



**Focus on the future** **Waveguide Low Noise Amplifier**  
 MM-MLN-040060-45-50  
 40 to 60 GHz

**General Description:**

MM-MLN-040060-45-50 is a Waveguide Low Noise Amplifier that operates over the frequency range of 40 to 60 GHz. This model provides a typical gain of 45 dB and a typical noise figure of 5.0 dB. It provides an OP1dB of 15 dB typical and operates on +8 VDC with a typical current draw of 250 mA.

**Features:**

- Ultra Wide Band: 40-60 GHz
- Gain: 45 dB
- Internally regulated
- Unconditionally stable

**Applications:**

- Radar Systems
- Communication Systems
- Receivers Systems

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

Parameter	Value			Units
	Min	Typ	Max	
Frequency Range	40		60	GHz
Gain	40	45		dB
Gain Flatness		± 3.0		dB
Noise Figure		5.0		dB
Output Power (P1dB)		15		dBm
Psat		17		dBm
Input VSWR		2.0		:1
Output VSWR		2.0		:1
DC Voltage		+8		V
DC Current		250		mA

**Absolute Maximum Ratings:**

Condition	Value
DC Voltage	+8V
Maximum Input Power(CW)	-10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

**Mechanical Specifications:**

Parameter	Value
Length	45 mm
Width	30 mm
Height	30 mm
RF Connector	WR19/UG-383



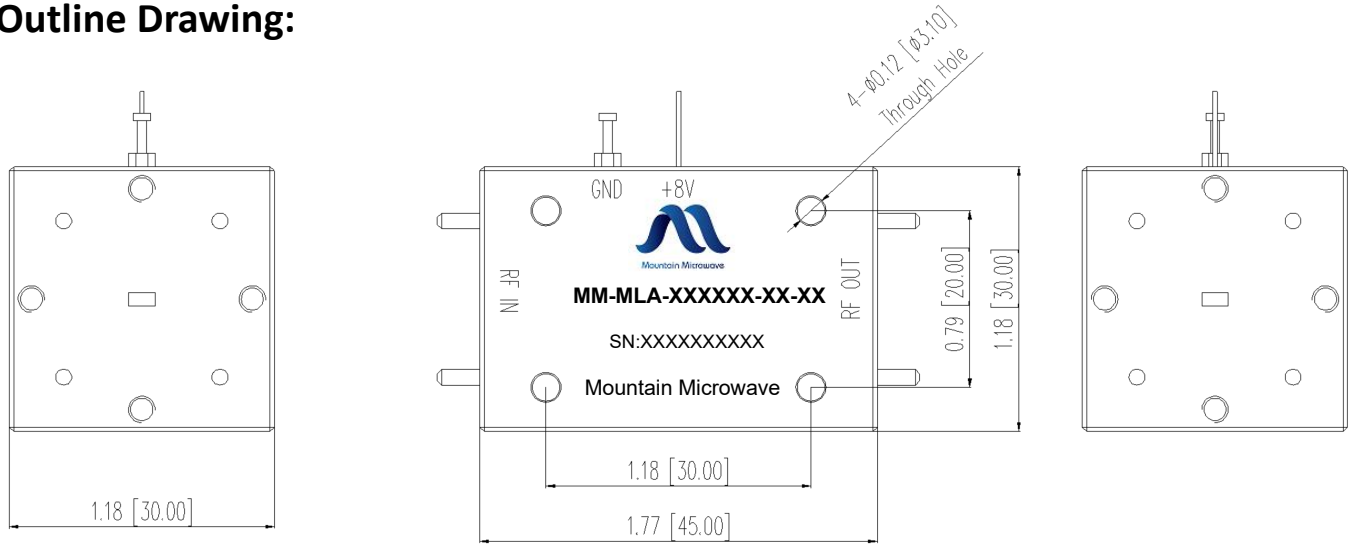
Mountain Microwave

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## Outline Drawing:



mm(Inches)

## Environmental Conditions:

Parameter	Standard	Description
Operational Temperature		-40°C~+75°C
Storage Temperature		-55°C~+85°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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