



4W Power Amplifier 2.4GHz~2.5GHz

Features

- Wideband Solid State Power Amplifier
- Gain: 28dB Typical
- P1dB: 36dBm Min
- Supply Voltage: +28V



Typical Applications

- Wireless Infrastructure
- RF Microwave & VSAT
- Test Instrumentation

Short Haul / High Capacity Links
5G communication

Parameter	Min.	Typ.	Max.	Units
Frequency Range	2.4		2.5	GHz
Gain	26	28		dB
Gain Flatness		± 0.8	± 1.0	dB
Gain Variation Over Temperature (-40°C~+85°C)		± 1.8	± 2.0	dB
Input Return Loss	10	15		dB
Output 1dB Compression Point (P1dB)	36	37		dBm
Isolation S12		-45		dB
Supply Current (Vcc=+28V)		0.5	1	A

Weight	5.0ounces(Max.)	Impedance	50ohms
Input / Output Connectors	SMA-Female	Material	Aluminum
Finish	Nickel Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Option with extra charge)



Absolute Maximum Ratings

Operating Voltage	+30V
RF Input Power	+10dBm

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output with 50 Ohm source/load. (in band VSWR<1.9:1 or >10dB return loss)
Step 3	Connect +28V

Power OFF Procedure

Step 1	Turn Off +28V
Step 2	Remove RF Connection
Step 3	Remove Ground

Environmental Specifications

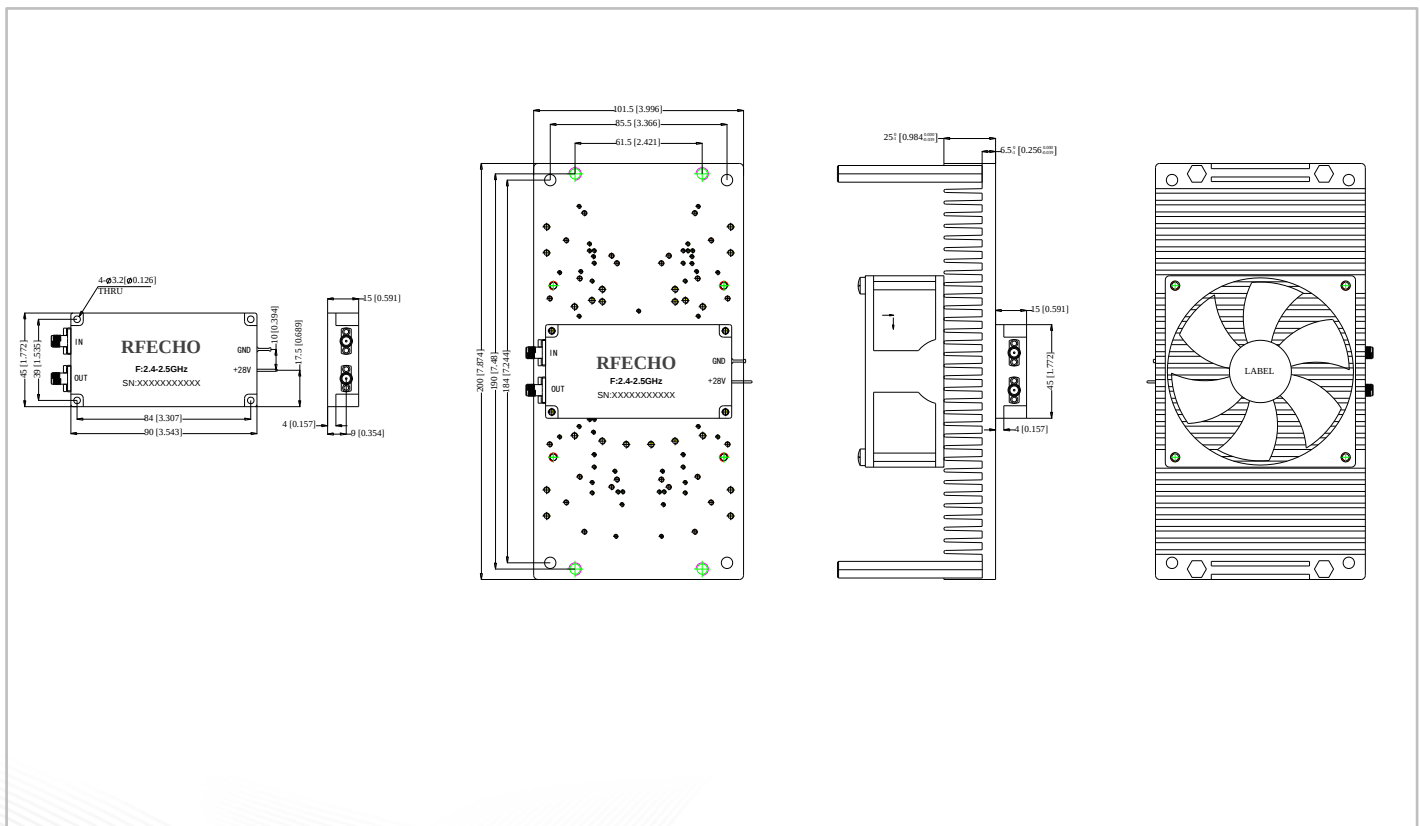
Operational Temperature	-40°C~+85°C
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH at 40°C
Shock	20G for 11msec half sine wave, 3 axis both directions

Outline Drawing:

All Dimensions in mm (inches)

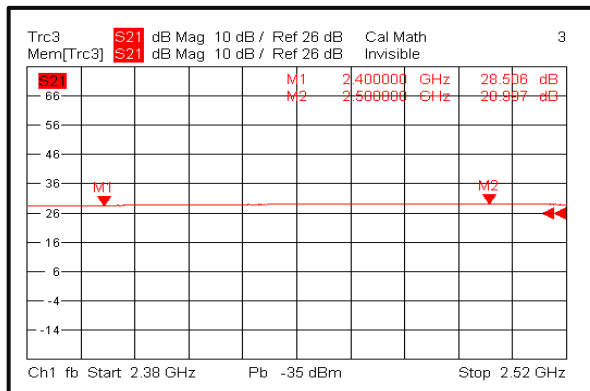
Tolerances ± 0.2 (0.008) (Excl heatsink)

Heat Sink required during operation(Sold Separately)

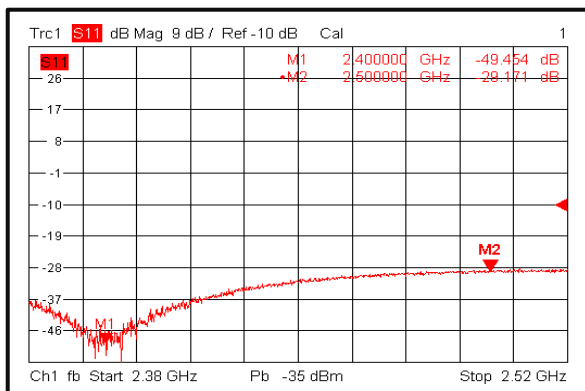




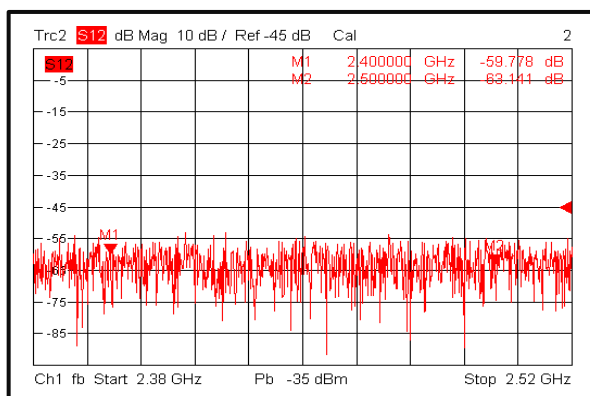
Gain @+25°C



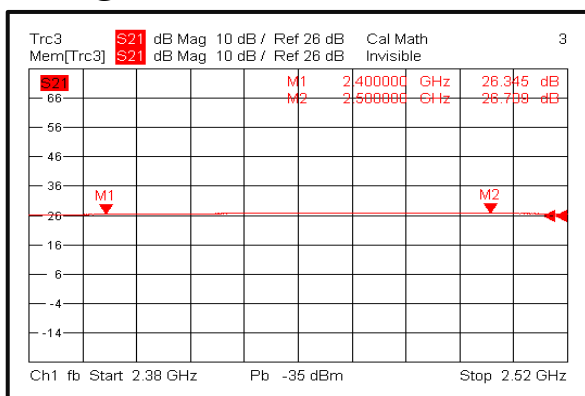
Input Return Loss @+25°C



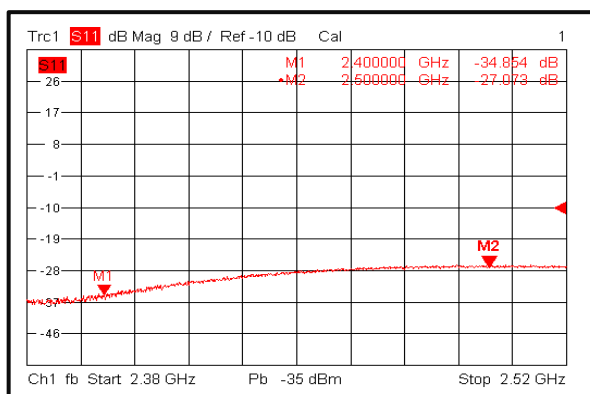
Isolation @+25°C



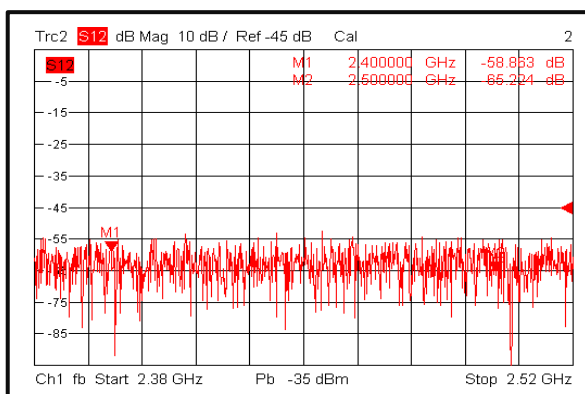
Gain @-40°C



Input Return Loss @-40°C

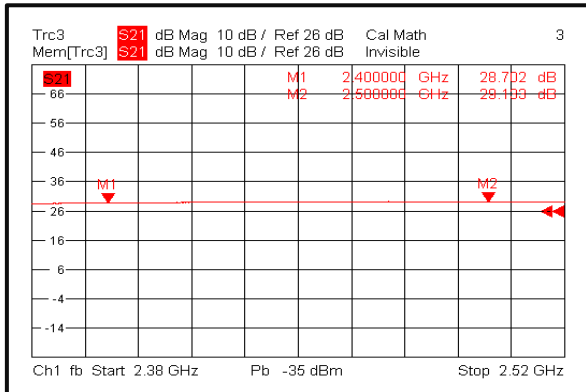


Isolation @-40°C

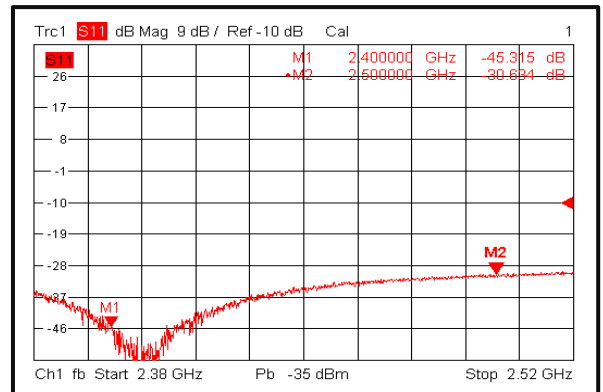




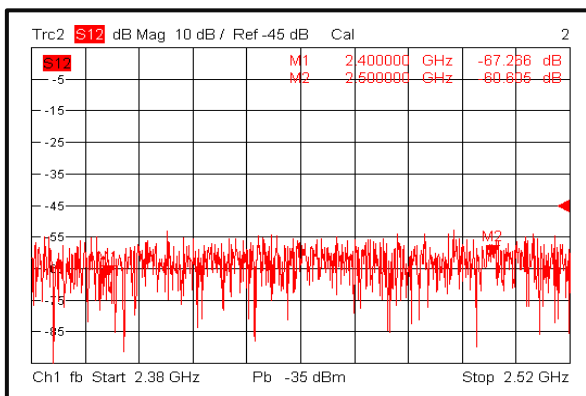
Gain @+85°C



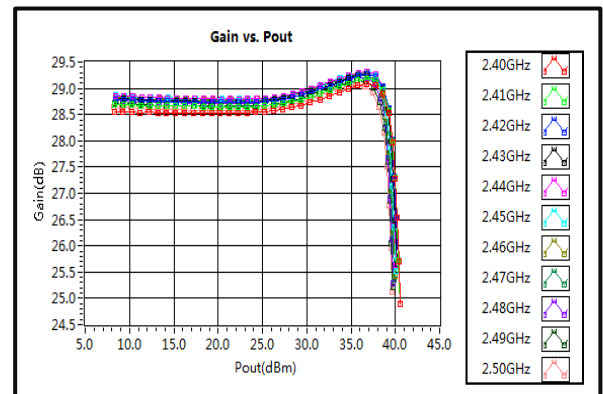
Input Return Loss @+85°C



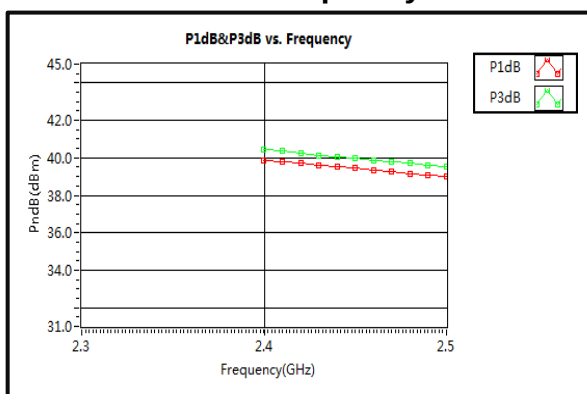
Isolation @+85°C



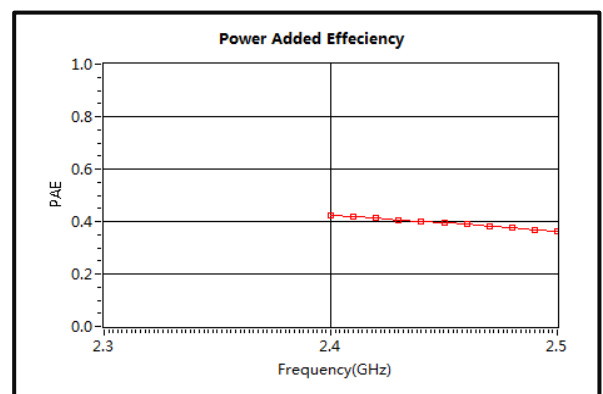
Gain vs. Output Power



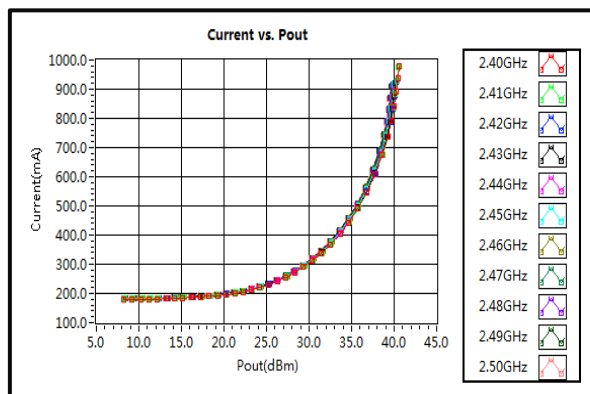
P1dB&P3dB vs. Frequency



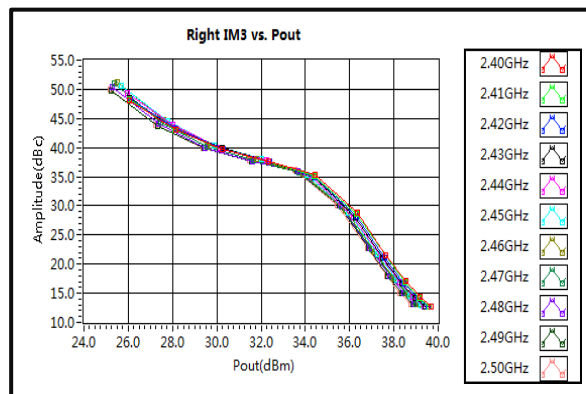
Power Added Efficiency



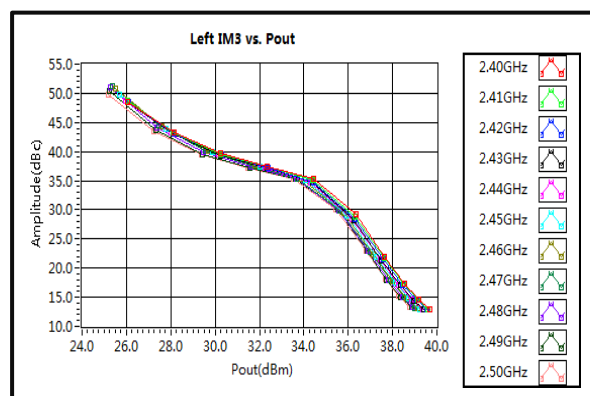
Current



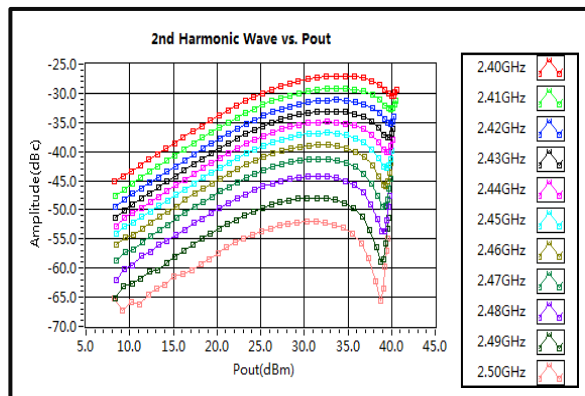
Right IM3 vs. Pout



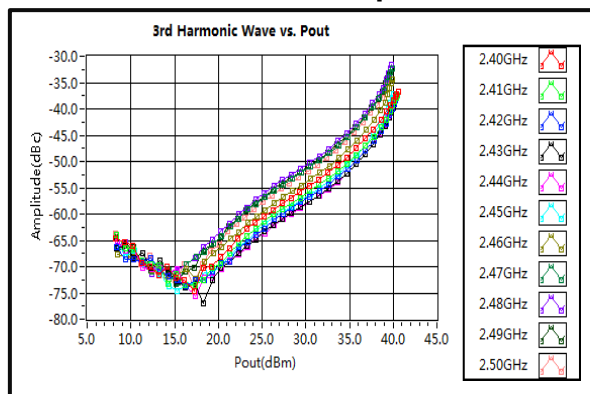
Left IM3 vs. Pout



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power

