



# High Power Amplifier

## Model:RPA-10K-100M-3500

10KHz-100MHz 3500W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

### Features:

- Frequency range: 10KHz-100MHz
- High output power at saturation, 3500W Min
- High gain, 66dB Min
- Operates from AC line power: 380V

### Applications:

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

### Product Overview:

The RPA-10K-100M-3500 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 3500W output power over its entire operating bandwidth of 10KHz to 100MHz. The control functions that RPA-10K-100M-3500 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 (70°C), over voltage, open/circuit break, over current, and over VSWR (6:1, adjustable) and over excitation (3600W) protection. It can also be remotely controlled via GPIB or Ethernet.



## Electrical Specifications at 25°C:

Parameter	Symbol	Min	Typ	Max	Units
Frequency range	BW	10KHZ-100MHZ			
Power Gain	GP	66			dB
Gain flatness	ΔGL			±2.5	dB
Output Psat	Psat	3500			W
Output P1dB	P1dB	2500			W
Spurious	Spur			-60	dBc
Harmonics	HAM			-15	dBc
Input VSWR	VSWRin			2	:1
AC Voltage	Vac		380		V AC
Power Consumption	Pdiss			10	KW
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/7/16 DIN Female (optional)	
Forward/Reverse Coupling Connector	N Female/ N Female (optional)	Dual directional coupler can be selected as built-in or external.
Digital Monitor & Control	GPIO;Ethernet	
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	600*800*1600/19 Inch*1600	mm
Weight	≤200	Kg

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



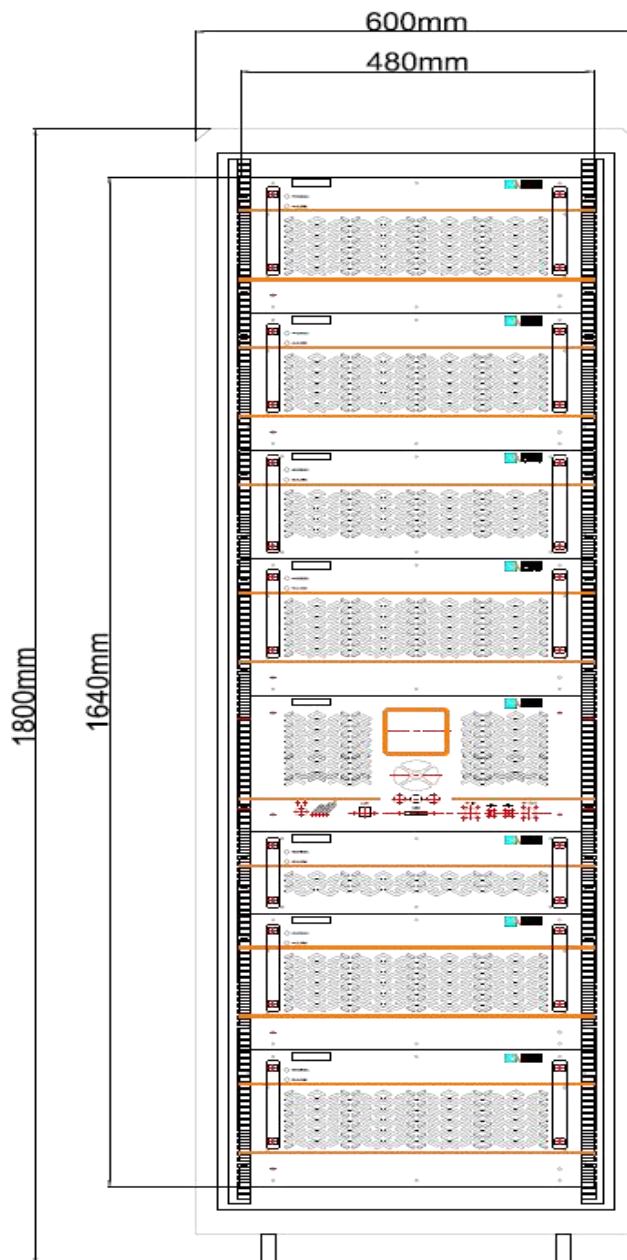
## Absolute Maximum Ratings:

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

## Outline Drawing:

Unit:mm

RPA-10K-100M-3500





## Optional items:

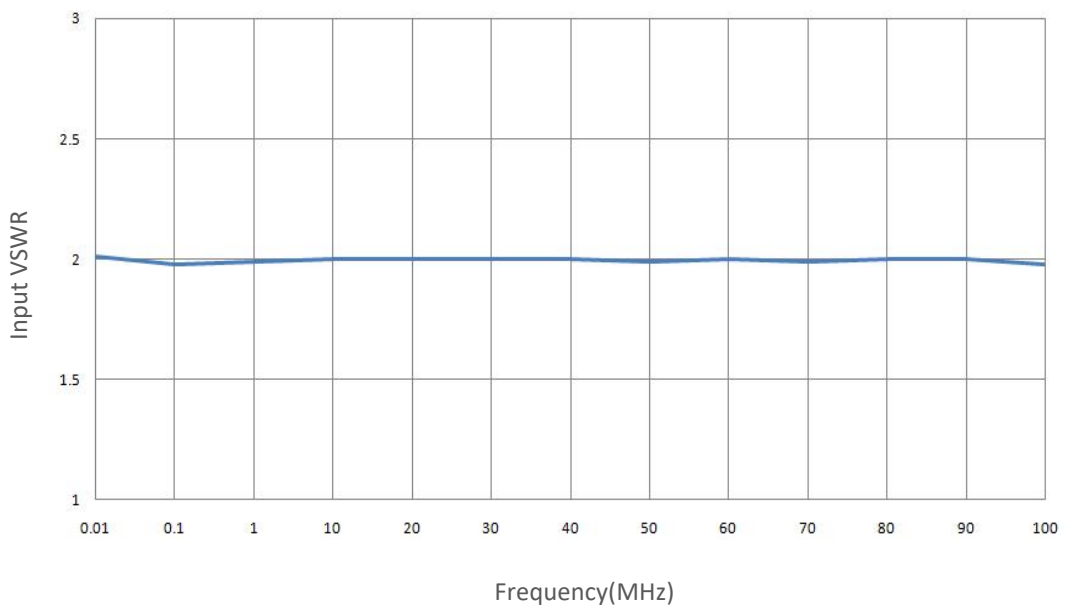
Number	Parameter
1	LCD display touchscreen
2	Ingress protection grad
3	Customized operating temperature range
4	Built in Cooling system(air or liquid)
5	Types of RF,coupling and monitor&control interfaces

## Ordering Information:

Base Number	Description	Optional
RPA-10K-100M-3500	High Power Amplifier, 10KHz-100MHz, 3500W CW, Built in air or liquid cooling, without LCD and IP grad.	Basic version
RPA-10K-100M-3500-M	High Power Amplifier, 10KHz-100MHz, 3500W CW, Built in air or liquid cooling, with LCD.	Add LCD display touchscreen
RPA-10K-100M-3500-IPxx	High Power Amplifier, 10KHz-100MHz, 3500W CW, Built in air or liquid cooling, with LCD and IP grad.	Add Ingress protection grad

## Typical Performance Data:

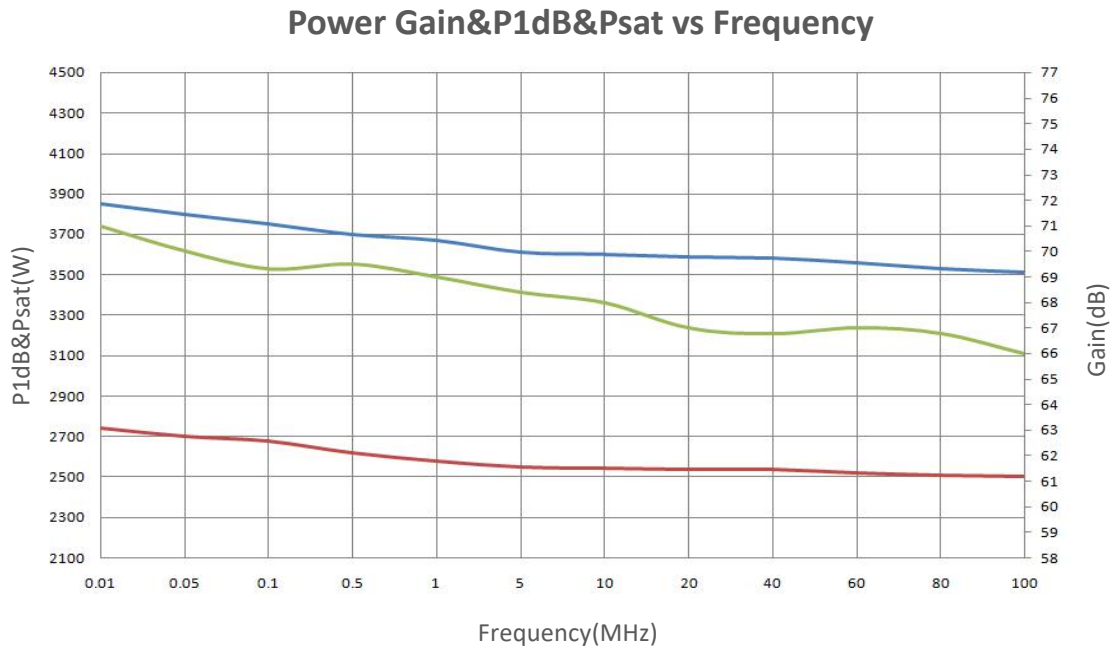
### Input VSWR vs Frequency



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.



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