

8-12GHz/100Watt/Module

Model Number: KB80120M50BV

The model KB80120M50BV is a high power amplifier operating between 8GHz and 12GHz 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	8		12	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		±1.5		dB
Input Return Loss	S ₁₁			-10	dB
Harmonics	H		-30		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}		16		Amp
Switch On/Off@10-90% Time, 1kHz	T _{ON/OFF}		1	2	μS

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	180x120x25 [7.09x4.72x0.98]	mm [inch]	Maximum
Weight	1.5 [3.31]	kg [lbs]	Maximum
RF Connector Input	SMA, Female		
RF Connector Output	N, Female		
DC Interface Connector	J29A-25ZK		
Cooling	External Heatsink Required(Not Supplied)		

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.

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

>> Phone: +86(28)87870761

>> Fax: +86(28)87883266

>> Email: sales@keylinkmw.com

>> www.keylinkmw.com

Specifications subject to change without notice

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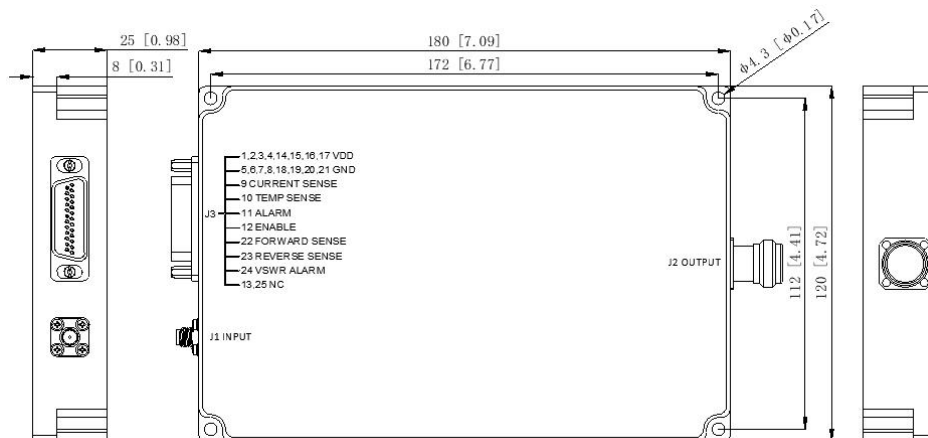
Model Number: KB80120M50BV

DC INTERFACE CONNECTOR

Pin #	Description	Specifications
1,2,3,4,14,15,16,17	VDD	+28.0 V _{DC}
5,6,7,8,18,19,20,21	GND	Ground
9	CURRENT SENSE	Analog voltage relative to I _{DD} @ 100mV per Ampere
10	TEMP SENSE	Analog voltage relative to Module's Temperature @ 0.5V+10 mV/°C
11	ALARM	Amplifier TEMP or CURRENT Alarm indicator: Normally TTL Low
12	ENABLE	Amplifier Enable: TTL Logic High (3.3V~5V) (Internally Pulled-Low)
22	FORWARD SENSE	Analog voltage relative to forward power level
23	REVERSE SENSE	Amplifier voltage relative to reflected power level
24	VSWR ALARM	Amplifier VSWR Alarm indicator: Normally TTL Low
13,25	NC	Not connection

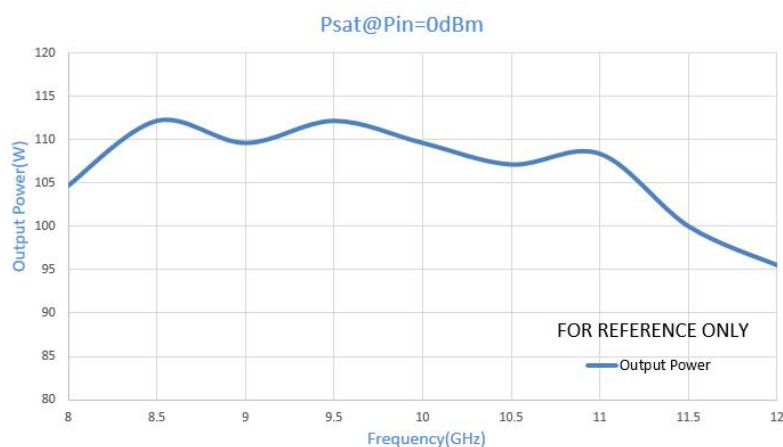
***If you need RS422 or RS485, please contact the sales for customization.**

OUTLINE DRAWING (All dimensions in mm [inch])



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

Output Power (Normal temp. +25±3°C)



Note: Adequate heatsink required.

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