



# Wide Band Low Noise Amplifier 350MHz~550MHz

## Features

- Gain: 17dB Typical
- Noise Figure: 1.1dB Typical
- P1dB Output Power: +20dBm
- Supply Voltage: +5V



## Typical Applications

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

RF Microwave & VSAT  
Fiber Optics

Parameter	Min.	Typ.	Max.	Units
Frequency Range	350		550	MHz
Gain	14	16		dB
Gain Flatness		±0.5	±1.0	dB
Gain Variation Over Temperature(-40 ~ +85)		±0.5		dB
Noise Figure		1.2	1.8	dB
Input VSWR		1.8	2.2	: 1
Output VSWR		1.6	2.0	: 1
Output Power for 1 dB Compression (P1dB)	18	21		dBm
Saturated Output Power (Psat)		23		dBm
Output Third Order Intercept (IP3)		36		dBm
Supply Current (Vcc=+5V)		115	200	mA
Isolation S12		-22		dB

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



### Absolute Maximum Ratings

Operating Voltage	+6V
RF Input Power (RFIN)	+23 dBm

### Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +5V biasing

### Power OFF Procedure

Step 1	Turn off +5V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

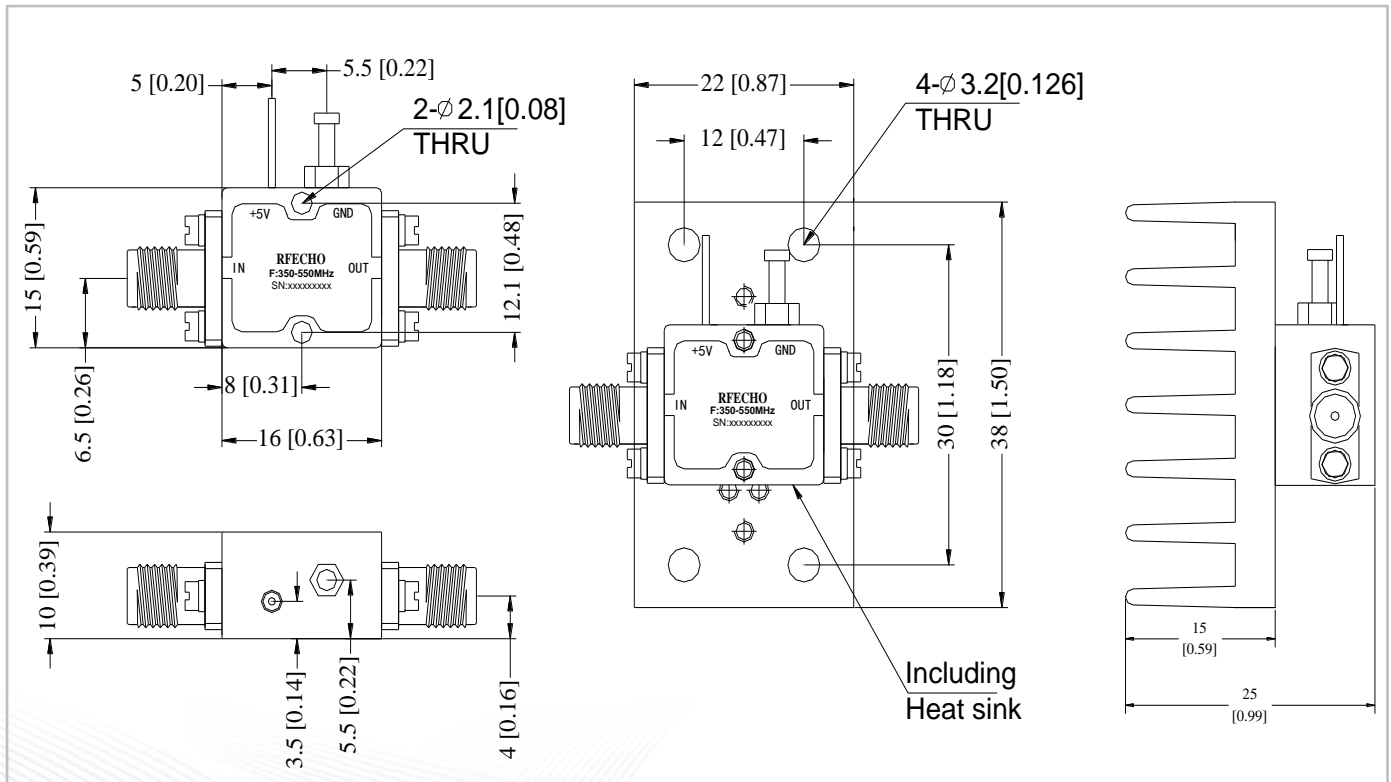
### Environmental Specifications

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:

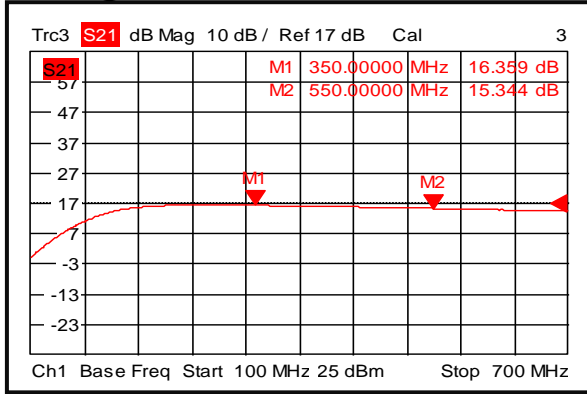
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

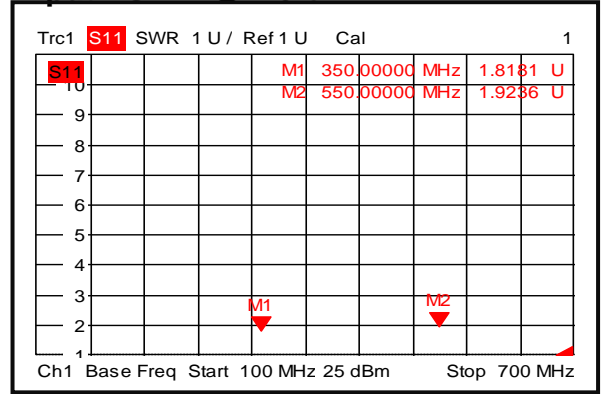




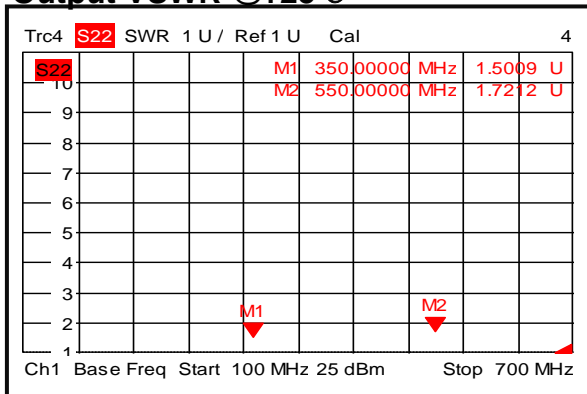
### Gain @+25°C



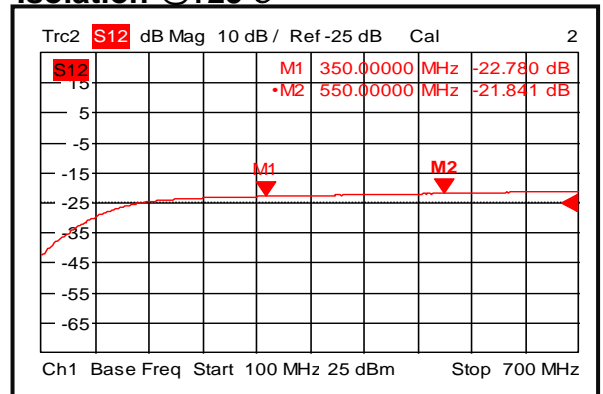
### Input VSWR @+25°C



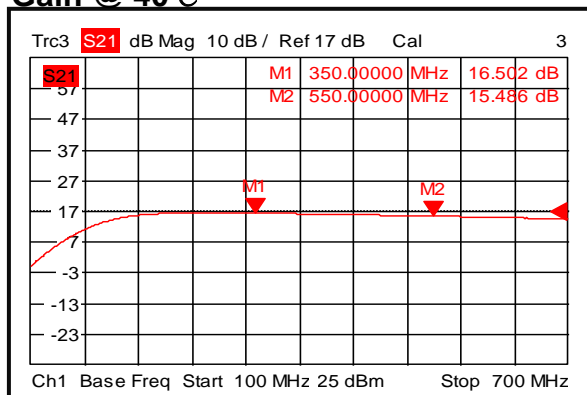
### Output VSWR @+25°C



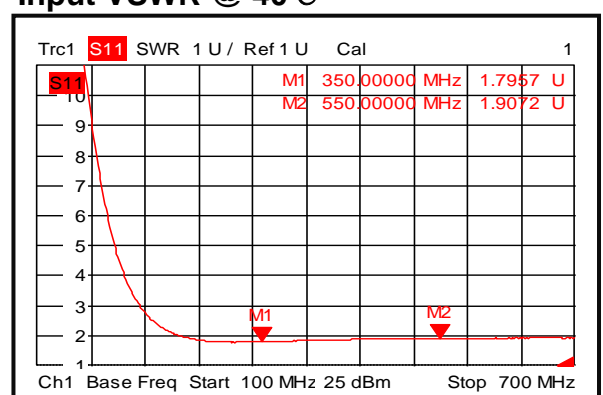
### Isolation @+25°C



### Gain @-40°C

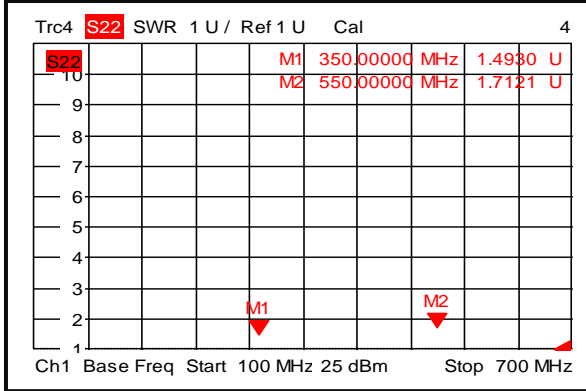


### Input VSWR @-40°C

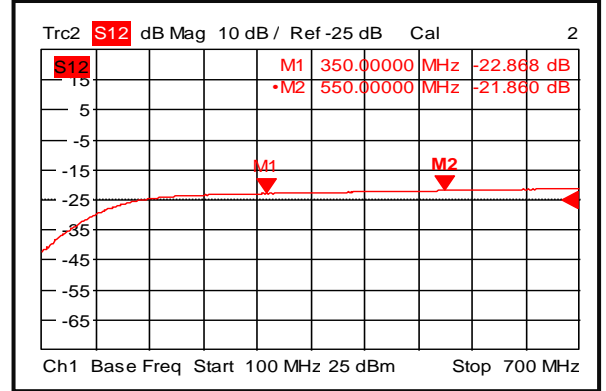




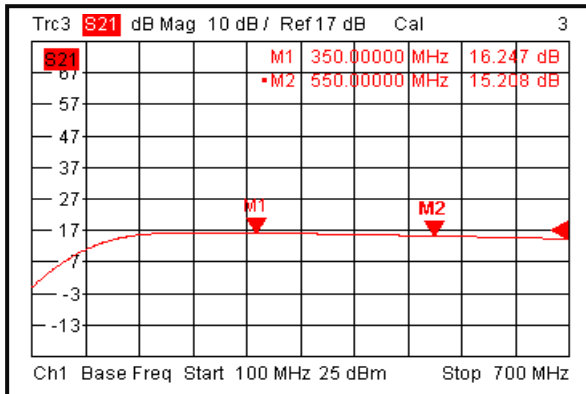
### Output VSWR @-40°C



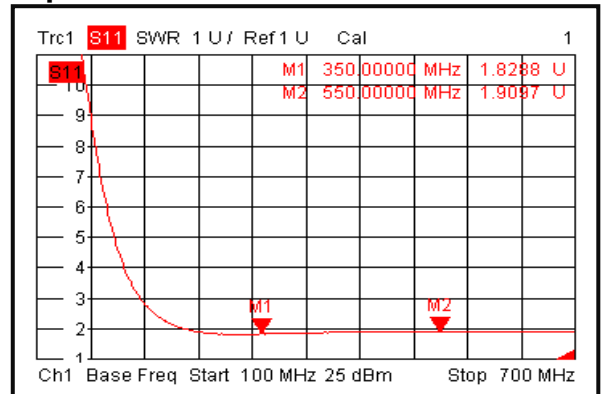
### Isolation @-45°C



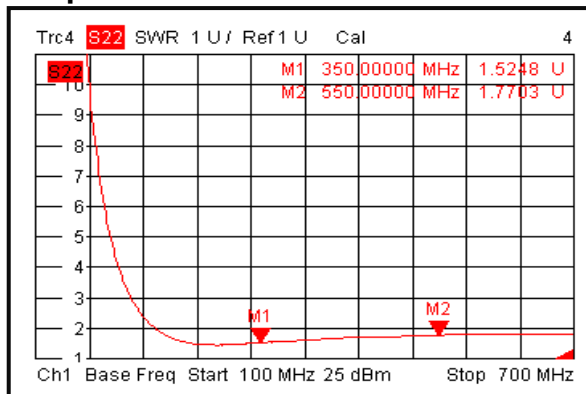
### Gain @+85°C



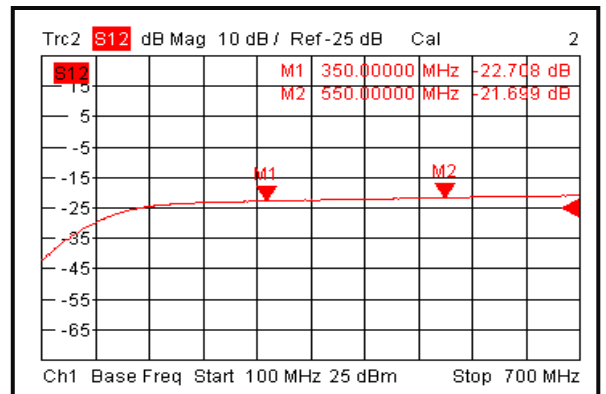
### Input VSWR @+85°C



### Output VSWR @+85°C

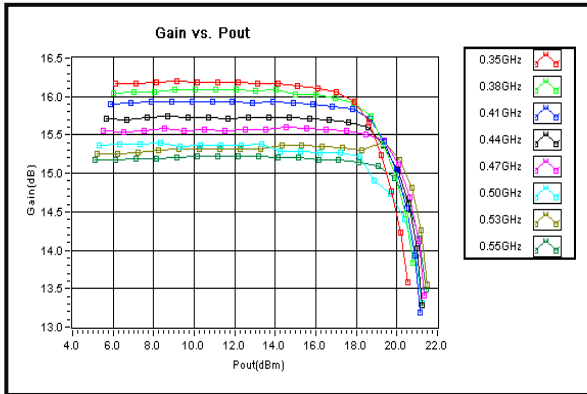


### Isolation @+85°C

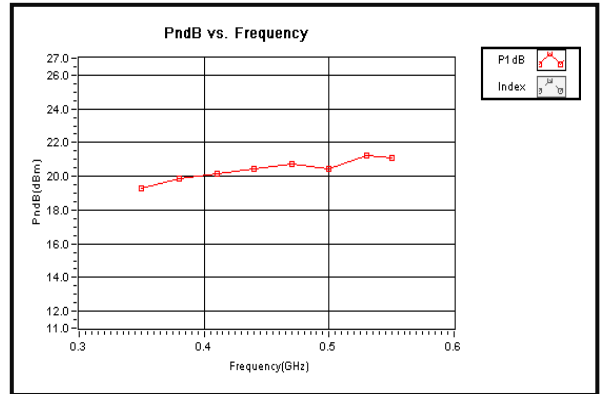




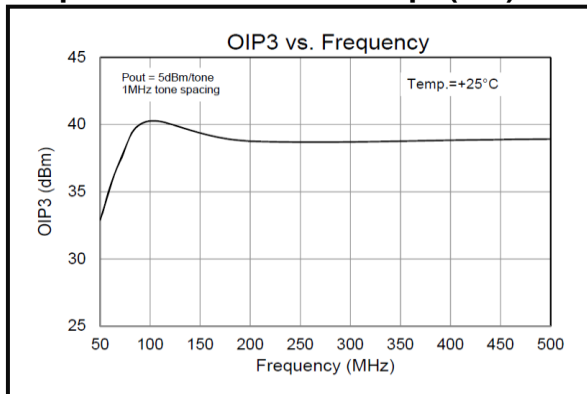
### Gain vs. Output Power



### P1dB vs. Frequency



### Output Third Order Intercept (IP3)



### Noise Figure

