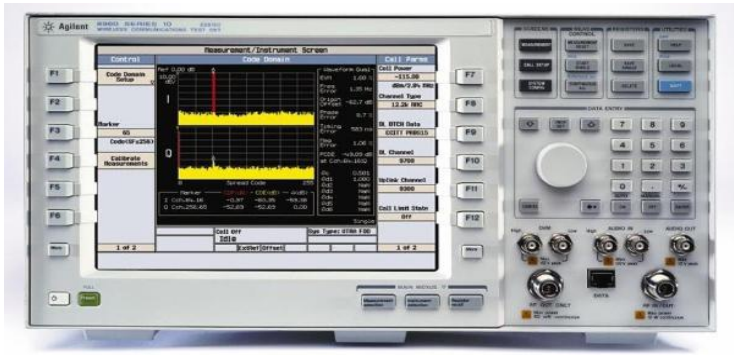
Antenna Test Report

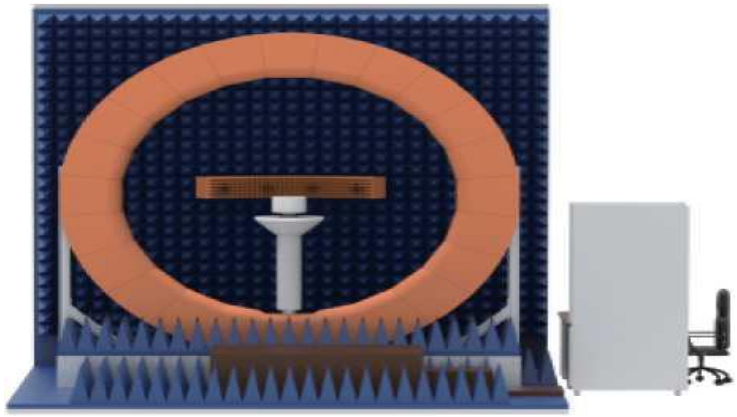
Customer	天翼
Project	KH1870
Antenna Revision	A0
Prepared by	18814303605
Checked by	
Date：	2025.06.09

2.TestSystem

Shenzhen Helixun Technology Co., LTD
Address: Room 1004, Jinhuanyu Building, No. 56, Tiezi Road, Xixiang Sub-district, Bao 'an District, Shenzhen City, Guangdong Province

Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5071B
OTA Test	TRP&TIS	Agilent 8960 & CMW500 STIMO
Gain & Efficiency	Gain & Efficiency	SATIMO Agilent 5071C





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Purpose

This report is to measure the performance of antenna for KH1870 The antenna operating frequency at 2400MHz0-2500MHz 。 All test data are showed as below.

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1. Product Overview & Dimension
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   - **4.1Test Result**
   - **4.2 2D Pattern**

HELIX 合立讯

KH1870

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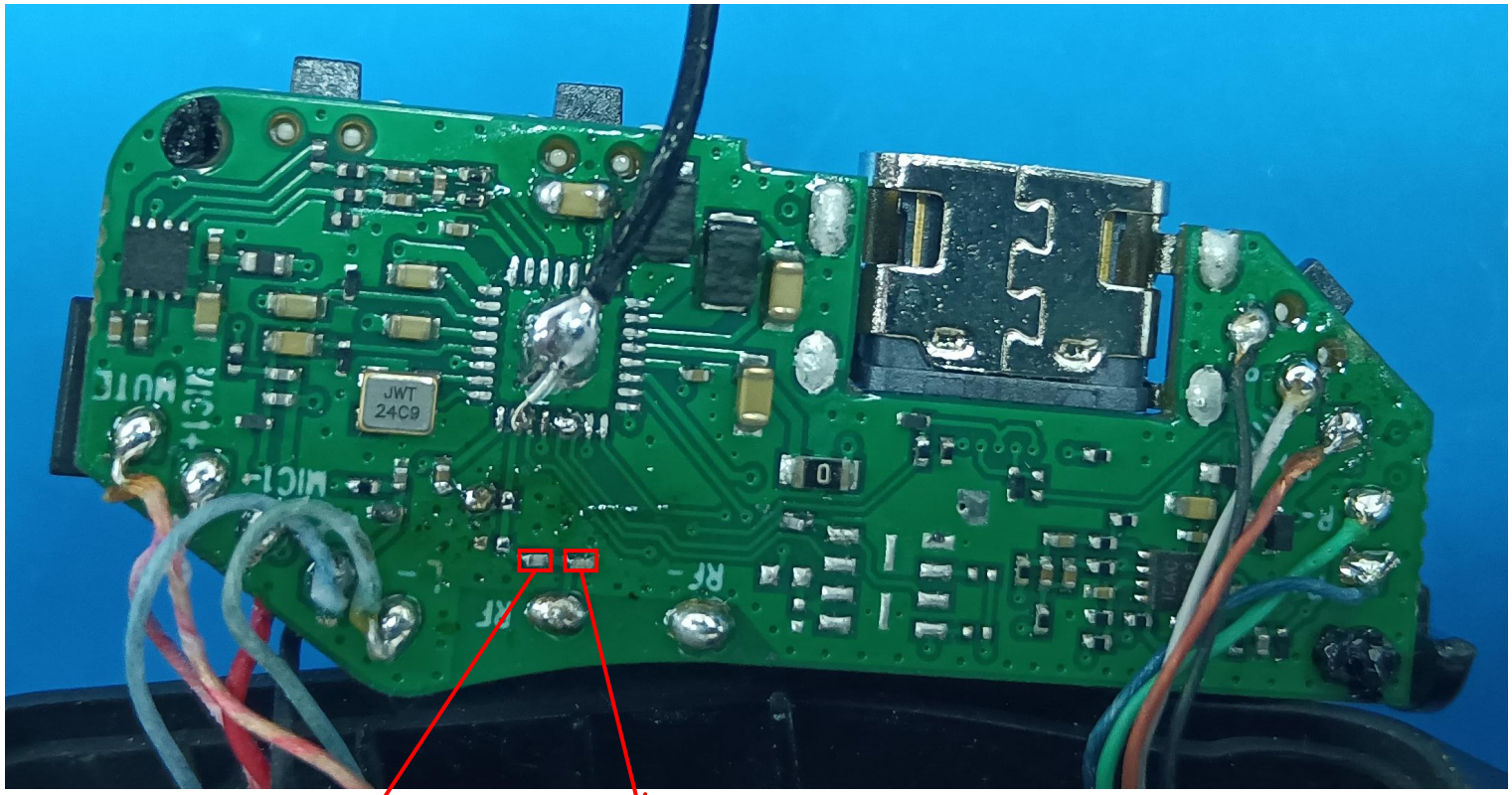
匹配图



1.5P　　0.5P

3.1 Test Result

1 .S11 Parameter-VSWR

Frequency (MHz)	2400	2450	2480	2500
VSWR	4.14	1.91	2.23	2.99

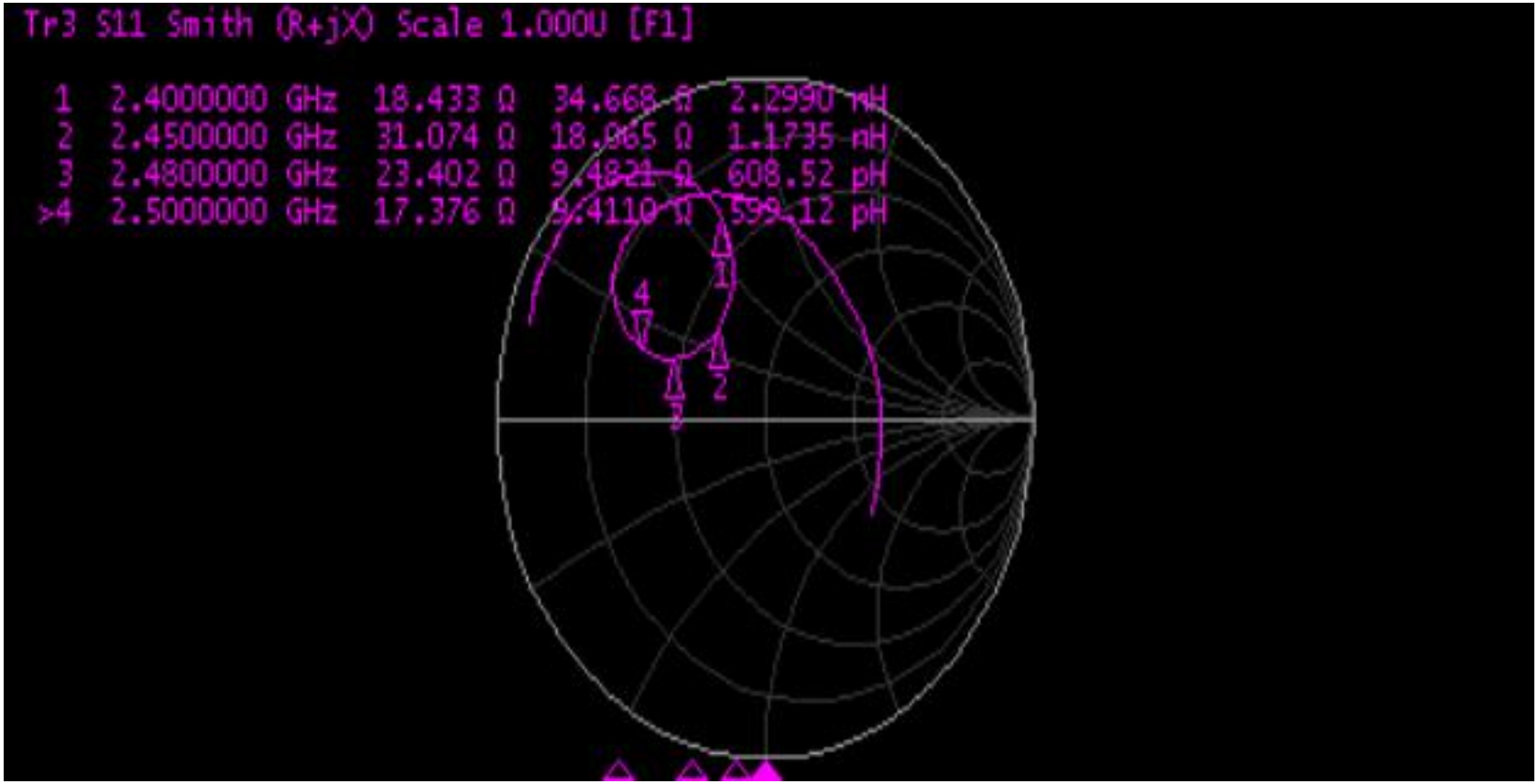
3.1 Test Result

2. S11 Parameter-Log Mag

Frequency (MHz)	2400	2450	2480	2500
Log Mag	-4.27	-10.03	-8.36	-6.03

3.1 Test Result

3 .S11 Parameter-Smi th



Frequency (MHz)	2400	2450	2480	2500
Smi th(Ω)	18.43	31.07	23.40	17.37

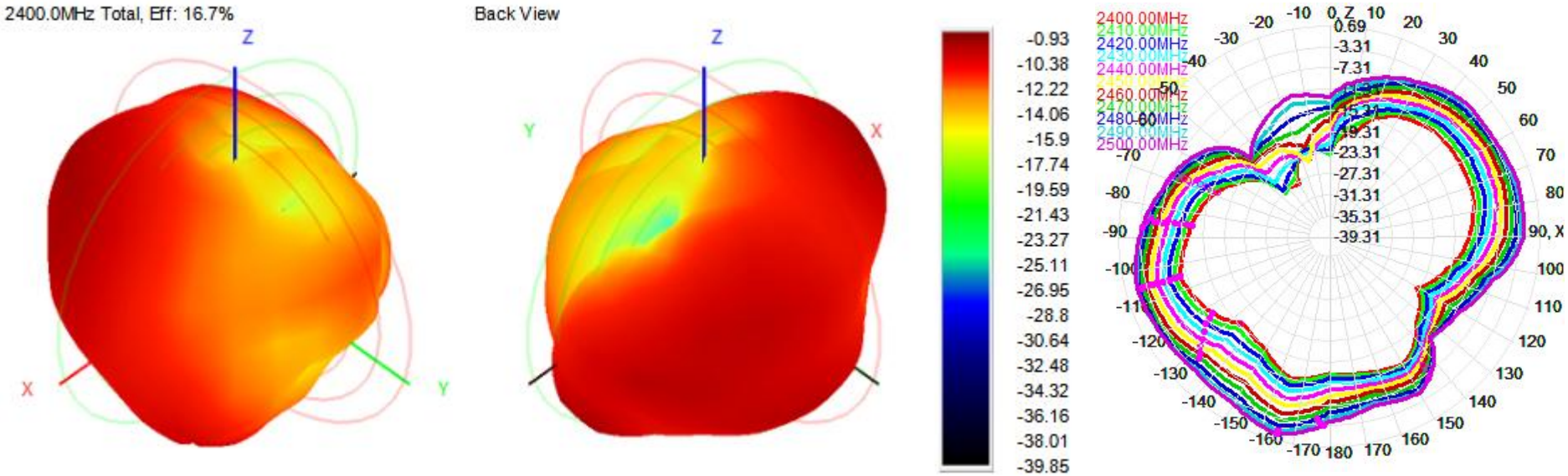
3.2 Test Result

1 Gain & Efficiency——ANT

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	18.67	-0.93
2410	19.47	-0.73
2420	19.55	-0.75
2430	19.99	-0.67
2440	20.07	-0.46
2450	20.38	-0.39
2460	19.39	-1.15
2470	20.87	-1.25
2480	21.67	-0.09

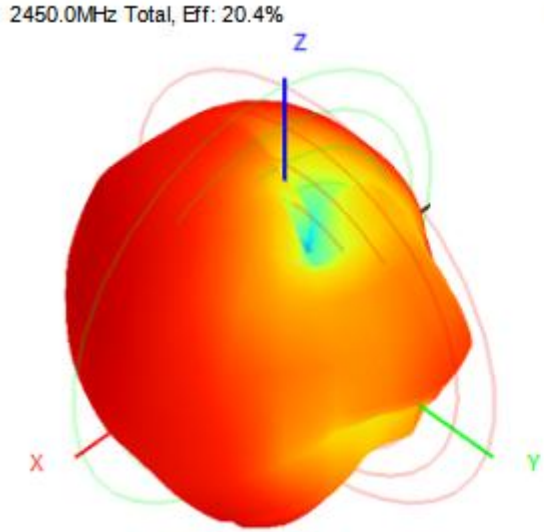
3.3 Test Result

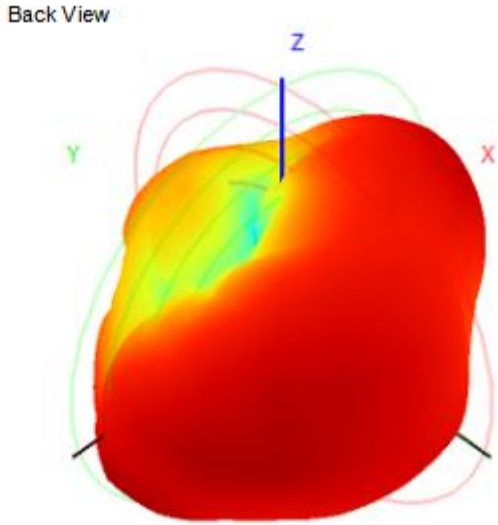
1 2D Pattern——BTANT

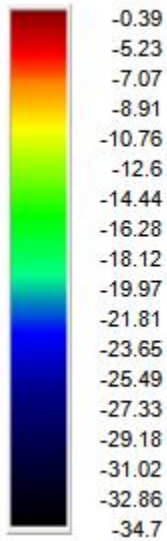


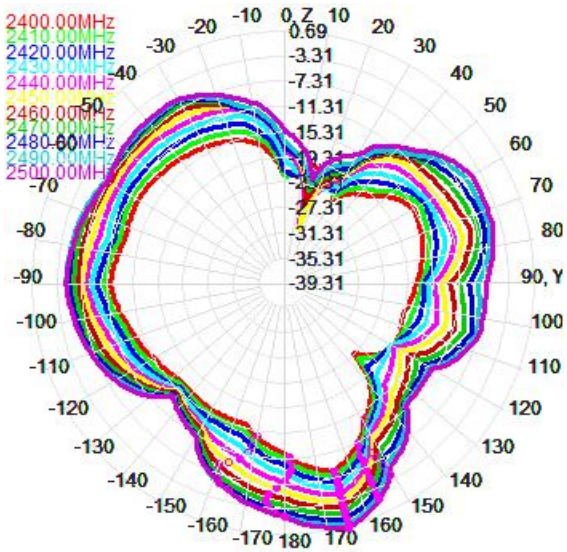
3.3 Test Result

2 2D Pattern——BTANT



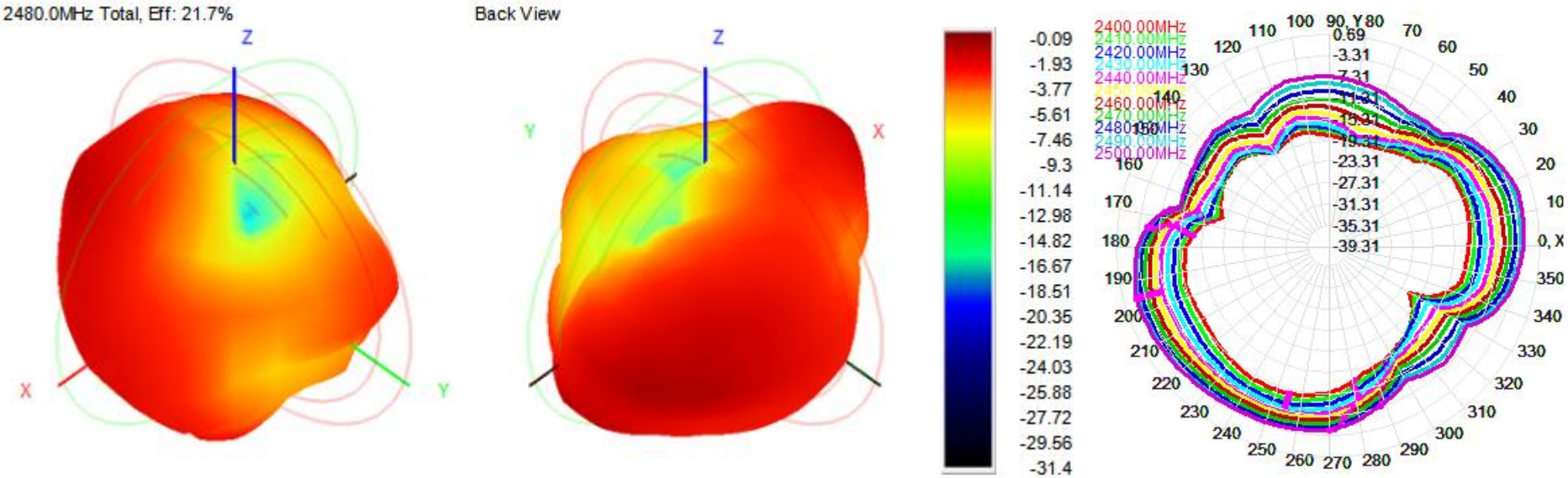






3.3 Test Result

3 2D Pattern——BTANT



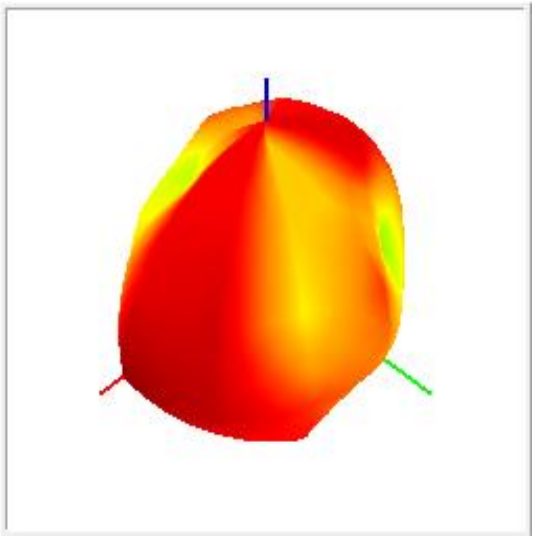
4.1 OTA Data

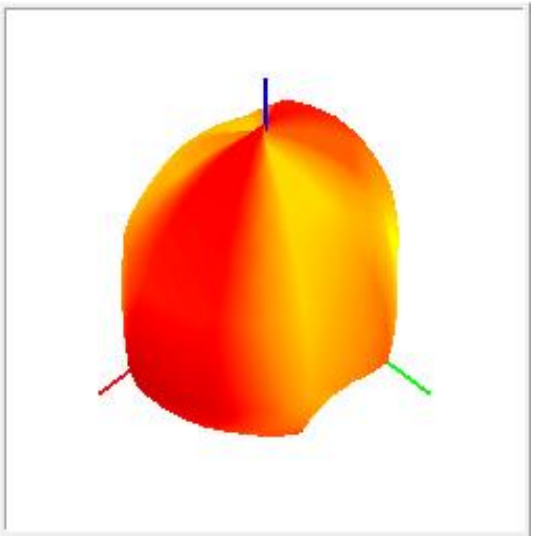
Test Equipment:	R&S CMW500		
Test Condition:	2 D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
BT	0	-0.78	-86.33
	39	2.67	-85.94
	78	1.68	-84.86

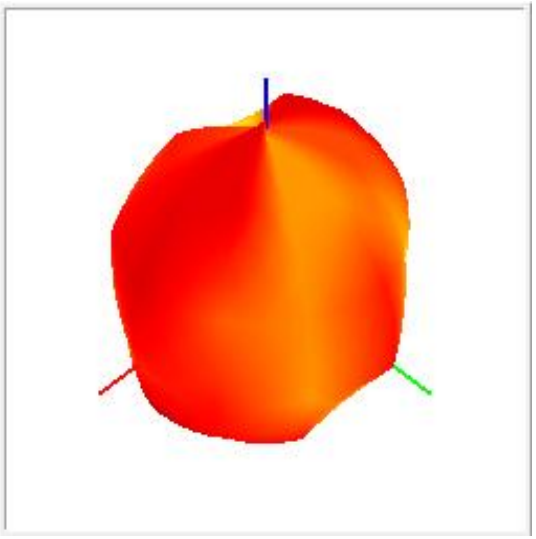
4.2 Test Result

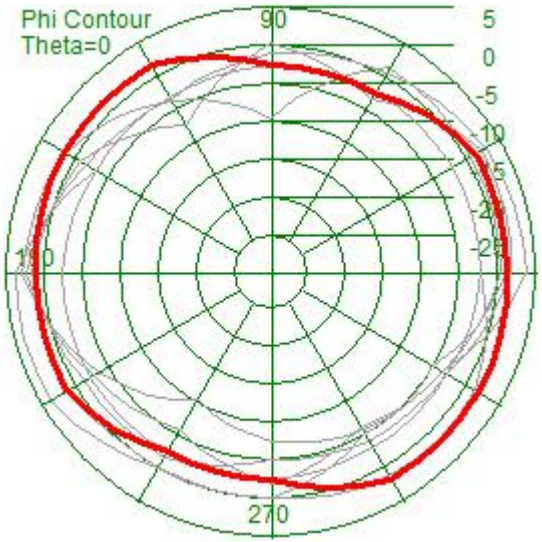
1 2D Pattern——BTANT

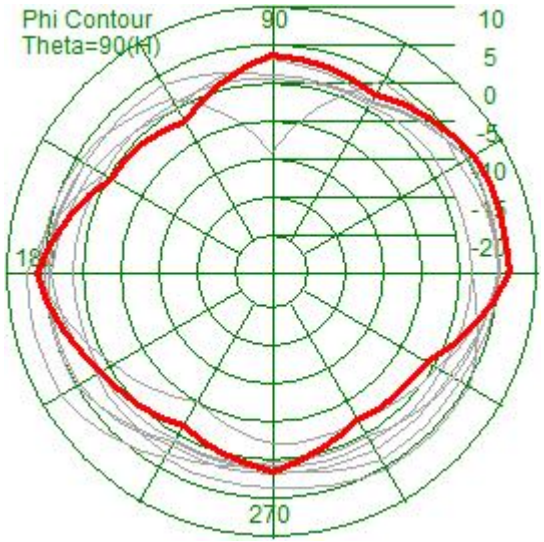
TRP

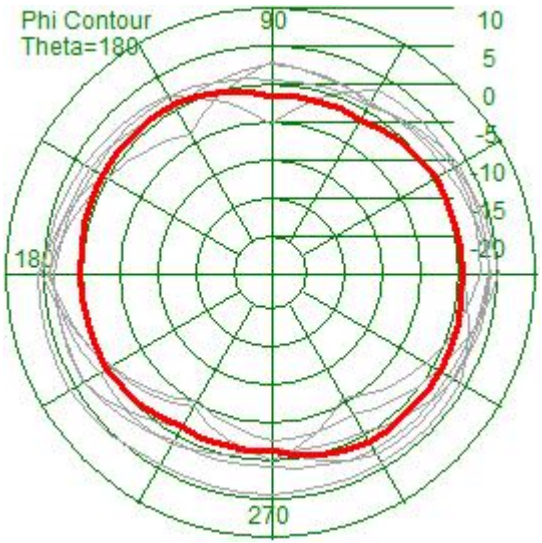








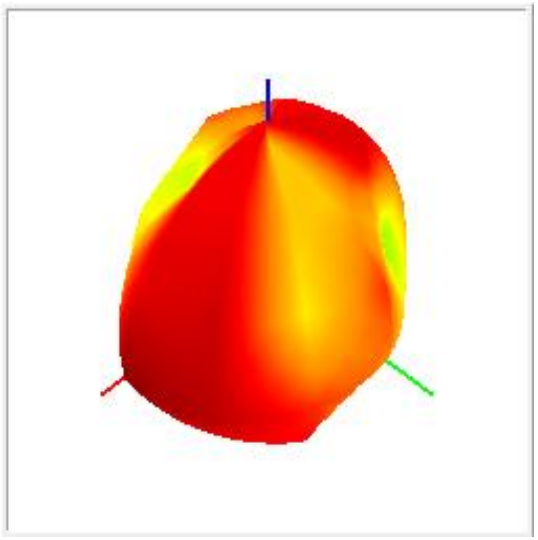


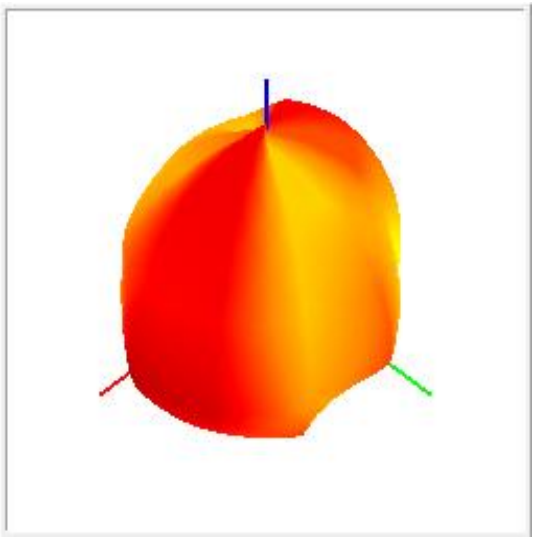


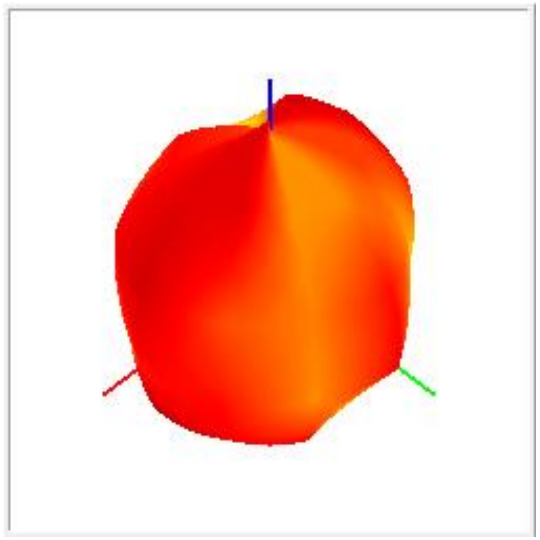
4.2 Test Result

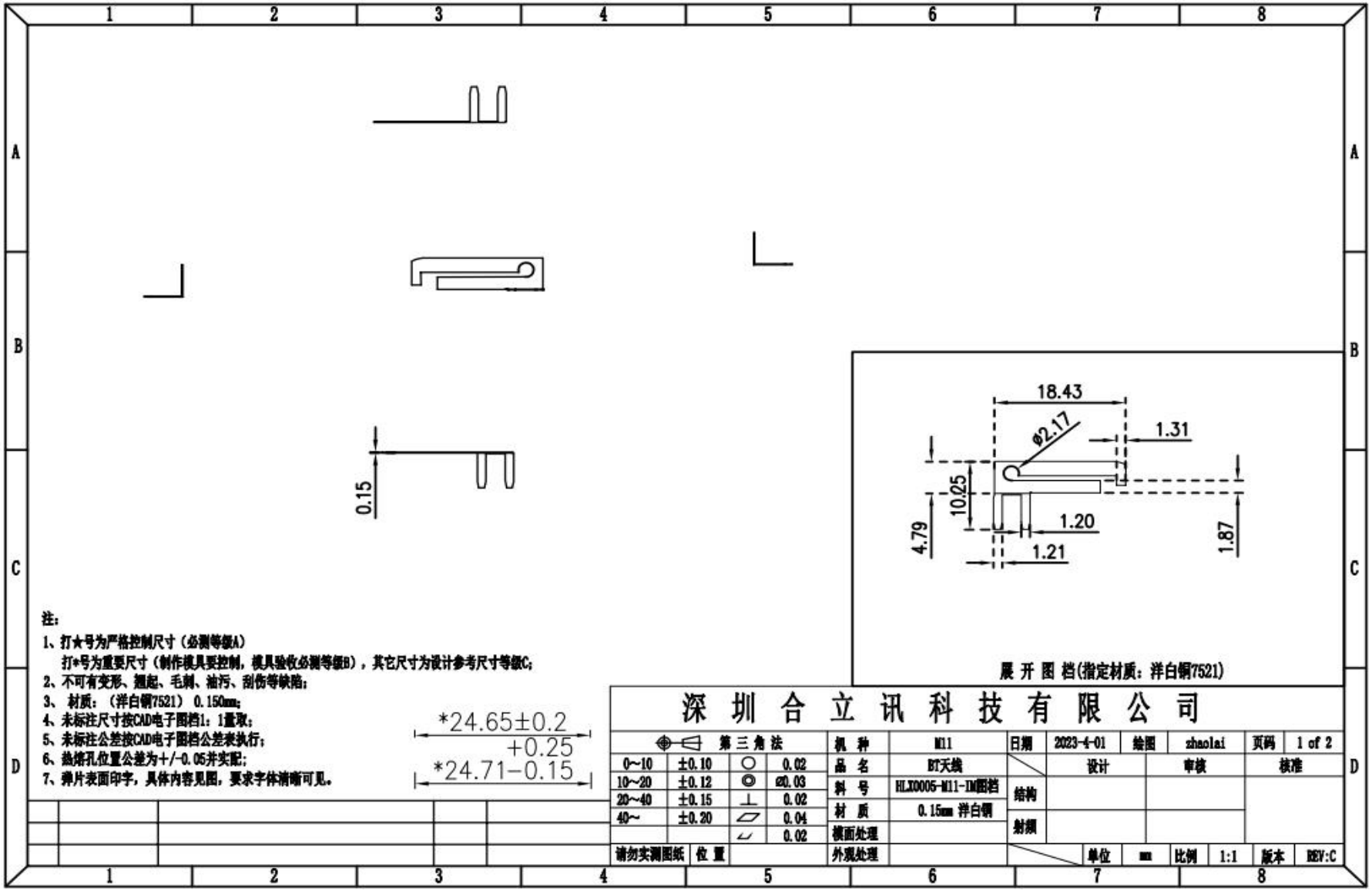
2 2D Pattern——BTANT

TIS









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