

## 9-10 GHz/1000Watts/Rack Mount

Model Number: KNP9500S60B

The KNP9500S60B is suitable for narrow band pulsed power application. This amplifier utilizes GaN power devices that provide wide frequency response and dynamic range, high gain. Exceptional performance, long-term reliability and high efficiency are achieved by employing advanced broadband RF matching networks, combining techniques, and all qualified components. The system includes a universal voltage power supply and a built in forced air-cooling system.

### FEATURES:

- Instantaneous ultra-broadband
- Suitable for narrow band pulsed power application
- Compact and robust design
- Standard front panel manual gain adjustment
- Low distortion

### ELECTRICAL SPECIFICATIONS @ 220VAC, 25°C, PW=10us,DC=10%, 50Ω System

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	9		10	GHz
RF Output Power	PPK		1000		Watt
Output Power Variation over frequency	ΔGp		±2		dB
Duty Cycle	Duty Cycle			10	%
Pulse Width	PWIDTH	2		100	uS
Harmonics @ Pout =800W	H		-40		dBc
Spurious Signals	Spur		-55		dBc
RF Input Power( @ Pout = 1000W )	PIN	-1	0	1	dBm
Input Return Loss	S11		-10		dB
Output Return Loss	S12		-10		dB
Switching Speed	TON/OFF		2	5	uS
Power droop	Droop		1		dB
Operating Voltage (1-phase)	VAC		220/50Hz		Volt
Power Consumption @ 1000W	PD		2500		Watt

### MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions (W x H x D) – Bench Top / Rack Mount	480x176x650 [18.9x7x25.5] (4U)	mm [inch]	Max
Weight	50 [110]	kg [lbs]	Max
RF Connectors Input	BMA-connector-Female		
RF Connectors Output	WR 90 Flange		
RS-232	D-Sub 9-Pin, Male		
Cooling	Built-in internal forced air cooling system		

### ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

Parameter	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	0		40	°C	
Non-operating Temperature	-40		45	°C	Storage
Relative Humidity (non-condensing)			95	%	

### ABOSOLUTE MAXMUIM RATING

Input RF drive level without damage	+10 dBm (Max)
VSWR protection	@ 5:1- PA output power will degrade to a safe operation level, and system will still work; @ >5:1 protection will make system shutdown.

*Focus on Your Application*

\*Chengdu KeyLink Microwave Technology Co., Ltd.\*

>> 5-2, Huidu Headquarters Park, High-Tech(West) Zone, Chengdu, 611731, P. R. China

>> Phone: +86(28)87870761\*8708 >> Fax: +86(28)87883266

>> Email: sales@keylinkmw.com >> www.keylinkmw.com

Specifications subject to change without notice

## 9-10 GHz/1000Watts/Rack Mount

Model Number: KNP9500S60B

Thermal Overload	Power will Gracefully Degrade, when Ambient Temp >40°C
------------------	--

### Monitor & Control

Control Functions:	Control Functions:
Gate Pulse Shaper (PW and DC protection)	Gate Pulse Shaper (PW and DC protection)
BITE	BITE
Status report	Status report
RF On/Off (Standby/Transmit Modes)	RF On/Off (Standby/Transmit Modes)
Unit Reset (TTL)	Unit Reset (TTL)
Tx-Gate (TTL)	Tx-Gate (TTL)
Monitored Functions:	Monitored Functions:
Input peak RF power	Input peak RF power
Output Peak RF Power	Output Peak RF Power
Reflected Power	Reflected Power
Output VSWR	Output VSWR
DC Voltages Sensing	DC Voltages Sensing
DC Current Sensing	DC Current Sensing
Temperature Sensing	Temperature Sensing
Over-temperature protection	Over-temperature protection

### Protection and Warning

Any Fault alarm	Description
Audible VSWR warning near threshold (adjustable threshold of VSWR)	Audible VSWR warning near threshold (adjustable threshold of VSWR)
Current Protect	If Current is exceeded limit, then the amplifier turn off AC power supply
Temperature Protect	If Temperature is exceeded threshold, then the amplifier turn off AC power supply (adjustable threshold of Temperature)
Low Power Warning	Warning RF output power is lower than typical threshold (adjustable typical threshold of RF output power)

### AVAILABLE OPTIONS (Selected options refer to the factory)

	Description	LCD
RS-232	Data format and protocol for monitor and control	Monitor & Control
Status Monitor(Optional)	LCD (Front Panel)	Digital Display, including Module temperatures , Output VSWR ,Reflected power ,Output peak power,Input Peak RF power(Optional)

### Focus on Your Application

\*Chengdu KeyLink Microwave Technology Co., Ltd.\*

>> 5-2, Huidu Headquarters Park, High-Tech(West) Zone, Chengdu, 611731, P. R. China

>> Phone: +86(28)87870761\*8708 >> Fax: +86(28)87883266

>> Email: sales@keylinkmw.com >> www.keylinkmw.com

Specifications subject to change without notice

### 9-10 GHz/1000Watts/Rack Mount

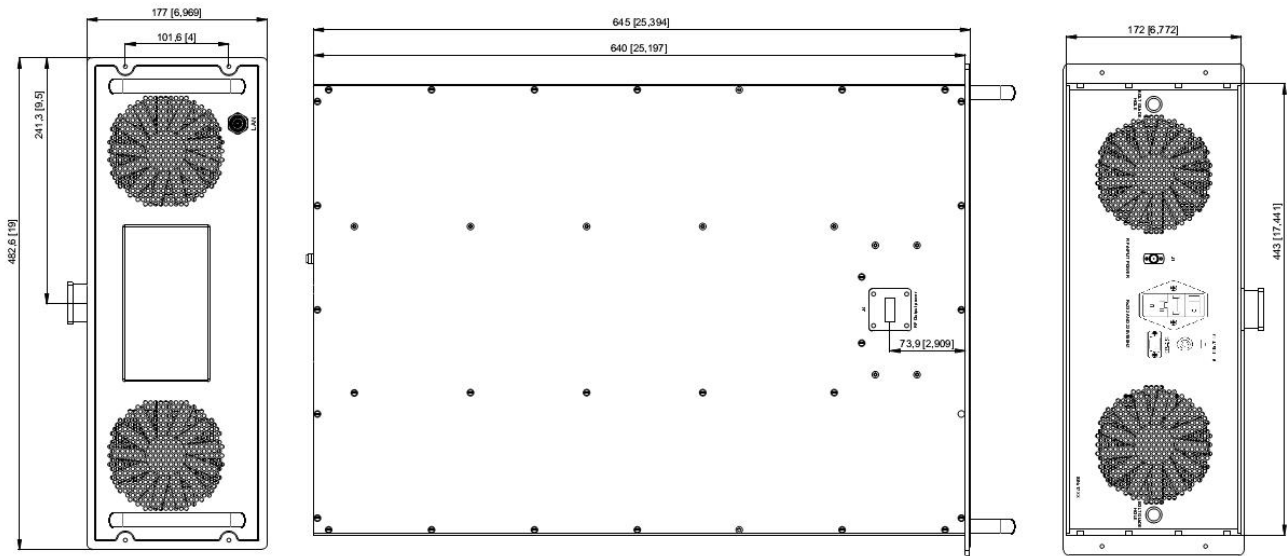
Model Number: KNP9500S60B

TCP/IP Interface(Optional)	Data format and protocol for monitor and	Open, on TCP/IP interface uses SCPI protocol to monitor and control the amplifier(Optional)
----------------------------	--	---

#### I/O CONNECTOR – Monitor Display or RS-232

Pin #	Description	Specifications	Option FGA	LCD
1	Shutdown	Amplifier Disable : TTL Logic high(3.3V)		
2	RS232(-)	Transmit data - RxD		
3	RS232(+)	Transmit data - TxD		
4	GND	Ground		
5	GND	Ground		
6	Reserved	Reserved		
7	Reserved	Reserved		
8	Reserved	Reserved		
9	Reserved	Reserved		

#### OUTLINE DRAWING (All dimensions in mm)



*Focus on Your Application*

**\*Chengdu KeyLink Microwave Technology Co., Ltd.\***

>> 5-2, Huidu Headquarters Park, High-Tech(West) Zone, Chengdu, 611731, P. R. China

>> Phone: +86(28)87870761\*8708 >> Fax: +86(28)87883266

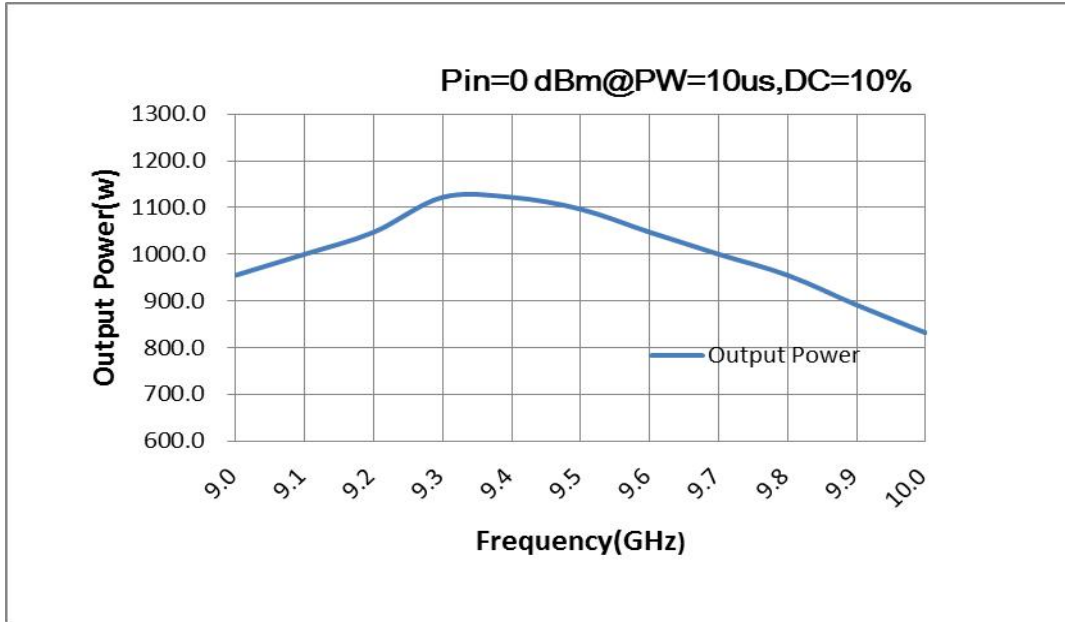
>> Email: sales@keylinkmw.com >> www.keylinkmw.com

Specifications subject to change without notice

## 9-10 GHz/1000Watts/Rack Mount

Model Number: KNP9500S60B

TYPICAL PERFORMANCE PLOTS (For reference only)



Note:

1. Adequate heatsink required.
2. This product will be developed upon contract/order. All the above specs are for reference only. Actual product may be different. Please check with KeyLink sales team if you have any question.

*Focus on Your Application*

**\*Chengdu KeyLink Microwave Technology Co., Ltd.\***

>> 5-2, Huidu Headquarters Park, High-Tech(West) Zone, Chengdu, 611731, P. R. China

>> Phone: +86(28)87870761\*8708 >> Fax: +86(28)87883266

>> Email: sales@keylinkmw.com >> www.keylinkmw.com

*Specifications subject to change without notice*