

## 1-100MHz/50Watt/Module

Model Number: KB000101M47A

The KB000101M47A is a 50 watts broadband amplifier that covers the 1-100MHz frequency range. The employment of advanced high power devices in manufacturing ensures this module exceptional power performance, long term reliability and high efficiency. It is ideal for broadband mobile Jamming and band specific high power linear applications in the P/L/S frequency bands.

### Features:

Broadband & High power;  
High Efficiency  
Extraordinary Harmonic Control  
Smaller Size and Lighter Weight  
Low Distortion

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

| Parameter                  | Symbol    | Min | Typ | Max | Units |
|----------------------------|-----------|-----|-----|-----|-------|
| Operating Frequency        | BW        | 1   |     | 100 | MHz   |
| RF Output Power            | POUT      |     | 50  | 100 | Watt  |
| Power Gain                 | GP        |     | 47  |     | dB    |
| Small Signal Gain          | GSS       |     | 50  |     |       |
| Small Signal Gain Flatness | Δ GSS     |     | ±2  |     | dB    |
| Input Return Loss          | S11       |     |     | -10 | dB    |
| Harmonics @ 50W            | H         |     | -10 |     | dBc   |
| Spurious                   | Spur      |     | -60 |     | dBc   |
| In/Output Impedance        | Impedance |     | 50  |     | Ω     |
| Operating Voltage          | VDC       |     | 28  |     | Volt  |
| DC Current @ 50W           | IDD       |     | 5   |     | Amp   |

### MECHANICAL SPECIFICATIONS

| Parameter              | Value                            | Units     | Notes |
|------------------------|----------------------------------|-----------|-------|
| Dimensions             | 150x 90 x 25                     | mm [inch] | Max   |
| Weight                 | .65                              | kg [lbs]  | Max   |
| RF Connectors Input    | SMA, Female                      |           |       |
| RF Connectors Output   | SMA, Female                      |           |       |
| DC Interface Connector | D-Sub 9-Pin, Male                |           |       |
| Cooling                | External Heatsink (Not Supplied) |           |       |

### ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

| Parameter                          | Minimum | Typical | Maximum | Units | Notes   |
|------------------------------------|---------|---------|---------|-------|---------|
| Operating Temperature              | -20     |         | 60      | °C    |         |
| Storage Temperature                | -40     |         | 65      | °C    | Storage |
| Relative Humidity (non-condensing) |         |         | 95      | %     |         |

### Absolute Maximum Rating

|                                     |   |
|-------------------------------------|---|
| Input RF drive level without damage | +10 dBm   |
| Load VSWR @ POUT = 30W              | ∞ @ all load phase & amplitude for duration of 30 minutes;<br>3:1 @ all load phase & amplitude continuous |
| Thermal Overload                    | 85°C shutdown   |

*Focus on Your Application*

**\*Chengdu KeyLink Microwave Technology Co., Ltd.\***

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Specifications subject to change without notice

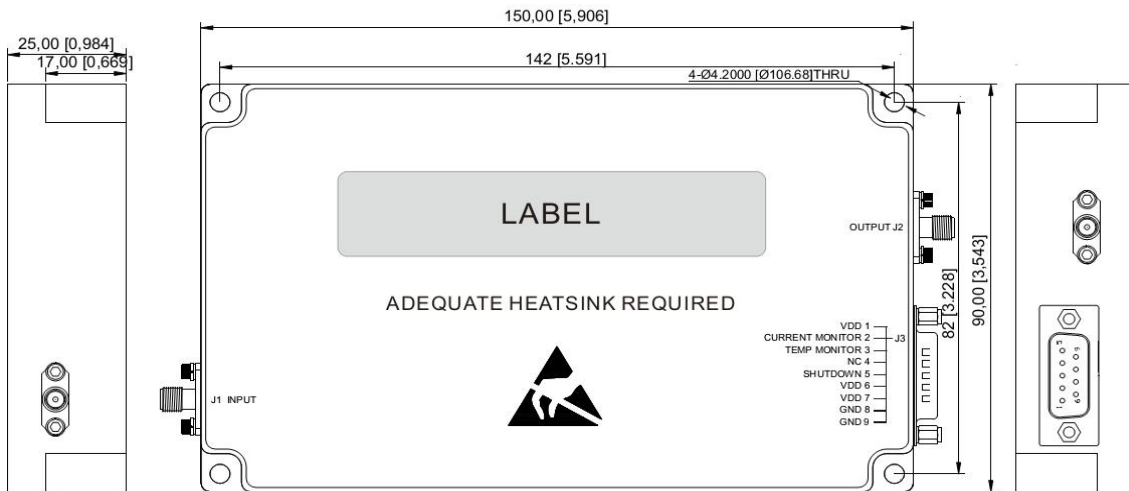
1-100MHz/50Watt/Module

Model Number: KB000101M47A

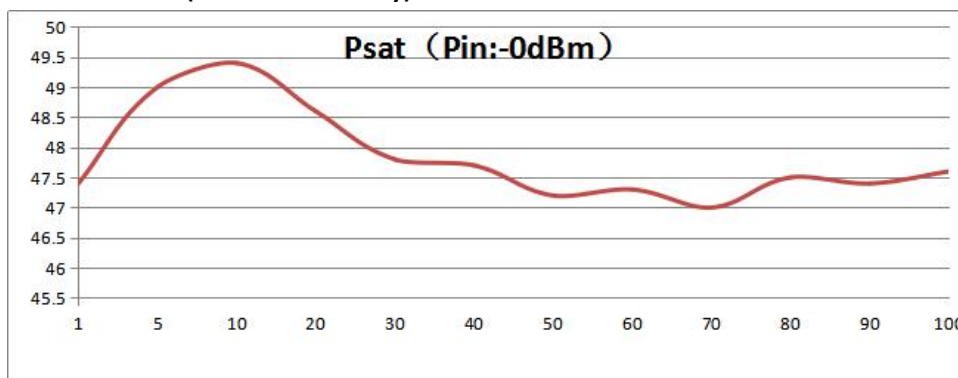
DC INTERFACE CONNECTOR

| Pin # | Description       | Specifications   |
|-------|-------------------|--|
| 1     | N/C               | No electrical connection   |
| 2     | Alarm             | Amplifier Alarm indicator: Normally TTL Low                      |
| 3     | Shutdown          | Amplifier Disable: TTL Logic High (3.3V) (Internally Pulled-Low) |
| 4     | Temperature Sense | Analog voltage relative to Module's Temperature @ 10 mV/°C       |
| 5     | Current Monitor   | Analog voltage relative to IDD @ 100mV per Ampere                |
| 6     | VDD               | 28VDC  |
| 7     | VDD               | 28VDC  |
| 8     | GND               | Ground   |
| 9     | GND               | Ground   |

OUTLINE DRAWING (All dimensions in mm[inch])



TYPICAL PERFORMANCE PLOTS (For Reference Only)



Note:

1. Adequate 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.

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