



General Description:

MM-MPA-195220-22-11 is a Waveguide Power Amplifier that operates over the frequency range of 195 to 220 GHz. This model provides a typical gain of 22 dB . It provides a Psat of 11 dB typical and operates on +7 VDC with a typical current draw of 150 mA.

Features:

- Ultra Wide Band: 195-220 GHz
- Gain: 22 dB
- Psat: 11 dB
- Internally regulated
- Unconditionally stable

Applications:

- Radar Systems
- Communication Systems
- Receivers Systems

Electrical Specifications (23° C):

| Parameter           | Value |     |     | Units |
|---------------------|-------|-----|-----|-------|
|                     | Min   | Typ | Max |       |
| Frequency Range     | 195   |     | 220 | GHz   |
| Gain                |       | 22  |     | dB    |
| Gain Flatness       |       | -   |     | dB    |
| Psat                |       | 11  |     | dBm   |
| Output Power (P1dB) |       | -   |     | dBm   |
| Input VSWR          |       | 2.0 |     | :1    |
| Output VSWR         |       | 2.5 |     | :1    |
| DC Voltage          |       | +7  |     | V     |
| DC Current          |       | 150 |     | mA    |

Absolute Maximum Ratings:

| Condition               | Value                |
|-------------------------|----------------------|
| DC Voltage              | +7 V                 |
| Maximum Input Power(CW) | TBD                  |
| ESD sensitivity (HBm)   | Class 0, passed 150V |

Mechanical Specifications:

| Parameter    | Value       |
|--------------|-------------|
| Length       | 35 mm       |
| Width        | 24 mm       |
| Height       | 30 mm       |
| RF Connector | WR04/UG-387 |



Mountain Microwave

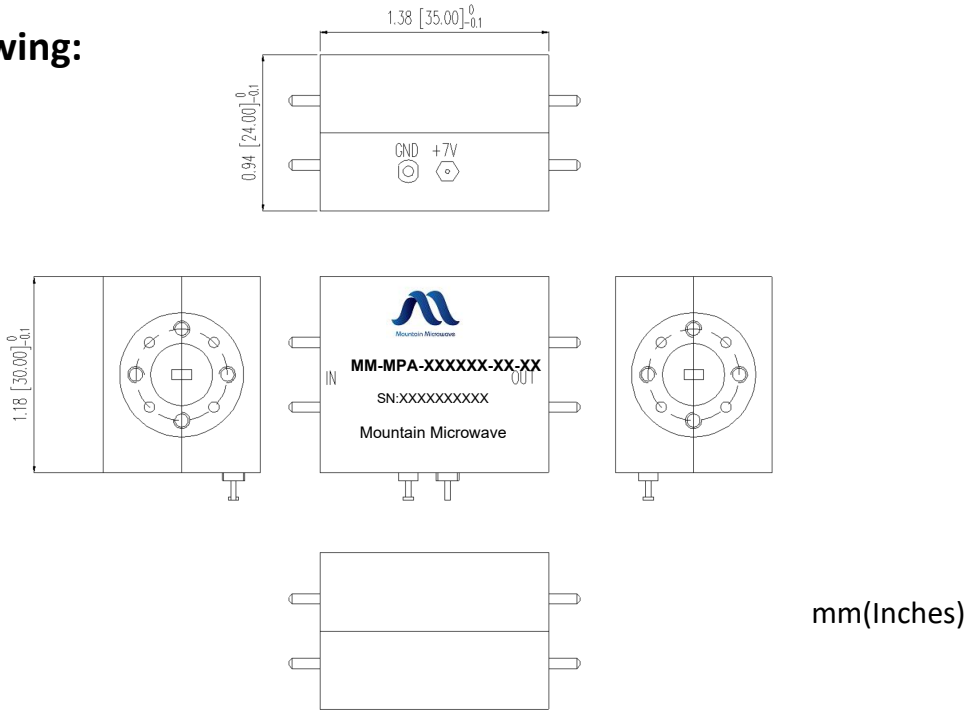
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Waveguide Power Amplifier

MM-MPA-195220-22-11

195 to 220 GHz

Outline Drawing:



Environmental Conditions:

| Parameter               | Standard                            | Description                   |
|-------------------------|-------------------------------------|-------------------------------|
| Operational Temperature |                                     | 0°C~+50°C                     |
| Storage Temperature     |                                     | -45°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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