



Mountain Microwave

General Description:

MM-MPA-075110-18-20 is a Waveguide Power Amplifier that operates over the frequency range of 75 to 110 GHz. This model provides a typical gain of 18 dB . It provides a Psat of 20 dB typical and operates on +12 VDC with a typical current draw of 350 mA.

Features:

- Ultra Wide Band: 75-110 GHz
- Gain: 18 dB
- Psat: 20 dB
- Internally regulated
- Unconditionally stable

Applications:

- Radar Systems
- Communication Systems
- Receivers Systems

Electrical Specifications (23° C):

| Parameter | Value | | | Units |
|---------------------|-------|-----|-----|-------|
| | Min | Typ | Max | |
| Frequency Range | 75 | | 110 | GHz |
| Gain | | 18 | | dB |
| Gain Flatness | | - | | dB |
| Psat | 17 | 20 | | dBm |
| Output Power (P1dB) | | - | | dBm |
| Input VSWR | | 3.0 | | :1 |
| Output VSWR | | 3.0 | | :1 |
| RF Input Power | | - | | dBm |
| DC Voltage | | +12 | | V |
| DC Current | | 350 | | mA |

Absolute Maximum Ratings:

| Condition | Value |
|-------------------------|----------------------|
| DC Voltage | +12 V |
| Maximum Input Power(CW) | TBD |
| ESD sensitivity (HBm) | Class 0, passed 150V |

Mechanical Specifications:

| Parameter | Value |
|--------------|-------------|
| Length | 85 mm |
| Width | 43.6 mm |
| Height | 24 mm |
| RF Connector | WR10/UG-387 |



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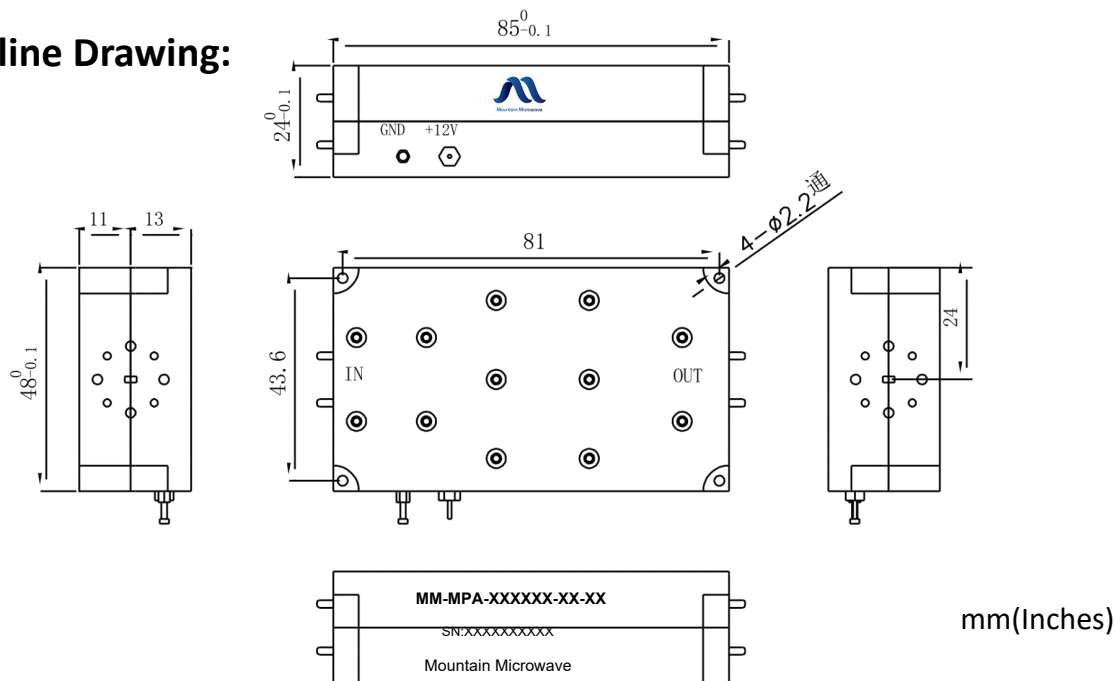
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Waveguide Power Amplifier

MM-MPA-075110-18-20

75 to 110 GHz

Outline Drawing:



mm(Inches)

Environmental Conditions:

| Parameter | Standard | Description |
|-------------------------|-------------------------------------|-------------------------------|
| Operational Temperature | | 0°C~+50°C |
| Storage Temperature | | -55°C~+125°C |
| Random Vibration | MIL-STD-883K, Method 2026, Cond. IB | 50 - 2000 Hz, 7.3 Grms |
| Humidity | MIL-STD-202, Method 103B, Cond. B | 100% RH at 35c, 95%RH at 40°C |
| Altitude | MIL-STD-883K, Method 1001, 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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