

## 6000-18000MHz/2Watts/Module

**Model Number: KB60180M33A**

The model KB60180M33A is a multi-octave high power amplifier operating between 6000 MHz and 18000 MHz and offering a wide dynamic Range with 2 Watts 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's suitable for multi-octave broadband high power RF, MF & HF & VHF linear applications.

**FEATURES:**

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

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

| Parameter                              | Symbol    | Min  | Typ  | Max   | Unit |
|--|-----------|------|------|-------|------|
| Operating Frequency                    | BW        | 6000 |      | 18000 | MHz  |
| RF Output Power@1dB                    | P1dB      | 2    |      |       | Watt |
| RF Output Power@Psat                   | Psat      |      |      | 6     | Watt |
| Power Gain                             | Gp        |      | 34   |       | dB   |
| Power Gain Flatness                    | Δ GP      |      | ±2.5 |       | dB   |
| Input Return Loss                      | S11       |      |      | -10   | dB   |
| 2nd Harmonics @2W                      | H         |      | -15  |       | dBc  |
| Switch On/Off @10-90% Time@Rated Power |           |      | 2    |       | us   |
| Spurious                               | Spur      |      | -55  |       | dBc  |
| In/Output Impedance                    | Impedance |      | 50   |       | Ω    |
| Operating Voltage                      | VDC       | 10   | 12   | 14    | Volt |
| DC Current@2W                          | IDD       |      | 2.5  |       | Amp  |

**MECHANICAL SPECIFICATIONS**

| Parameter              | Value                            | Units | Notes |
|------------------------|----------------------------------|-------|-------|
| Dimensions             | 120 x 80 x 22                    | mm    | Max   |
| Weight                 | 1                                | kg    | 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 Case Temperature         | -20     |         | 60      | °C    |       |
| Non-operating Temperature          | -40     |         | 65      | °C    |       |
| Relative Humidity (non-condensing) |         |         | 95      | %     |       |

*Focus on Your Application*

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*Specifications subject to change without notice*

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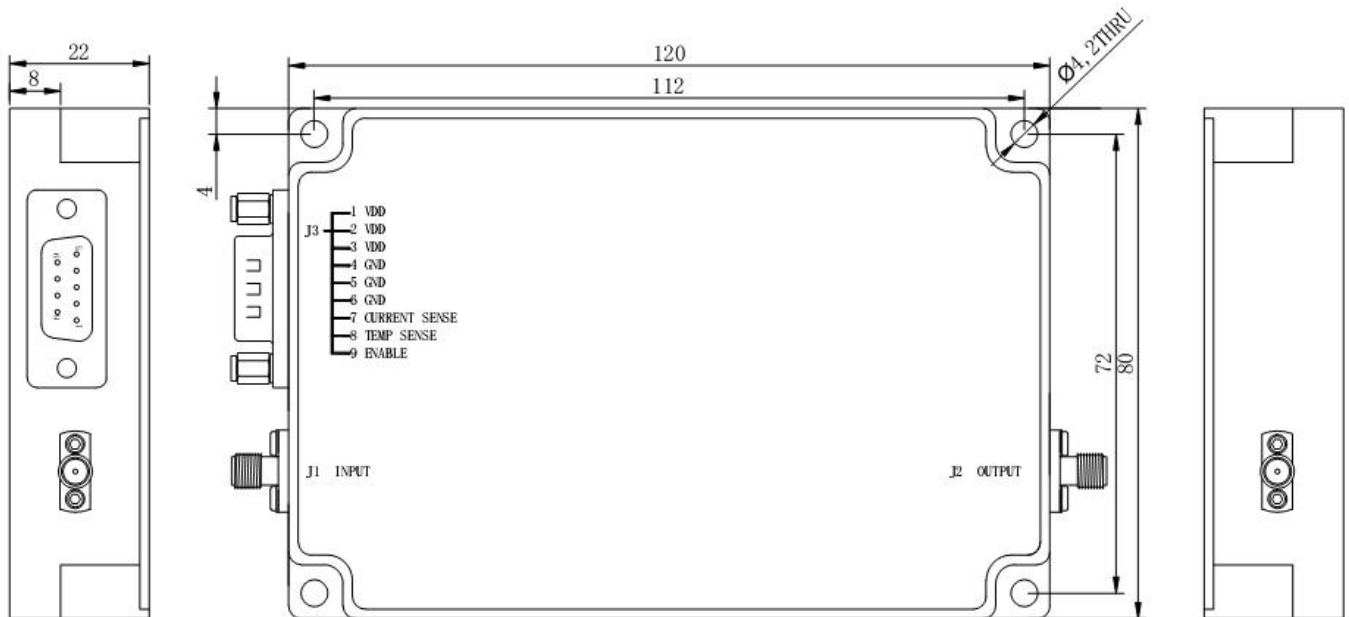
**ABSOLUTE MAXIMUM RATING**

|                                     |   |
|-------------------------------------|---|
| Input RF drive level without damage | +5 dBm  |
| Load VSWR @ POUT =2W                | ∞ @ all load phase & amplitude for duration of 30 minutes;<br>3:1 @ all load phase & amplitude continuous |
| Thermal Overload                    | 85°C shutdown   |

**DC INTERFACE CONNECTOR**

| Pin # | Description   | Specifications   |
|-------|---------------|--|
| 1,2,3 | VDD           | 8 VDC  |
| 4,5,6 | GND           | Ground   |
| 7     | CURRENT SENSE | Analog voltage relative to IDD @ 100mV per Ampere          |
| 8     | TEMP SENSE    | Analog voltage relative to Module's Temperature @ 10 mV/°C |
| 9     | ENABLE        | TX-GATE On: TTL Logic High (3.3V) (Internally Pulled-Low)  |

**OUTLINE DRAWING (All dimensions in mm)**



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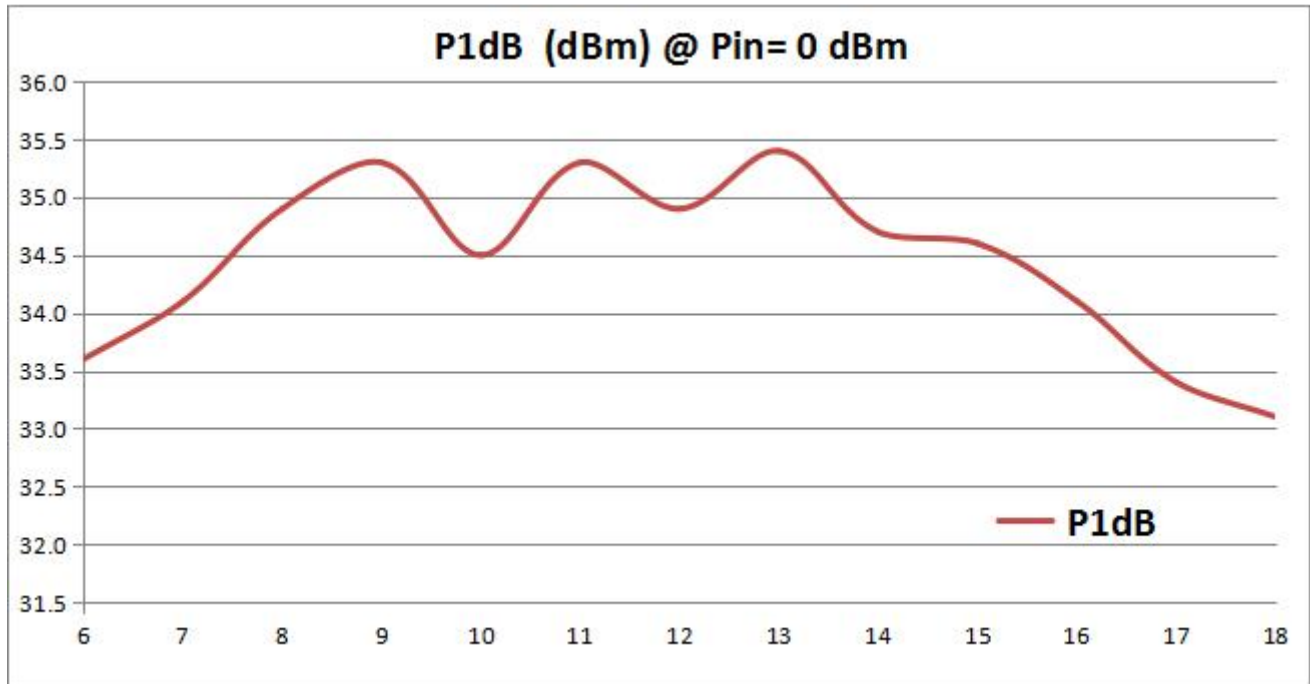
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**TYPICAL PERFORMANCE PLOTS(For Reference Only)**



**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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