



# 通力電子控股有限公司



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# CK1 project antenna test report

fabrication : Qingguang Wu  
verification : Zhengjiang Zhang  
date : 2023-9-11  
version :

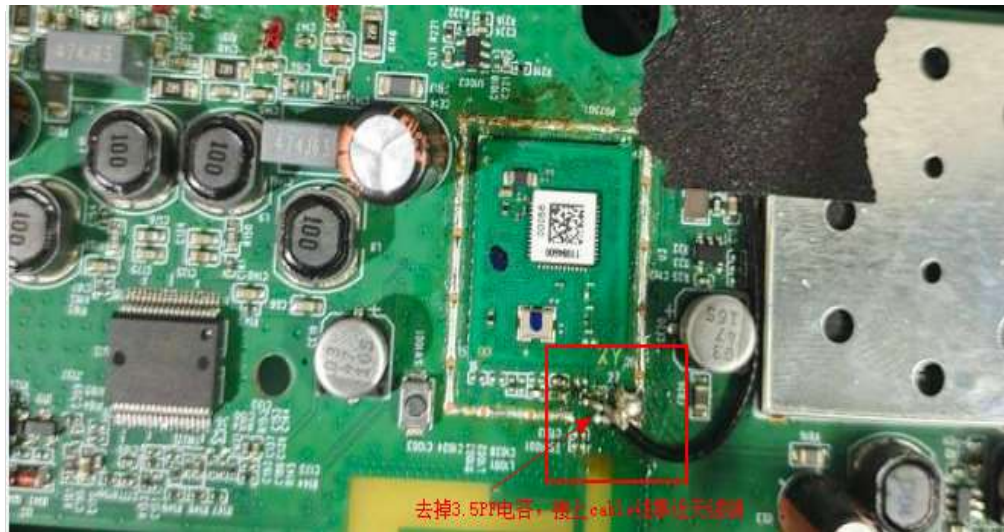


## Project information—项目信息

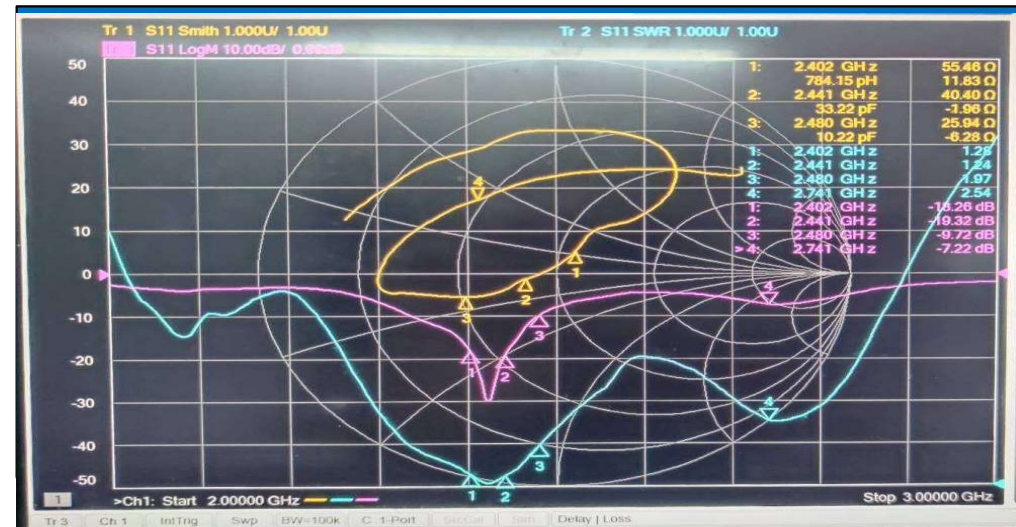
<b>Object name:</b>	CK1	<b>Project types:</b>	Soundbar
<b>Project description:</b>	Using designed module with antenna		
<b>Structure drawing version:</b>	00-sony-ck1.asm.9		
<b>Test engineer:</b>	Qingguang Wu	<b>Test time:</b>	2023.09.11
<b>Software information:</b>	-----	<b>Number of antennas:</b>	1
<b>Antenna type:</b>	PIFA	<b>Antenna material:</b>	On Board
<b>Test conclusion:</b>	Sony CK1 RF test indicators meet customer requirements.		

## S11 test of antenna

### Antenna test point



### Antenna S11 test data

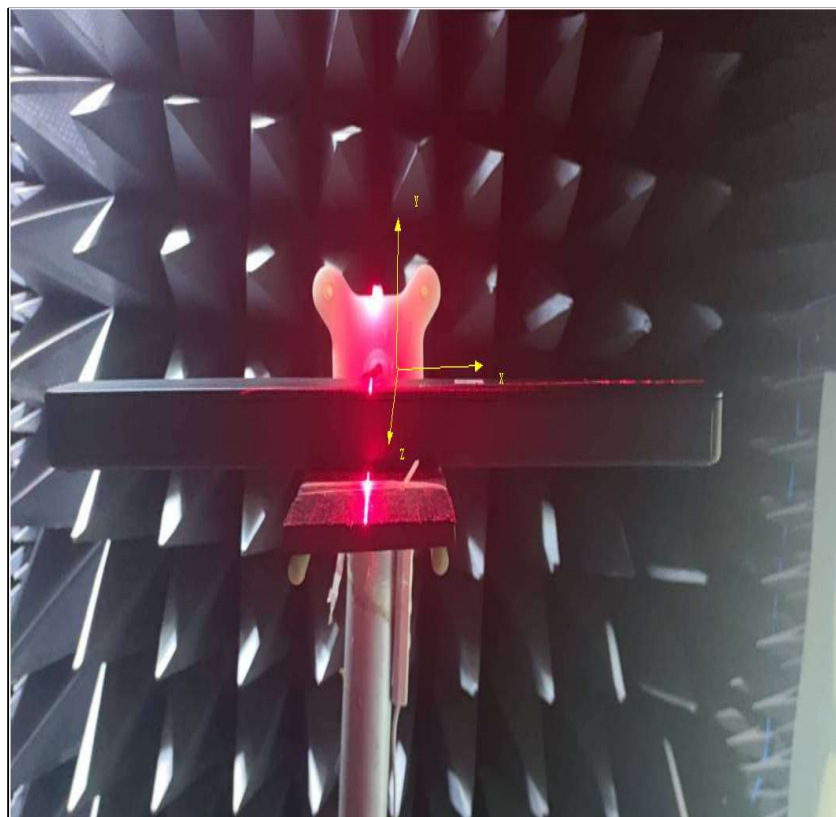


Item	LOW	MID	HIG	LIMIT
VSWR	1.28	1.24	1.97	2
Return loss	-18.26	-19.32	-14.05	-10



## Antenna gain and efficiency

Test environment photo



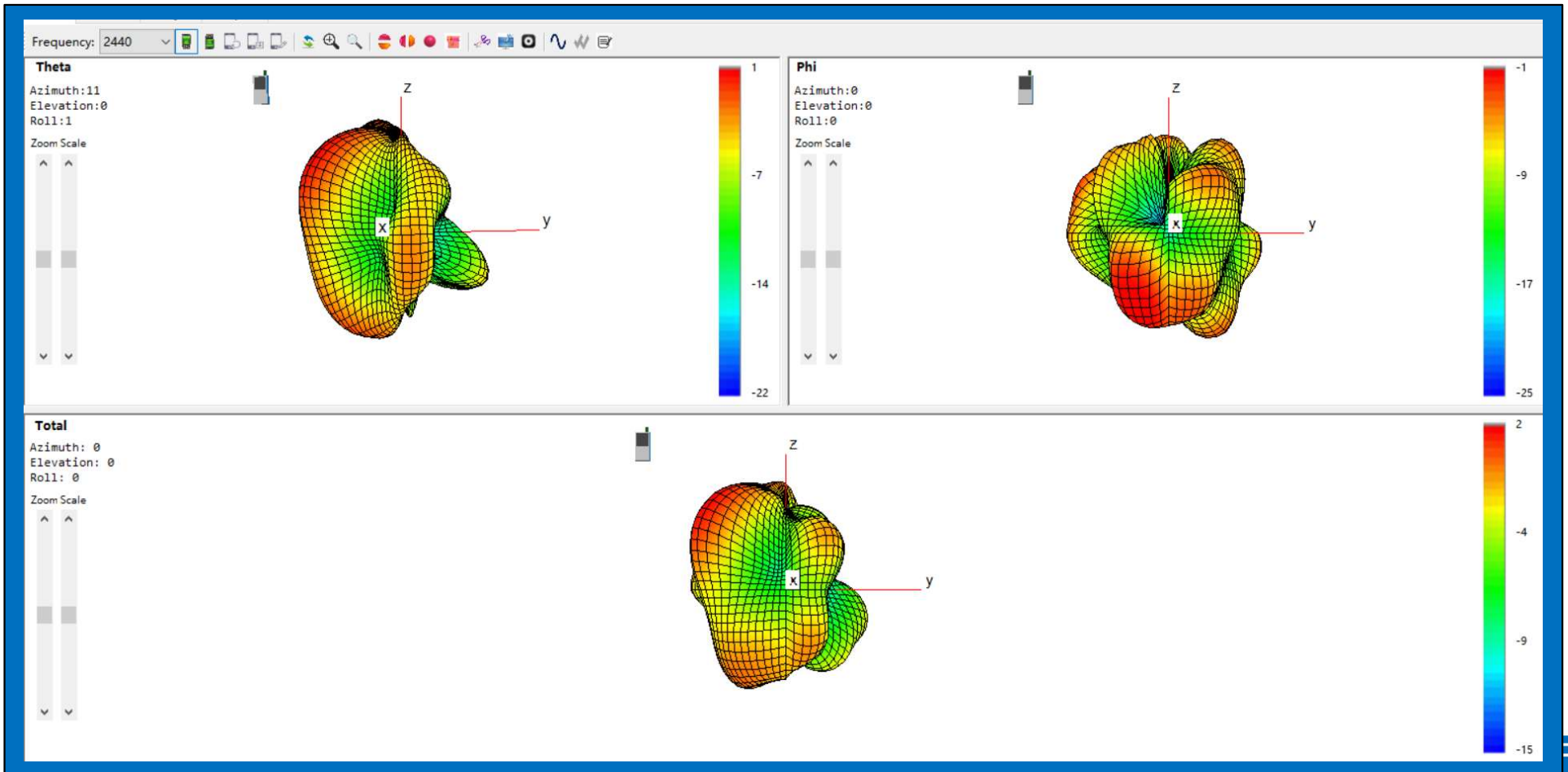
Antenna efficiency test data

Freq(MHz)	Gain(dB)	SPCE(dB)	Efficiency(dB)	Efficiency(%)	SPCE(%)
2400	0.834035	<3.00	-5.091485885	30.96359736	>25
2410	0.899310	<3.00	-5.170415207	30.40594316	>25
2420	1.198531	<3.00	-5.094435523	30.94257467	>25
2430	1.370136	<3.00	-4.921537933	32.19928341	>25
2440	1.895302	<3.00	-4.646790281	34.30212079	>25
2450	2.175375	<3.00	-4.375514155	36.51308974	>25
2460	2.238207	<3.00	-4.214378376	37.89327681	>25
2470	2.361948	<3.00	-4.017390072	39.65162523	>25
2480	2.243785	<3.00	-3.897929785	40.7574516	>25

**Antenna gain : 2.36dBi**

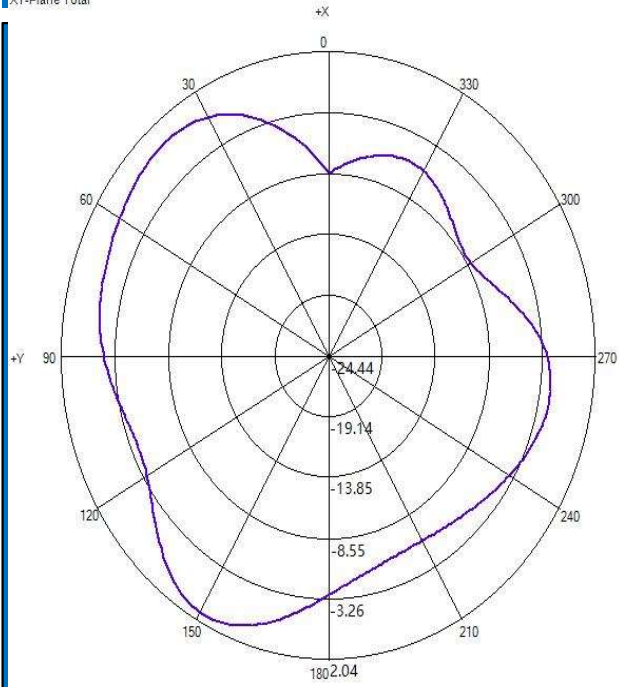


# Antenna 3D Radiation Pattern

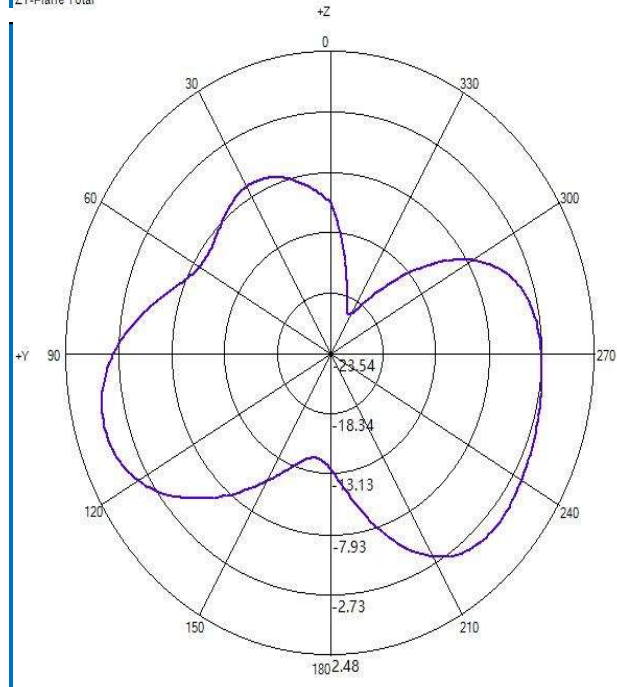


# Antenna 2D Radiation Pattern

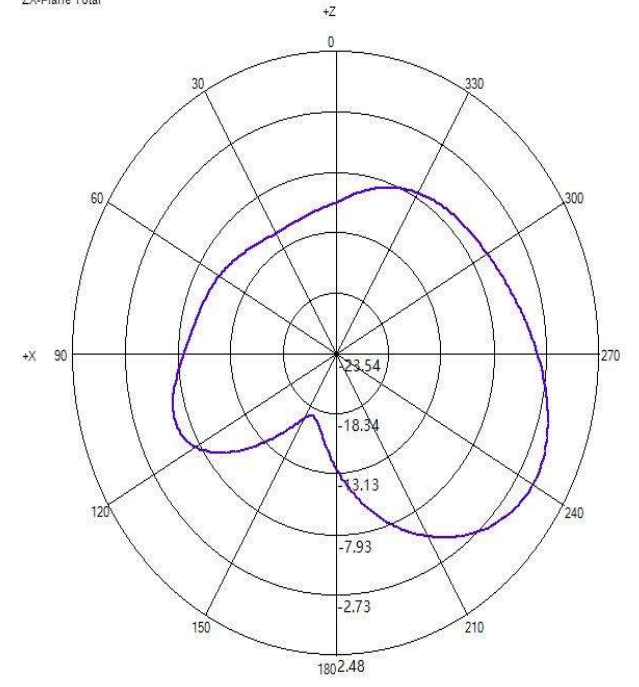
XY-Plane Total



ZY-Plane Total



ZX-Plane Total



Remark:



## Conduction test data

Conduction  
test point

Conduction test  
data



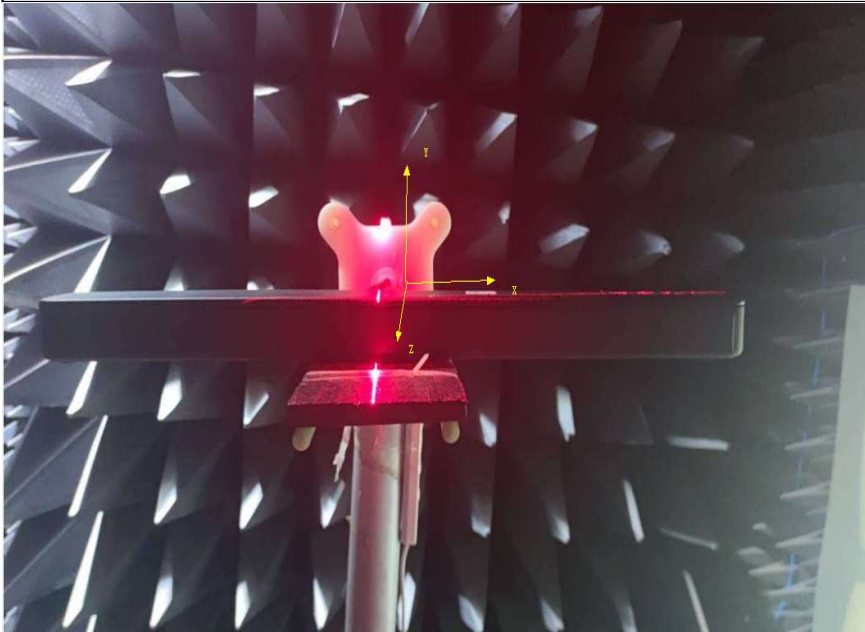
Item	Channel	BDR (DH5)			EDR 2M (2DH5)		
		Low	Mid	High	Low	Mid	High
		dBm	dBm	dBm	dBm	dBm	dBm
Tx		5.72	4.86	4.83	3.37	3.41	3.51
Rx		-92.50	-92.50	-92.50	-90.00	-90.50	-90.50





## 有源OTA数据

Test Environment Photo



OTA Result

No.	Item	Mode	Remark	Channel		
				2402 MHz	2441 MHz	2480 MHz
1	TRP	DH5		1.09	1.39	2.81
2	TIS	DH5		-87.5	-87.7	-88.2



# THANKS

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