

MAN0826C230

GSM/CDMA/LTE/Cat1 Chip Antenna



Applications

1. Cat1, WCDMA, GSM & LTE Device
2. WiFi Dongle
3. WeChat Payment Speaker

Features

1. Compact size
2. Omni-directional radiation.
3. Tape & reel automatic mounting
4. 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. MAN0826C230 Electrical Specification

Item	Low Freq	High Freq	Unit
Frequency Range	824-960	1710-2690	MHz
Efficiency	8-18	18-65	%
Peak Gain	-2.04	1.71	dBi
Polarization	Linear	Linear	
Nominal Impedance	50	50	Ω

Mechanical Specifications

Table 2. MAN0826C230 Mechanical Specification

Item	Min.	Type.@25°C	Max.	Unit
Antenna Size		23*1.6* 3.5		Mm
Temperature	-40		+80	°C
Operating temperature	-40		+80	°C

Outline Drawing

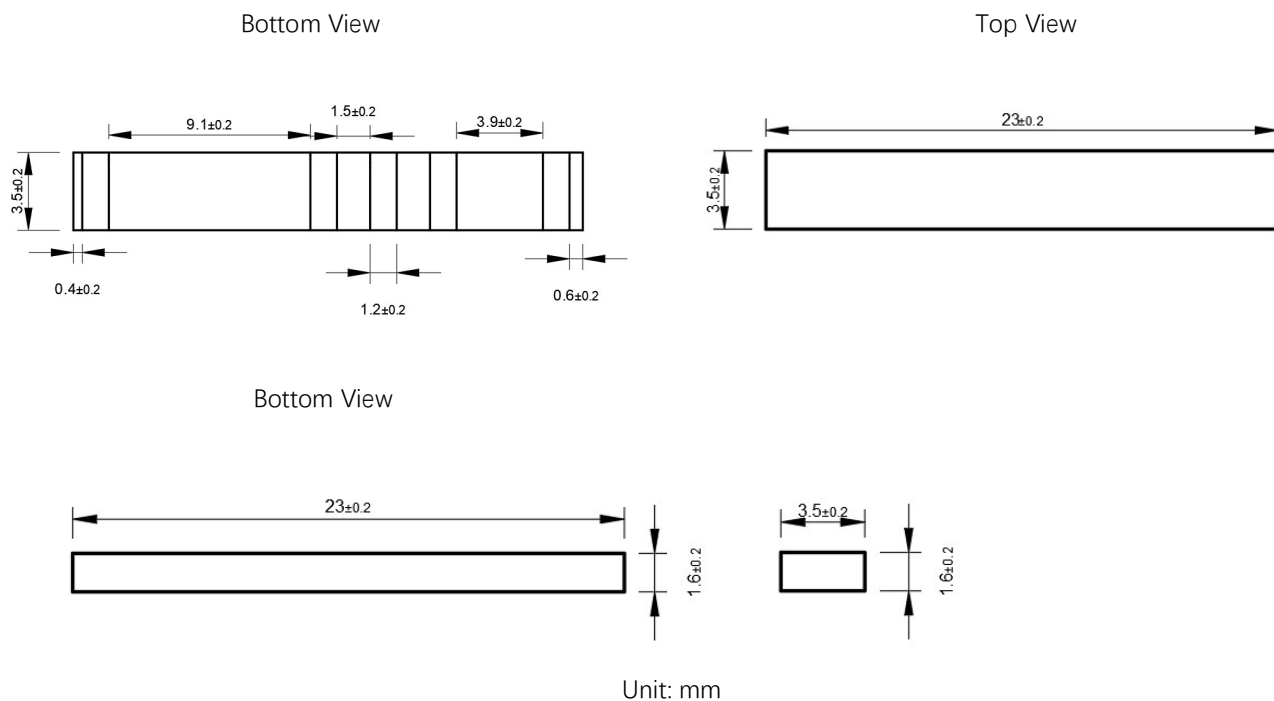
Figure 1. MAN0826C230 View (Unit: mm)

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Recommend PCB Layout

Figure 2. MAN0826C230 PCB Layout 60*40mm

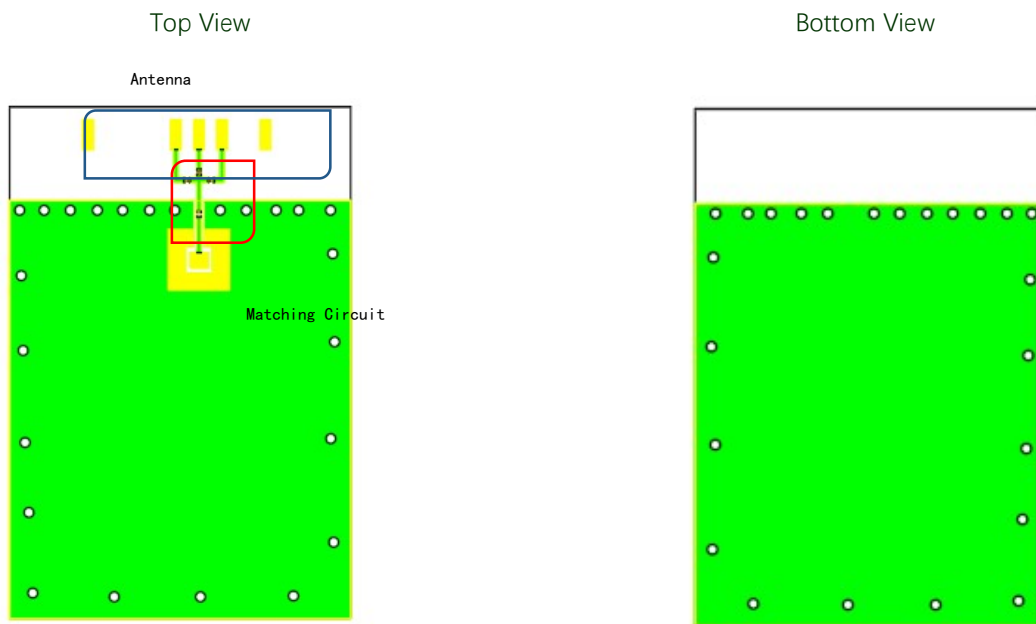


Figure 3. MAN0826C230 Antenna Layout (Unit: mm)

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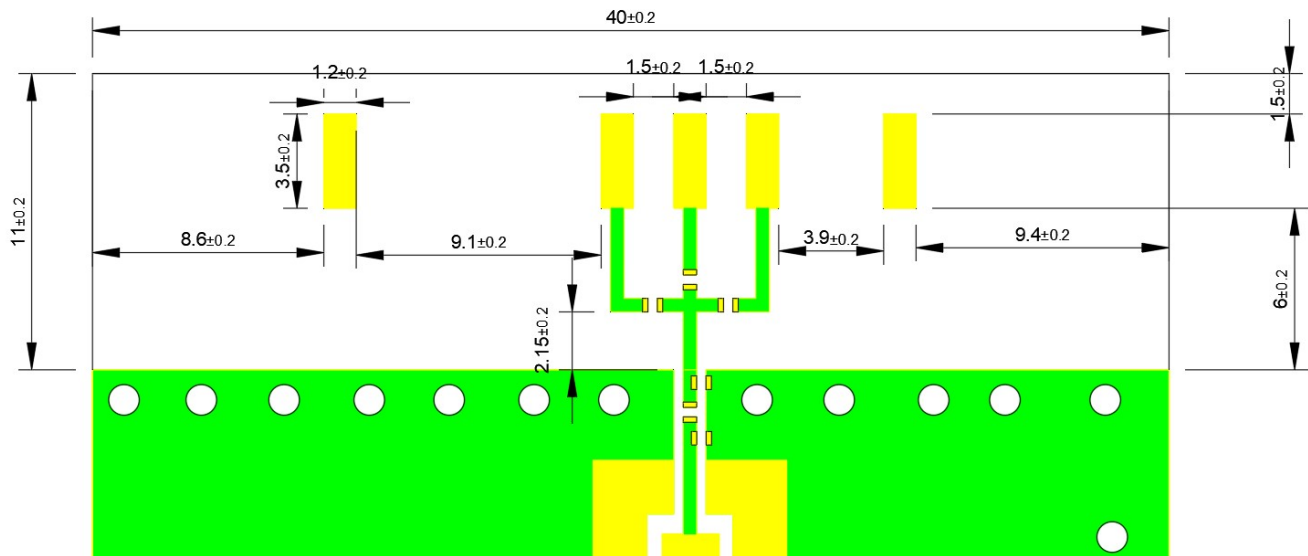
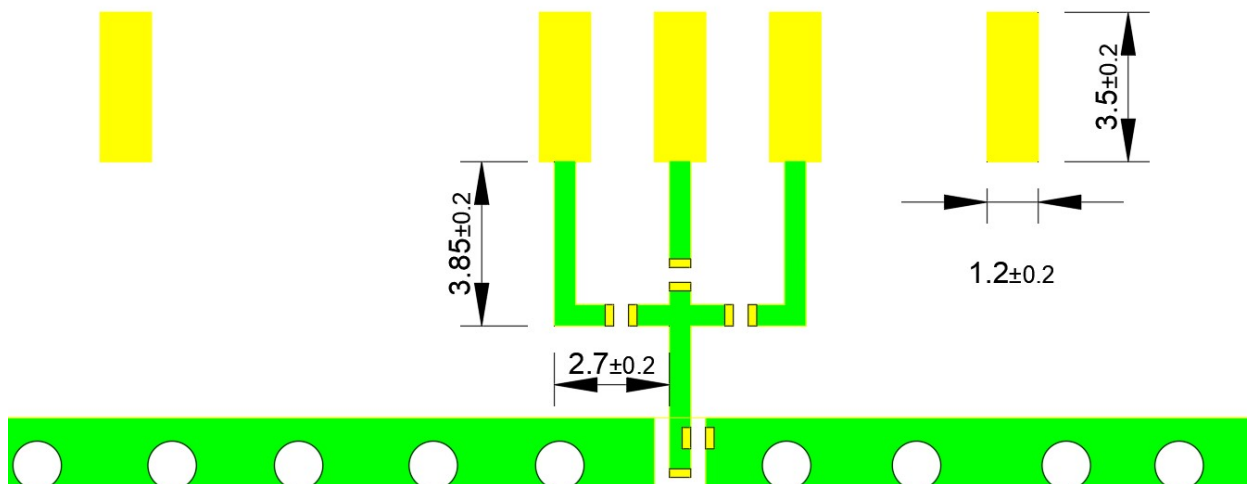


Figure 4. MAN0826C230 Foot Print (Unit: mm)



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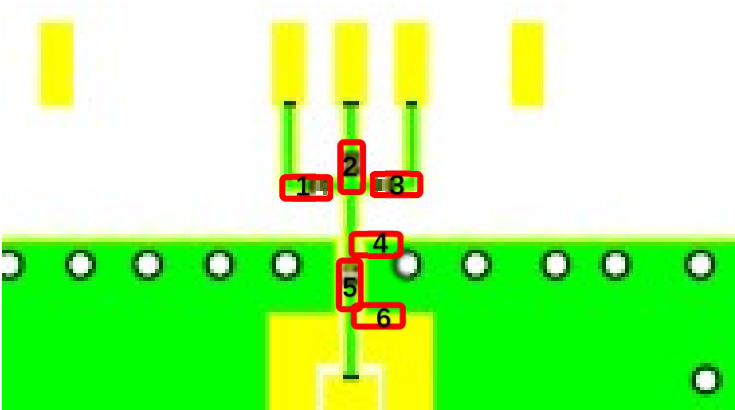
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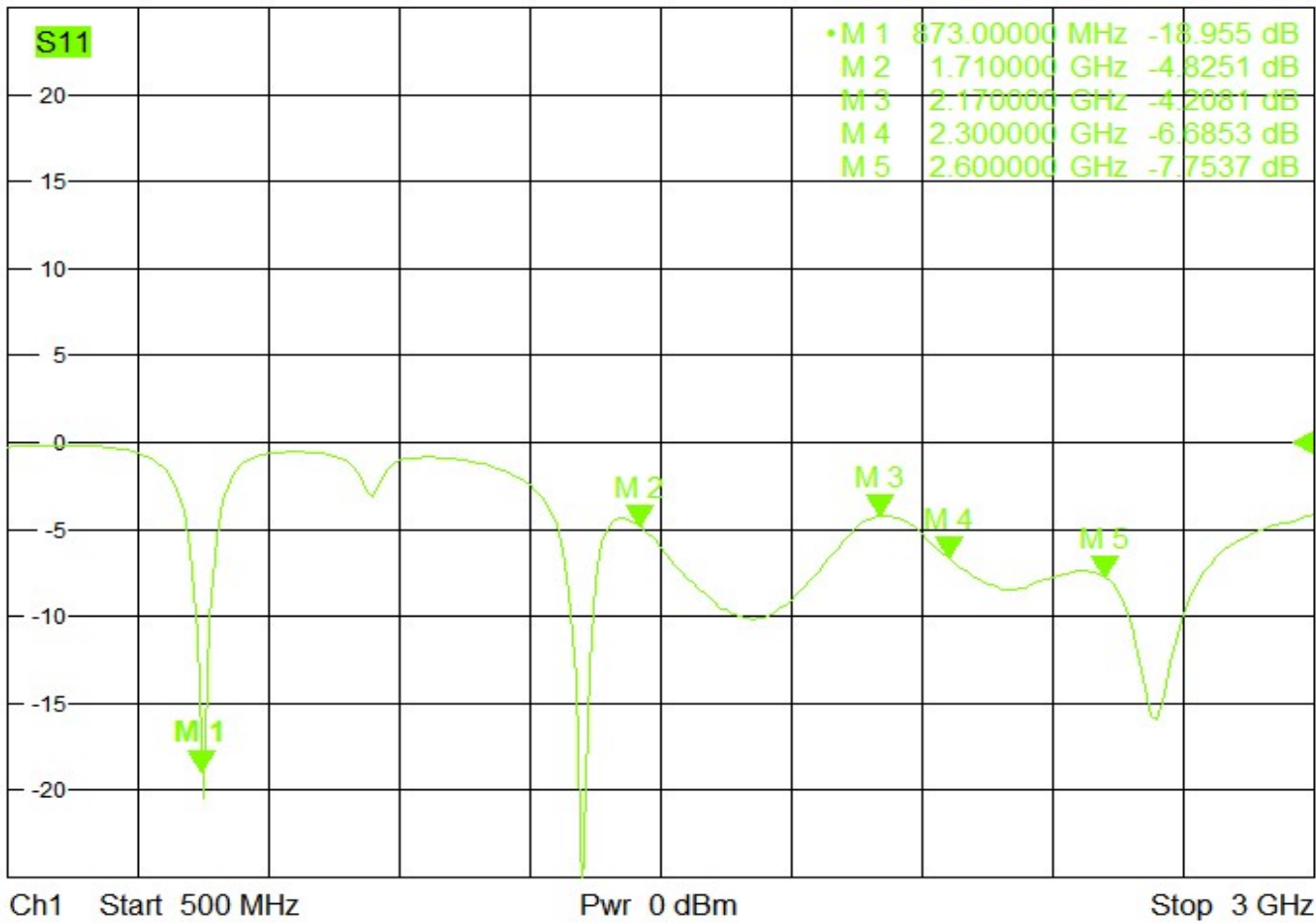
Typical Performance

Figure 5. MAN0826C230 Matching Circuit



Location	Description	Vendor
1	18nH	MURATA
2	4.3nH	MURATA
3	3.0nH	MURATA
4	N/C	/
5	0Ω	MURATA
6	N/C	/

Figure 6. MAN0826C230 Return Loss



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Radiation Pattern& Efficiency&Peak Gain

Figure 7. MAN0826C230 Gain pattern is measured in FAR-field chamber

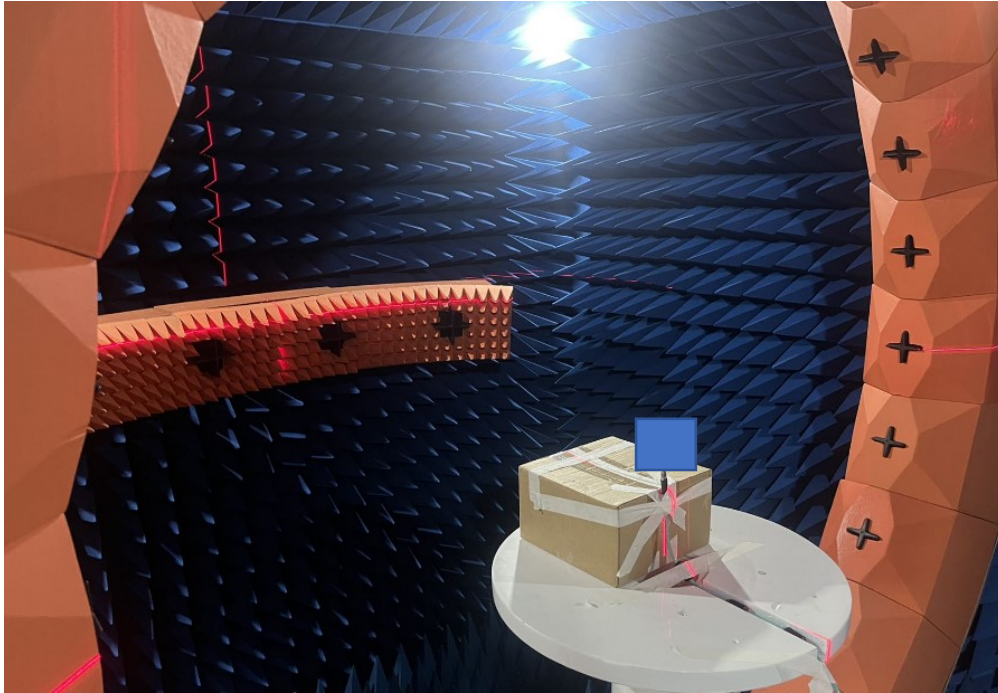
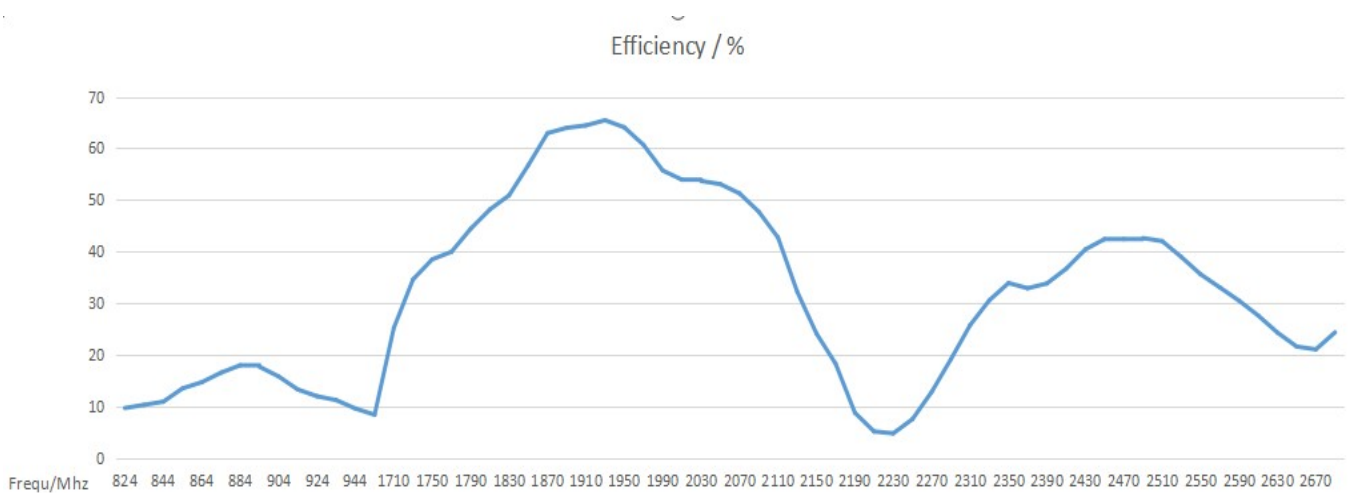


Figure 8. Radiation Efficiency&Peak Gain



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Freq	Efficiency	Peak Gain	Freq	Efficiency	Peak Gain	Freq	Efficiency	Peak Gain
824	9.79	-4.04	1830	50.93	0.56	2350	33.96	-1.12
834	10.4	-2.89	1850	56.75	0.63	2370	32.96	-0.88
844	11.02	-2.65	1870	62.95	0.94	2390	33.88	-0.21
854	13.59	-2.73	1890	63.98	1.32	2410	36.73	0.16
864	14.78	-2.59	1910	64.45	1.71	2430	40.46	0.5
874	16.62	-3.04	1930	65.45	1.55	2450	42.46	0.53
884	18.06	-2.04	1950	64.07	1.04	2470	42.46	0.33
894	17.78	-2.93	1970	60.67	0.65	2490	42.66	0.05
904	15.9	-3.01	1990	55.72	0.6	2510	42.07	-0.18
914	13.37	-2.33	2010	53.95	0.53	2530	38.99	-0.45
924	12.07	-2.63	2030	53.7	0.78	2550	35.65	-0.33
934	11.32	-2.98	2050	53.09	0.66	2570	33.11	-0.21
944	9.69	-4.35	2070	51.29	0.13	2590	30.55	-0.62
954	8.49	-4.88	2090	47.75	-0.26	2610	27.67	-1.25
1710	25.29	-2.75	2110	42.76	-0.91	2630	24.38	-1.73
1730	34.67	-1.44	2130	32.28	-1.94	2650	21.68	-1.94
1750	38.55	-1.47	2150	24.21	-3.29	2670	21.13	-0.81
1770	39.99	-1.17	2170	18.35	-4.11	2690	24.43	0.33
1790	44.46	-0.54	2310	25.82	-2.04			
1750	38.55	-1.47	2150	24.21	-3.29	2670	21.13	-0.81
1810	48.19	-0.05	2330	30.62	-1.72		1810	

*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.

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Packaging and Ordering Information

Table 3. Packaging Information

Device	Package	Reel	Shipping
MAN0826C230	23*3.5mm	7"	3000 Reel

Revision	Description	Date
Rev0	Preliminary	2022/8/7

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