RFecho
A Gateway to RFWorld

Medium Power Ultra Wide Band Driver Amplifier 0.1GHz~4GHz

Features

- Gain: 33dB Typical
- Noise Figure: 3 dB Typical
- Output P1dB : +33 dBm Typical
- Supply Voltage: +12V

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	0.1		2	2		4	GHz
Gain	32	33	36	32	33	36	dB
Gain Flatness		±0.75	±1.5		±0.75	±1.5	dB
Gain Variation Over Temperature (-40℃~+85℃)		±1.0			±1.0		dB
Noise Figure		2.5	3.8		3.5	4.5	dB
Input VSWR		1.4	1.8		1.4	1.8	: 1
Output 1dB Compression Point (P1dB)	33	35		32	34		dBm
Saturated Output Power (Psat)		36			35		dBm
IM3		30			35		dBc
Supply Current (Vcc=+12V)		250	1100		250	1100	mA
Isolation S12		-65			-65		dB

Weight	4.2 ounces (Max.)	Impedance	50 ohms
Input /Output Connectors	SMA-Female	Material	Aluminum
Finish	Nickel plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Option with extra charge)

Absolute Maximum Ratings

Operating Voltage	+15V
RF Input Power	+5dBm

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +12V biasing

Power OFF Procedure

Step 1	Turn off +12V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

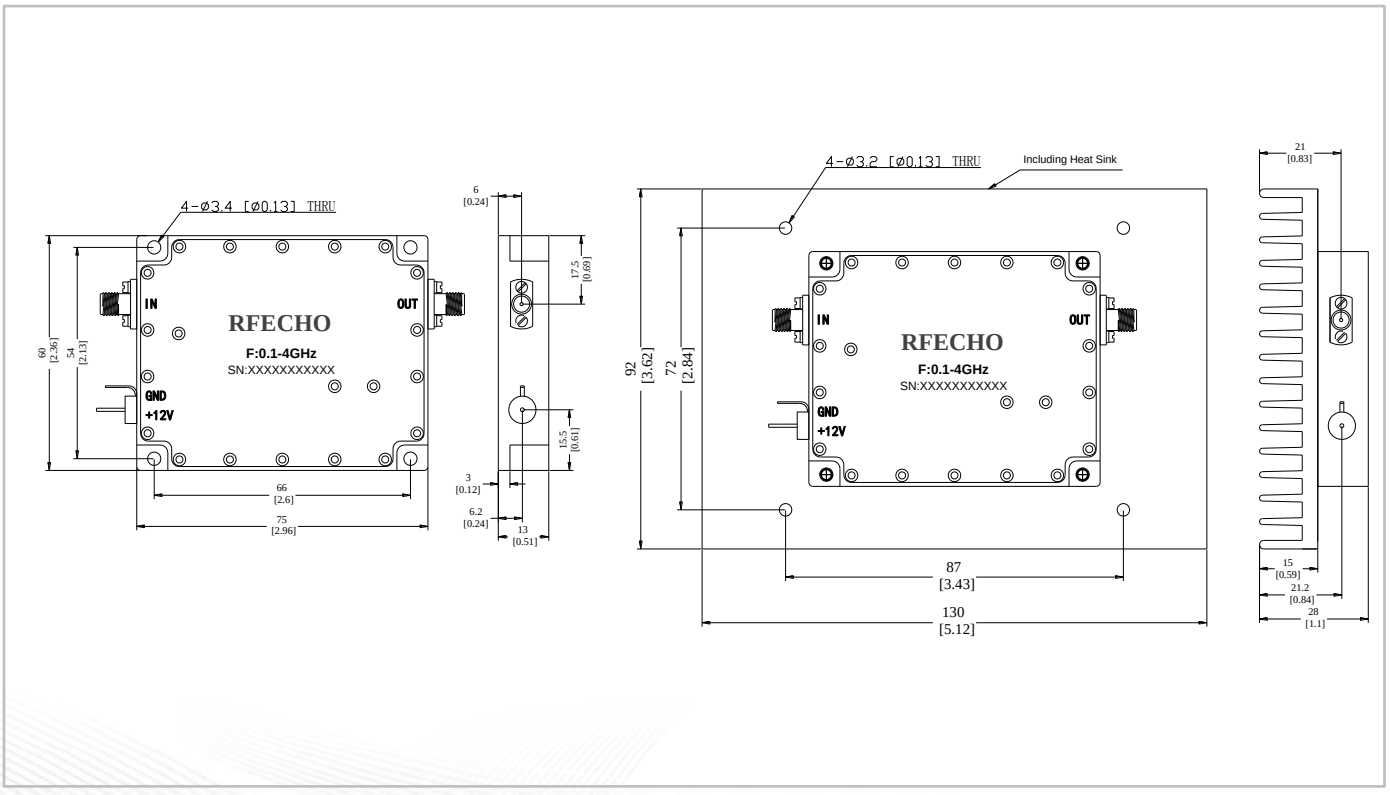
Environmental Specifications

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

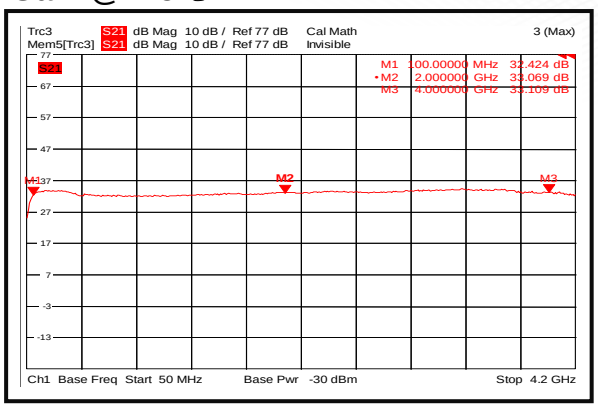
Outline Drawing:

All Dimensions in mm (inches)
Tolerances±0.2 (0.008)(Excl heatsink)

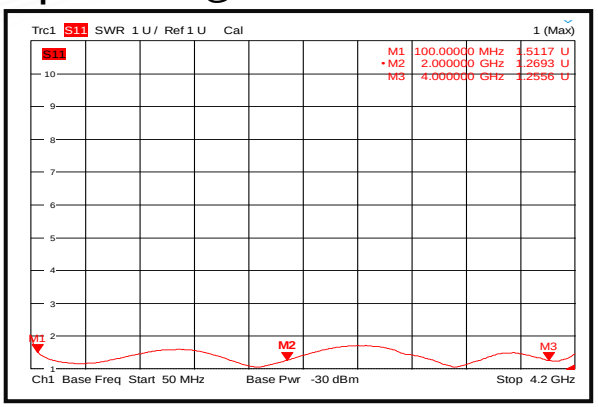
Heat Sink required during operation(Sold Separately)



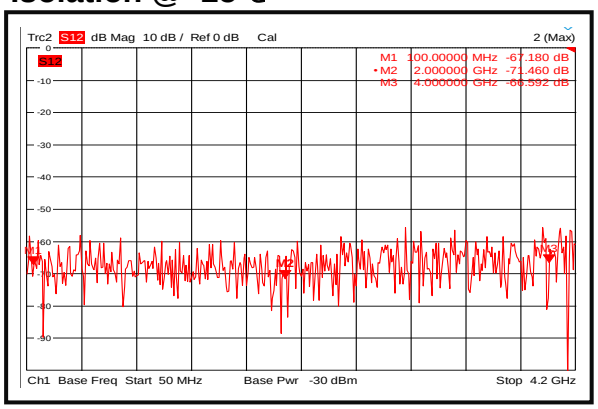
Gain @+25℃



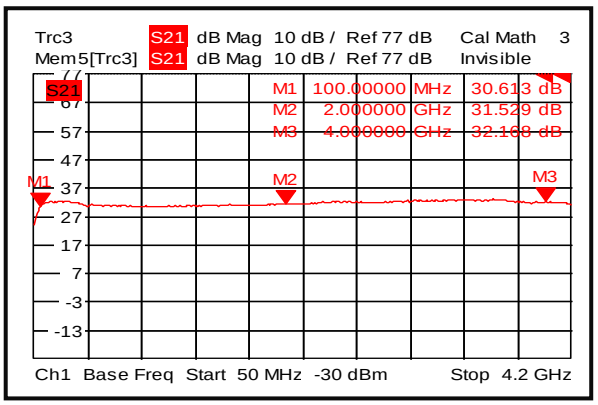
Input VSWR @+25℃



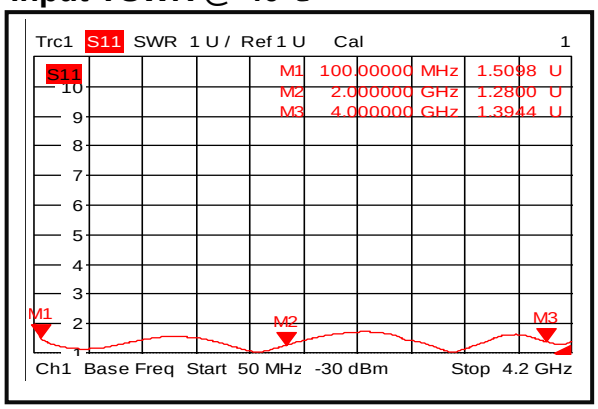
Isolation @+25℃



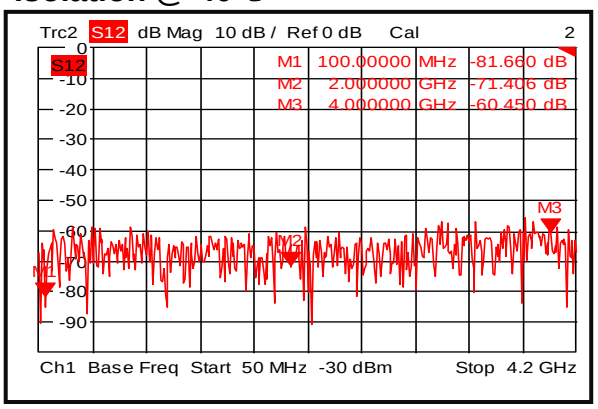
Gain @-40℃



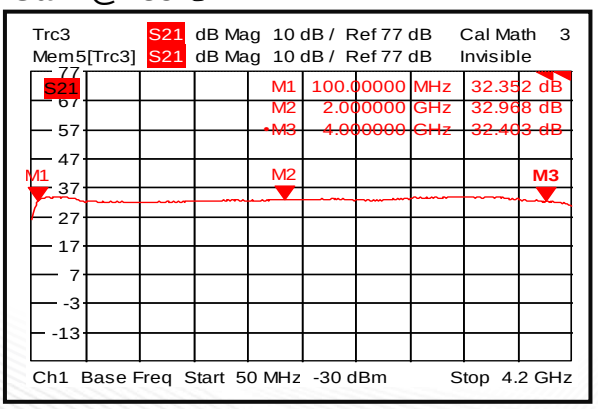
Input VSWR @-40℃



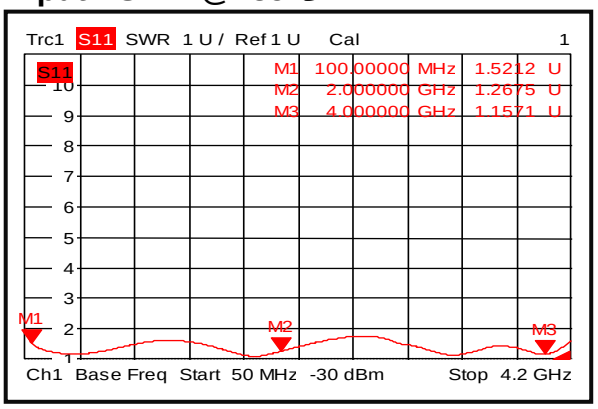
Isolation @-40℃



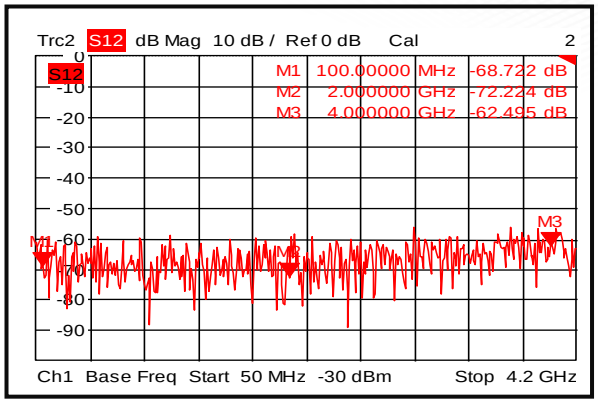
Gain @+85℃



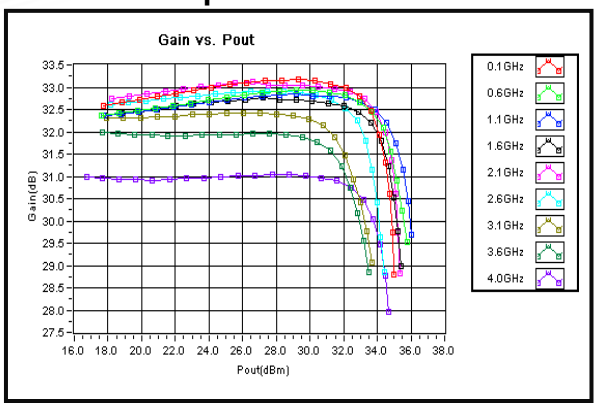
Input VSWR @+85℃



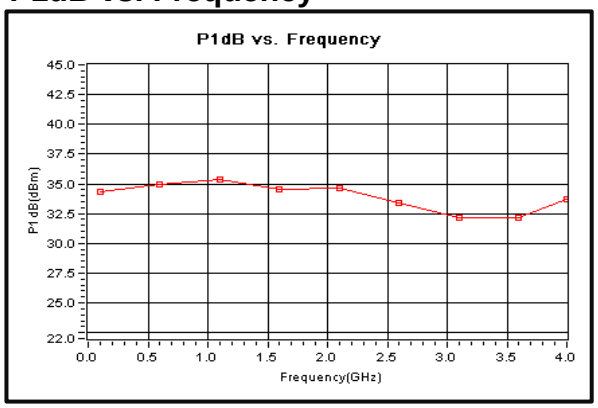
Isolation @+85℃



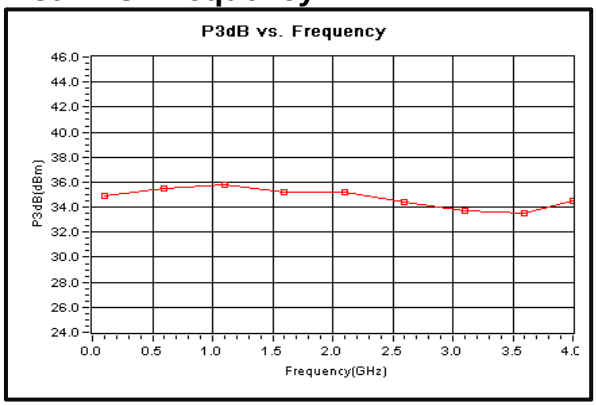
Gain vs. Output Power



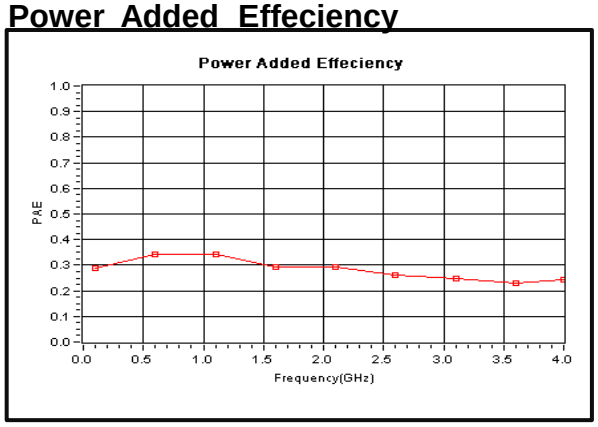
P1dB vs. Frequency



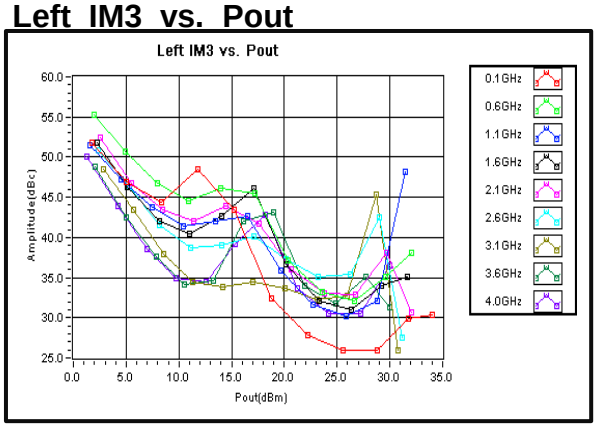
P3dB vs. Frequency



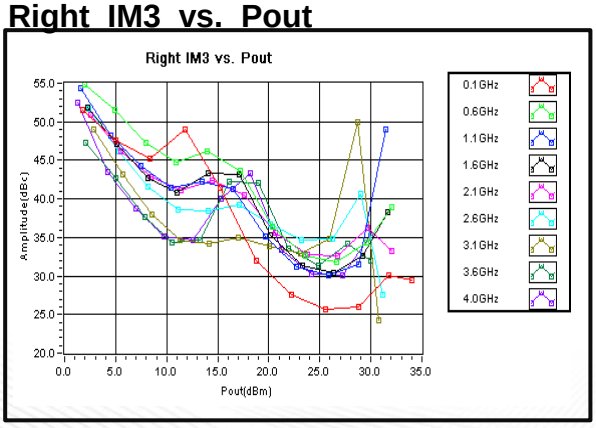
Power Added Effeciency



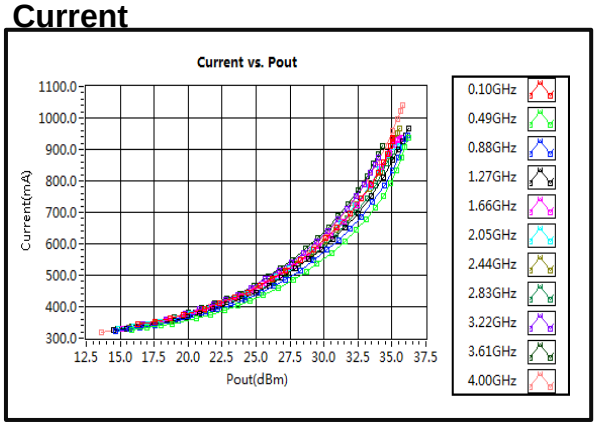
Left IM3 vs. Pout



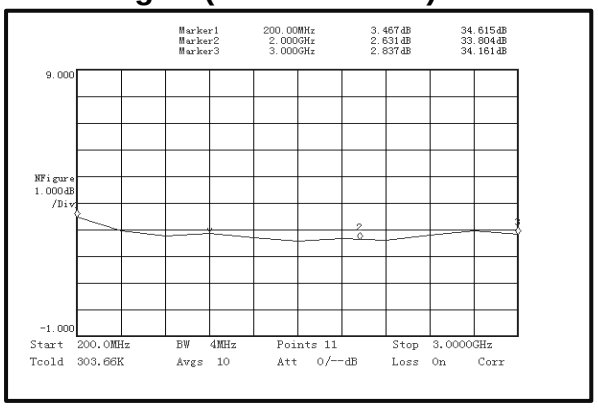
Right IM3 vs. Pout



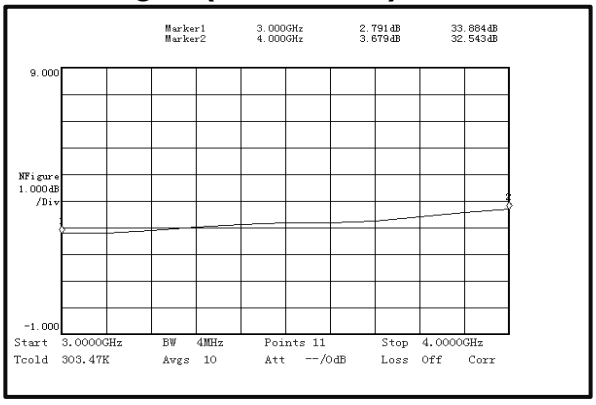
Current



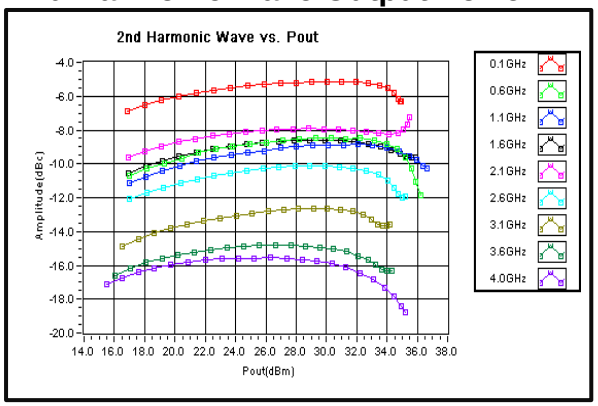
Noise Figure(200MHz-3GHz)



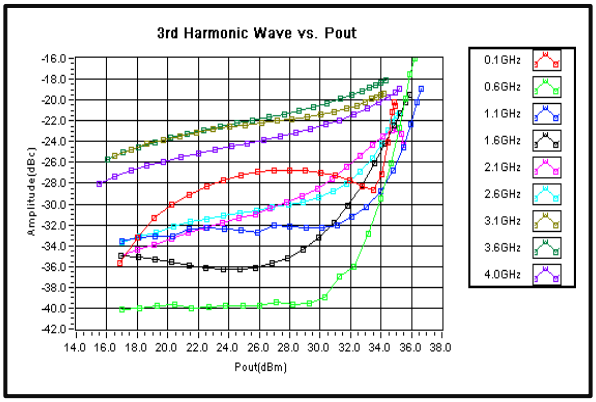
Noise Figure(3GHz-4GHz)



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power