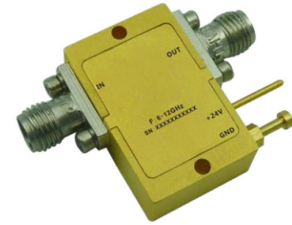




Wide Band Power Amplifier 6GHz~18GHz

Features

- Gain: 60dB Typical
- Saturated Output Power: 44dBm Typical
- Supply Voltage: +48V @ 9A
- 50 Ohm Matched Input / Output



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	6		12	12		18	GHz
Gain	58	62		52	56		dB
Gain Flatness		±5			±4		dB
Gain Variation Over Temperature (-40°C~+70°C)		±3.0			±3.0		dB
Input Return Loss		15			13		dB
Output Return Loss		25			22		dB
Output Power for 1 dB Compression (P1dB)	36	40	41	37	41	42	dBm
Saturated Output Power (Psat)	43	44		43	44		dBm
IM3 at (40dBm output)		-41			-39		dBc
Supply Current (Idd) (Vcc=+48V)	5.7	6	9	5.7	6	9	A
Isolation S12	80	86		79	85		dB
Input Max Power(no damage)			+5			+5	dBm

Weight	105.82 ounces	Impedance	50ohms
Input / Output Connectors	SMA-Female	Material	Aluminum
Finish	Nickel Plated	Package Sealing	Epoxy and Screw tight Sealed (Standard)
			Hermetically Sealed (Option with extra charge)



Absolute Maximum Ratings

Operating Voltage	+50Vdc
RF Input Power (RFIN)	+5dBm

Biasing Up Procedure

Step 1	Connect input and output with 50 Ohm source/load. (in band VSWR<1.9:1 or >10dBreturn loss)
Step 2	Connect Ground Pin
Step 3	Connect +48V biasing

Power OFF Procedure

Step 1	Turn off +48V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

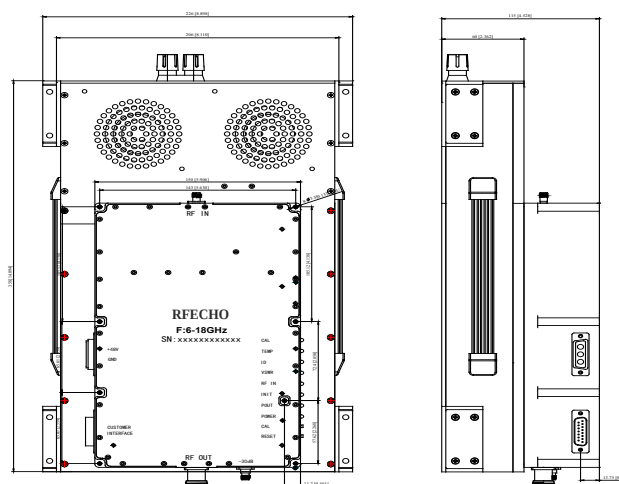
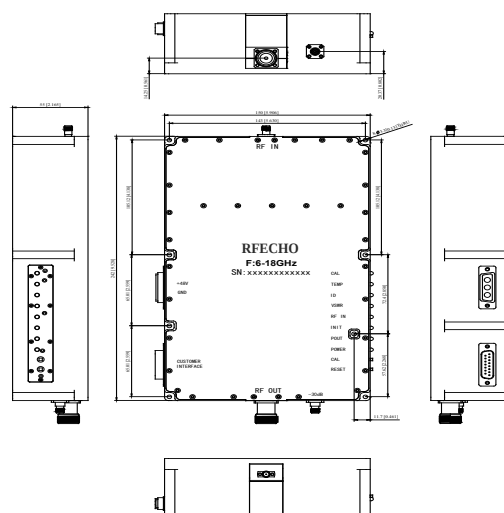
Environmental Specifications

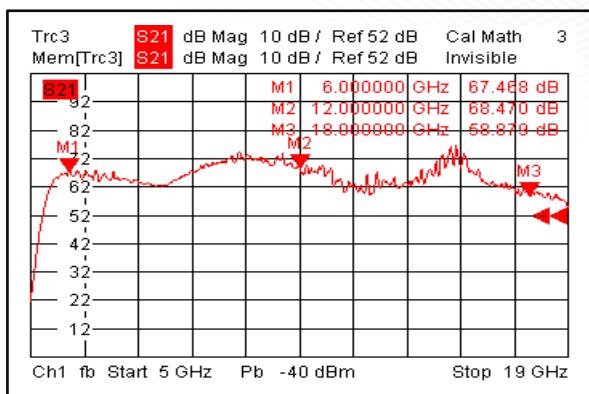
Operational Temperature	-40°C~+70°C
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH at 40°C
Shock	20G for 11msec half sine wave, 3 axis both directions

Outline Drawing:

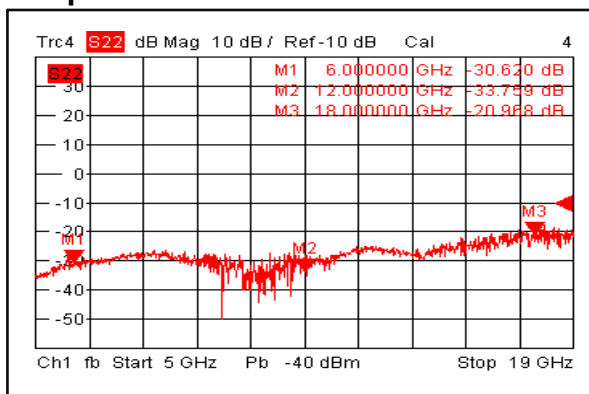
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

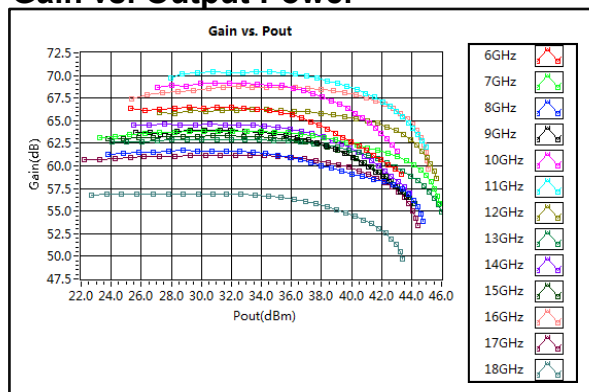




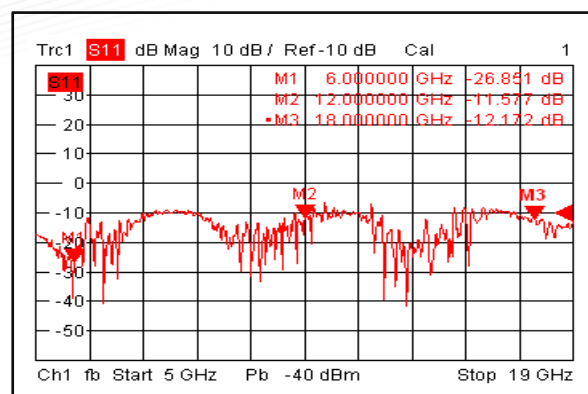
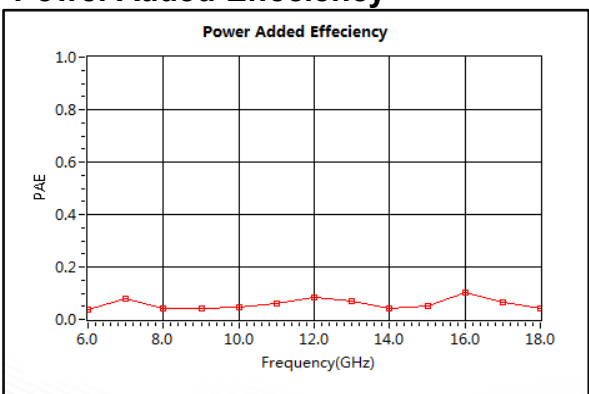
Output Return Loss



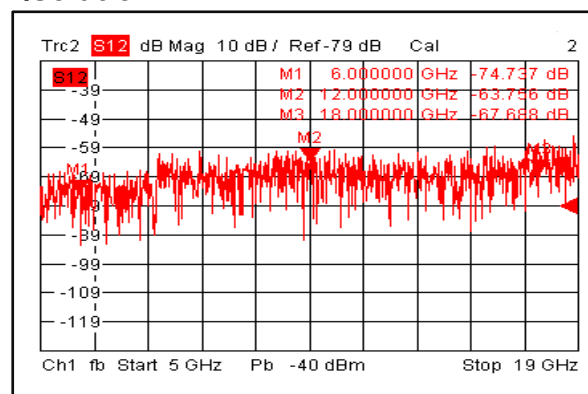
Gain vs. Output Power



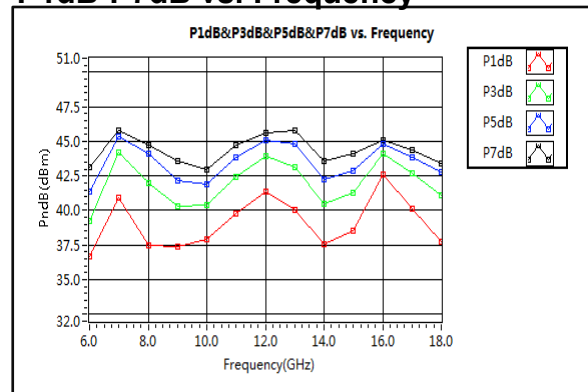
Power Added Efficiency



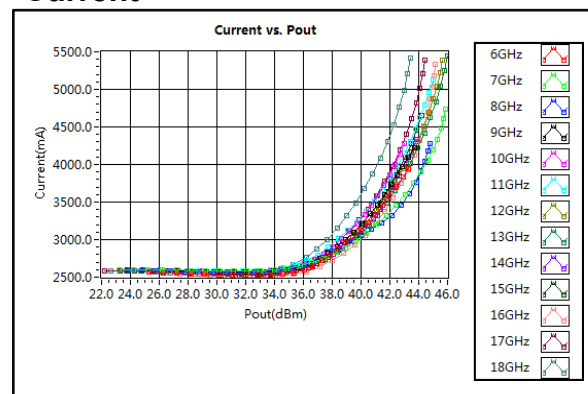
Isolation



P1dB-P7dB vs. Frequency

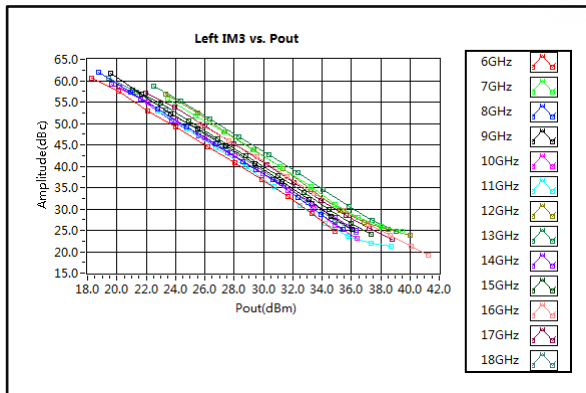


Current

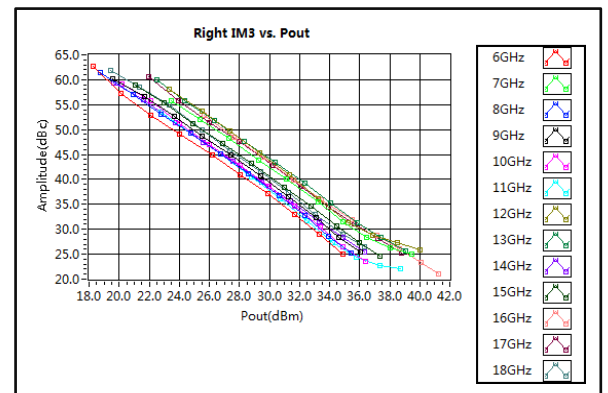




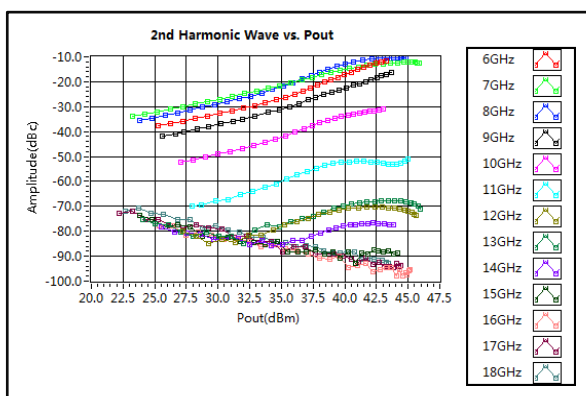
Left IM3 vs. Pout



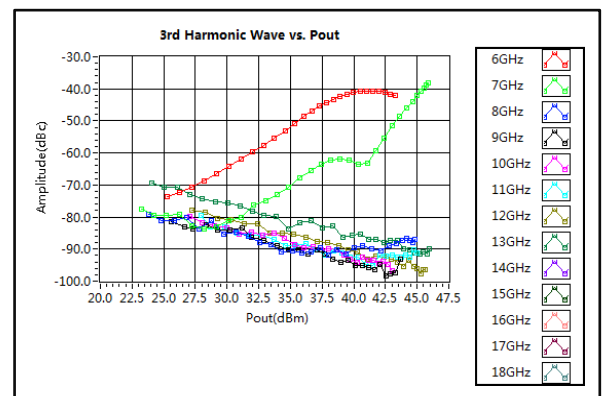
Right IM3 vs. Pout



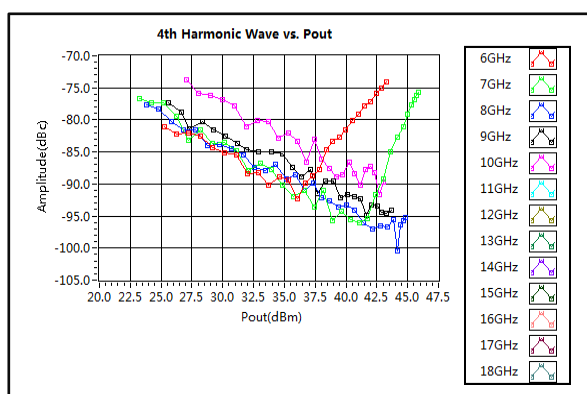
2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power



Saturation Power vs. Frequency

