

Broadband High Power Amplifier Subsystem (SSPA)



1.0-6.0GHz/30Watts/Rack Mount

The KB1060S45A is a rack-mountable unit incorporating a universal voltage power supply and a built in forced air-cooling system. This amplifier subsystem utilizes GaN 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.

Model Number: KB1060S45A

FEATURES:

- Instantaneous ultra-broadband
- Suitable for CW, AM, and FM modulation type
- Compact and robust design
- Unconditional stability and ruggedness

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

Parameter	Symbol	Minimum	Typical	Maximum	Units
Operating Frequency	BW	1000		6000	MHz
Output Power CW	Psat		30		Watt
Power Gain	Gp		45		dB
Input Power for Rated PSAT	Pin		0		dBm
Power Gain Flatness	ΔGP		±4		dB
Input Return Loss	S11			-10	dB
Harmonics @ Pout = 30W	Н		-15		dBc
Spurious Signals	Spur		-55		dBc
Operating Voltage (1-phase)	VDC		220		Volt
Power Consumption @ 30W CW	PD		800		Watt

MECHANICAL SPECIFICATIONS

Parameter	Value	Limits
Dimensions (W x H x D) – Bench Top / Rack	482.6 x 177x 445 mm [19x7x17.5 inch] (4U)	Max
Weight	35 kg [77 lbs]	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	-10		40	°C	
Storage Temperature	-20		65	°C	
Relative Humidity (non-condensing)			95	%	

PROTECTIONS

Input RF drive level without	+10 dBm (Max)		
	@ 3:1- PA output power will degrade to a safe operation level, and system will		
VSWR protection	still work.		
	@ >3:1 protection will make system shutdown.		
Thermal Overload	Power will Gracefully Degrade, when Ambient Temp >40 $^\circ\!{ m C}$		
AVAILABLE OPTIONS (Selected options refer to the factory)			

	Description	LCD
RS-232	Serial management of device /local operator access	D-Sub 9-position Male
Status Monitor	LCD	Digital Display, including Power indication

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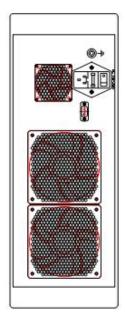
1.0-6.0GHz/30Watts/Rack Mount

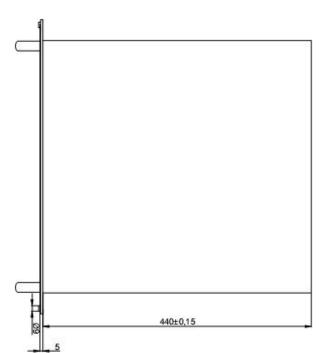
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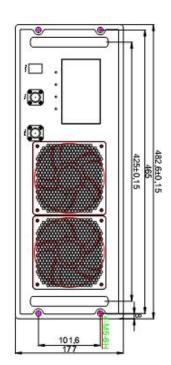
I/O CONNECTOR-Monitor Display or RS-232

Pin#	Description	Specifications	LCD
1	ENABLE	Amplifier Enable: TTL Logic high(3.3V)	
2	TEMP SENSE	Analog voltage relative to temperature@10mV /°C	
3	RS232-RX	Transmit data-RxD	
4	RS232-TX	Transmit data-TxD	
5	GND	GND	
6	Reserved	Reserved	
7	Reserved	Reserved	
8	Reserved	Reserved	
9	Reserved	Reserved	

OUTLINE DRAWING (All dimensions in mm)







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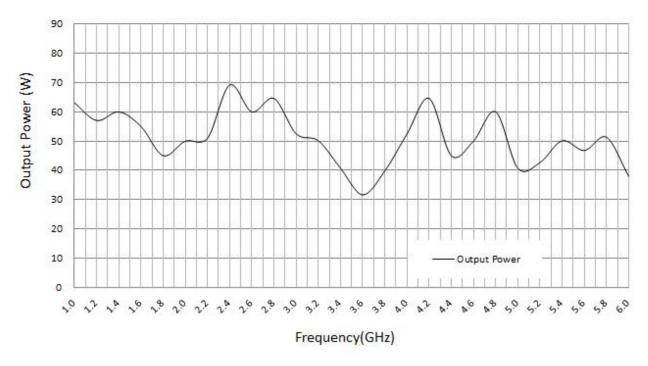


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TYPICAL PERFORMANCE PLOTS (For reference only)

Note:

1. 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.

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