

MAN0850C260

5G NR Chip Antenna

MECSINE 兆讯

Chip Antenna

For 5G NR

MAN0850C260

26x5x1.6 mm

All Use For RF & Microwave

Shenzhen Megsine technology co., ltd www.megsine.com sales@megsine.com may contain us for future information
Feb. 03, 2024

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Application

1. GSM device
2. WCDMA gadget
3. CAT-1 device
4. 5G NR



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. MAN0850C260 Electrical Specification

Item	Low Fre	Mid Fre	High Fre	Unit
Frequency Range	824-960	1710-2690	3300-5000	MHz
Efficiency	8-30	11-80	37-56	%
Peak Gain	-1.3	3.43	2.82	dBi
Polarization	Linear	Linear	Linear	
Nominal Impedance	50	50	50	Ω

- Ta: +25±5°C

Mechanical Specifications

Table 2. MAN0850C260 Mechanical Specification

Item	Min.	Type	Max.	Unit
Antenna Size		26*5*1.6		Mm
Temperature	-40		+85	°C
Operating temperature	-40		+85	°C

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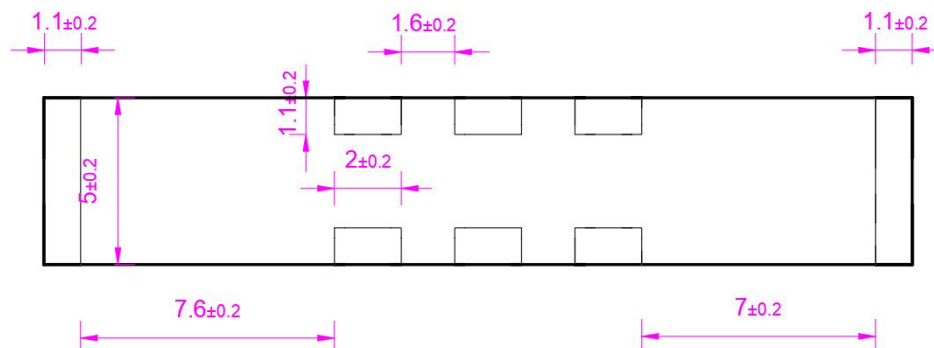
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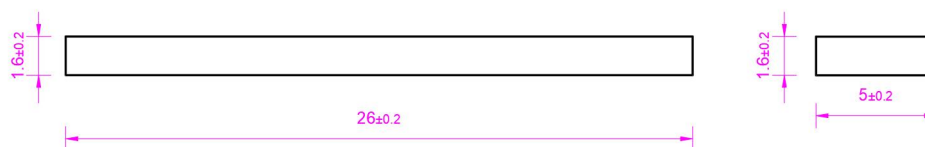
Outline Drawing

Figure 1. MAN0850C260 View (Unit: mm)

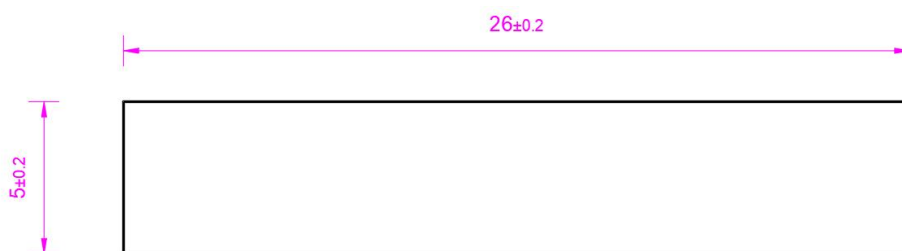
BOTTOM VIEW



SIDE VIEW



TOP VIEW

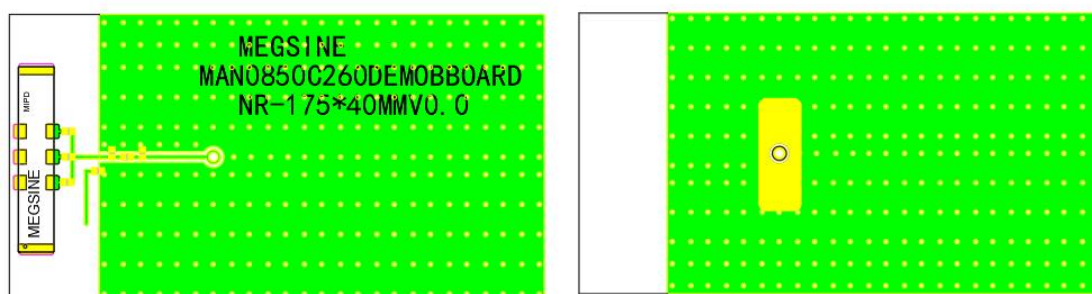


Recommend PCB Layout

Figure 2. MAN0850C260 PCB Layout (Unit: mm)

TOP VIEW

BOTTOM VIEW



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Figure 3. MAN0850C260 Antenna Layout (Unit: mm)

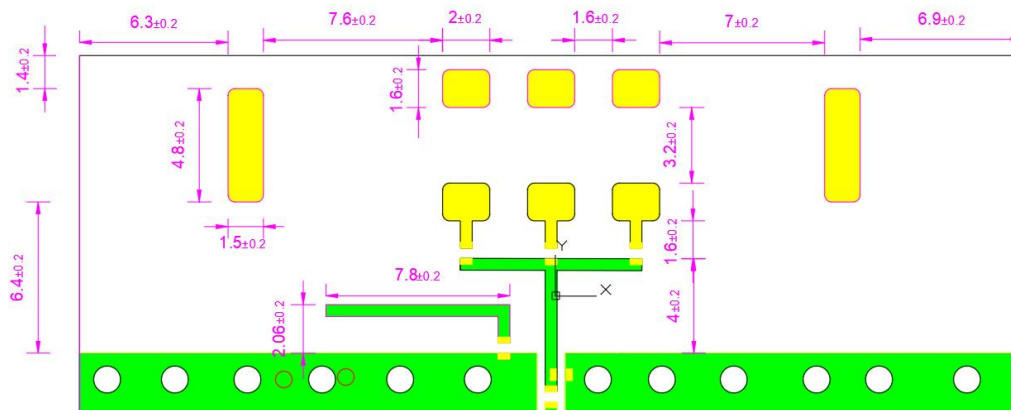


Figure 4. MAN0850C260 Matching Circuit

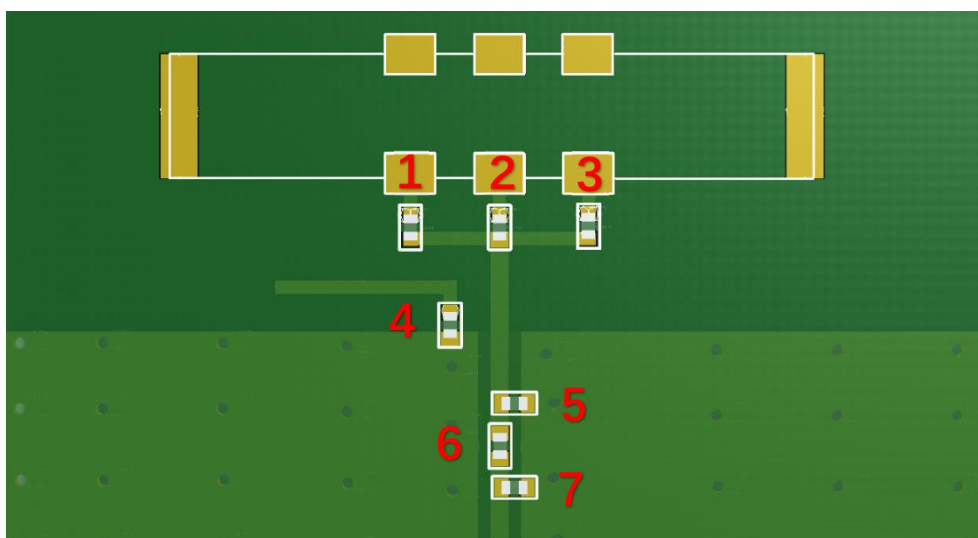


Table 3. MAN0850C260 Matching

Location	Description	Vendor
1	18nH	MURATA
2	0Ω	MURATA
3	2.0nH	MURATA
4	0Ω	MURATA
5	6.8nH	MURATA
6	0Ω	MURATA
7	N/C	/

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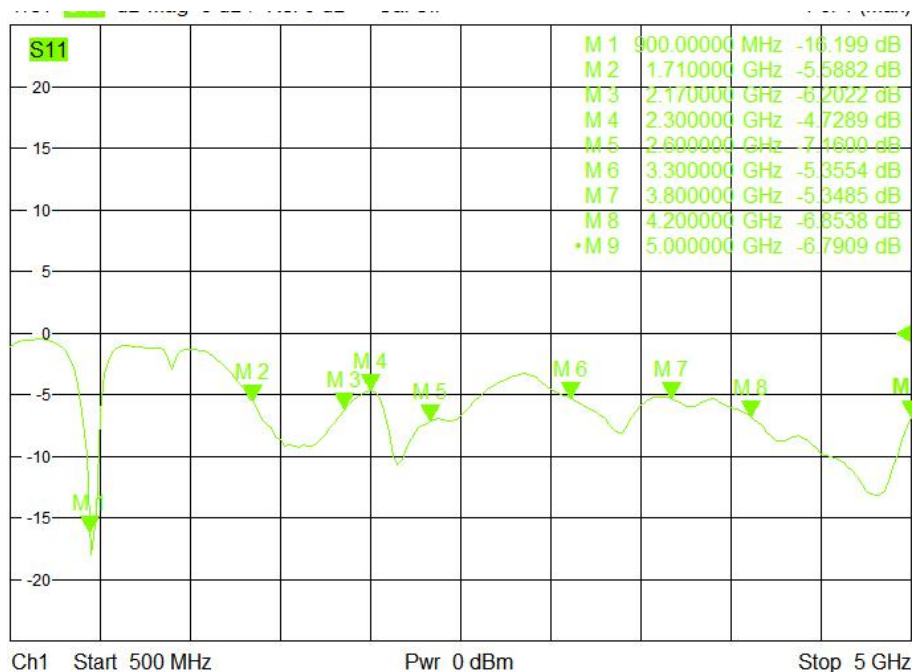
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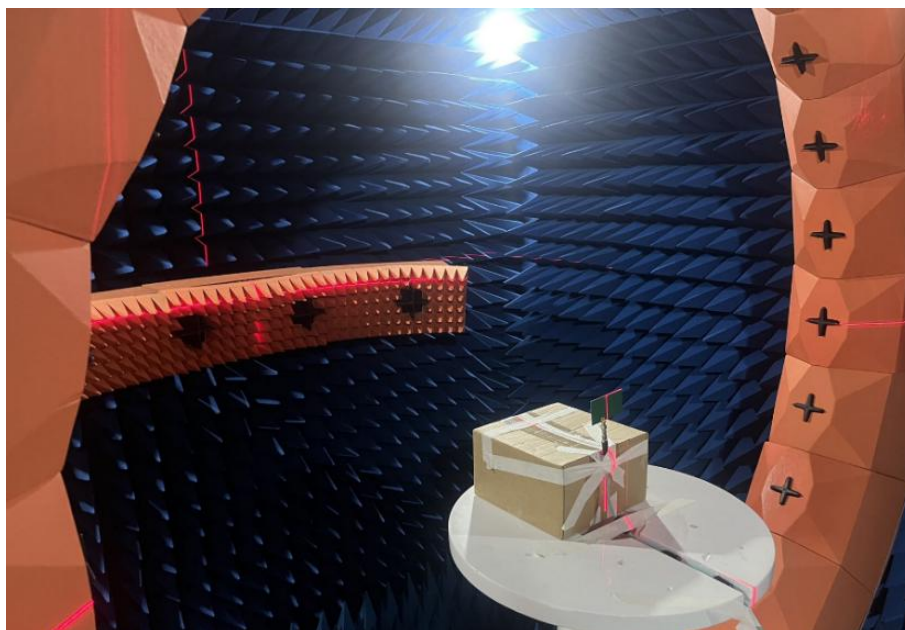
Typical Performance

Figure 5. MAN0850C260 Return Loss



Radiation Pattern & Efficiency & Peak Gain

Figure 6. The Gain pattern is measured in FAR-field chamber



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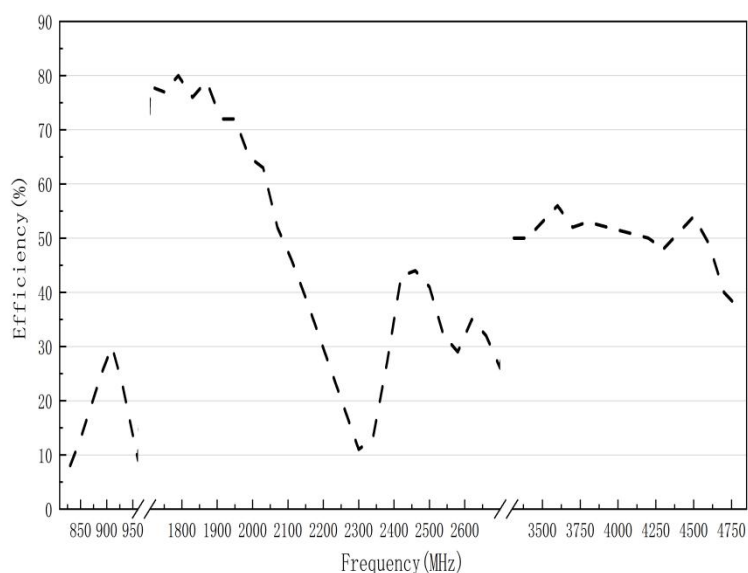
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Table 4. MAN0850C260 Total Efficiency&Peak Gain

Item (MHz)	Efficiency (%)	Peak Gain (dBi)	Item (MHz)	Efficiency (%)	Peak Gain (dBi)	Item (MHz)	Efficiency (%)	Peak Gain (dBi)
830	8	-6.96	2030	63	2.99	3300	50	1.78
850	13	-4.90	2070	52	2.30	3400	50	1.50
870	19	-2.98	2110	46	0.98	3500	53	2.47
890	25	-1.87	2150	39	2.35	3600	56	2.80
910	30	-1.30	2300	11	-4.50	3700	52	1.79
930	23	-2.65	2340	13	-4.72	3800	53	2.63
960	9	-6.34	2380	27	-0.51	4200	50	2.82
1710	78	2.82	2420	43	1.38	4300	48	2.58
1750	77	2.43	2460	44	1.71	4400	51	2.73
1790	80	3.19	2500	41	1.59	4500	54	2.57
1830	76	2.74	2540	32	0.73	4600	49	2.71
1870	79	3.43	2580	29	-0.61	4700	40	1.87
1910	72	2.83	2620	35	0.38	4800	37	1.84
1950	72	2.97	2660	32	0.98			
1990	65	2.76	2700	26	-0.66			

Figure 7. MAN0850C260 Total Efficiency



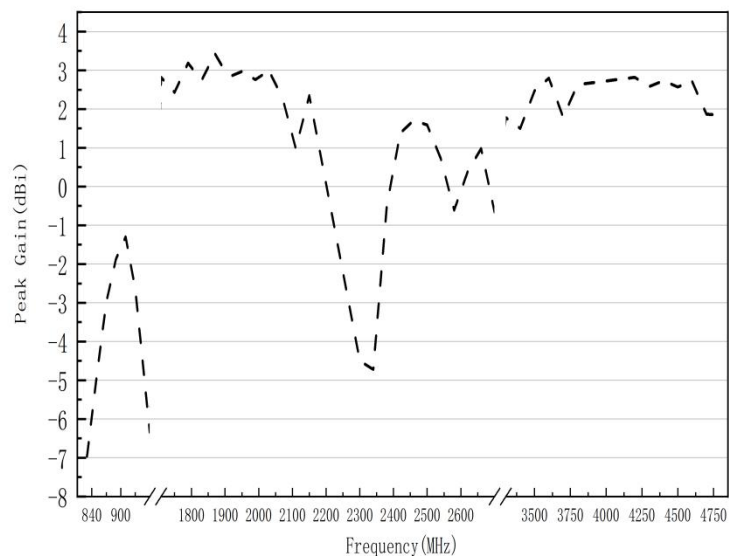
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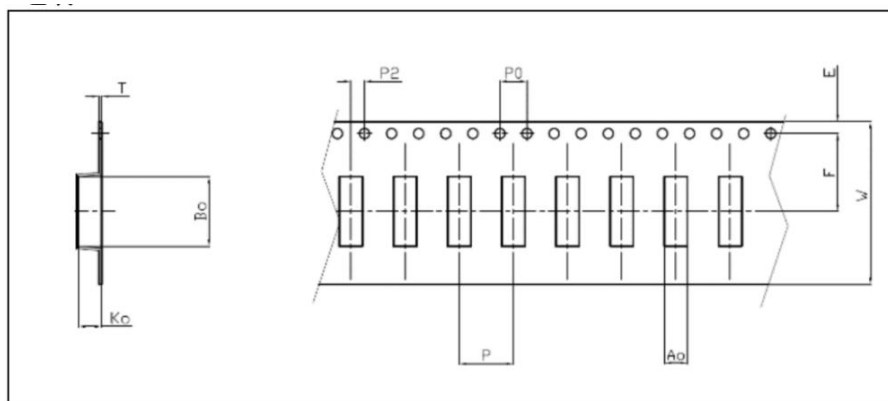
Figure 8. MAN0850C260 Peak Gain



*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.

Packaging and Ordering Information

Figure 9. Packaging Information



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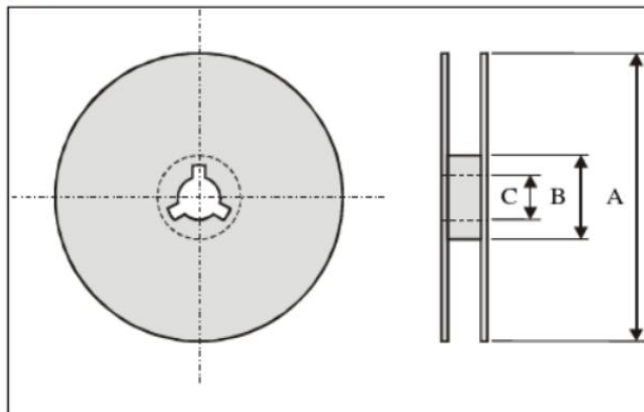
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Plastic Tape specification (unit:mm)

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
MAN0850C260	SMD	13"	3000/Reel

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Revision	Description	Date
Rev0	Preliminary	2023/8/17

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