



7W ACPR Emission Compressed Linear Power Amplifier 0.7GHz~ 3GHz

Features

- Gain: 41dB typical
- Output power +36dBm typical
- High P1dB: +34 dBm Full Band
- Supply Voltage: +24V



Typical Applications

- Wireless Infrastructure
- 5G communication
- Test and measurement Instrument

RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Units
Frequency Range	0.7		3	GHz
Gain	39	41	45	dB
Gain Flatness		± 1.0	± 1.5	dB
Gain Variation Over Temperature (-40°C~+85°C)		± 1.0		dB
Input VSWR		1.5	2.0	: 1
Output 1dB Compression Point (P1dB)	34	36		dBm
Saturated Output Power (Psat)		39		dBm
Power Added Efficiency		20		%
Supply Current (Vcc=+24V)		750	1200	mA
Isolation S12		-60		dB

Weight	7.0 Max. ounces	Impedance	50 ohms
Input / Output Connectors	SMA-Female	Material	Aluminum
Finish	Nickel Plated	Package Seal	Epoxy Sealed (Standard)
			Hermetically Sealed (Optional)



Absolute Maximum Ratings

Operating Voltage(No RF Input)	+25V @ 25°C
RF Input Power(+24V)	+2dBm @ 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

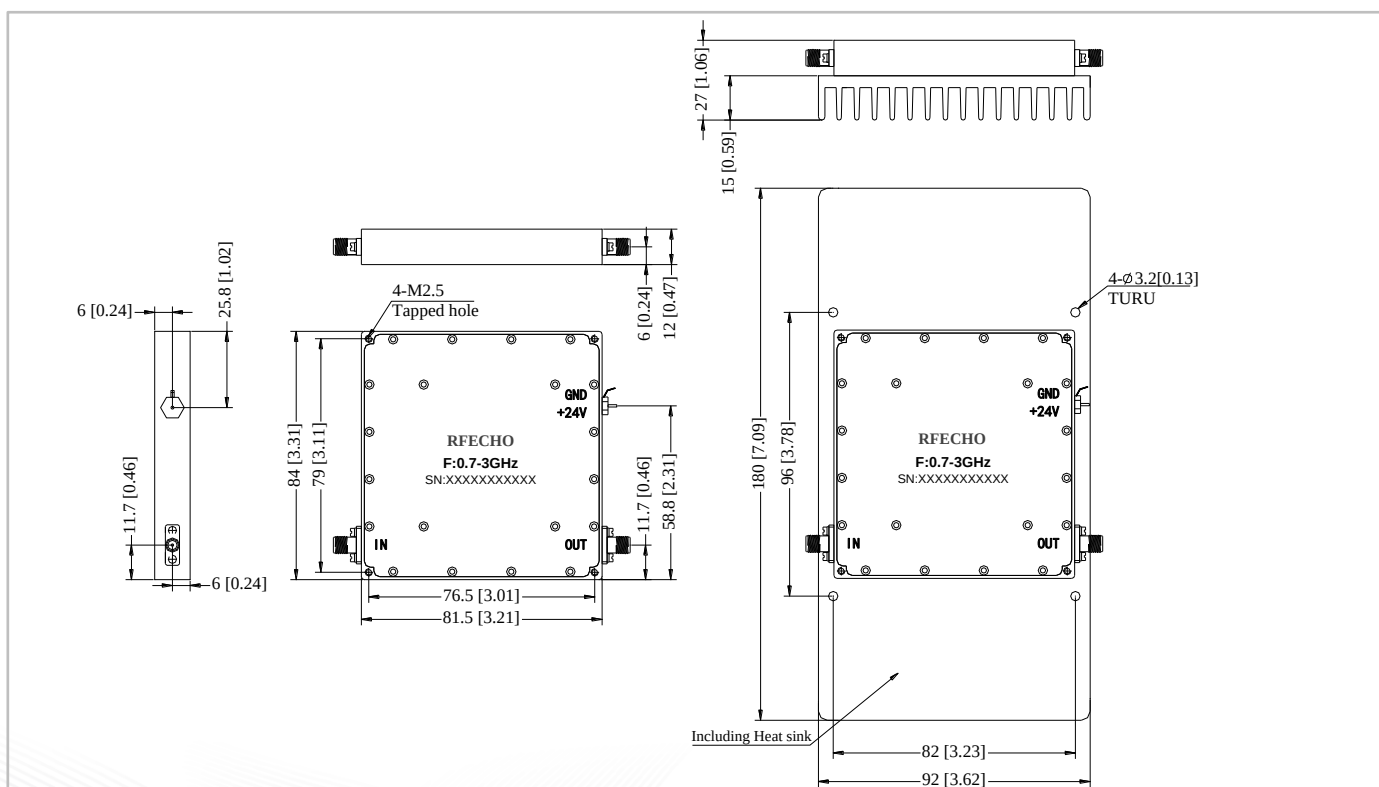
Environmental Specifications

Operational Temperature	-40°C~+85°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:

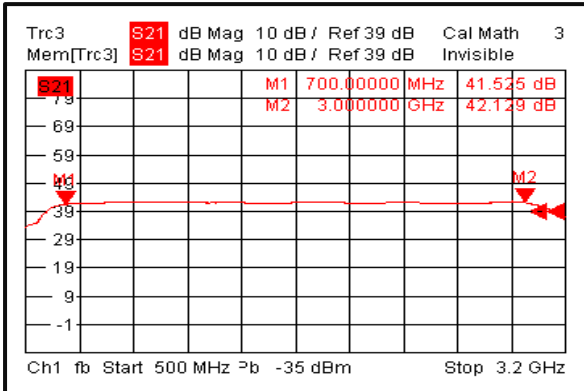
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

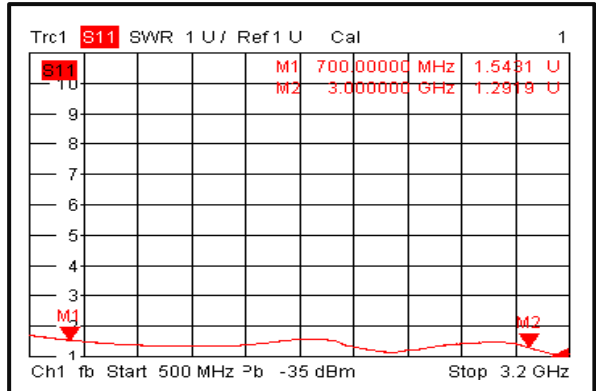




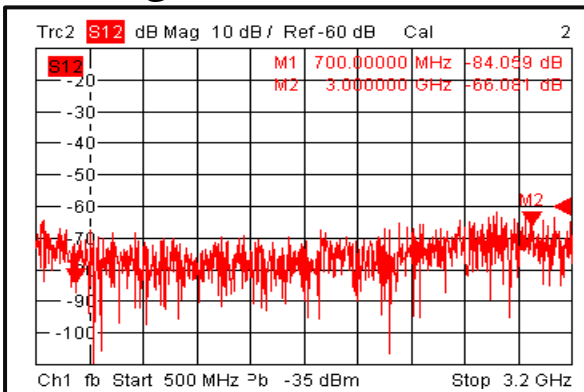
Gain@+25°C



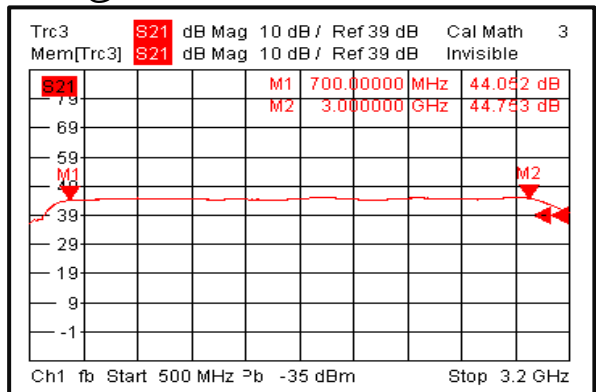
Input VSWR@+25°C



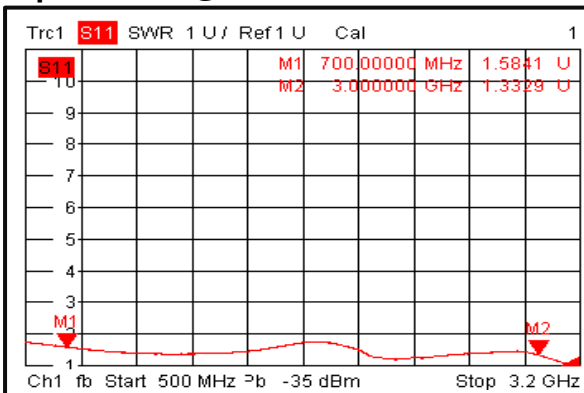
Isolation@+25°C



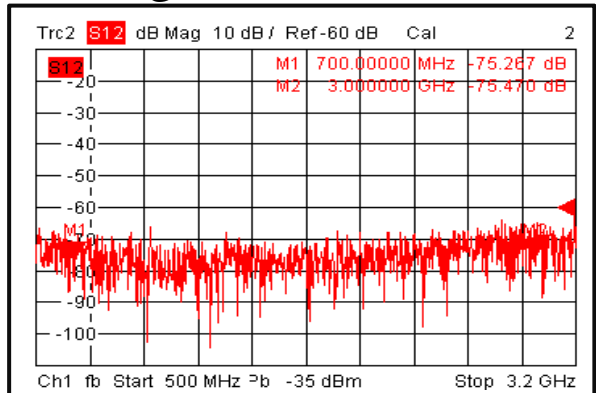
Gain@-40°C



Input VSWR@-40°C

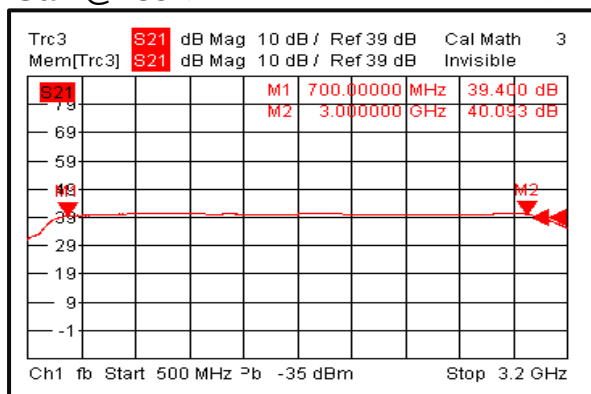


Isolation@-40°C

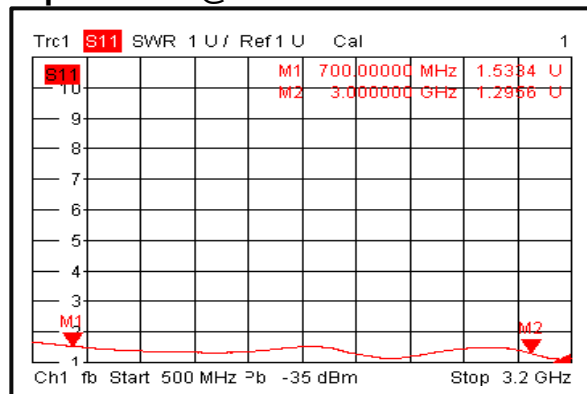




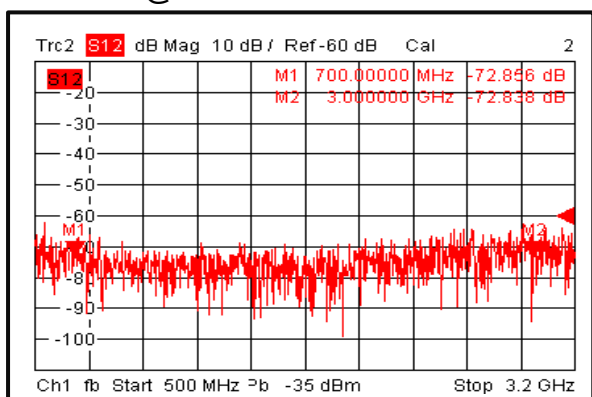
Gain@+85°C



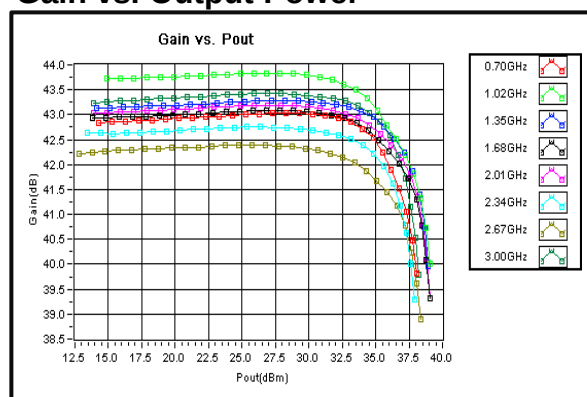
Input VSWR@+85°C



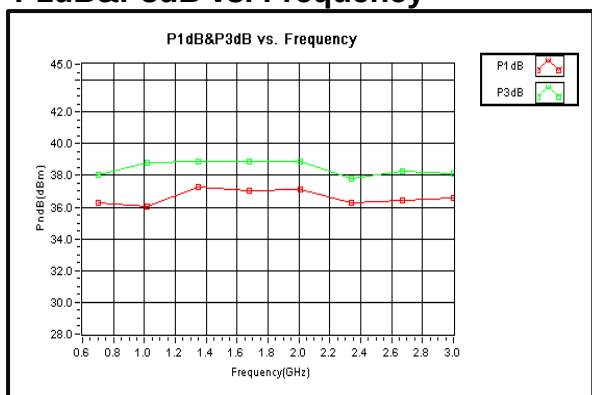
Isolation@+85°C



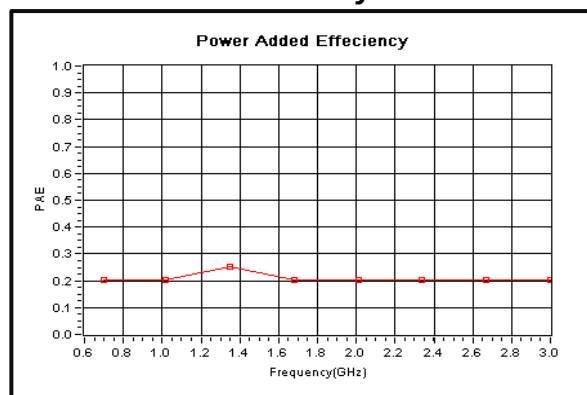
Gain vs. Output Power



P1dB&P3dB vs. Frequency

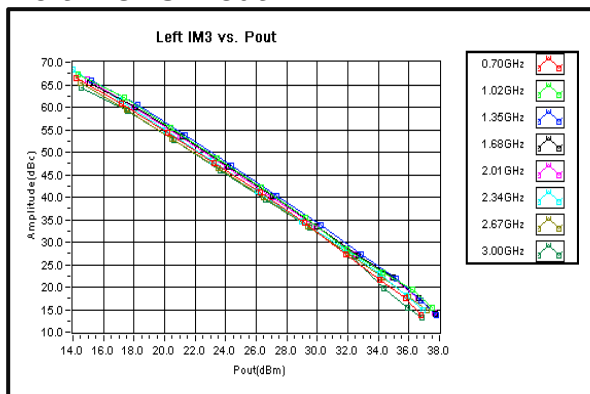


Power Added Efficiency

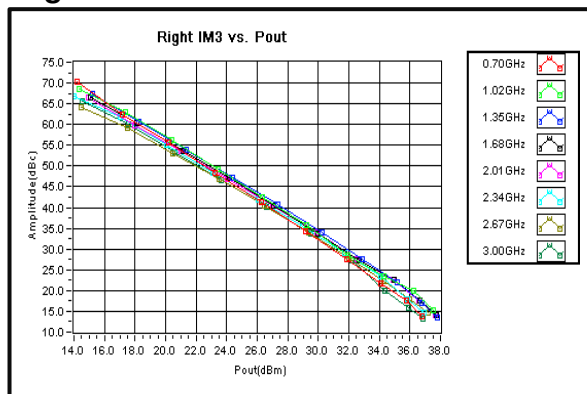




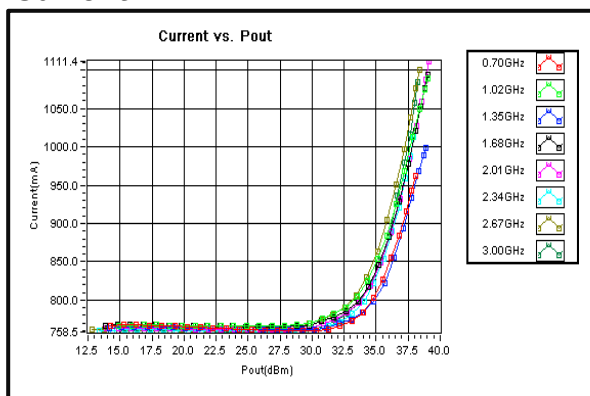
Left IM3 vs. Pout



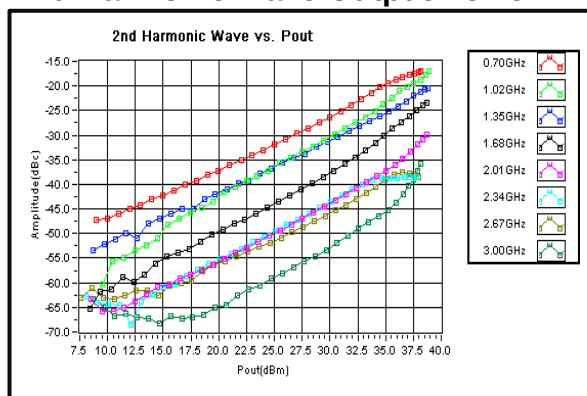
Right IM3 vs. Pout



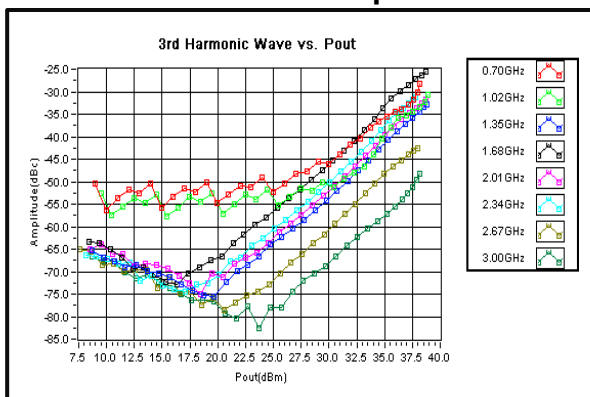
Current



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power

