Wide Band Power Amplifier 2GHz~22GHz

Features

- Gain: 50dB Typical
- P1dB Output Power: 35dBm Typical
- Supply Voltage: +36V @ 1650mA
- 50 Ohm Matched Input / Output

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	2		12	12		22	GHz
Gain		50			45		dB
Gain Flatness		±5			±8		dB
Gain Variation Over Temperature (-40 ℃~ +85℃)		±3.0			±3.0		dB
Input Return Loss		12			10		dB
Output 1dB Compression Point (P1dB)	33	34		32	33		dBm
Saturated Output Power (Psat)	36	37		34	36		dBm
Supply Current (Idd) (Vcc=+36V)		1650	2500		1650	2500	mA
Isolation S12		-70			-65		dB
Input Max Power(no damage)			2			2	dBm

Weight	137.21ounces	Impedance	50ohms
Input / Output Connectors	SMA-Female	Material	copper
Finish	Standard: Gold 40 micron; Nickel 220 micron thickness	Package Sealing	Epoxy Sealed (Standard)
	Option: Gold 80 micron; Nickel 180 micron thickness		Hermetically Sealed (Option with extra charge)

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Absolute Maximum Ratings

Operating Voltage	+50V
RF Input Power (RFIN)	+2dBm

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +36V biasing

Power OFF Procedure

Step 1	Turn off +36V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

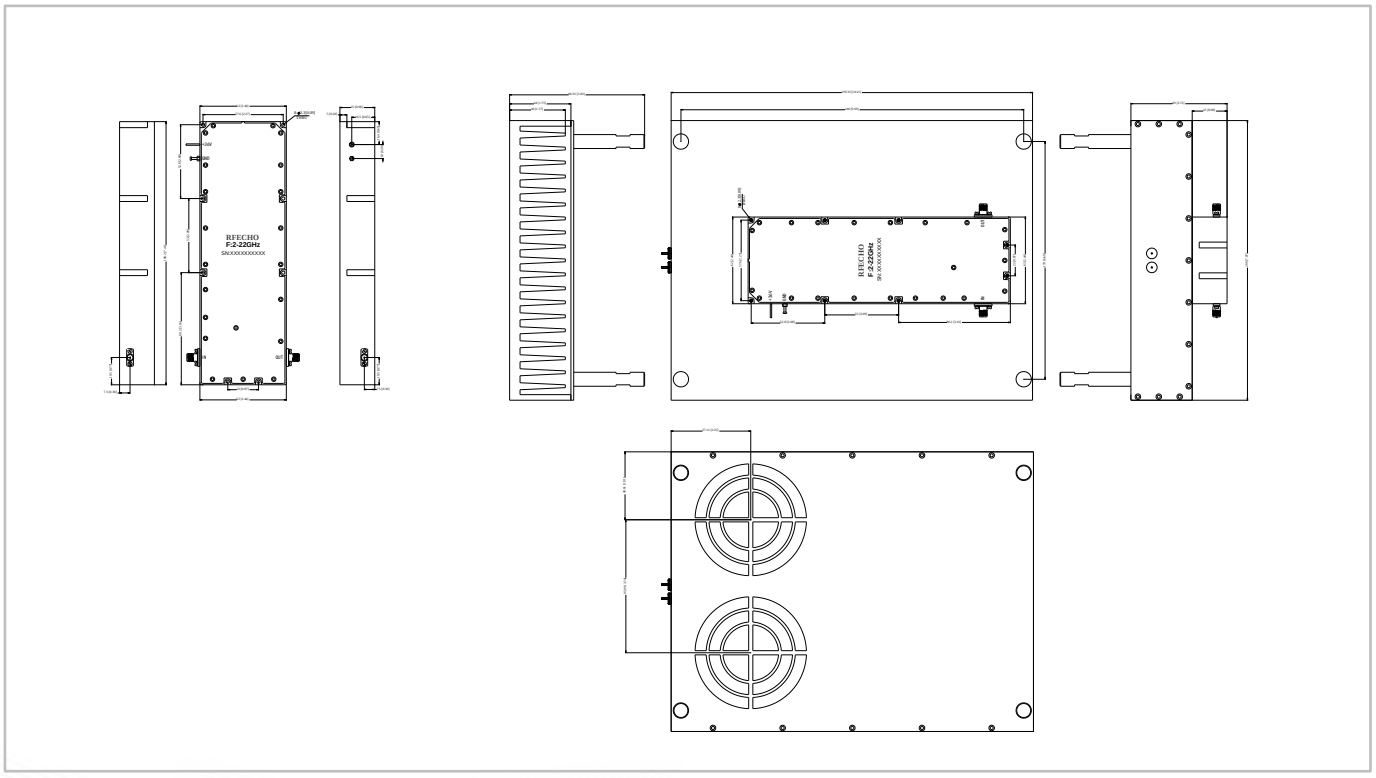
Environmental Specifications

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)



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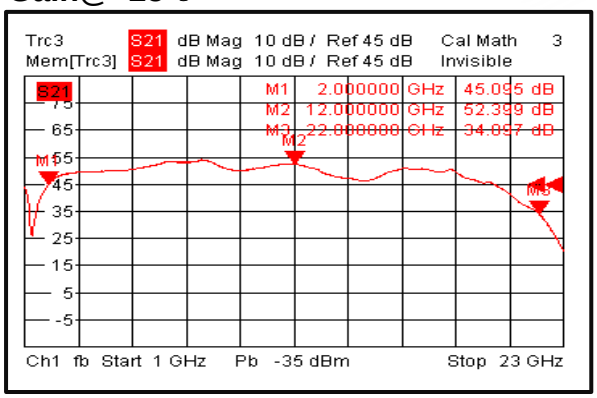
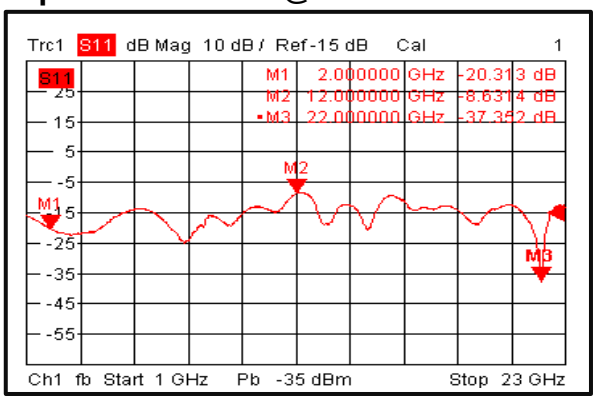
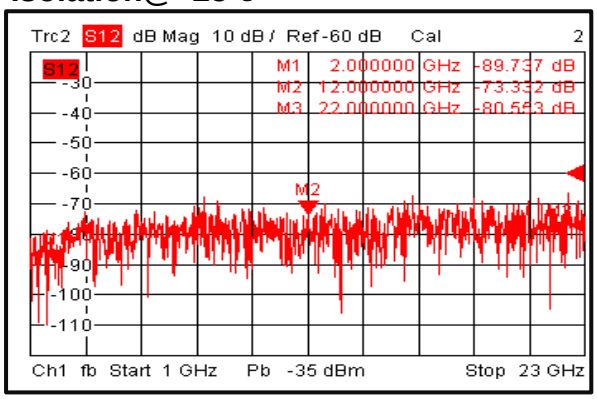
Gain@+25℃



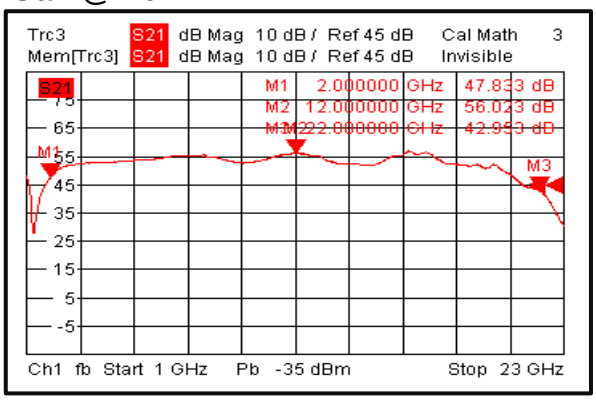
Input Return loss @+25℃



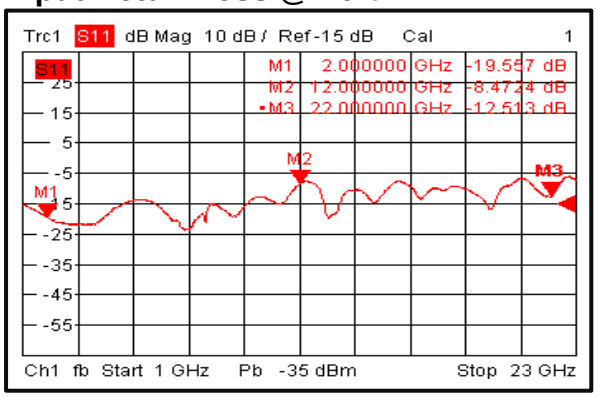
Isolation@+25℃



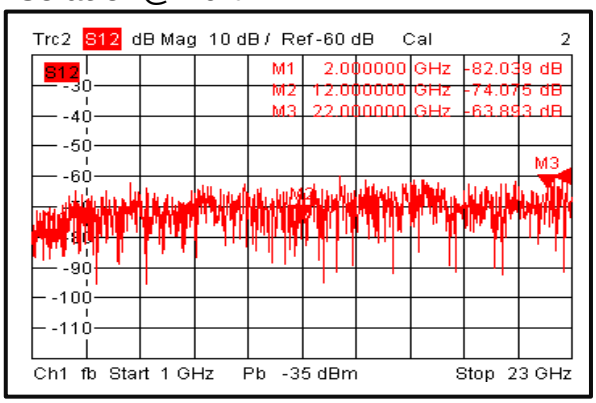
Gain@-40℃



Input Return loss @-40℃



Isolation@-40℃



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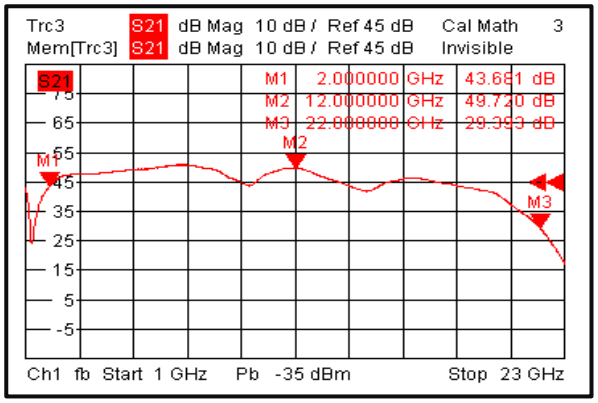
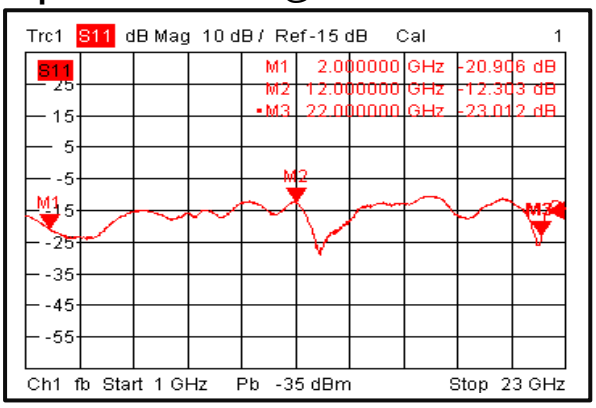
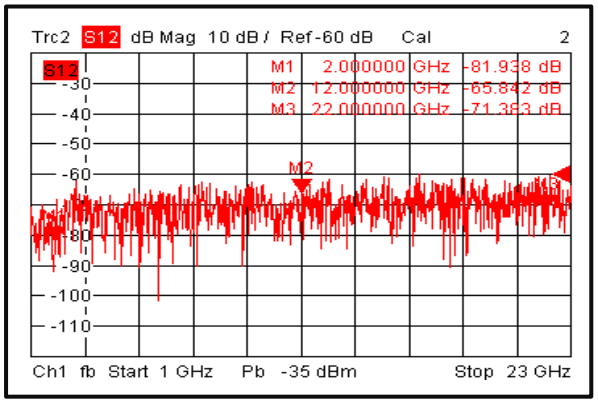
Gain@+85℃



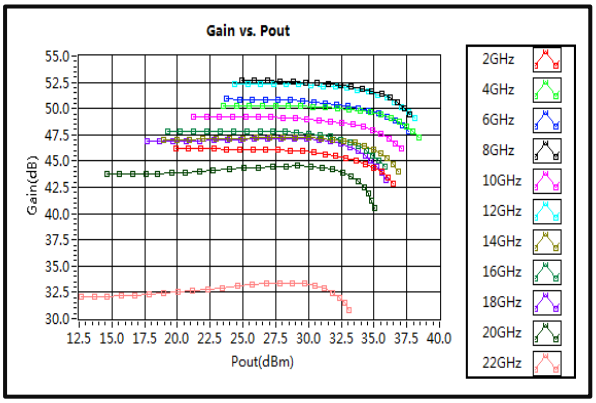
Input Return loss @+85℃



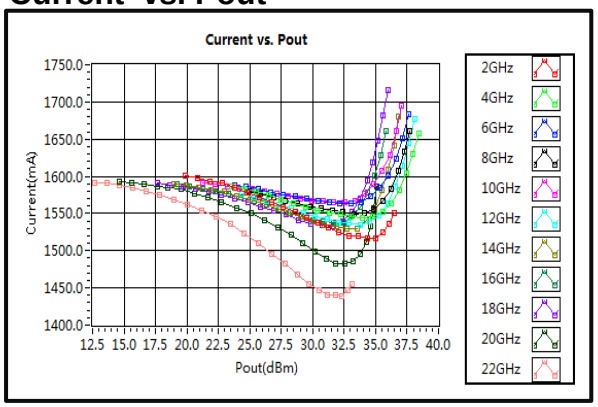
Isolation@+85℃



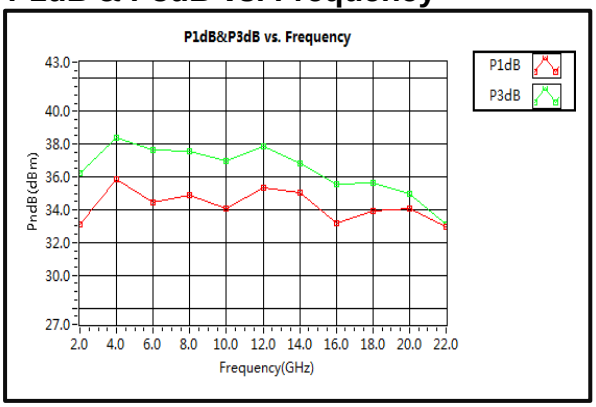
Gain vs. Output Power



Current vs. Pout



P1dB & P3dB vs. Frequency



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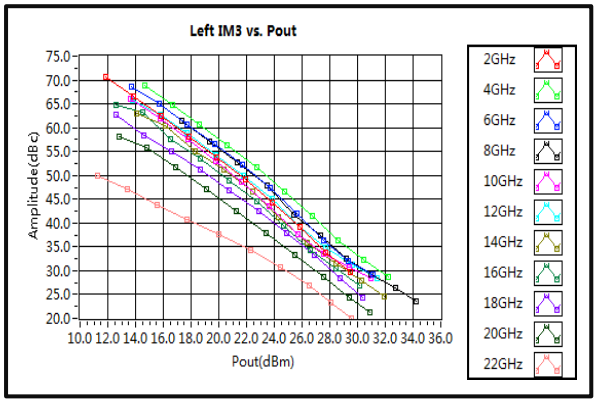
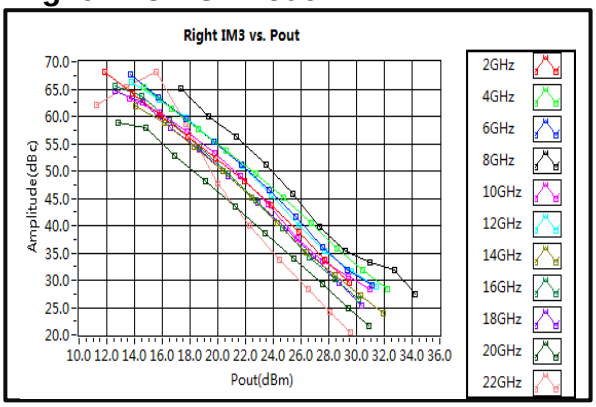
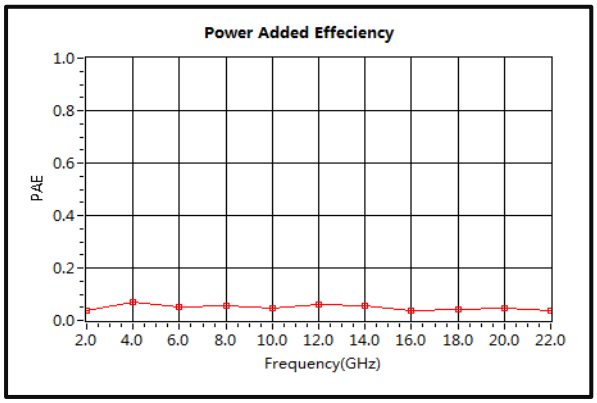
Left IM3 vs. Pout



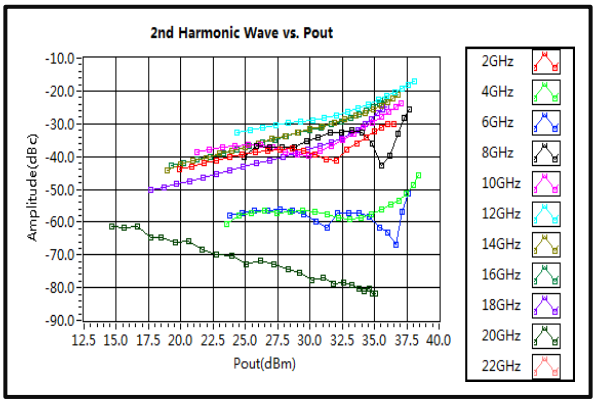
Right IM3 vs. Pout



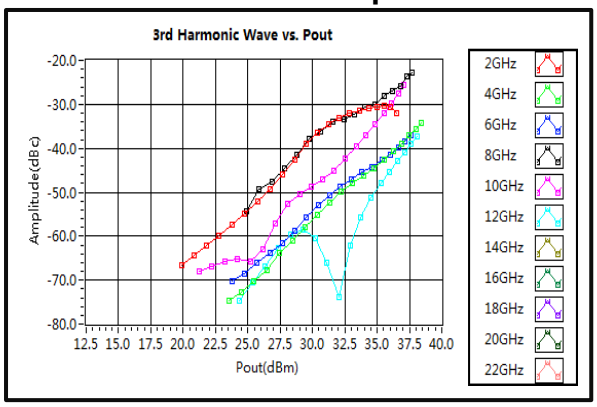
Power Added Efficiency



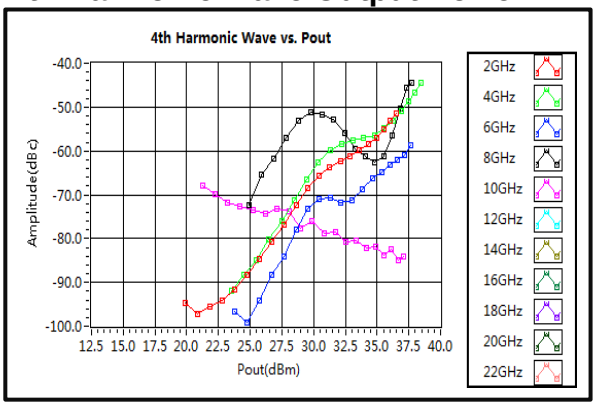
2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power



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