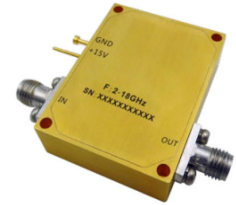




# Wide Band Driver Amplifier 2GHz~18GHz

## Features

- Gain: 15dB Typical
- Functional Bandwidth : 1GHz to 22 GHz
- Noise Figure: 4.5dB Typical
- P1dB Output Power: +26dBm Typical
- Supply Voltage: +15V



## 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	2		12	12		18	GHz
Gain	14	15.5		13	15.5		dB
Gain Flatness		± 1.0			± 1.0		dB
Gain Variation Over Temperature (-40°C~+85°C)		± 1.0			± 1.5		dB
Noise Figure		4.0	6.0		5.5	6.5	dB
Input VSWR		1.5	2.0		1.5	2.0	: 1
Output VSWR		1.6	2.0		1.6	2.0	: 1
Output 1dB Compression Point (P1dB)	24	26		22	24.5		dBm
Saturated Output Power (Psat)		27.5			26		dBm
Output Third Order Intercept (OIP3)		30			27		dBm
Isolation S12		-40			-30		dB
Supply Current (Vcc=+15V)		200	250		200	250	mA

Weight	1.5 Max. ounces(Net)	Impedance	50ohms
	3.5Max. Ounces(Including Heat sink)		
Input / Output Connectors	SMA-Female	Material	Aluminum
Finish	Gold Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Option with extra charge)



### Absolute Maximum Ratings

Operating Voltage	+12~15V
RF Input Power	+20dBm

### 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

### Biassing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +15V biasing

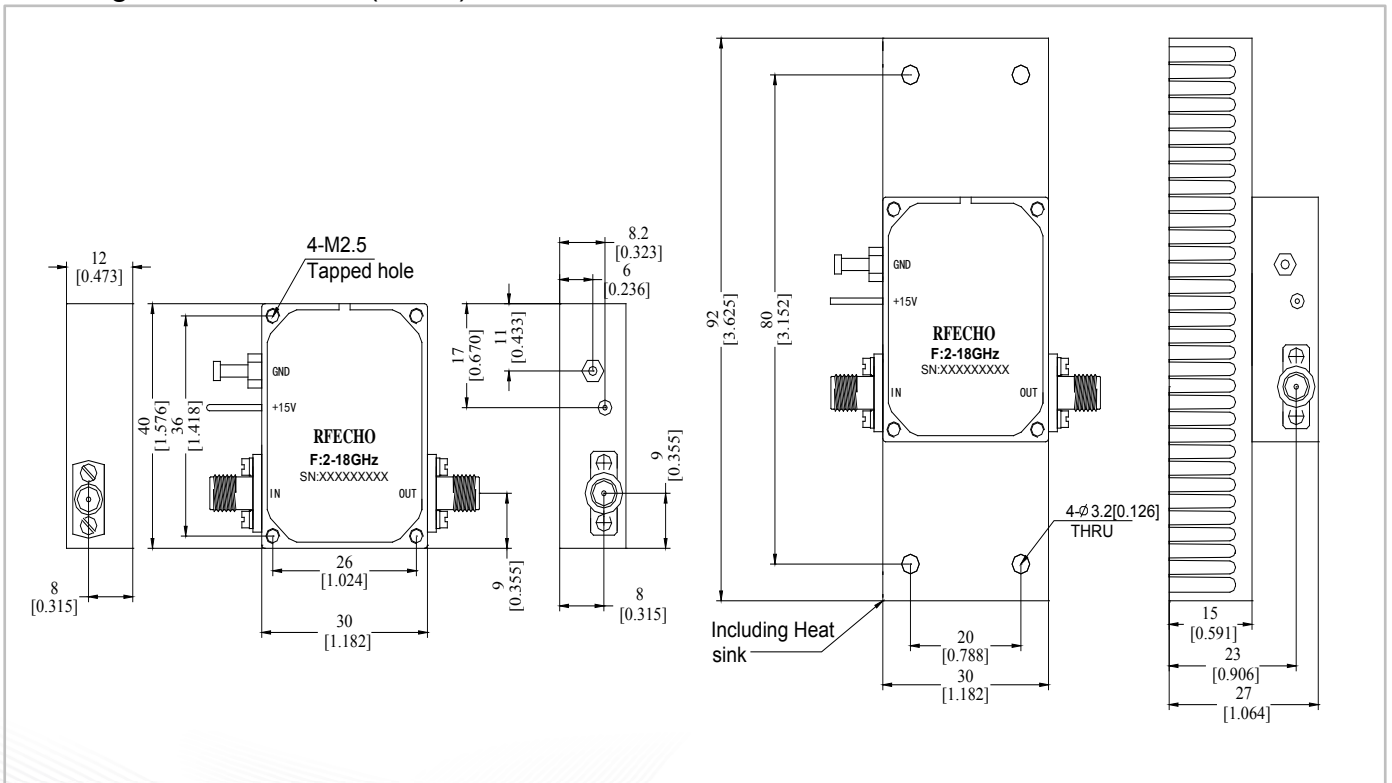
### Power OFF Procedure

Step 1	Turn off +15V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

### Outline Drawing:

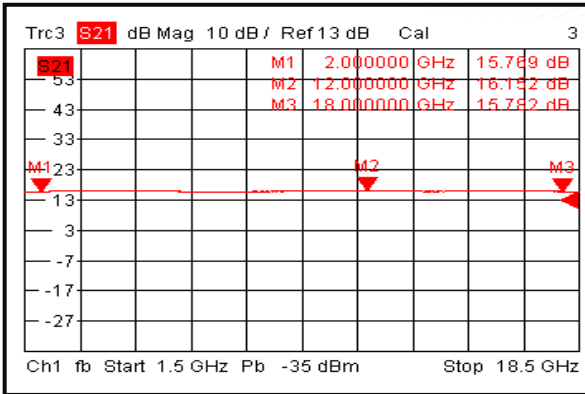
All Dimensions in mm (inches)  
Housing Tolerances  $\pm 0.1(0.004)$

Heat Sink required during operation(Sold Separately)

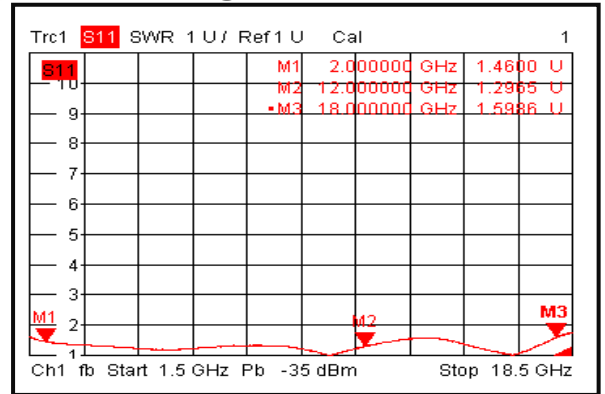




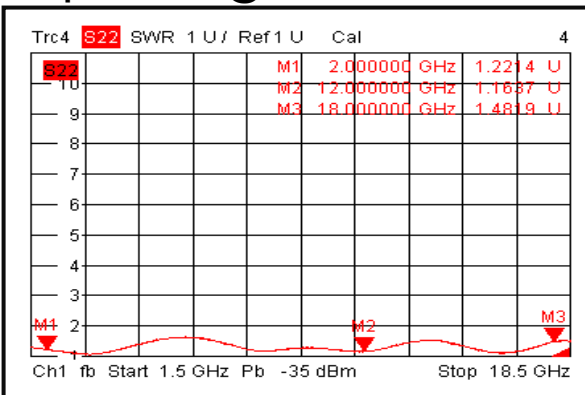
### Gain @+25°C



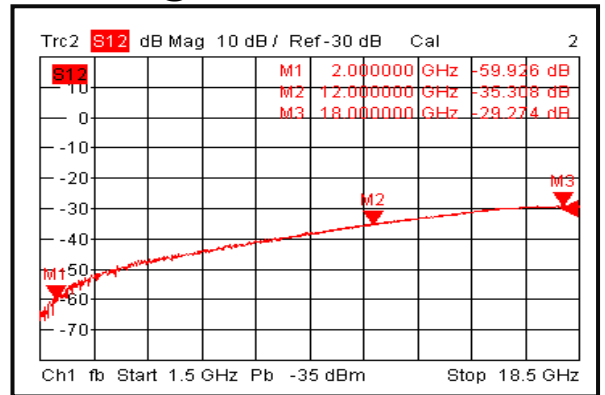
### Input VSWR @+25°C



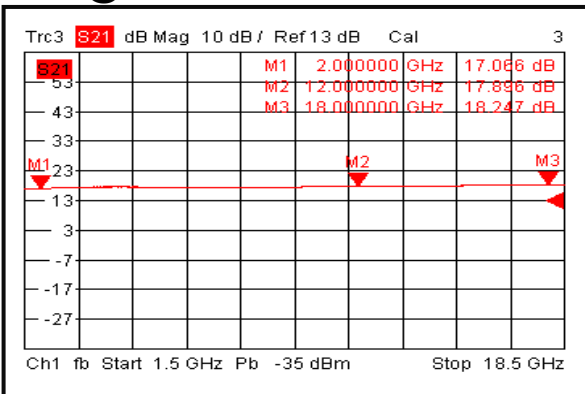
### Output VSWR @+25°C



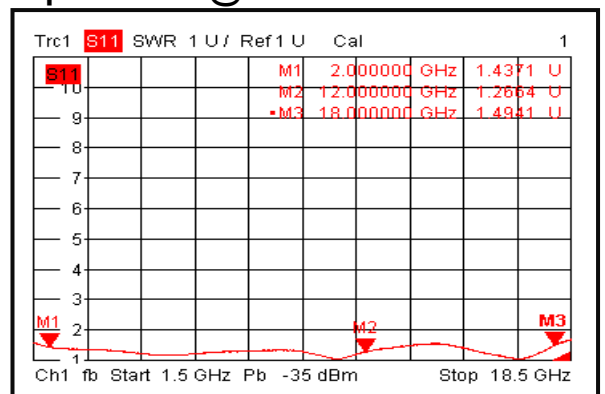
### Isolation @+25°C



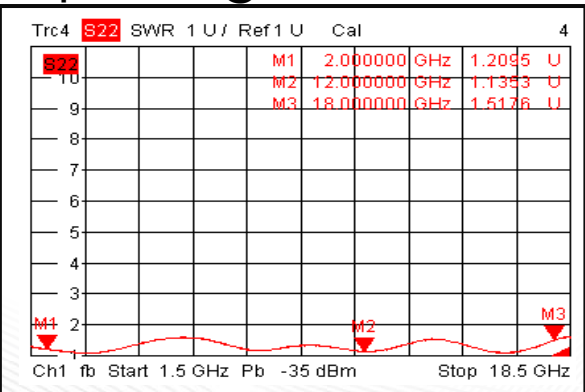
### Gain @-40°C



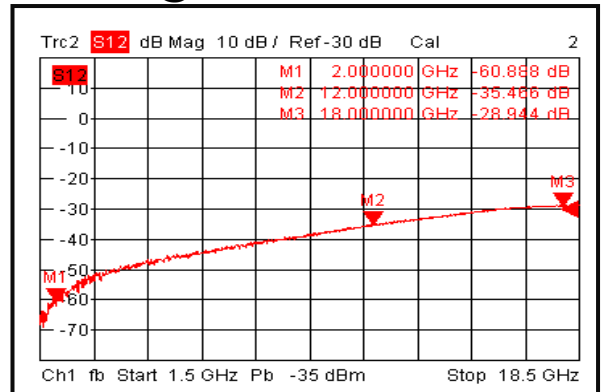
### Input VSWR @-40°C



### Output VSWR @-40°C

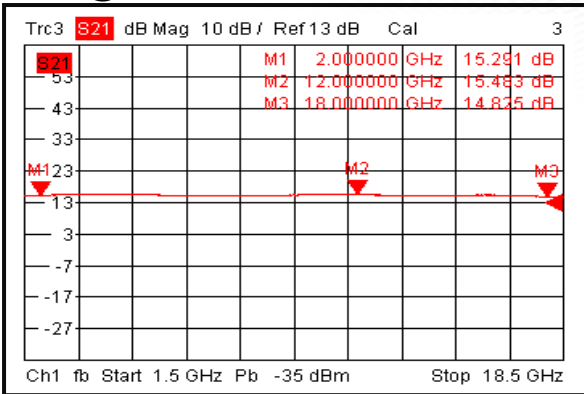


### Isolation @-40°C

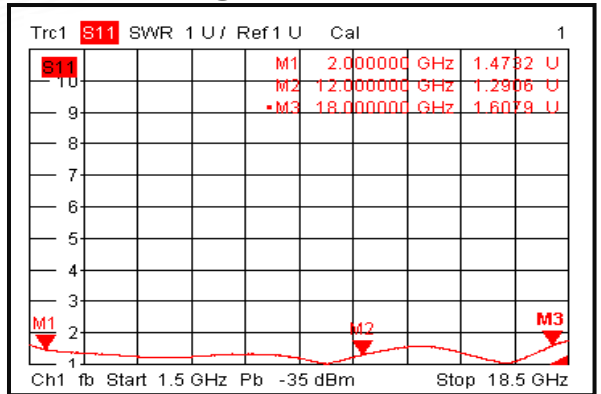




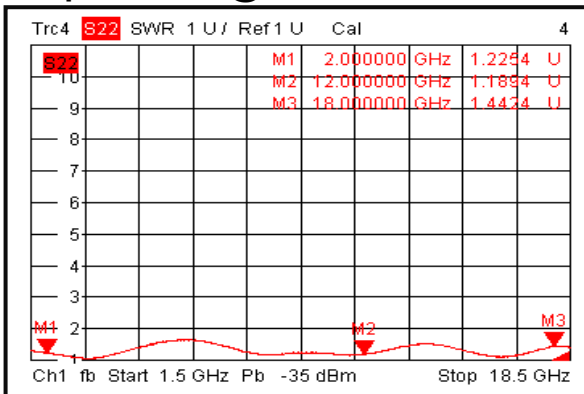
### Gain @+85°C



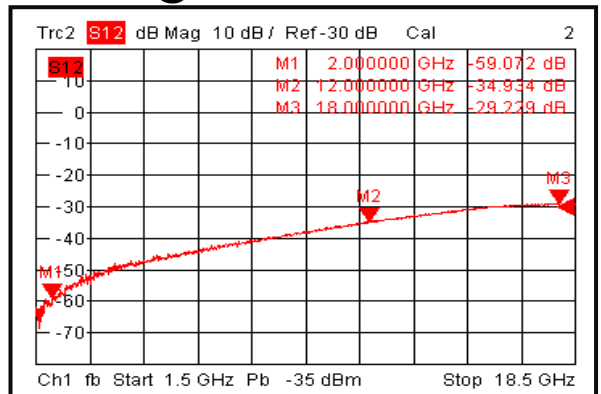
### Input VSWR @+85°C



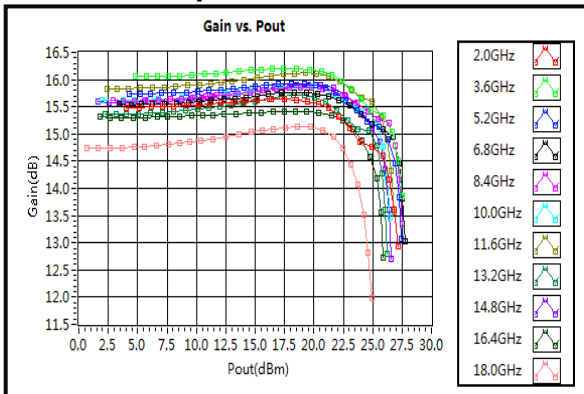
### Output VSWR @+85°C



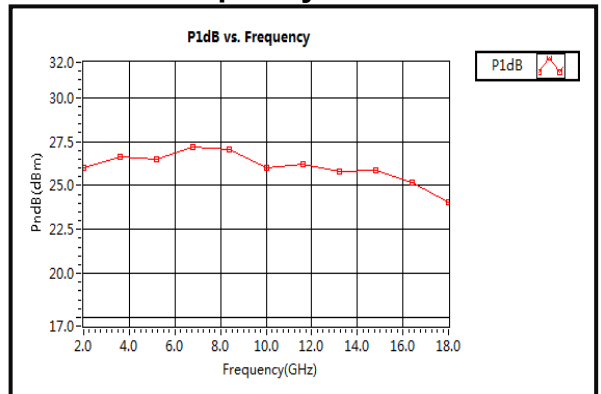
### Isolation @+85°C



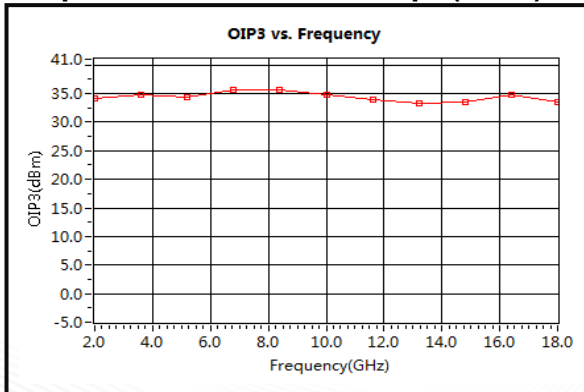
### Gain vs. Output Power



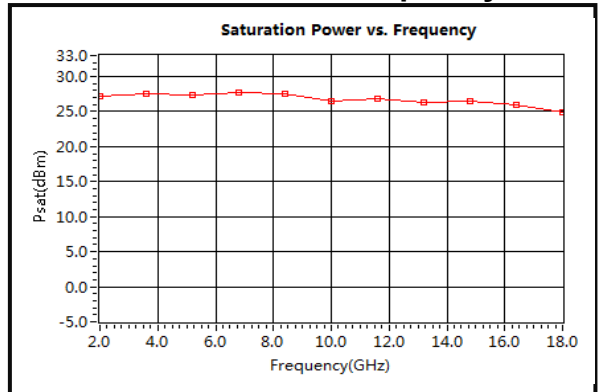
### P1dB vs. Frequency



### Output Third Order Intercept (OIP3)

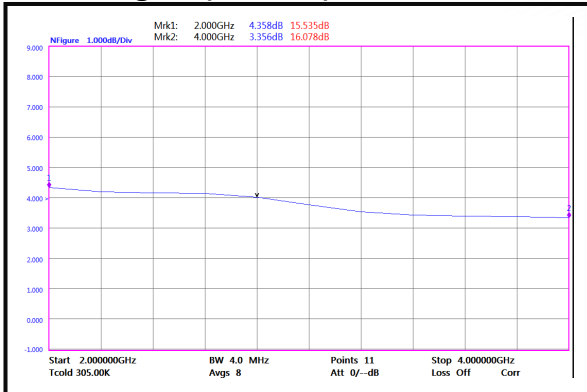


### Saturation Power vs. Frequency





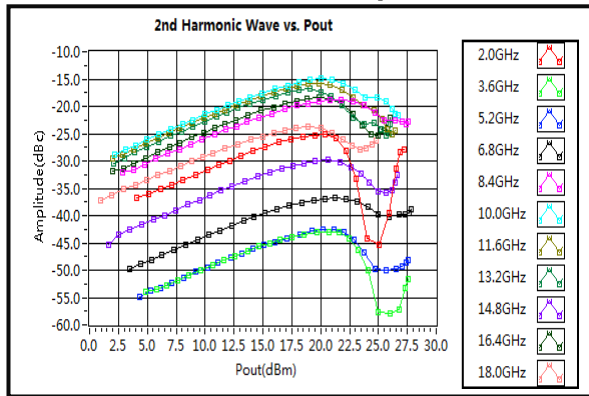
### Noise Figure(2-4GHz)



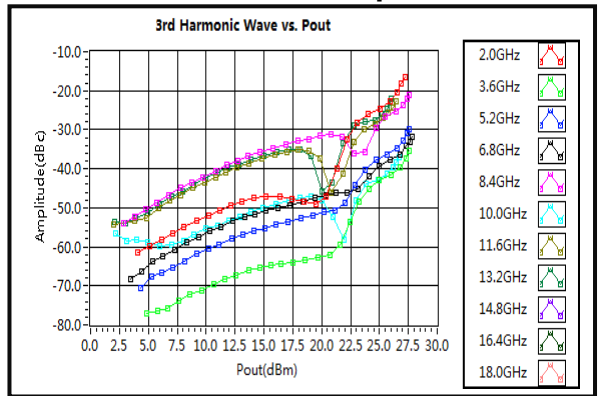
### Noise Figure(4-18GHz)



### 2nd Harmonic Wave Output Power



### 3rd Harmonic Wave Output Power



### 4th Harmonic Wave Output Power

