

0.8-4.2GHz/50Watts/Rack Mount

Model Number: KB0842S47A

The KB0842S47A 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.

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	800		4200	MHz
Output Power CW	P _{SAT}		50		Watt
Power Gain @ P _{SAT}	G _P		47		dB
Input Power for Rated P _{SAT}	P _{IN}		0		dBm
Power Gain Flatness	ΔG _p		±2.5		dB
Gain Adjustment Range(Optional)	VVA		20		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @ P _{OUT} =40W	H		-12		dBc
Spurious Signals@ P _{OUT} =50W	Spur		-60		dBc
Input/Output Impedance	Impedance		50		dBc
Operating Voltage (single -phase)	VAC	180	220	240	Volt
Power Consumption @50W CW	P _D		1000		Watt

MECHANICAL SPECIFICATIONS

Parameter	Value	Limits
Dimensions (W x H x D) – Bench Top / Rack Mount	482.6 x 177x 488 mm [19x3.5x17.5 inch] (4U)	Max
Weight	35kg [55 lbs]	Typ
RF Connectors Input /Output	Type-N, Female / T 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	-40		85	°C	
Relative Humidity (non-condensing)			95	%	

PROTECTIONS

Input RF drive level without damage	+5 dBm	Max
VSWR protection	@ 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 >40°C	

Focus on Your Application

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Specification subject to change without notice

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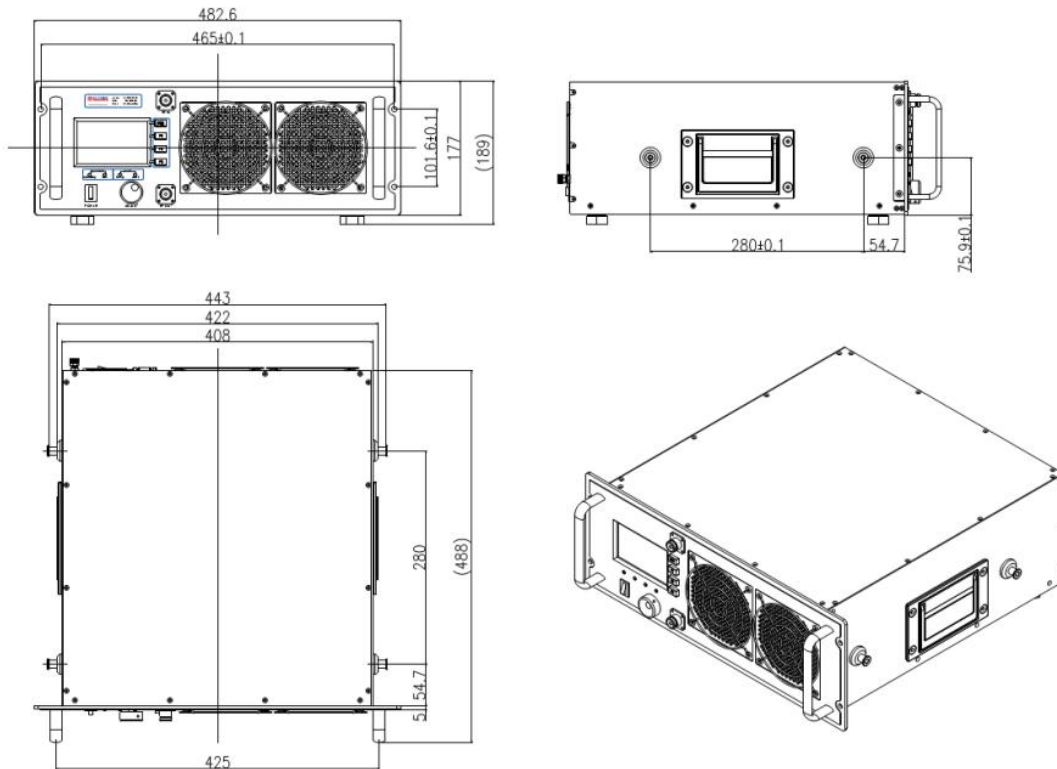
AVAILABLE OPTIONS (Selected options refer to the factory)

Description		LCD Touchscreen
Status Monitor	LCD controller	Digital Display, including FWD/REV Power indication (dBm or Watt scale), Standby mode, Fault indication
RS-232	Serial management of device	D-Sub 9-position Male

I/O CONNECTOR-Monitor Display or RS-232

Pin#	Description	Specifications	Option FGA	LED
Pin#	Description	Specifications	LCD	Pin#
1	FWD	Forward detected power		1
2	REV	Reverse detected power		2
3	VVA	Gain control: Analog Voltage Range 0-5V Gain Control: 0V= Max. Attenuator ,5V=Min		3
4	Shutdown	Amplifier Disable: TTL Logic Low(<0.7V)		4
5	Current Monitor	Analog voltage relative to IDD @ 100mV per Ampere		5
6	Reserved	Reserved		6
7	Reserved	Reserved		7
8	Reserved	Reserved		8

OUTLINE DRAWING



All dimensions in mm

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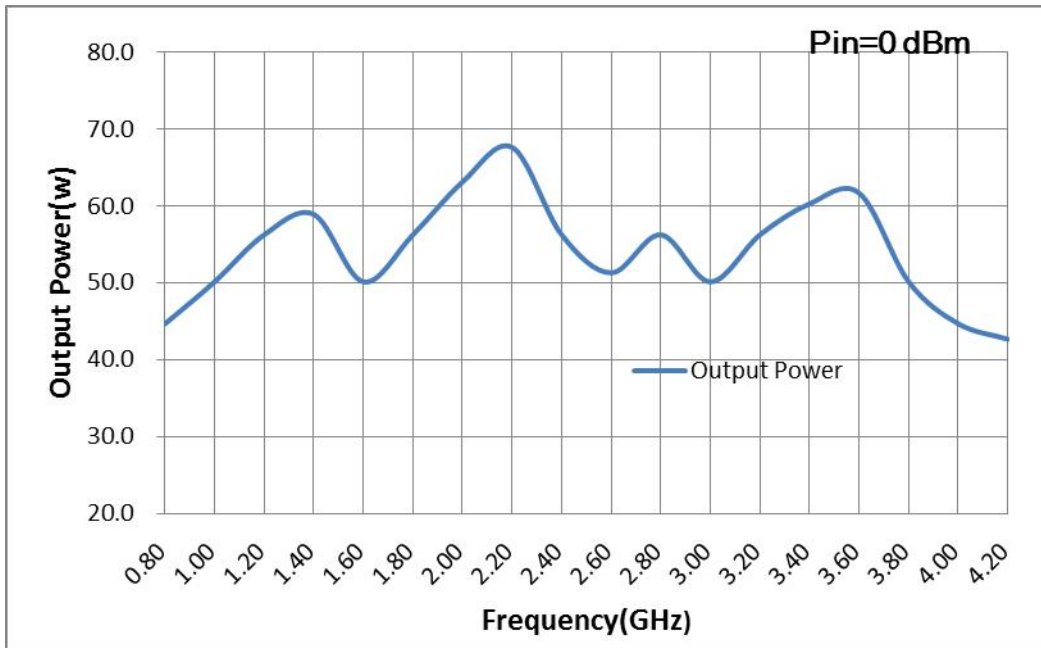
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TYPICAL PERFORMANCE PLOTS(For reference only)



Note:
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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