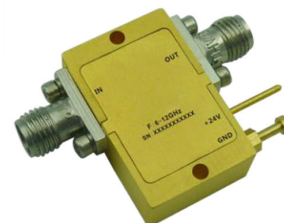




Wide Band Power Amplifier 6GHz~12GHz

Features

- Gain: 23 dB Typical
- Output power: +30dBm Typical
- High P1dB: +27dBm Typical
- Supply Voltage: +24V @ 150 mA
- 50 Ohm Matched Input / Output



Typical Applications

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

RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Units
Frequency Range	6		12	GHz
Gain	19	23		dB
Gain Flatness		±2.0	±3.0	dB
Gain Variation Over Temperature(-40°C ~ +85°C)		±1.0		dB
Input VSWR		1.8	2.2	:1
Output VSWR		1.8	2.2	:1
Output Power for 1 dB Compression (P1dB)	26	27		dBm
Saturated Output Power (Psat)		30		dBm
Supply Current (Idd) (Vcc=+24V)		150	300	mA
Efficiency at P1dB		25		%
Isolation S12		-40		dB

Weight	0.88 ounces	Impedance	50ohms
Input / Output Connectors	SMA-Female	Material	Aluminum
Finishing	Standard: Gold 40 micron; Nickel 220 micron thickness	Package Sealing	Epoxy Sealing (Standard)
	Option: Gold 80 micron; Nickel 180 micron thickness		Hermetically Sealed (Option with extra charge)



Absolute Maximum Ratings

Operating Voltage	+25V@+25°C
RF Input Power (RFIN)	+30dBm@+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

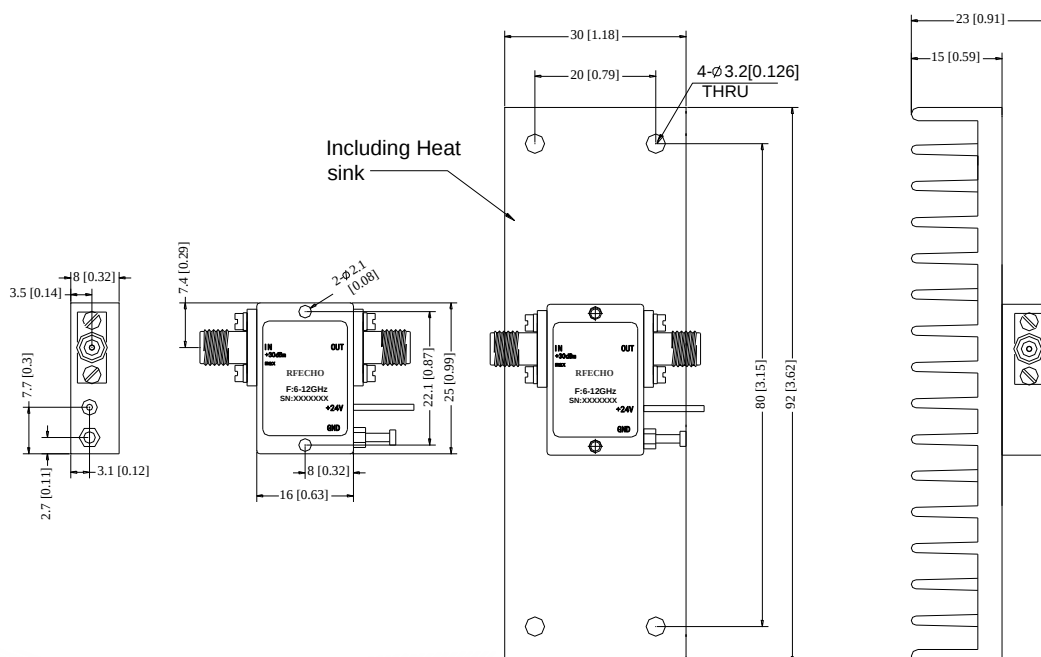
Environmental Specifications

Operational Temperature	-40°C~+85°C
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:

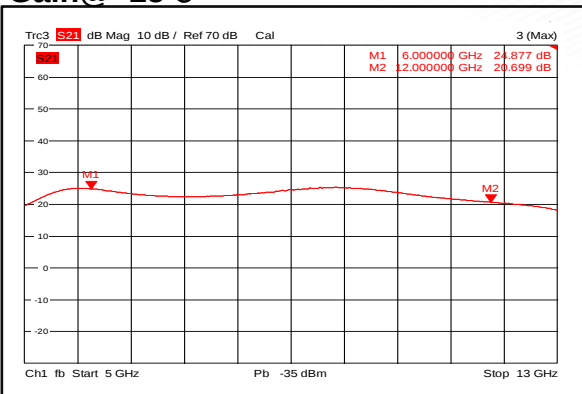
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

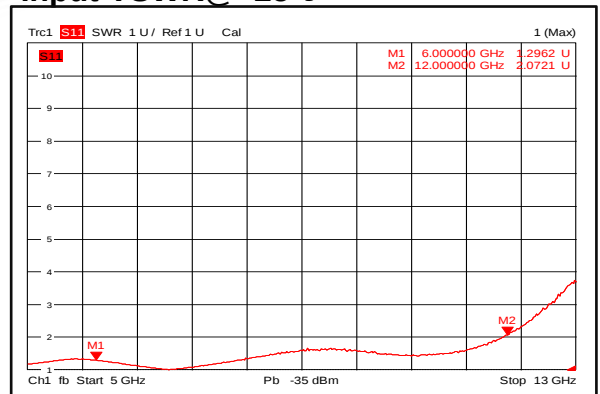




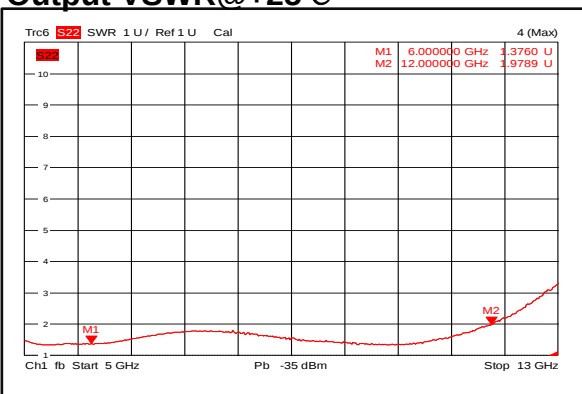
Gain@+25°C



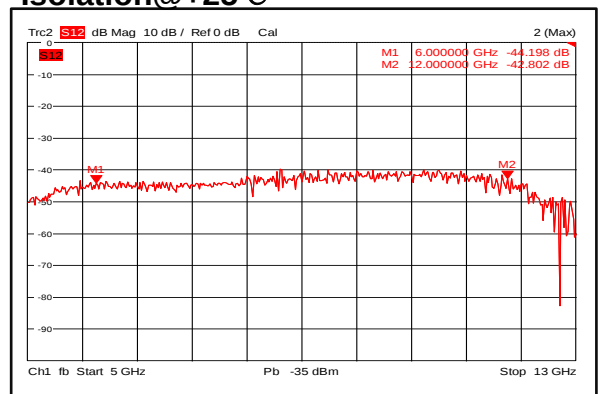
Input VSWR@+25°C



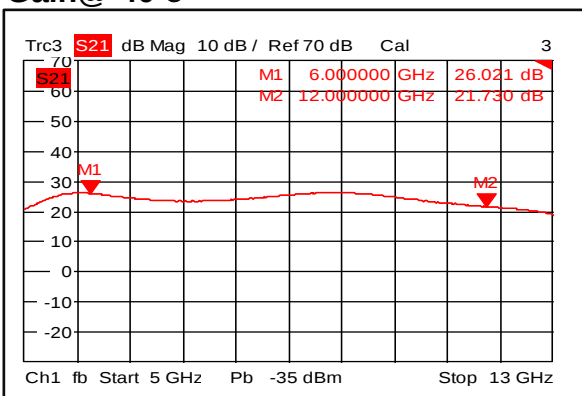
Output VSWR@+25°C



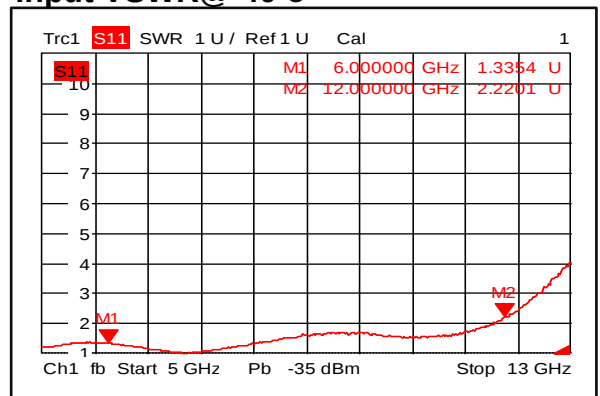
Isolation@+25°C



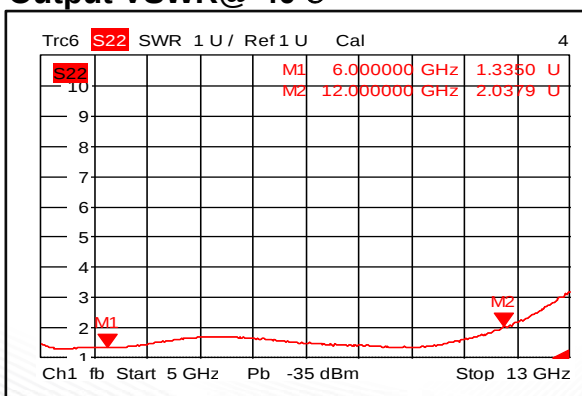
Gain@-40°C



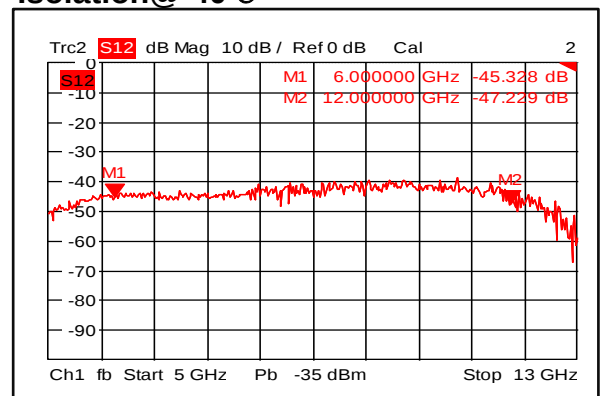
Input VSWR@-40°C



Output VSWR@-40°C

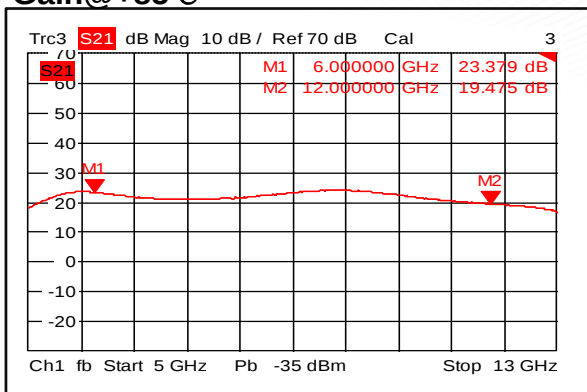


Isolation@-40°C

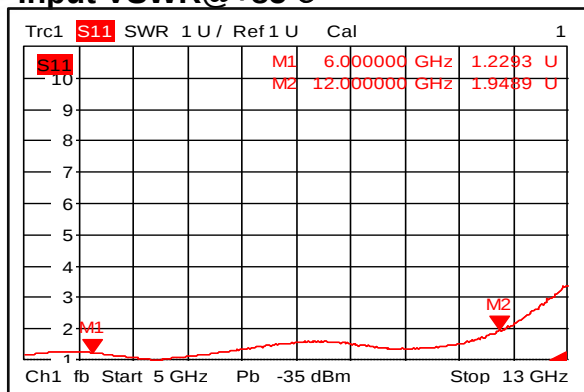




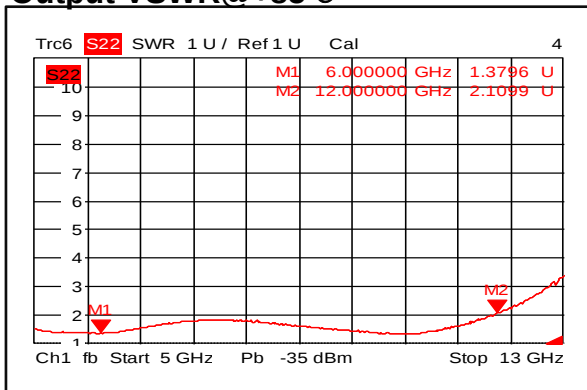
Gain@+85°C



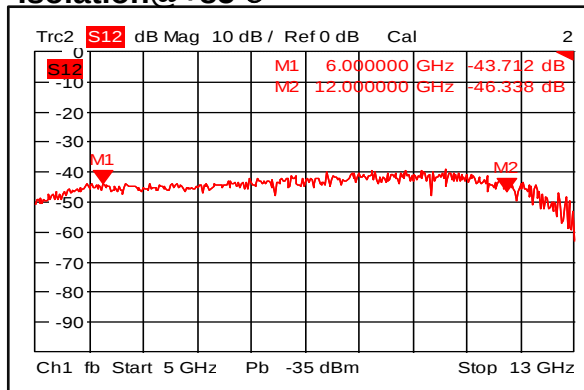
Input VSWR@+85°C



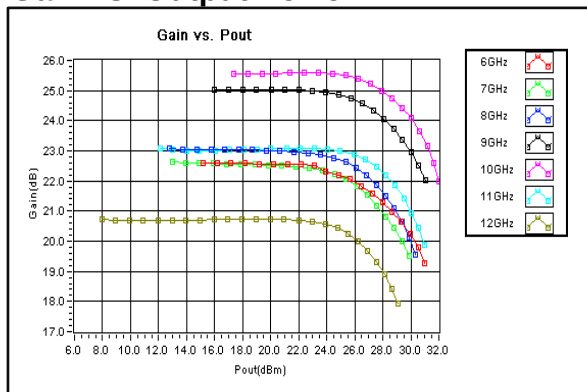
Output VSWR@+85°C



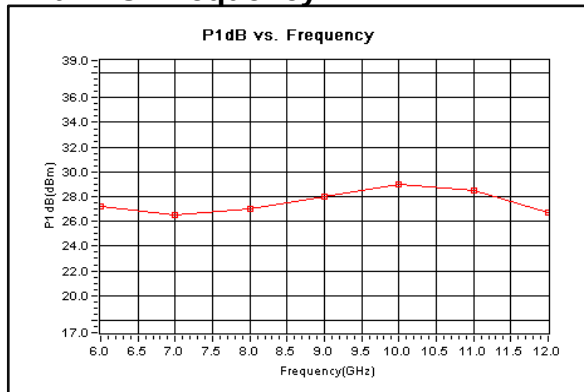
Isolation@+85°C



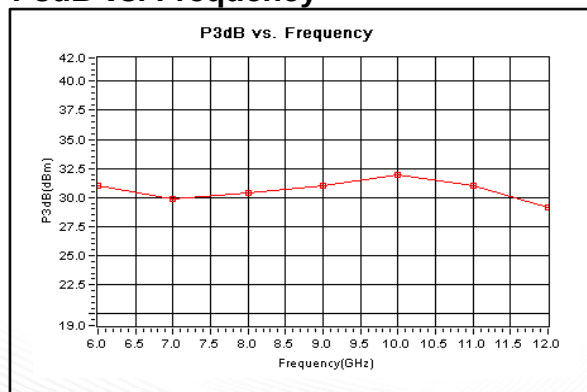
Gain vs. Output Power



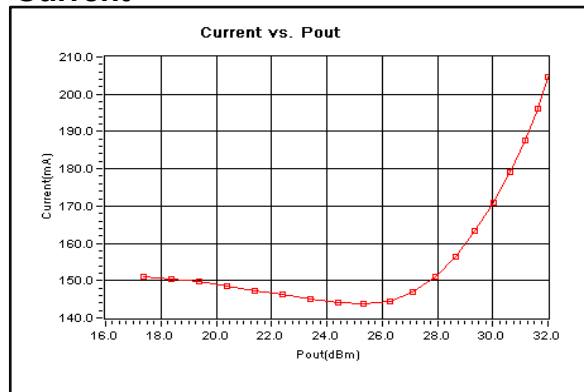
P1dB vs. Frequency



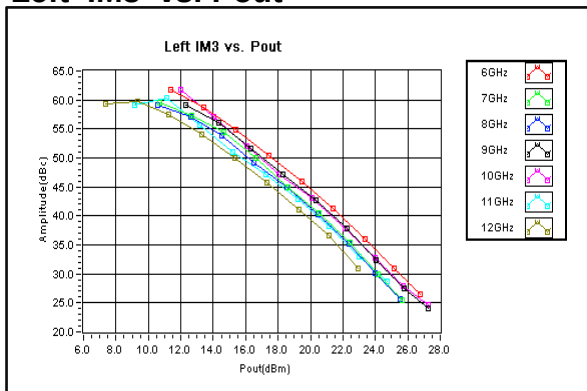
P3dB vs. Frequency



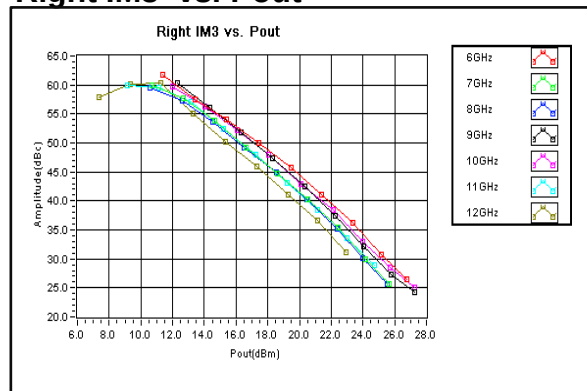
Current



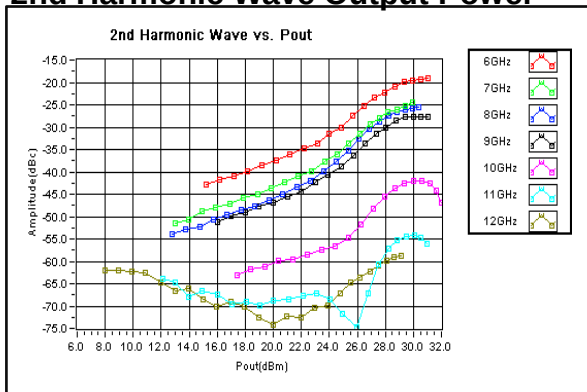
Left IM3 vs. Pout



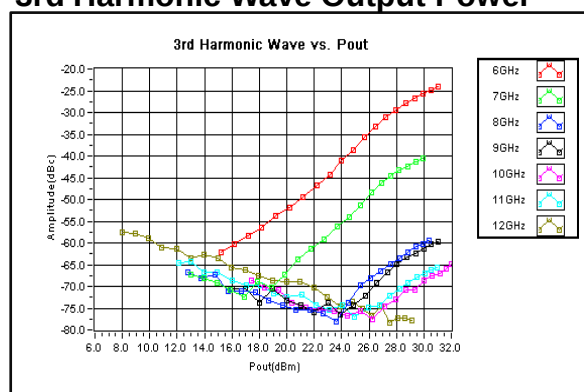
Right IM3 vs. Pout



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power

