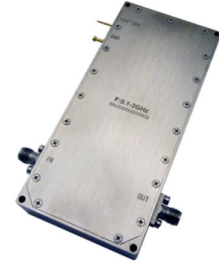




Ultra Wide Band Power Amplifier 0.1GHz~22GHz

Features

- Gain: 33dB Typical
- Output Power: +30dBm Typical
- Supply Voltage: +24V @ 800mA
- 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	0.1		12	12		22	GHz
Gain	32	33	40	30	32	39	dB
Gain Flatness		±2.0			±1.0		dB
Gain Variation Over Temperature (-40°C~+85°C)		±1.5			±2.5		dB
Input VSWR		1.3	1.6		1.4	1.8	:1
Output Power for 1 dB Compression (P1dB)	28	31		27	30		dBm
Saturated Output Power (Psat)	30	33		28	32		dBm
IM3		25			25		dBc
Supply Current (Idd) (Vcc=+24V)		800	1200		800	1200	mA
Isolation S12		-65			-65		dB

Weight	6.4 ounces (Max.)	Impedance	50ohms
Input / Output Connectors	2.92mm-Female	Material	copper
Finish	Gold Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Option with extra charge)



Absolute Maximum Ratings

Operating Voltage	+28V @25°C
RF Input Power (RFIN)	+2 dBm @25°C

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +24V biasing

Power OFF Procedure

Step 1	Turn off +24V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

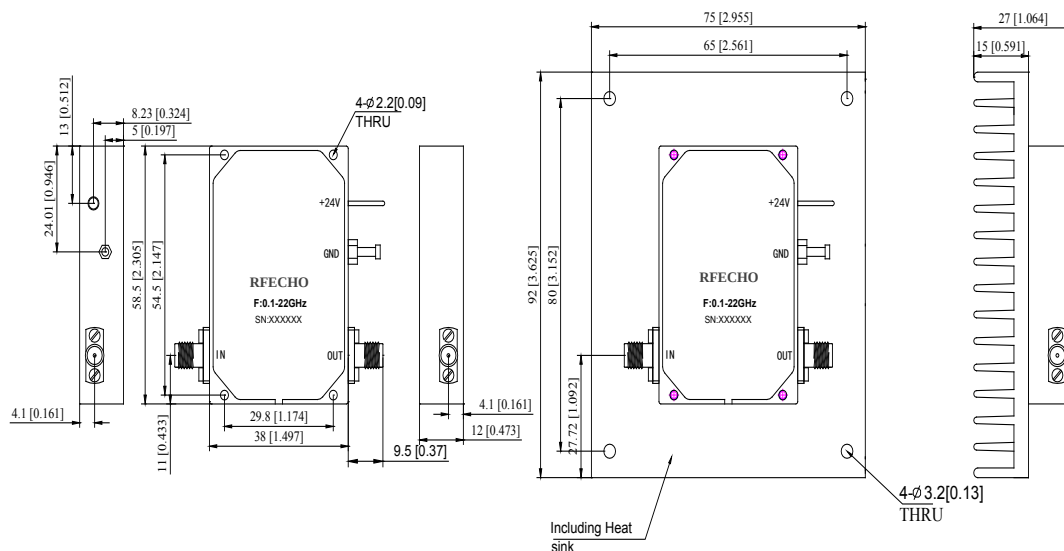
Environmental Specifications

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:

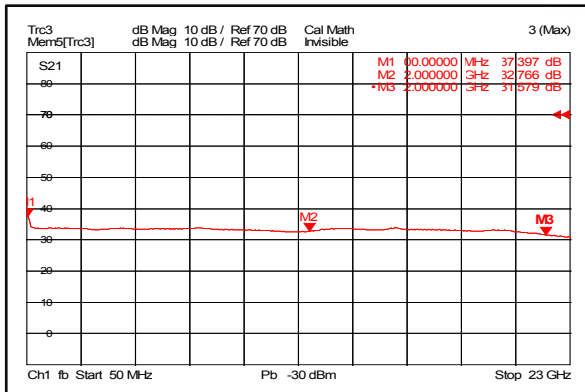
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

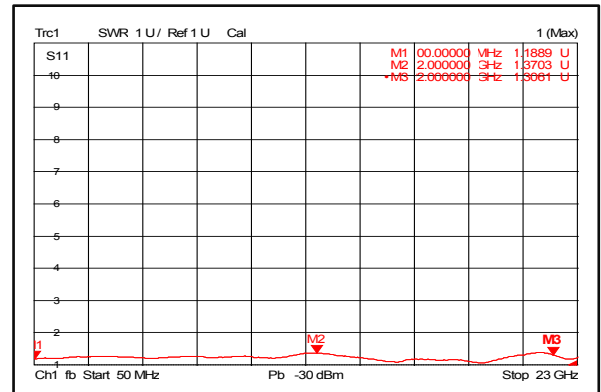




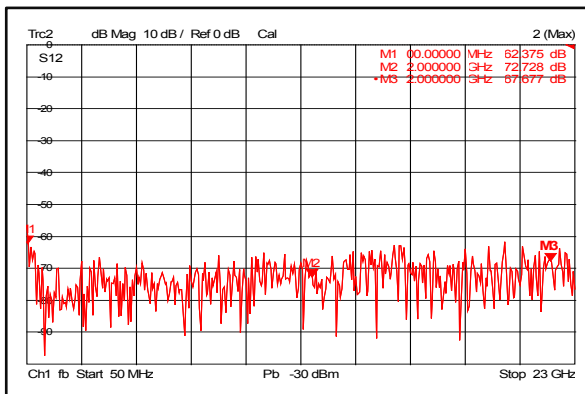
Gain@+25°C



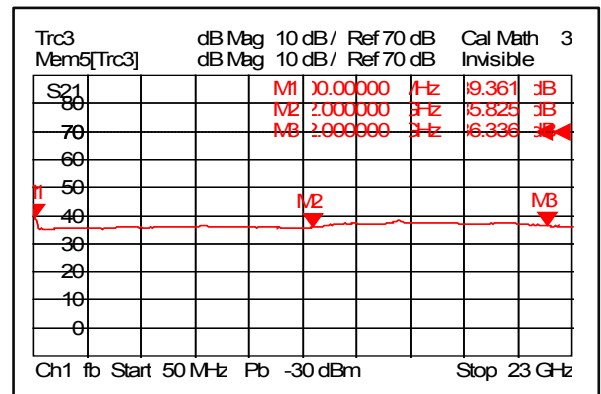
Input VSWR@+25°C



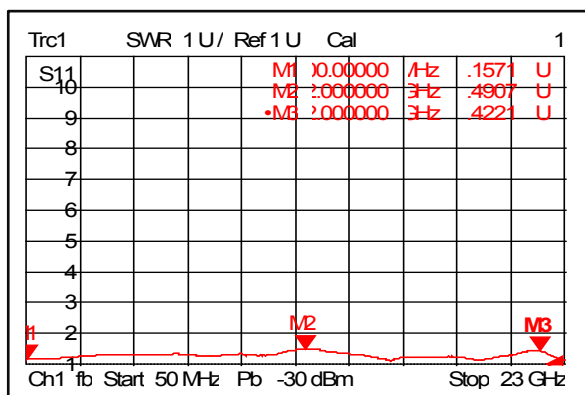
Isolation@+25°C



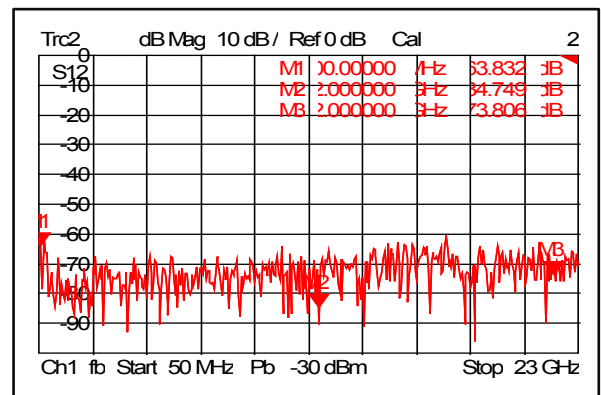
Gain@-40°C



Input VSWR@-40°C

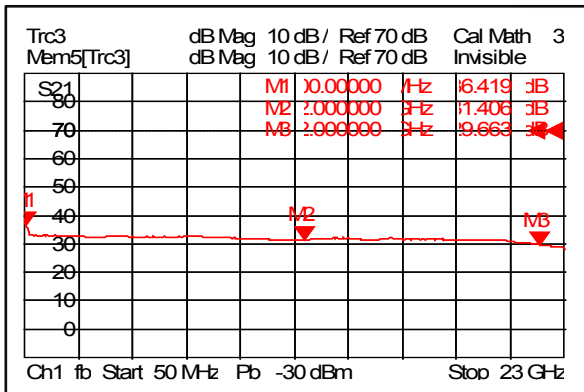


Isolation@-40°C

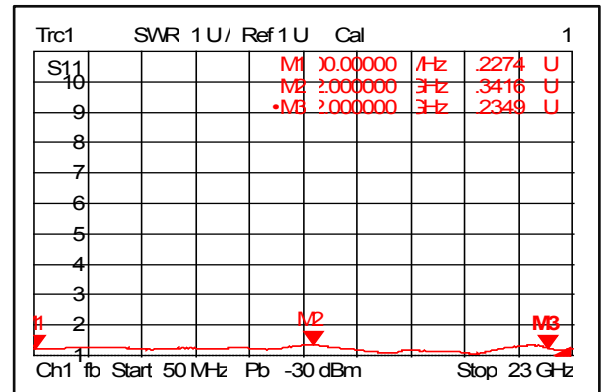




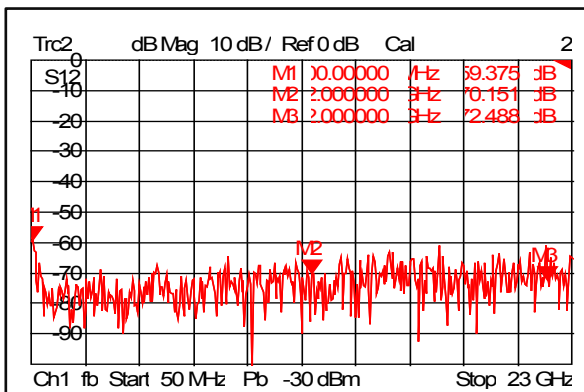
Gain@+85°C



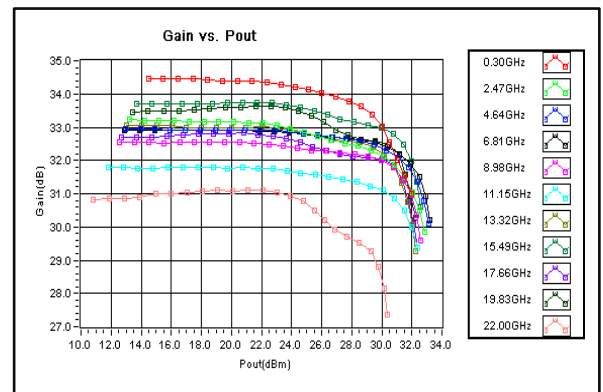
Input VSWR@+85°C



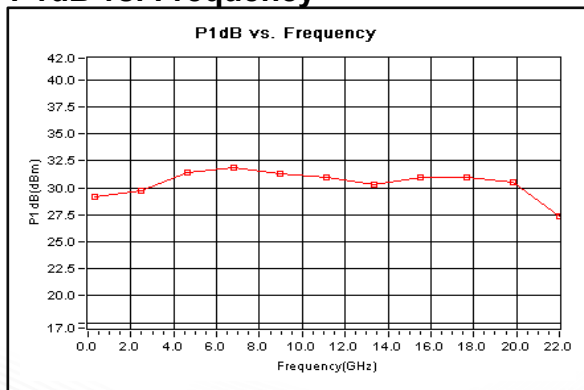
Isolation@+85°C



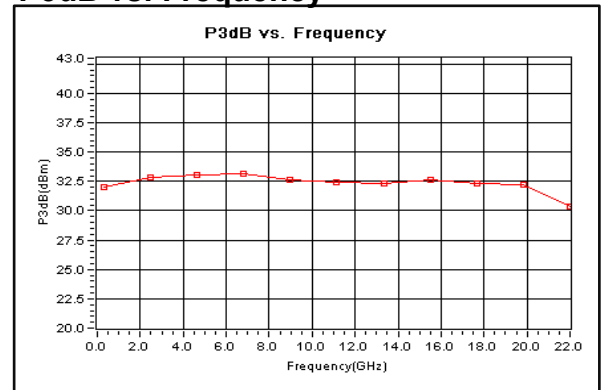
Gain vs. Output Power



P1dB vs. Frequency

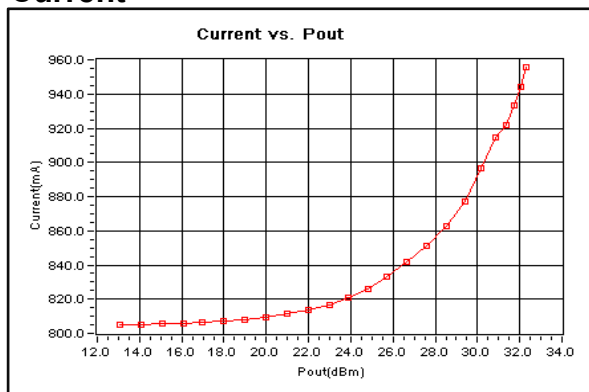


P3dB vs. Frequency

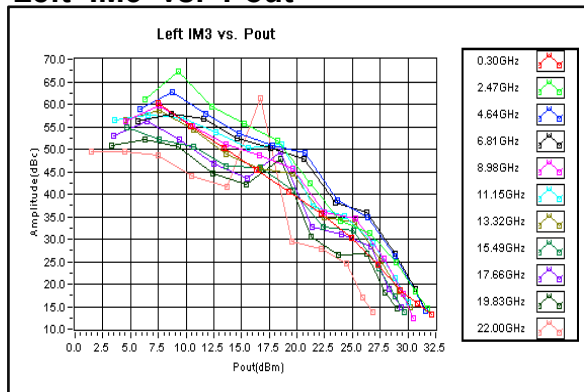




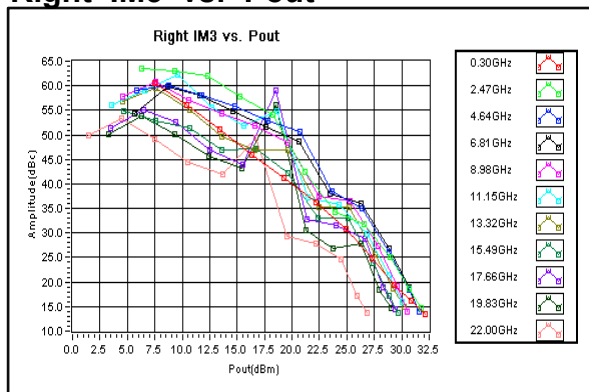
Current



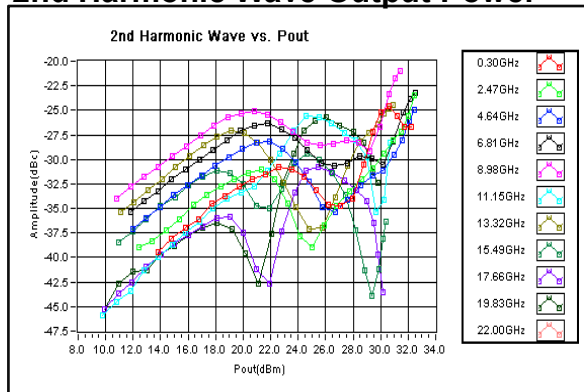
Left IM3 vs. Pout



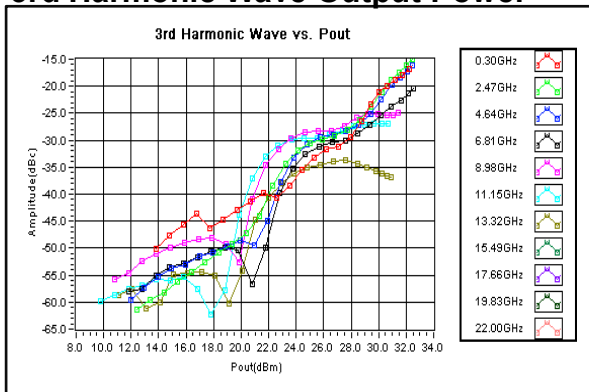
Right IM3 vs. Pout



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power

