



General Description:

MM-LNA-180420-28-4 is a Low Noise Amplifier that operates over the frequency range of 18.0 to 42.0 GHz. This model provides a typical gain of 28 dB and a typical noise figure of 4.0 dB. It provides an OP1dB of 13 dBm typical and operates on +5 VDC with a typical current draw of 240 mA.

Features:

- Ultra Wide Band: 18.0-42.0 GHz
- Gain: 28 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	18		42	GHz
Gain	22	28		dB
Gain Flatness		±2.0	±2.5	dB
Noise Figure		4.0	5.5	dB
Output Power (P1dB)	13	15		dBm
Output IP3		24		dBm
Input VSWR		2.0	2.5	:1
Output VSWR		2.0	2.5	:1
DC Voltage		+5		V
DC Current		240		mA

Absolute Maximum Ratings:

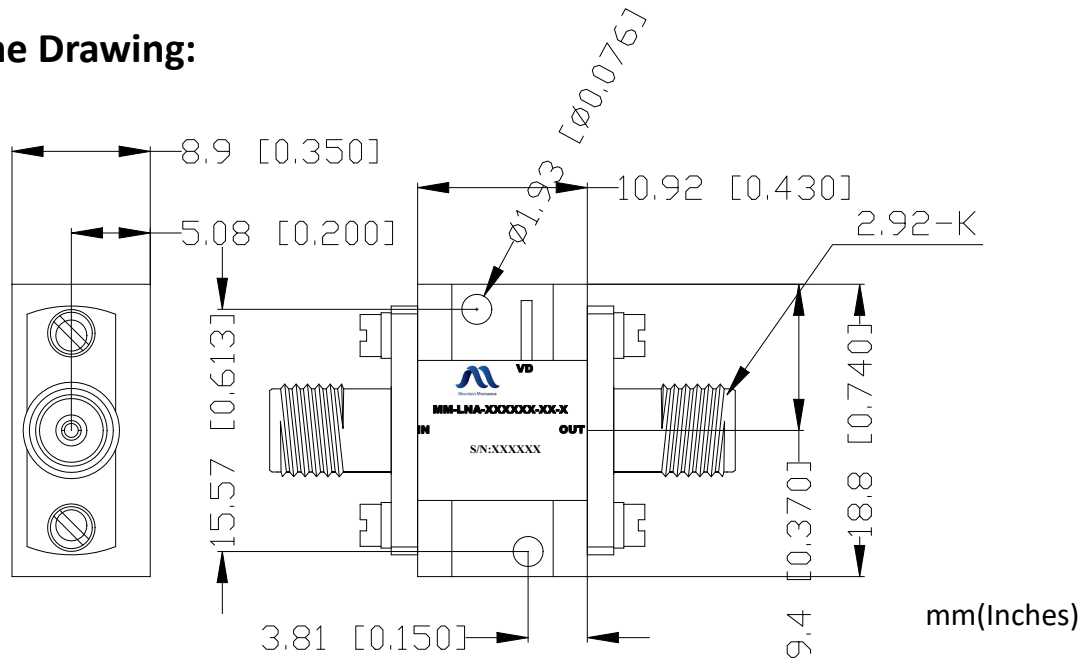
Condition	Value
DC Voltage	+5.5V
Maximum Input Power(CW)	-5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Mechanical Specifications:

Parameter	Value
Length	10.92mm
Width	18.8mm
Height	8.9mm
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.