

## 6-18GHz/50Watt/Module

Model Number: KB60180M47FV

The model KB60180M47FV is a high power amplifier operating between 6GHz and 18GHz and offering a wide dynamic range with 50 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	6		18	GHz
RF Output Power @P <sub>in</sub> =0dBm	P <sub>sat</sub>	45	50		Watt
Power Gain @P <sub>in</sub> =0dBm	G <sub>p</sub>		47		dB
Power Gain Flatness @P <sub>in</sub> =0dBm	Δ G <sub>p</sub>		±1.5	±2.5	dB
Input Return Loss	S <sub>11</sub>			-10	dB
Harmonics @25W	H		-20		dBc
Spurious Signals	Spur		-60		dBc
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V <sub>DC</sub>	26	28	30	Volt
DC Current @50W	I <sub>DD</sub>		10	13	Amp
Switch On/Off@10-90% Time,1kHz	T <sub>ON/OFF</sub>		1	2	μS

### MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	180x100x22 [7.09x3.94x0.87]	mm [inch]	Maximum
Weight	1.0 [2.2]	kg [lbs]	Maximum
RF Connector Input	SMA, Female		
RF Connector Output	N, Female		
DC Interface Connector	Hybrid,D-Sub 7 Pin, Male		
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 <sub>OUT</sub> =25W	∞ @ 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

## 6-18GHz/50Watt/Module

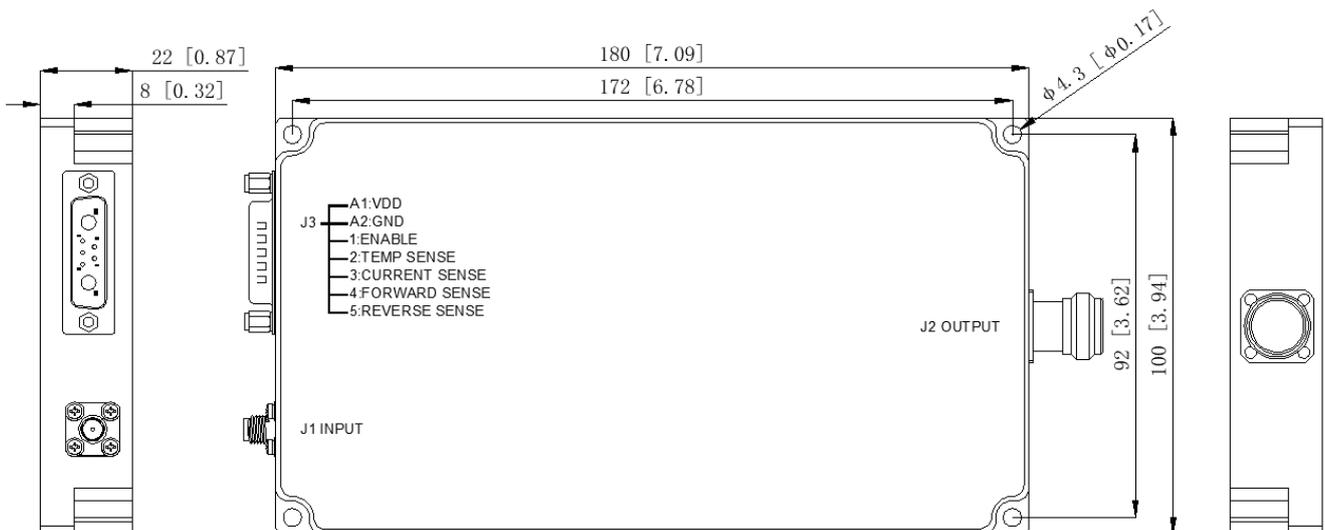
Model Number: KB60180M47FV

### DC INTERFACE CONNECTOR

Pin #	Description	Specifications
A1	VDD	+28.0 VDC
A2	GND	Ground
1	ENABLE	Amplifier Enable: TTL Logic High (3.3V~5V) (Internally Pulled-Low)
2	TEMP SENSE	Analog voltage relative to Module's Temperature @ 0.5V+10 mV/°C
3	CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
4	FORWARD SENSE	Analog voltage relative to forward power level
5	REVERSE SENSE	Amplifier voltage relative to reflected power level

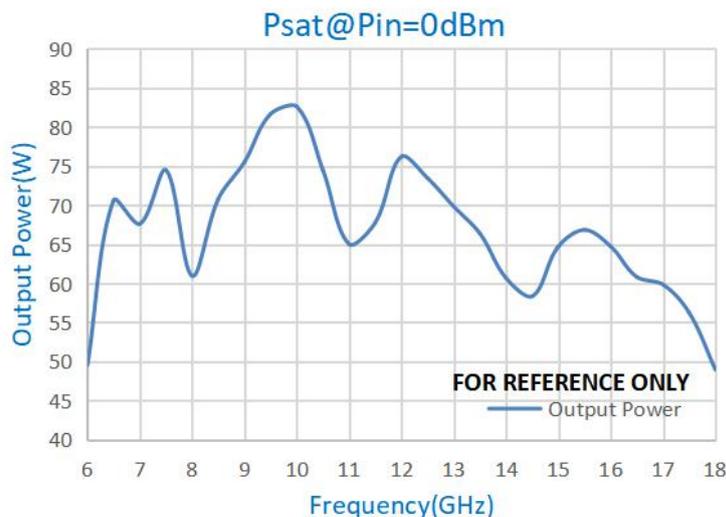
\*If you need RS422 or RS485, Please contact the sales for customization.

### 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:** Adequate heatsink required.

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