



Mountain Microwave

# Focus on the future Waveguide Low Noise Amplifier

MM-MLN-076077-32-45

76 to 77 GHz

## General Description:

MM-MLN-076077-32-45 is a Waveguide Low Noise Amplifier that operates over the frequency range of 76 to 77 GHz. This model provides a typical gain of 32 dB and a typical noise figure of 4.5 dB. It provides an OP1dB of 11 dB typical and operates on +5 VDC with a typical current draw of 200 mA.

## Features:

- Ultra Wide Band: 76-77 GHz
- Gain: 32 dB
- Internally regulated
- Unconditionally stable

## Applications:

- Radar Systems
- Communication Systems
- Receivers Systems

## Electrical Specifications (23° C):

Parameter	Value			Units
	Min	Typ	Max	
Frequency Range	76		77	GHz
Gain	31	32	33	dB@76.5-77GHz
	30	32	34	dB@76-77GHz
Gain Flatness		-		dB
Noise Figure	3.5	4.5	5.0	dB
Output Power (P1dB)	10	11		dBm
Psat	12	13		dBm
Input Return Loss	7	9		dB
Output Return Loss	7	9		dB
DC Voltage		+5		V
DC Current		200		mA

## Absolute Maximum Ratings:

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

## Mechanical Specifications:

Parameter	Value
Length	48 mm
Width	42 mm
Height	24 mm
RF Connector	WR12/UG-387



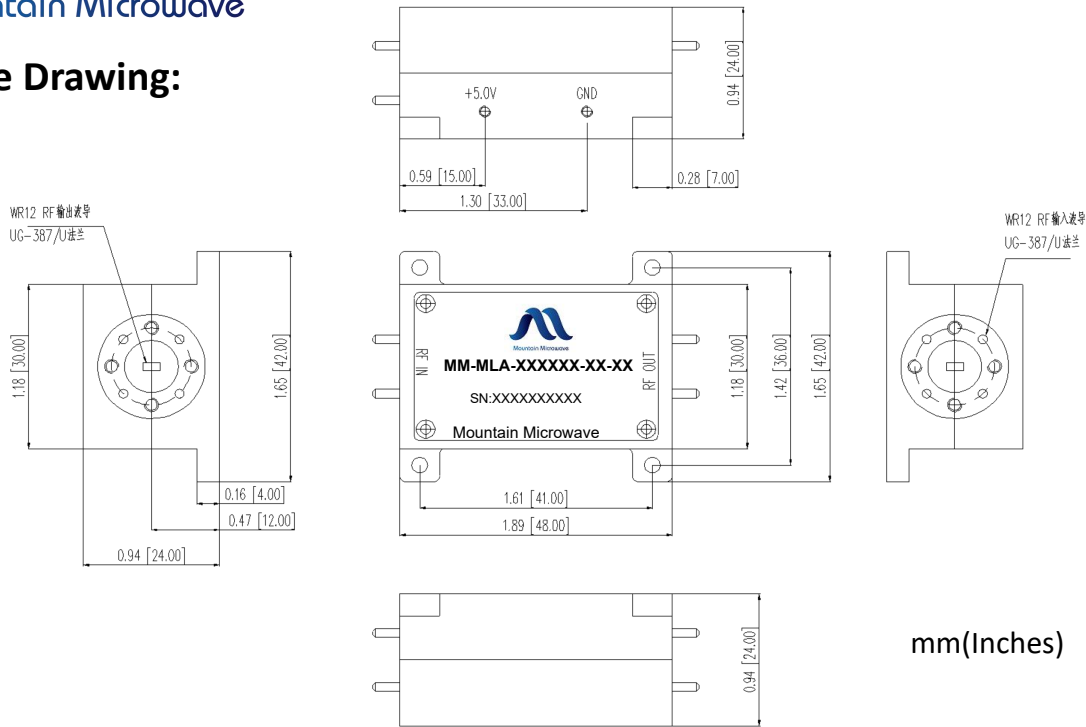
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## Outline Drawing:



## Environmental Conditions:

Parameter	Standard	Description
Operational Temperature		-25°C~+65°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