

500MHz-2700MHz/80Watts/Rack Mount

Model Number: KB0527S49A

The KB0527S49A 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	500		2700	MHz
Output Power CW	P _{SAT}		80		Watt
Power gain	PG		49		dB
Input Power for Rated P _{SAT}	P _{IN}		0		dBm
Input Return Loss	S ₁₁			-10	dB
Harmonics @ P _{OUT} =80W	H		-10		dBc
Spurious Signals	Spur		-55		dBc
Noise Floor	/		-40		dBm/MHz
Input/Output Impedance	Impedanc		50		dBc
Operating Voltage (1-phase)	VAC	200	220	240	Volt
Power Consumption @ P _{OUT} =80W CW	P _D		700		Watt

MECHANICAL SPECIFICATIONS

Parameter	Value	Limits
Dimensions (W x H x D) – Bench Top / Rack Mount	482.6 x 177 x 444 mm [19x6.97x17.48 inch] 4U)	Max
Weight	20kg [44lbs]	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	
Storage Temperature	-45		85	°C	
Relative Humidity (non-condensing)			95	%	

PROTECTIONS

Input RF drive level without damage	+5 dBm (Max)
VSWR protection@40W	@ 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

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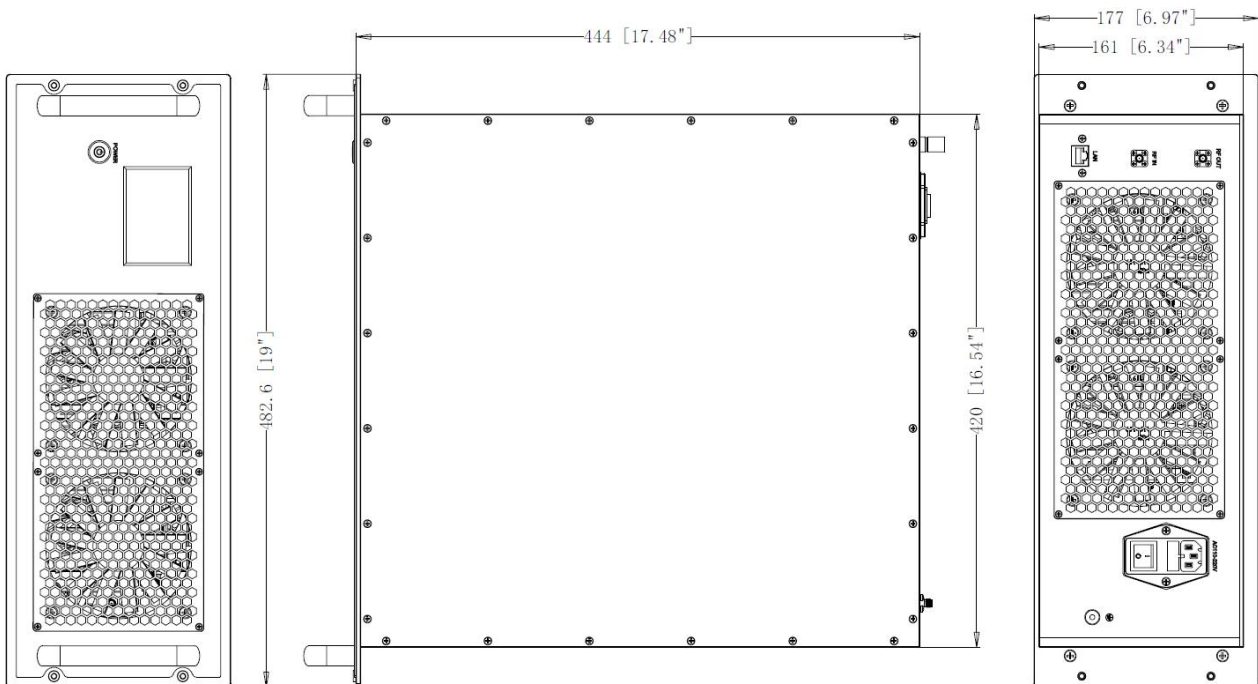
AVAILABLE OPTIONS (Selected options refer to the factory)

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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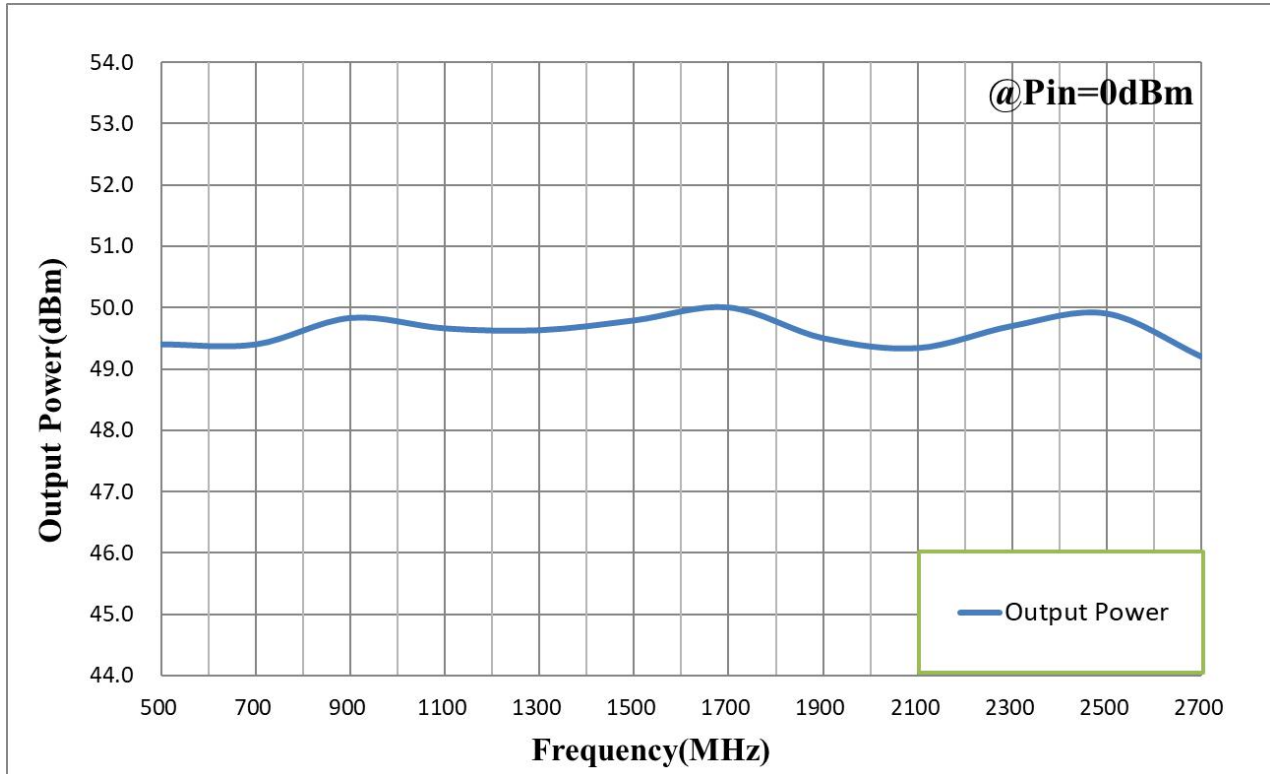
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TYPICAL PERFORMANCE PLOTS (For reference only)



Note: Adequate heatsink required.

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