



Committed to wireless communication  
signal solutions

# Antenna test report

Customer: Gongxi n	Project model: <b>M1</b>	Date: <b>20240720</b>
Debugging version: <b>V1.0</b>	Radio frequency: Peng Bi ao	Structure: Qi ao Kai ge
Debugging: <b>BT</b>		



Committed to wireless communication  
signal solutions

## Catalogue

1	testing equipment
2	Debugging version record
3	matching circuit
4	Motherboard conduction data
5	Active testing
6	GPS/wi fi /btu
7	Environmental treatment
8	Summary explanation

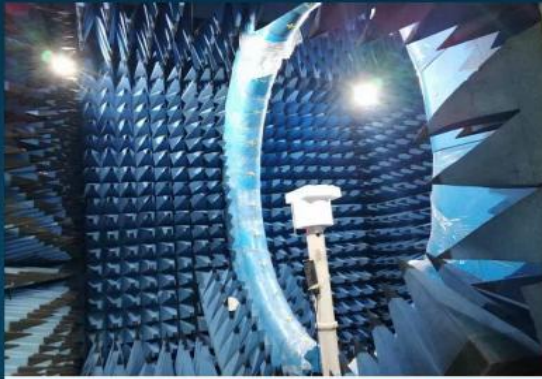


Committed to wireless communication  
signal solutions

## 1. Test equipment

### Test equipment

SG24



GTS



Agilent 8960



CMW 500



Agilent E5071B

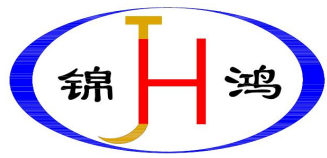
Test system		Test environment	Active testing	Passive testing
SG24		temperature: $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$	BT/WIFI/GPS	600MHZ—6G
GTS		humidity: $50\% \pm 15\%$		



Committed to wireless communication  
signal solutions

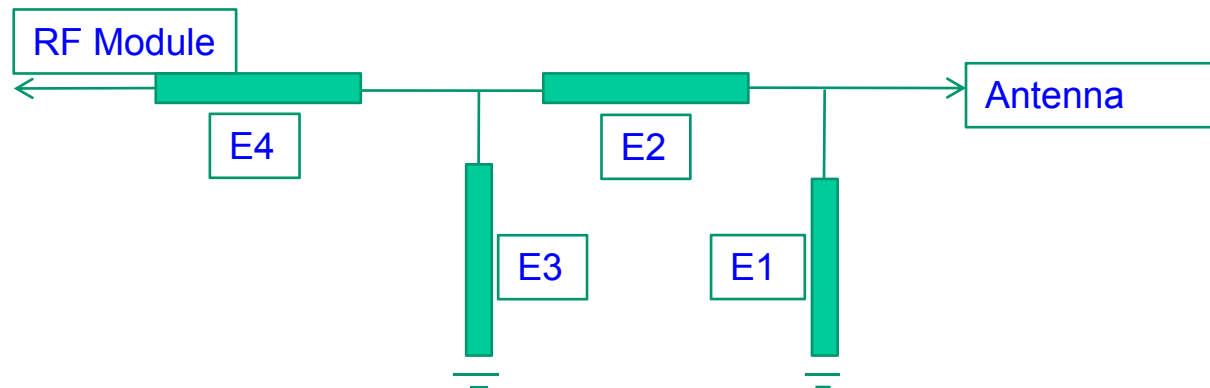
## 2. Debugging version record

version	date	summary
V1	6.3	Wire sample data
V2		
V3		
V4		
V5		
V6		



Committed to wireless communication  
signal solutions

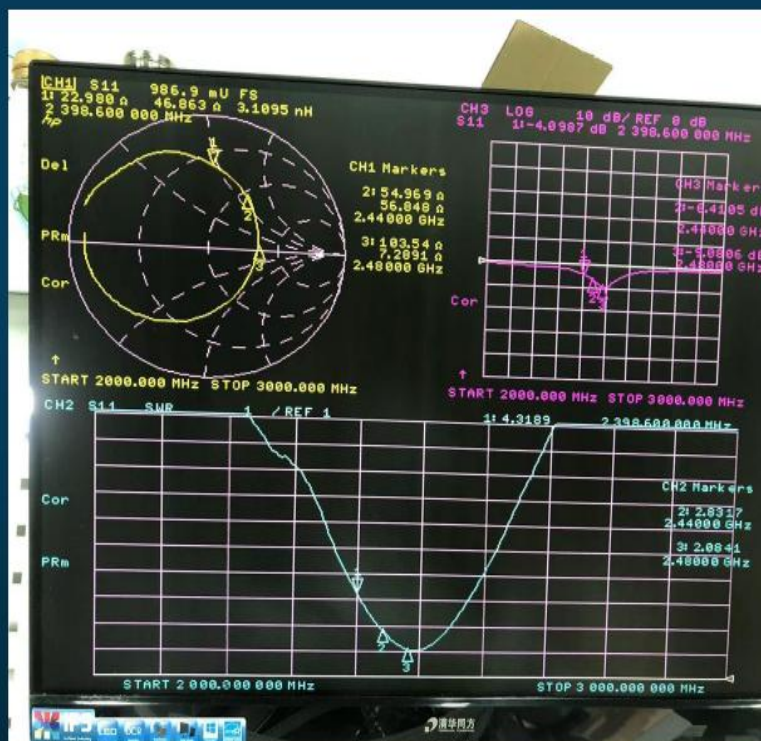
### 3.matching circuit

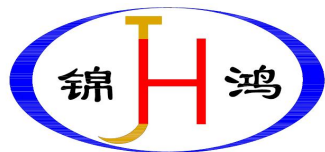


Modify matching: No.



Committed to wireless communication  
signal solutions



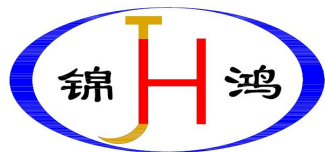


Committed to wireless communication  
signal solutions

## *GAIN & Efficiency*

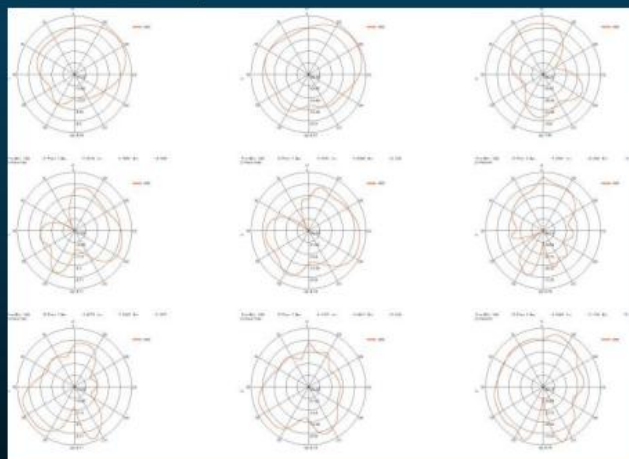
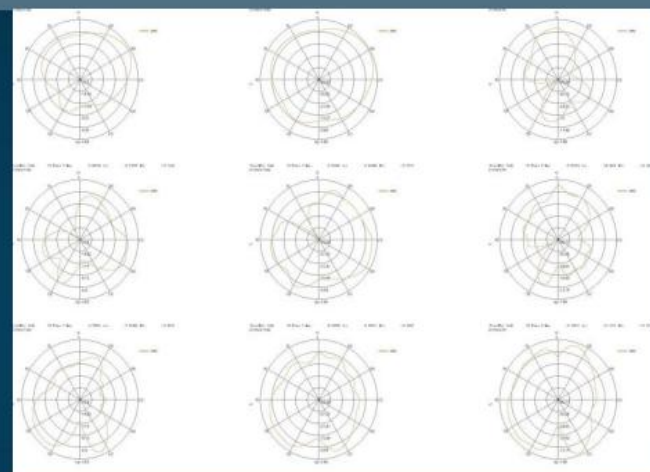
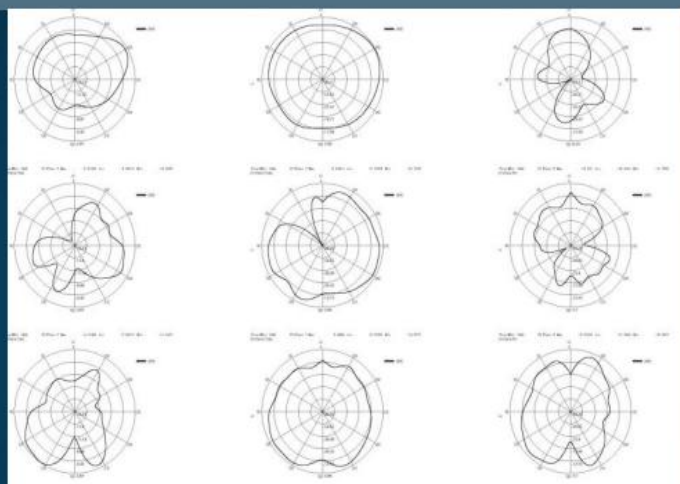
Frequency (MHz)	Gain (dB)	Efficiency (%)
2400	-2.67	10.66
2410	-2.41	10.88
2420	-2.23	11.2
2430	-2.17	11.24
2440	-1.85	11.61
2450	-1.63	12.28
2460	-1.37	12.69
2470	-1.13	13.39
2480	-1.1	13.87
2490	-1	14.15
2500	-1.15	14.11



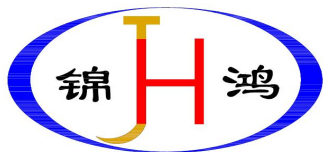


Committed to wireless communication  
signal solutions

## 2D Radiation Pattern

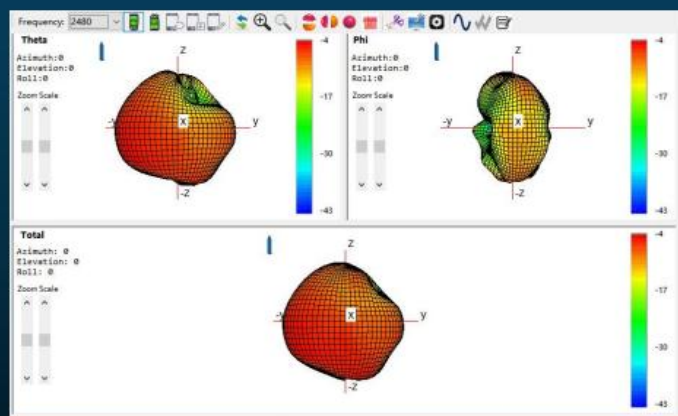
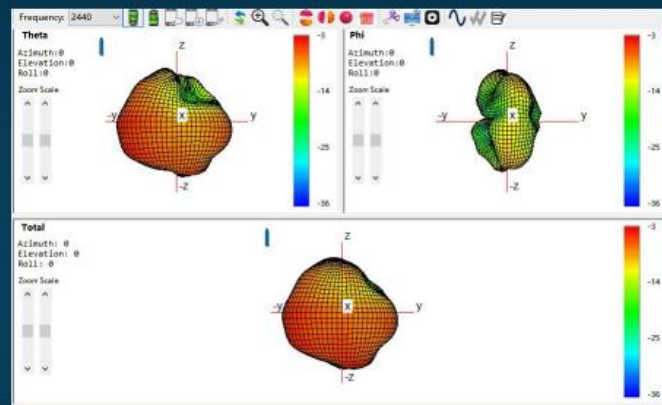
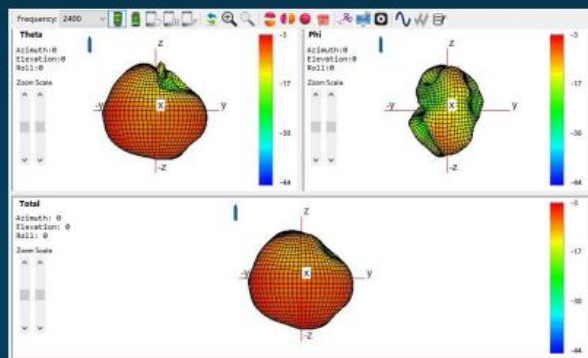






Committed to wireless communication  
signal solutions

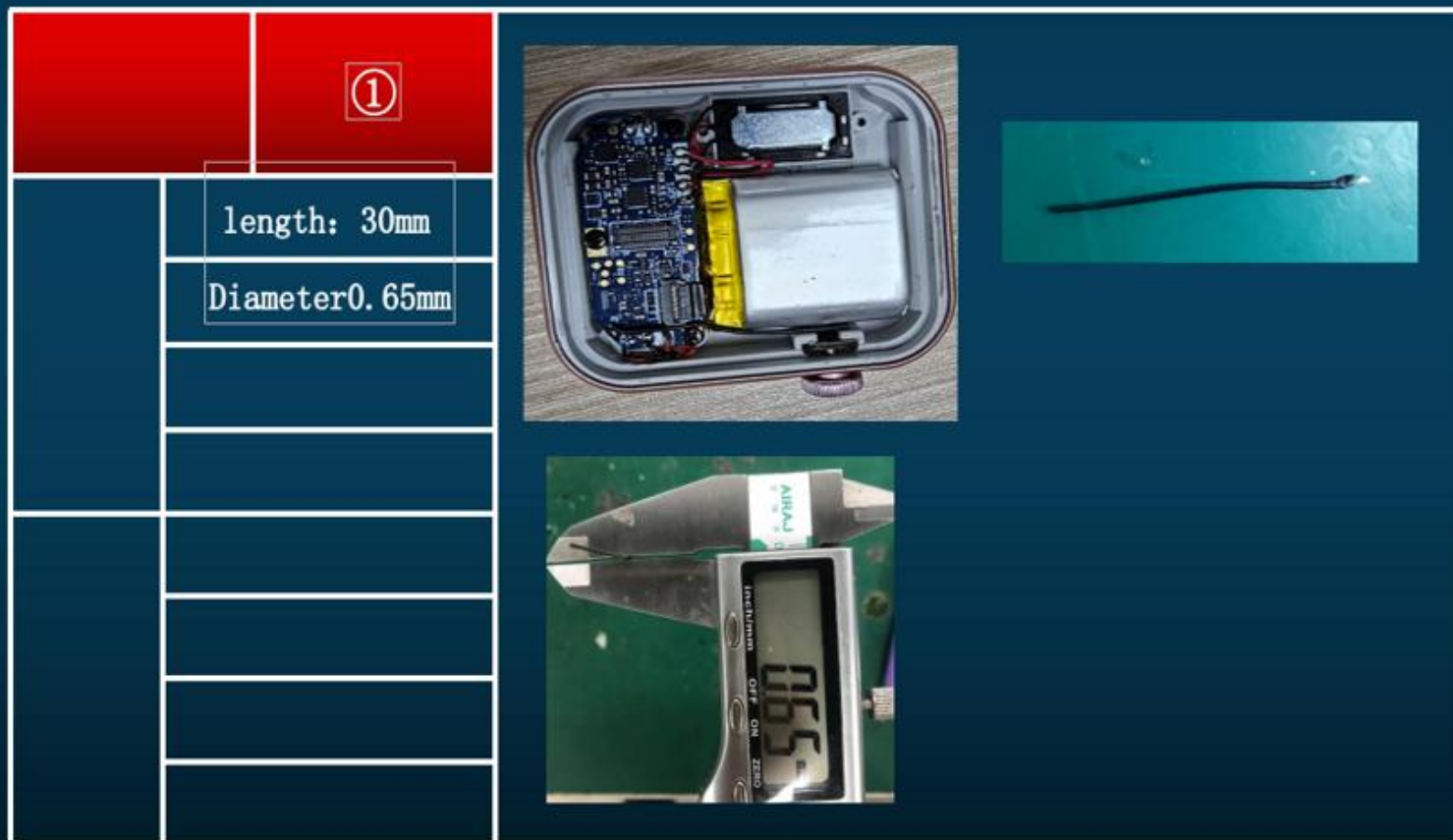
## 3D Radiation Pattern





Committed to wireless communication  
signal solutions

## Antenna position and size





Committed to wireless communication  
signal solutions

## 12.Summary explanation

1. Please pay attention to whether the matching in the report is changed and whether the environmental treatment is feasible; This will directly affect the antenna performance. If you have any objection, please contact our company in time.
2. If your machine has changed materials, updated software, environmental treatment, etc., you must provide the latest state machine to our company for verification in time;
3. If your company's machines need to be sent to a third party for verification or inspection, please provide them to our company for testing and verification before sending them (because the consistency of motherboard, environmental treatment and antenna assembly will affect the antenna deviation).