

2.7-3.1GHz/1000Watts/Rack Mount

Model Number: KNP2900S60A

The KNP2900S60A is a rack-mountable unit incorporating a universal voltage power supply and a built in forced air-cooling system. This amplifier subsystem utilizes 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
- Digital interface option
- Compact and robust design
- Pulse width/duty cycle protection

ELECTRICAL SPECIFICATIONS @ 220VAC, 25°C, 50μS, 10%,50Ω System

Parameter	Symbol	Minimum	Typical	Maximum	Units
Operating Frequency	BW	2700		3100	MHz
RF Output Power	P _{PK}		1000		Watt
Duty Cycle	Duty Cycle		10	20	%
Pulse Width	PWIDTH			100	μS
PRI	PRI	50		1000	μS
Harmonics @ Pout = 800W	H		-20		dBc
Spurious Signals	Spur		-55		dBc
RF Input Power @ Pout =1000W	PIN		0		dBm
Input Return Loss	S11		-10		dB
Rise /Fall time (Pulse Performance)(10-90)	TRISE/FALL/OFF		100		nS
PA Switch On/Off@10-90% Time	TON/OFF		1		uS
RF Switch On/Off@10-90% Time	TON/OFF		200		nS
Power droop@ PW=10μS, DC=10%	Droop		1		dB
In/Output Impedance	Impedance		50		Ω
Operating Voltage (1-phase)	VDC		220		Volt
Power Consumption @1000W	PD		800		Watt

MECHANICAL SPECIFICATIONS

Parameter	Value	Limits
Dimensions (W x H x D) – Bench Top / Rack Mount	482.6 x 177 x 445 mm [19x7x17.52 inch] (4U)	mm/inch
Weight	30 [66]	kg/lbs
RF Connectors Input /Output	In: Type-N, Female; Output: In: Type-N	
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	%	

ABSOLUTE MAXIMUM RATING

Input RF drive level without	+5 dBm (Max)
VSWR protection@250W	@ 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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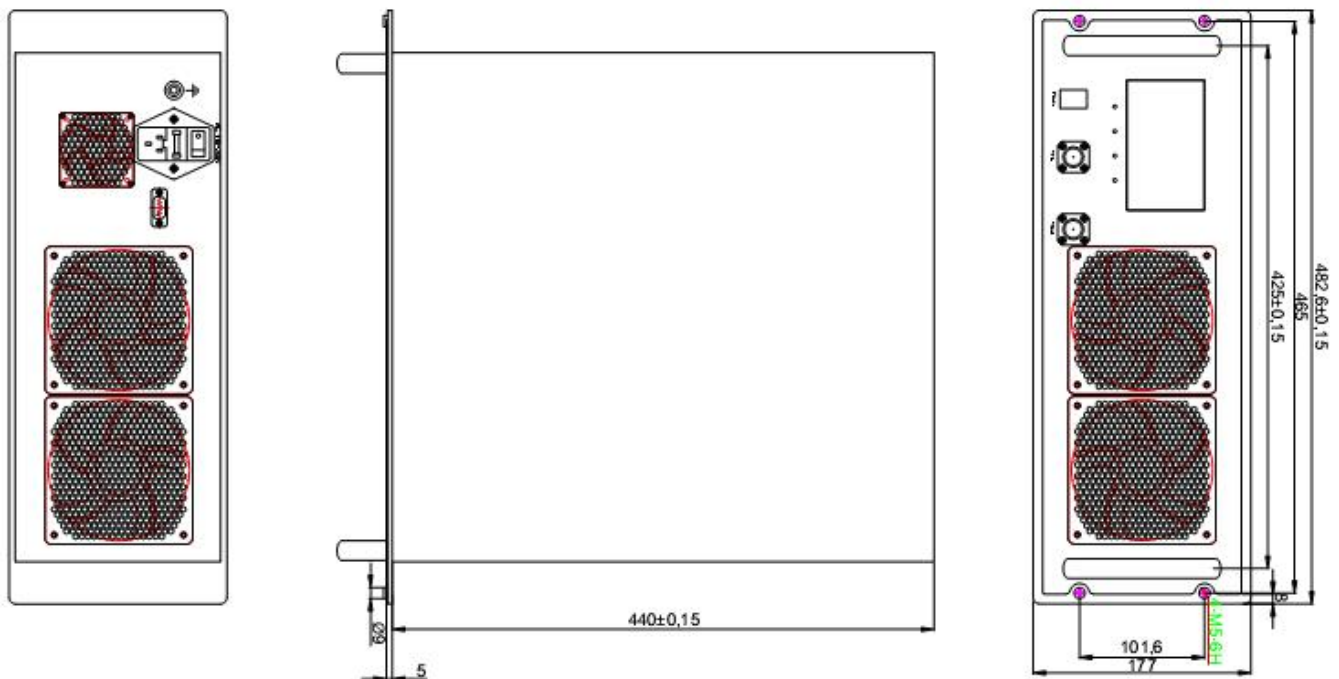
AVAILABLE OPTIONS (Selected options refer to the factory)

Pin #	Description	Specifications
RS422	Serial management of device / local operator access	D-Sub 9-Pin, Male
Status Monitor	LCD 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@0.5V+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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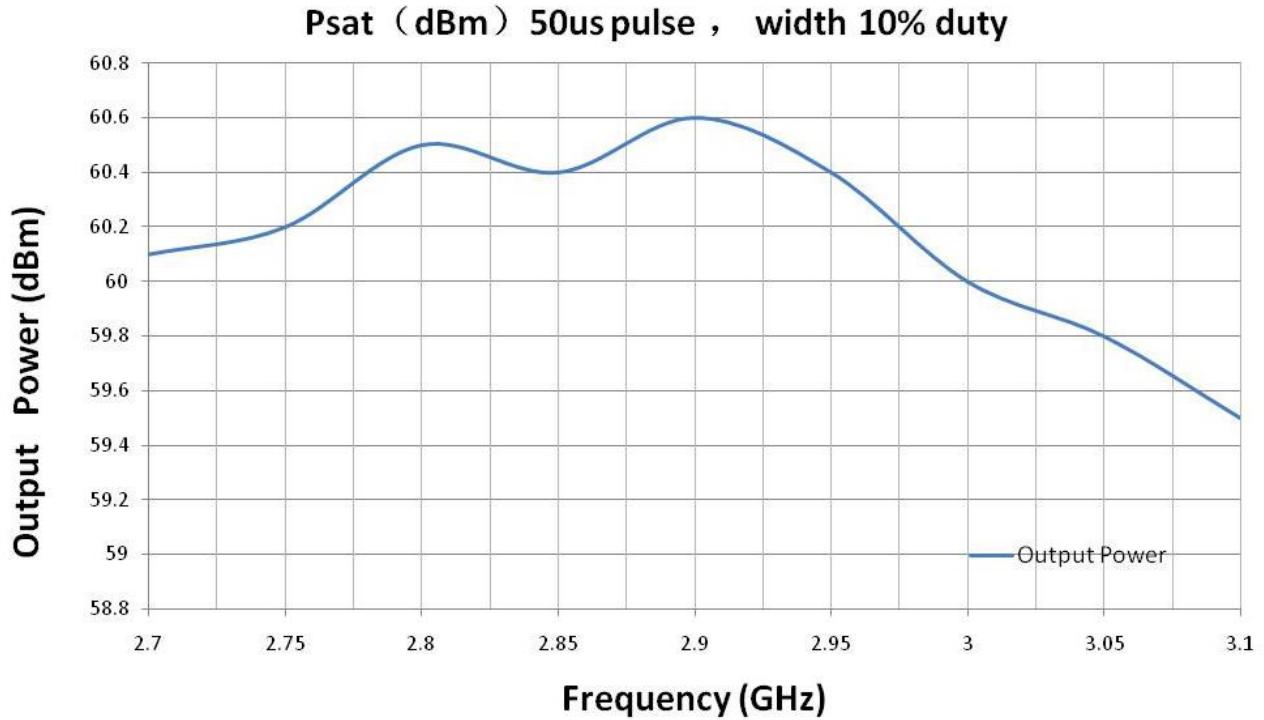
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TYPICAL PERFORMANCE PLOTS (For reference only)



Note: Adequate heat sink required.

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