



Mountain Microwave

Focus on the future

Low Noise Amplifier

MM-LNA-010400-42-4

1 to 40 GHz

### General Description:

MM-LNA-010400-42-4 is a Low Noise Amplifier that operates over the frequency range of 1.0 to 40.0 GHz. This model provides a typical gain of 42 dB and a typical noise figure of 4.5 dB. It provides an OP1dB of 17 dB typical and operates on +12 VDC with a typical current draw of 550 mA.

### Features:

- Ultra Wide Band: 1.0-40.0 GHz
- Gain: 42 dB
- 50 Ohm input and output match
- Internally regulated
- Unconditionally stable

### Applications:

- Radar Systems
- Communication Systems
- Receivers Systems

### Electrical Specifications (23° C):

Parameter	Value			Units
	Min	Typ	Max	
Frequency Range	1		40	GHz
Gain	40	42		dB
Gain Flatness		±3.0		dB
Noise Figure		4.5	5.3	dB
Output Power (P1dB)	17	20		dBm
Output IP3		28		dBm
Input VSWR		1.4	1.9	:1
Output VSWR		1.4	1.9	:1
DC Voltage		+12	+15	V
DC Current		550		mA

### Absolute Maximum Ratings:

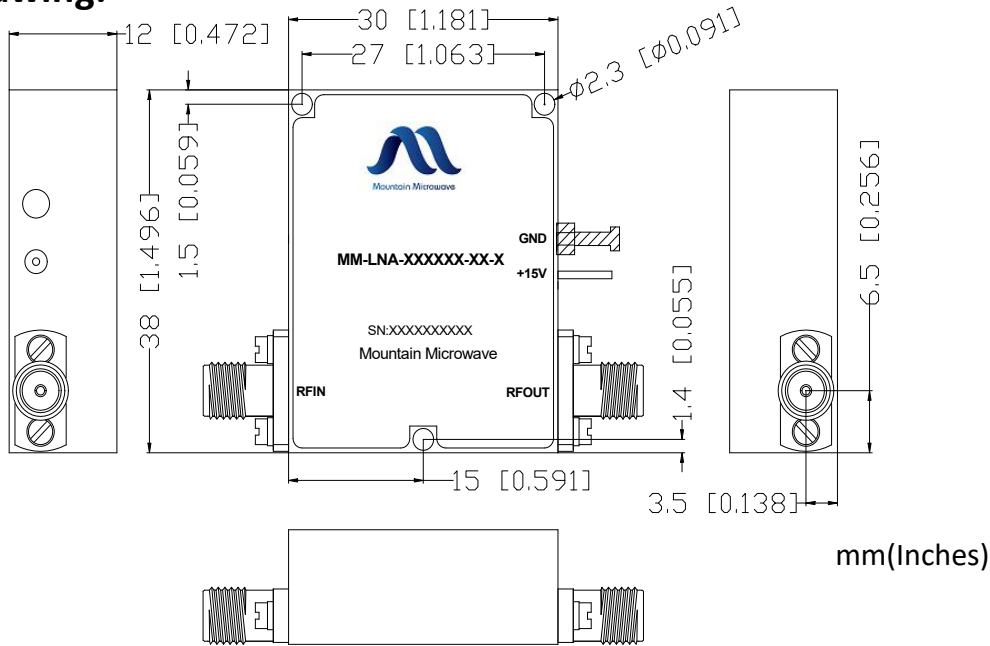
Condition	Value
DC Voltage	+15V
Maximum Input Power(CW)	+5 dBm
ESD sensitivity (HBM)	Class 0, passed 150V

### Mechanical Specifications:

Parameter	Value
Length	30 mm
Width	38 mm
Height	12 mm
RF Connector	2.92mm Female



**Outline Drawing:**



**Environmental Conditions:**

Parameter	Standard	Description
Operational Temperature		-45°C~+85°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.