



深圳市凯普深通讯科技有限公司
Shenzhen cape deep communication technology co.,LTD

Antenna Debugging Report

test report

客 户：上海易景
项 目：CL1013(OSW-803N)
射 频：姚工
日 期：2023. 11. 20
版 本： 01



Description of the change record

Time	Version description



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Laboratory test environment and equipment



Test items	Test equipment
S11、S12、VSWR、LOSS	Network analyzer E5071B、E5062A
Efficiency、Gain 3D Radiation Pattern	Satimo SG16暗室、GP7*4*3暗室、E5071B

TRP、TIS

Satimo SG16暗室、GP7*4*3暗室、8960、
CMW500、MT8820C、E4438C、



A Brief Introduction to debugging the project

Machine type	Watch		
		Frequency band information	Antenna form
Antenna type and frequency band information	Antenna	BT	Unipolar
Antenna material	Wires		



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BT Antenna matching circuit

RF Module E4 E2 Antenna

E3			E1
The main antenna	Element	Value	
	E1 (0201)	改为2.4PF	
	E2 (0201)		
	E3 (0201)		



BT Antenna passive standing wave





BT Passive efficiency of antenna

Freedom

Freg (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	15.27	-8.16	-2.15
2410	14.4	-8.42	-2.4
2420	14.59	-8.36	-2.24
2430	14.76	-8.31	-2.06
2440	15.83	-8	-1.61
2450	15.71	-8.04	-1.65
2460	15.22	-8.17	-1.89
2470	14.51	-8.38	-2.22
2480	15.9	-7.99	-1.92
2490	17.74	-7.51	-1.42
2500	18.41	-7.35	-1.22

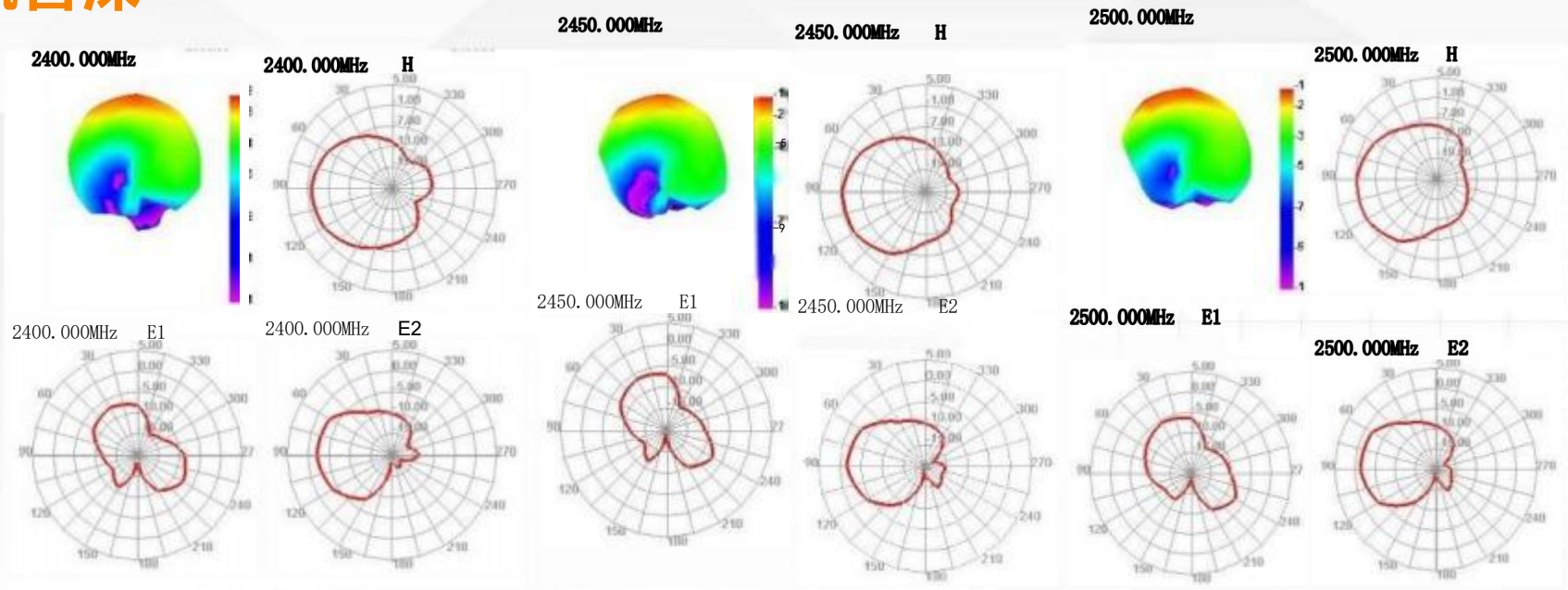
Hand
mode
I

Freg (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	7.04	-11.52	-3.73
2410	7.03	-11.53	-3.87
2420	6.95	-11.58	-3.89
2430	7.13	-11.47	-3.53
2440	7.12	-11.48	-3.38
2450	7.5	-11.25	-2.96
2460	8.2	-10.86	-2.73
2470	8.85	-10.53	-2.63
2480	9.06	-10.43	-2.82
2490	9.19	-10.37	-2.93
2500	9.17	-10.38	-2.92



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BT Passive efficiency of antenna

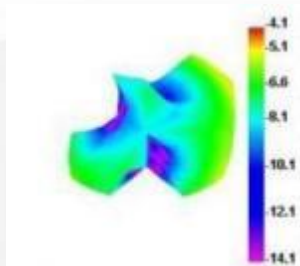




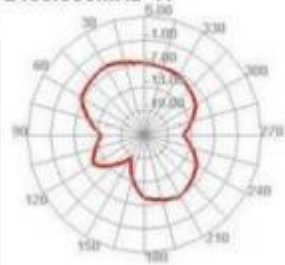
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BT Passive pattern of antenna

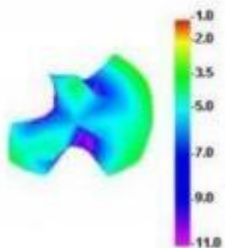
2400.000MHz



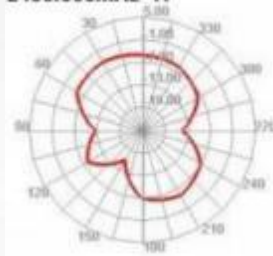
2400.000MHz H



150.000MHz



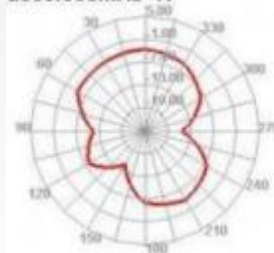
2450.000MHz H



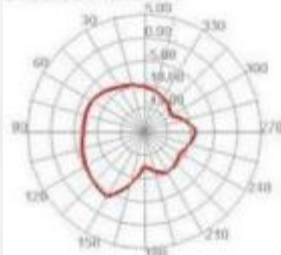
2500.000MHz



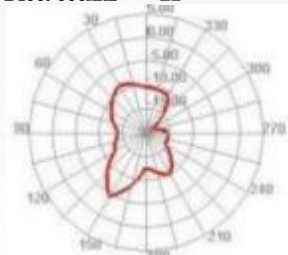
2500.000MHz H



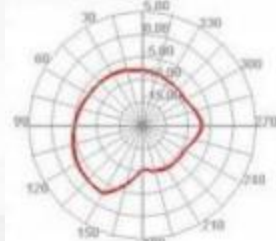
2400.000MHz E1



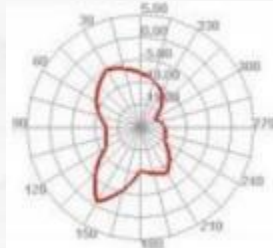
2400.000MHz E2



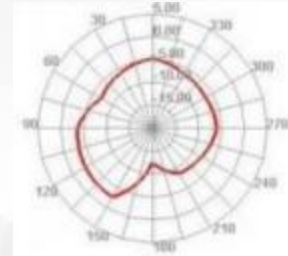
2450.000MHz E1



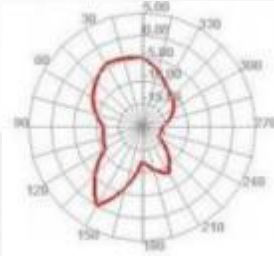
2450.000MHz E2



2500.000MHz E1



2500.000MHz E2





Environmental treatment

Installation picture,
no environmental processing





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thanks !