Wide Band Low Noise Amplifier 24GHz~36GHz

Features

- Gain: 20dB Typical
- Noise Figure: 2.5dB Typical
- P1dB Output Power: +7dBm Typical
- Supply Voltage: +3V @ 68mA
- 50 Ohm Matched Input / Output
- Size: 0.63” x 0.59” x 0.31”

Typical Applications

- Wireless Infrastructure
- 5G communication
- Test and measurement Instrument

RF Microwave & VSAT
Fiber Optics

Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	24		32	32		36	GHz
Gain	18	21		17	19		dB
Gain Flatness		±2.0			±1.0		dB
Gain Variation Over Temperature (-40ºC~+85ºC)		±2.0			±2.0		dB
Noise Figure		2.5	4.0		2.5	3.5	dB
Input VSWR		2.0			2.0		: 1
Output VSWR		1.8			1.8		: 1
Output 1dB Compression Point (P1dB)	-1	5		4	7		dBm
Saturated Output Power (Psat)		7			10		dBm
Output Third Order Intercept (OIP3)		16			19		dBm
Supply Current (Vcc=+3V)		68	90		68	90	mA
Isolation S12		-40			-40		dB

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

Absolute Maximum Ratings

Operating Voltage	+5.5V
RF Input Power (RFIN)	-5dBm

Biasing 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

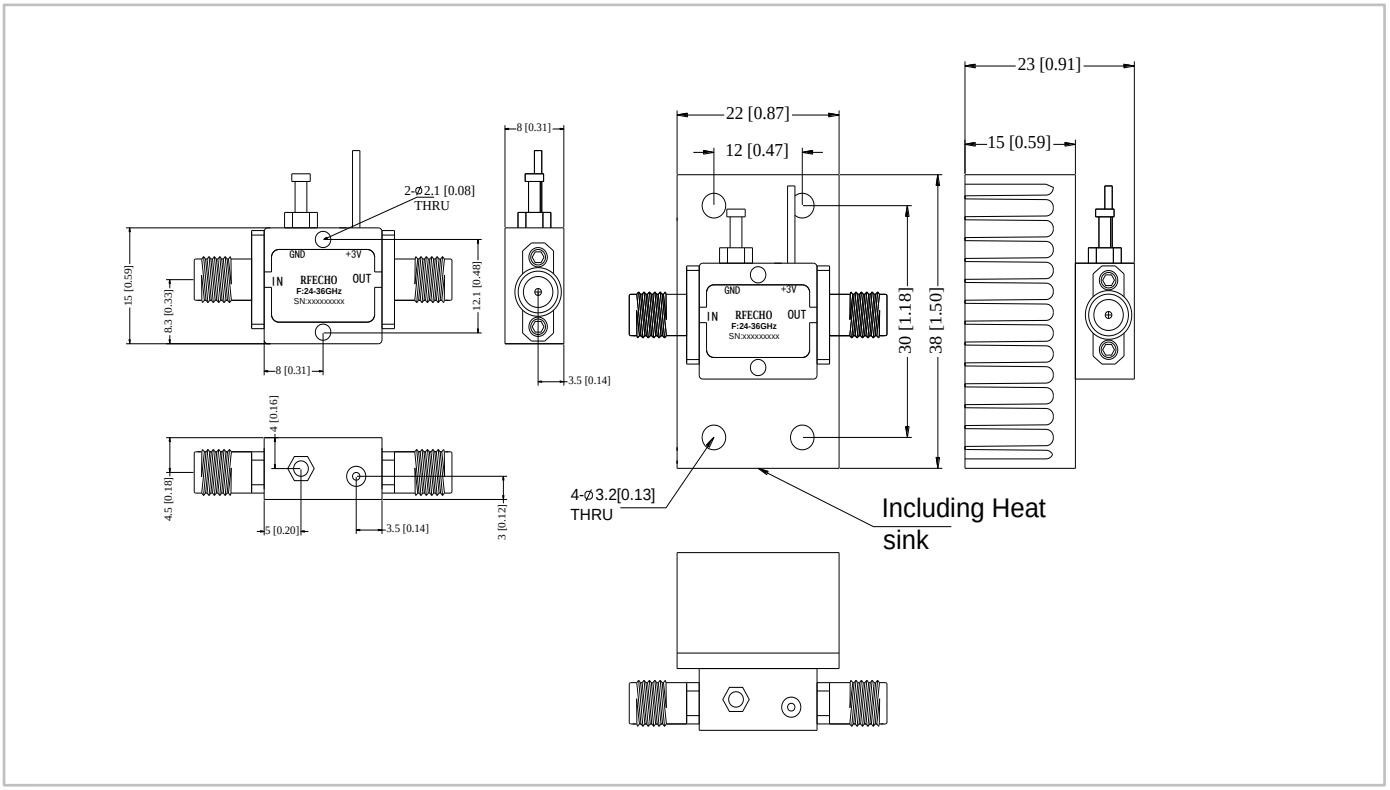
Environmental Specifications

Operational Temperature	-40ºC~+85ºC
Storage Temperature	-50ºC~+105ºC
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 35ºc, 95%RH at 40ºc
Shock	20G for 11msec half sine wave,3 axis both directions

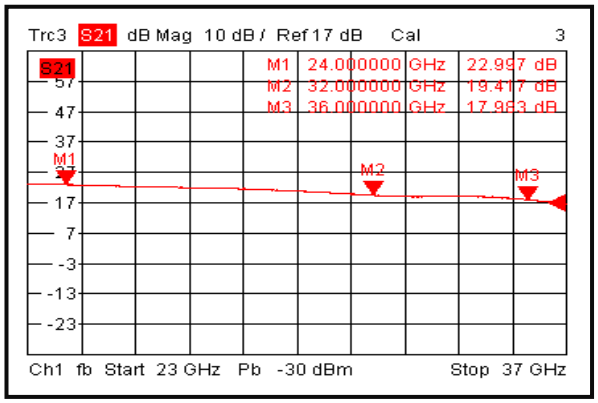
Outline Drawing:

All Dimensions in mm (inches)

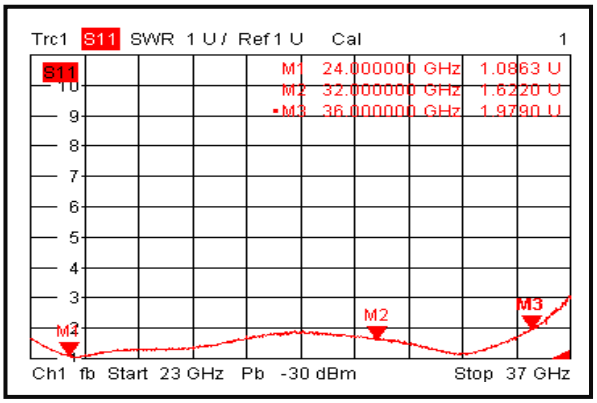
Heat Sink required during operation(Sold Separately)



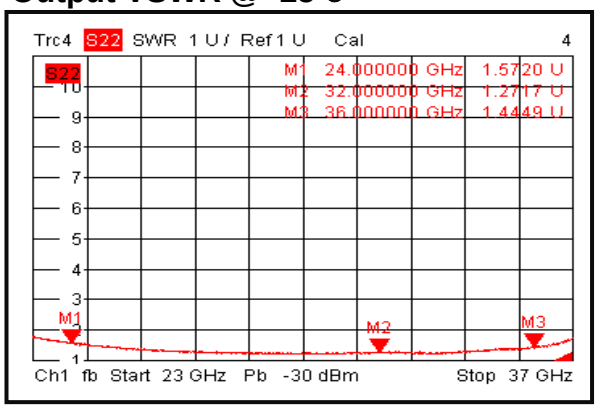
Gain @+25℃



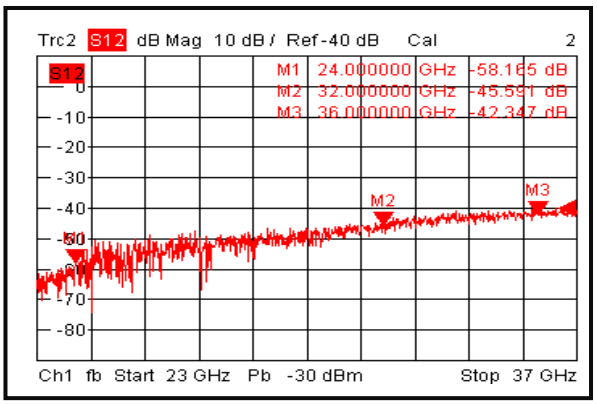
Input VSWR @+25℃



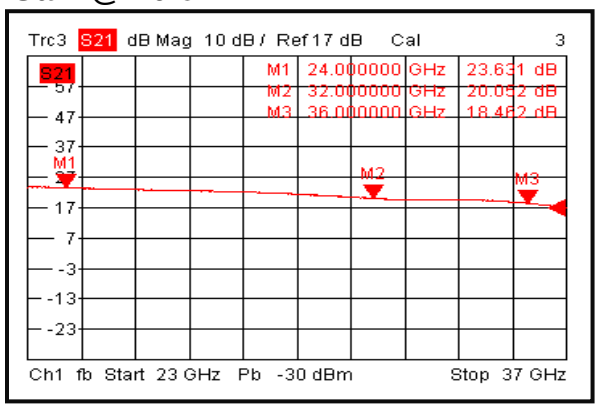
Output VSWR @+25℃



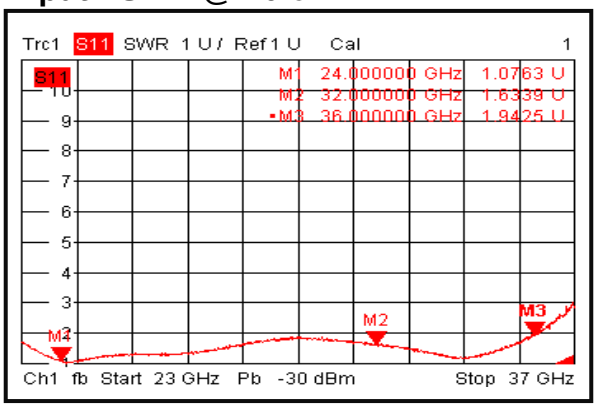
Isolation @+25℃



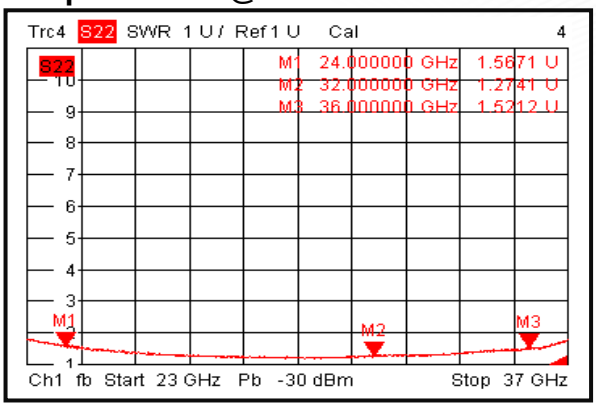
Gain @-40℃



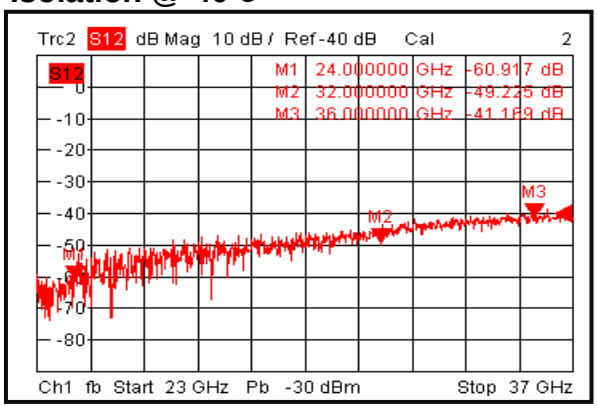
Input VSWR @-40℃



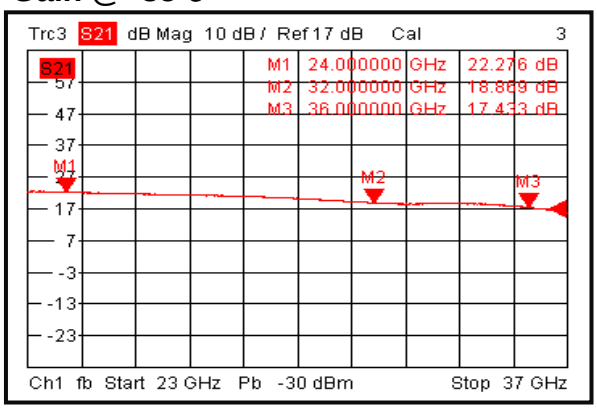
Output VSWR @-40℃



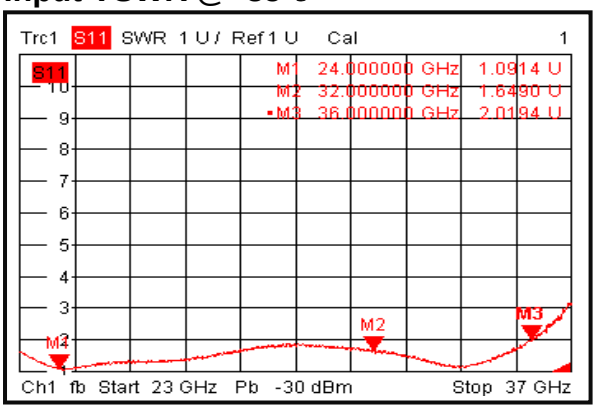
Isolation @-40℃



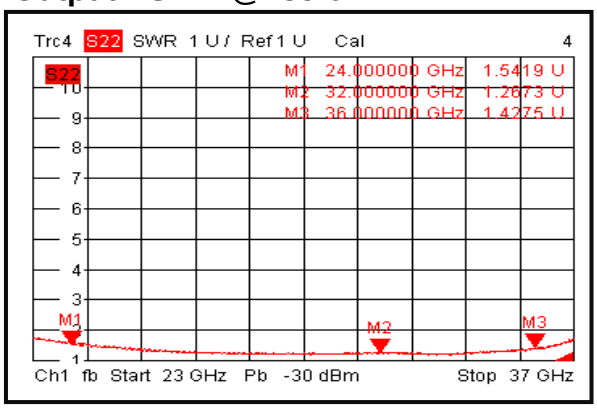
Gain @+85℃



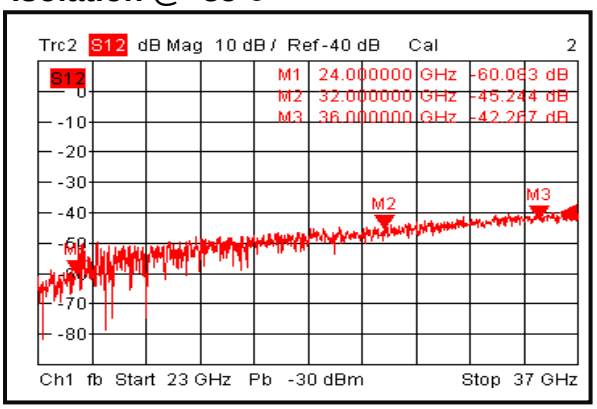
Input VSWR @+85℃



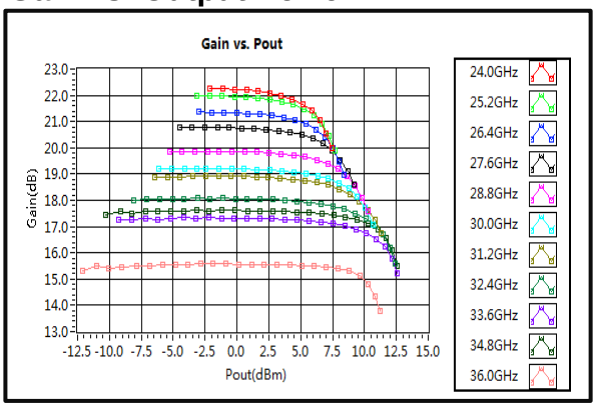
Output VSWR @+85℃



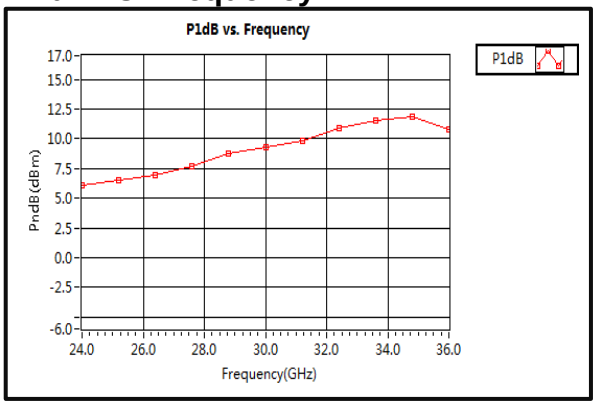
Isolation @+85℃



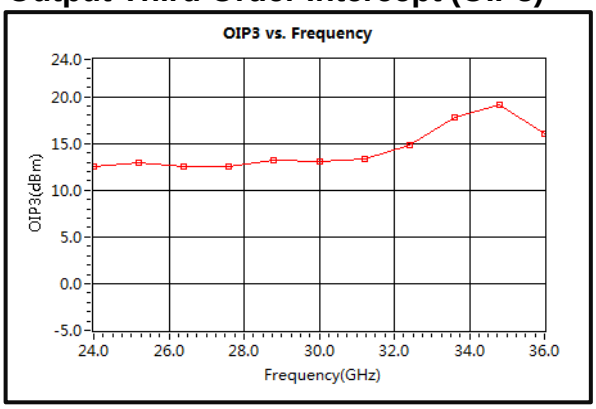
Gain vs. Output Power



P1dB vs. Frequency



Output Third Order Intercept (OIP3)



Noise Figure