RFecho
A Gateway to RFWorld

Wide Band Power Amplifier 3GHz~6GHz

Features

- Wide Band Power Amplifier
- Gain: 40dB typical
- Output power +37dBm typical

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	0.7		3	3		6	GHz
Gain	38	40		37	40		dB
Gain Flatness		±1.5			±1.5		dB
Gain Variation Over Temperature (-40℃~+85℃)		±1.0			±1.0		dB
Input VSWR		1.6			1.6		： 1
Output 1dB Compression Point (P1dB)	35	37		35	37		dBm
Saturated Output Power (Psat)		39			39		dBm
Isolation S12		-55			-55		dB
Supply Current (Vcc=+28V)		650	1500		650	1500	mA
Efficiency at P1dB		20			20		%

Weight	6.5 Max. ounces	Impedance	50ohms
Input / Output Connectors	SMA-Female	Material	Aluminum
Finish	Nickel Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Optional)

Absolute Maximum Ratings

Operating Voltage (No RF Input)	+29V @ 25℃
RF Input Power (+28V)	+8dBm @ 25℃

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

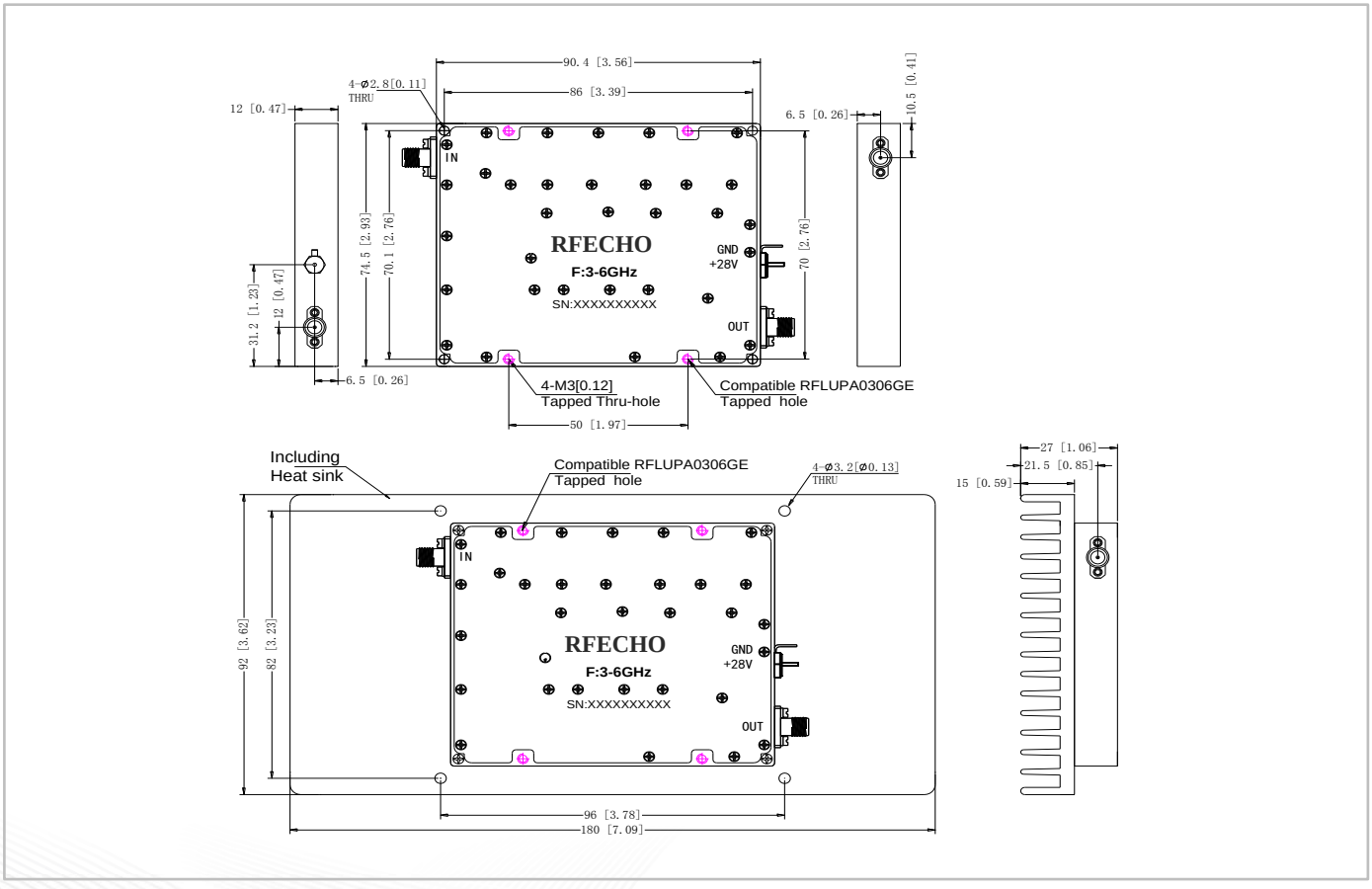
Environmental Specifications

Operational Temperature	-40℃~+85℃ (Case Temperature)
Storage Temperature	-50℃~+105℃
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

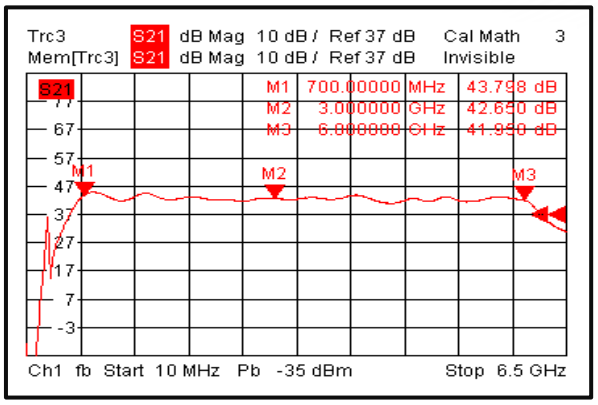
Outline Drawing:

All Dimensions in mm (inches)

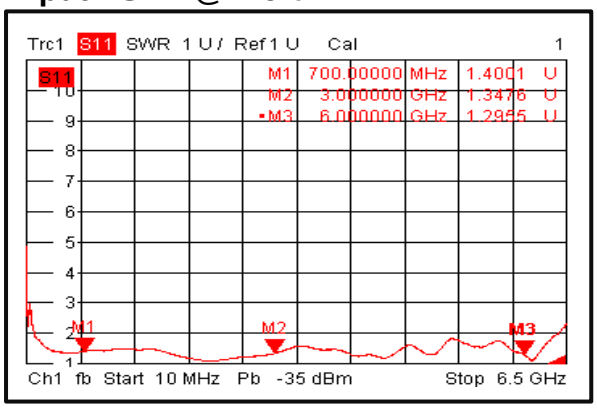
Heat Sink required during operation(Sold Seperately)



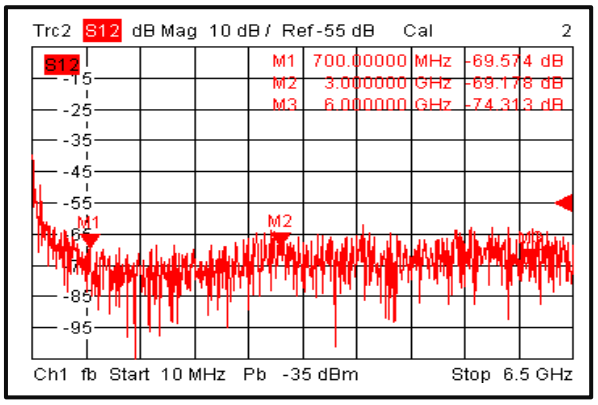
Gain@+25℃



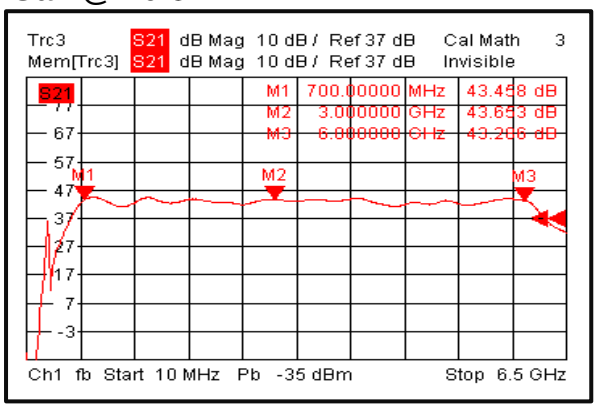
Input VSWR@+25℃



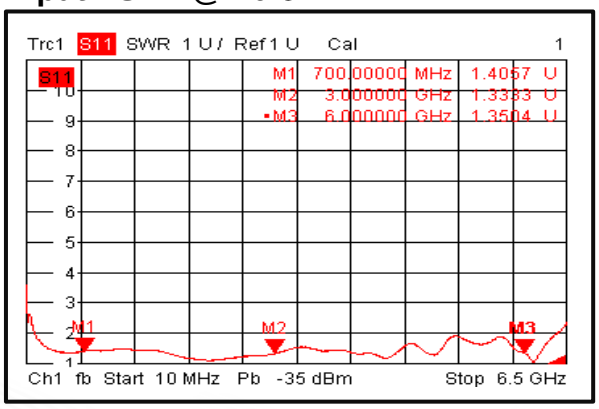
Isolation@+25℃



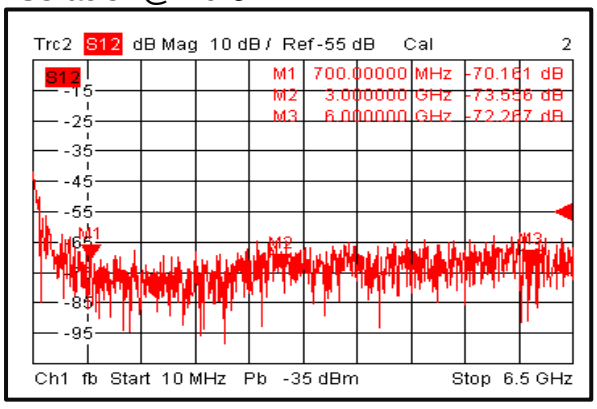
Gain@-40℃



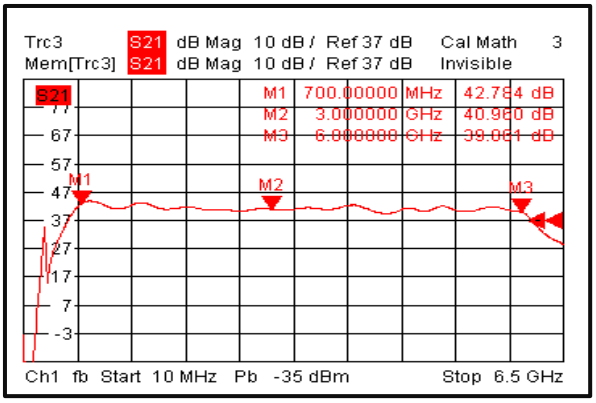
Input VSWR@-40℃



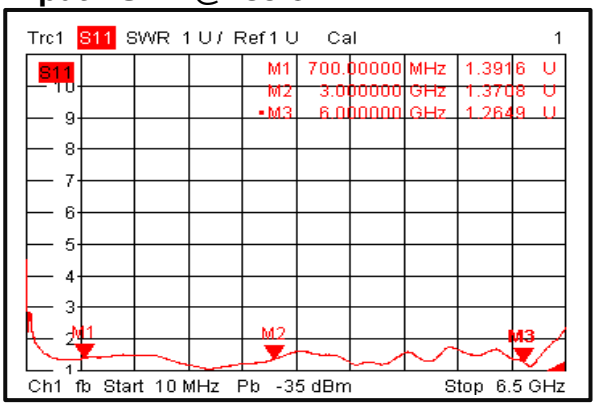
Isolation@-40℃



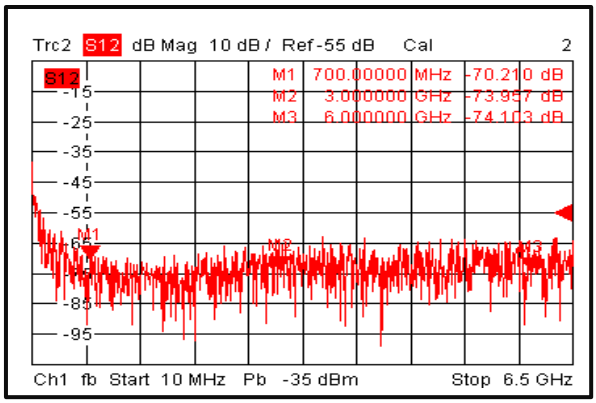
Gain@+85℃



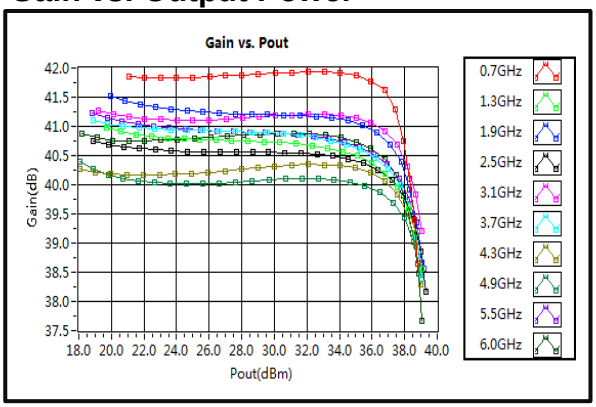
Input VSWR@+85℃



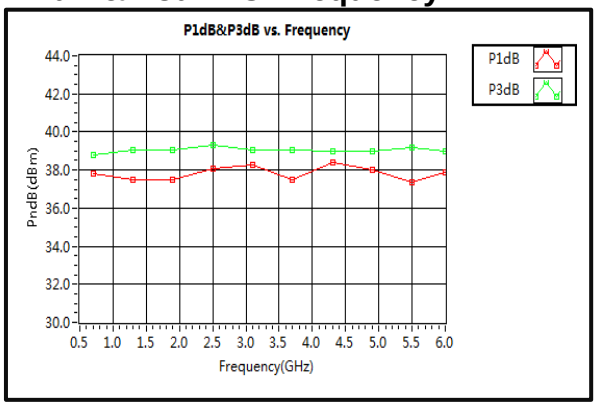
Isolation@+85℃



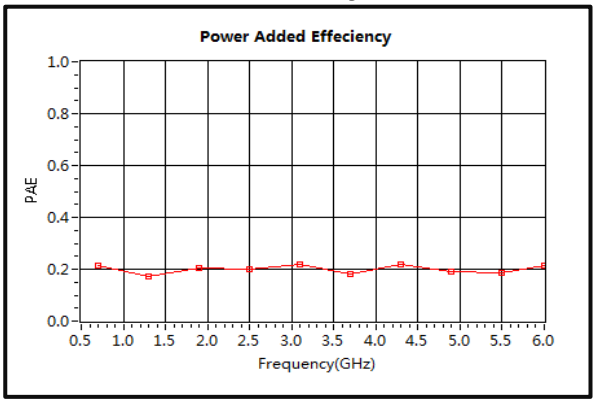
Gain vs. Output Power



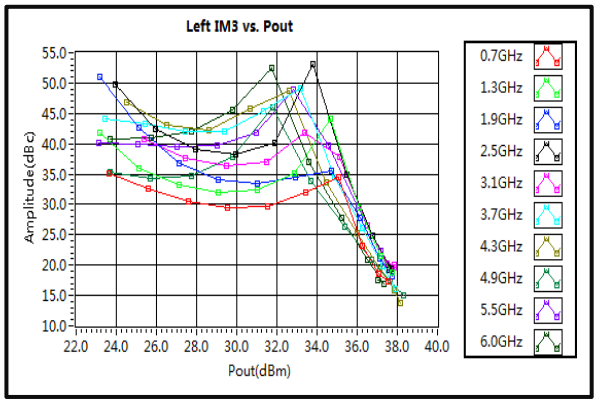
P1dB & P3dB vs. Frequency



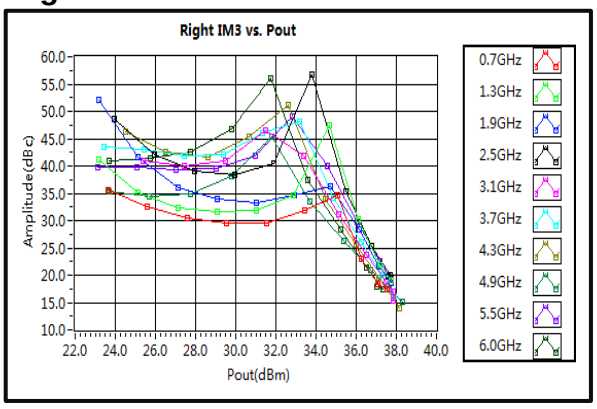
Power Added Efficiency



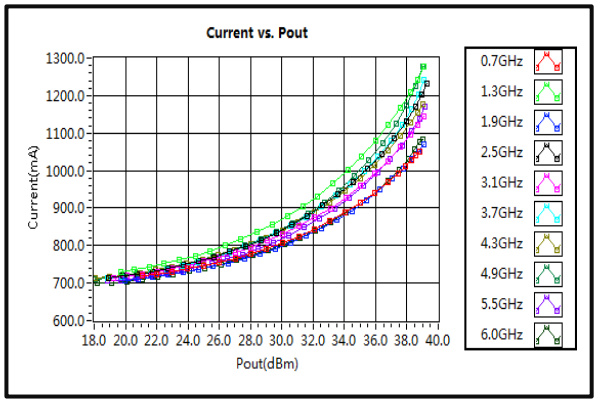
Left IM3 vs. Pout



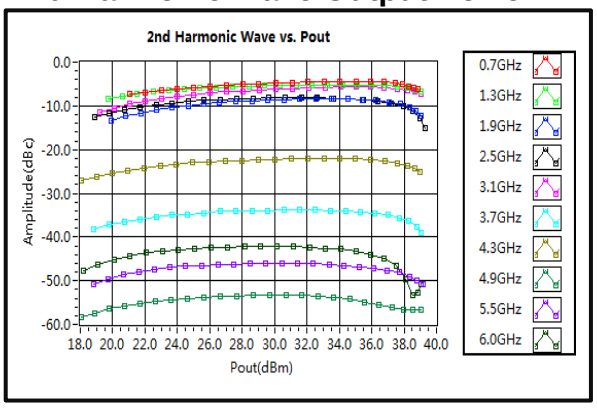
Right IM3 vs. Pout



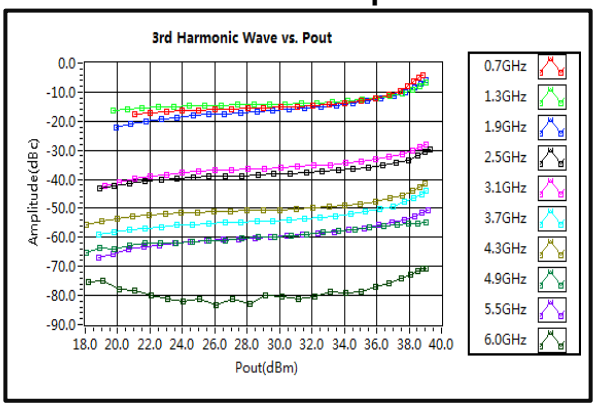
Current



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power