



General Description:

MM-LNA-020120-31-1 is a Low Noise Amplifier that operates over the frequency range of 2.0 to 12.0 GHz. This model provides a typical gain of 30 dB and a typical noise figure of 1.2 dB. It provides an OP1dB of 15dB typical and operates on +15 VDC with a typical current draw of 120 mA.

Features:

- Ultra Wide Band: 2.0-12.0 GHz
- Gain: 31 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	2		12	GHz
Gain	30	31		dB
Gain Flatness		± 1.0	± 2.0	dB
Noise Figure		1.2	1.8	dB
Output Power (P1dB)	13	15		dBm
Output Psat		16		dBm
Input VSWR		1.5	2.0	:1
Output VSWR		1.8	2.0	:1
DC Voltage		+15		V
DC Current		120		mA

Absolute Maximum Ratings:

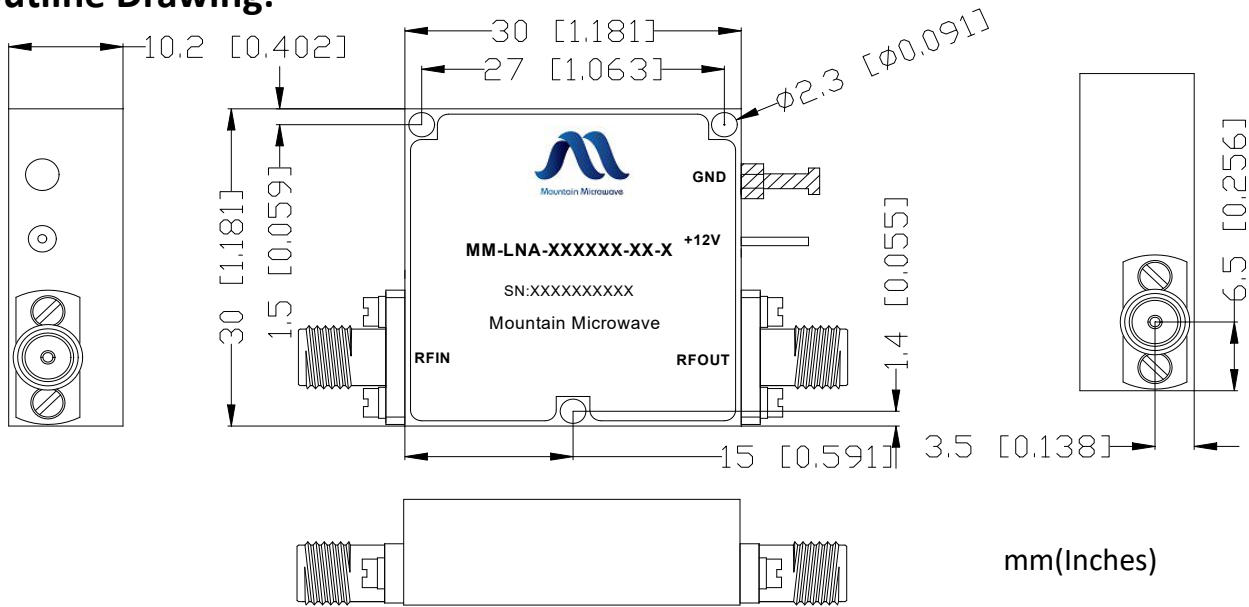
Condition	Value
DC Voltage	+15V
Maximum Input Power(CW)	-10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Mechanical Specifications:

Parameter	Value
Length	30 mm
Width	30 mm
Height	10.2 mm
RF Connector	SMA 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.