

MAN0727C250

4G LTE Chip Antenna

MECSINE 兆讯

Chip Antenna

For 4G LTE

MAN0727C250

25x7x3 mm

All Use For RF & Microwave

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

MAN0727C250

4G LTE Chip Antenna

MECSINE 兆讯

Applications

1. GSM device
2. WCDMA gadget
3. 4G LET
4. CAT-1 device



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. MAN0727C250 Electrical Specification

Item	Low Fre	Mid Fre	High Fre	Unit
Frequency Range	698-960	1710-2170	2300-2690	MHz
Efficiency	17-40	47-68	40-49	%
Peak Gain	1.28	4.88	2.5	dBi
Polarization	Linear	Linear	Linear	
Nominal Impedance	50	50	50	Ω

- Ta: +25±5°C

Mechanical Specifications

Table 2. MAN0727C250 Mechanical Specification

Item	Min.	Type	Max.	Unit
Antenna Size		25*7*3		Mm
Storage Temperature	-40		+125	°C
Operating temperature	-40		+125	°C

All Use For RF & Microwave

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

MAN0727C250

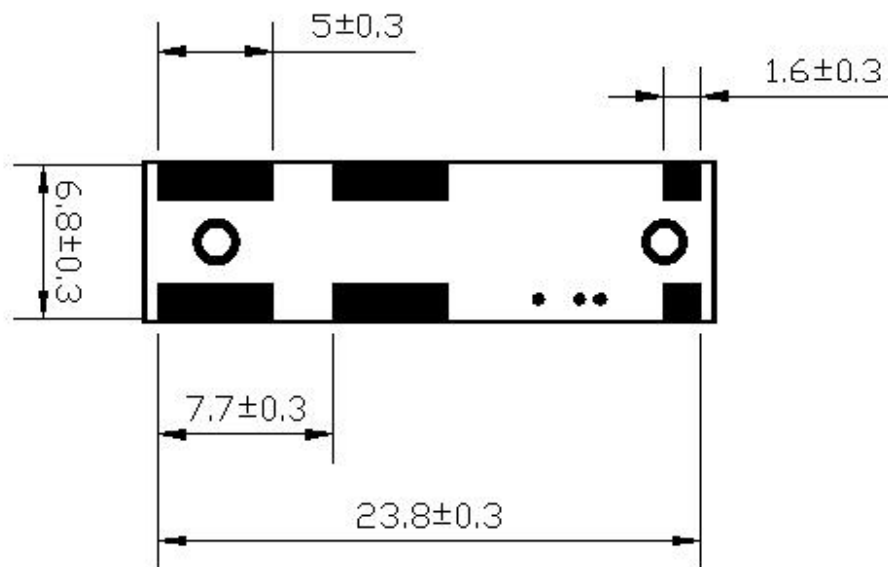
4G LTE Chip Antenna

MECSINE 兆讯

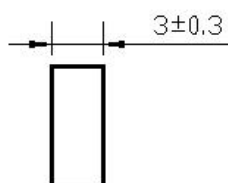
Outline Drawing

Figure 1. MAN0727C250 View (Unit: mm)

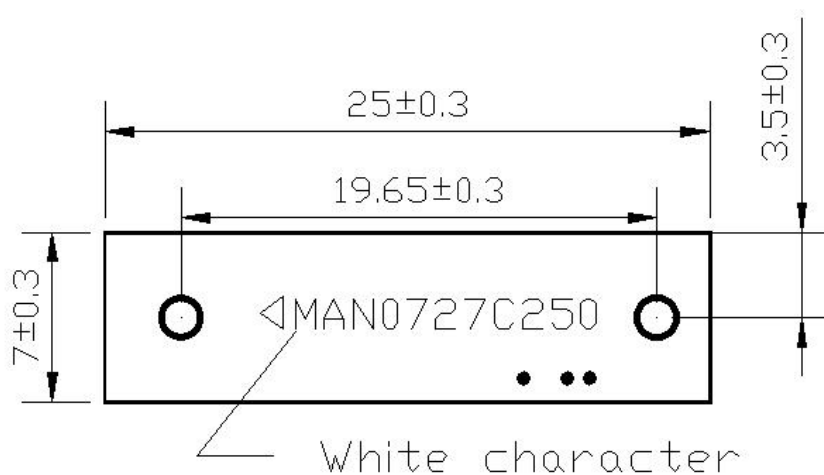
BOTTOM VIEW



SIDE VIEW



TOP VIEW



All Use For RF & Microwave

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

MAN0727C250

4G LTE Chip Antenna

MECSINE 兆讯

Recommend PCB Layout

Figure 2. MAN0727C250 PCB Layout (Unit: mm)

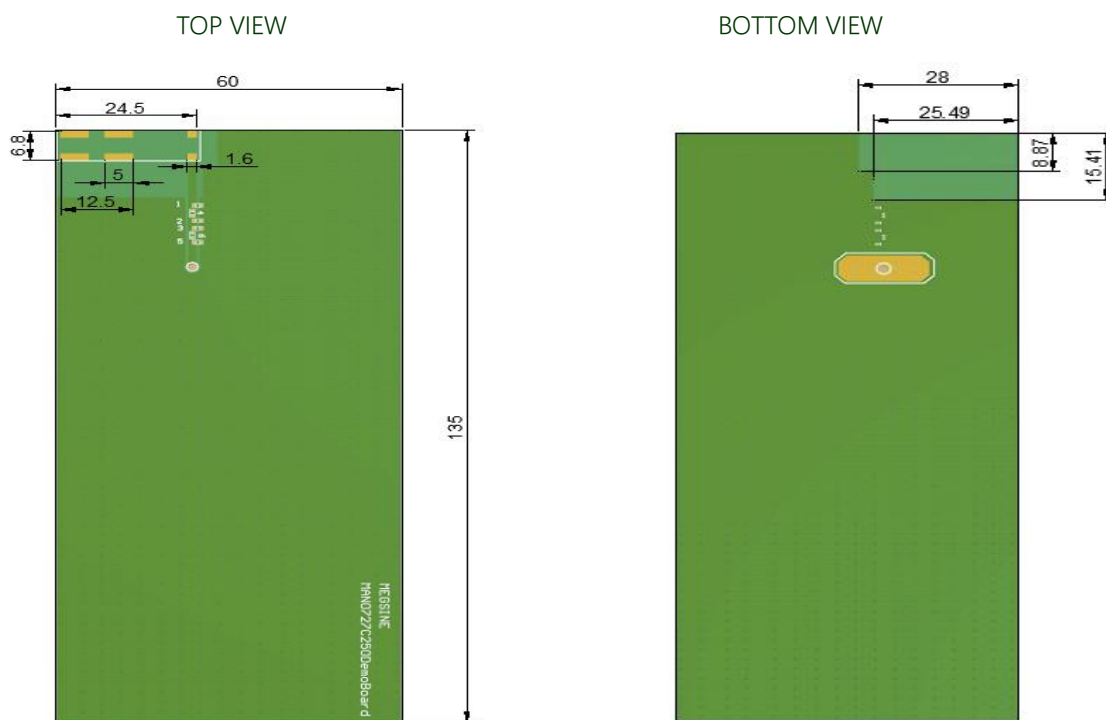


Figure 3. MAN0727C250 Matching Circuit

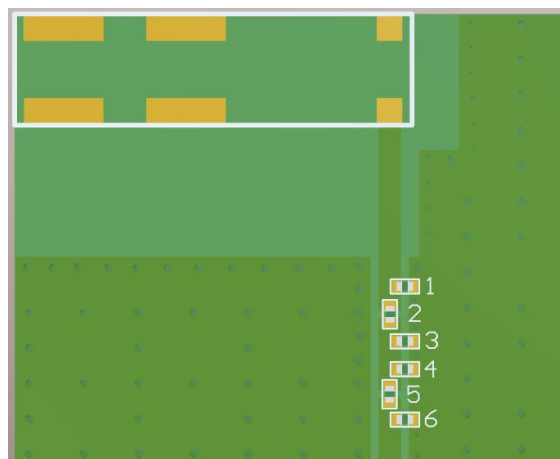


Table 3. MAN0727C250 Matching

Location	Description	Vendor
1	10nH	MURATA
2	2.4pF	MURATA
3	N/C	N/C
4	N/C	N/C
5	1.5nH	MURATA
6	N/C	N/C

All Use For RF & Microwave

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

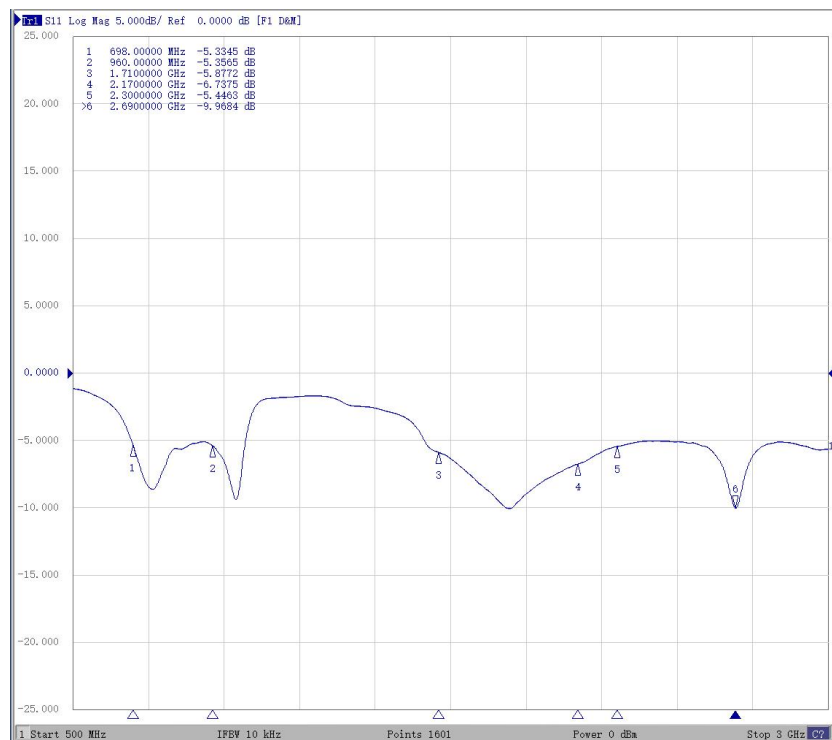
MAN0727C250

4G LTE Chip Antenna

MECSINE 兆讯

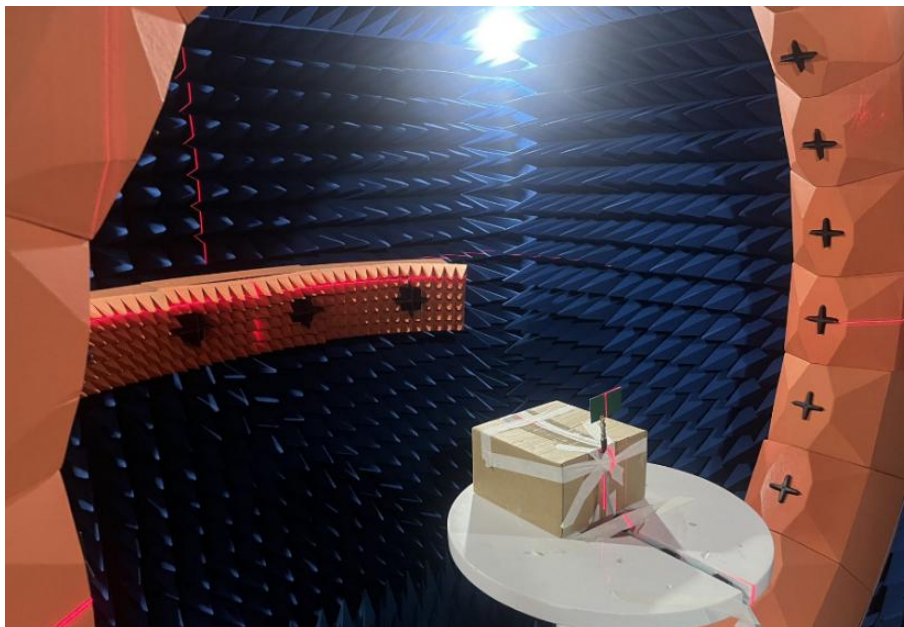
Typical Performance

Figure 4. MAN0727C250 Return Loss



Radiation Pattern & Efficiency & Peak Gain

Figure 5. 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

MAN0727C250

4G LTE Chip Antenna

MECSINE 兆讯

Table 4. MAN0727C250 Total Efficiency&Peak Gain

Item (MHz)	Efficiency (%)	Peak Gain (dBi)	Item (MHz)	Efficiency (%)	Peak Gain (dBi)
700	17.91	-2.96	950	39.99	0.97
710	19.99	-2.17	960	38.22	0.45
720	20.84	-1.83	1710	47.83	1.64
730	22.49	-1.10	1750	48.32	1.88
740	22.44	-0.71	1790	49.73	2.93
750	25.13	0.01	1830	58.34	4.83
760	29.57	0.60	1870	65.19	4.44
770	31.39	0.54	1910	68.03	3.92
780	33.45	0.79	1950	67.64	3.75
790	33.79	0.83	1990	68.19	4.07
800	34.21	0.35	2030	64.89	4.88
810	34.51	0.11	2070	67.58	4.04
820	34.94	0.07	2110	65.61	2.69
830	35.96	0.51	2150	64.73	2.60
840	35.55	0.53	2300	49.67	2.50
850	34.72	0.26	2340	46.43	2.09
860	34.49	0.01	2380	43.03	1.72
870	32.54	0.40	2420	40.86	1.36
880	32.88	0.80	2460	43.10	1.95
890	34.57	0.94	2500	42.75	1.27
900	35.71	0.88	2540	46.35	1.43
910	37.16	0.51	2580	44.66	0.62
920	39.32	0.57	2620	45.07	0.45
930	40.56	0.91	2660	48.05	1.24
940	40.64	1.28	2700	46.21	0.28

All Use For RF & Microwave

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

MAN0727C250

4G LTE Chip Antenna

MECSINE 兆讯

Figure 6. MAN0727C250 Total Efficiency

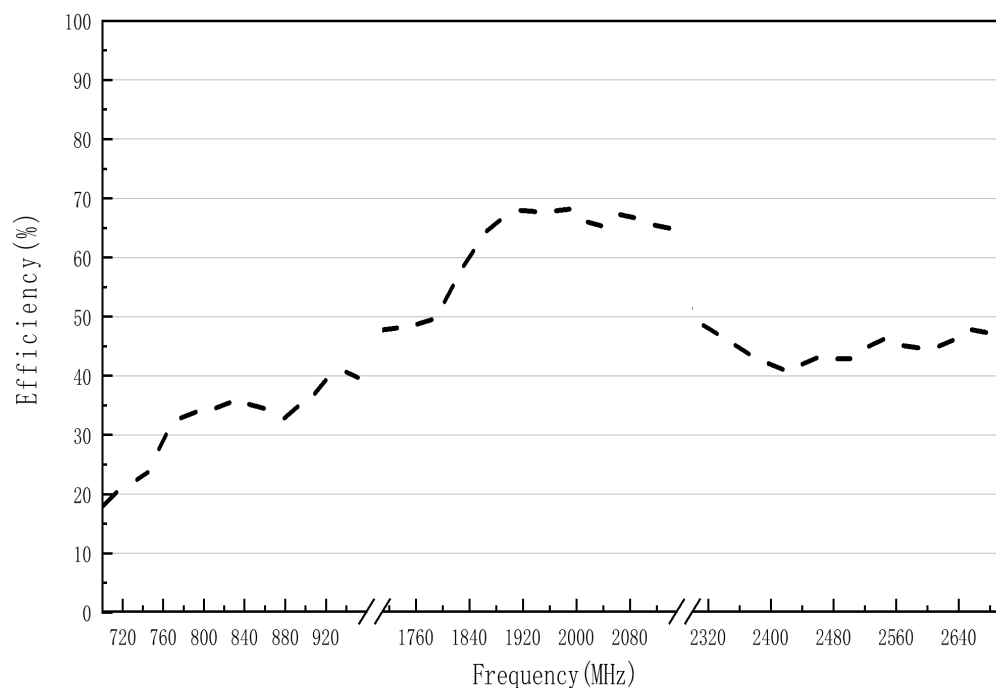
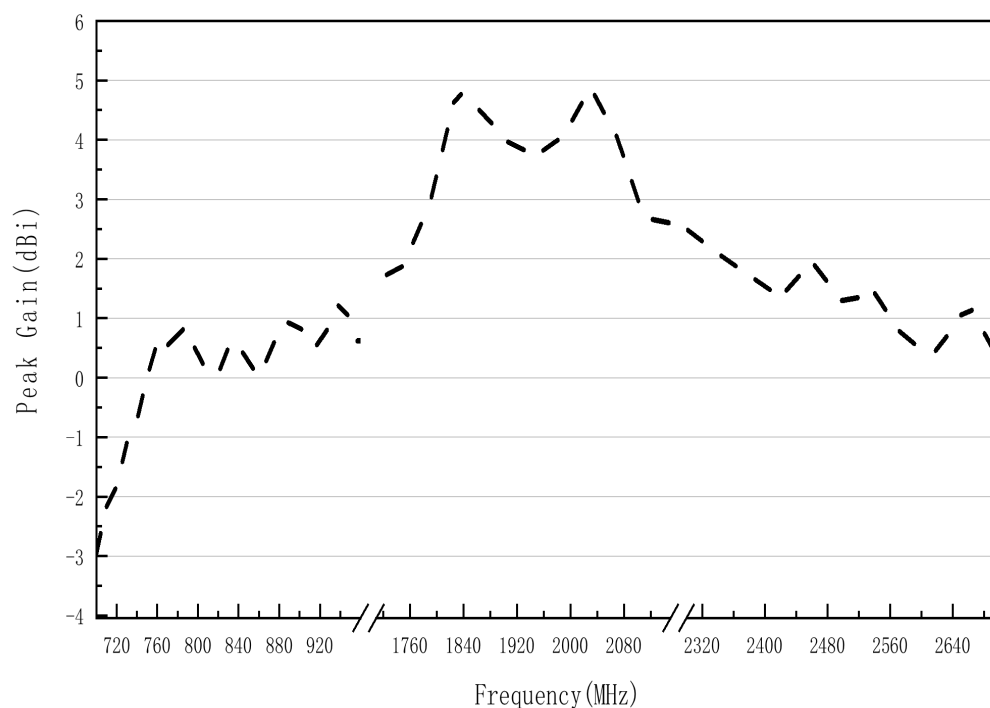


Figure 7. MAN0727C250 Peak Gain



All Use For RF & Microwave

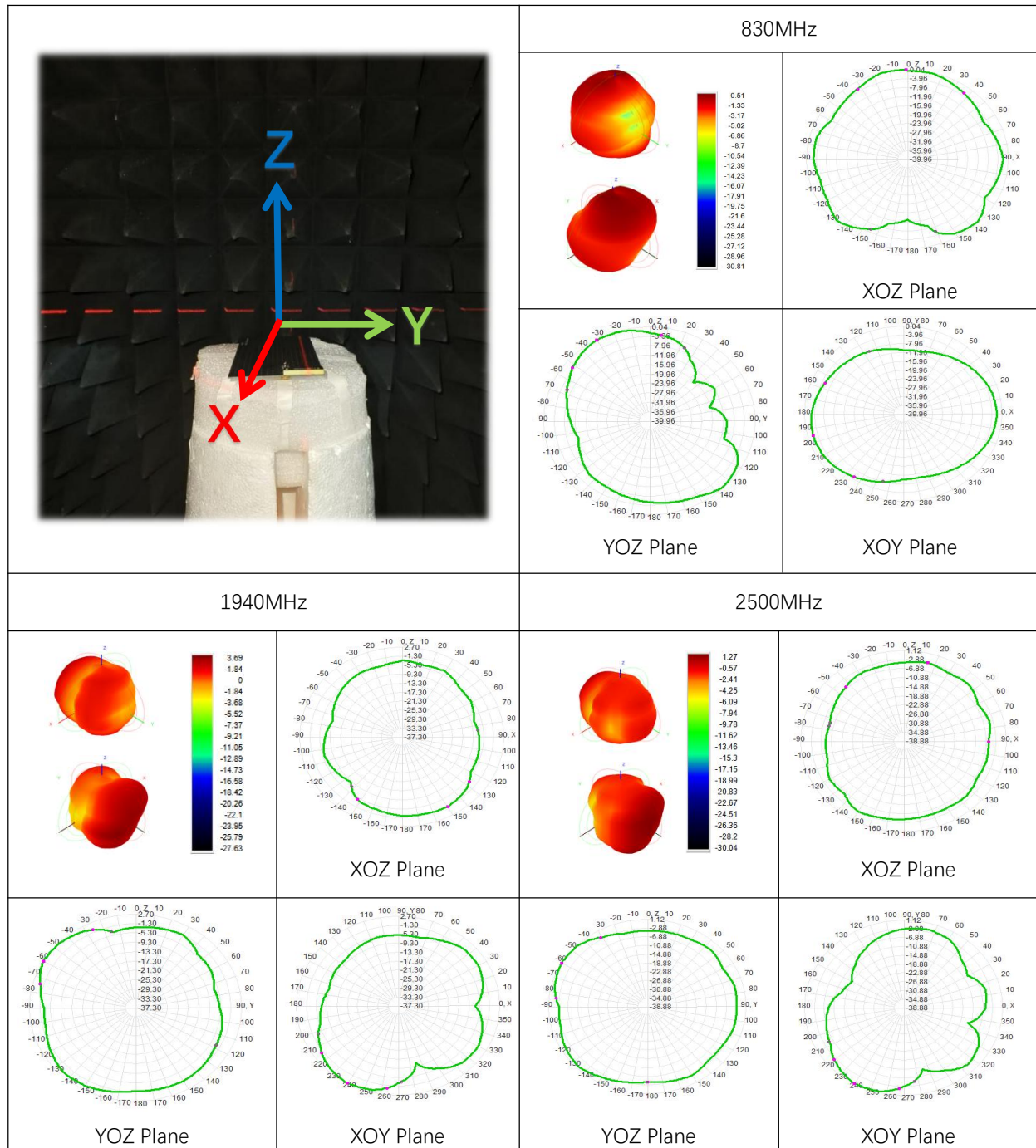
Shenzhen Megsine technology co.,ltd www.megsine.com sales@megsine.com

MAN0727C250

4G LTE Chip Antenna

MECSINE 兆讯

Figure 8. 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

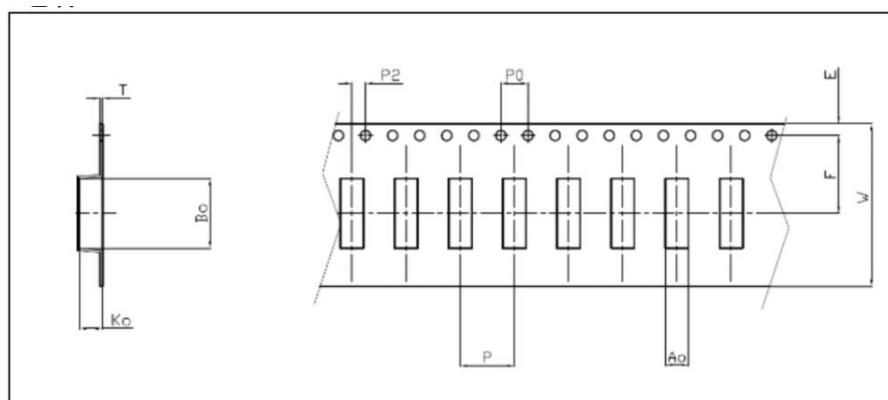
MAN0727C250

4G LTE Chip Antenna

MECSINE 兆讯

Packaging and Ordering Information

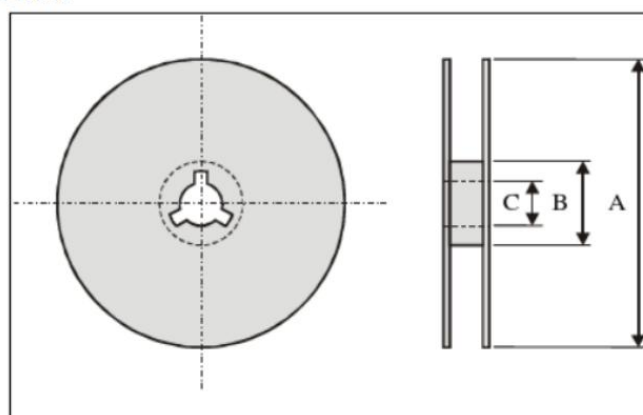
Figure 9. Packaging Information



Plastic Tape specification (unit:mm)

Index	Ao	Bo	Ko	T	W
Dimension (mm)	4.0 ± 0.1	24.0 ± 0.1	1.8 ± 0.1	0.3 ± 0.05	32.0 ± 0.3
Index	E	F	P	P0	P2
Dimension (mm)	1.75 ± 0.1	14.0 ± 0.1	8.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1

Reel dimensions



Index	A	B	C
Dimension(mm)	330	100	13.5

Table 5. Packaging and Shipping

Device	Packaging	Reel	Shipping
MAN0727C250	SMD	13"	1500/Reel

All Use For RF & Microwave

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

MAN0727C250

4G LTE Chip Antenna



Revision	Description	Date
Rev0	Preliminary	2026/1/16

All Use For RF & Microwave