

# Testing Report

Product Name: BB2284

Issue Date: 2024. 5. 9

Engineer:		Date	2024.5.9
Auditor:		Date	2024.5.9
Approve		Date	2024.5.9

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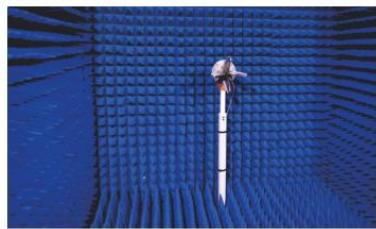
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# 1. General Information

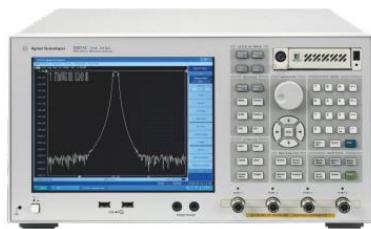
## 1. 1 General information of testing institutions

Name	Shenzhen DBT Communication Device Co., Ltd
Address	Rm505, 8th building, Yungu 2nd period, pingshan No.1 Road, Xili Town,Nanshan District, ShenZhen , China
Tel	0755-83763273
E-mail	Dbt_yang@163.com
Equipment	1. RayZone 1800 2. Keysight E5071C

## 1.2 Test equipment



Satimo



E5071C



Cmw500



8960

Model No.	Manufacturer	Calibration date	Next calibration date
Satimo	RFI-LAB-RF-A00	2023.11.13	2024.11.13
Cmw500	ROHDE&SCHWAR		
8960	Agilent		
E5071C	Agilent		

## 1.3 Test environment

<b>Temperature</b>	25. 0*C
<b>Humidity</b>	59%RH
<b>Pressure</b>	100.12kPa

## 1.4 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 30 days after formal confirmation of the report.
- (3) The report is invalid without the signature of the auditor and approver.

## 2. Sample Information

### 2.1 Client information

Name	Guangdong Transtek Medical Electronics Co., Ltd.
Address	Zone A, No. 105, Dong Li Road, Torch Development District, zhongShan, Guangdong,China
Contacts	
Tel	
E-mail	

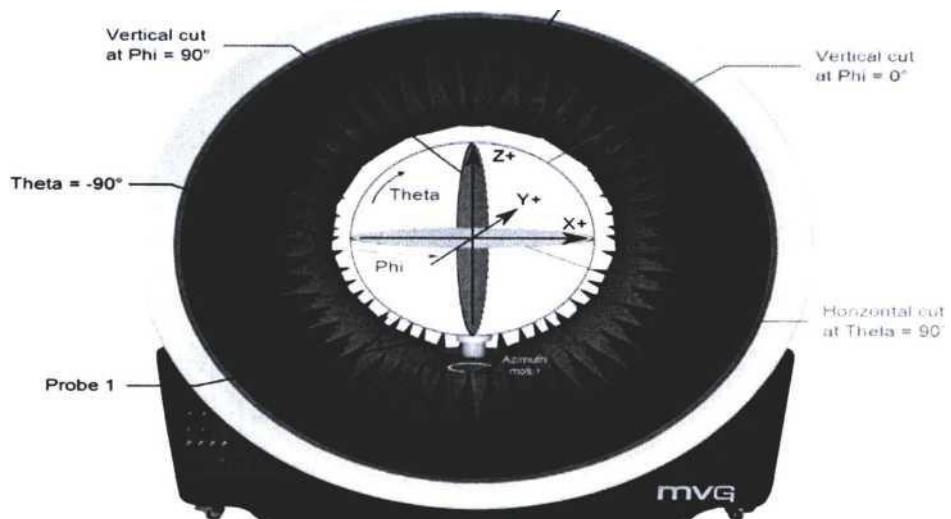
## 2.2 Description of EUT(S)

<b>Product Name</b>	2.4 GHz Antenna
<b>Antenna Size</b>	13.5*7.5mm
<b>Antenna Type</b>	PCB
<b>Test Item</b>	VSWR; Gain; Efficiency; Radiation pattern
<b>Frequency Range</b>	2402-2480MHz
<b>Received Date</b>	2024.5.9
<b>Test Date</b>	2024.5.9
<b>Remark</b>	<i>i</i>

## 2.3 EUT appearance



## 2.4 DUT setup photo of free space OTA testing



## 3. Test Results

### 3.1 Test standard

Name	Parameter	Method	Standard no.
Mobile Communication antenna	VSWR	Generic specification for antennas used in the mobile communications	GB/T 9410-2008
	Antenna gain		
	Radiation pattern		
Antenna	Radiation efficiency	IEEE Standard Test Procedures for Antennas	ANSI/IEEE Std 149-1979

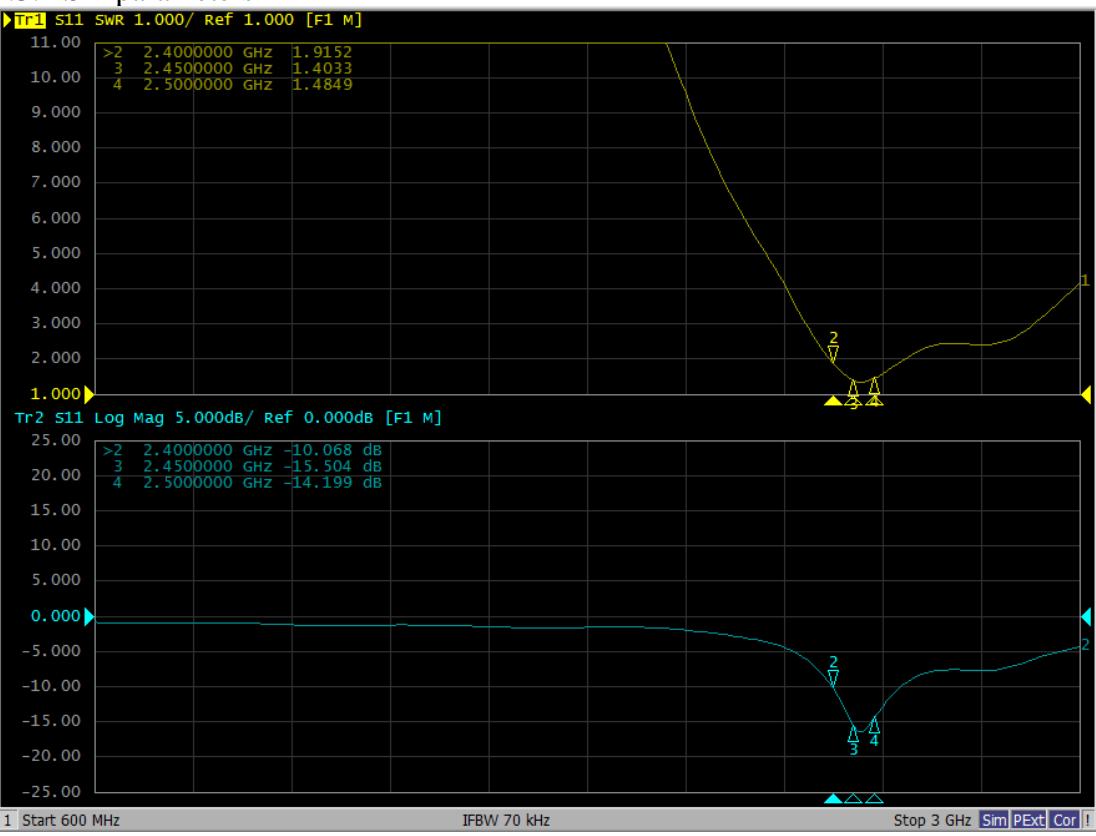
### 3.2 Test uncertainty

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
VSWR	±0.3
Antenna gain	+ 1dB
Radiation efficiency	±10%

### 3.3 Test data

#### 3.3.1 S11 parameters



#### 3.3.2 VSWR

Frequency/MHz	2400	2450	2500
VSWR	1.9152	1.4033	1.4849

#### 3.3.3 Typical free space efficiency and gain

Frequency MHz	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak Gain dBi	-2.61	-2.45	-2.33	-1.49	-1.56	-1.16	-1.62	-1.49	-1.18	-1	-0.96
Efficiency %	23.52	25.03	24.76	29.02	28.67	30.71	27.71	29.36	31.15	32.59	31.99

### 3.3.4 Typical free space radiation pattern

