Low Noise Amplifier MM-LNA-180260-32-1 18 to 26 GHz

## **General Description:**

MM-LNA-180260-32-1 is a Low Noise Amplifier that operates over the frequency range of 18.0 to 26.0 GHz. This model provides a typical gain of 32 dB and a typical noise figure of 1.5 dB. It provides an OP1dB of 15dB typical and operates on +12 VDC witha typical current draw of 260 mA.

#### **Features:**

• Ultra Wide Band: 18.0-26.0 GHz

Gain: 32 dB

• 50 Ohm input and output match

Internally regulated

Unconditionally stable

### **Applications:**

- Radar Systems
- Communication Systems
- Receivers Systems

### **Electrical Specifications (23° C):**

| Daramatar           | Value |      |      | Units |
|---------------------|-------|------|------|-------|
| Parameter           | Min   | Тур  | Max  | Units |
| Frequency Range     | 18    |      | 26   | GHz   |
| Gain                | 30    | 32   |      | dB    |
| Gain Flatness       |       | ±1.5 | ±2.0 | dB    |
| Noise Figure        |       | 1.5  | 2.0  | dB    |
| Output Power (P1dB) | 13    | 15   |      | dBm   |
| Output IP3          |       | 24   |      | dBm   |
| Input VSWR          |       | 1.5  | 2.0  | :1    |
| Output VSWR         |       | 1.8  | 2.0  | :1    |
| DC Voltage          |       | +12  |      | V     |
| DC Current          |       | 260  |      | mA    |

# **Absolute Maximum Ratings:**

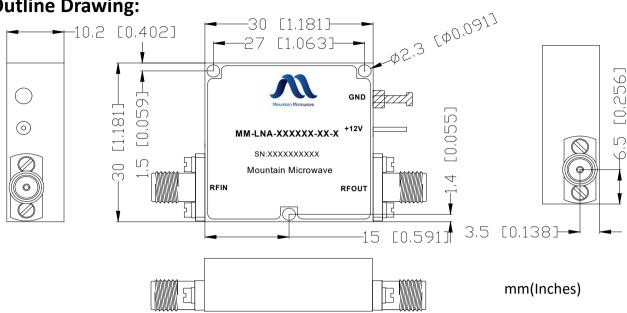
| Condition               | Value                |  |
|-------------------------|----------------------|--|
| DC Voltage              | +15V                 |  |
| Maximum Input Power(CW) | -5 dBm               |  |
| ESD sensitivity (HBm)   | Class 0, passed 150V |  |

# **Mechanical Specifications:**

| Parameter    | Value      |  |
|--------------|------------|--|
| Length       | 30 mm      |  |
| Width        | 30 mm      |  |
| Height       | 10.2 mm    |  |
| RF Connector | SMA Female |  |

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**Outline Drawing:** 



#### **Environmental Conditions:**

| Parameter               | Standard                               | Description                   |  |
|-------------------------|--|-------------------------------|--|
| Operational Temperature |  | -45°C~+85°C                   |  |
| Storage Temperature     |  | -55°C~+125°C                  |  |
| Random Vibration        | MIL-STD-883K, Method 2026,<br>Cond. IB | 50 - 2000 Hz, 7.3 Grms        |  |
| Humidity                | MIL-STD-202, Method 103B,<br>Cond. B   | 100% RH at 35c, 95%RH at 40°C |  |
| Altitude                | MIL-STD-883K, Method 1001,<br>Cond. C  | 50,000 feet                   |  |

#### **Caution:**

- Exceeding absolute maximum ratings shown will damage the device.
- The device is static sensitive. Always follow ESD rules when working with the device.
- Heat Sink required during operation.

Please note, all information contained in this data sheet is subject to change without notice.

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