



# High Power Amplifier

## Model:RPA-1M-1G-160

1MHz-1GHz 160W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

### Features:

- Frequency range: 1MHz-1GHz
- High output power at saturation, 52dBm Min
- High gain, 52dB Min
- Operates from AC line power: 220V

### Applications:

- Laboratory test instrument
- RF Power stress test
- EMI and antenna testing
- Reliability testing

### Product Overview:

The RPA-1M-1G-160 is a high power, rack mount amplifier with a self-contained AC power supply which can be used for a wide variety of laboratory testing applications. This rugged amplifier is capable of amplifying signals up to 160W output power over its entire operating bandwidth of 1MHz to 1GHz. The control functions RPA-1M-1G-160 possesses include the on/off of the power supply. Built-in safety features include fans alarms and automatic shut down mechanism to prevent damage in the event of excessive internal temperatures. The amplifier's output stage is further protected in the event of a fault condition, allowing high power operation for up to 5 minutes into an open or short load (refer to the maximum input power specifications). And it has built-in protection functions included over TEM, over voltage, over current and over VSWR protection.



## Electrical Specifications at 25°C:

Parameter	Symbol	Min	Typ	Max	Units
Frequency range 1	BW1	1-100			MHz
Frequency range 2	BW2	100-1000			MHz
Power Gain	GP	52	55		dB
Gain flatness	$\Delta$ GL		$\pm 3.5$		dB
Gain adjust Range	$\Delta$ GR		31.5		dB
Gain adjust Step	$\Delta$ GS		0.5		dB
Output Psat	Psat	52	52.5		dBm
Output P1dB	P1dB		48		dBm
Spurious@Pout=160W	Spur			-60	dBc
Harmonics@Pout=160W	HAM		-15	-10	dBc
Input VSWR	VSWRin			2.0	:1
AC Voltage	Vac		220		V AC
AC Supply Current	Iac		3		A
Power Consumption	Pdiss		660		W
Impedance	I/O-IMP		50		Ohms

## Mechanical Specifications:

Parameter	Value	Notes
Operating Temperature*	-20 to +40	°C
Non-operating Temperature*	-30 to +50	°C
Relative humidity	95	%
RF Input /Output Connector	N Female/N Female	
Communication Connector	DB15	
Cooling	Built in Cooling system,forced air cooling	
Altitude	10,000	feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis	
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions	
Dimensions W x H x D	482.6*446*147.69	mm
Weight	$\leq 30$	Kg

\*Note: For a wider temperature range, please consult the manufacturer.



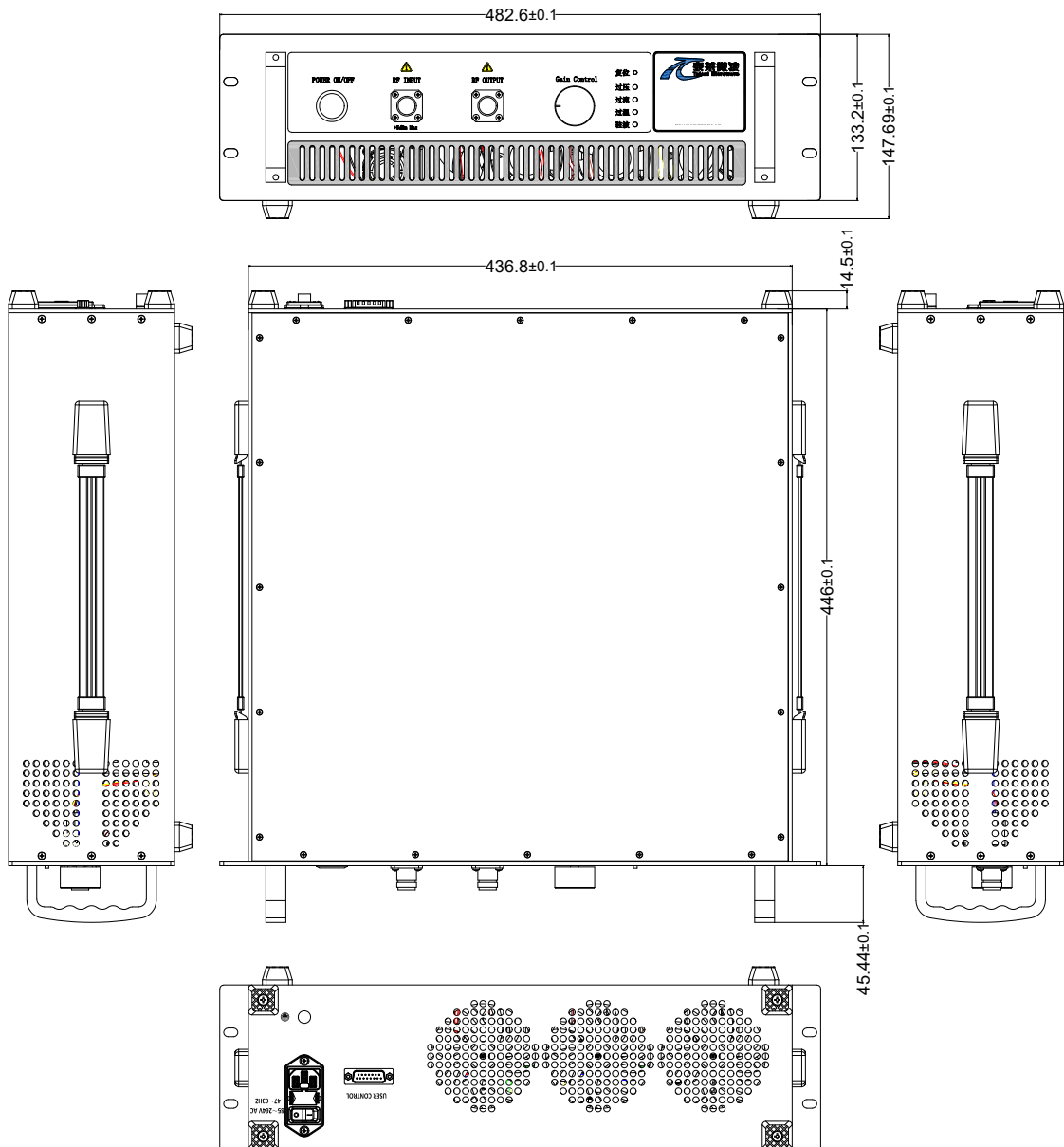
## Absolute Maximum Ratings:

Parameter	Value
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

## Outline Drawing:

Unit:mm

RPA-1M-1G-160





## Optional items:

Number	Parameter
1	LCD display touchscreen
2	Ingress protection grad
3	Customized operating temperature range
4	Built in Cooling system(air or liquid)
5	Types of RF,coupling and monitor&control interfaces

## Ordering Information:

Base Number	Description	Optional
RPA-1M-1G-160	High Power Amplifier, 1MHz-1GHz, 160W CW, Built in air or liquid cooling, without LCD and IP grad.	Basic version
RPA-1M-1G-160-M	High Power Amplifier, 1MHz-1GHz, 160W CW, Built in air or liquid cooling, with LCD.	Add LCD display touchscreen
RPA-1M-1G-160-IPxx	High Power Amplifier,1MHz-1GHz, 160W CW, Built in air or liquid cooling, with LCD and IP grad.	Add Ingress protection grad