

# Testing Report

Customer Name: Shanghai Qiwei Cultural Technology Co., Ltd

Product Name: Remote Controller Antenna

Sample Model: XHYKZB

Reference Standard: *GB/T 9410-2008; ANSI/IEEE Std 149-1979*

Issue Date: 2024.2.7

## Version

Version No.	Date	Description	Formulate	Approval
A0	2024.2.7	For the first time, formulate		

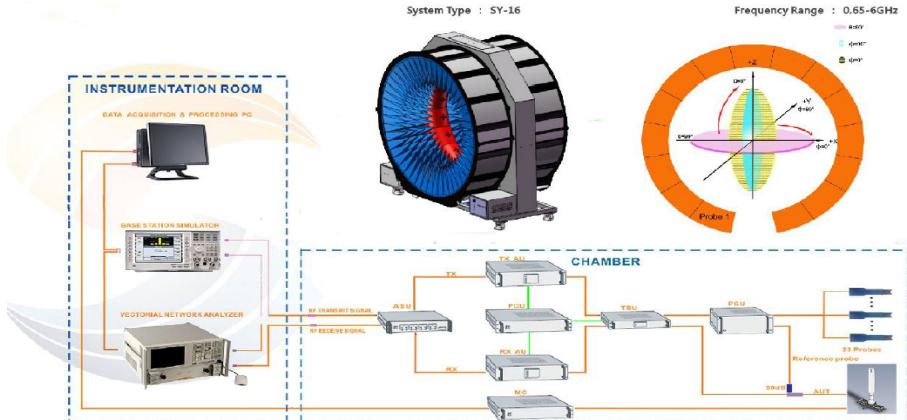
# 1. General Information

## 1.1 General information of testing institutions

Name	Yinghuada (Nanjing) Technology Co., Ltd
Address	133 Jiangjun Avenue, Jiangning District, Nanjing City
Tel	025-52262313 18913802852
E-mail	ji.jian-lin@iac.com.tw

## 1.2 Testing principle

### Multi-Probe OTA Measurement System



### 1.3 Test equipment

Equipment	Model No.	Serial No.	Manufacturer	Calibration date	Next calibration date
16 probe microwave chamber	3*3*2.5	RFI-LAB- RF -A00	SUNYIELD	2023.3.15	2024.3.14
Network Analyzer	E5071C	RFI-LAB- RF -A02	Agilent	2023.5.13	2024.5.12

### 1.4 Test environment

Temperature	24.6°C
Humidity	59%RH
Pressure	100.19kPa

## 1.5 Statement

- (1) The test results in the report are only applicable to the tested samples and the tested samples work under the environment described in the report.
- (2) Any objection to this report shall be raised within 30 days after formal confirmation of the report.
- (3) This report is invalid if there is any evidence that the sample information provided is falsified.
- (4) The report is invalid without the signature of the auditor and approver.

## 2. Sample Information

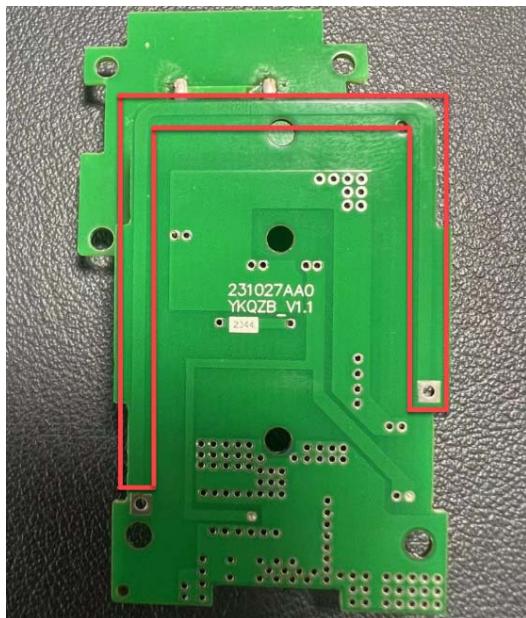
### 2.1 Client information

<b>Name</b>	Shanghai Qiwai Cultural Technology Co., Ltd
<b>Address</b>	
<b>Contacts</b>	
<b>Tel</b>	
<b>E-mail</b>	

## 2.2 Description of EUT(S)

<b>Product Name</b>	Remote Controller Antenna
<b>Sample Model</b>	XHYKZB
<b>Test Item</b>	Antenna gain; Radiation pattern and efficiency
<b>Frequency Range</b>	400MHz-480MHz
<b>Test Date</b>	2024.2.7
<b>Remark</b>	

## 2.3 EUT appearance



# 3. Test Results

## 3.1 Test standard

Name	Parameter	Method	Standard no.
Mobile communication antenna	Antenna gain	Generic specification for antennas used in the mobile communications	GB/T9410-2008
	Radiation pattern		
Antenna	Radiation efficiency	IEEE Standard Test Procedures for Antennas	ANSI/IEEE Std 149-1979
	Gain and directivity		

## 3.2 Test uncertainty

The uncertainty was calculated on the basis of the GUM published by ISO, using the inclusion factor of  $K=2$  and the 95% confidence level to express the extended uncertainty.

Item	Uncertainty
Antenna gain	$\pm 1\text{dB}$
Radiation efficiency	$\pm 10\%$

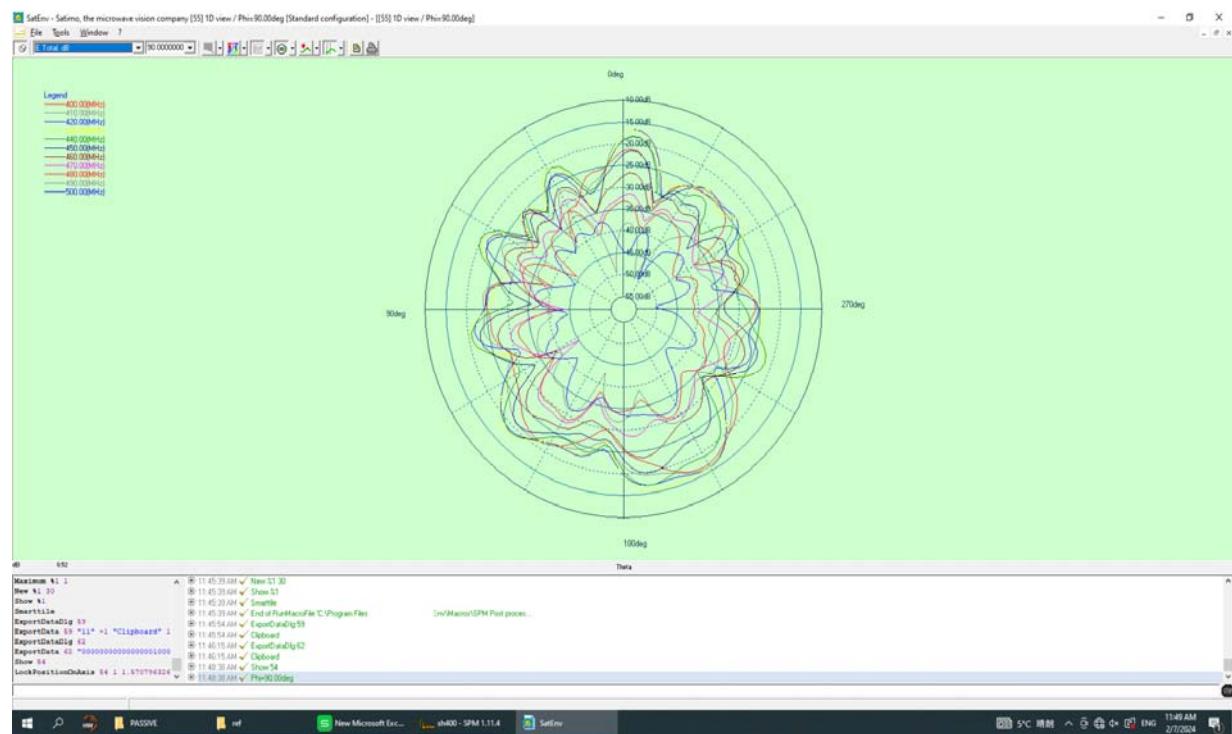
### 3.3 Test data

### 3.3.1 Typical free space efficiency and gain

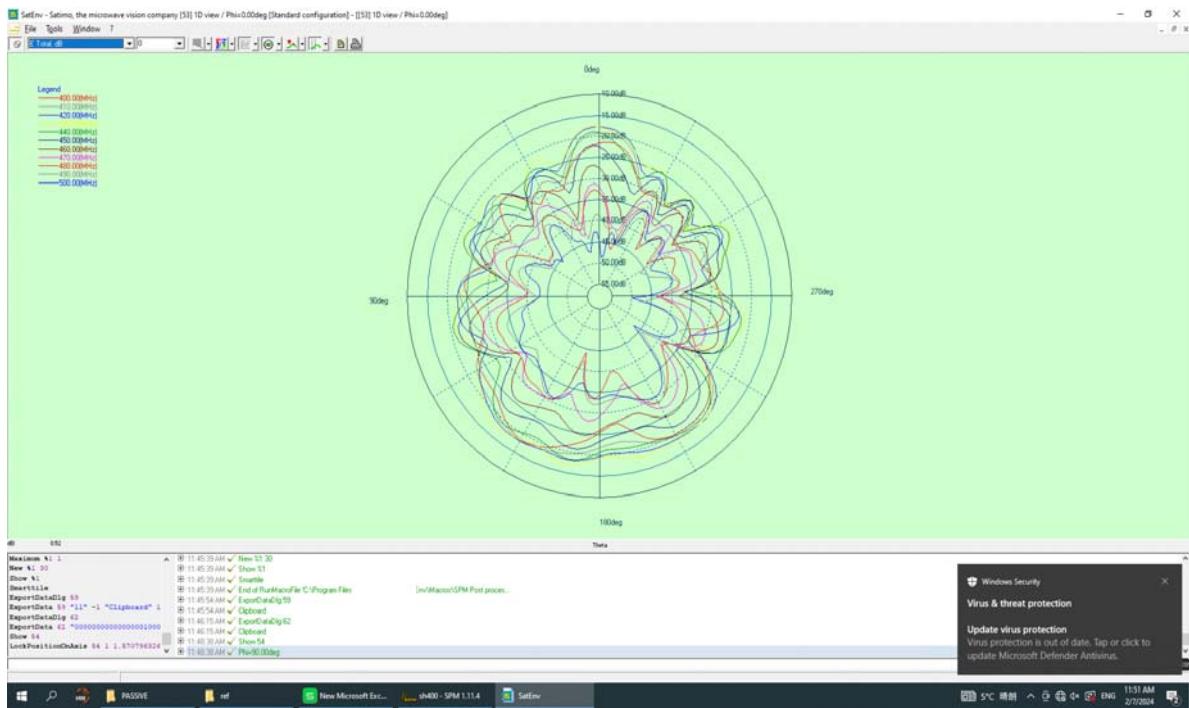
Frequency/MHz	400	410	420	430	440	450	460	470	480
Peak Gain/dB	-16.7	-16.1	-15.9	-15.5	-17.0	-19.8	-23.4	-26.7	-28.1
Efficiency/%	-25.1	-24	-23.1	-22.3	-23.5	-25.8	-29.0	-32.4	-34.6

### 3.3.2 Typical free space radiation pattern

phi=90deg



## phi=0deg



## Theta=90deg

