

80-1000MHz/30Watts/Rack Mount**Model Number: KB00810S45A**

The KB00810S45A is a rack-mountable unit incorporating a universal voltage power supply and a built in forced air-cooling system. This amplifier subsystem utilizes LDMOS 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:

- Instantaneous ultra broadband
- Suitable for CW, AM, and FM modulation type
- Compact and robust design
- Standard front panel manual gain adjust
- Unconditional stability and ruggedness

ELECTRICAL SPECIFICATIONS @ 220VAC, 25°C, 50Ω System

Parameter	Symbol	Minimum	Typical	Maximum	Units
Operating Frequency	BW	80		1000	MHz
Output Power CW @1dB	P ₁	30			Watt
Power gain	PG		45		dB
Input Power for Rated P _{SAT}	P _{IN}		0		dBm
Input Return Loss	S ₁₁			-10	dB
Harmonics @ P _{OUT} =15W	H		-12		dBc
Spurious Signals	Spur		-55		dBc
Operating Voltage (1-phase)	VAC		220		Volt
Power Consumption @ 30W CW	P _D		350		Watt

MECHANICAL SPECIFICATIONS

Parameter	Value	Limits
Dimensions (W x H x D) – Bench Top / Rack Mount	482.6 x 88.1x 445 mm [19x3.47x17.52 inch](2U)	Max
Weight	18kg [39.68lbs]	Max
RF Connectors Input /Output	In: Type-N, Female; Output: Type-N, Female	
Cooling	Built-in internal forced air cooling system	

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

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

PROTECTIONS

Input RF drive level without	+5 dBm (Max)
VSWR protection@15W	@ 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****Chengdu KeyLink Wireless Technology Co., Ltd.***

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Specifications subject to change without notice

Broadband High Power Amplifier Subsystem (SSPA)

REV.3.0_2024.10.21

80-1000MHz/30Watts/Rack Mount

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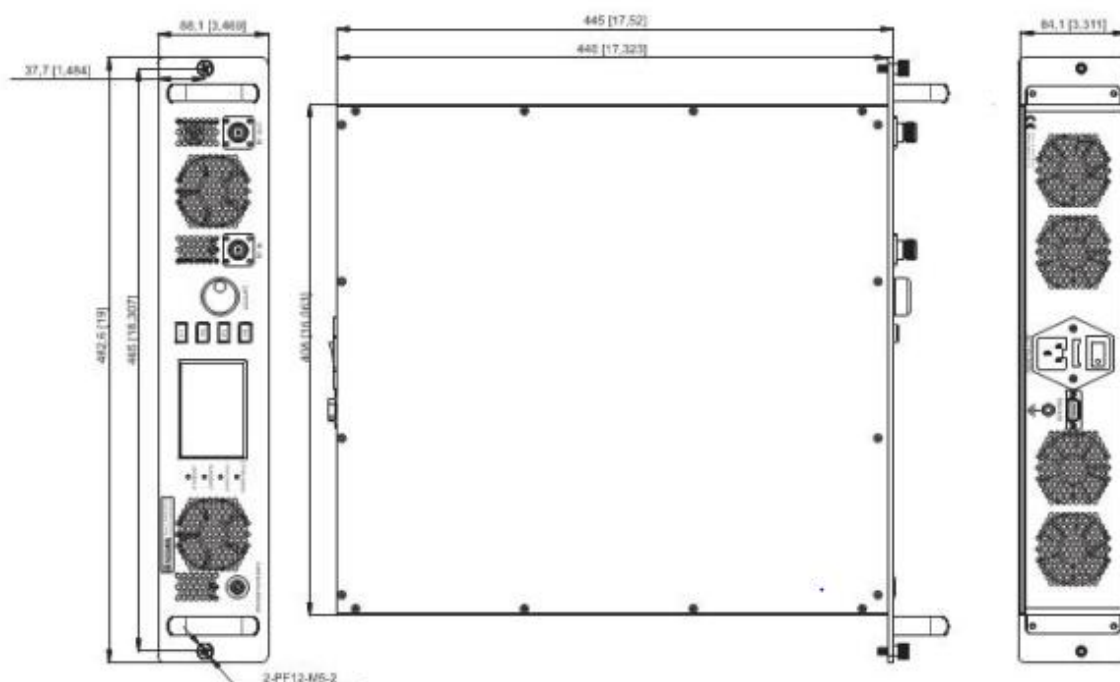
AVAILABLE OPTIONS (Selected options refer to the factory)

Pin #	Description	Specifications
RS422	Serial management of device/ local operator access	D-Sub 9-Pin, Male
Status Monitor	LCD	Digital Display, including FWD/REV Power indication (dBm or Watt scale), Standby mode, Fault indication (dBm or Watt scale), Fault indication
WAN	Serial management of device/ local operator access	Internet access

I/O CONNECTOR-Monitor Display or RS422

Pin #	Description	Specifications
1	ENABLE	Amplifier Enable: TTL Logic High (3.3V-5V) (Internally Pulled-Low)
2	TEMP SENSE	Analog voltage relative to temperature@0.5+10mV / °C
3	ALARM	Amplifier Alarm indicator: Normally TTL Low
4	Reserved	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)



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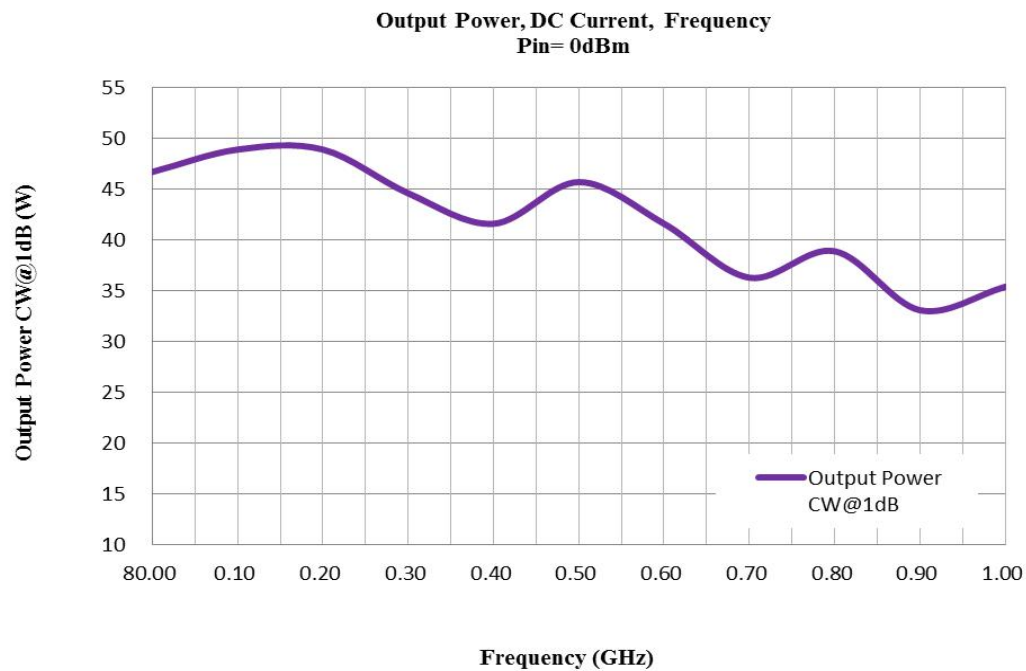
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80-1000MHz/30Watts/Rack Mount**Model Number: KB00810S45A****TYPICAL PERFORMANCE PLOTS** (For reference only)Output Power (Normal temp. $+25\pm 3^{\circ}\text{C}$)**Note:** Adequate heatsink required.***Focus on Your Application******Chengdu KeyLink Wireless Technology Co., Ltd.***

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