



7W ACPR Emission Compressed Linear Power Amplifier 3GHz~6GHz



Features

- Gain: 40dB typical
- Output power +37dBm typical
- Supply Voltage: +28V

Typical Applications

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

RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Units
Frequency Range	3		6	GHz
Gain	36	40		dB
Gain Flatness		± 1.5		dB
Gain Variation Over Temperature (-40°C ~ +85°C)		± 1.0		dB
Input VSWR		1.6	2.0	: 1
Output 1dB Compression Point (P1dB)	35	37		dBm
Saturated Output Power (Psat)		39		dBm
Isolation S12		-55		dB
Supply Current (Vcc=+28V)		650	1500	mA
Efficiency at P1dB		23		%
Input Max Power(no damage)		+8		dBm

Weight	6.35 ounces	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	+29V
RF Input Power (RFIN)	+8 dBm

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

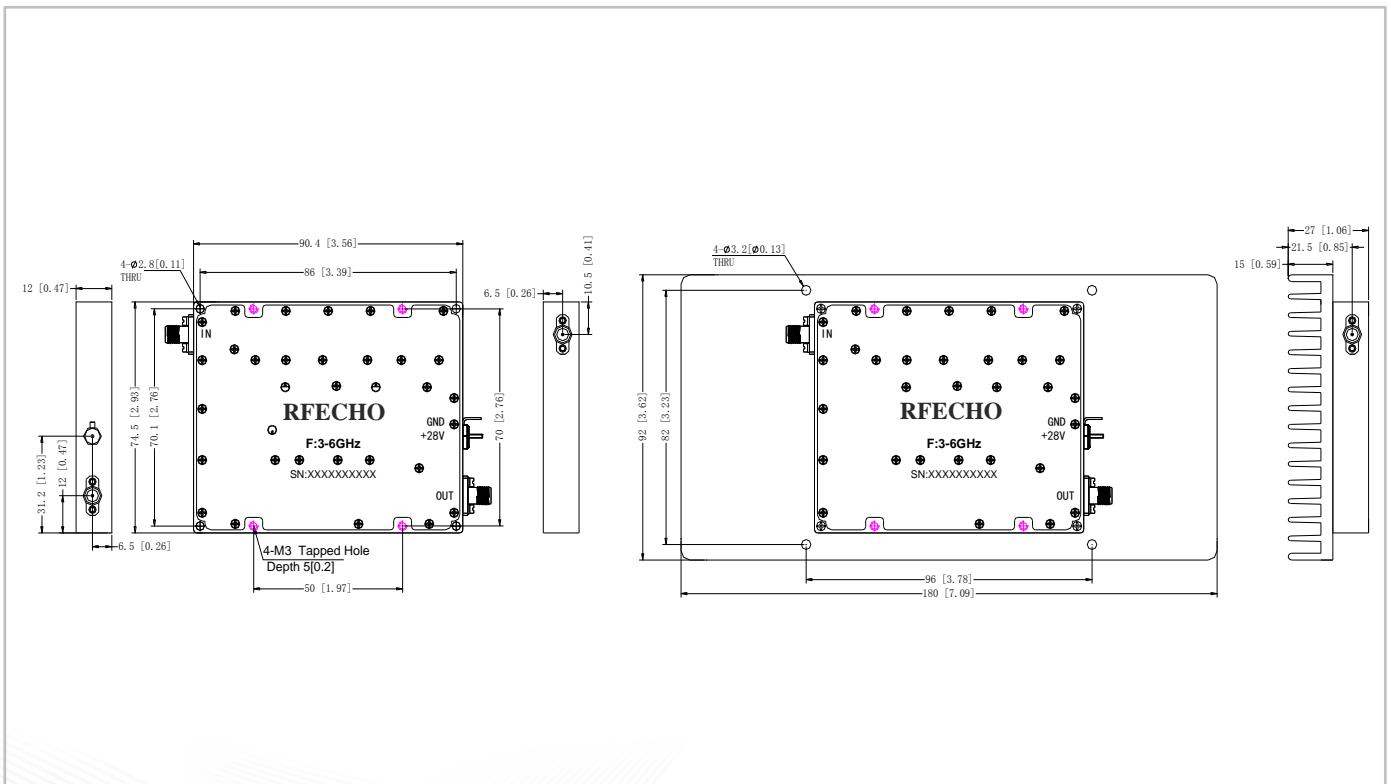
Environmental Specifications

Operational Temperature	-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:

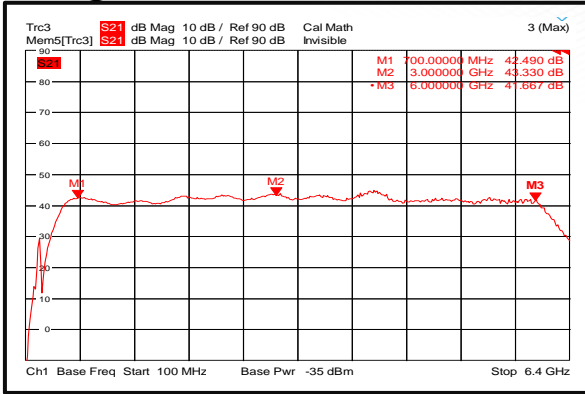
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

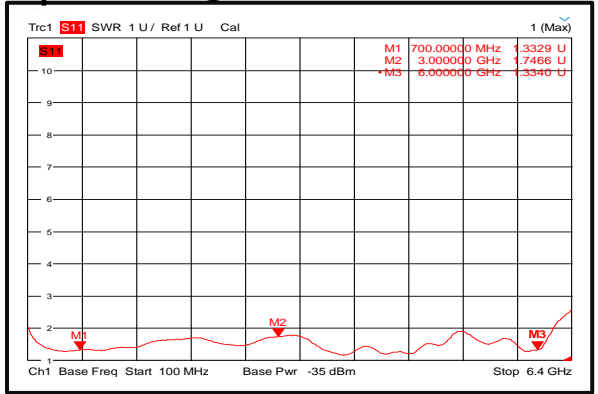




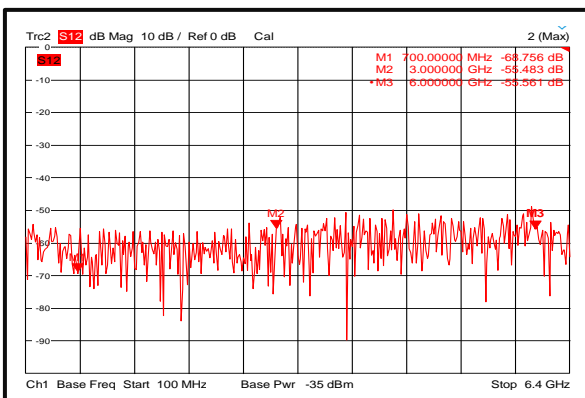
Gain@+25°C



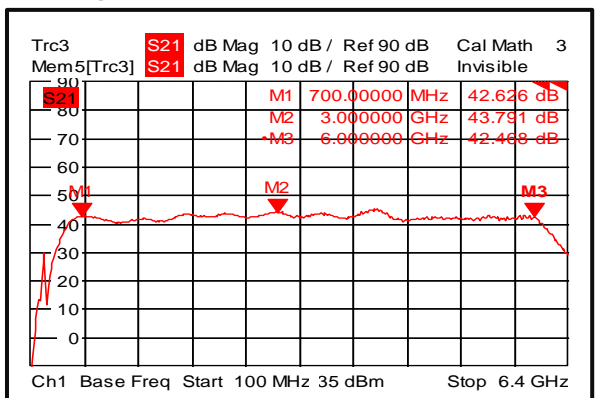
Input VSWR@+25°C



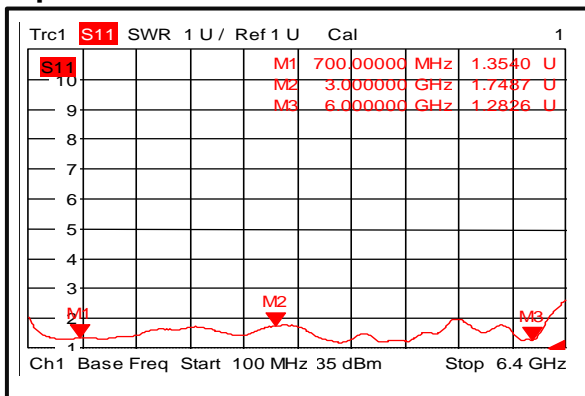
Isolation@+25°C



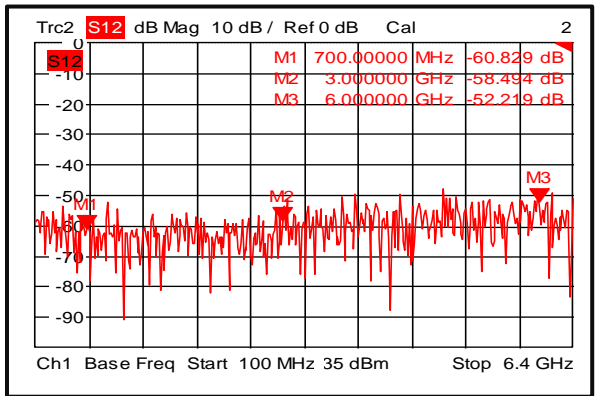
Gain@-40°C



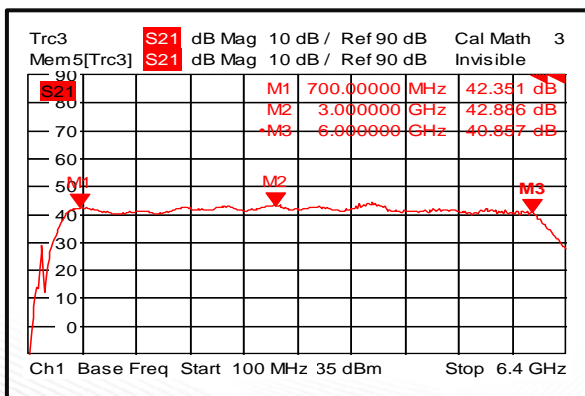
Input VSWR@-40°C



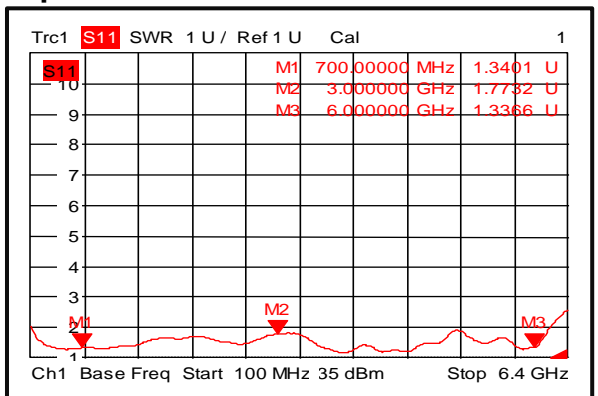
Isolation@-40°C



Gain@+85°C

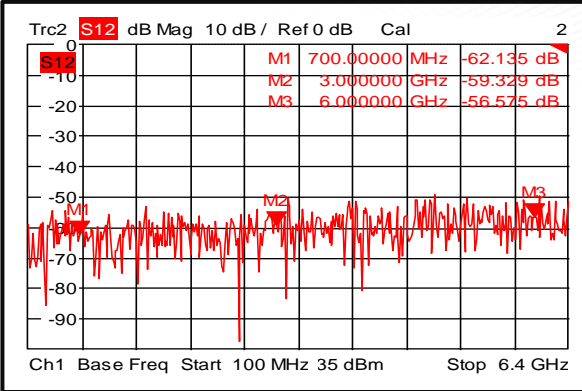


Input VSWR@+85°C

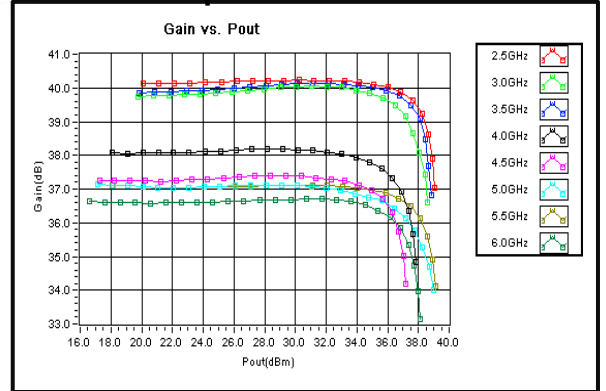




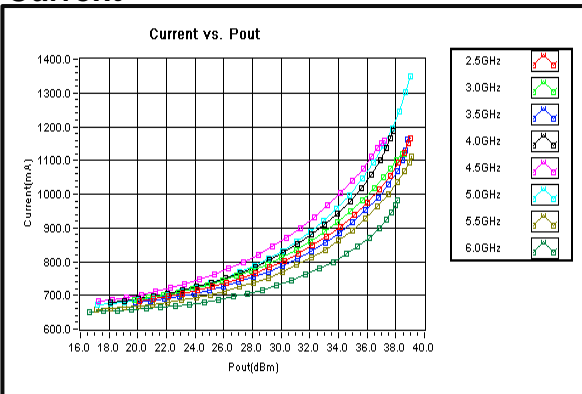
Isolation@+85



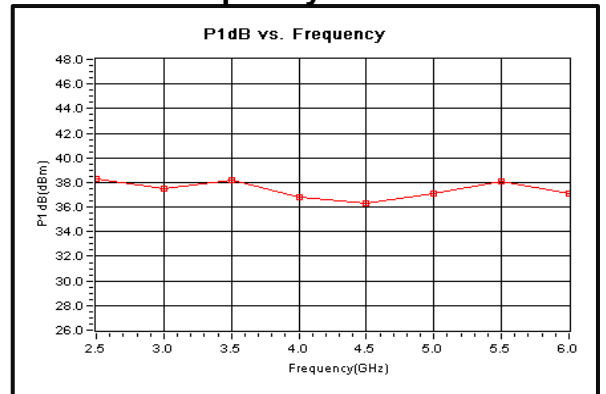
Gain vs. Output Power



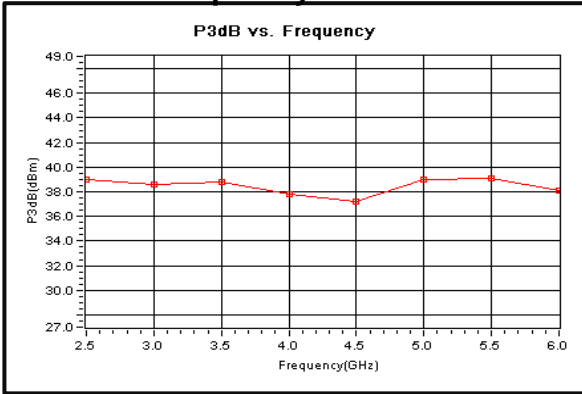
Current



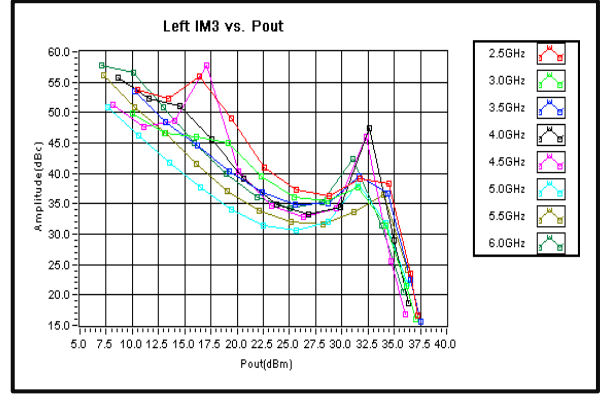
P1dB vs. Frequency



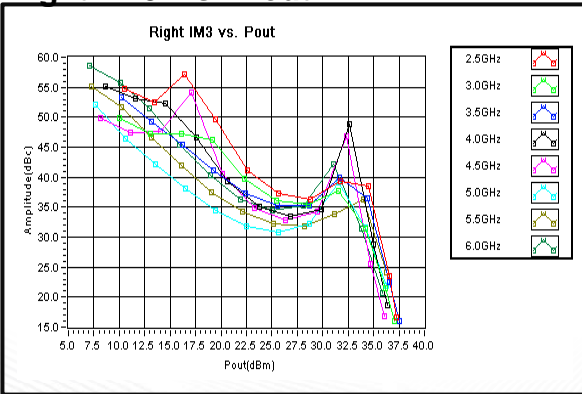
P3dB vs. Frequency



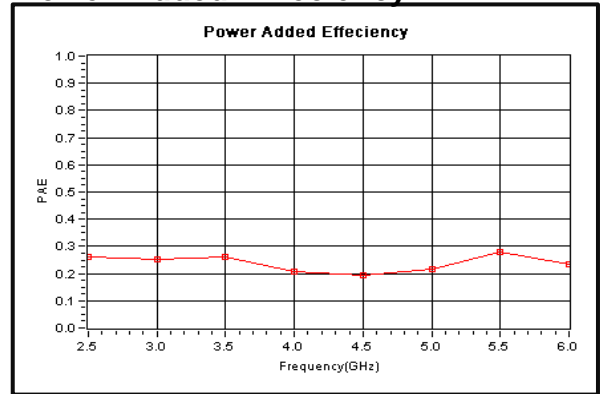
Left IM3 vs. Pout



Right IM3 vs. Pout

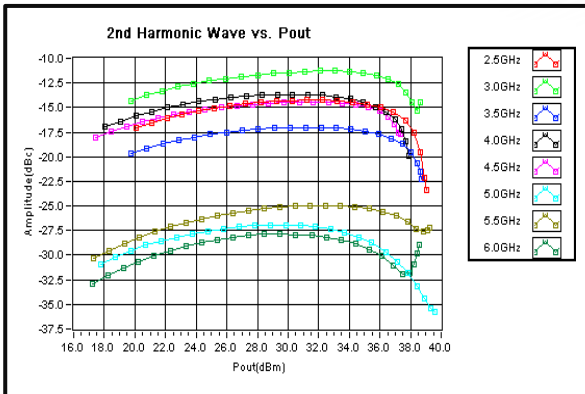


Power Added Efficiency

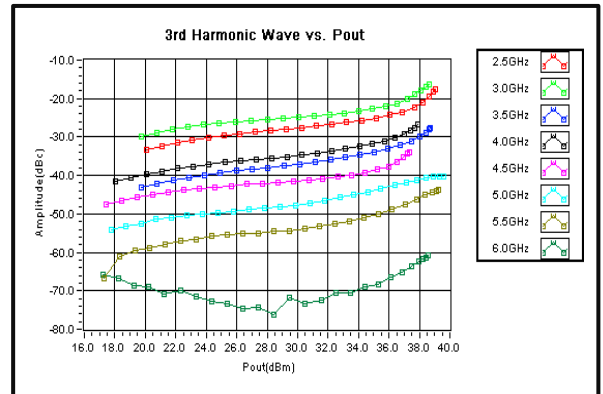




2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power

