

2-18GHz/100Watt/Module**Model Number: KB20180M50AV**

The model KB20180M50AV is a high power amplifier operating between 2GHz and 18GHz and offering a wide dynamic range with 100 Watts typical saturated power. The employment of GaN technology in manufacturing ensures this module state-of-the-art power performance with excellent power-to-volume ratio. It is ideal for multi-octave broadband high power applications.

FEATURES:

- Small Size and Light Weight
- 50 Ohms Input and Output Matched
- Built-In Control and Protection Circuits, Including Over-Temperature Protection, Over-Current Protection, Over-Voltage Protection and Over-VSWR Protection.

ELECTRICAL SPECIFICATIONS @ +28.0VDC, 25°C, 50Ω

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	2		18	GHz
RF Output Power @P _{in} =0dBm	P _{sat}		100		Watt
Power Gain @P _{in} =0dBm	G _p		50		dB
Power Gain Flatness @P _{in} =0dBm	Δ G _p		±3		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics @50W	H		-15		dBc
Spurious Signals	Spur		-60		dBc
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V _{DC}	26	28	30	Volt
DC Current @100W	I _{DD}		60		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	360x370x100 [14.17x14.57x3.94]	mm [inch]	Maximum
Weight	20[44.09]	kg [lbs]	Maximum
RF Connector Input	SMA, Female		
RF Connector Output	N, Female		
DC Interface Connector	Four-core Aviation Plug(with mating connector)		
Control Interface Connector	D-Sub 9-Pin, Male		
Cooling	Built-in internal forced air cooling system		

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

Parameter	Min	Typ	Max	Units	Notes
Ambient Temperature	-40		60	°C	Operating case temperature up to +85°C
Non-operating Temperature	-45		85	°C	Storage
Relative Humidity (non-condensing)			95	%	

ABSOLUTE MAXIMUM RATING

Input RF drive level without damage	+5dBm (Max)
Load VSWR @ P _{OUT} =50W	∞ @ all load phase & amplitude for duration of 1 minute 3:1 @ all load phase & amplitude continuous
Over Temperature	95°C @ heatsink [restored @ 60°C]

Focus on Your Application***Chengdu KeyLink Wireless Technology Co., Ltd.***

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Specifications subject to change without notice

2-18GHz/100Watt/Module

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DC Interface Connector

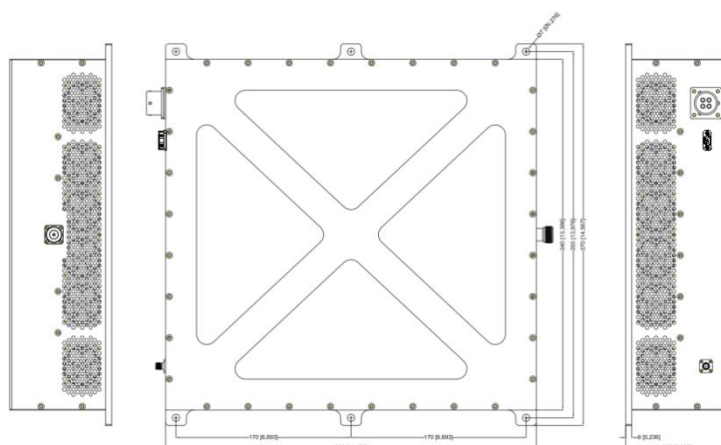
Pin #	Description	Specifications
1,2	VDD	+28V _{DC}
3,4	GND	Ground

Control Interface Connector

Pin #	Description	Specifications
1	ENABLE	Amplifier Enable: TTL Logic High (3.3V~5V) (Internally Pulled-Low)
2	GND	Ground
3	CURRENT SENSE	Analog voltage relative to I _{DD} @ 50mV per Ampere
4	TEMP SENSE	Analog voltage relative to Module's Temperature @ 0.5V+10 mV/°C
5	ALARM	Amplifier TEMP or CURRENT Alarm indicator: Normally TTL Low
6	GND	Ground
7	FORWARD SENSE	Analog voltage relative to forward power level
8	REVERSE SENSE	Amplifier voltage relative to reflected power level
9	VSWR ALARM	Amplifier VSWR Alarm indicator: Normally TTL Low

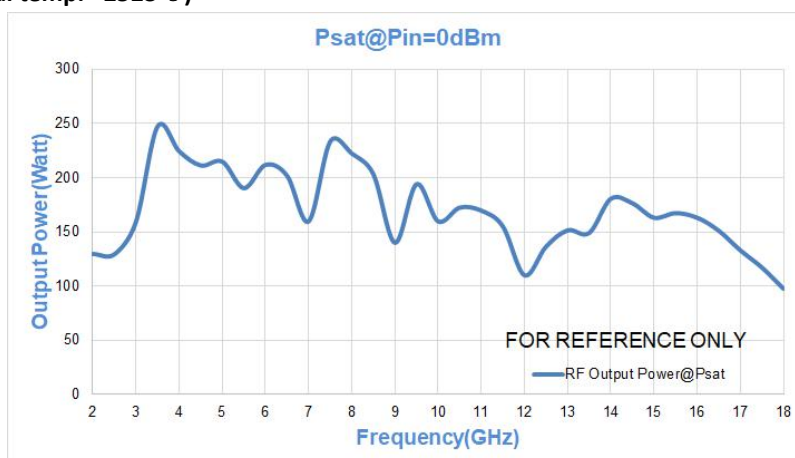
***If you need RS422 or RS485, please contact the sales for customization.**

OUTLINE DRAWING (All dimensions in mm [inch],dimensional tolerance:±0.2mm(0.008 inch))



TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY) (Please contact the sales for special requirements)

Output Power (Normal temp. +25±3°C)



Note: Don't cover air duct.

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