

2.11-2.17GHz/100Watt/Module

Model Number: KN2150M50A

The model KN2150M50A is a multi-octave high power amplifier operating between 2.11GHz and 2.17GHz and offering a wide dynamic Range with 100Watts typical saturated power. 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 multi octave narrowband high power RF, L linear applications.

FEATURES:

- Narrowband & High power;
- High Efficiency;
- Great Linearity;
- Small Size & Light Weight;
- Low Distortion

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

| Parameter | Symbol | Min | Typ | Max | Units |
|---------------------------|-----------------|------|-----|------|-------|
| Operating Frequency | BW | 2.11 | | 2.17 | GHz |
| RF Output Power P1 | P1 | 100 | | | Watt |
| Power Gain | Gp | | 50 | | dB |
| Power Gain Flatness | Δ Gp | | ±2 | | dB |
| Input Return Loss | S ₁₁ | | | -10 | dB |
| Harmonics @80W | H | | -10 | | dBc |
| Spurious Signals | Spur | | -55 | | dBc |
| Switch On/Off@10-90% Time | TON/OFF | | 2 | 5 | μS |
| In/Output Impedance | Impedance | | 50 | | Ω |
| Operating Voltage | VDC | 26 | 28 | 30 | Volt |
| DC Current @100W | IDD | | 13 | | Amp |

MECHANICAL SPECIFICATIONS

| Parameter | Value | Units | Notes |
|------------------------|----------------------------------|-----------|---------|
| Dimensions | 170x130x30 [6.69x5.12x1.18] | mm [inch] | Maximum |
| Weight | 2 [4.4] | kg [lbs] | Maximum |
| RF Connectors Input | SMA, Female | | |
| RF Connectors Output | Type-N, Female | | |
| DC Interface Connector | Hybrid,D-sub 7 Pin, Male | | |
| Cooling | External Heatsink (Not Supplied) | | |

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

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

Absolute Maximum Rating

| | |
|-------------------------------------|---|
| Input RF drive level without damage | +5 dBm (Max) |
| Load VSWR @ Pout =50W | 5:1@ all load phase & amplitude for duration of 1 minutes; 3:1 @ all load phase & amplitude continuous |
| Over Temperature | 85°C @ heatsink [restored @ 60°C] |

Focus on Your Application

Chengdu KeyLink Microwave Technology Co., Ltd.

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Specifications subject to change without notice

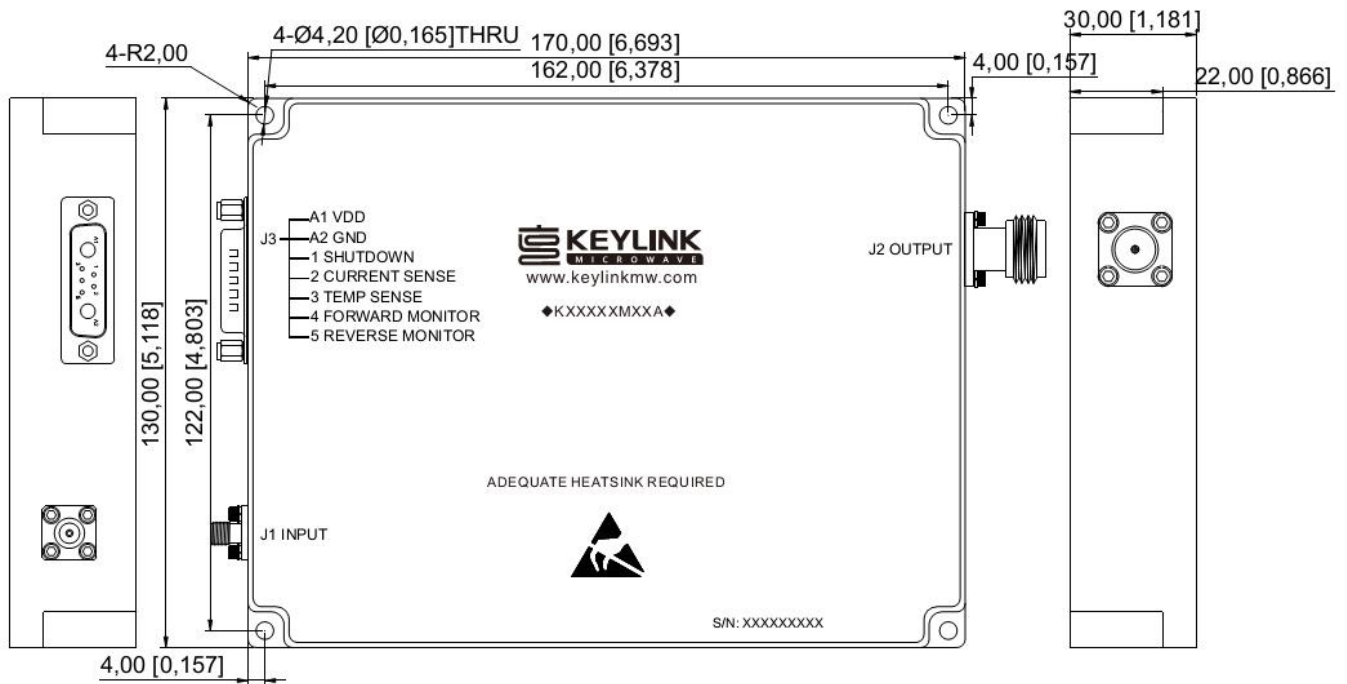
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DC INTERFACE CONNECTOR

| Pin # | Description | Specifications |
|-------|-----------------|--|
| A1 | VDD | 28V _{DC} |
| A2 | GND | Ground |
| 1 | SHUTDOWN | Amplifier Disable: TTL Logic High (3.3V) (Internally Pulled-Low) |
| 2 | CURRENT SENSE | Analog voltage relative to I _{DD} @ 100mV per Ampere |
| 3 | TEMP SENSE | Analog voltage relative to Module's Temperature @ 10 mV/°C |
| 4 | FORWARD MONITOR | Analog voltage relative to forward power level |
| 5 | REVERSE MONITOR | Analog voltage relative to reflected power level |

OUTLINE DRAWING (All dimensions in mm [inch])



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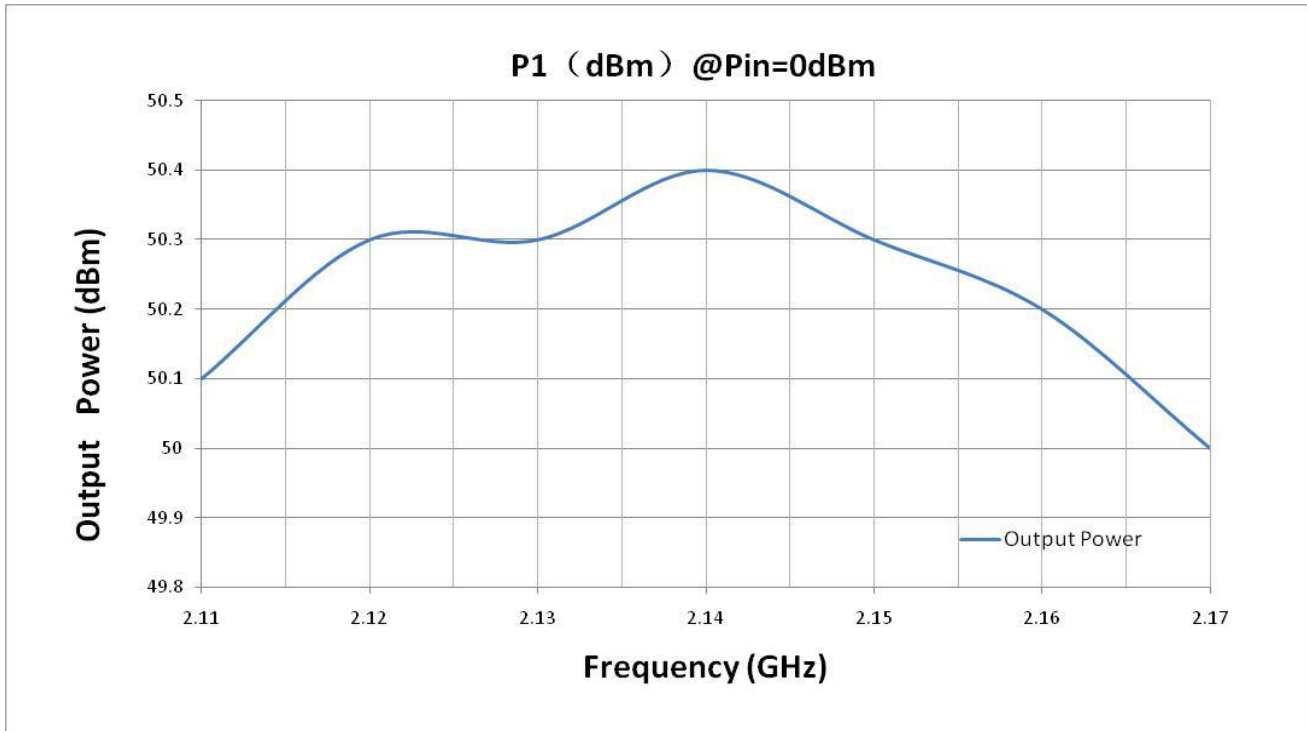
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TYPICAL PERFORMANCE PLOTS (For reference only)



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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