

Broadband High Power Amplifier Subsystem (SSPA)

REV.3.0_2024.11.01

2-6GHz/200Watts/Rack Mount

Model Number: KB2060S53A

The KB2060S53A 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	2000		6000	MHz
Output Power CW	P _{SAT}		200		Watt
Power Gain @ P _{SAT}	G _P		53		dB
Input Power for Rated P _{SAT}	P _{IN}		0		dBm
Power Gain Flatness	ΔG _p		±2.5		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @ P _{OUT} =150W	H		-15		dBc
Spurious Signals@ P _{OUT} =150W	Spur		-60		dBc
Input/Output Impedance	Impedance		50		dBc
Operating Voltage (single -phase)	V _{AC}	180	220	240	Volt
Power Consumption @150W CW	P _D		2000		Watt

MECHANICAL SPECIFICATIONS

Parameter	Value	Limits
Dimensions (W x H x D) – Bench Top / Rack Mount	482 .6x 221.5 x605 mm [19x8.72x23.8 inch] (5U)	Max
Weight	60 kg [132 lbs]	Typ
RF Connectors Input /Output	Type-N, Female / 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	@ 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.

>> 5-2, Huidu Headquarters Park, High-Tech(West) Zone, Chengdu, 611731, P. R. China

>> Phone: +86(28)87870761*8708 >> Fax: +86(28)87883266

>> sales@keylinkmw.com >> www.keylinkmw.com

Specifications subject to change without notice

Broadband High Power Amplifier Subsystem (SSPA)

REV.3.0_2024.11.01

2-6GHz/200Watts/Rack Mount

Model Number: KB2060S53A

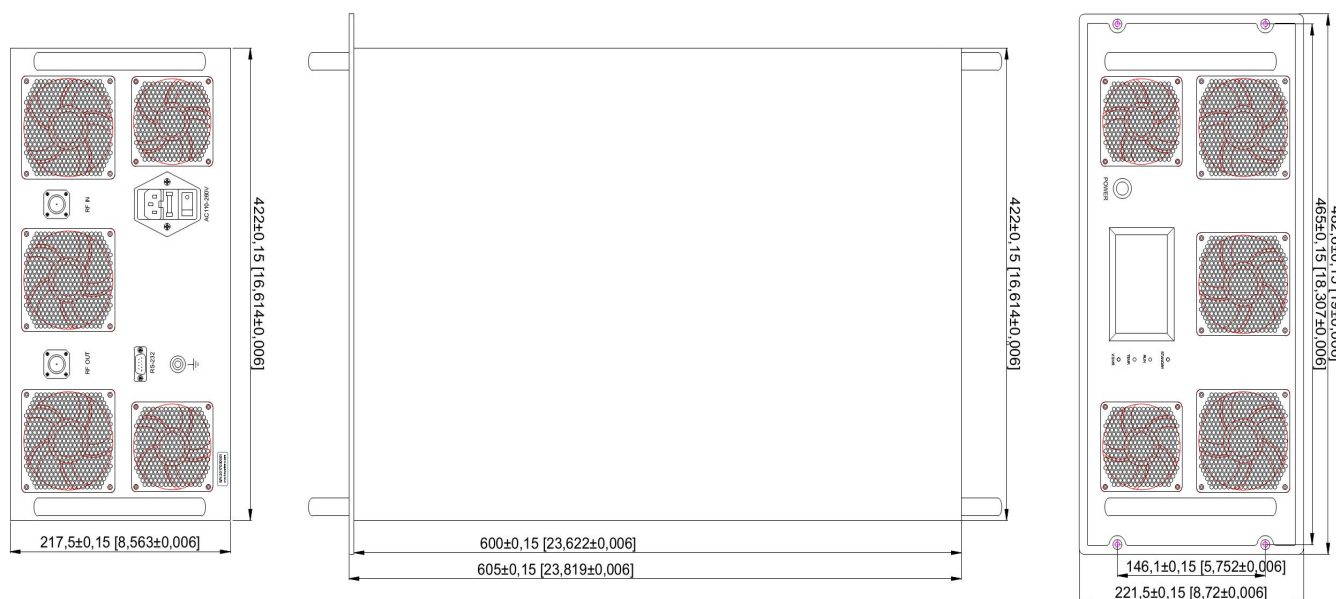
AVAILABLE OPTIONS (Selected options refer to the factory)

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



Focus on Your Application

Chengdu KeyLink Wireless Technology Co., Ltd.

>> 5-2, Huidu Headquarters Park, High-Tech(West) Zone, Chengdu, 611731, P. R. China

>> Phone: +86(28)87870761*8708

>> Fax: +86(28)87883266

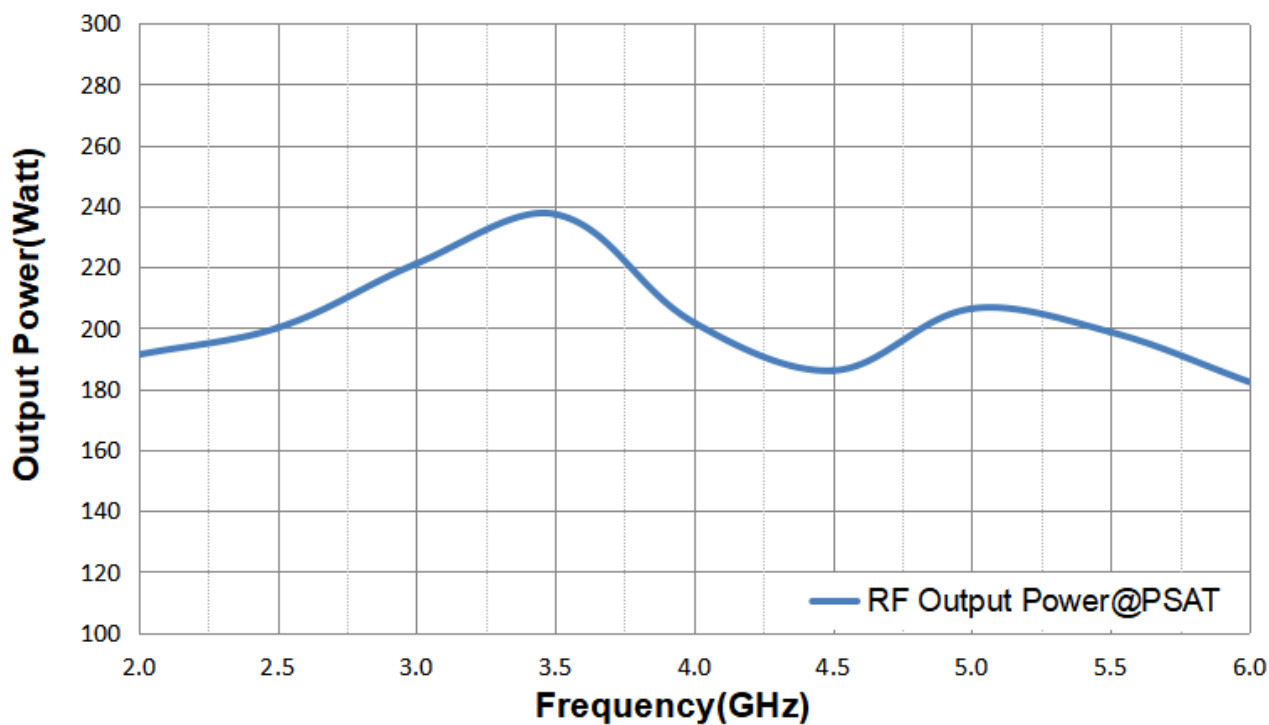
>> sales@keylinkmw.com

>> www.keylinkmw.com

Specifications subject to change without notice

2-6GHz/200Watts/Rack Mount

Model Number: KB2060S53A

TYPICAL PERFORMANCE PLOTS**Psat@Pin=0dBm****Note:** Adequate heatsink required.**Focus on Your Application*****Chengdu KeyLink Wireless Technology Co., Ltd.***

>> 5-2, Huidu Headquarters Park, High-Tech(West) Zone, Chengdu, 611731, P. R. China

>> Phone: +86(28)87870761*8708

>> Fax: +86(28)87883266

>> sales@keylinkmw.com

>> www.keylinkmw.com

Specifications subject to change without notice