



High Power Amplifier

Model:RPA-26G5-31G-2000-P

26.5-31GHz 2000W Pulse

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 26.5-31GHz
- High output power at saturation, 63dBm Min.
- High gain, 63dB 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-26G5-31G-2000-P 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 2000W output power over its entire operating bandwidth of 26.5 to 31GHz. The control functions that RPA-26G5-31G-2000-P possesses include the on/off of the power supply and the control of the gain. 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 output mismatch protection. It can also be remotely controlled via RS422 or LAN.



Electrical Specifications at 25°C:

Parameter	Symbol	Min	Typ	Max	Units
Frequency range	BW	26.5-31			GHz
Working Mode	MOD	PULSE ONLY			
Power Gain@Pout=63dBm	GP	63			dB
Gain flatness	ΔGL		±3		dB
Output Psat	Psat	63			dBm
Spurious@Pout=63dBm	Spur			-60	dBc
Harmonics@Pout=63dBm	HAM			-30	dBc
Input Signal Mode	IPS_MOD	CW/PULSE			
Modulation Signal Level	TTL	0		5	V
Modulation Frequency	MF	0.5		100	KHz
Pulse Width	T	0.3		500	us
Duty Cycle	τ			10	%
Rise/Fall Time	Tr		50	100	ns
Pulse Internal Flatness	Pdp			±0.5	dB
Pulse-to-Pulse Flatness	P-P			±0.1	dB
Inrush Impulse Current @10% duty cycle	IPC			20	A
Power consumption@5% duty cycle	Pdiss			1700	W
Power consumption@10% duty cycle	Pdiss			3300	W
AC Voltage	Vac		220		V AC
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	2.92mm Female/WR28	
Digital Monitor & Control	Serial:RS422;LAN	Optional: GPIB
Forward/Reverse Coupling	2.92mm Female/2.92mm Female	
Modulation Interface	BNC Female	
Cooling	Built in Cooling system,forced air cooling	



Mechanical Specifications:

Parameter	Value	Notes
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	
Monitor functions	1,Output power 2,Reflected power 3,TEM 4,Operating voltage 5,Operating current	
Front Panel LCD Screen Display	7 inch LCD Screen Display	
Dimensions W x H x D	20U	mm
Weight	≤250	Kg

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

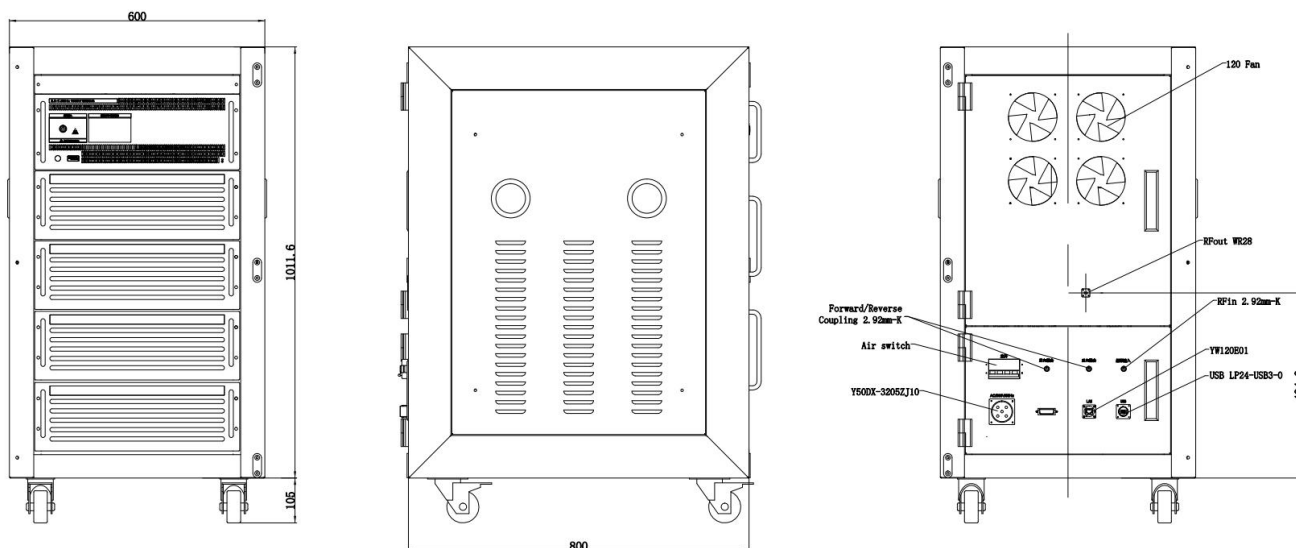
Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm

RPA-26G5-31G-2000-P





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-26G5-31G-2000-P	High Power Amplifier, 26.5-31GHz, 2000W Pulse, Built in air or liquid cooling, without LCD and IP grad.	Basic version
RPA-26G5-31G-2000-P-M	High Power Amplifier, 26.5-31GHz, 2000W Pulse, Built in air or liquid cooling, with LCD.	Add LCD display touchscreen
RPA-26G5-31G-2000-P-IPxx	High Power Amplifier, 26.5-31GHz, 2000W Pulse, Built in air or liquid cooling, with LCD and IP grad.	Add Ingress protection grad