

# **Waveguide Power Amplifier**

MM-MPA-090100-40-20 90 to 100 GHz

#### **General Description:**

MM-MPA-090100-40-20 is a Waveguide Power Amplifier that operates over the frequency range of 90 to 100 GHz. This model provides a typical gain of 40 dB. It provides a Psat of 20 dB typical and operates on +5 VDC withat ypical current draw of 950 mA.

#### **Features:**

Ultra Wide Band: 90-100 GHz

Gain: 40 dBPsat: 20 dB

Internally regulated

Unconditionally stable

### **Applications:**

- Radar Systems
- Communication Systems
- Receivers Systems

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

Parameter	Value			Unito
	Min	Тур	Max	Units
Frequency Range	90		100	GHz
Gain	40	42		dB
Gain Flatness		-		dB
Psat	20	22		dBm
Output Power (P1dB)		-		dBm
Input VSWR		2.5		:1
Output VSWR		2.5		:1
DC Voltage		+5		V
DC Current		950		mA

# **Absolute Maximum Ratings:**

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

## **Mechanical Specifications:**

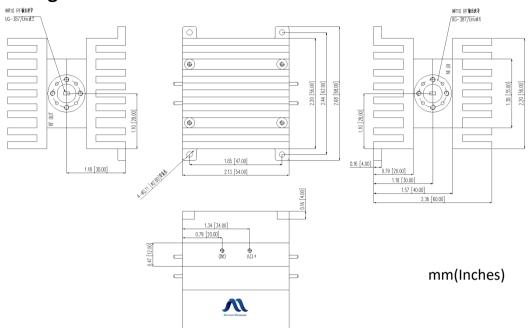
Parameter	Value	
Length	54 mm	
Width	35 mm	
Height	20 mm	
RF Connector	WR10/UG-387	



#### Focus on the future

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## **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.

ver 2.0 0318