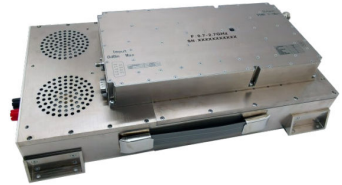




# 30W Ultra Wide Band AC Power Amplifier 0.7GHz~ 6GHz

## Feature

- Gain : 45dB Typical
- P1dB Output Power : 44dBm Typical
- Supply Voltage : AC 110V/220V
- 50 Ohm Matched Input / Output



## 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	0.7		3	3		6	GHz
Gain	42	45		40	45		dB
Gain Flatness		±2.0			±2.0		dB
Gain Variation Over Temperature (-40°C~+85°C)		±2.5			±2.5		dB
Input VSWR		1.2			1.2		:1
Output Power for 1 dB Compression (P1dB)	43	45		41	43		dBm
Saturated Output Power (Psat)		46			44		dBm
Isolation S12		-70			-65		dB
Supply Current (Idd) (+28V)		1.5	6.5		1.5	6.5	A

Weight	713ounces	Impedance	50ohms
Input /Output Connectors	N-Female	Material	Aluminum
Finish	Gray Painted		



### Absolute Maximum Ratings

Operating Voltage	AC110~220V
RF Input Power (RFIN)	+10dBm

### 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

### Biasing Up Procedure

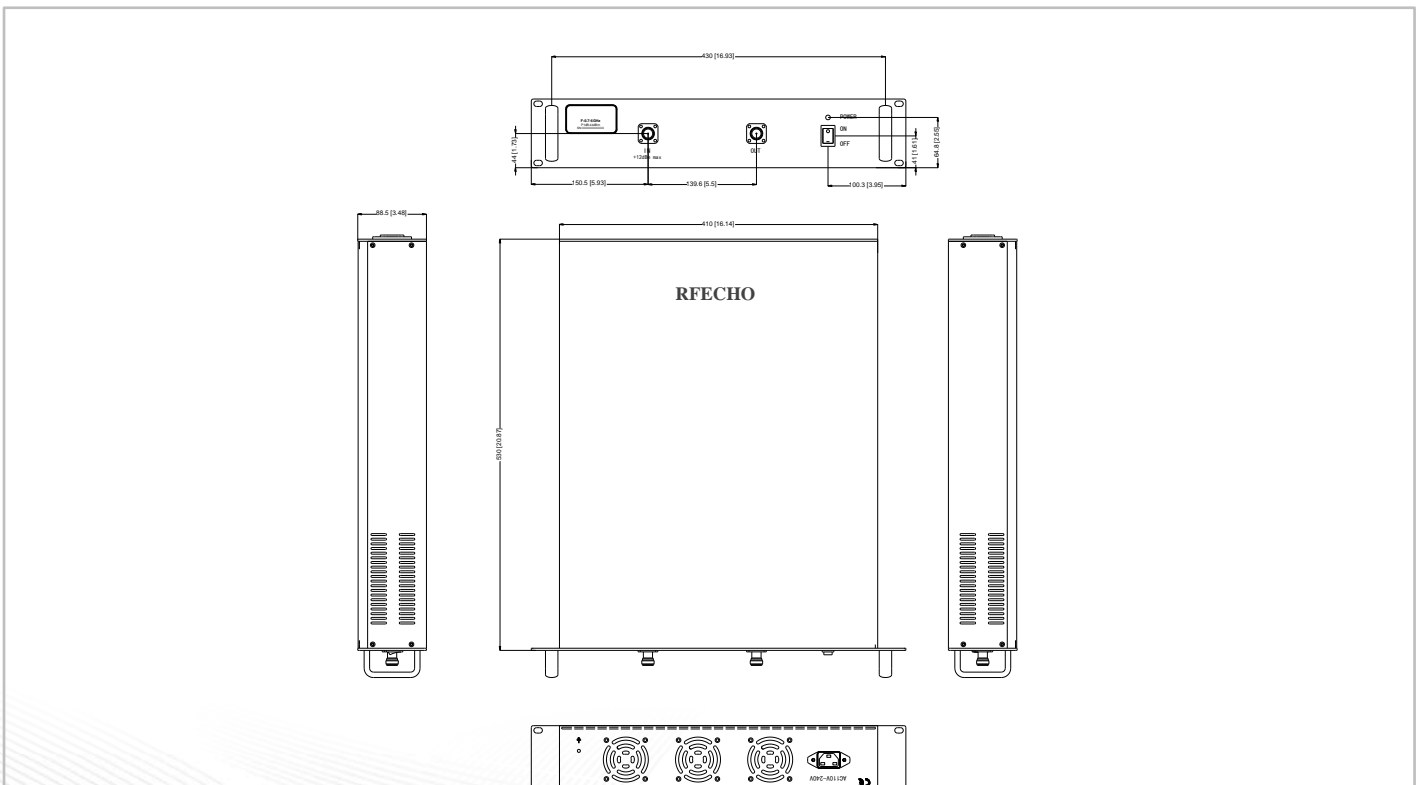
Step 1	Connect input and output with 50 Ohm source and load with in band return loss better than 10dB.
Step 2	Connect AC Plug
Step 3	Flip switch to "ON" position

### Power OFF Procedure

Step 1	Flip switch to "OFF" position
Step 2	Remove AC Plug
Step 3	Remove RF Connection

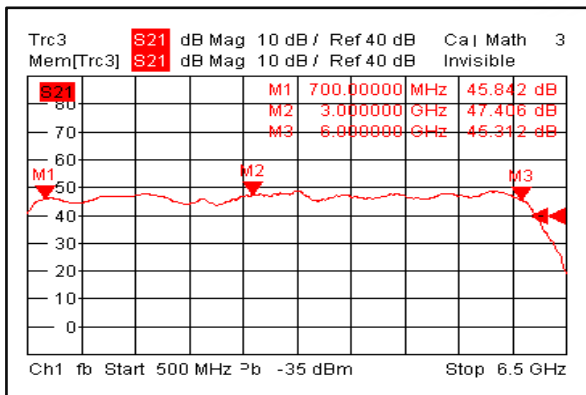
### Outline Drawing:

All Dimensions in mm (inches)

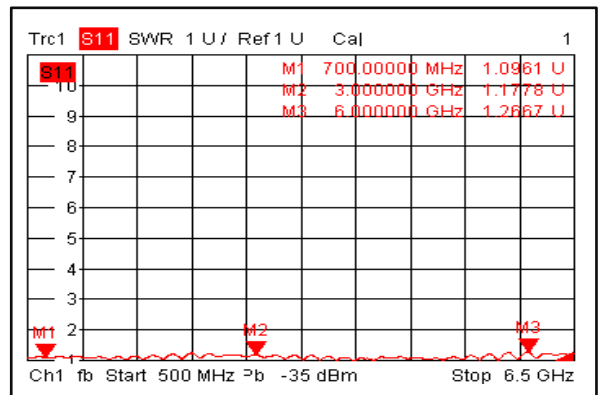




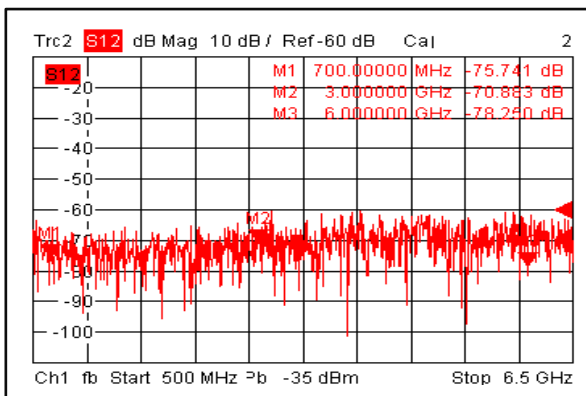
### Gain



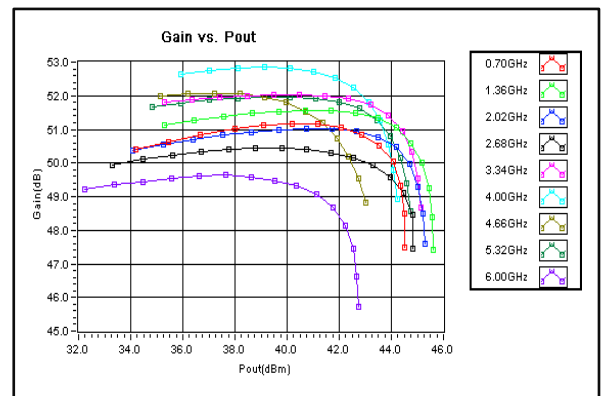
### Input VSWR



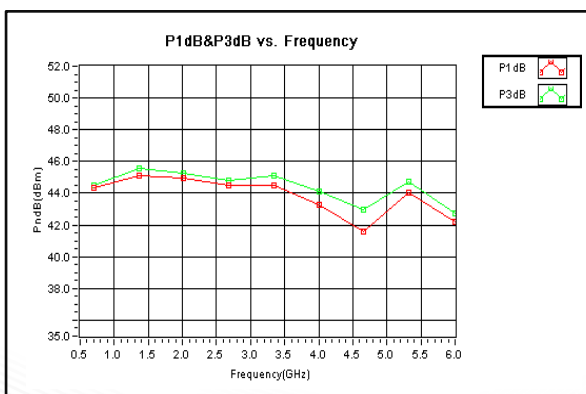
### Isolation



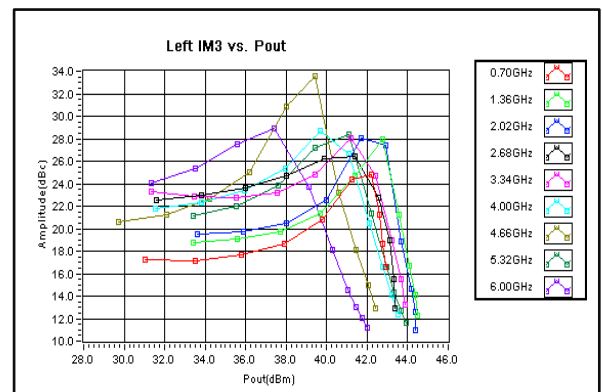
### Gain vs. Output Power



### P1dB & P3dB vs. Frequency

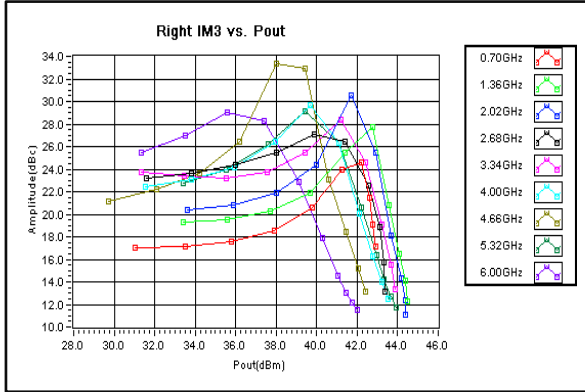


### Left IM3 vs. Pout

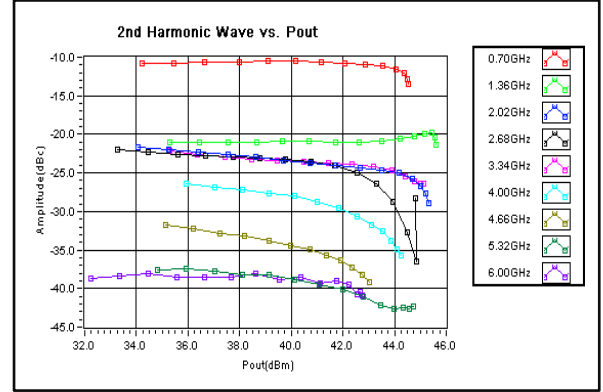




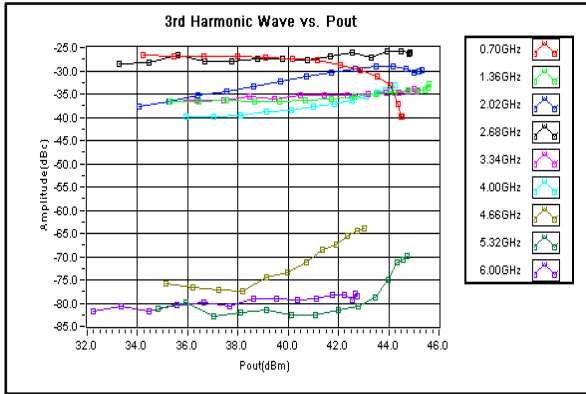
### Right IM3 vs. Pout



### 2nd Harmonic Wave Output Power



### 3rd Harmonic Wave Output Power



### 4th Harmonic Wave Output Power

