



High Power Amplifier

Model:RPA-10K-100M-2500

10KHz-100MHz 2500W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 10KHz-100MHz
- High output power at saturation, 2500W min.
- High gain, 64 dB min.
- Operates from AC line power: 340-530V

Applications:

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

Product Overview:

The RPA-10K-100M-2500 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 2500W output power over its entire operating bandwidth of 10KHz to 100 MHz. The control functions RPA-10K-100M-2500 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 Input overdrive ($\leq 10\text{dBm}$), Over TEM ($\leq +85^{\circ}\text{C}$), VSWR protection ($\leq 5:1$).



Electrical Specifications at 25°C:

Parameter	Symbol	Min	Typ	Max	Units
Frequency range	BW	10KHz		100MHz	
Small Signal Gain	SSG	64			dB
Small Signal Gain flatness	ΔGL		±3		dB
Noise Figure	NF		6		dB
Output P1dB	P1dB	1500			W
Output Psat	Psat	2500			W
Spurious	Spur		-50		dBc
Harmonics	HAM		-15		dBc
Input VSWR	VSWRin		2		:1
Output VSWR Alarm	/		5		:1
AC Voltage	Vac	340		530	V AC
Power Consumption	Pdiss			8400	W
Impedance	I/O-IMP	50			Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temperature*	0°C to +40°C	
Non-operating Temperature*	-20°C to +60°C	
Relative humidity	95	%
RF Input/Output Connector	N Female/7/16 Female	
Forward/Reverse Coupling Connector	N Female/N Female	
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	19 Inch 20U with 1.4m Cabinet	

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



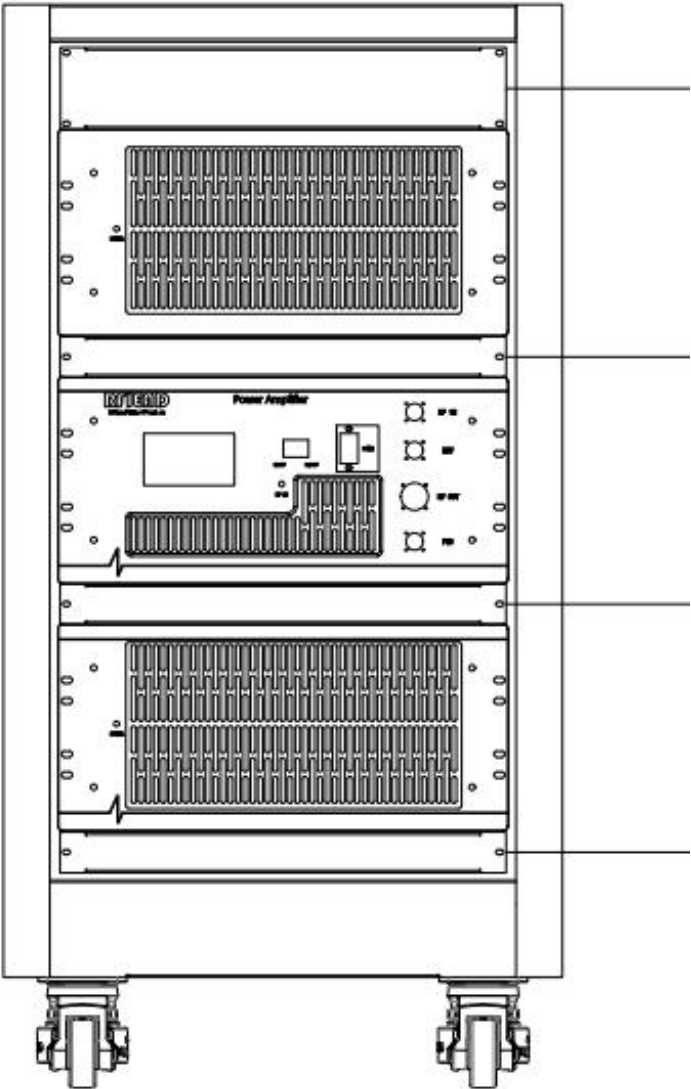
Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm

RPA-10K-100M-2500





Optional items:

Number	Items	Payment
1	The input/output interfaces are located on the front panel.	STD(Optional)
2*	The input and output interfaces are on the rear panel.	STD(Optional)
3	Safety lock (DB9)	STD(Optional)
4	Provides forward and reverse coupling ports	STD(Optional)
5	Gain and output power adjustment	PD

*Note: The default input and output interface is in the back panel

Ordering Information:

Base Number	Description	Optional
RPA-10K-100M-2500	High Power Amplifier, 10KHz-100MHz,2500W CW, Built in air or liquid cooling, without LCD and IP grad.	Basic version
RPA-10K-100M-2500-M	High Power Amplifier, 10KHz-100MHz,2500W CW, Built in air or liquid cooling, with LCD.	Add LCD display touchscreen
RPA-10K-100M-2500-IPxx	High Power Amplifier, 10KHz-100MHz,2500W CW, Built in air or liquid cooling, with LCD and IP grad.	Add Ingress protection grad