

东莞市众驰电子有限公司
Dongguan Zhongchi Electronics Co.Ltd.

承认书

Customer: _____

Customer P/N: _____

Zhongchi P/N: ZCB868-10B04SMB-1.5M

Description : **868-930 MHz Antenna**

Zhongchi Checked By:	Customer Approved By:

Contents

1、修訂記錄.....	2
2、規格說明.....	3
3、可靠性實驗.....	4
4、天線輻射參數.....	5
5、機構圖.....	6

修訂記錄

Revision	Date	Change Notification	Description
1.0	2024-04-10	初版	
2.0	2024-07-17	由174铜包铝变更为174全铜（TPU外被）	
3.0	2024-09-12	底座设计变更为带耳朵	

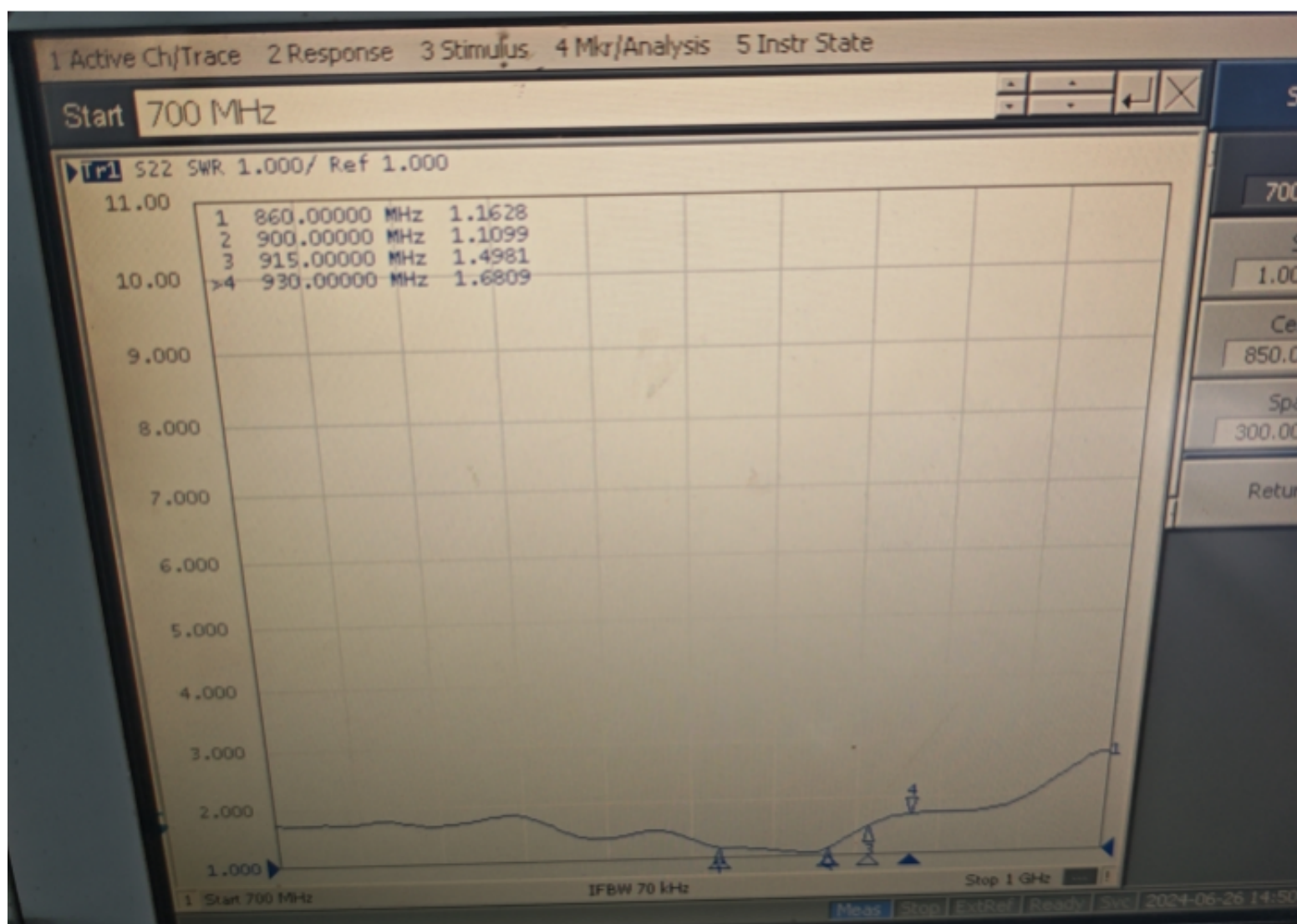
規格説明

Sample Photo	
A. Electrical Characteristics	
Frequency	860-930Mhz
S.W.R.	≤2.5
Antenna Gain	1.5dBi
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	Spring Line
Material of Plastic	Body: ABS
Connector Type	SMB Female
Cable Type	RG174(全銅) TPU Black
Connector Pull Test	≥ 3 Kg
C. Environmental	
Operation Temperature	- 40 °C ~ + 80 °C
Storage Temperature	- 40 °C ~ + 80 °C

可靠性實驗

測試項目	測試方法	要求	結果
V.S.W.R.	設置網絡分析儀參數進行測試	符合待測物規範	PASS
尺寸	檢查尺寸,顏色,材料,包裝,表面處理	符合待測物規範	PASS
鹽霧	溫度35°C; 濕度≥95%;鹽水濃度≥5%; 測試72H ;SMB接头测试48H。	無明顯外觀不良;頻率偏移≤ 5%	PASS
恒溫恒濕	溫度 80°C 測試 12H 轉-40°C 測試 12H; 濕度≥90%; 時間 24H	恢復 2H 後, 無明顯外觀不良; 頻率 偏移≤5%	PASS
老化	溫度 80°C, 測試 24H	無明顯外觀不良;頻率偏移≤5%	PASS

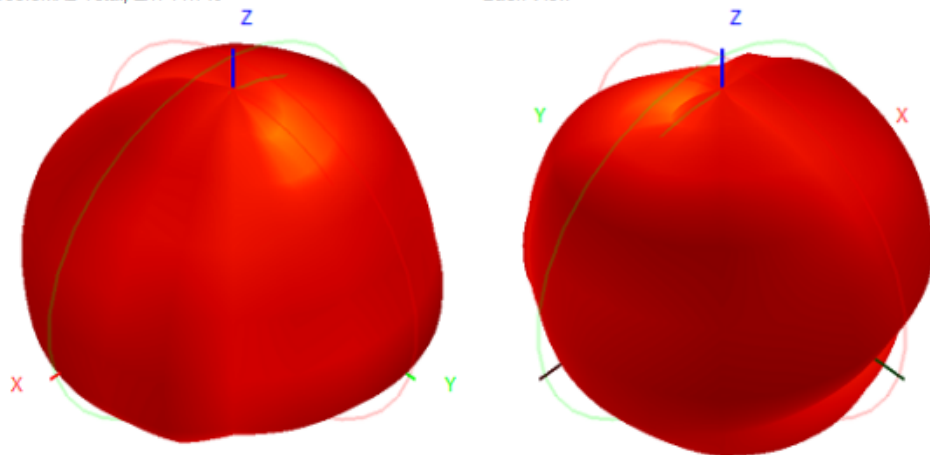
天線輻射參數測試數據圖



Frequency ID	1	2	3	4	5	6	7	8
Frequency (MHz)	860	870	880	890	900	910	920	930
Efficiency (dBi)	-9.30	-9.57	-10.19	-10.92	-10.18	-9.20	-7.62	-6.57
Gain (dBi)	-6.05	-6.26	-6.34	-7.43	-6.88	-5.90	-4.49	-2.86
Efficiency (%)	11.75	11.05	9.57	8.08	9.59	12.02	17.31	22.02
Directivity (dB)	3.25	3.31	3.85	3.50	3.30	3.30	3.13	3.71
VFRZ								
T90(H)圆度	50.22	26.19	21.98	15.63	13.92	22.93	24.72	25.15
Gain 15deg (dBi)								
E1(XZ)波瓣宽度	21.00	24.00	28.00	37.00	22.00	20.00	98.00	136.00
E1(XZ)前后比	6.29	5.83	5.94	5.70	4.57	0.00	2.12	4.27
E2(YZ)波瓣宽度	37.00	36.00	21.00	61.00	44.00	35.00	30.00	50.00
E2(YZ)前后比	6.26	4.45	2.26	1.02	2.24	3.63	2.93	4.46
最大增益处轴比(P)	12.53	11.70	25.51	25.61	18.33	14.14	5.21	13.62
顶点(Theta=0)处轴比(P)	5.03	5.85	6.60	7.25	9.05	12.96	10.73	10.06
仰角10度最差(大)轴比(P)	73.30	46.96	48.57	47.81	63.18	70.59	67.03	60.36
Hc(XY)波瓣宽度	57.00	56.00	57.00	62.00	156.00	54.00	54.00	54.00
Hc(XY)前后比	5.00	6.66	8.42	9.68	6.99	7.40	10.73	13.12
左旋圆极化效率(%)	5.92	5.61	4.96	4.30	5.13	6.25	8.53	10.15
右旋圆极化效率(%)	5.83	5.43	4.60	3.78	4.47	5.77	8.78	11.87
轴对称天线主瓣下倾角度(平均)	12.67	10.79	15.71	15.71	13.83	23.50	22.50	23.58

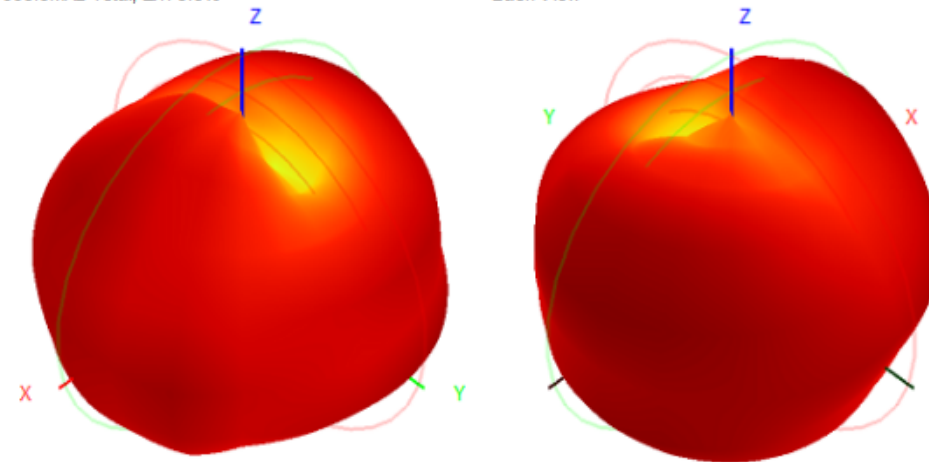
860.0MHz Total, Eff: 11.7%

Back View



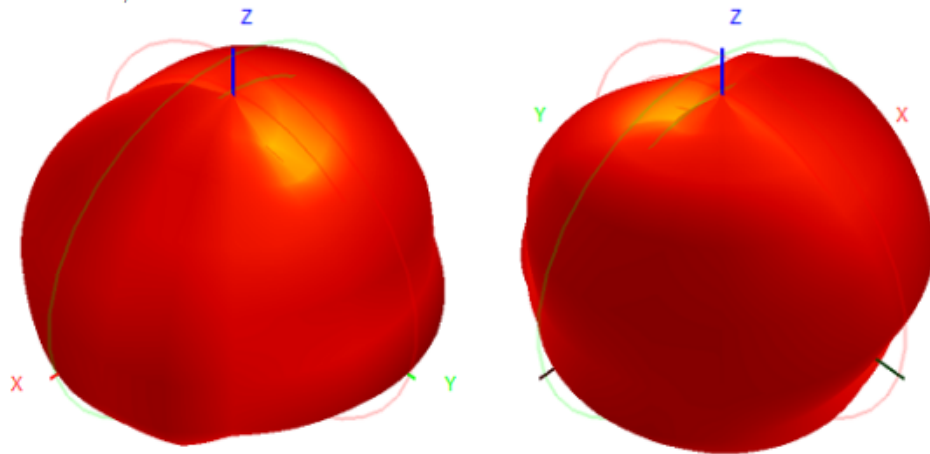
880.0MHz Total, Eff: 9.6%

Back View



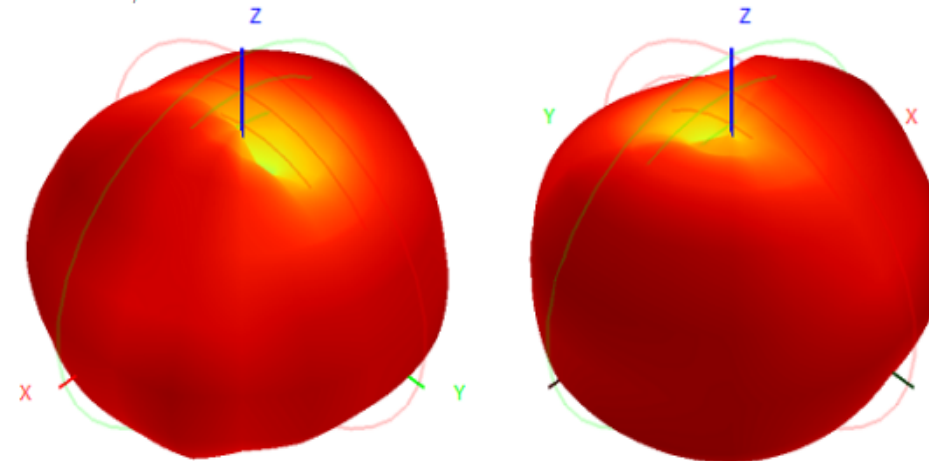
870.0MHz Total, Eff: 11.0%

Back View

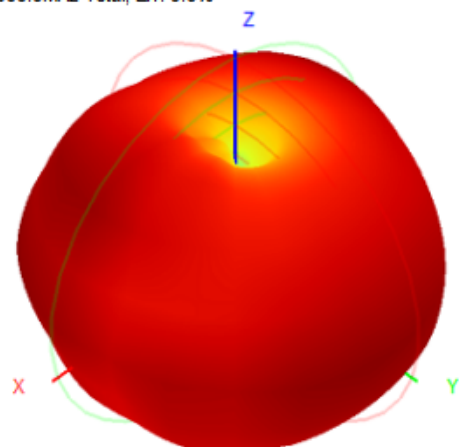


890.0MHz Total, Eff: 8.1%

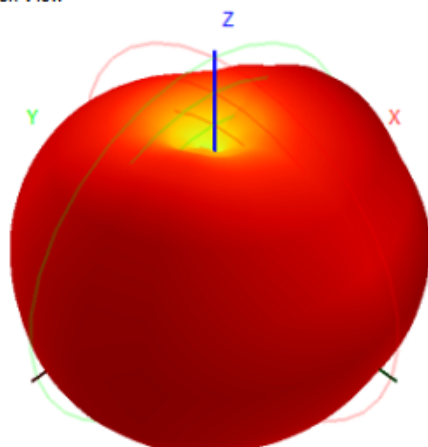
Back View



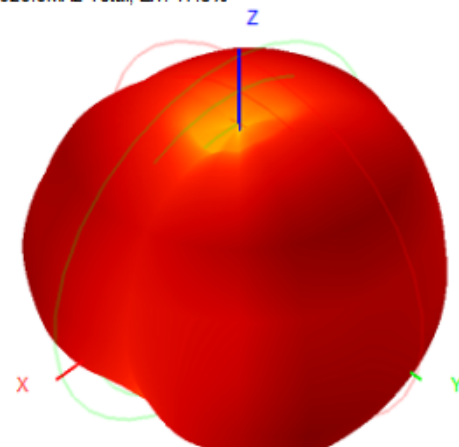
900.0MHz Total, Eff: 9.6%



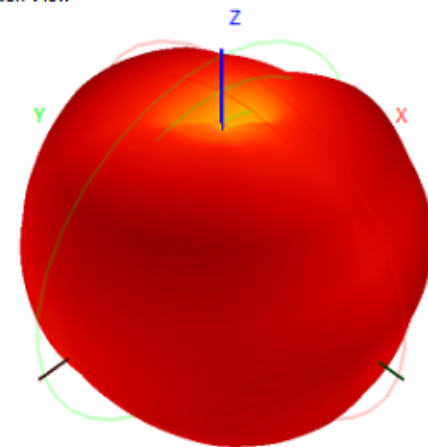
Back View



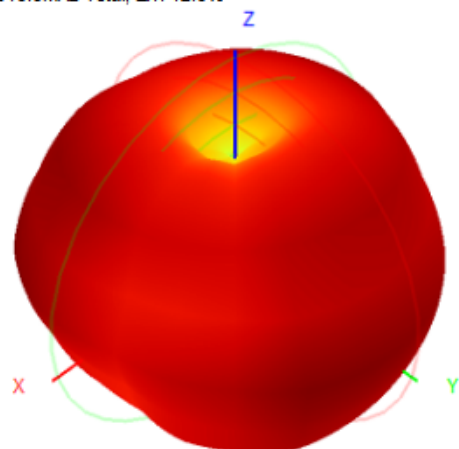
920.0MHz Total, Eff: 17.3%



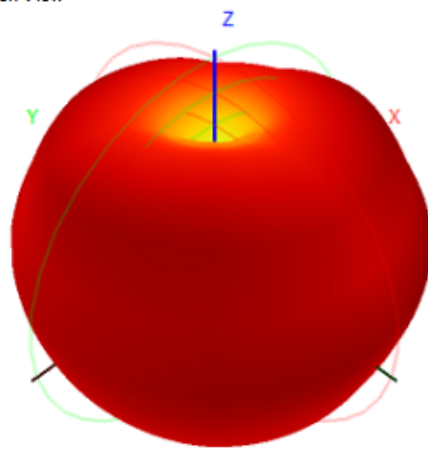
Back View



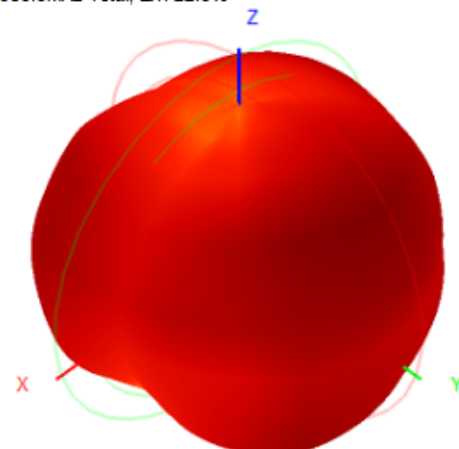
910.0MHz Total, Eff: 12.0%



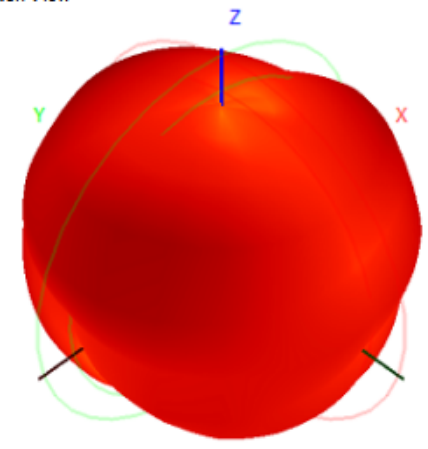
Back View



930.0MHz Total, Eff: 22.0%

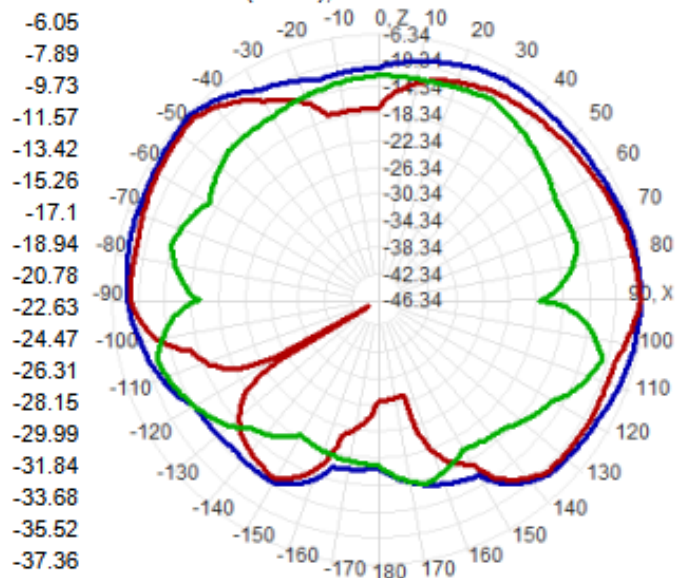


Back View

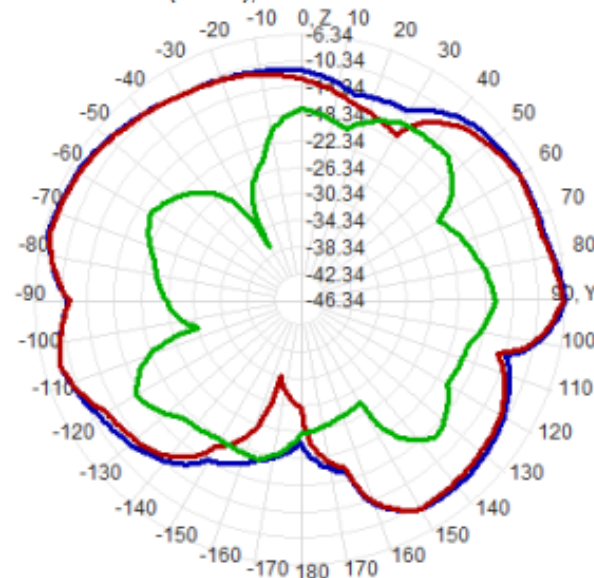




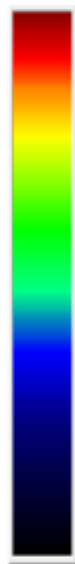
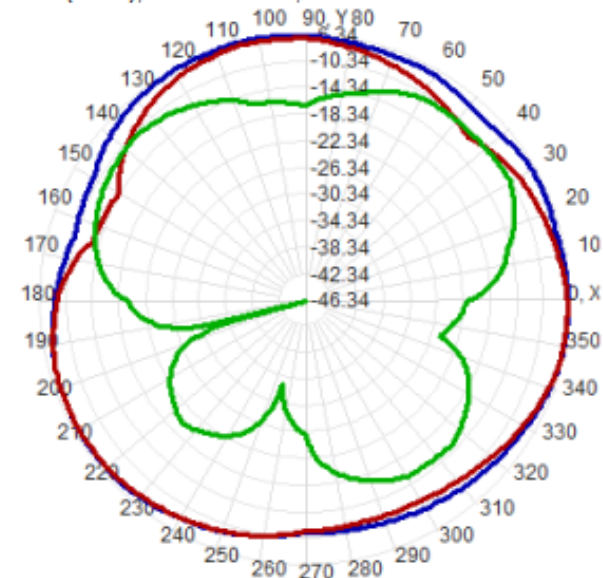
860.0MHz Total(E1-XZ), Max= -6.96dBi



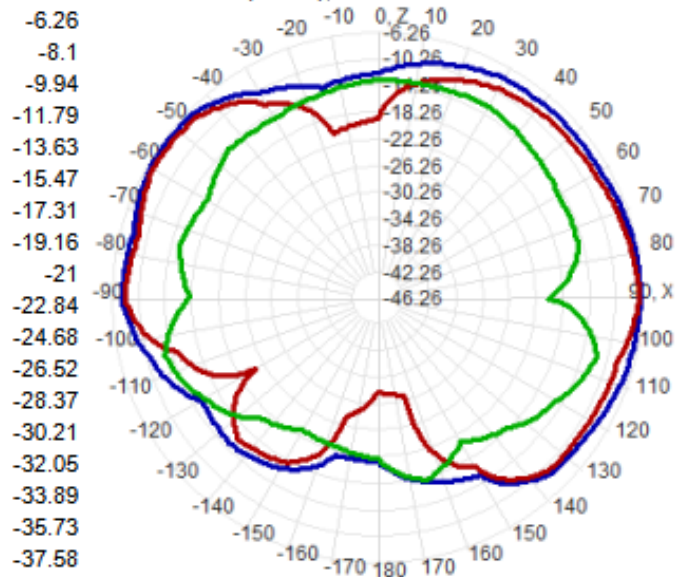
860.0MHz Total(E2-YZ), Max= -7.01dBi



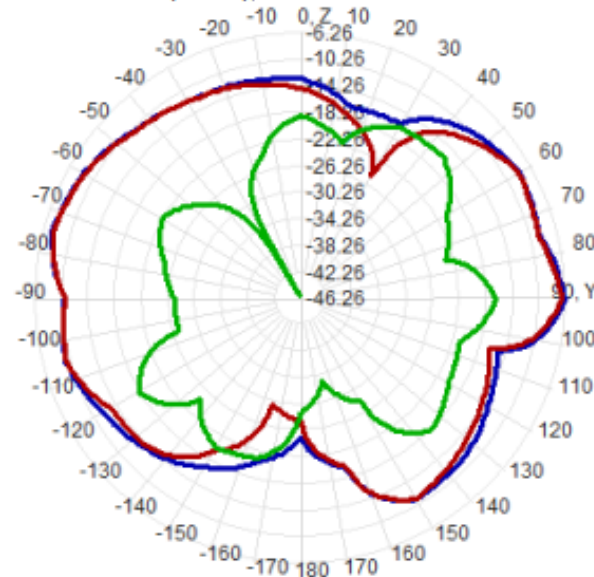
Total(H-XY), Max= -6.87dBi, CirD=50.22



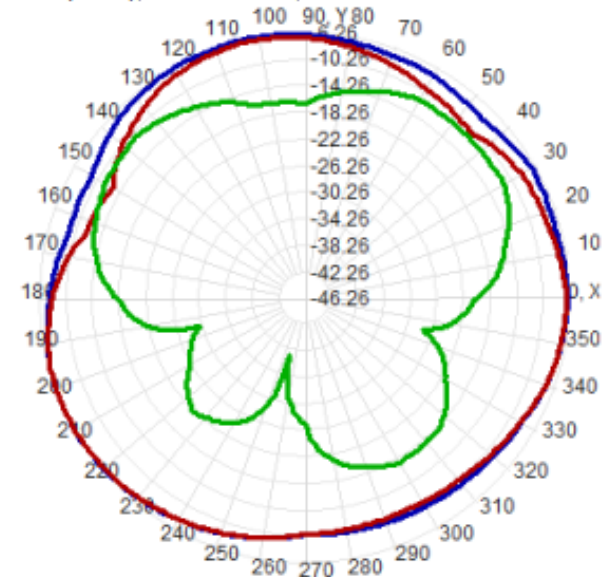
870.0MHz Total(E1-XZ), Max= -6.98dBi

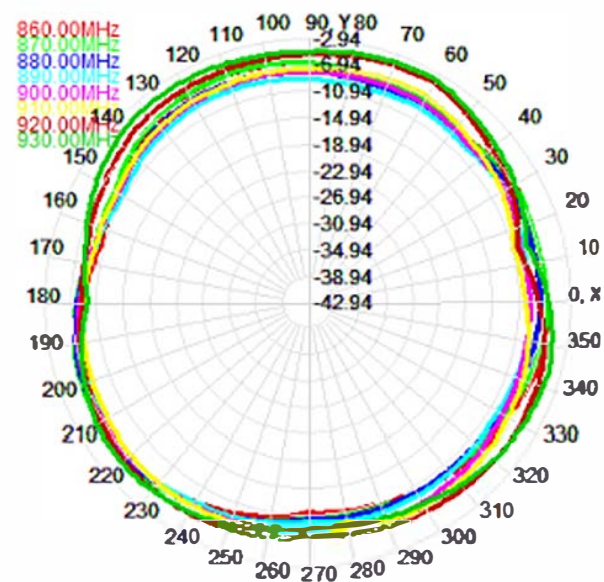
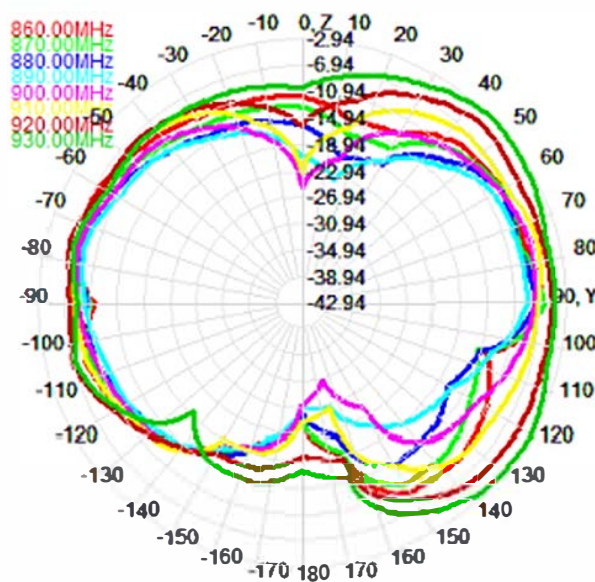
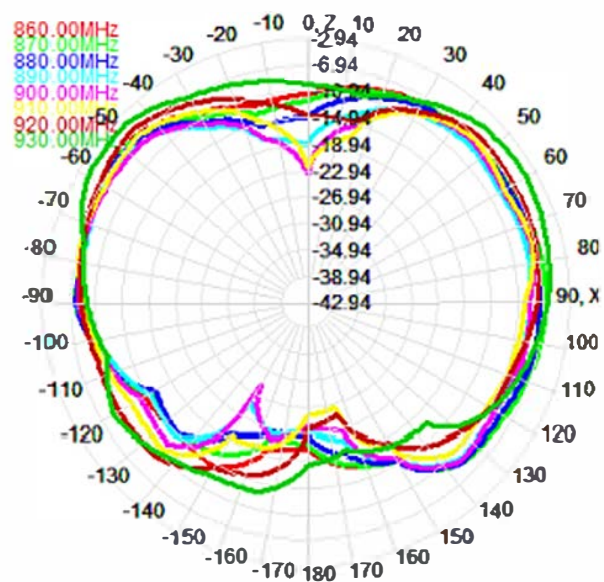
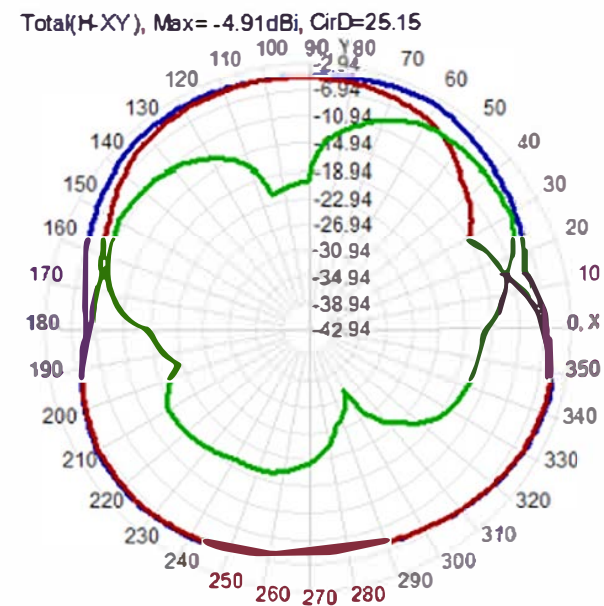
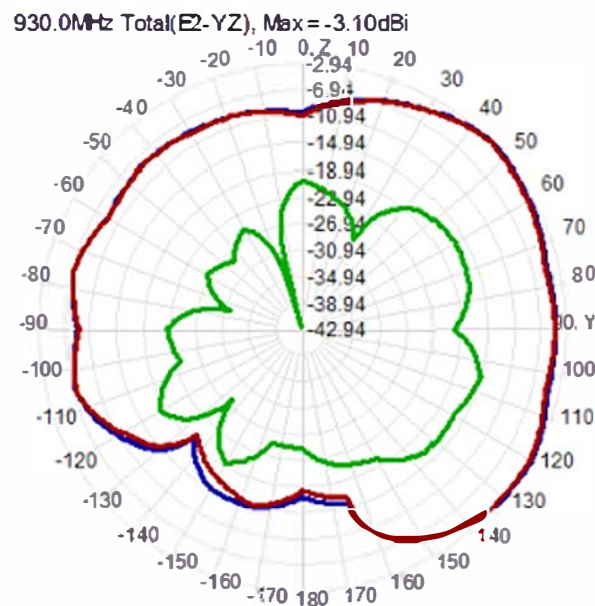
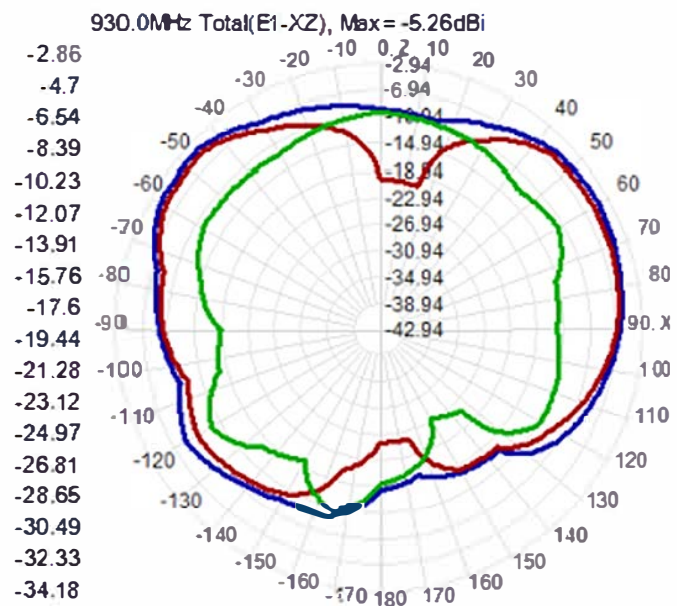


870.0MHz Total(E2-YZ), Max= -7.04dBi



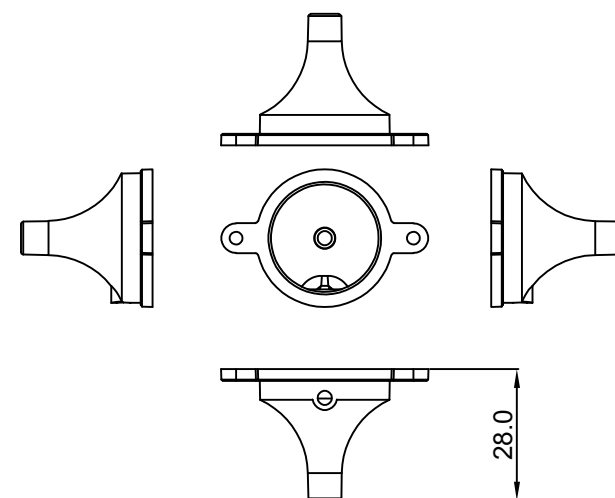
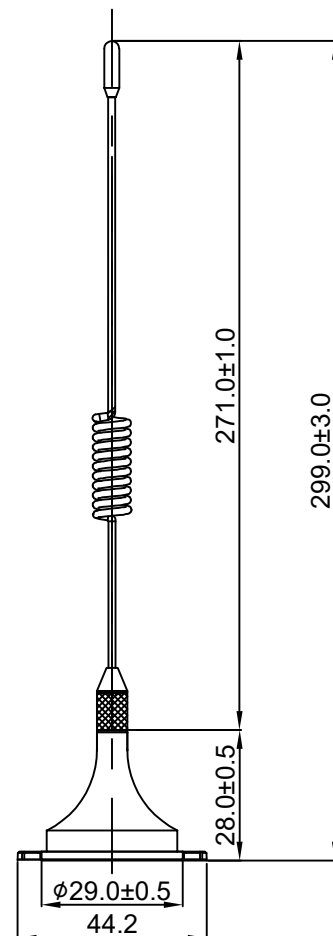
Total(H-XY), Max= -6.43dBi, CirD=26.19





Compatible

REV.	DESCRIPTION	DATE
A	首次发行	2022-03-28
B	由174铜包铝变更为174全铜（TPU外被）	2024-07-17
C	底座增加固定耳朵	2024-09-12



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PART NAME: 860-930MHz Antenna L=1500mm				
PART NO.: m m -1.5M			DATE: 2024-09-12	
APPROVED BY	CHECKED BY	DESIGNED BY		Tolerance
		黄永华	UNITS: mm	X.X ±0.50
			SCALE: 1/1	X.XX±0.15
			REVISION: A	X° ±3°