



High Power Amplifier

Model:RPA-2G-6G-200L

2-6GHz 200W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 2-6GHz
- High output power at saturation, 53dBm Min
- High gain, 53dB 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-2G-6G-200L 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 200W output power over its entire operating bandwidth of 2 to 6GHz. The control functions RPA-2G-6G-200L 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	BW		2-6		GHz
Power Gain	GP	53	55		dB
Gain flatness	Δ GL		± 3.5		dB
Output Psat	Psat	53			dBm
Output P1dB	P1dB		49		dBm
Gain adjust range@0.5dB step	Δ GR		31.5		dB
Spurious@Pout=53dBm	Spur			-60	dBc
Harmonics@Pout=53dBm	HAM		-10		dBc
Input VSWR	VSWRin			2.0	:1
AC Voltage	Vac		220		V AC
AC Supply Current	Iac		10		A
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	
Front Panel LCD Screen Display	7 inch LCD Screen Display	
Cooling system	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	19 Inch 4U*600	mm
Weight	≤ 30	Kg

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



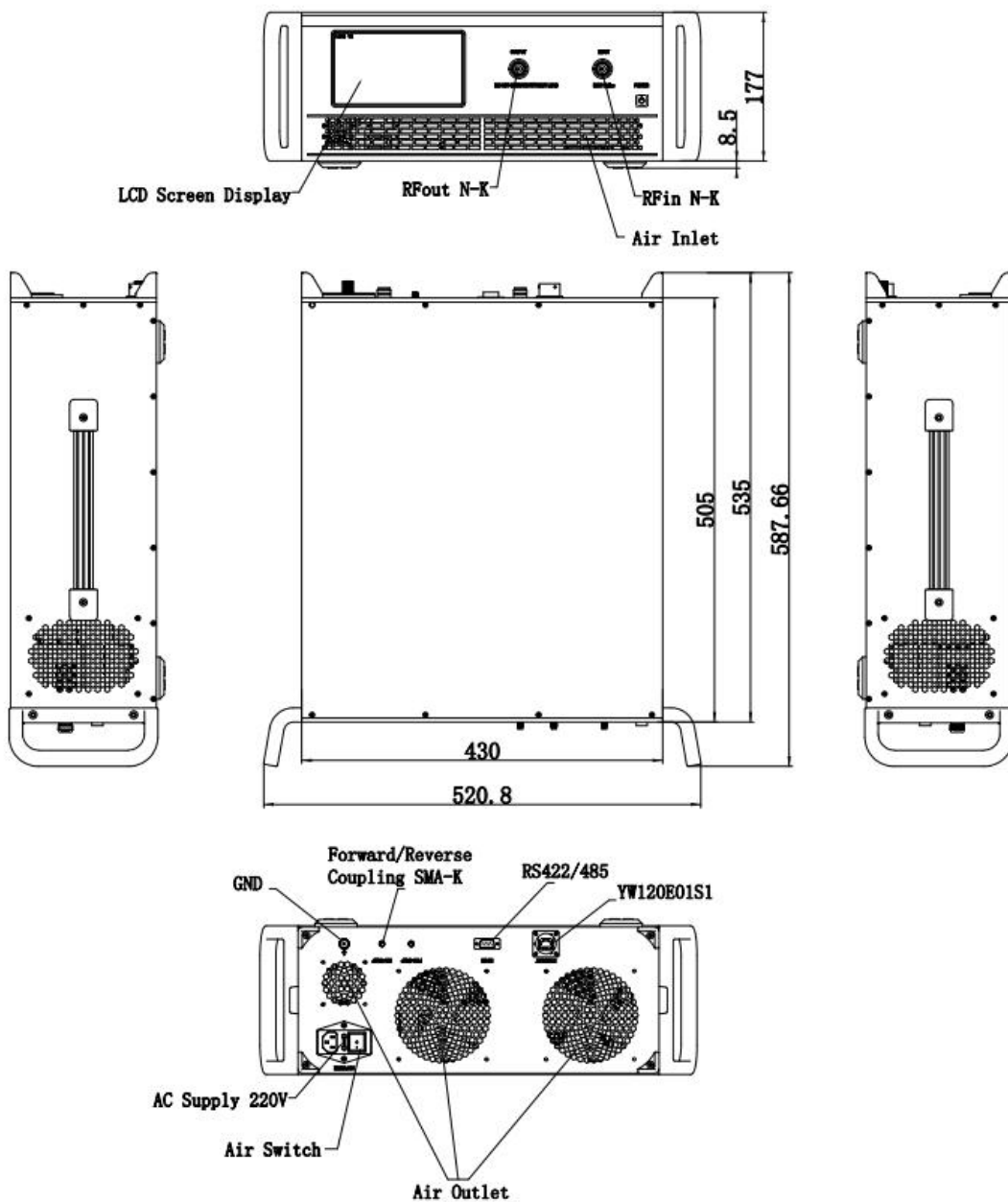
Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm

RPA-2G-6G-200L





D-SUB,15-Pin,Female:

Pin	Identification	Function specification
1	Reset	When the amplifier triggers overcurrent or standing wave protection, the amplifier will be turned off and enter a state of lockout. Placing a 10ms high level on this pin will restart the amplifier. Only overcurrent or standing wave protection can be reset.
2	Over voltage	When the supply voltage exceeds 32V, the power amplifier will be turned off. This pin will output a high level. When the supply voltage is lower than 32V, this pin will output a low level.
3	Over current	When the power amplifier current exceeds the limit, the power amplifier will be closed and enter the state lock, this pin will output a high level.
4	Over Temp	When the temperature of the power amplifier shell is greater than 85°C, the power amplifier will be closed, and this pin will output a high level. When the temperature of the power amplifier shell is reduced to 70°C, the power amplifier will return to normal operation, and this pin will output a low level.
5	Over VSWR	When the load VSWR of the power amplifier output is greater than 5, the power amplifier will be turned off. This pin will output a high level. When the external VSWR is less than 5, this pin outputs a low level.
6	Enable	Amplifier enable end, 5V or open to turn on the amplifier. This pin is grounded to turn off the amplifier.
7	GND	GND
8~15	NC	No internal connection

Note: Control voltage is 5V

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

Outline Drawing:

Base Number	Description	Optional
RPA-2G-6G-200L	High Power Amplifier, 2-6GHz, 200W CW, Built in air or liquid cooling, without LCD and IP grad.	Basic version
RPA-2G-6G-200L-M	High Power Amplifier, 2-6GHz, 200W CW, Built in air or liquid cooling, with LCD.	Add LCD display touchscreen
RPA-2G-6G-200L-IPxx	High Power Amplifier, 2-6GHz, 200W CW, Built in air or liquid cooling, with LCD and IP grad.	Add Ingress protection grad