Low Noise Amplifier 17GHz~26GHz

Features

- Gain: 19dB Typical
- Noise Figure: 2.2dB Typical
- P1dB Output Power: +14dBm Typical
- Supply Voltage: +15V @ 80mA
- 50 Ohm Matched

Typical Applications

- Wireless Infrastructure
- Military & Aerospace
- Fiber Optics

RF Microwave & VSAT
Test Instrument

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 (-45ºC~+85ºC)		±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 (IP3)		23			23		dBm
Supply Current (Idd) (Vcc=+15V)		80	100		80	100	mA
Isolation S12		-45			-40		dB

Weight	/	Impedance	50ohms
Input / Output Connectors	SMA-Female	Material	Aluminum
Finish	Standard: Gold 40 micron; Nickel 220 micron thickness	Package Sealing	Epoxy Sealing (Standard)
	Option: Gold 80 micron; Nickel 180 micron thickness		Hermetically Sealed (Option with extra charge)

Absolute Maximum Ratings

Operating Voltage	+15V±10%
RF Input Power (RFIN)	+2dBm

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

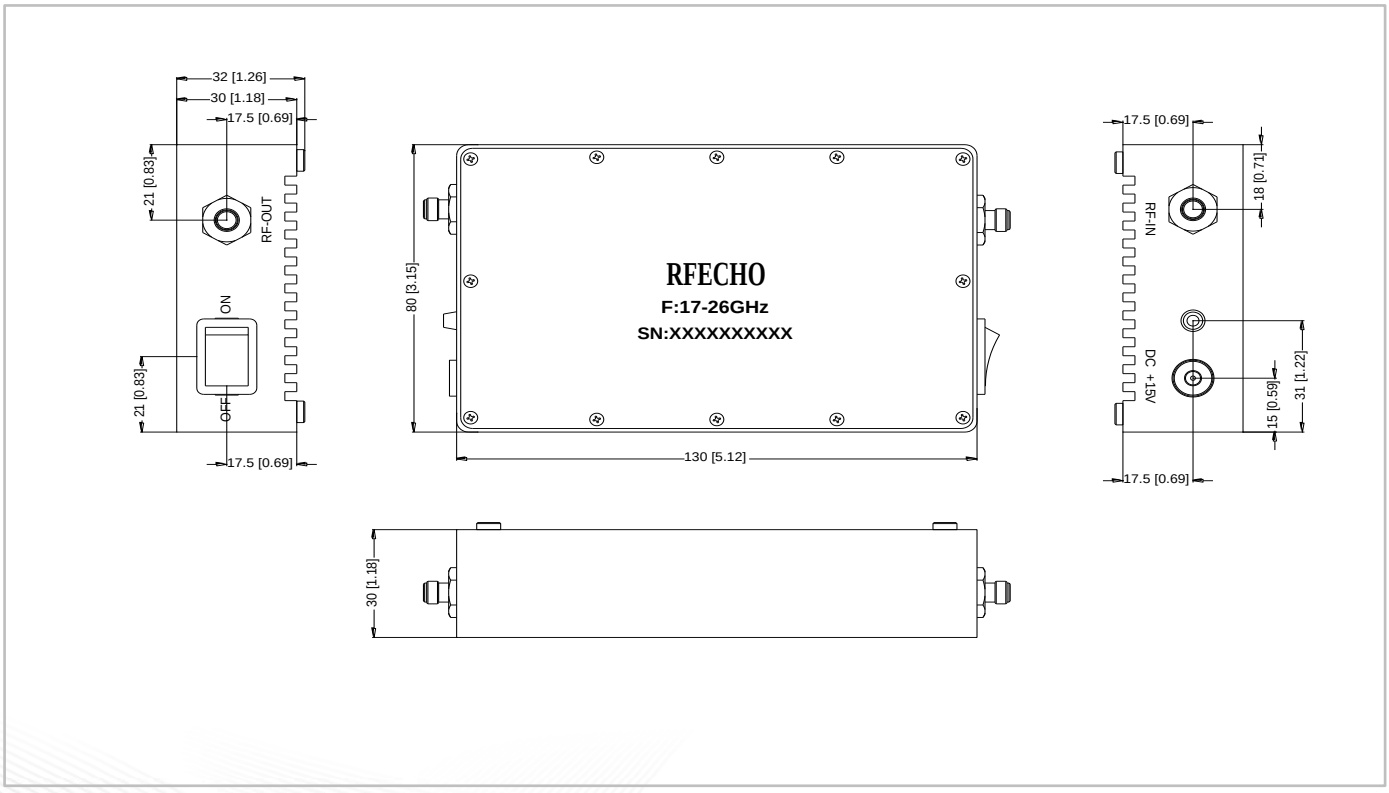
Environmental Specifications

Operational Temperature	-45ºC~+85ºC
Storage Temperature	-55ºC~+125ºC
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 35c, 95%RH at 40ºc
Shock	20G for 11msec half sine wave,3 axis both directions

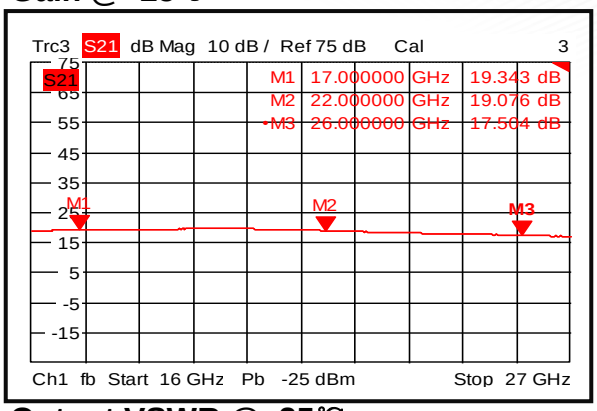
Outline Drawing:

All Dimensions in mm (inches)

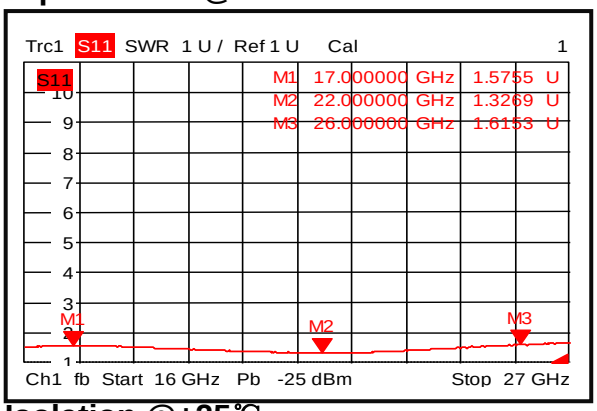
Heat Sink required during operation(Sold Seperately)



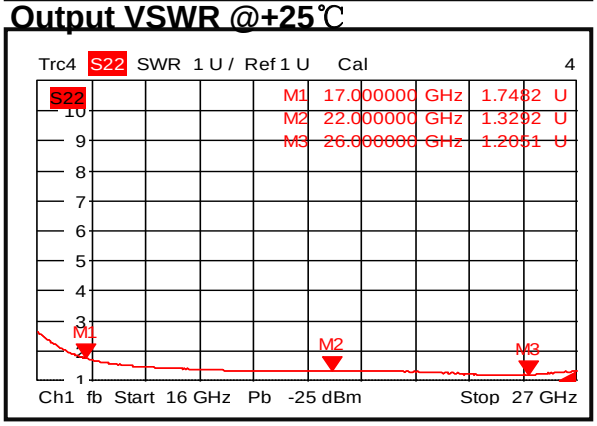
Gain @+25℃



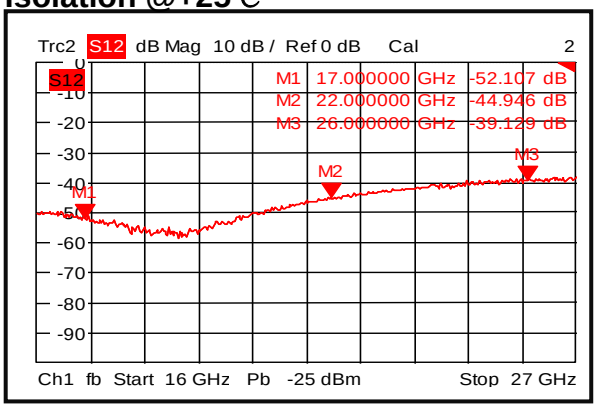
Input VSWR @+25℃



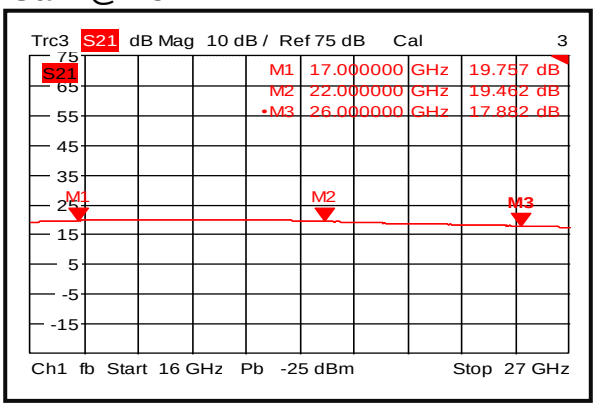
Output VSWR @+25℃



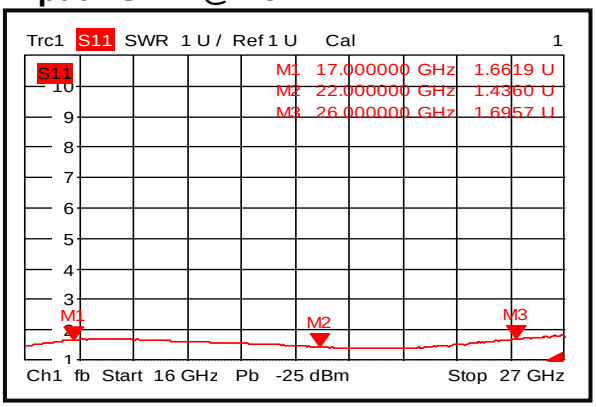
Isolation @+25℃



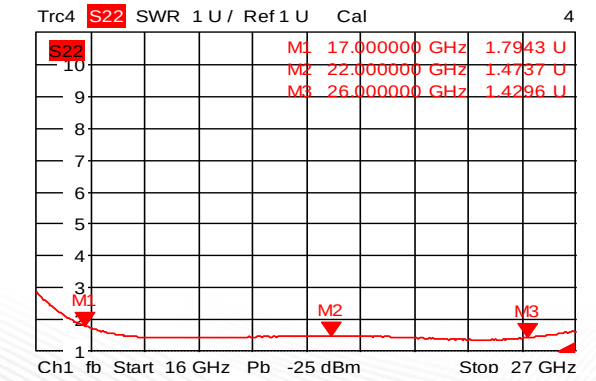
Gain @-45℃



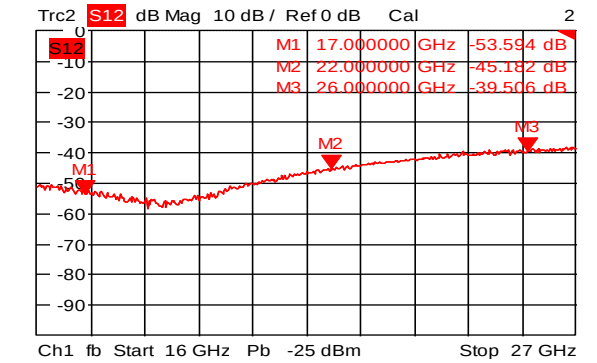
Input VSWR @-45℃



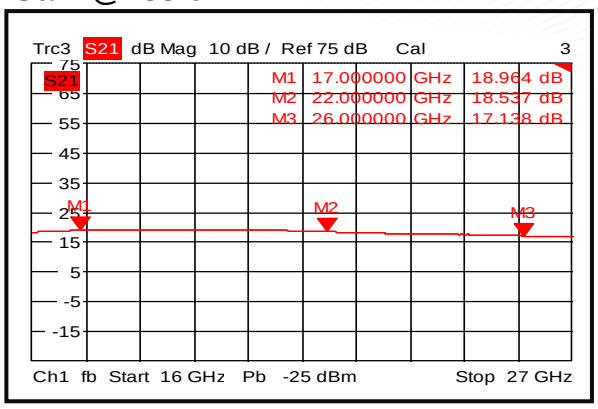
Output VSWR @-45℃



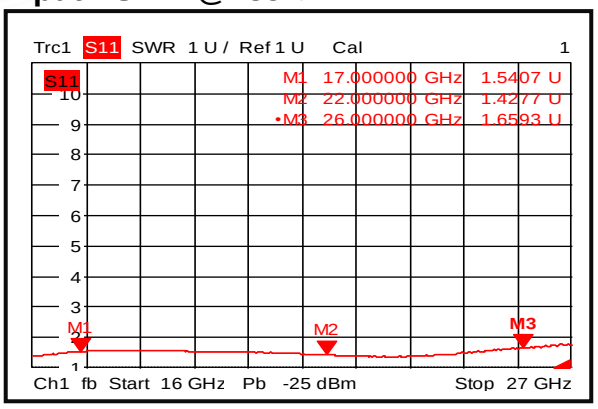
Isolation @-45℃



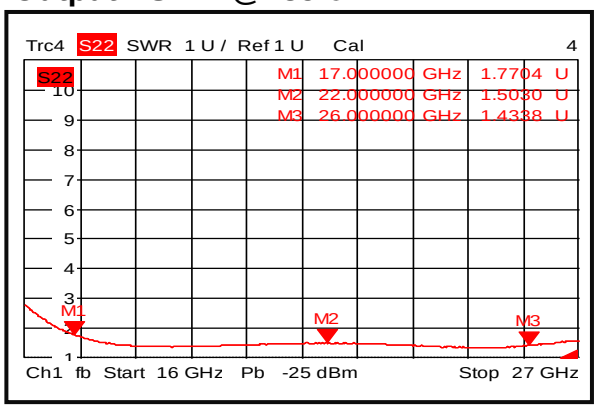
Gain @+85℃



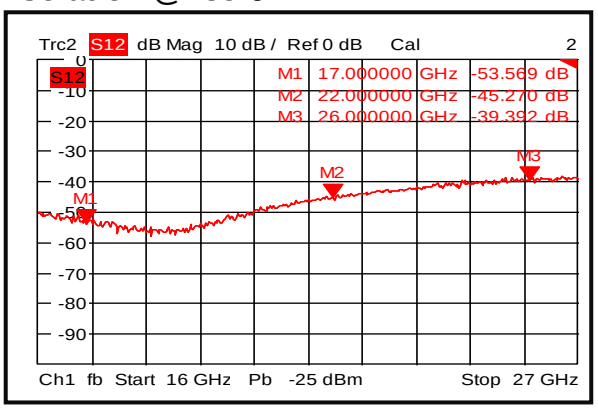
Input VSWR @+85℃



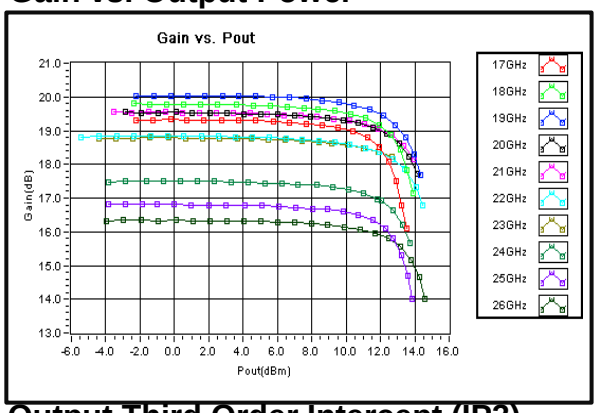
Output VSWR @+85℃



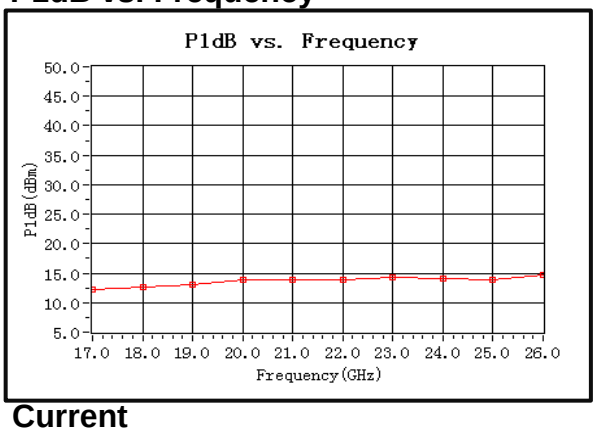
Isolation @+85℃



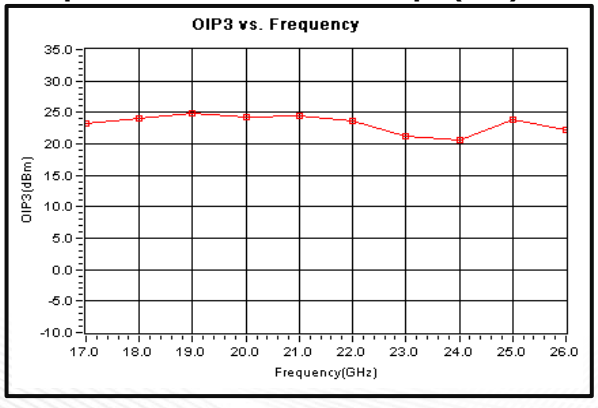
Gain vs. Output Power



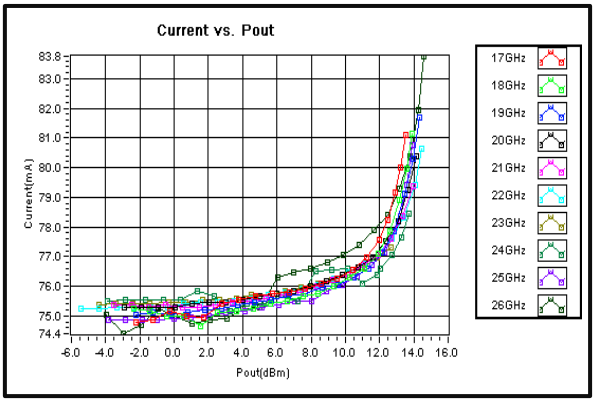
P1dB vs. Frequency



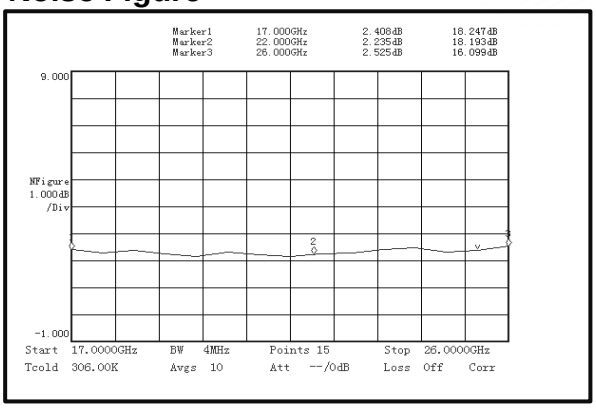
Output Third Order Intercept (IP3)



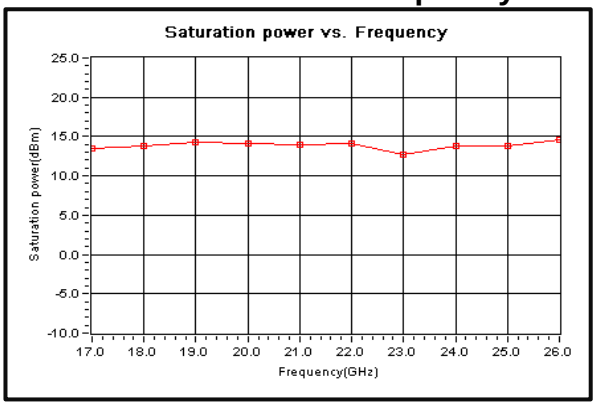
Current



Noise Figure



Saturation Power vs. Frequency



2nd Harmonic Wave Output Power