

MAN2450L72

2.4 GHz Chip Antenna

MECSINE 兆讯

2.4 GHz Chip Antenna
For WiFi and Bluetooth

MAN2450L72

7x2x1 mm

All Use For RF & Microwave

Shenzhen Megsine technology co., ltd www.megsine.com sales@megsine.com

MAN2450L72

2.4 GHz Chip Antenna



Applications

1. 2.4 GHz WiFi device
2. Bluetooth gadget
3. Zigbee device
4. ISM band equipment



Features

1. Compact size
2. Omni-directional radiation
3. Tape & reel automatic mounting
4. Reflow process compatible
5. RoHS compliance (Pb-Free)

Description

The antenna is designed for superior performance, and can be widely used for wireless applications. We provide comprehensive antenna design support such as simulation, testing and manufacturing for custom antenna solutions to meet your specific application needs.

Electrical Specification

Table 1. MAN2450L72 Electrical Specification

Item	Min.	Type	Max.	Unit
Frequency Range	2400		2500	MHz
VSWR	1.1		1.3	
Efficiency	60		64	%
Peak Gain	1.13		2.29	dBi
Polarization		Linear		
Nominal Impedance		50		Ω

- Ta: +25±5°C

Mechanical Specification

Table 2. MAN2450L72 Mechanical Specification

Item	Min.	Type	Max.	Unit
Antenna Size		7*2* 1		Mm
Storage Temperature	-40		+125	°C
Operating temperature	-40		+125	°C

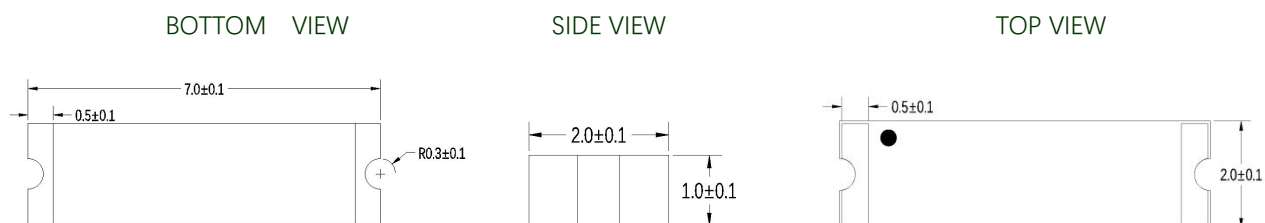
MAN2450L72

2.4 GHz Chip Antenna

MEGSINE 兆讯

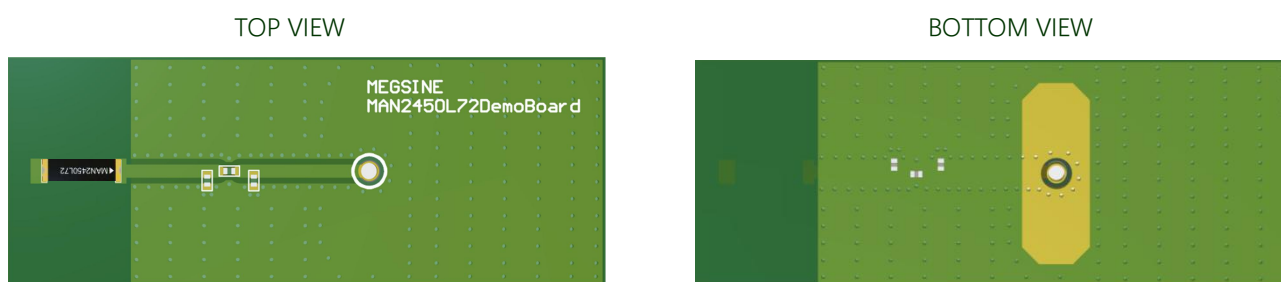
Outline Drawing

Figure 1. MAN2450L72 View (Unit: mm)



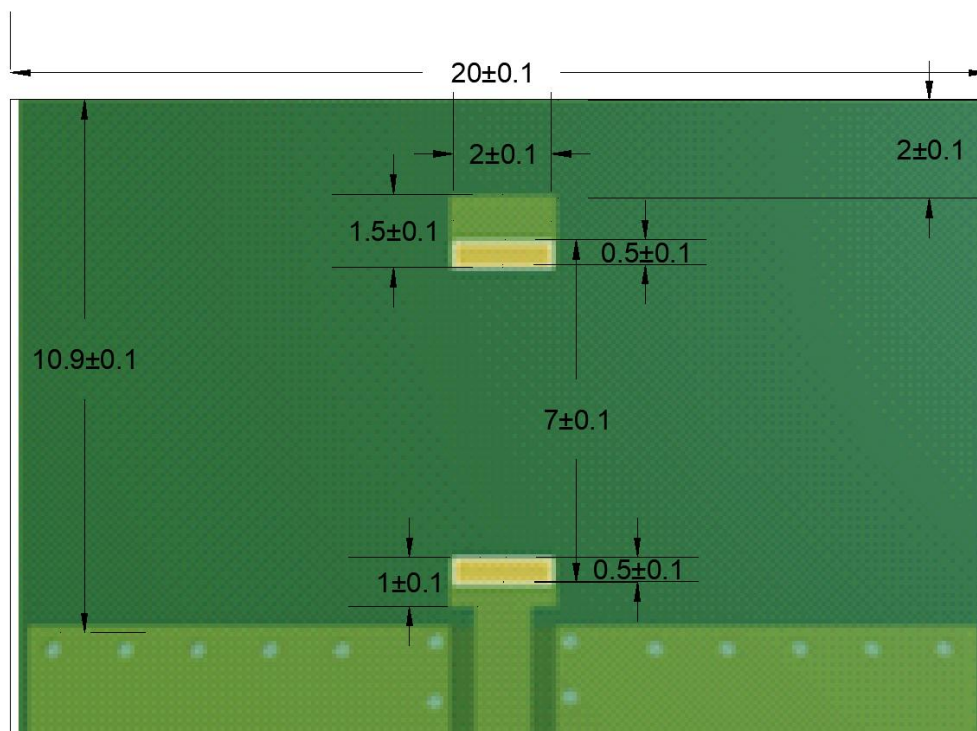
Recommend PCB Layout

Figure 2. MAN2450L72 PCB Layout (Unit: mm)



Size 53*20mm

Figure 3. MAN2450L72 PCB Layout (Unit: mm)



All Use For RF & Microwave

Shenzhen Megsine technology co., ltd www.megsine.com sales@megsine.com

MAN2450L72

2.4 GHz Chip Antenna

MECSINE 兆讯

Figure 4. MAN2450L72 Matching Circuit (Unit: mm)

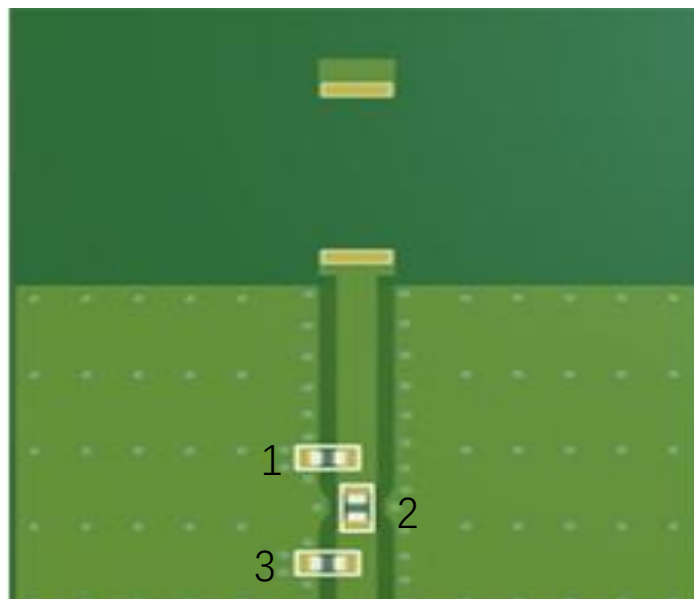
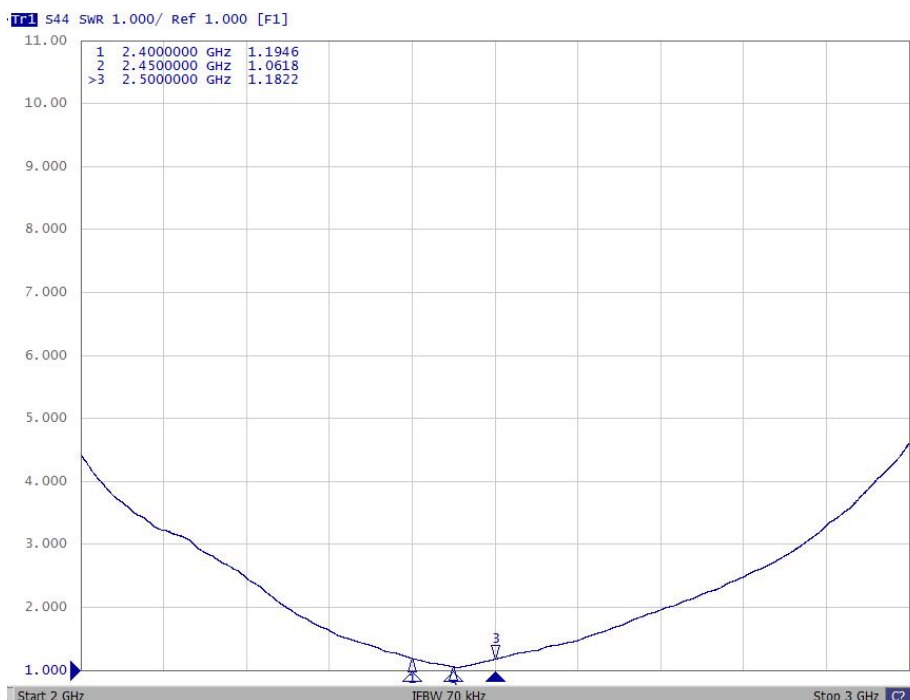


Table 3. MAN2450L72 Matching

Location	Description	Vendor
1	N/C	N/C
2	0Ω	MURATA
3	N/C	N/C

Typical Performance

Figure 5. MAN2450L72 VSWR



All Use For RF & Microwave

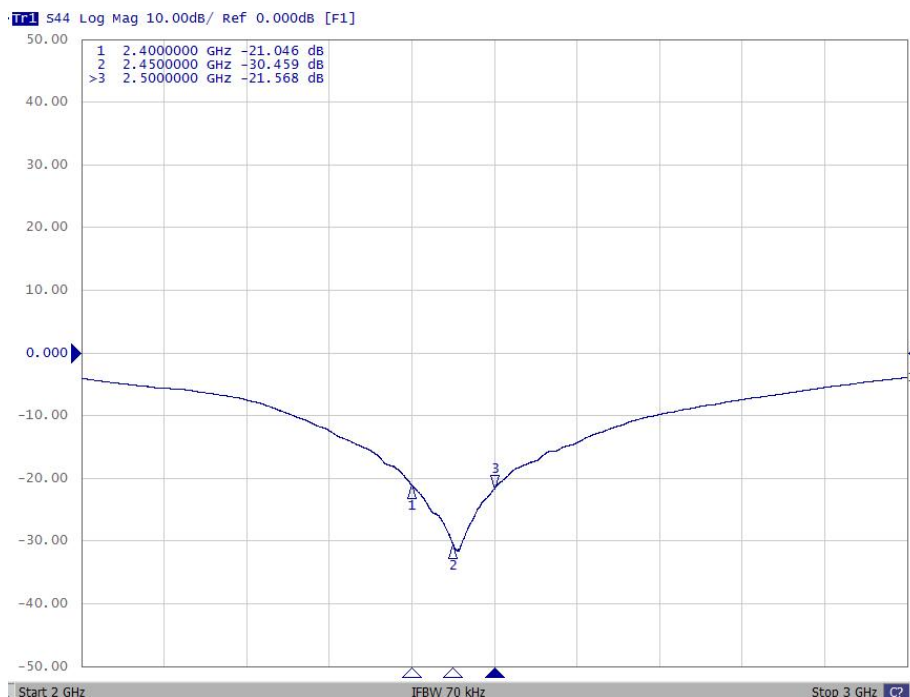
Shenzhen Megsine technology co., ltd www.megsine.com sales@megsine.com

MAN2450L72

2.4 GHz Chip Antenna

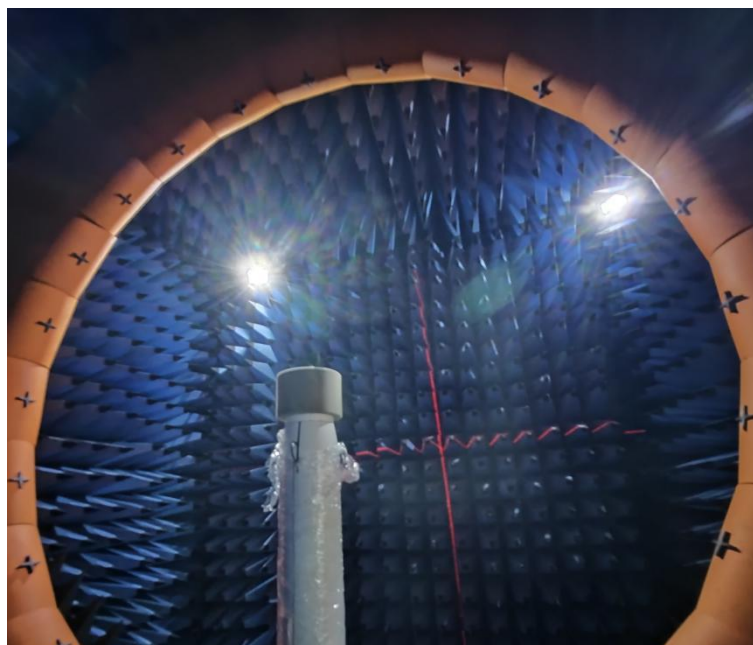
MECSINE 兆讯

Figure 6. MAN2450L72 Return Loss



Radiation Pattern & Efficiency & Peak Gain

Figure 7. The Gain pattern is measured in FAR-field chamber



All Use For RF & Microwave

Shenzhen Megsine technology co., ltd www.megsine.com sales@megsine.com

MAN2450L72

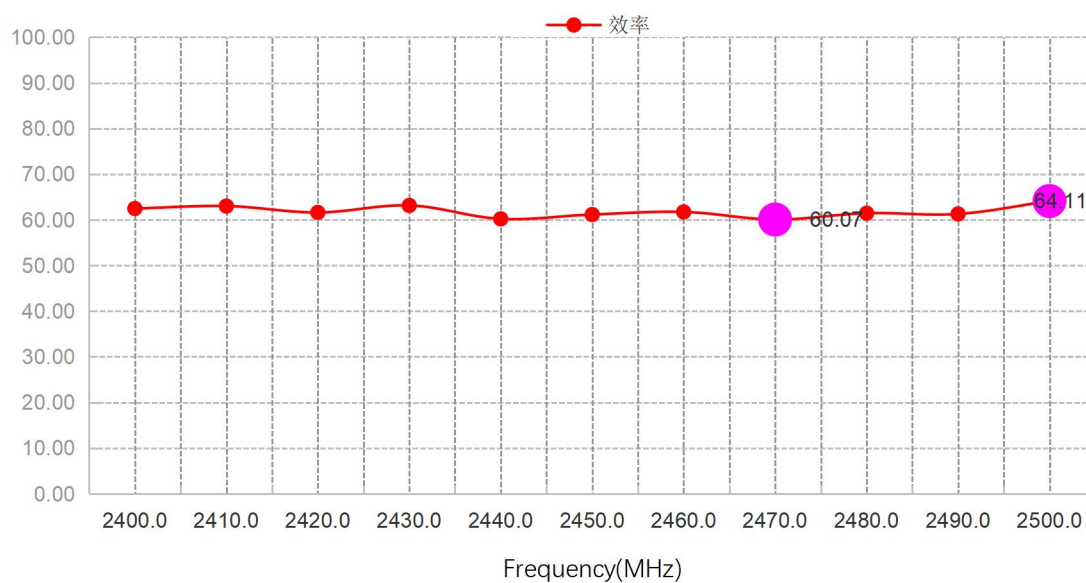
2.4 GHz Chip Antenna

MECSINE兆讯

Table 4. MAN2450L72 Total Efficiency&Peak Gain

Item (MHz)	Efficiency (%)	Peak Gain (dBi)
2400	62.48	1.61
2410	63.02	1.55
2420	61.62	1.40
2430	63.15	1.49
2440	60.22	1.13
2450	61.16	1.35
2460	61.73	1.58
2470	60.07	1.60
2480	61.44	1.84
2490	61.29	1.97
2500	64.11	2.29

Figure 8. MAN2450L72 Total Efficiency



MAN2450L72

2.4 GHz Chip Antenna

MECSINE 兆讯

Figure 9. MAN2450L72 Peak Gain

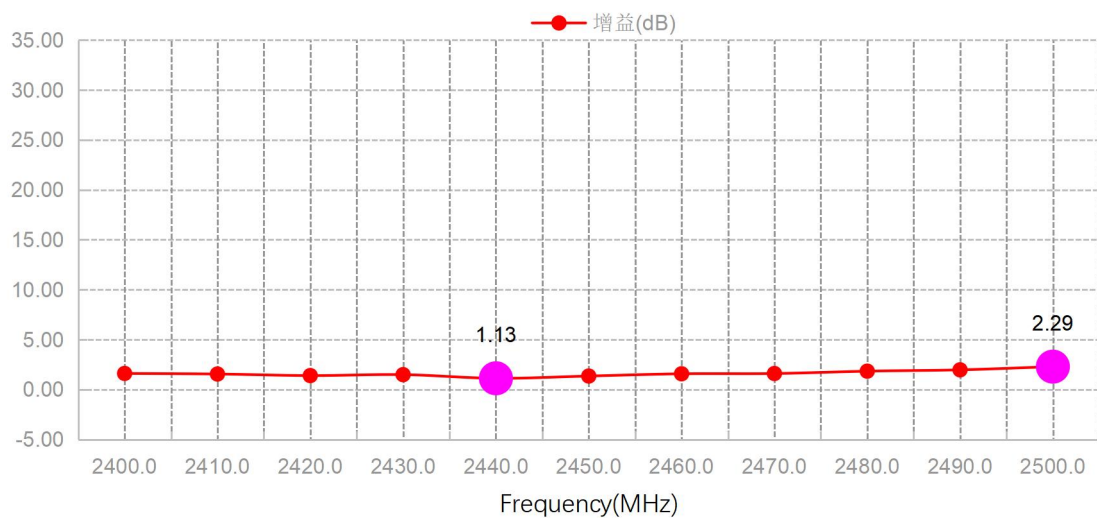
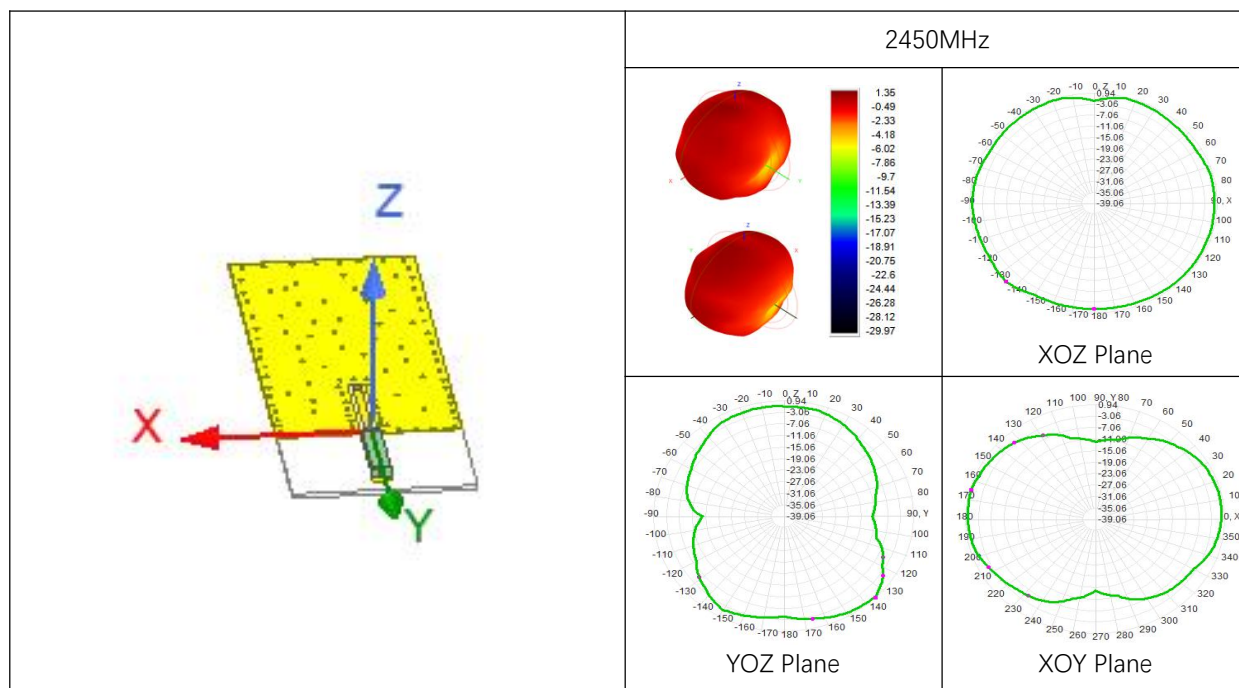


Figure 10. Radiation Pattern



*Antenna performance will also change in different environments, it is recommended to consult the relevant technical personnel before use to confirm the layout to ensure good performance.

All Use For RF & Microwave

Shenzhen Megsine technology co., ltd www.megsine.com sales@megsine.com

MAN2450L72

2.4 GHz Chip Antenna

MECSINE兆讯

Packaging and Ordering Information

Figure 11. Packaging Information

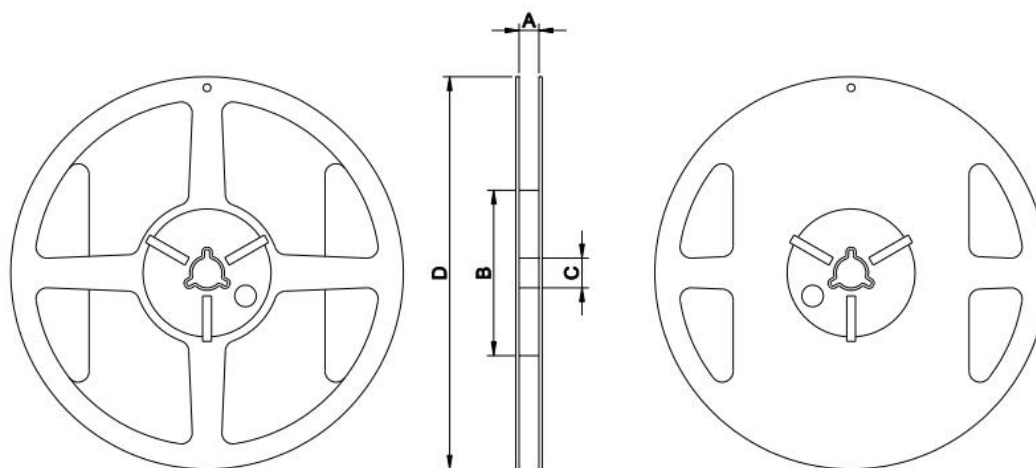
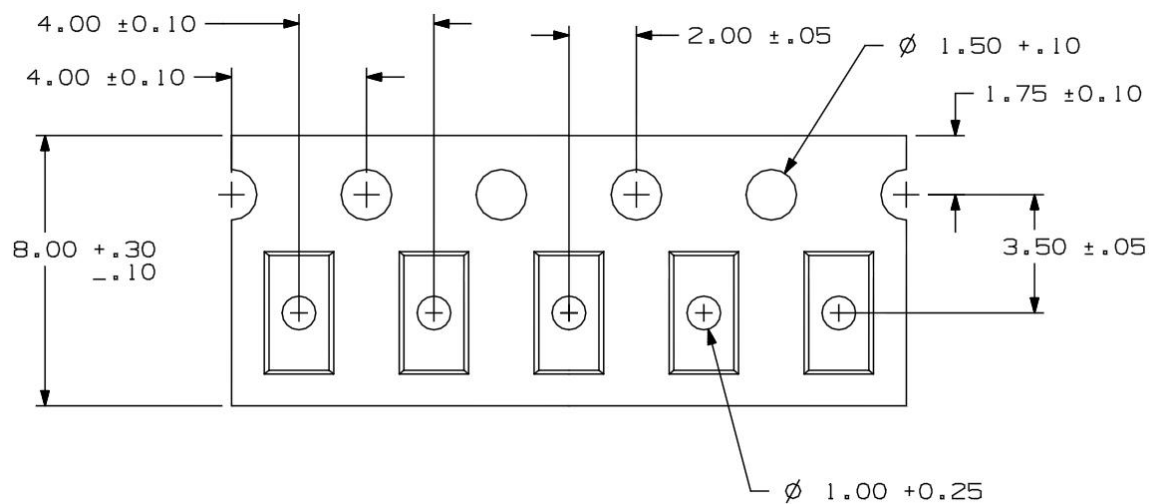


Table 5. Packaging and Shipping

Device	Packaging	Reel	Shipping
MAN2450L72	SMD	7"	3000/Reel

All Use For RF & Microwave

Shenzhen Megsine technology co., ltd www.megsine.com sales@megsine.com

MAN2450L72

2.4 GHz Chip Antenna



Revision	Description	Date
Rev0	Preliminary	2025/6/20

All Use For RF & Microwave

Shenzhen Magsine technology co., ltd www.magsine.com sales@magsine.com