

# TEST REPORT

**Applicant:** Shenzhen Siken 3D Technology Development Co., Ltd  
**Address:** 4th Building, No.33 Left East Avenue, Songgang, Bao'an District, Shenzhen, Guangdong, China 518105  
**Equipment Type:** LED Light Therapy Mask  
**Model Name:** SKB-2318PLUS  
**Brand Name:** Notime, ICELADY, spalift, icedandy  
**Test Standard:** IEEE Std 149-2021  
**Sample Arrival Date:** Aug. 01, 2024  
**Test Date:** Aug. 04, 2024 - Aug. 05, 2024  
**Date of Issue:** Aug. 12, 2024

## ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

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**Checked by:** Xia Long

**Approved by:** Tolan Tu

(Testing Director)

Mai Jintian

Xia Long

Tolan Tu

### Revision History

| Version        | Issue Date           | Revisions            |
|----------------|----------------------|----------------------|
| <u>Rev. 01</u> | <u>Aug. 12, 2024</u> | <u>Initial Issue</u> |

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# 1 GENERAL INFORMATION

## 1.1 Test Laboratory

|              |                                                                                                                              |
|--------------|------------------------------------------------------------------------------------------------------------------------------|
| Name         | Shenzhen BALUN Technology Co., Ltd.                                                                                          |
| Address      | Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China |
| Phone Number | +86 755 6685 0100                                                                                                            |

## 1.2 Test Location

|          |                                                                                                                                                                                                                         |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name     | Shenzhen BALUN Technology Co., Ltd.                                                                                                                                                                                     |
| Location | <input checked="" type="checkbox"/> Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China                                                        |
|          | <input type="checkbox"/> 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China |

## 2 PRODUCT INFORMATION

### 2.1 Applicant Information

|           |                                                                                                    |
|-----------|----------------------------------------------------------------------------------------------------|
| Applicant | Shenzhen Siken 3D Technology Development Co., Ltd                                                  |
| Address   | 4th Building, No.33 Left East Avenue, Songgang, Bao'an District, Shenzhen, Guangdong, China 518105 |

### 2.2 Manufacturer Information

|              |                                                                                                    |
|--------------|----------------------------------------------------------------------------------------------------|
| Manufacturer | Shenzhen Siken 3D Technology Development Co., Ltd                                                  |
| Address      | 4th Building, No.33 Left East Avenue, Songgang, Bao'an District, Shenzhen, Guangdong, China 518105 |

### 2.3 General Description for Equipment under Test (EUT)

|                       |                        |
|-----------------------|------------------------|
| EUT Name              | LED Light Therapy Mask |
| Model Name Under Test | SKB-2318PLUS           |
| Antenna Type          | PCB Antenna            |
| Dimensions            | 8*3 mm                 |

### 2.4 Ancillary Equipment

Note: Not applicable.

### 3 SUMMARY OF TEST RESULTS

#### 3.1 Test Standards

| No. | Identity          | Document Title                             |
|-----|-------------------|--------------------------------------------|
| 1   | IEEE Std 149-2021 | IEEE Standard Test Procedures for Antennas |

#### 3.2 Test Verdict

| Report Section | Description         | Remark |
|----------------|---------------------|--------|
| ANNEX A.1      | Gain and Efficiency | --     |
| ANNEX A.2      | VSWR                | --     |
| ANNEX B        | Radiation Pattern   | --     |

#### 3.3 Test Uncertainty

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

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

## 4 GENERAL TEST CONFIGURATIONS

### 4.1 Test Condition

| Environment<br>Parameter                           | Selected Values During Tests |                 |         |                          |
|----------------------------------------------------|------------------------------|-----------------|---------|--------------------------|
|                                                    | Ambient<br>Pressure(KPa)     | Temperature(°C) | Voltage | Relative<br>Humidity (%) |
| Normal<br>Temperature,<br>Normal Voltage<br>(NTNV) | 101                          | 21.6            | N/A     | 46                       |

### 4.2 Test Equipment List

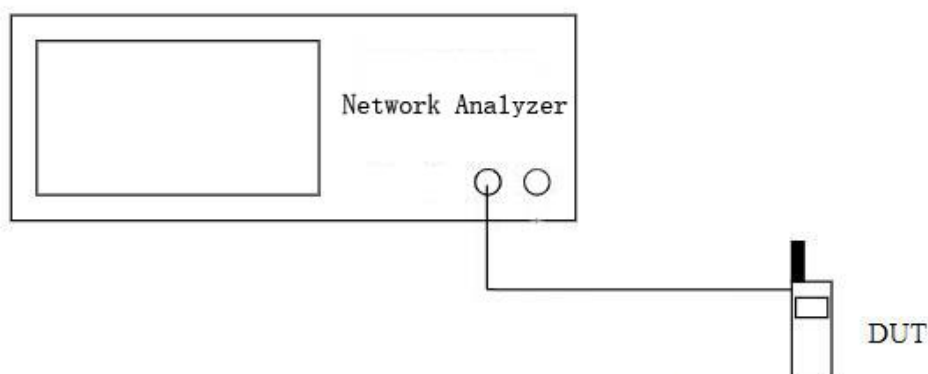
| Description                                       | Manufacturer | Model  | Serial No.       | Cal. Date  | Cal. Due   |
|---------------------------------------------------|--------------|--------|------------------|------------|------------|
| SG24 Multi-probe<br>Antenna Measurement<br>System | SATIMO       | SG24-L | 1101855-<br>0001 | 2021.11.12 | 2024.11.11 |
| Vector Network<br>Analyzer                        | Agilent      | E5071B | MY42404001       | 2024.01.16 | 2025.01.15 |
| Description                                       | Manufacturer | Name   |                  | Version    |            |
| Test Software                                     | MVG          | SPM    |                  | V 1.8      |            |

## 4.3 Test Setup

### 4.3.1 Antenna gain, efficiency and radiation pattern test setup



### 4.3.2 S11 parameter test setup



## 4.4 Test Frequencies

|                  |                                                                                                   |
|------------------|---------------------------------------------------------------------------------------------------|
| Test Frequencies | 2400MHz, 2410MHz, 2420MHz, 2430MHz, 2440MHz, 2450MHz, 2460MHz, 2470MHz, 2480MHz, 2490MHz, 2500MHz |
|------------------|---------------------------------------------------------------------------------------------------|

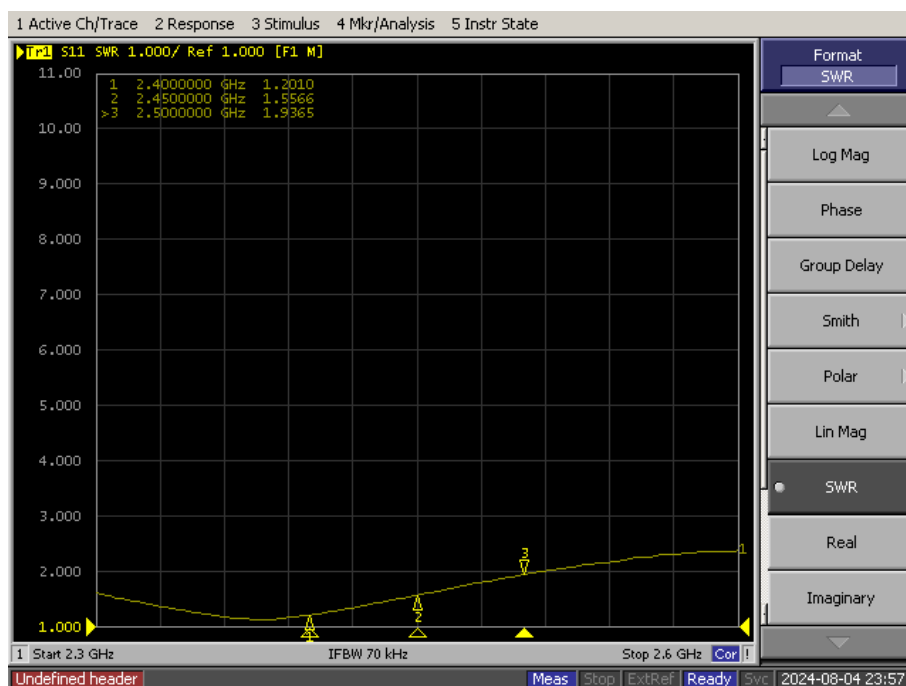
## ANNEX A TEST RESULTS

### A.1 Gain and Efficiency

| Frequency | Gain (dBi)  | Efficiency (%) |
|-----------|-------------|----------------|
| 2400MHz   | 3.30        | 60             |
| 2410MHz   | 3.39        | 60             |
| 2420MHz   | 3.57        | 60             |
| 2430MHz   | 3.71        | 62             |
| 2440MHz   | 3.69        | <b>63</b>      |
| 2450MHz   | 3.47        | 61             |
| 2460MHz   | 3.40        | 60             |
| 2470MHz   | 3.67        | 62             |
| 2480MHz   | <b>3.82</b> | 63             |
| 2490MHz   | 3.67        | 61             |
| 2500MHz   | 3.63        | 59             |

### A.2 VSWR

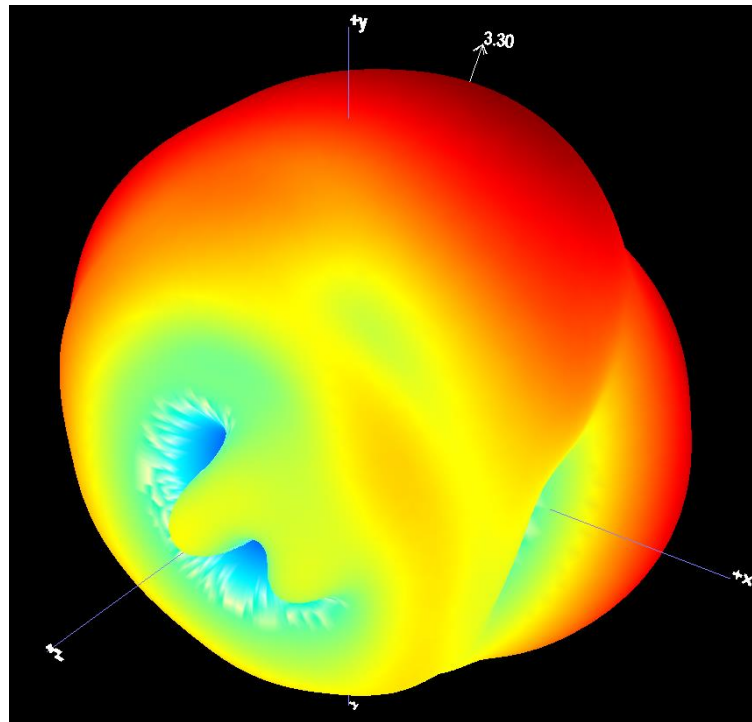
| Frequency | VSWR |
|-----------|------|
| 2400MHz   | 1.20 |
| 2450MHz   | 1.56 |
| 2500MHz   | 1.94 |



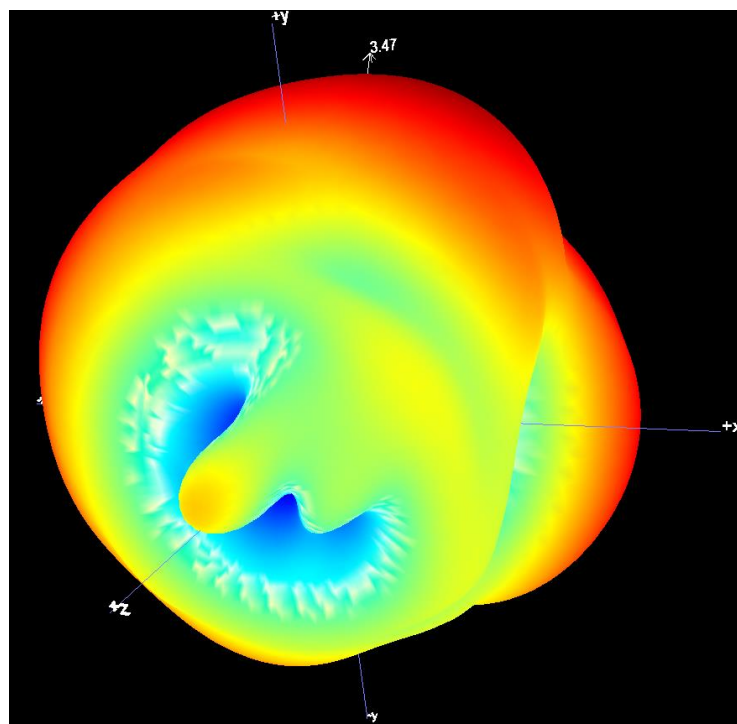
## ANNEX B RADIATION PATTERN

### B.1 3D Pattern

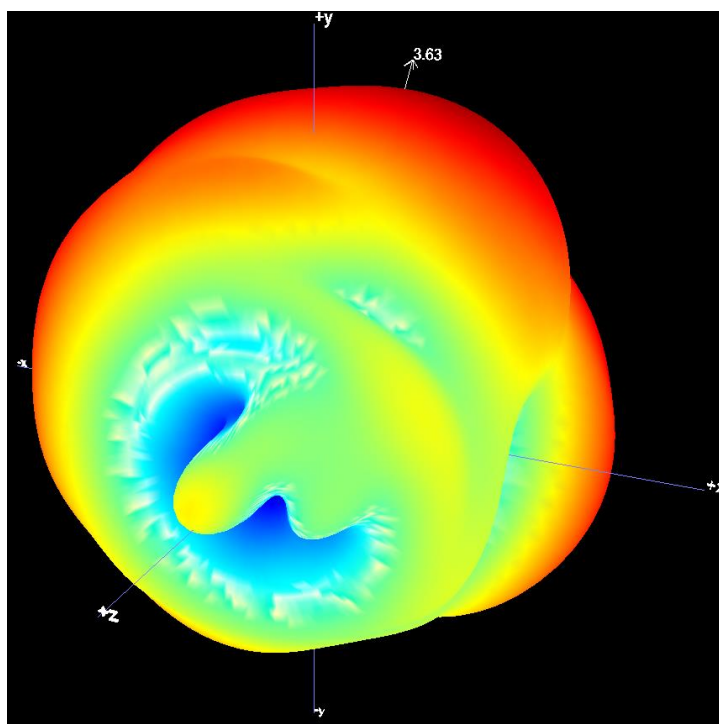
B1.1 3D Pattern for 2400MHz



B1.2 3D Pattern for 2450MHz

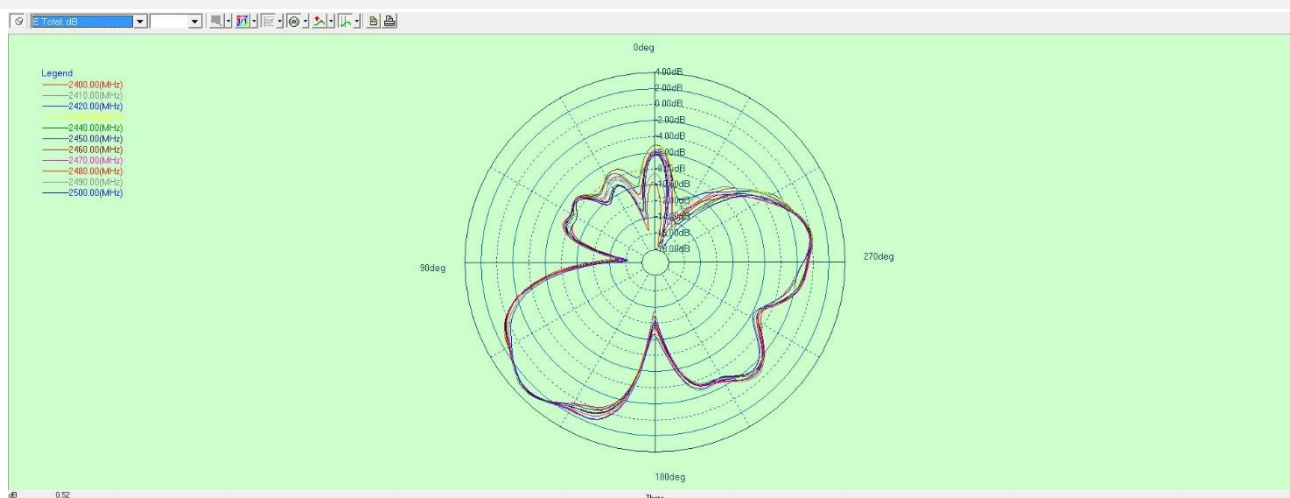


B1.3 3D Pattern for 2500MHz

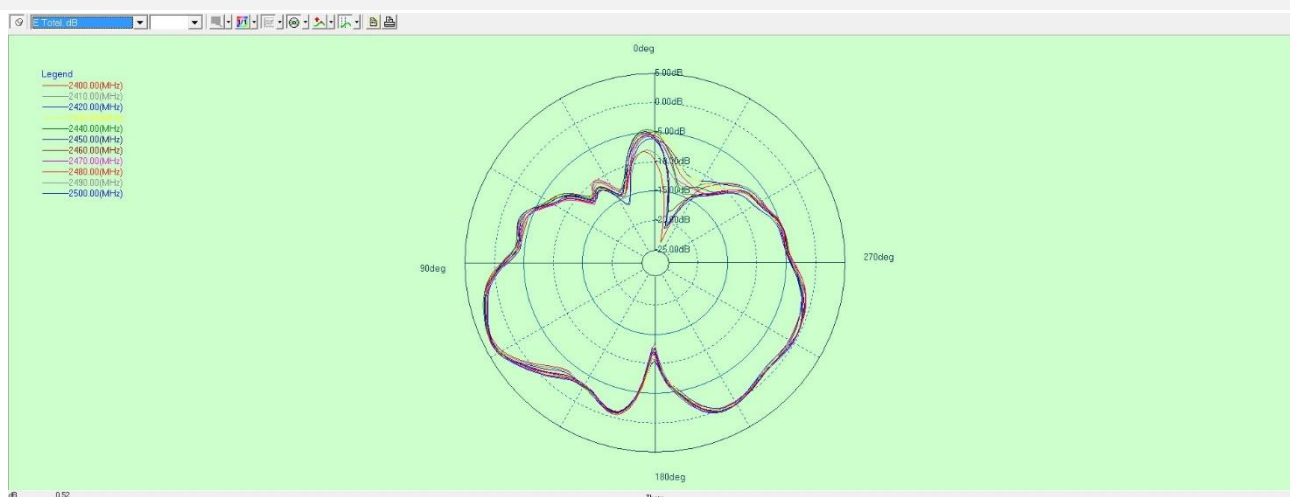


## B.2 1D Radiation Pattern

### B2.1 PHI=0



### B2.2 PHI=90



### B2.3 THETA=90



## **ANNEX C TEST SETUP PHOTOS**

Please refer the document “BL-SZ2480087-AO.PDF”.

## **ANNEX D EUT PHOTO**

Please refer the document “BL-SZ2480087-AA.PDF”.

## Statement

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--END OF REPORT--