

## 2000-6000MHz/50Watt/Module

Model Number: KB2060M47A

The model KB2060M47A is a multi-octave high power amplifier operating between 2000 MHz and 6000 MHz and offering a wide dynamic Range with 50 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. Long term reliability and high efficiency . It is ideal for broadband high power S/C Band applications.

### FEATURES:

- Broadband & High power
- High Efficiency
- Small Size & Light Weight
- Built-in Control and Protection Circuits

### ELECTRICAL SPECIFICATIONS @ +30.0VDC, 25°C, 50Ω

| Parameter                 | Symbol          | Min  | Typ | Max  | Units |
|---------------------------|-----------------|------|-----|------|-------|
| Operating Frequency       | BW              | 2000 |     | 6000 | MHz   |
| RF Output Power           | PSAT            |      | 50  |      | Watt  |
| Power Gain                | Gp              |      | 47  |      | dB    |
| Power Gain Flatness       | Δ Gp            |      | ±2  |      | dB    |
| Input Return Loss         | S <sub>11</sub> |      |     | -10  | dB    |
| Harmonics @40W            | H               |      | -15 |      | dBc   |
| Spurious Signals          | Spur            |      | -60 |      | dBc   |
| Switch On/Off@10-90% Time | TON/OFF         |      | 2   | 5    | μS    |
| In/Output Impedance       | Impedance       |      | 50  |      | Ω     |
| Operating Voltage         | V <sub>DC</sub> | 28   | 30  | 32   | Volt  |
| DC Current @50W           | I <sub>DD</sub> |      | 8   |      | Amp   |

### MECHANICAL SPECIFICATIONS

| Parameter              | Value                                     | Units     | Notes   |
|------------------------|-------------------------------------------|-----------|---------|
| Dimensions             | 160x100x25 [6.30x3.94x0.98]               | mm [inch] | Maximum |
| Weight                 | 2 [4.4]                                   | kg [lbs]  | Maximum |
| RF Connectors Input    | SMA, Female                               |           |         |
| RF Connectors Output   | SMA, Female                               |           |         |
| DC Interface Connector | Hybrid, D-Sub 7-Pin, Male                 |           |         |
| Cooling                | External Heatsink Required (Not Supplied) |           |         |

### ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

| Parameter                          | Minimum | Typical | Maximum | Units | Notes   |
|------------------------------------|---------|---------|---------|-------|---------|
| Operating Temperature              | -40     |         | 60      | °C    |         |
| Non-operating Temperature          | -45     |         | 85      | °C    | Storage |
| Relative Humidity (non-condensing) |         |         | 95      | %     |         |

### ABSOLUTE MAXIMUM RATING

|                                     |                                                                                                          |
|-------------------------------------|----------------------------------------------------------------------------------------------------------|
| Input RF drive level without damage | +10 dBm (Max)                                                                                            |
| Load VSWR @ P <sub>OUT</sub> =30W   | ∞ @ all load phase & amplitude for duration of 1 minutes;<br>3:1 @ all load phase & amplitude continuous |
| Over Temperature                    | 85°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

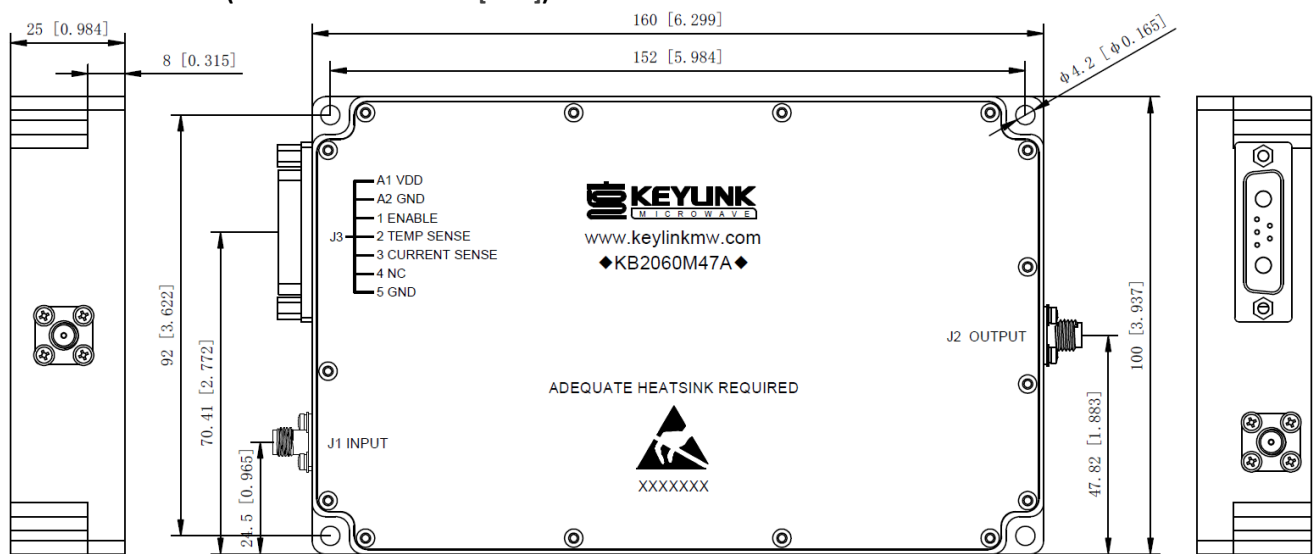
## 2000-6000MHz/50Watt/Module

Model Number: KB2060M47A

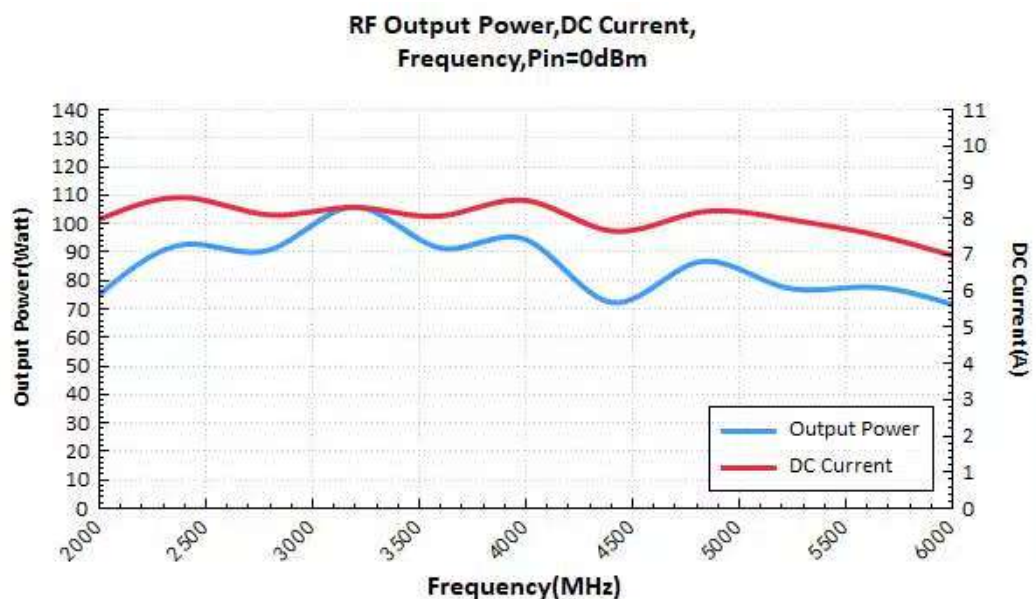
### DC INTERFACE CONNECTOR

| Pin # | Description   | Specifications                                                  |
|-------|---------------|-----------------------------------------------------------------|
| A1    | VDD           | 30V <sub>DC</sub>                                               |
| A2    | GND           | Ground                                                          |
| 1     | ENABLE        | Amplifier Enable: TTL Logic High (3.3V) (Internally Pulled-Low) |
| 2     | TEMP SENSE    | Analog voltage relative to Module's Temperature @ 10 mV/°C      |
| 3     | CURRENT SENSE | Analog voltage relative to I <sub>DD</sub> @ 100mV per Ampere   |
| 4     | NC            | No electrical connection                                        |
| 5     | GND           | Ground                                                          |

### OUTLINE DRAWING (All dimensions in mm [inch])



### TYPICAL PERFORMANCE PLOTS(For reference only)



**Note:** Adequate heatsink required.

*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