

TESTREPORT

Applicant: SHENZHBOYCHUANG TECHNOLOGYCO.,LTD
North, 5 /F,Building 3, Tea West, ZoneA,Huafeng
Address: First SciencePark, Hangcheng Street, Baoan
District, Shenzhen
Equipment Type:BYKC-68M
ModelName: BD310 V3
BrandName: BOYIKECHUANG
Test Standard:IEEE Std149-2021
Sample ArrivalDate: Mar.14, 2024

Mai Jintian

Xia Long

Tobias

RevisionHistory

<u>Version</u>	<u>IssueDate</u>	<u>Revisions</u>
<u>Rev.01</u>	<u>Mar.15, 2024</u>	<u>InitialIssue</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	ShenzhenBALUN Technology Co.,Ltd.
Address	BlockB,1/F,Baisha Science and TechnologyPark, Shahe XiRoad,NanshanDistrict, Shenzhen, GuangdongProvince,P.R. China
PhoneNumber	+86 75566850100

1.2 Test Location

Name	ShenzhenBALUN Technology Co.,Ltd.
Location	☒ BlockB,1/F,Baisha Science and TechnologyPark, Shahe Xi Road,NanshanDistrict, Shenzhen, GuangdongProvince,P.R. China
	☐ 1/F,BuildingB, GanghongjiHigh-techIntelligentIndustrialPark, No.1008, SongbaiRoad,Yanguang Community, Xili Sub-district,NanshanDistrict, Shenzhen, GuangdongProvince,P.R. China

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	SHENZH BOYCHUANG TECHNOLOGY CO., LTD
Address	North, 5 /F,Building 3, Tea West, ZoneA, HuafengFirst SciencePark, Hangcheng Street, BaoanDistrict, Shenzhen
ContactPerson	WEIYUAN WANG
Telephone Number	18675575732
E-mailAddress	sparkwang2008@126.com

2.2 Manufacturer Information

Manufacturer	SHENZH BOYCHUANG TECHNOLOGY CO., LTD
Address	North, 5 /F,Building 3, Tea West, ZoneA, HuafengFirst SciencePark, Hangcheng Street, BaoanDistrict, Shenzhen

2.3 General Description for Equipment under Test(EUT)

EUTName	BYKC-68M
ModelNameUnder Test	BD310 V3
Antenna Type	Ceramic Antenna
Dimensions	20*3mm

2.4 Ancillary Equipment

Note: Not applicable.

2.5 Technical Information

Frequency Range	2402MHz ~ 2480MHz
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3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	IEEE Std149-2021	IEEE Standard Test Procedures for Antennas

3.2 Test Verdict

Report Section	Description	Remark
ANNEXA.1	Gain and Efficiency	--
ANNEXB	Radiation Pattern	--

3.3 Test Uncertainty

The uncertainty is calculated using the method suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO.

Item	Uncertainty
VSWR(S11)	± 0.61
Gain	$\pm 1.92\text{dB}$

4GENERAL TEST CONFIGURATIONS

4.1 TestCondition

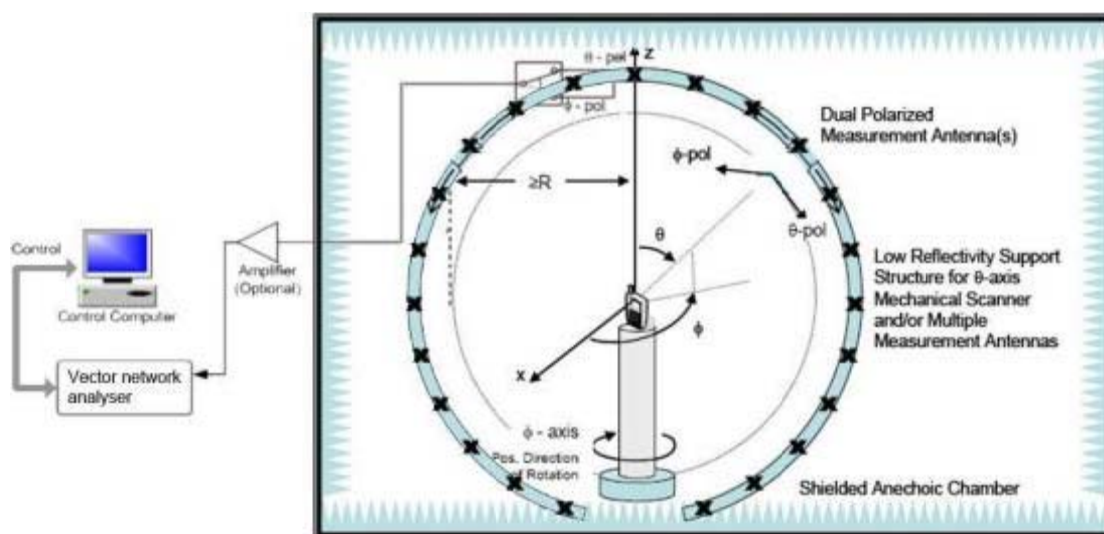
Environment Parameter	Selected ValuesDuring Tests			
	Ambient Pressure(KPa)	Temperature(°C)	Voltage	Relative Humidity(%)
Normal Temperature, Normal Voltage (NTNV)	101	21.4	N/A	40

4.2 TestEquipmentList

Description	Manufacturer	Model	SerialNo.	Cal.Date	Cal.Due
SG24Multi-probe AntennaMeasurement System	SATIMO	SG24-L	1101855-0001	2021.11.12	2024.11.11
Vector Network Analyzer	Agilent	E5071B	MY42404001	2024.01.16	2025.01.15
Description	Manufacturer	Name		Version	
Test Software	MVG	SPM		V1.8	

4.3 Test Setup

4.3.1 Antenna gain, efficiency and radiation pattern test setup



4.4 Test Frequencies

Test Frequencies	2402MHz, 2440MHz, 2480MHz
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ANNEX ATESTRESULTS

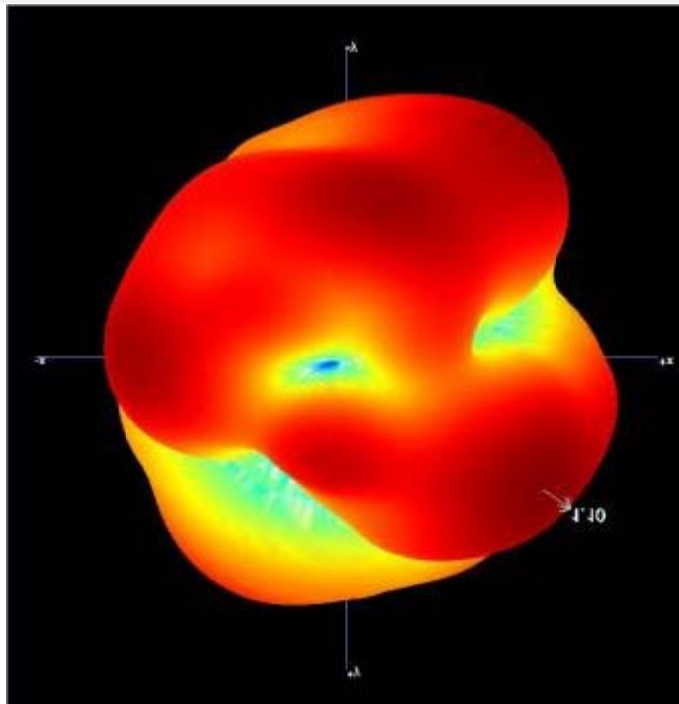
A.1Gain andEfficiency

Frequency	Gain(dBi)	Efficiency(%)
2402MHz	1.10	34
2440MHz	1.24	35
2480MHz	1.74	35

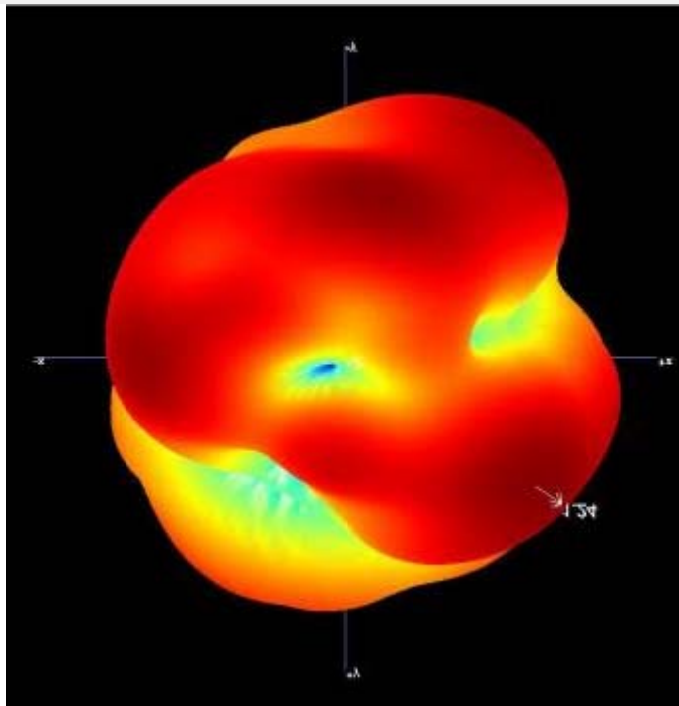
ANNEXB RADIATIONPATTERN

B.13DPattern

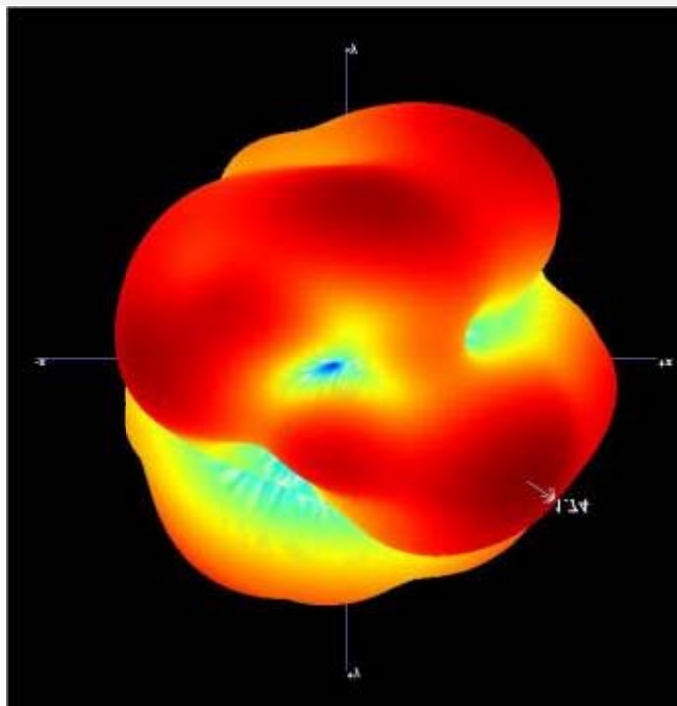
B1.1 3DPattern for 2402MHz



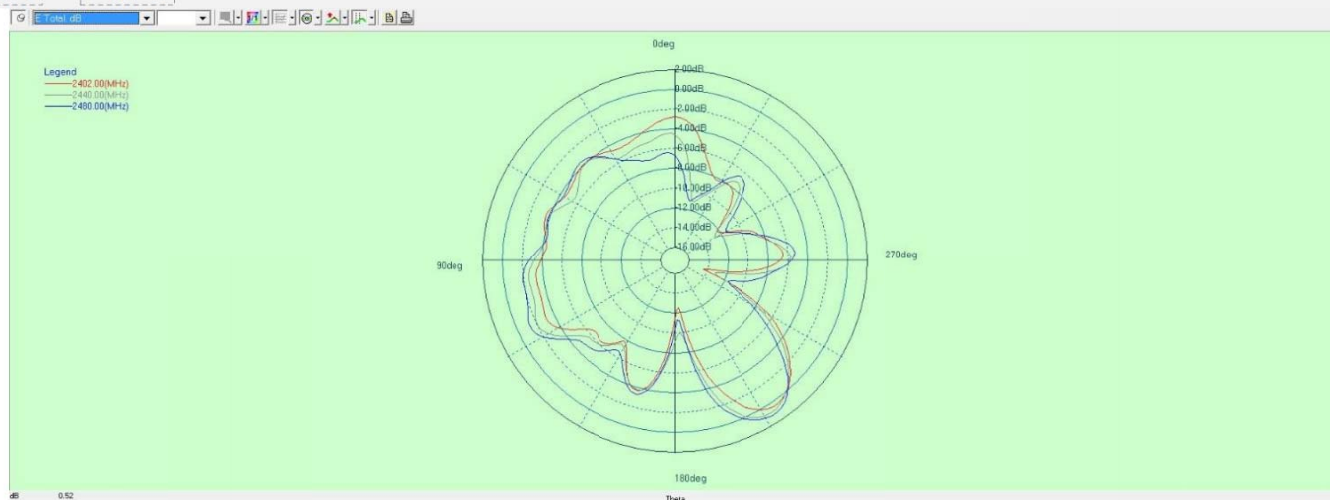
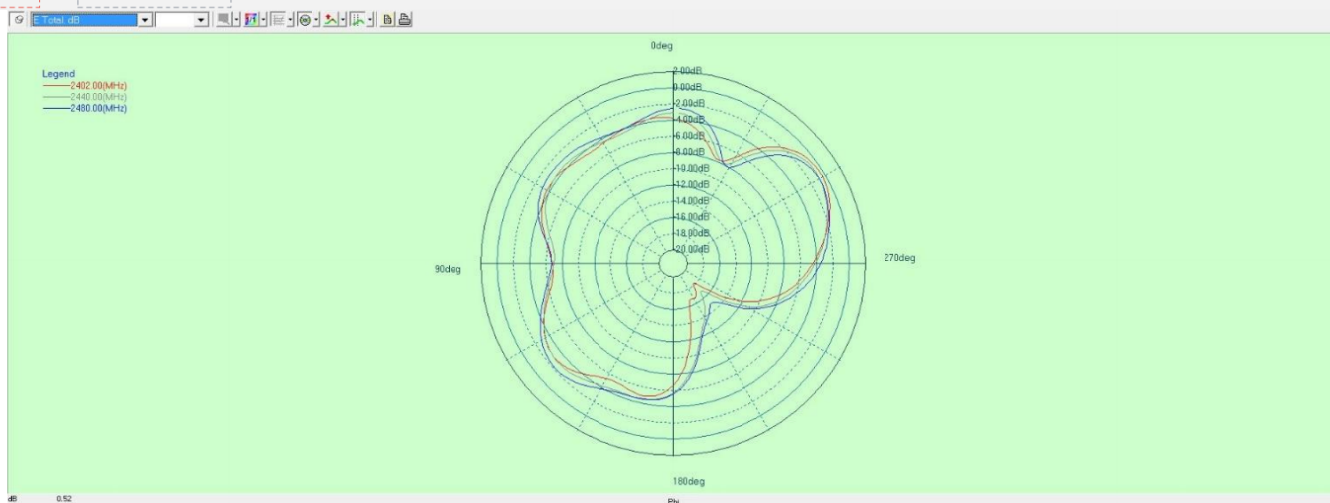
B1.2 3DPattern for 2440MHz



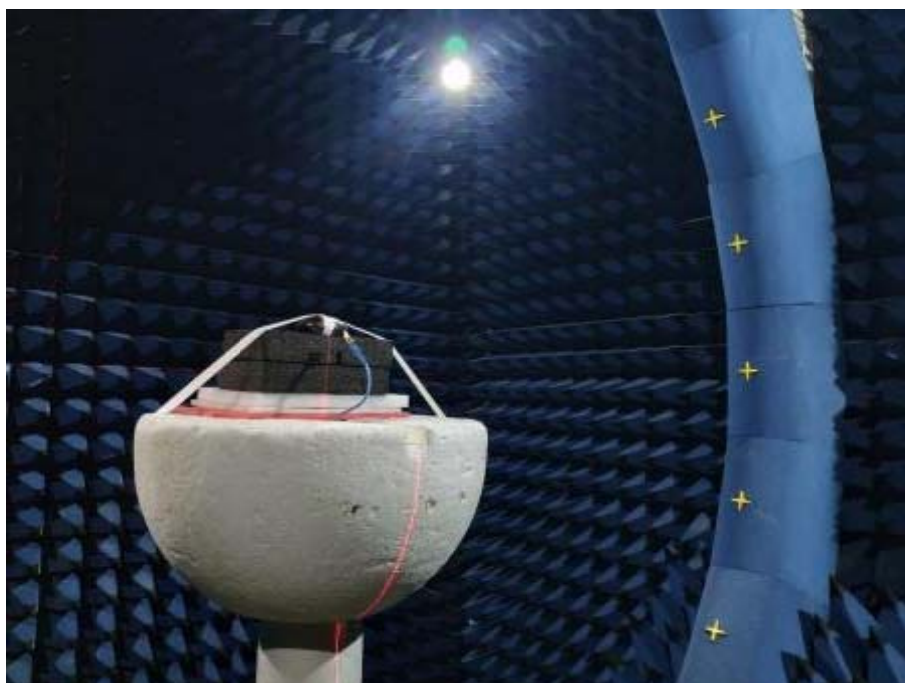
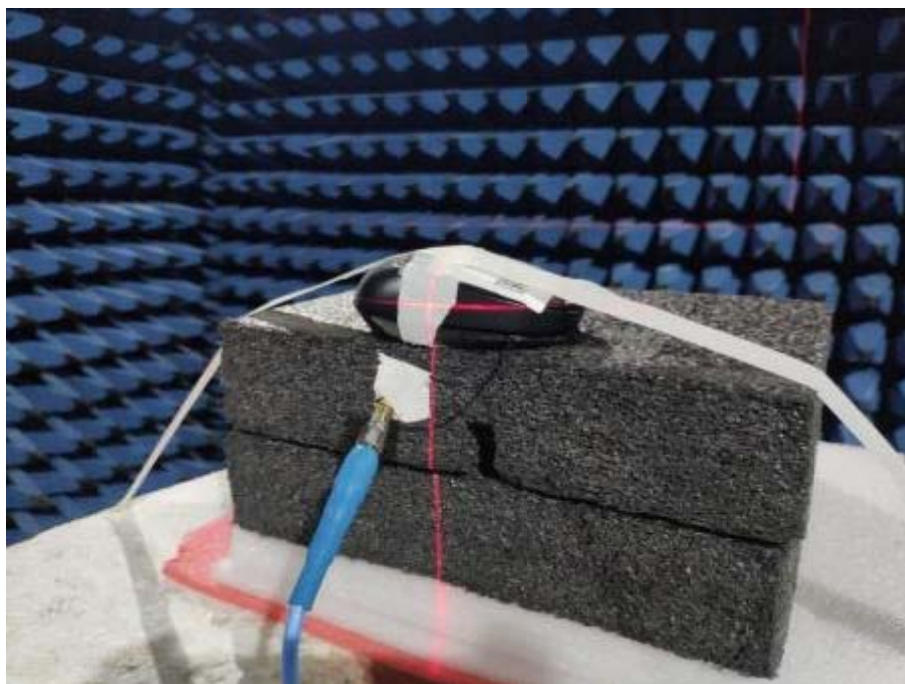
B1.3 3DPattern for 2480MHz



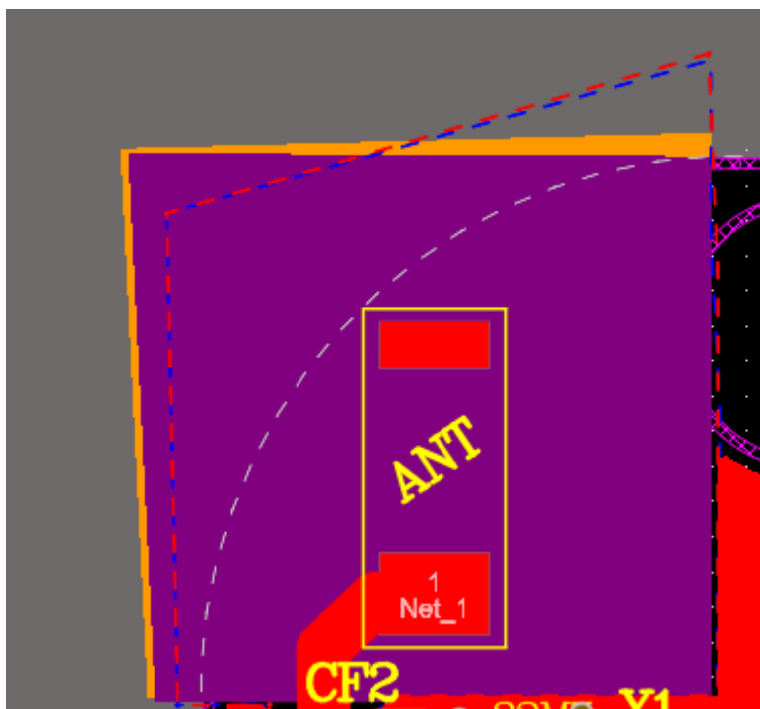
B.21DRadiationPattern

B2.1 PHI=0**B2.2** PHI=90**B2.3** THETA=90

ANNEXCTESTSETUPPHOTO



ANNEXDEUTPHOTO



Statement

1. The laboratory guarantees the scientificity, accuracy and impartiality of the test, and is responsible for all the information in the report, except the information provided by the customer. The customer is responsible for the impact of the information provided on the validity of the results.
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--END OF REPORT--