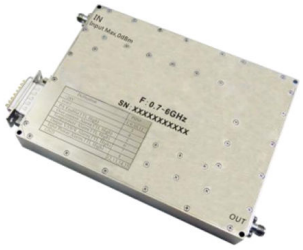
Ultra Wide Band Power Amplifier
0.7GHz ~ 6GHz



Features

- Gain: 45dB typical
- Output power +42dBm typical
- High P1dB: +39 dBm Full Band
- Supply Voltage: +28V

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	42	45		42	45		dB
Gain Flatness		±2.5			±2.5		dB
Gain Variation Over Temperature (-40℃~+70℃)		±2.0			±2.0		dB
Input VSWR		1.6			1.6		:1
Output 1dB Compression Point (P1dB)	39	40		39	40		dBm
Saturated Output Power (Psat)		42			42		dBm
Supply Current		400	2500		400	2500	mA
Isolation S12		-55			-50		dB

Weight	19.05 ounces	Impedance	50ohms
Input / Output Connectors	SMA-Female	Material	Aluminum
Finish	Nickel Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed

Absolute Maximum Ratings

Operating Voltage	+28.5V
RF Input Power	+5dB m

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.

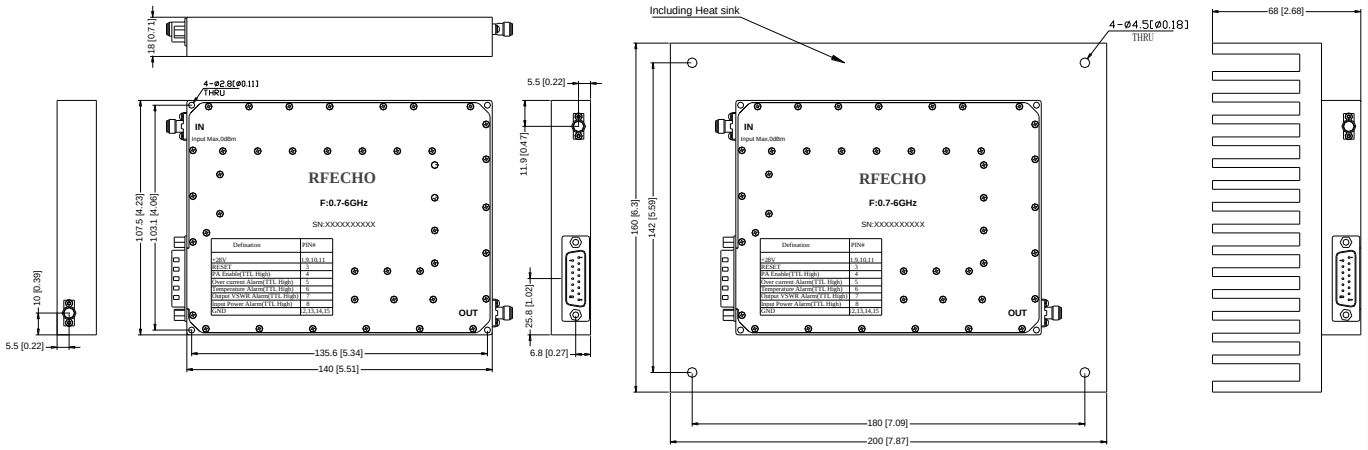
Environmental Specifications

Operational Temperature	-40ºC~+70ºC
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:

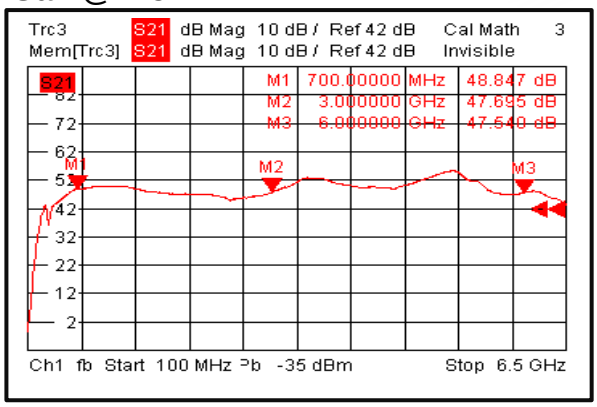
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

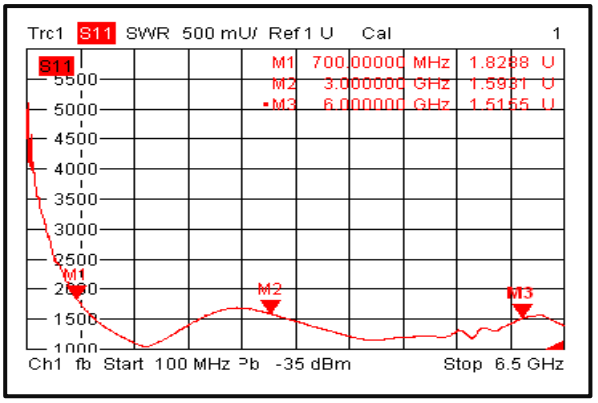


PIN#	Defination
1,9,10,11	+28V
3	RESET
4	PA Enable(TTL High)
5	Over current Alarm(TTL High)
6	Temperature Alarm(TTL High)
7	Output VSWR Alarm(TTL High)
8	Input Power Alarm(TTL High)
12,13,14,15	GND

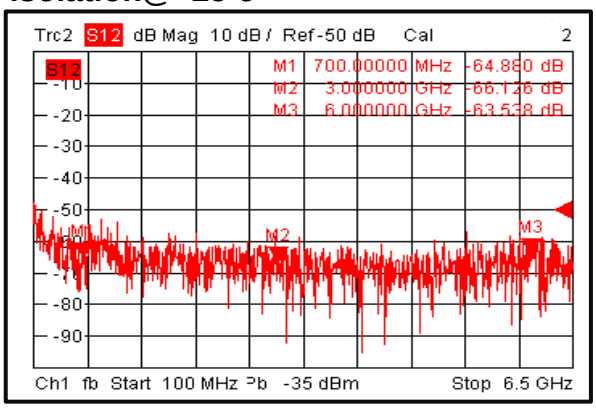
Gain@+25℃



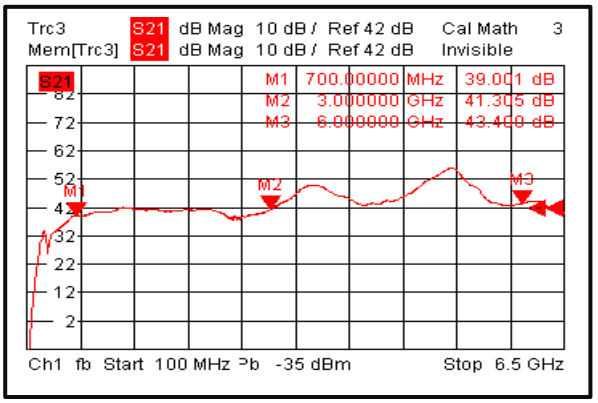
Input VSWR@+25℃



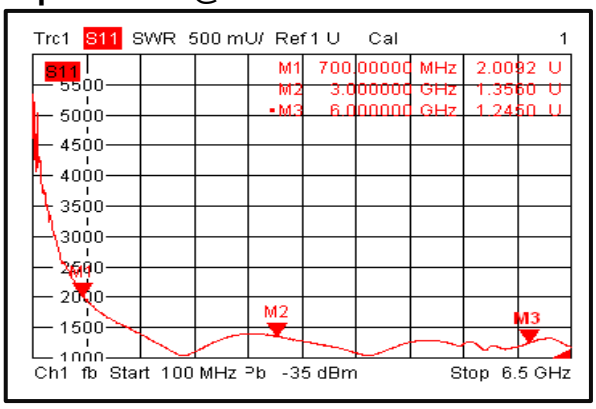
Isolation@+25℃



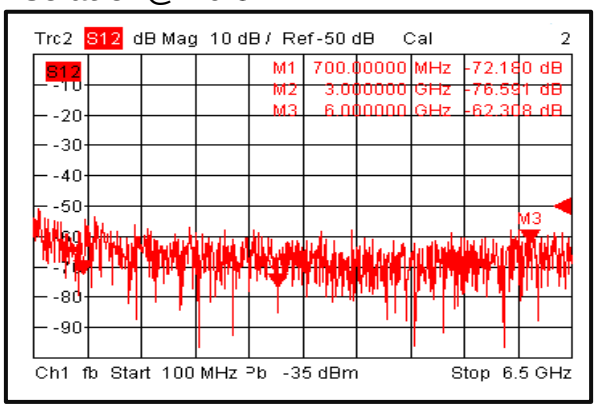
Gain@-40℃



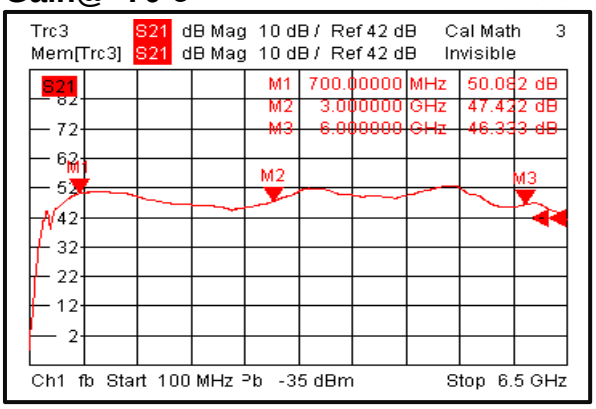
Input VSWR@-40℃



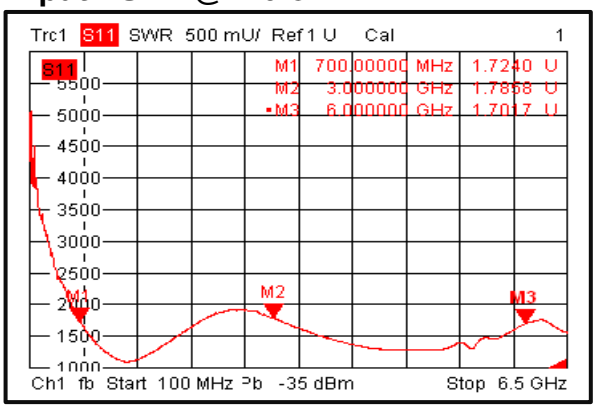
Isolation@-40℃



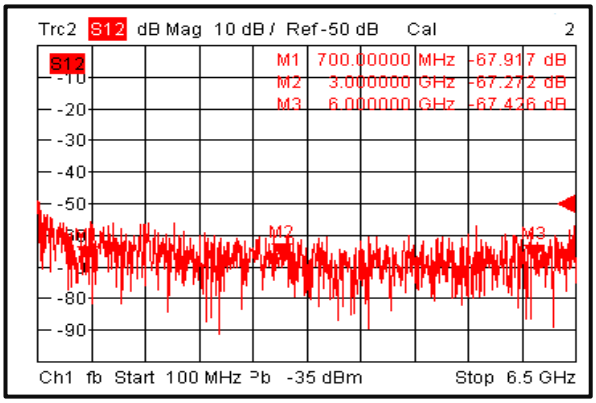
Gain@+70℃



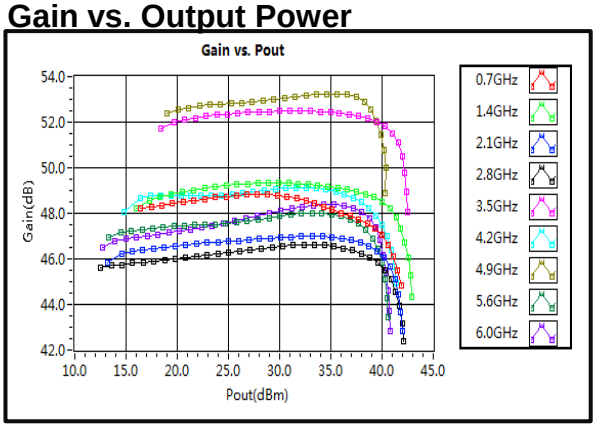
Input VSWR@+70℃



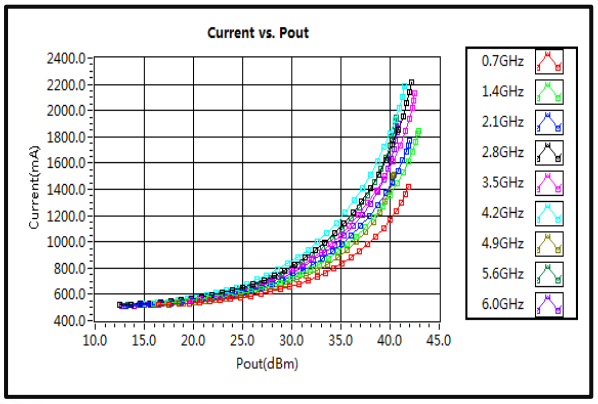
Isolation@+70℃



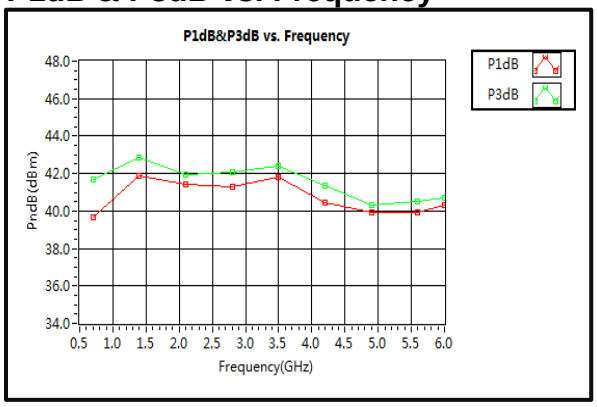
Gain vs. Output Power



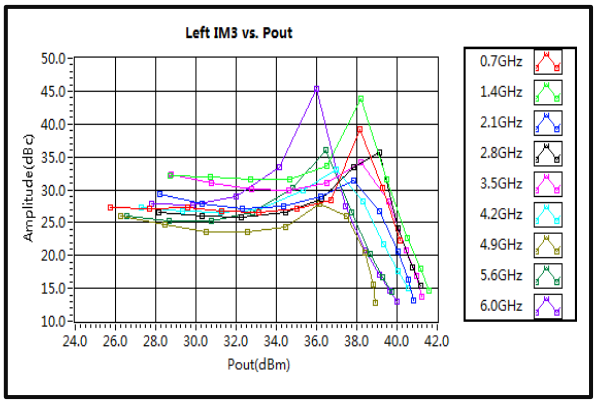
Current



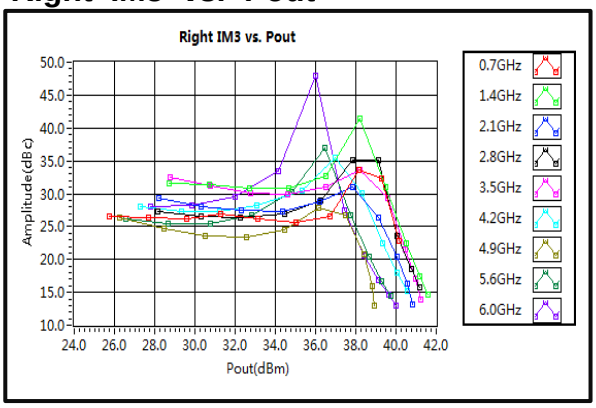
P1dB & P3dB vs. Frequency



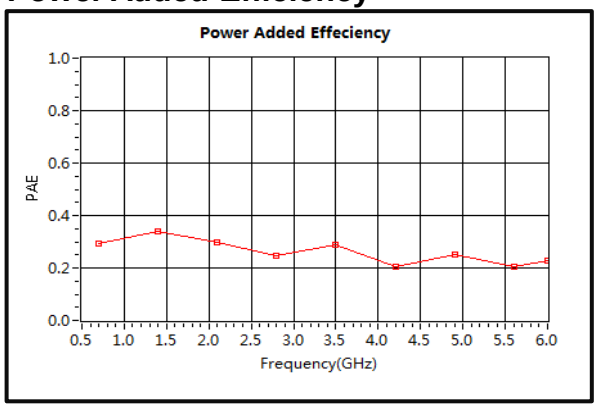
Left IM3 vs. Pout



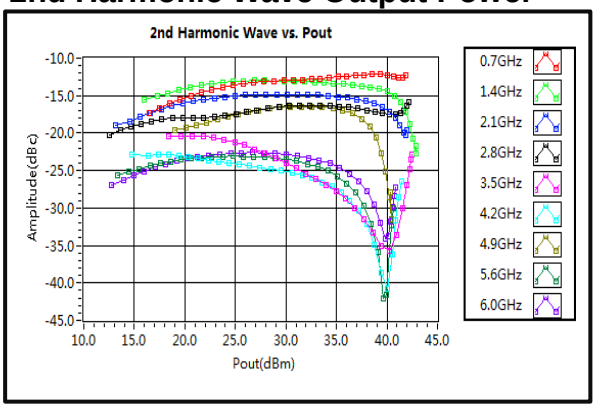
Right IM3 vs. Pout



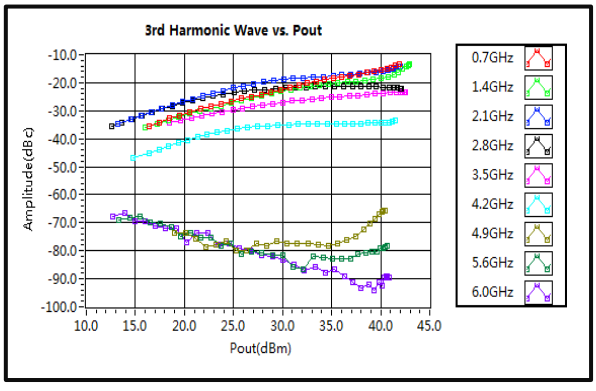
Power Added Efficiency



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power