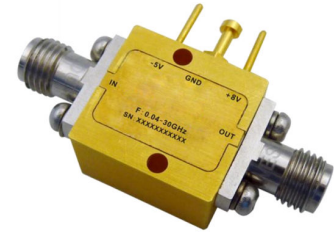




Ultra Wide Band Power Amplifier 0.04 ~ 30GHz

Features

- Gain: 14dB Typical
- P1dB Output Power: +25dBm Typical
- Supply Voltage: +8V



Typical Applications

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

RF Microwave & VSAT
Fiber Optics

Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	0.04		18	18		26	26		30	GHz
Gain		15			13			10		dB
Gain Flatness		±0.5			±0.5			±1.0		dB
Gain Variation Over Temperature (-40 °C ~ +85°C)		±0.5			±0.5			±0.5		dB
Input VSWR		1.5			1.6			1.9		: 1
Output VSWR		1.5			1.5			1.3		: 1
Output 1dB Compression Point (P1dB)	22	25		20	24		20	23		dBm
Saturated Output Power (Psat)		27			26			25		dBm
Supply Current (Vcc=+8V, Vgg=-5V)		230			230			230		mA
Isolation S12		-30			-25			-25		dB

Weight	0.35 ounces	Impedance	50ohms
Input / Output Connectors	2.92-Female	Material	Aluminum
Finish	Standard: Gold 40 micron; Nickel 220 micron thickness	Package Sealing	Epoxy Sealed (Standard)
	Option: Gold 80 micron; Nickel 180 micron thickness		Hermetically Sealed (Option with extra charge)



Absolute Maximum Ratings

Operating Voltage	+10V @+25°C
RF Input Power	+20dBm @+25°C

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
step3	Connect -5V biasing
Step 4	Connect +8V biasing

Power OFF Procedure

Step 1	Turn off +8V biasing
Step 2	Turn off -5V biasing
Step 3	Remove RF connection
Step 4	Remove Ground.

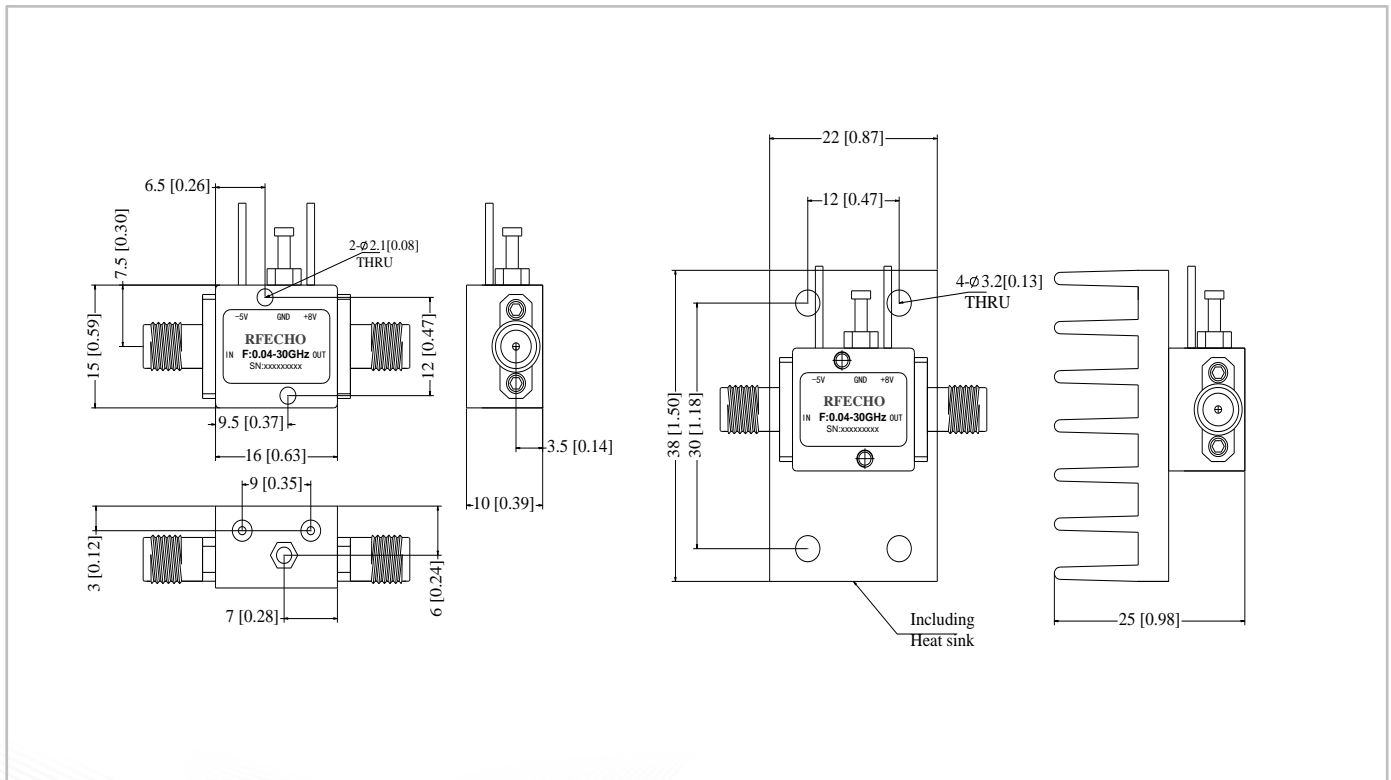
Environmental Specifications

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:

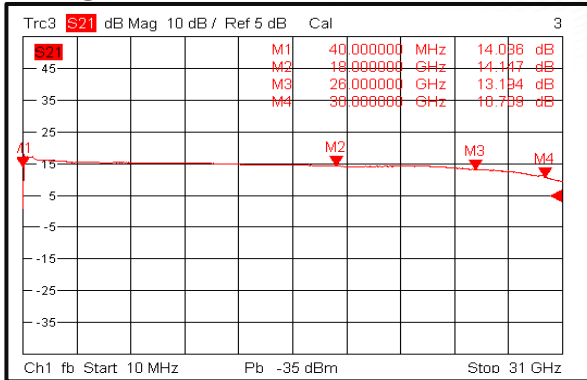
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

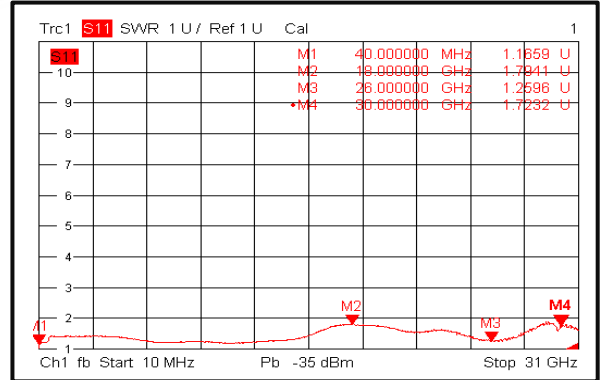




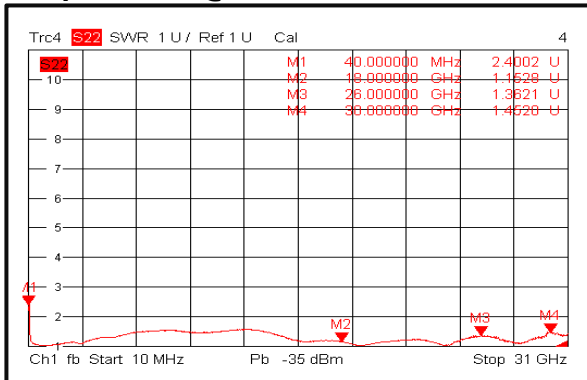
Gain@+25°C



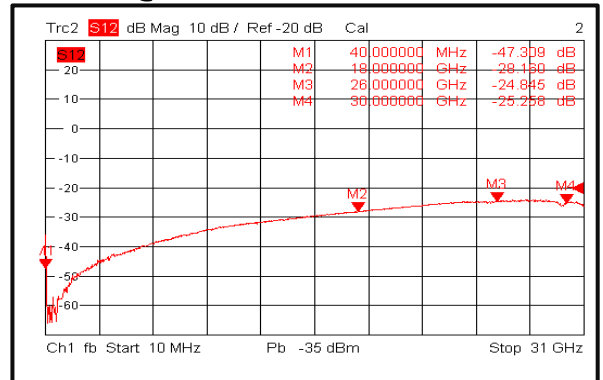
Input VSWR@+25°C



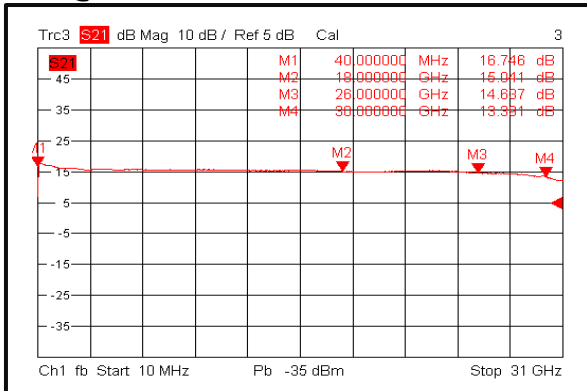
Output VSWR@+25°C



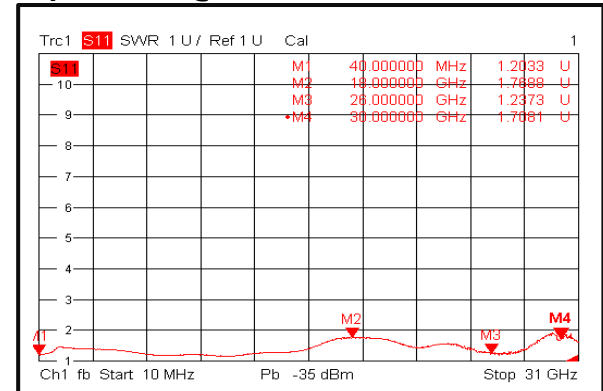
Isolation@+25°C



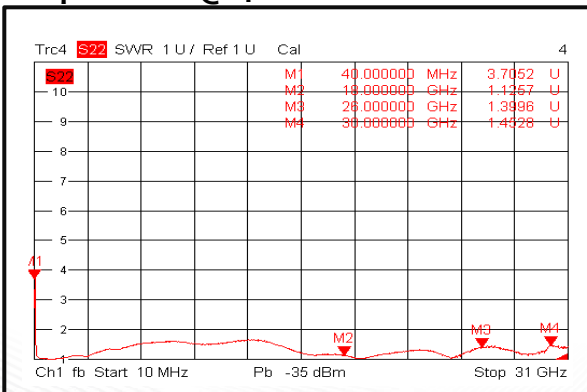
Gain@-40°C



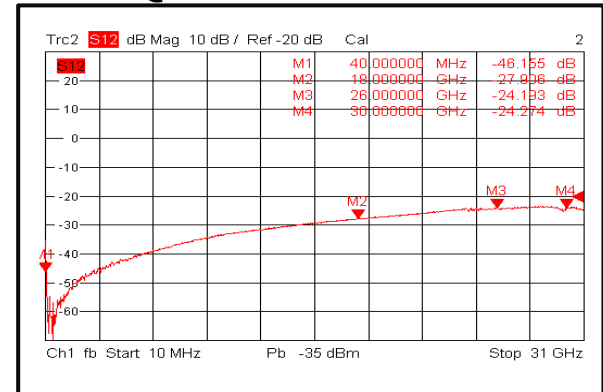
Input VSWR@-40°C



Output VSWR@-40°C

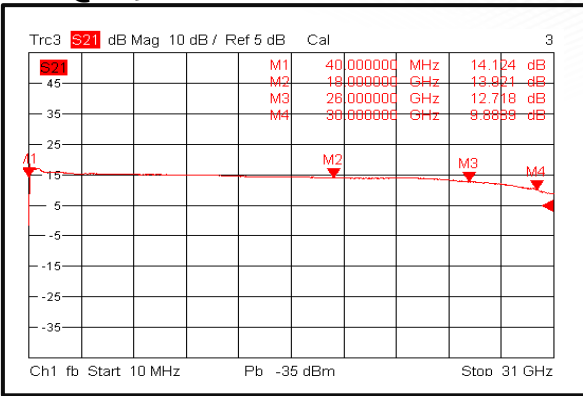


Isolation@-40°C

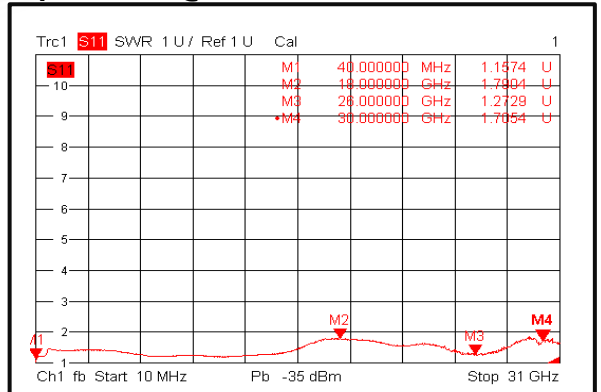




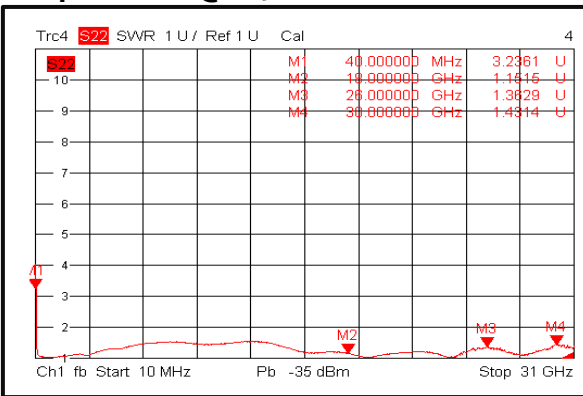
Gain@+85°C



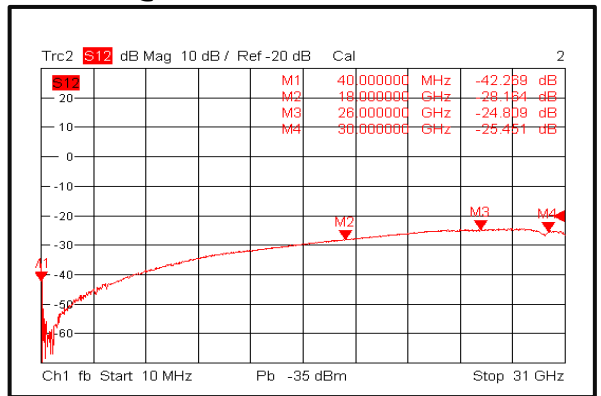
Input VSWR@+85°C



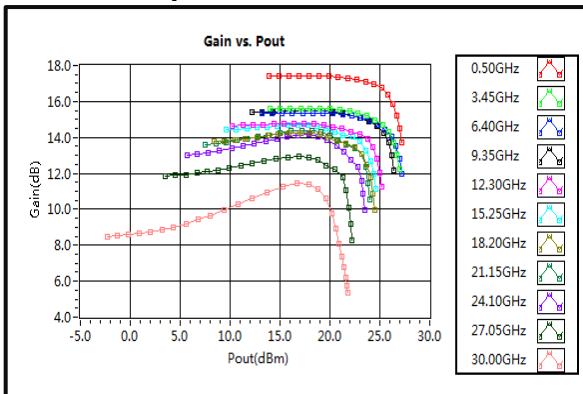
Output VSWR@+85°C



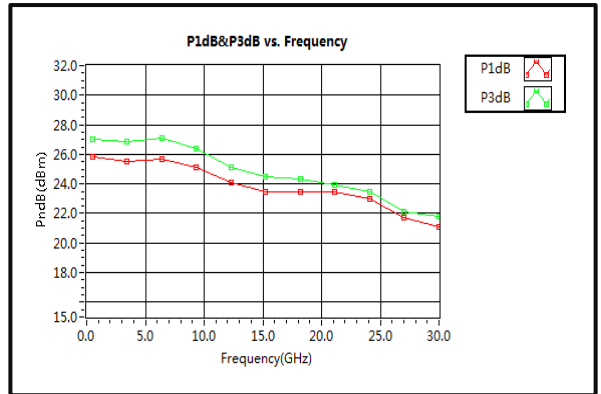
Isolation@+85°C



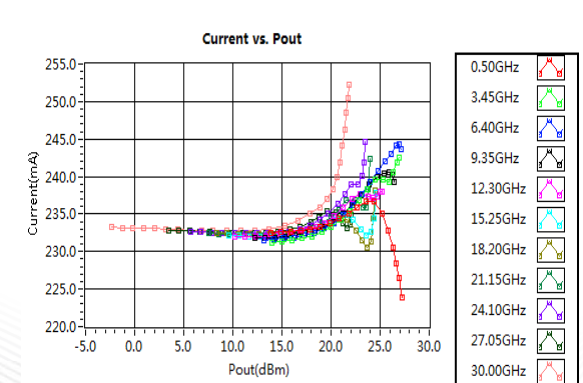
Gain vs. Output Power



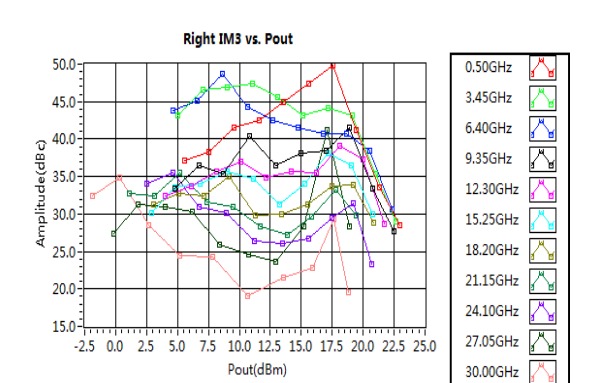
P1dB & P3dB vs. Frequency



Current

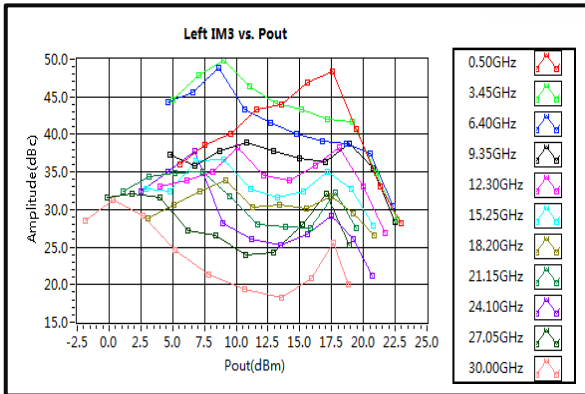


Right IM3 vs. Pout

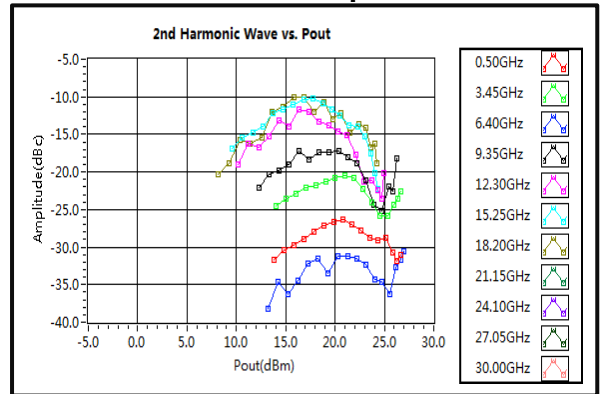




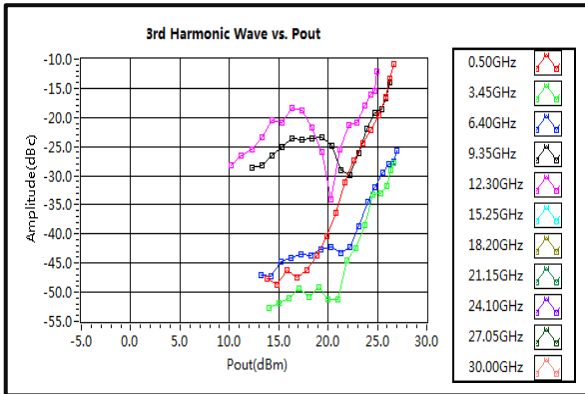
Left IM3 vs. Pout



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power

