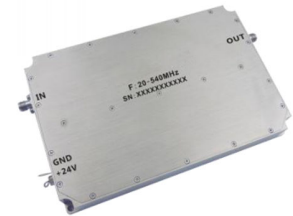




Wide Band Power Amplifier 20MHz~540MHz

Features

- Gain: 45dB Typical
- Output P1dB: +45dBm Typical
- Supply Voltage: +24V
- 50 Ohm Matched



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	20		250	250		540	MHz
Gain	40	45	49	40	45	49	dB
Gain Flatness		± 1.0	± 1.5		± 1.0	± 1.5	dB
Gain Variation Over Temperature (-40°C~+70°C)		± 2.0			± 2.0		dB
Input VSWR		1.2	1.5		1.2	1.5	: 1
Output 1dB Compression Point (P1dB)	44	45		43	44		dBm
Saturated Output Power (Psat)		46			45		dBm
Supply Current (Vcc=+24V)		0.8	5.5		0.8	5.5	A
Isolation S12		-55			-55		dB
Efficiency @ P1dB		45			25		%

Weight	16.5 ounces Max.	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	+25V @25°C
RF Input Power (Vcc=+24V)	+5dBm @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

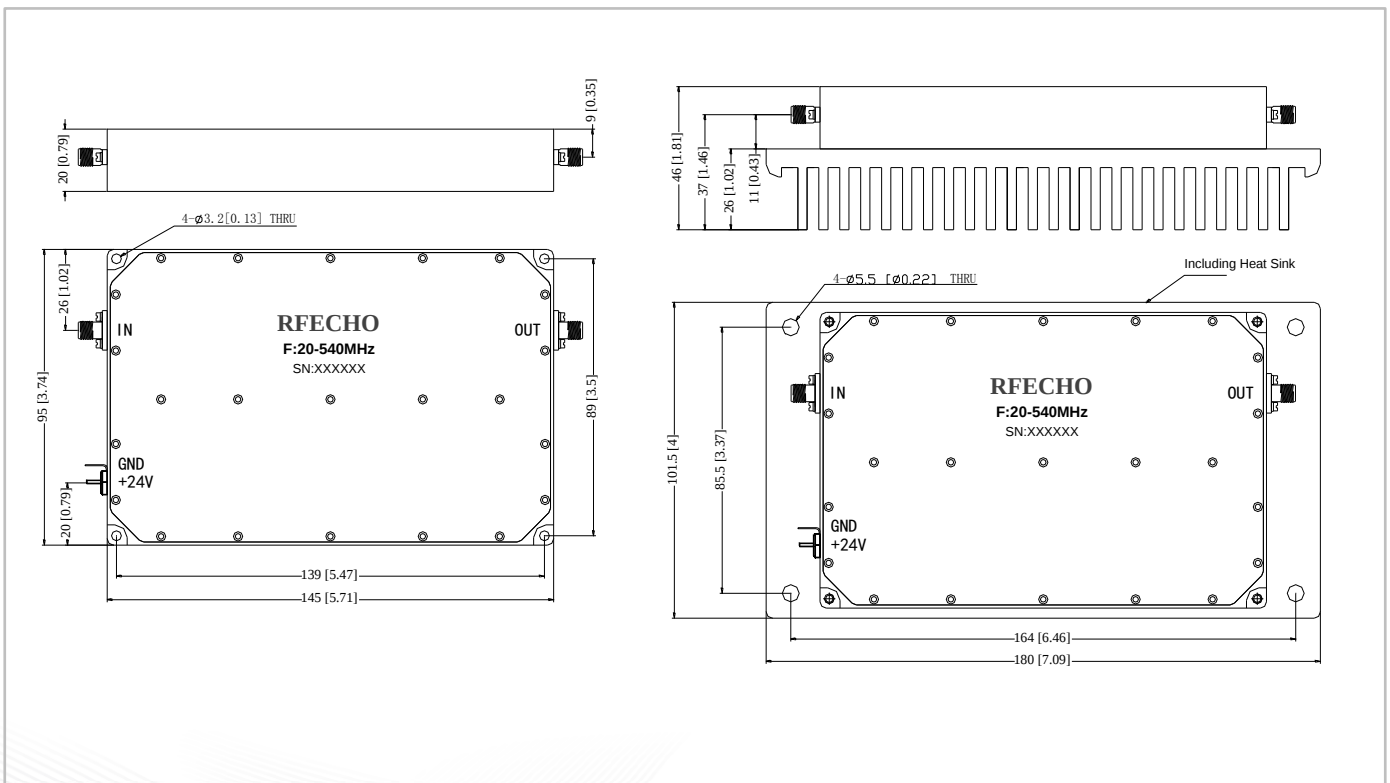
Environmental Specifications

Operational Temperature	-40°C~+70°C (Case Temperature)
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:

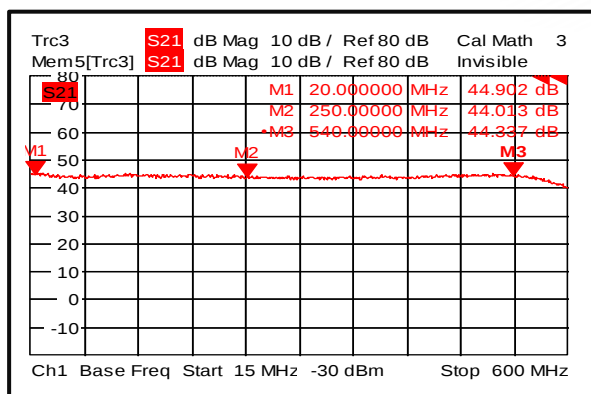
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

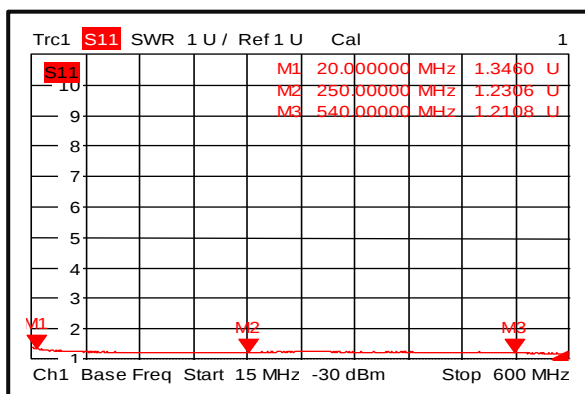




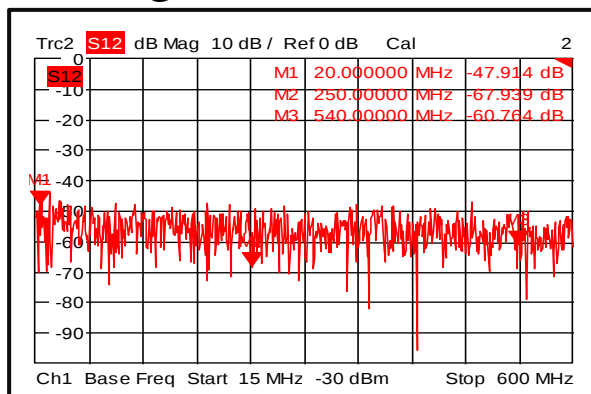
Gain@+25°C



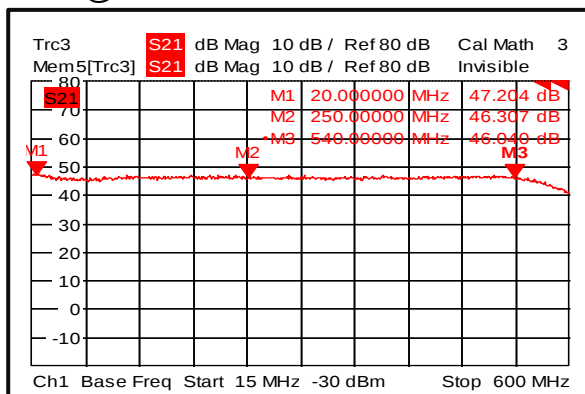
Input VSWR@+25°C



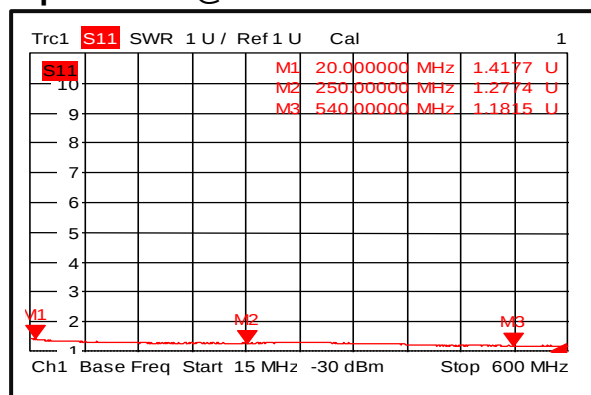
Isolation@+25°C



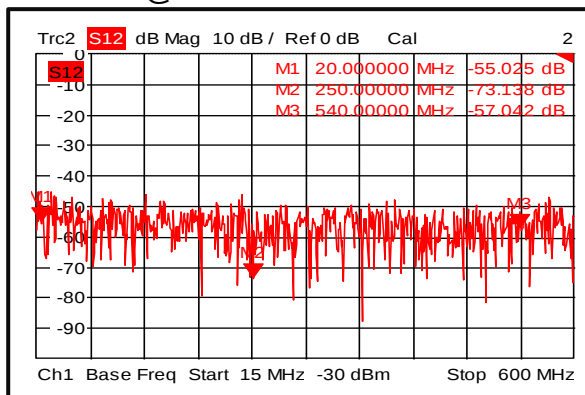
Gain@-40°C



Input VSWR@-40°C

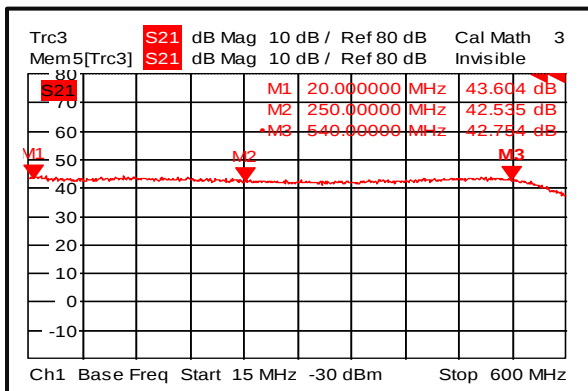


Isolation@-40°C

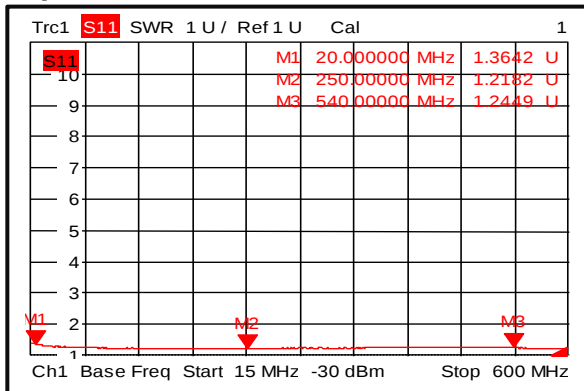




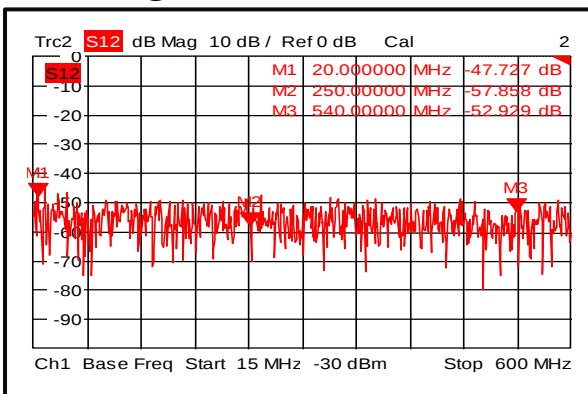
Gain@+70°C



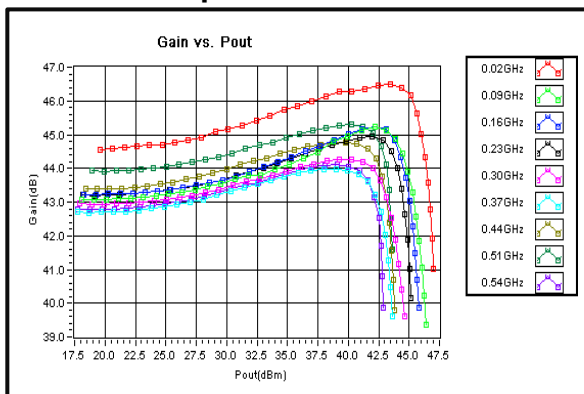
Input VSWR@+70°C



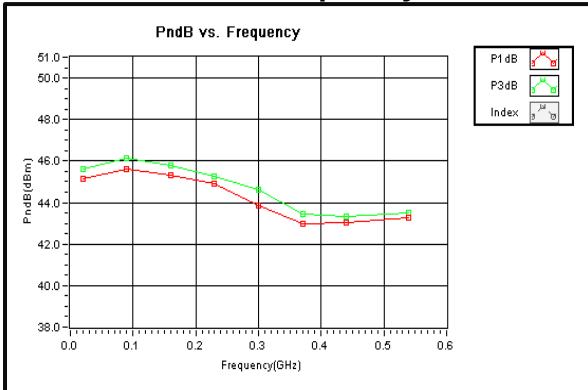
Isolation@+70°C



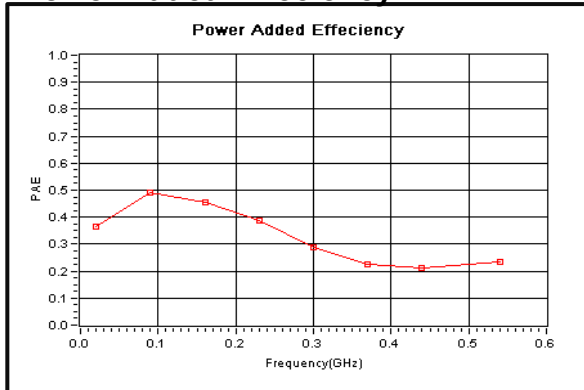
Gain vs. Output Power



P1dB&P3dB vs. Frequency

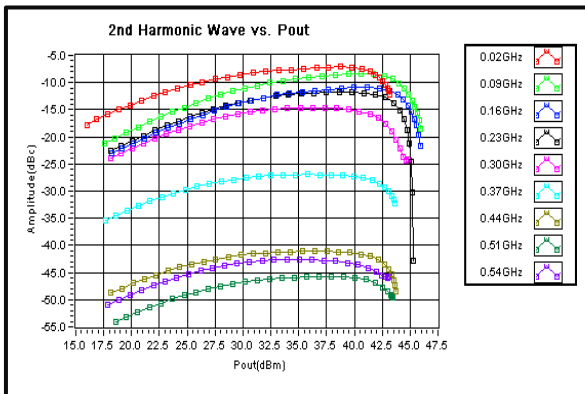


Power Added Efficiency

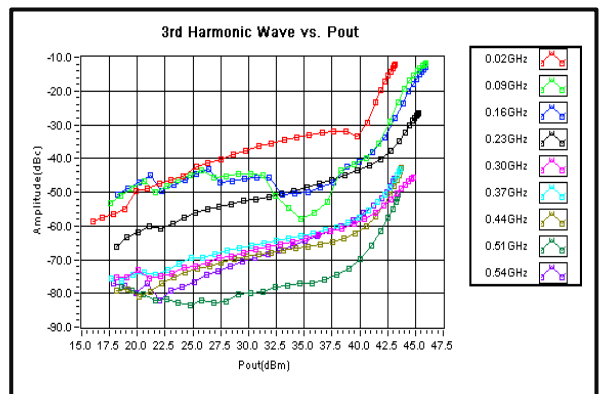




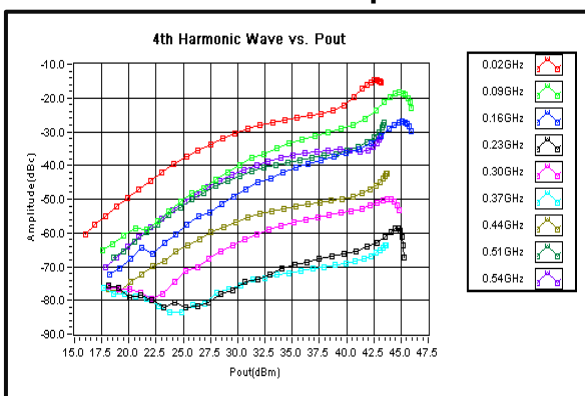
2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power



Current

