

## 18-40GHz/100Watt/Rack Mount

Model Number: KB180400S50A

The KB180400S50A is a rack-mountable unit incorporating a universal voltage power supply and a built-in forced air-cooling system. This amplifier subsystem utilizes power device that provides excellent power density, high efficiency, low distortion and wide dynamic range. Due to robust engineering and employment of advanced broadband RF matching networks, combining techniques and qualified components, the amplifier achieves consistent performance with field proven reliability.

### FEATURES:

- Small Size and Light Weight
- 50 Ohms Input and Output Matched
- Built-In Control and Protection Circuits, Including Over-Temperature Protection, Over-Current Protection, and Over-Voltage Protection.

### ELECTRICAL SPECIFICATIONS @ +220VAC, 25°C, 50Ω

Parameter	Symbol	Minimum	Typical	Maximum	Units
Operating Frequency	BW	18		40	GHz
RF Output Power@Pin=0dBm	P <sub>SAT</sub>		100		Watt
Power Gain @Pin=0dBm	G <sub>p</sub>		50		dB
Power Gain Flatness	ΔG <sub>p</sub>		±3		dB
Input Return Loss	S <sub>11</sub>			-10	dB
Harmonics@100W	H		-10		dBc
Spurious Signals	Spur		-60		dBc
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V <sub>AC</sub>	180	220	230	Volt
Power Consumption@100W CW	P <sub>D</sub>		1500		Watt

### MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions (W x H x D) – Bench Top /Rack Mount	482.6 x 133.3 x 500[19x5.25x19.69] (3U)	mm [inch]	
Weight	20 [44.09]	kg [lbs]	Maximum
RF Connector Input	2.92, Female		
RF Connector Output	WRD180		
Cooling	Built-in internal forced air cooling system		

### ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

Parameter	Minimum	Typical	Maximum	Units	Notes
Ambient Temperature	-20		50	°C	
Non-operating Temperature	-45		85	°C	Storage
Relative Humidity (non-condensing)			95	%	

### ABSOLUTE MAXIMUM RATING

Input RF drive level without damage	+5 dBm (Max)
VSWR Protection@50W	3:1 @ PA output power will degrade to a safe operation level, and system will still work. >3:1 @ protection will make system shutdown.
Thermal Overload	Power will Gracefully Degrade, when Ambient Temp >85°C

*Focus on Your Application*

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Specifications subject to change without notice

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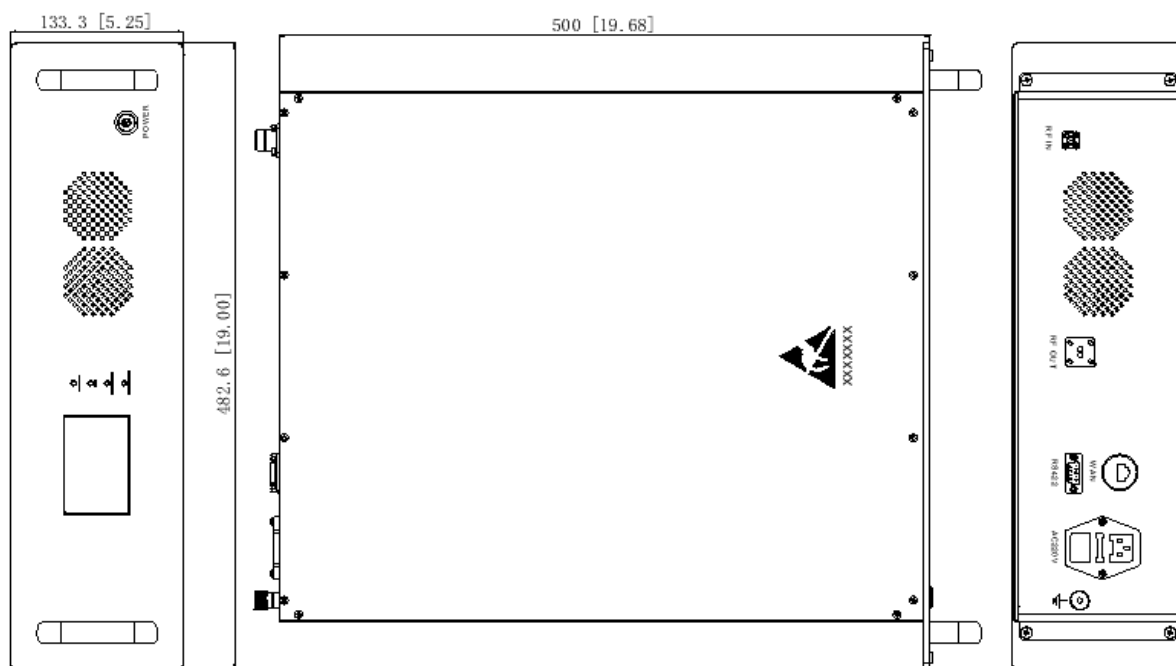
### REMOTE CONTROL OF DATA AND ITS DISPLAY

Pin #	Description	Specifications
RS422 (Optional)	Serial management of device /local operator access	Internet access, Include: ENABLE (Switching On/Off Time); CURRENT SENSE, TEMP SENSE, VOLTAGE SENSE, FORWARD SENSE, REVERSE SENSE, CURRENT ALARM, TEMP ALARM, VOLTAGE ALARM, VSWR ALARM
Status Monitor (Optional)	LCD	Digital Display, including Current, Temp, Voltage information; Standby mode, Fault indication
LAN (Optional)	Serial management of device /local operator access	Local area network

### RS422 INTERFACE CONNECTOR

Pin #	Description	Specifications
1	NC	Reserved
2	NC	Reserved
3	NC	Reserved
4	NC	Reserved
5	RS422-T+	Transmit data-TxD
6	RS422-T-	Transmit data-TxD
7	RS422-R+	Transmit data-RxD
8	RS422-R-	Transmit data-RxD
9	GND	GND

### OUTLINE DRAWING [All dimensions in mm (inch)] (For reference only)



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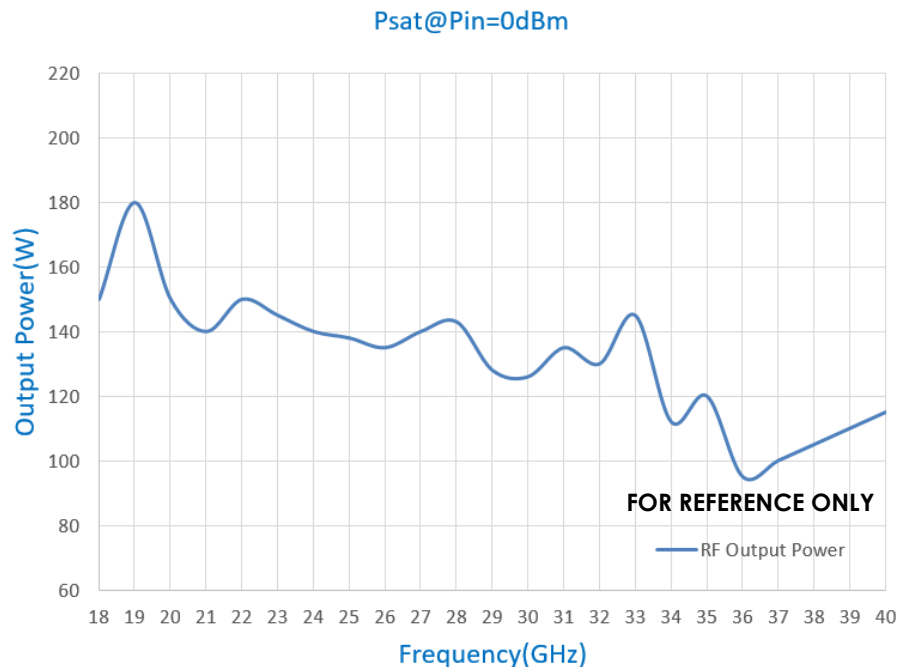
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TYPICAL PERFORMANCE PLOTS (For reference only)(Please contact the sales for special requirements)

Output Power (Normal temp.  $+25\pm 3^{\circ}\text{C}$ )**Note:** Don't cover air duct.*Focus on Your Application***\*Chengdu KeyLink Wireless Technology Co., Ltd.\***

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