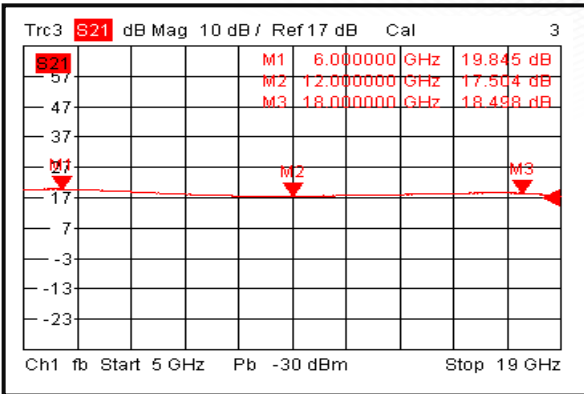


Isolation @-40°C

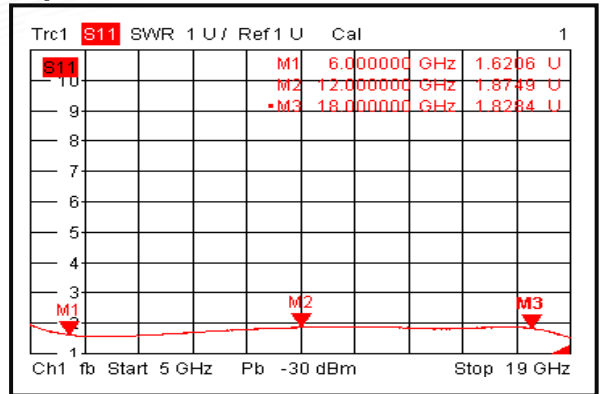




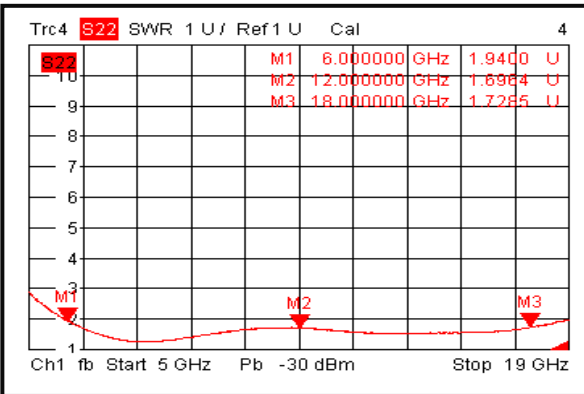
Gain @+85°C



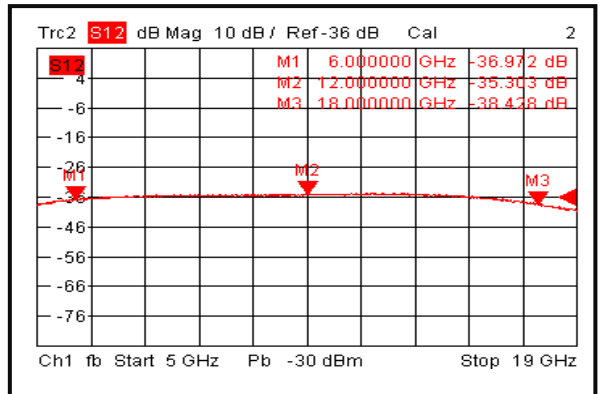
Input VSWR @+85°C



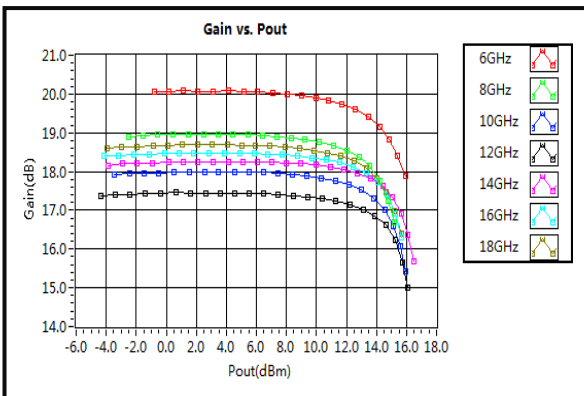
Output VSWR @+85°C



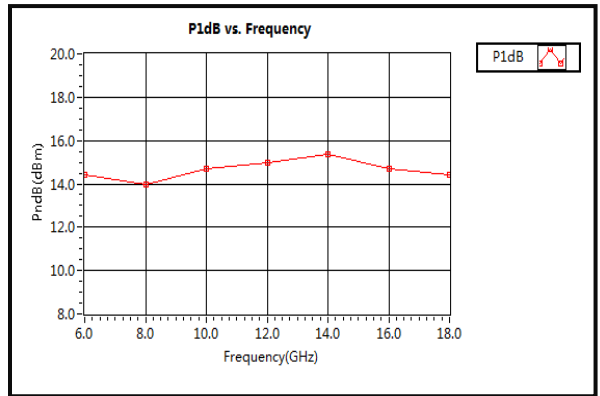
Isolation @+85°C



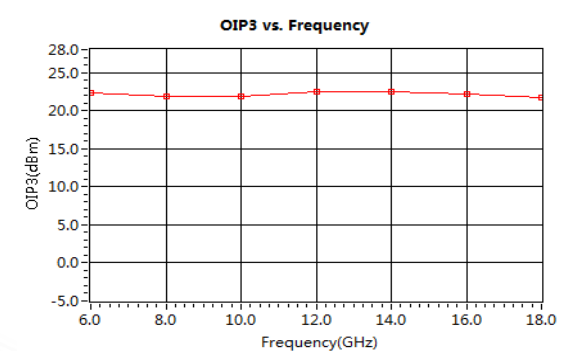
Gain vs. Output Power



P1dB vs. Frequency



Output Third Order Intercept (OIP3)



Noise Figure

