

**0.7-2.7GHz/100Watt/Module**
**Model Number: KB0727M50A**

The model KB0727M50A is a multi-octave high power amplifier operating between 0.7 GHz and 2.7GHz and offering a wide dynamic Range with 100 Watts typical saturated power. The employment of gallium nitride (GaN) and chip-and-wire technology in manufacturing ensures this module state-of-the-art power performance with excellent power-to-volume ratio. It is ideal for jamming, EMC, test and measurement applications.

**FEATURES:** Small Size and light weight; Instantaneous ultra broadband; 50 Ohms input and Output matched; Built-in control and protection circuits.

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

| Parameter                | Symbol              | Minimum | Typical | Maximum | Units |
|--------------------------|---------------------|---------|---------|---------|-------|
| Operating Frequency      | BW                  | 700     |         | 2700    | MHz   |
| RF Output Power @PSAT    | PSAT                | 80      | 100     |         | Watt  |
| Power Gain               | Gp                  |         | 50      |         | dB    |
| Power Gain Flatness      | Δ Gp                |         | ±2      |         | dB    |
| Input Return Loss        | S <sub>11</sub>     |         |         | -10     | dB    |
| Harmonics @70W           | H                   |         | -10     | -8      | dBc   |
| Spurious Signals         | Spur                |         | -60     |         | dBc   |
| In/Output Impedance      |                     |         | 50      |         | Ω     |
| Operating Voltage        | V <sub>DC</sub>     | 24      | 28      | 32      | Volt  |
| DC Current @80W          | I <sub>DD</sub>     |         | 13      |         | Amp   |
| Switching Time @1kHz TTL | T <sub>on/off</sub> |         | 5       |         | uS    |

**MECHANICAL SPECIFICATIONS**

| Parameter              | Value                                     | Units     | Limits  |
|------------------------|---|-----------|---------|
| Dimensions             | 180x90x25 [7.08x3.54x0.0.98]              | mm [inch] | Maximum |
| Weight                 | 2 [4.4]                                   | kg [lbs]  | Maximum |
| RF Connectors Input    | SMA, Female                               |           |         |
| RF Connectors Output   | SMA, Female                               |           |         |
| DC Interface Connector | D-Sub 9-Pin, Male                         |           |         |
| Cooling                | External Heatsink Required (Not Supplied) |           |         |

**ENVIRONMENTAL CHARACTERISTICS (Design to Meet)**

| Parameter                          | Minimum | Typical | Maximum | Units | Notes   |
|------------------------------------|---------|---------|---------|-------|---------|
| Operating Temperature              | -20     |         | 70      | °C    |         |
| Non-operating Temperature          | -25     |         | 75      | °C    | Storage |
| Relative Humidity (non-condensing) |         |         | 95      | %     |         |

*Focus on Your Application*

**\*Chengdu KeyLink Microwave 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*

0.7-2.7GHz/100Watt/Module

Model Number: KB0727M50A

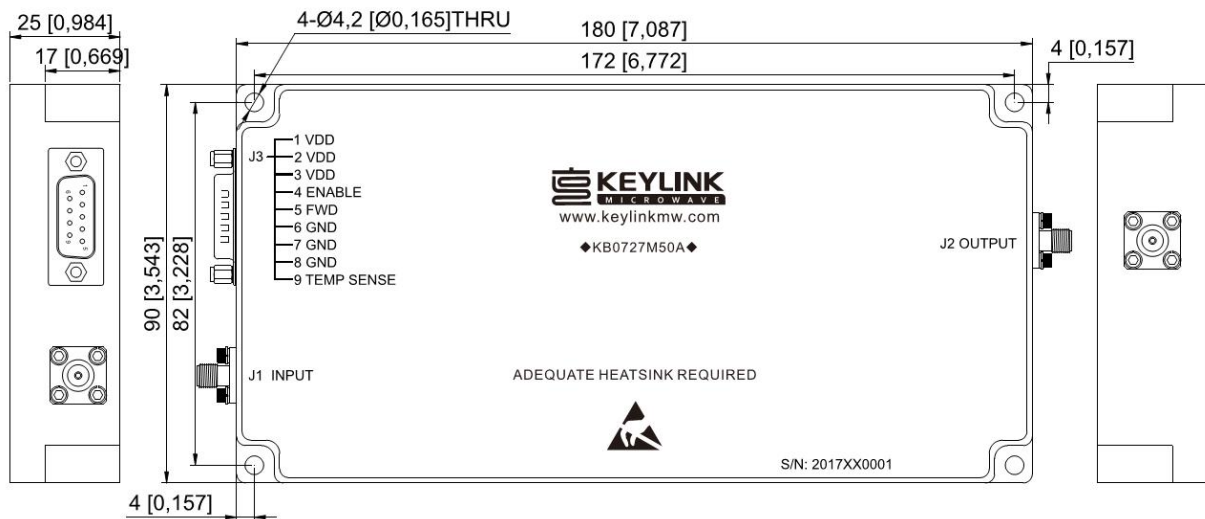
Absolute Maximum Rating

|                                     |   |
|-------------------------------------|---|
| Input RF drive level without damage | +10 dBm (Max)   |
| Load VSWR @ POUT =70W               | ∞ @ all load phase & amplitude for duration of 1 minute;<br>3:1 @ all load phase & amplitude continuous |
| Over Temperature                    | 85°C @ heatsink [restored @ 60°C]   |

DC INTERFACE CONNECTOR

| Pin # | Description | Specifications  |
|-------|-------------|---|
| 1     | VDD         | 28V <sub>DC</sub>   |
| 2     | VDD         | 28V <sub>DC</sub>   |
| 3     | VDD         | 28V <sub>DC</sub>   |
| 4     | ENABLE      | Amplifier Enable: TTL Logic High (3.3V) (Internally Pulled-Low) |
| 5     | FWD         | Amplifier FWD power monitor                                     |
| 6     | GND         | Ground  |
| 7     | GND         | Ground  |
| 8     | GND         | Ground  |
| 9     | TEMP SENSE  | Analog voltage relative to Module's Temperature @ 10 mV/°C      |

OUTLINE DRAWING (All dimensions in mm [inch])



Focus on Your Application

\*Chengdu KeyLink Microwave 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

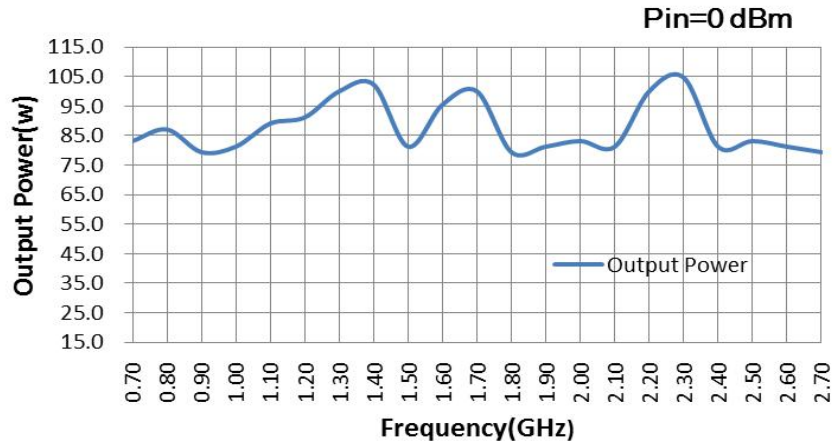
>> www.keylinkmw.com

Specifications subject to change without notice

0.7-2.7GHz/100Watt/Module

Model Number: KB0727M50A

TYPICAL PERFORMANCE PLOTS (For Reference Only)



Note:

1. Proper heatsink required.
2. This product will be developed upon contract/order. All the above specs are for reference only. Actual product may be different. Please check with KeyLink sales team if you have any question.

*Focus on Your Application*

*\*Chengdu KeyLink Microwave 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*