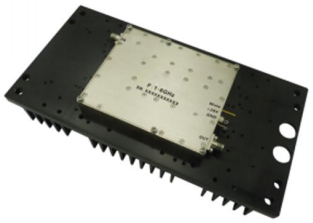
Power Amplifier 1GHz~6GHz



Features

- Gain: 36 dB
- Output power +38dBm typical
- High P1dB: +35 dB m Full Band
- Supply Voltage: +28V @ 350 mA
- 50 Ohm Matched Input / Output

Typical Applications

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

RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Units
Frequency Range	1		6	GHz
Gain	36	38		dB
Gain Flatness		±2.0	±2.5	dB
Gain Variation Over Temperature(-40ºC ~ +85ºC)		±1.5		dB
Input VSWR		1.7	2	:1
Output Power For 1dB Compression (P-1dB)	35	37		dBm
Saturated Output Power (Psat)	36	38		dBm
IM3		25		dBc
Supply Current (Idd) (Vdd=+28V)		350	1500	mA
Isolation S12		55		dB
Input Max			+8	dBm
Mute Control Voltage for PA ON	0		0.8	V
Mute Control Voltage for PA OFF	2.8		5	V
Mute Control Current for PA ON			0.12	mA
Mute Control Current for PA OFF	0.3		3	mA

Net Weight	7 ounces (Max.)	Impedance	50 ohms
Weight (Including Heat Sink)	28 ounces (Max.)	Material	Aluminum
Input /Output Connectors	SMA-Female	Package Sealing	Epoxy Sealed (Standard)
Finish	Nickel Plated		Hermetically Sealed (Option with extra charge)

Absolute Maximum Ratings

Operating Voltage	+28.5V
RF Input Power (RFIN)	+8dBm

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +28V biasing

Power OFF Procedure

Step 1	Turn off +28V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

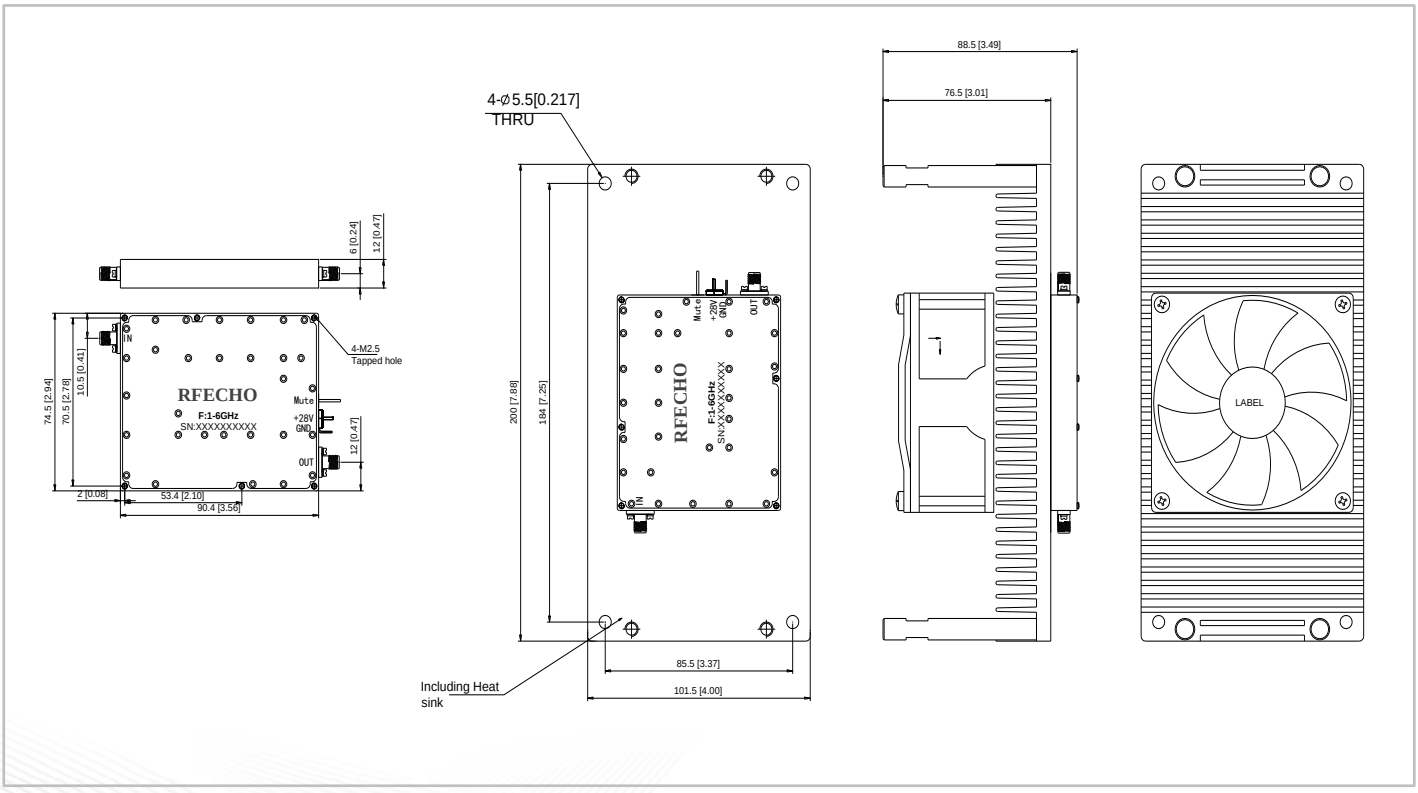
Environmental Specifications

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

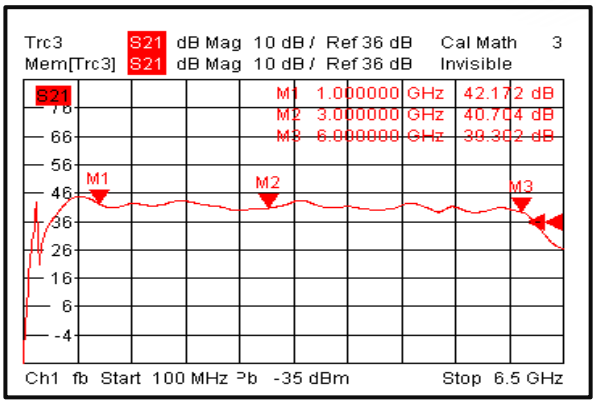
Outline Drawing:

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

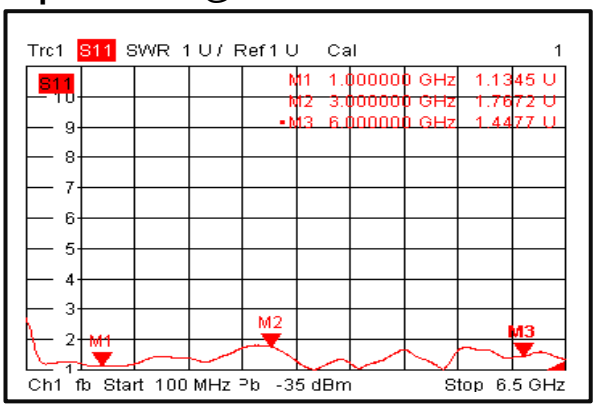
Heat Sink required during operation(Sold Separately)



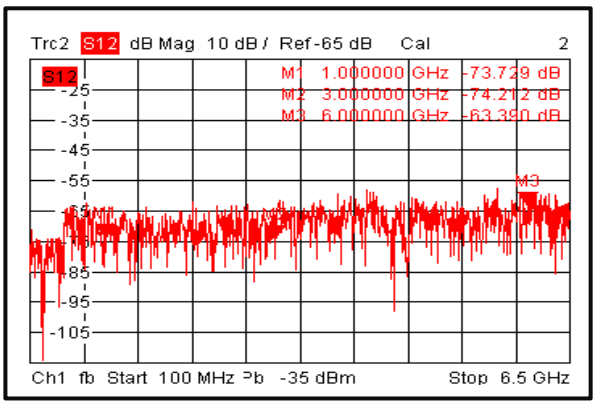
Gain@+25℃



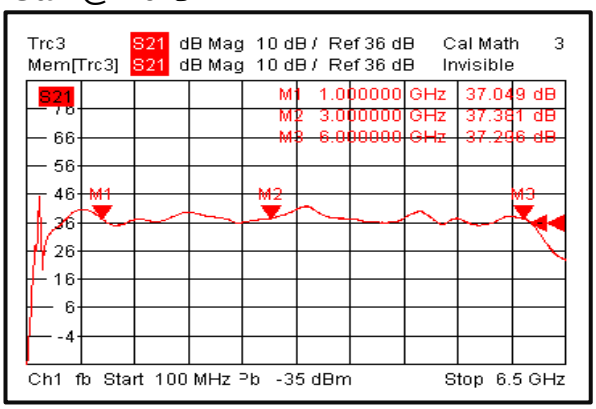
Input VSWR @+25℃



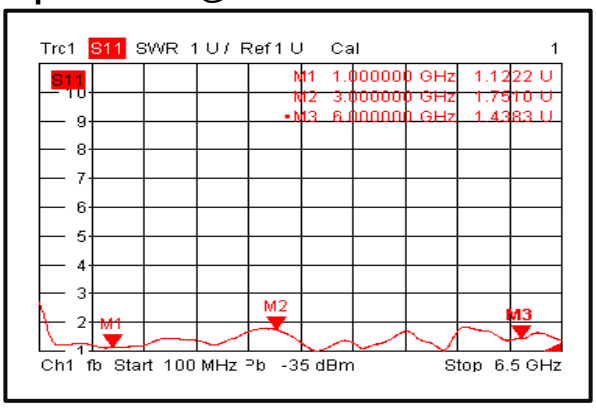
Isolation@+25℃



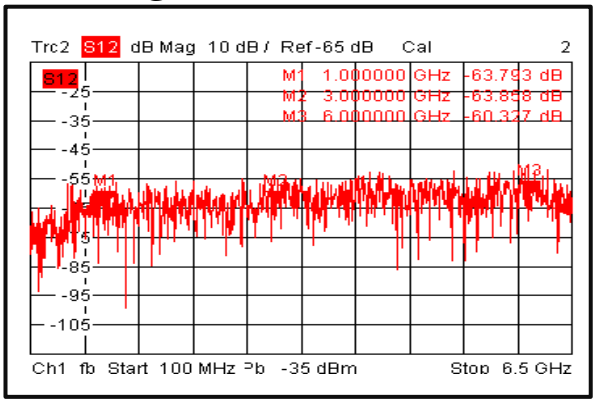
Gain@-40℃



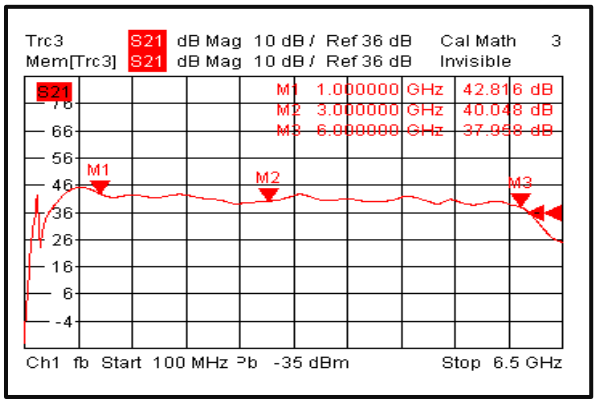
Input VSWR @-40℃



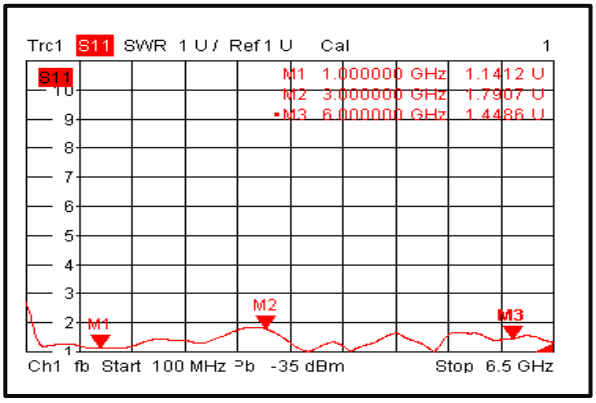
Isolation@-40℃



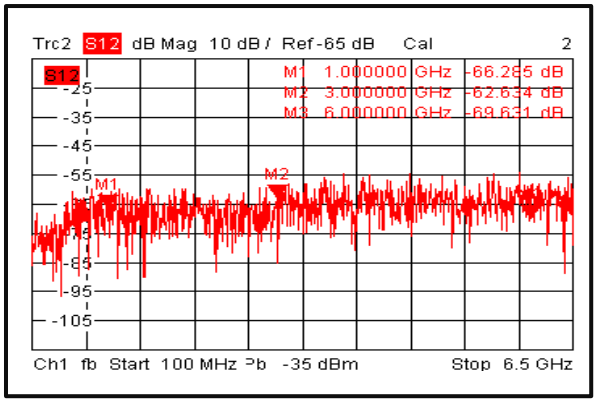
Gain@+85℃



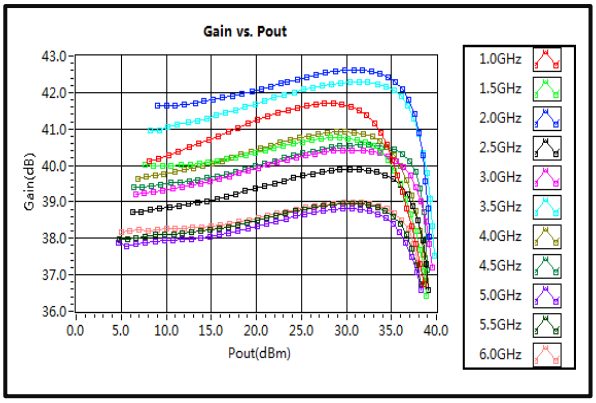
Input VSWR @+85℃



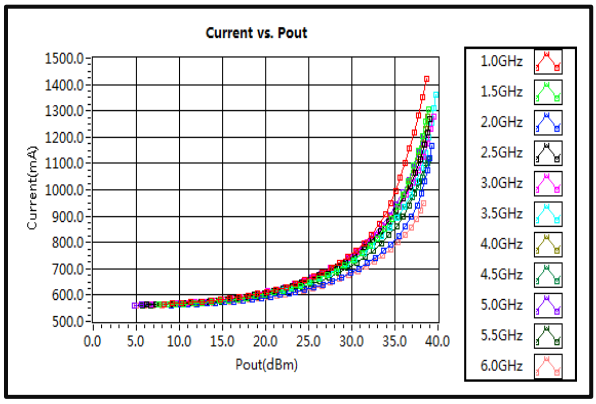
Isolation@+85℃



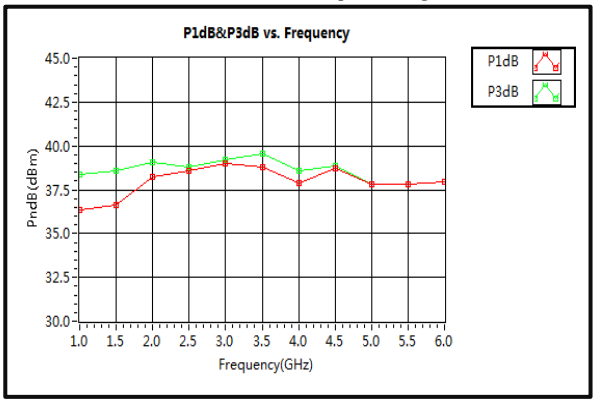
Gain vs. Output Power



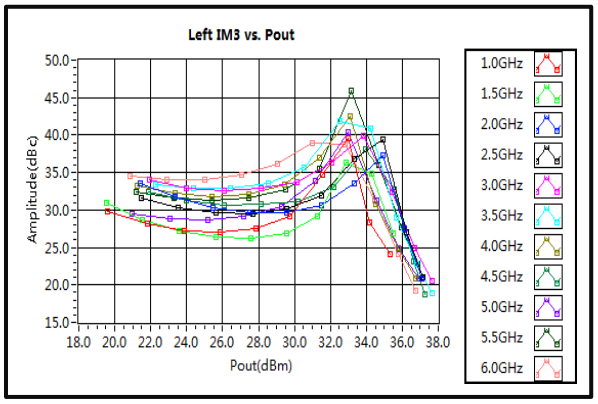
Current



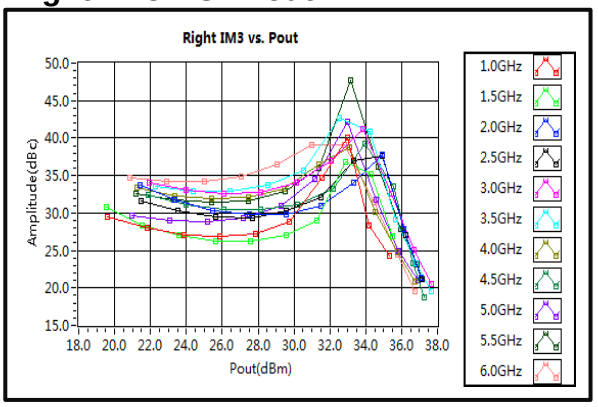
P1dB & P3dB vs. Frequency



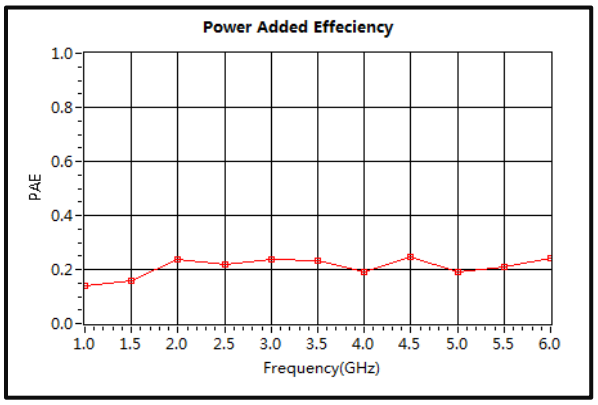
Left IM3 vs. Pout



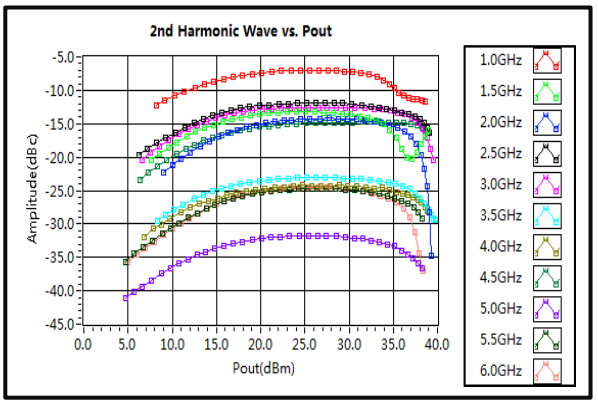
Right IM3 vs. Pout



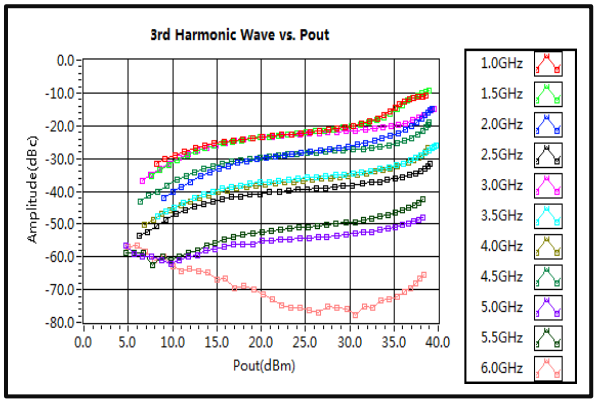
Power Added Effeciency



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power