

MAN3080C86

3~8GHz UWB Antenna



Applications

- 1. 3-8 GHz device
- 2. CH5&CH9 device
- 3. ISM band equipment

Features

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

Description

The MAN3080C86 is designed for UWB and others 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. MAN3080C86 Electrical Specification

Item	Min.	Type.@25°C	Max.	Unit
Frequency Range	3100		8000	MHz
Efficiency	49		80	%
Peak Gain	1.2		5.16	dB
Polarization		Linear		
Nominal Impedance		50		Ω

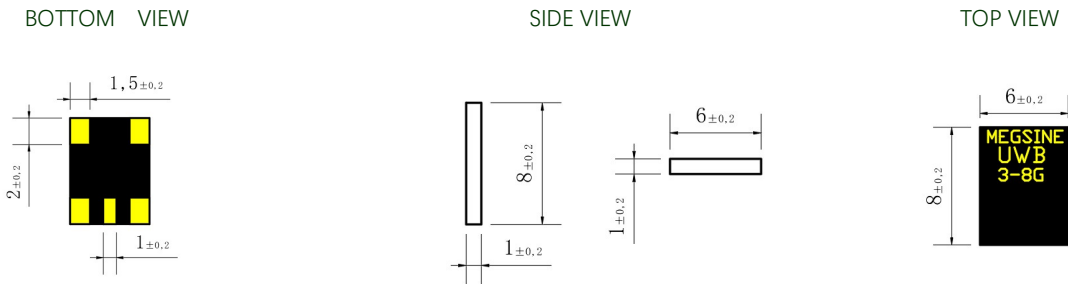
Mechanical Specifications

Table 2. MAN3080C86 Mechanical Specification

Item	Min.	Type.@25°C	Max.	Unit
Antenna Size		8.0*6.0* 1		Mm
Temperature	-40		+80	°C
Operating temperature	-40		+80	°C

Outline Drawing

Figure 1. MAN3080C86 View (Unit: mm)



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Recommend PCB Layout

Figure 2. MAN3080C86 PCB Layout (Unit: mm) TOP VIEW:

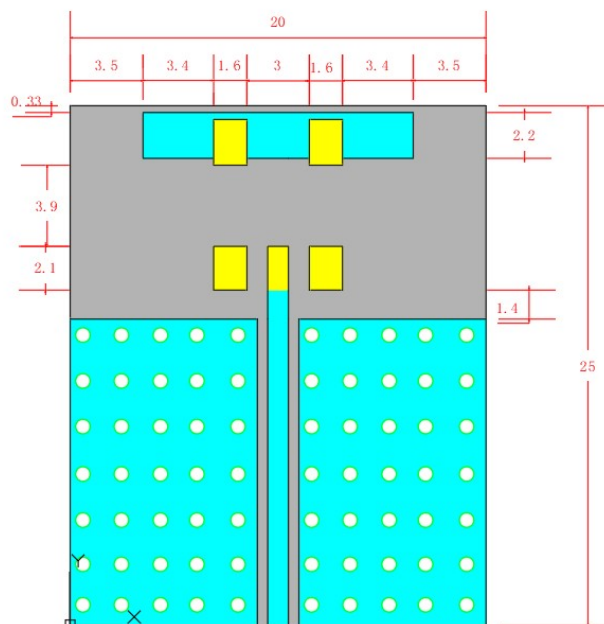
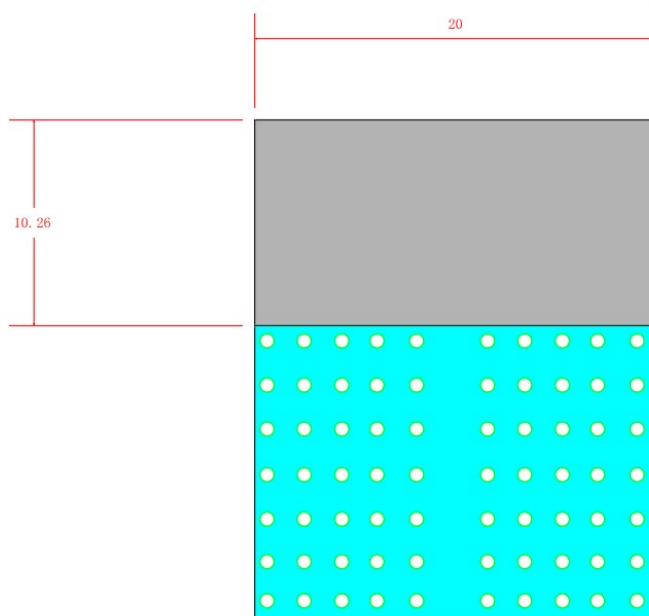


Figure 3. MAN3080C86 PCB Layout (Unit: mm) BOTTOM VIEW:



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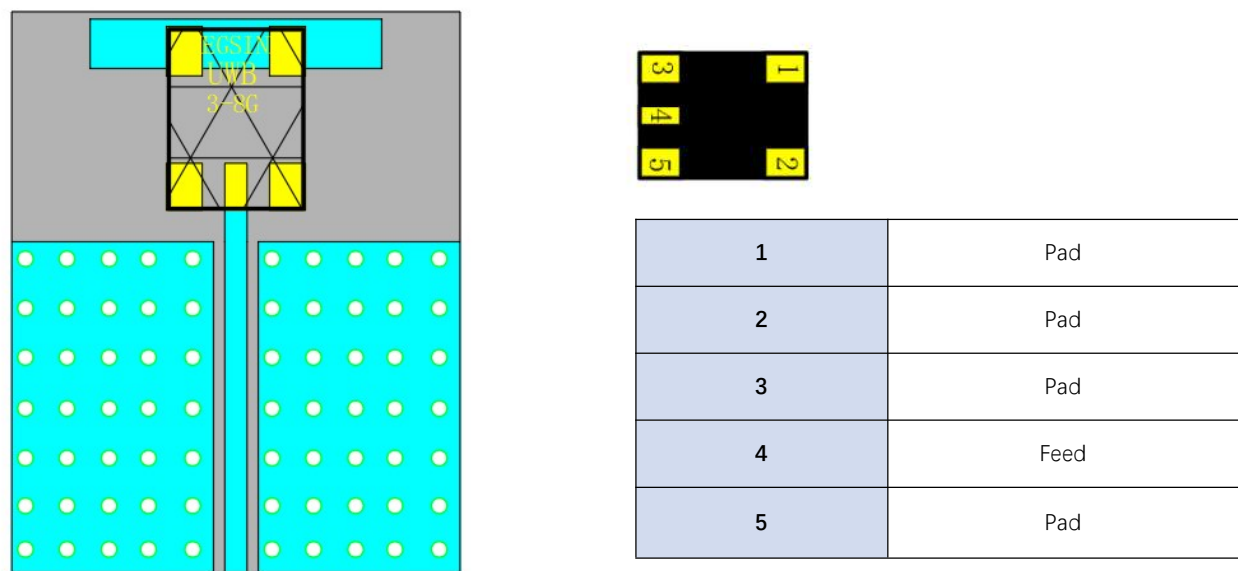
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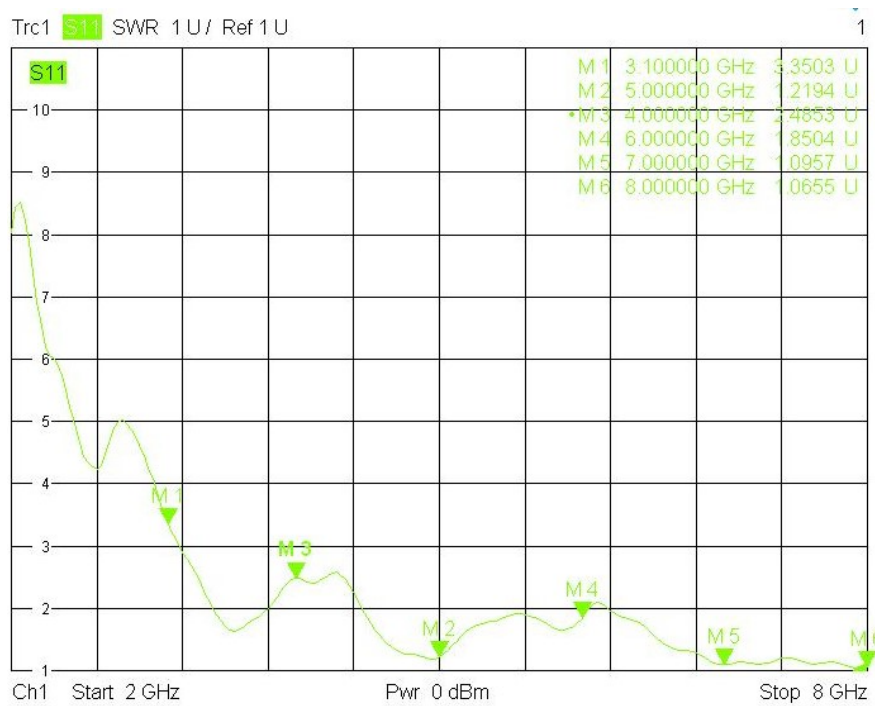


Figure 4. MAN3080C86 PCB Antenna Layout (Unit: mm)



Typical Performance

Figure 5. MAN3080C86 VSWR

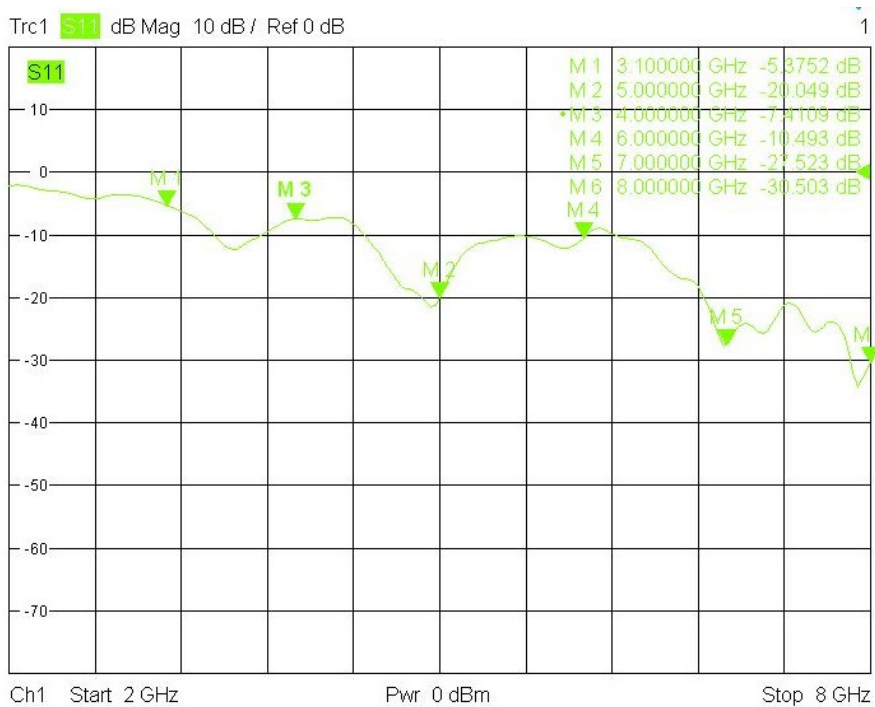


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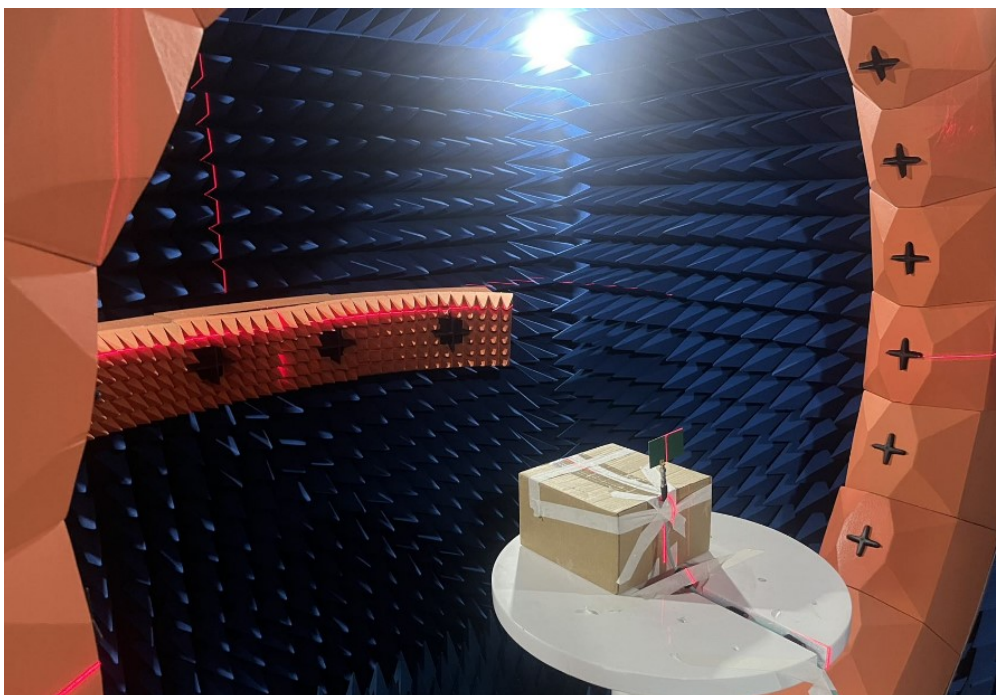


Figure 6. MAN8060 Return Loss



Radiation Pattern & Efficiency & Peak Gain

Figure 8. The Gain pattern is measured in FAR-field chamber



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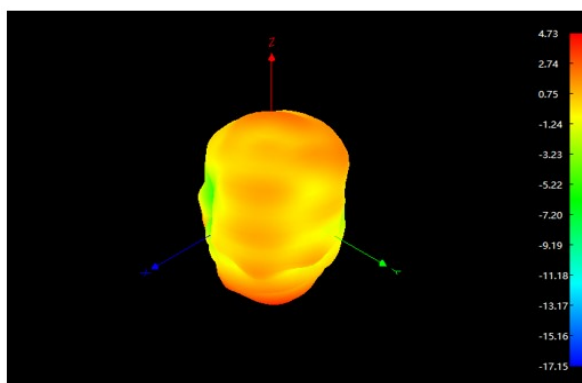


Table 3. MAN3080C86 Radiation Efficiency&Peak Gain

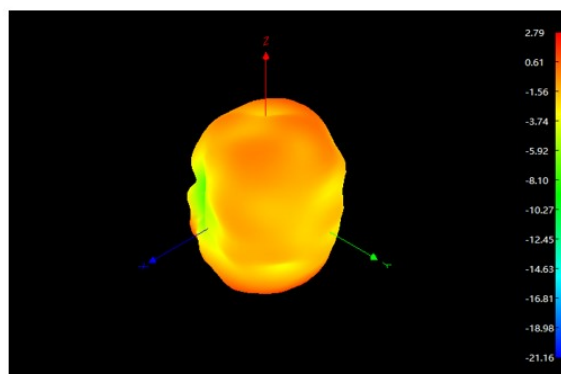
Frequency(MHz)	3000	3200	3400	3600	3800	4000	4200	4400	4600	4800	5000	5200	5400
Efficiency(%)	39.45	45.12	50.92	60.43	64.42	64.12	65.16	72.44	82.99	71.8	68.87	69.5	67.3
Peak Gain (dB)	1.2	1.74	2.23	2.79	3.91	2.91	3.49	5.16	4.73	4.11	5	5.33	5.35
Frequency(MHz)	5600	5800	6000	6200	6400	6600	6800	7000	7200	7400	7600	7800	8000
Efficiency(%)	62.09	69.84	62.72	57.1	58.13	59.32	65.08	68.34	70.39	73.38	71.09	70.95	73.58
Peak Gain (dB)	3.51	3.49	3.37	3.17	3.55	3.74	3.15	2.61	2.67	3.37	3.78	4.63	2.79

Figure 7. Radiation Pattern

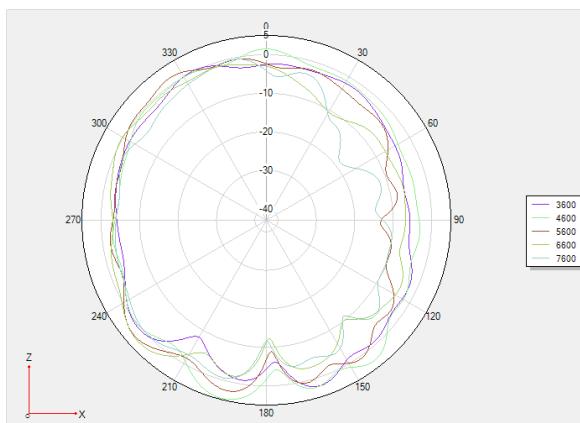
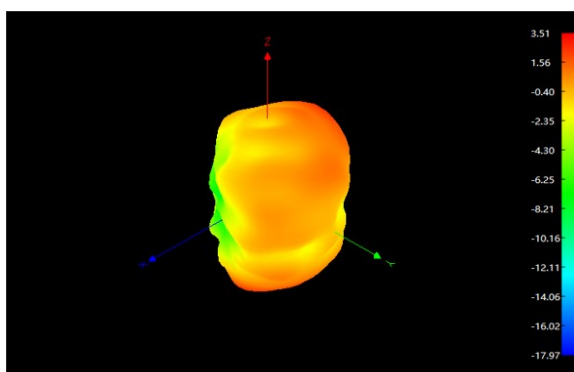
3D Total 4600MHz



3D Total 3600MHz



3D Total 5600MHz



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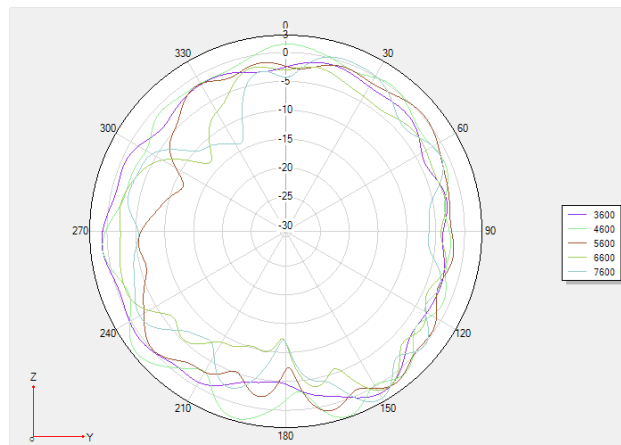
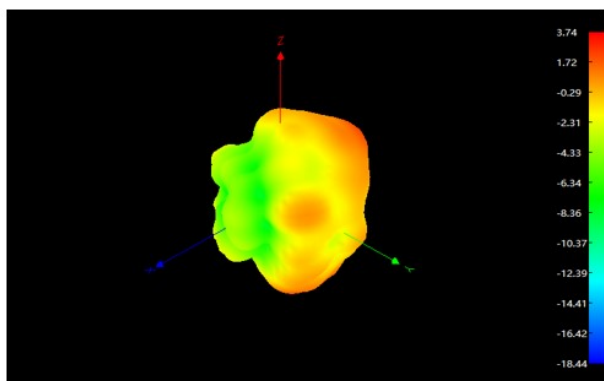
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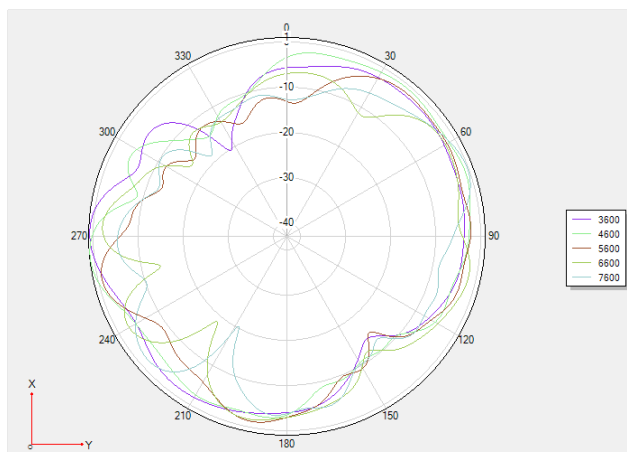
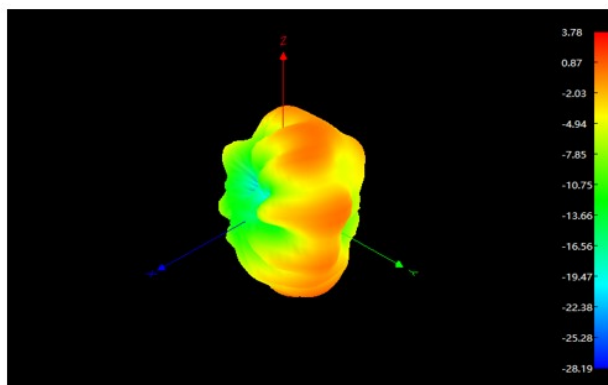
MiPD[®]

MECSINE 兆讯

3D Total 6600MHz



3D Total 7600MHz



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Packaging and Ordering Information

Figure 8. Packaging Information

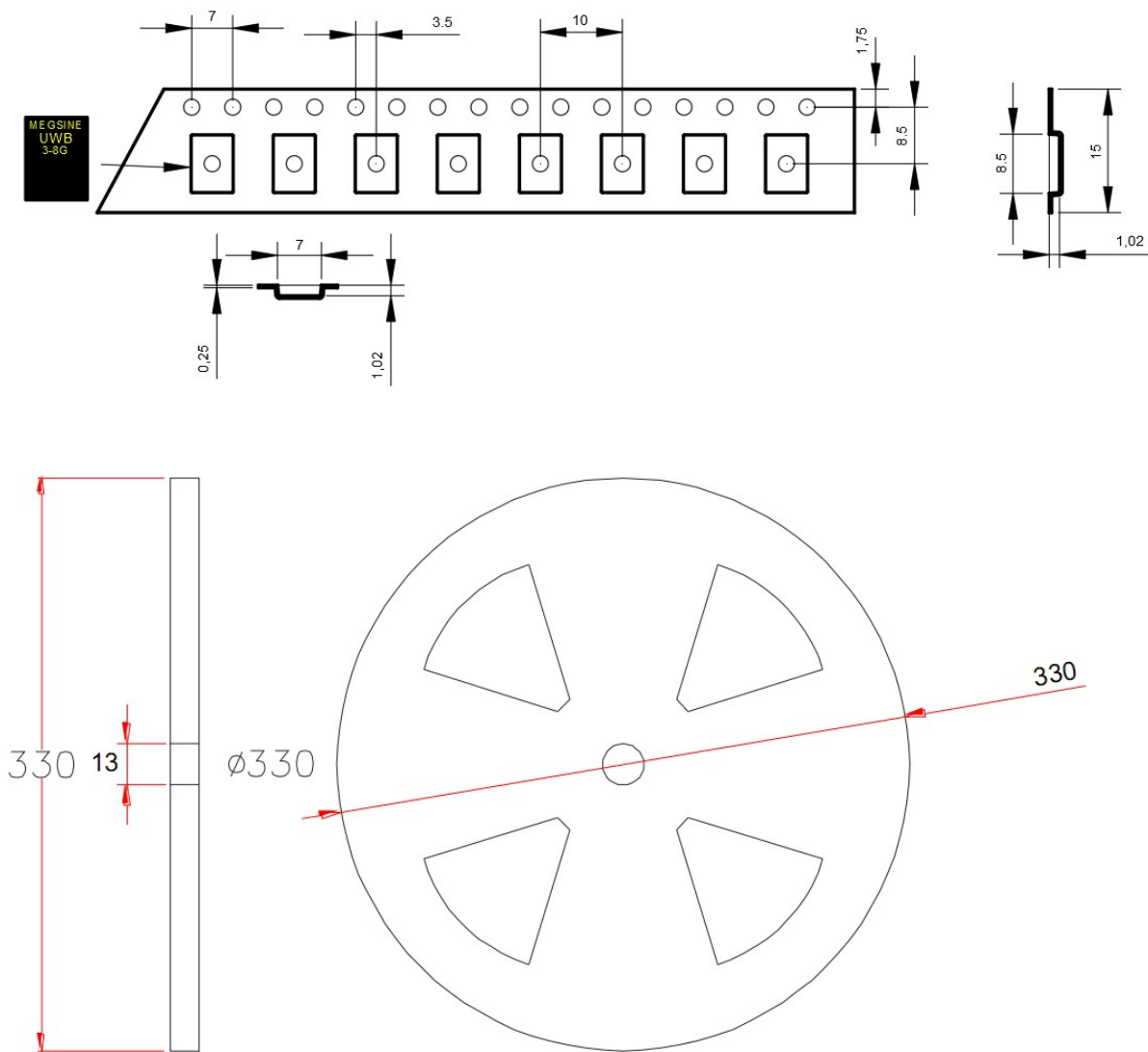


Table4. Packaging and Shipping

Device	Packaging	Reel	Shipping
MAN3080C86	SMD	7"	1000/Reel

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Revision	Description	Date
Rev0	Preliminary	2023/3/7

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