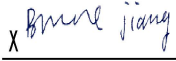


|                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                               |                                                                   |                                                                                                                              |                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>Prüfbericht-Nr.:</b><br><i>Test report no.:</i>                                                                                                                                                                                                                                                                                                                                                                                                         | <b>CN22JPD6 002</b>                                                                                                           | <b>Auftrags-Nr.:</b><br><i>Order no.:</i>                         | <b>168394818</b>                                                                                                             | <b>Seite 1 von 51</b><br><i>Page 1 of 51</i>   |
| <b>Kunden-Referenz-Nr.:</b><br><i>Client reference no.:</i>                                                                                                                                                                                                                                                                                                                                                                                                | <b>N/A</b>                                                                                                                    | <b>Auftragsdatum:</b><br><i>Order date:</i>                       | <b>2022-10-17</b>                                                                                                            |                                                |
| <b>Auftraggeber:</b><br><i>Client:</i>                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>DONGGUAN CASTLE MARK FURNITURE CO., LTD.</b><br>267 Guan Chang road, DongCheng, DongGuan 523128, Guangdong, China.         |                                                                   |                                                                                                                              |                                                |
| <b>Prüfgegenstand:</b><br><i>Test item:</i>                                                                                                                                                                                                                                                                                                                                                                                                                | <b>ZG CHAIR</b>                                                                                                               |                                                                   |                                                                                                                              |                                                |
| <b>Bezeichnung / Typ-Nr.:</b><br><i>Identification / Type no.:</i>                                                                                                                                                                                                                                                                                                                                                                                         | <b>CIRCA</b>                                                                                                                  |                                                                   |                                                                                                                              |                                                |
| <b>Auftrags-Inhalt:</b><br><i>Order content:</i>                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Test Report</b>                                                                                                            |                                                                   |                                                                                                                              |                                                |
| <b>Prüfgrundlage:</b><br><i>Test specification:</i>                                                                                                                                                                                                                                                                                                                                                                                                        | <b>FCC CFR Title 47, Part 15, Subpart C, Section 15.247</b>                                                                   |                                                                   |                                                                                                                              |                                                |
| <b>Wareneingangsdatum:</b><br><i>Date of sample receipt:</i>                                                                                                                                                                                                                                                                                                                                                                                               | <b>2022-12-14</b>                                                                                                             | <b>Please refer to Photo Document</b>                             |                                                                                                                              |                                                |
| <b>Prüfmuster-Nr.:</b><br><i>Test sample no:</i>                                                                                                                                                                                                                                                                                                                                                                                                           | <b>A003388414-001</b><br><b>A003388414-003</b>                                                                                |                                                                   |                                                                                                                              |                                                |
| <b>Prüfzeitraum:</b><br><i>Testing period:</i>                                                                                                                                                                                                                                                                                                                                                                                                             | <b>2022-12-14 to 2022-12-30</b>                                                                                               |                                                                   |                                                                                                                              |                                                |
| <b>Ort der Prüfung:</b><br><i>Place of testing:</i>                                                                                                                                                                                                                                                                                                                                                                                                        | <b>TÜV Rheinland (Shenzhen) Co., Ltd.</b>                                                                                     |                                                                   |                                                                                                                              |                                                |
| <b>Prüflaboratorium:</b><br><i>Testing laboratory:</i>                                                                                                                                                                                                                                                                                                                                                                                                     | <b>TÜV Rheinland (Shenzhen) Co., Ltd.</b>                                                                                     |                                                                   |                                                                                                                              |                                                |
| <b>Prüfergebnis*:</b><br><i>Test result*:</i>                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Pass</b>                                                                                                                   |                                                                   |                                                                                                                              |                                                |
| <b>geprüft von:</b><br><i>tested by:</i>                                                                                                                                                                                                                                                                                                                                                                                                                   | <br><small>Signed by: Breeze Jiang</small> | <b>genehmigt von:</b><br><i>authorized by:</i>                    | <br><small>Signed by: Hanbu Guo</small> |                                                |
| <b>Datum:</b><br><i>Date:</i>                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>2023-01-16</b>                                                                                                             | <b>Ausstellungsdatum:</b><br><i>Issue date:</i>                   | <b>2023-01-16</b>                                                                                                            |                                                |
| <b>Stellung / Position:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Assistant Project Manager</b>                                                                                              | <b>Stellung / Position:</b>                                       | <b>Reviewer</b>                                                                                                              |                                                |
| <b>Sonstiges / Other:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>FCC ID: 2A87F-CIRCA</b>                                                                                                    |                                                                   |                                                                                                                              |                                                |
| <b>Zustand des Prüfgegenstandes bei Anlieferung:</b><br><i>Condition of the test item at delivery:</i>                                                                                                                                                                                                                                                                                                                                                     | <b>Prüfmuster vollständig und unbeschädigt</b><br><i>Test item complete and undamaged</i>                                     |                                                                   |                                                                                                                              |                                                |
| <b>* Legende:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>1 = sehr gut</b><br>P(ass) = entspricht o.g. Prüfgrundlage(n)                                                              | <b>2 = gut</b><br>F(ail) = entspricht nicht o.g. Prüfgrundlage(n) | <b>3 = befriedigend</b><br>N/A = nicht anwendbar                                                                             | <b>4 = ausreichend</b><br>N/T = nicht getestet |
| <b>* Legend:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>1 = very good</b><br>P(ass) = passed a.m. test specification(s)                                                            | <b>2 = good</b><br>F(ail) = failed a.m. test specification(s)     | <b>3 = satisfactory</b><br>N/A = not applicable                                                                              | <b>4 = sufficient</b><br>N/T = not tested      |
| <b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b><br><i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i> |                                                                                                                               |                                                                   |                                                                                                                              |                                                |

**Prüfbericht - Nr.: CN22JPD6 002**  
Test Report No.

Seite 2 von 51  
Page 2 of 51

## Test Summary

**5.1.1 ANTENNA REQUIREMENT**

RESULT: Pass

**5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER**

RESULT: Pass

**5.1.3 CONDUCTED POWER SPECTRAL DENSITY**

RESULT: Pass

**5.1.4 6dB BANDWIDTH**

RESULT: Pass

**5.1.5 99% BANDWIDTH**

RESULT: Pass

**5.1.6 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH**

RESULT: Pass

**5.1.7 RADIATED SPURIOUS EMISSION**

RESULT: Pass

**5.1.18 CONDUCTED EMISSION ON AC MAINS**

RESULT: Pass

## **Contents**

|              |                                                                         |           |
|--------------|-------------------------------------------------------------------------|-----------|
| <b>1</b>     | <b>GENERAL REMARKS.....</b>                                             | <b>4</b>  |
| <b>1.1</b>   | <b>COMPLEMENTARY MATERIALS .....</b>                                    | <b>4</b>  |
| <b>2</b>     | <b>TEST SITES .....</b>                                                 | <b>5</b>  |
| <b>2.1</b>   | <b>TEST FACILITIES.....</b>                                             | <b>5</b>  |
| <b>2.2</b>   | <b>LIST OF TEST AND MEASUREMENT INSTRUMENTS .....</b>                   | <b>5</b>  |
| <b>2.3</b>   | <b>TRACEABILITY .....</b>                                               | <b>6</b>  |
| <b>2.4</b>   | <b>CALIBRATION.....</b>                                                 | <b>6</b>  |
| <b>2.5</b>   | <b>MEASUREMENT UNCERTAINTY .....</b>                                    | <b>7</b>  |
| <b>2.6</b>   | <b>LOCATION OF ORIGINAL DATA .....</b>                                  | <b>7</b>  |
| <b>2.7</b>   | <b>STATUS OF FACILITY USED FOR TESTING .....</b>                        | <b>7</b>  |
| <b>3</b>     | <b>GENERAL PRODUCT INFORMATION.....</b>                                 | <b>8</b>  |
| <b>3.1</b>   | <b>PRODUCT FUNCTION AND INTENDED USE.....</b>                           | <b>8</b>  |
| <b>3.2</b>   | <b>RATINGS AND SYSTEM DETAILS .....</b>                                 | <b>8</b>  |
| <b>3.3</b>   | <b>INDEPENDENT OPERATION MODES.....</b>                                 | <b>9</b>  |
| <b>3.4</b>   | <b>NOISE GENERATING AND NOISE SUPPRESSING PARTS.....</b>                | <b>9</b>  |
| <b>3.5</b>   | <b>SUBMITTED DOCUMENTS .....</b>                                        | <b>9</b>  |
| <b>4</b>     | <b>TEST SET-UP AND OPERATION MODES.....</b>                             | <b>10</b> |
| <b>4.1</b>   | <b>PRINCIPLE OF CONFIGURATION SELECTION.....</b>                        | <b>10</b> |
| <b>4.2</b>   | <b>TEST OPERATION AND TEST SOFTWARE.....</b>                            | <b>10</b> |
| <b>4.3</b>   | <b>SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT.....</b>                 | <b>10</b> |
| <b>4.4</b>   | <b>COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE .....</b>                  | <b>10</b> |
| <b>4.5</b>   | <b>TEST SETUP DIAGRAM .....</b>                                         | <b>11</b> |
| <b>5</b>     | <b>TEST RESULTS.....</b>                                                | <b>13</b> |
| <b>5.1</b>   | <b>TRANSMITTER REQUIREMENT &amp; TEST SUITES.....</b>                   | <b>13</b> |
| <b>5.1.1</b> | <i>Antenna Requirement.....</i>                                         | <i>13</i> |
| <b>5.1.2</b> | <i>Maximum Peak Conducted Output Power .....</i>                        | <i>14</i> |
| <b>5.1.3</b> | <i>Conducted Power Spectral Density.....</i>                            | <i>15</i> |
| <b>5.1.4</b> | <i>6dB Bandwidth.....</i>                                               | <i>18</i> |
| <b>5.1.5</b> | <i>99% Bandwidth.....</i>                                               | <i>21</i> |
| <b>5.1.6</b> | <i>Conducted Spurious Emissions Measured in 100 kHz Bandwidth .....</i> | <i>24</i> |
| <b>5.1.7</b> | <i>Radiated Spurious Emission .....</i>                                 | <i>29</i> |
| <b>5.1.8</b> | <i>Conducted Emission on AC Mains .....</i>                             | <i>48</i> |
| <b>6</b>     | <b>PHOTOGRAPHS OF THE TEST SET-UP .....</b>                             | <b>51</b> |

**Prüfbericht - Nr.: CN22JPD6 002**  
*Test Report No.*Seite 4 von 51  
Page 4 of 51

# 1 General Remarks

## 1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Photographs of the Test Set-up

## 2 Test Sites

### 2.1 Test Facilities

**TÜV Rheinland (Shenzhen) Co., Ltd.**

362 Huanguan Road Middle Longhua District, Shenzhen 518110 People's Republic of China

FCC Registration No.: 694916

A2LA Certificate Number: 5162.01

### 2.2 List of Test and Measurement Instruments

**Table 1: List of Test and Measurement Equipment**

| <b>Radio Spectrum Testing (SRD-Tonscend)</b>   |                     |                  |                   |                   |
|------------------------------------------------|---------------------|------------------|-------------------|-------------------|
| <b>Equipment</b>                               | <b>Manufacturer</b> | <b>Model</b>     | <b>Serial No.</b> | <b>Cal. until</b> |
| EXA Signal Analyzer, Multi-touch               | Keysight            | N9010B           | MY60241175        | 10.10.2023        |
| MXG X-Series RF Vector Signal Generator        | Keysight            | N5182B           | MY61250137        | 10.10.2023        |
| EXG X-Series Microwave Analog Signal Generator | Keysight            | N5173B           | MY61250141        | 10.10.2023        |
| DC Power Supply                                | Keysight            | E3642A           | MY61276100        | 10.10.2023        |
| Wireless Connectivity Tester                   | R&S                 | CMW270           | 102505            | 10.10.2023        |
| Power Control Unit                             | Tonscend            | JS0806-4ADC      | N/A               | 10.10.2023        |
| Automation Control Unit                        | Tonscend            | JS0806-2         | 21C8060396        | 10.10.2023        |
| Test Software                                  | Tonscend            | JS1120-3         | N/A               | N/A               |
| Control PC                                     | Lenovo              | TianYi510S-071MB | YLX23JMF          | N/A               |
| <b>Unwanted Emission Testing (TS9975)</b>      |                     |                  |                   |                   |
| <b>Equipment</b>                               | <b>Manufacturer</b> | <b>Model</b>     | <b>Serial No.</b> | <b>Cal. until</b> |
| EMI Test Receiver                              | R&S                 | ESR 7            | 102021            | 02.08.2023        |
| Signal Analyzer                                | R&S                 | FSV 40           | 101439            | 01.08.2023        |
| System Controller Interface                    | R&S                 | SCI-100          | S10010038         | N/A               |
| Filterbank                                     | R&S                 | Wlan             | 100759            | 01.08.2023        |
| OSP                                            | R&S                 | OSP 120          | 102040            | N/A               |
| Pre-amplifier                                  | R&S                 | SCU08F1          | 08320031          | 02.08.2023        |
| Amplifier                                      | R&S                 | SCU-18F          | 180070            | 02.08.2023        |
| Amplifier                                      | R&S                 | SCU40A           | 100475            | 02.08.2023        |

**Prüfbericht - Nr.: CN22JPD6 002**
*Test Report No.*

Seite 6 von 51  
Page 6 of 51

|                                           |              |                   |              |            |
|-------------------------------------------|--------------|-------------------|--------------|------------|
| Trilog Broadband Antenna (30 MHz - 7 GHz) | Schwarzbeck  | VULB 9162         | 193          | 06.08.2024 |
| Double-Ridged Antenna (1 -18 GHz)         | ETS-LINDGREN | 3117              | 00218717     | 06.08.2024 |
| Wideband Ridged Horn Antenna (18-40 GHz)  | Steatite     | QMS-00880         | 19067        | 27.08.2024 |
| Active Loop Antenna                       | Schwarzbeck  | FMZB 1513         | 302          | 06.08.2024 |
| Test software                             | R&S          | EMC32 (V10.60.10) | N/A          | N/A        |
| Control PC                                | Dell         | OptiPlex 7050     | 36NV9P2      | N/A        |
| 3m Semi-Anechoic Chamber                  | Albatross    | SAC-3m            | APC17151-SAC | 22.06.2024 |

| Conducted Emission       |              |                     |            |            |
|--------------------------|--------------|---------------------|------------|------------|
| Equipment                | Manufacturer | Model No.           | Serial No. | Cal. Until |
| EMI Test Receiver        | R&S          | ESR3                | 102680     | 27.02.2023 |
| Artificial Mains Network | R&S          | ENV216              | 101445     | 27.02.2023 |
| EMC32 test software      | R&S          | EMC32(Ver.10.50.00) | N/A        | N/A        |

## 2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

## 2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

## 2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

| Parameter                                              | Uncertainty                   |
|--------------------------------------------------------|-------------------------------|
| Radio Frequency                                        | $\pm 1 \times 10^{-7}$        |
| RF Power (conducted)                                   | $\pm 2.5$ dB                  |
| Radiated Emission of Transmitter, valid up to 26.5 GHz | $\pm 6$ dB                    |
| Radiated Emission of Receiver, valid up to 26.5 GHz    | $\pm 6$ dB                    |
| Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz) | $\pm 3.70$ dB / $\pm 3.30$ dB |
| Radiated Emission (3m SAC), 30MHz to 1000MHz           | $\pm 4.52$ dB                 |
| Radiated Emission (3m SAC), above 1000MHz              | $\pm 4.37$ dB                 |
| Temperature                                            | $\pm 1$ °C                    |
| Humidity                                               | $\pm 5$ %                     |
| Voltage (DC)                                           | $\pm 1$ %                     |
| Voltage (AC, <10kHz)                                   | $\pm 2$ %                     |

## 2.6 Location of Original Data

The original copies of all test data taken during actual testing were showed in this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) Co., Ltd. file for certification follow-up purposes.

## 2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 362 Huanguan Road Middle Longhua District, Shenzhen 518110 People's Republic of China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

### 3 General Product Information

#### 3.1 Product Function and Intended Use

The EUT is a ZG CHAIR, it supports Bluetooth BLE(1Mbps) wireless technology.

For details refer to the User Manual, Technical Description and Circuit Diagram.

Remarks: The EUT has two color.

#### 3.2 Ratings and System Details

Table 2: Technical Specification of EUT

| General Information of EUT              | Value                |
|-----------------------------------------|----------------------|
| Kind of Equipment:                      | ZG CHAIR             |
| Type Designation:                       | CIRCA                |
| Trademark:                              | N/A                  |
| FCC ID:                                 | 2A87F-CIRCA          |
| Operating Voltage:                      | AC 110-120V 60Hz     |
| Cable                                   |                      |
| Technical Specification of Bluetooth LE |                      |
| Frequency Range:                        | 2402 MHz to 2480 MHz |
| Type of Modulation:                     | GFSK                 |
| Channel Number:                         | 40 channels          |
| Data Rate:                              | 1 Mbps               |
| Channel Separation:                     | 2 MHz                |
| Antenna Type:                           | PCB Antenna          |
| Antenna Gain:                           | 5.3 dBi              |

### 3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Bluetooth LE transmitting mode
  - 1) Low Channel
  - 2) Middle Channel
  - 3) High Channel
- B. On, Normal operation with Bluetooth mode
- C. Off

### 3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

### 3.5 Submitted Documents

- |                      |                              |
|----------------------|------------------------------|
| - Application Form   | - ID Label and Location Info |
| - Instruction Manual | - Schematics                 |
| - Block Diagram      | - Operation Description      |

## 4 Test Set-up and Operation Modes

### 4.1 Principle of Configuration Selection

**Radio Spectrum:** The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

**Emission:** The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

### 4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All tests were performed according to the procedures in ANSI C63.10: 2013.

Table 3: Test environments

| Environment Parameter | Values During Tests |             |                   |
|-----------------------|---------------------|-------------|-------------------|
|                       | Temperature         | Voltage     | Relative Humidity |
| NTNV                  | 25°C±2°C            | AC120V 60Hz | Ambient           |
| NTNV                  | 25°C±2°C            | AC120V 60Hz | Ambient           |

Table 4: Test channel and frequency

| Mode         | Test Channels (MHz)              | Remark |
|--------------|----------------------------------|--------|
| Transmitting | L/M/H: 2402MHz, 2440MHz, 2480MHz | --     |

### 4.3 Special Accessories and Auxiliary Equipment

Table 5: Auxiliary Equipment Used during Test

| Description | Manufacturer | Model | S/N       | Rating |
|-------------|--------------|-------|-----------|--------|
| Laptop      | Lenovo       | T480  | PF-16A6N8 | N/A    |

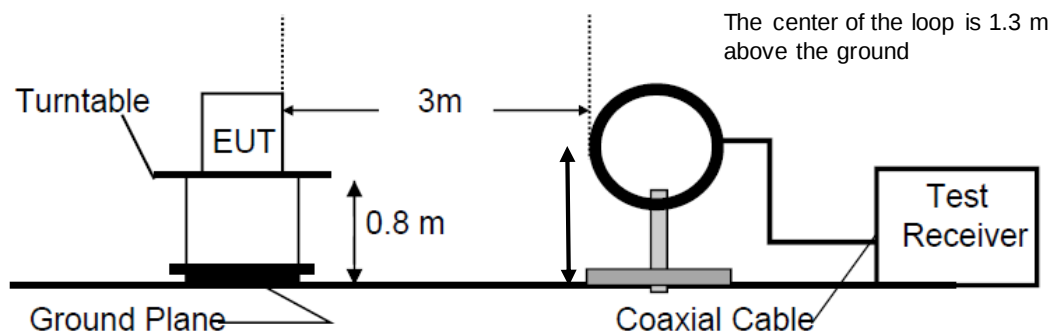
### 4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

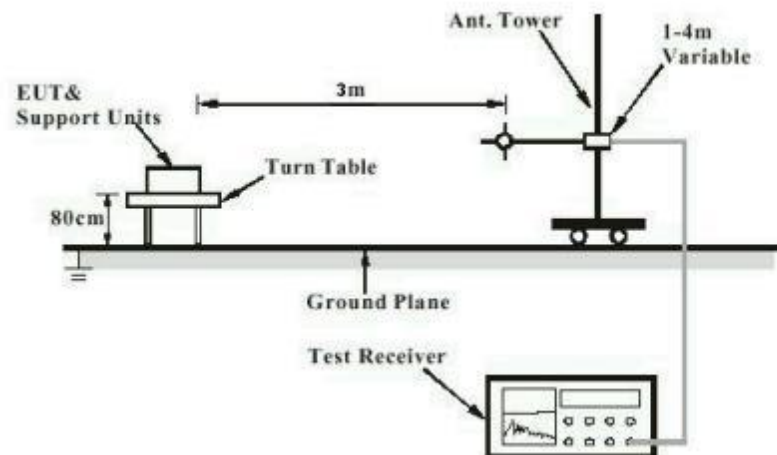
No additional measures were employed to achieve compliance.

## 4.5 Test Setup Diagram

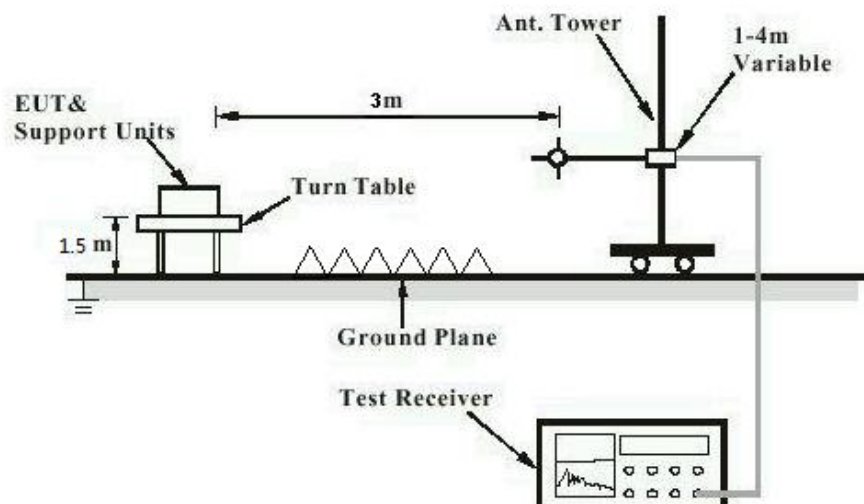
**Diagram of Measurement Configuration for Radiation Test (Below 30MHz)**



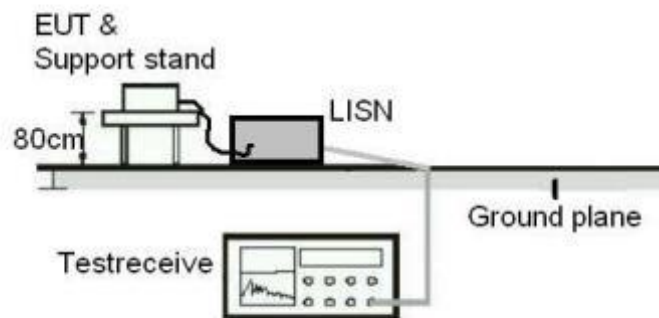
**Diagram of Measurement Configuration for Radiation Test (Below 1GHz)**



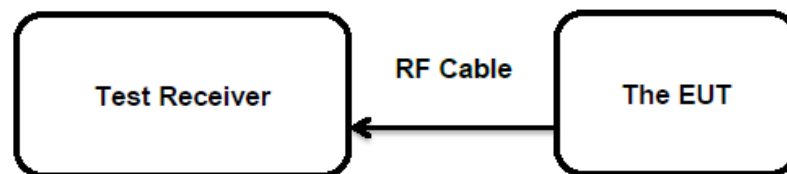
**Diagram of Measurement Configuration for Radiation Test (Above 1GHz)**



### Diagram of Measurement Configuration for Mains Conduction Measurement



### Diagram of Measurement Configuration for Conducted Transmitter Measurement



## 5 Test Results

### 5.1 Transmitter Requirement & Test Suites

#### 5.1.1 Antenna Requirement

**RESULT:****Pass****Test Specification**

Test standard : FCC Part 15.247(b)(4) and Part 15.203

According to the manufacturer declared, the EUT has a PCB Antenna, the gain of antenna is 5.3 dBi, which that permanent attachment and no consideration of replacement.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

## 5.1.2 Maximum Peak Conducted Output Power

**RESULT:**
**Pass**
**Test Specification**

Test standard : FCC Part 15.247(b)(3)  
 Basic standard : ANSI C63.10: 2013  
 Limits : 1.0 Watts  
 Kind of test site : Shielded Room

**Test Setup**

Date of testing : 2022-12-30  
 Input voltage : DC 3.3V by USB Port of Laptop(Laptop Input AC120V 60Hz)  
 Operation mode : A  
 Test channel : Low / Middle / High  
 Ambient temperature : 24.5 °C  
 Relative humidity : 43 %  
 Atmospheric pressure : 101 kPa

**Table 6: Test Result of Maximum Peak Conducted Output Power, BLE**

| Test Mode           | Test Channel (MHz) | Measured Peak Power |         | Limit (W) |
|---------------------|--------------------|---------------------|---------|-----------|
|                     |                    | (dBm)               | (W)     |           |
| BLE_1Mbps           | 2402               | 8.02                | 0.00634 | < 1.0     |
|                     | 2440               | 8.07                | 0.00641 |           |
|                     | 2480               | 8.32                | 0.00679 |           |
| Max. Measured Value |                    | 8.32                | 0.00679 |           |

Note:

- 1) The cable loss is taken into account in results.
- 2) Antenna gain(G): 3.0 dBi

### 5.1.3 Conducted Power Spectral Density

**RESULT:**
**Pass**
**Test Specification**

Test standard : FCC Part 15.247(e)  
 Basic standard : ANSI C63.10: 2013  
 Limits : < 8 dBm / 3kHz  
 Kind of test site : Shielded Room

**Test Setup**

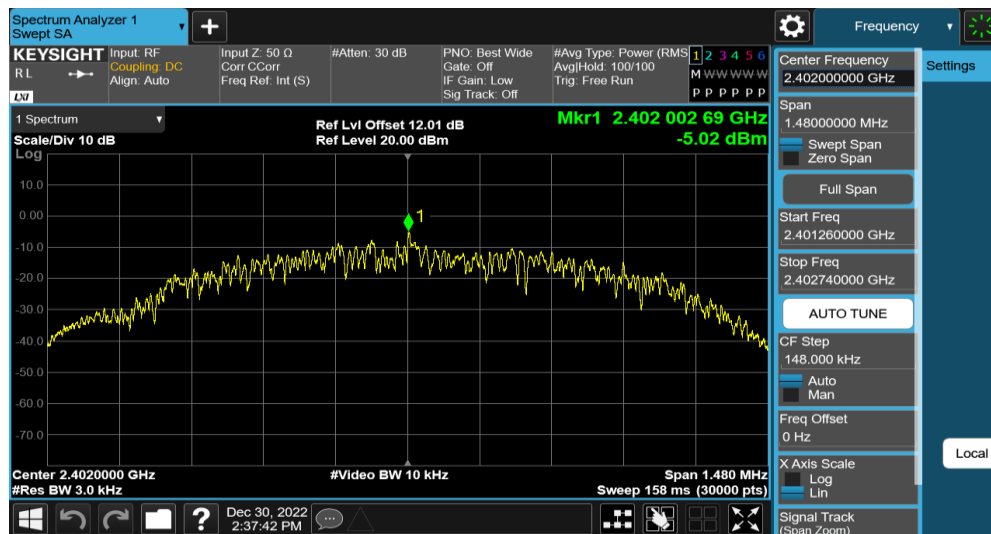
Date of testing : 2022-12-30  
 Input voltage : DC 3.3V by USB Port of Laptop(Laptop Input AC120V 60Hz)  
 Operation mode : A  
 Test channel : Low / Middle / High  
 Ambient temperature : 24.5 °C  
 Relative humidity : 43 %  
 Atmospheric pressure : 101 kPa

**Table 7: Test Result of Maximum Power Spectral Density, BLE**

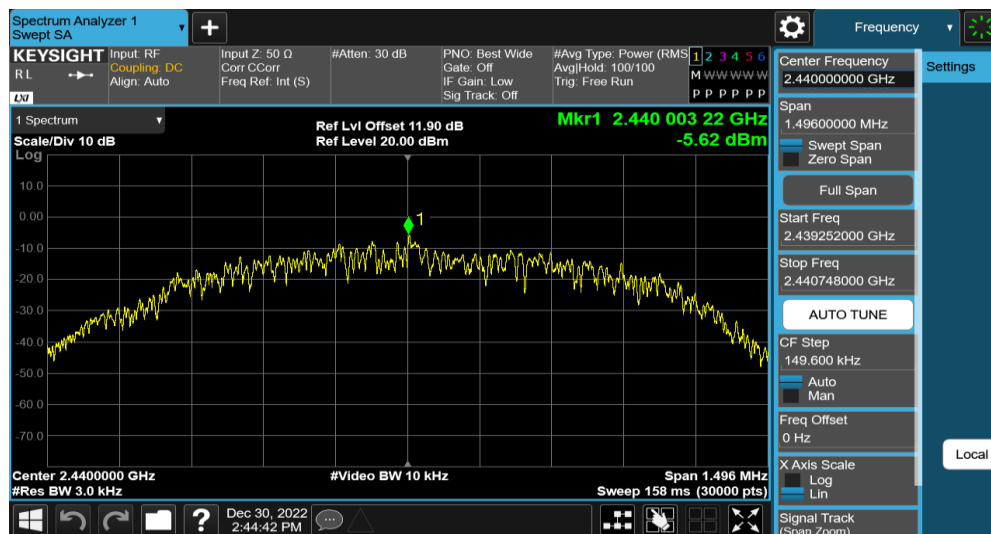
| Test Mode | Channel | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|---------|----------------------|-----------------|---------|
| BLE_1Mbps | 2402    | -5.02                | ≤8.00           | PASS    |
|           | 2440    | -5.62                | ≤8.00           | PASS    |
|           | 2480    | -6.03                | ≤8.00           | PASS    |

## Test Results of Conducted Power Spectral Density

### Low Channel



### Middle Channel



## High Channel



### 5.1.4 6dB Bandwidth

**RESULT:****Pass****Test Specification**

Test standard : FCC Part 15.247(a)(2)  
Basic standard : ANSI C63.10: 2013  
Limits : > 500 KHz  
Kind of test site : Shielded Room

**Test Setup**

Date of testing : 2022-12-30  
Input voltage : DC 3.3V by USB Port of Laptop(Laptop Input AC120V 60Hz)  
Operation mode : A  
Test channel : Low / Middle / High  
Ambient temperature : 24.5 °C  
Relative humidity : 43 %  
Atmospheric pressure : 101 kPa

**Table 8: Test Result of 6dB Bandwidth, BLE**

| Test Mode | Channel | DTS BW [MHz] | Limit[MHz] | Verdict |
|-----------|---------|--------------|------------|---------|
| BLE_1Mbps | 2402    | 0.740        | 0.5        | PASS    |
|           | 2440    | 0.748        | 0.5        | PASS    |
|           | 2480    | 0.712        | 0.5        | PASS    |

### Test Results of 6dB Bandwidth

Low Channel



### Middle Channel



## High Channel



## 5.1.5 99% Bandwidth

**RESULT:****Pass****Test Specification**

Test standard : FCC Part 15.247(a)  
Basic standard : ANSI C63.10: 2013  
Kind of test site : Shielded Room

**Test Setup**

Date of testing : 2022-12-30  
Input voltage : DC 3.3V by USB Port of Laptop(Laptop Input AC120V 60Hz)  
Operation mode : A  
Test channel : Low / Middle / High  
Ambient temperature : 24.5 °C  
Relative humidity : 43 %  
Atmospheric pressure : 101 kPa

**Table 9: Test Result of 99% Bandwidth, BLE**

| Test Mode | Channel | OCB [MHz] | FL[MHz]   | FH[MHz]   |
|-----------|---------|-----------|-----------|-----------|
| BLE_1Mbps | 2402    | 1.3300    | 2401.3680 | 2402.6980 |
|           | 2440    | 1.2871    | 2439.3779 | 2440.6650 |
|           | 2480    | 1.2433    | 2479.4189 | 2480.6622 |

## Test Results of 99% Bandwidth

### Low Channel



### Middle Channel



## High Channel



## 5.1.6 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

**RESULT:**
**Pass**
**Test Specification**

|                   |                                                                                                                                                                                                                                                                    |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test standard     | : FCC Part 15.247(d)                                                                                                                                                                                                                                               |
| Basic standard    | : ANSI C63.10: 2013                                                                                                                                                                                                                                                |
| Limits            | : 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power);<br>In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a) |
| Kind of test site | : Shielded Room                                                                                                                                                                                                                                                    |

**Test Setup**

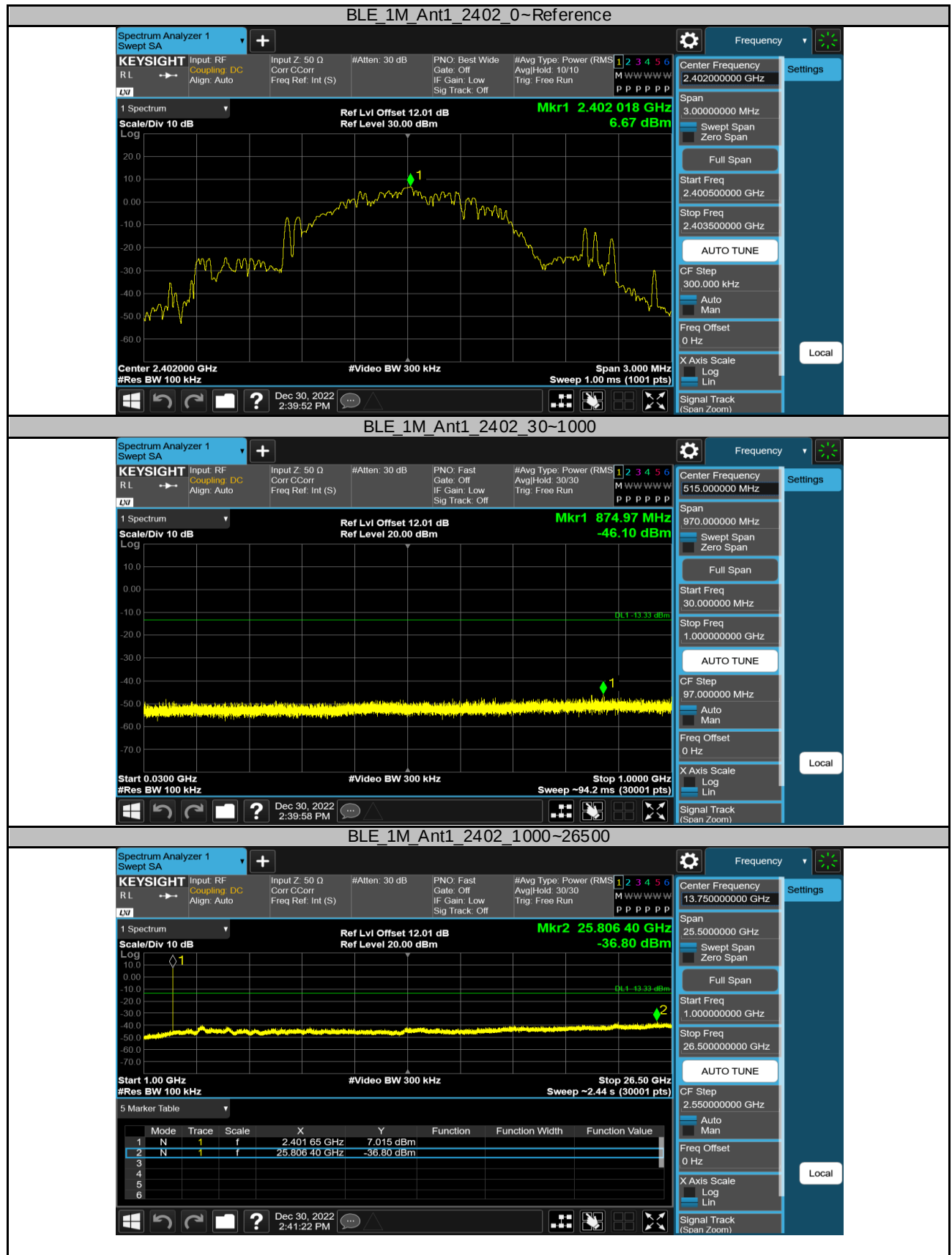
|                      |                                                           |
|----------------------|-----------------------------------------------------------|
| Date of testing      | : 2022-12-30                                              |
| Input voltage        | : DC 3.3V by USB Port of Laptop(Laptop Input AC120V 60Hz) |
| Operation mode       | : A                                                       |
| Test channel         | : Low / Middle / High                                     |
| Ambient temperature  | : 24.5 °C                                                 |
| Relative humidity    | : 43 %                                                    |
| Atmospheric pressure | : 101 kPa                                                 |

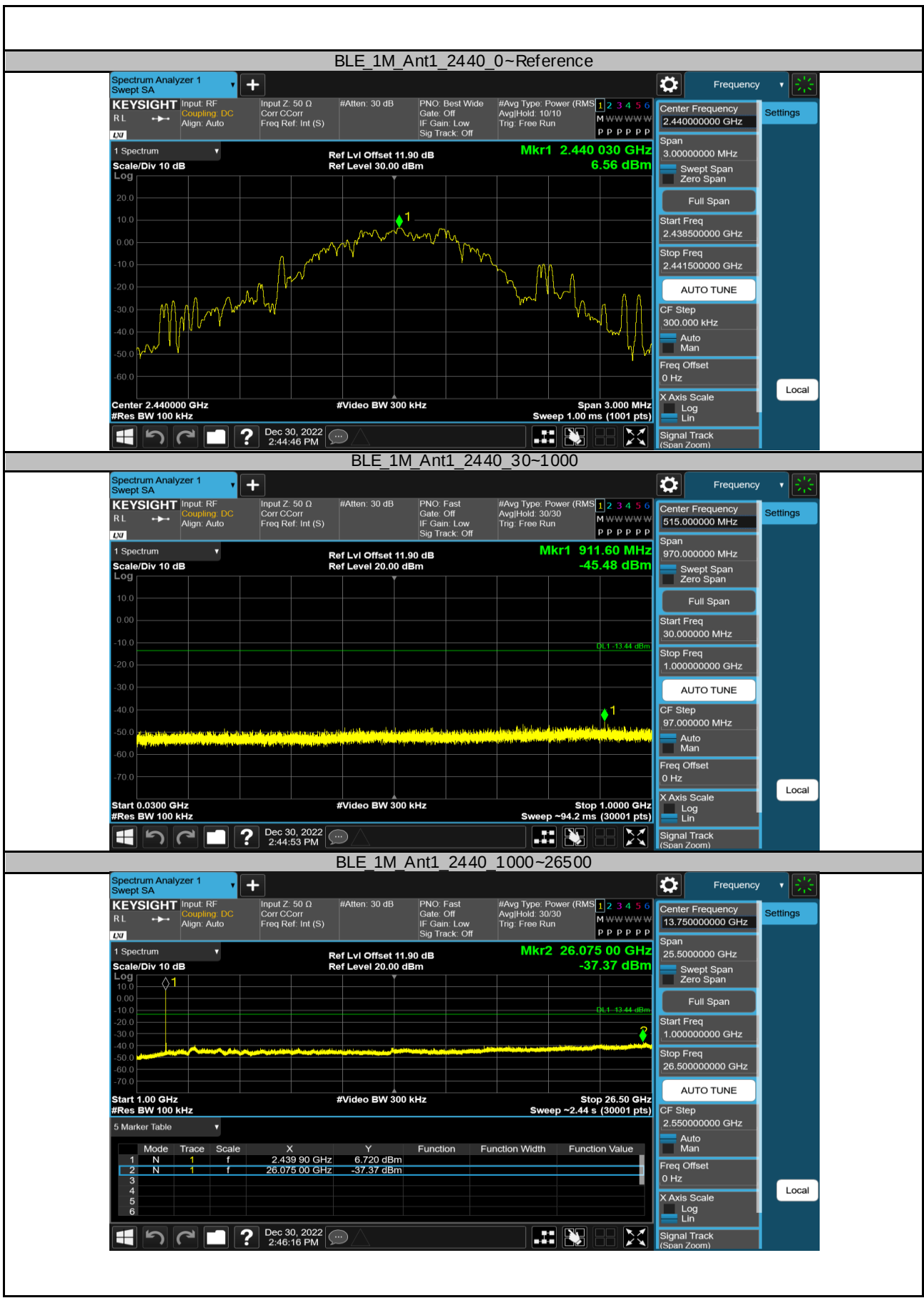
Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.

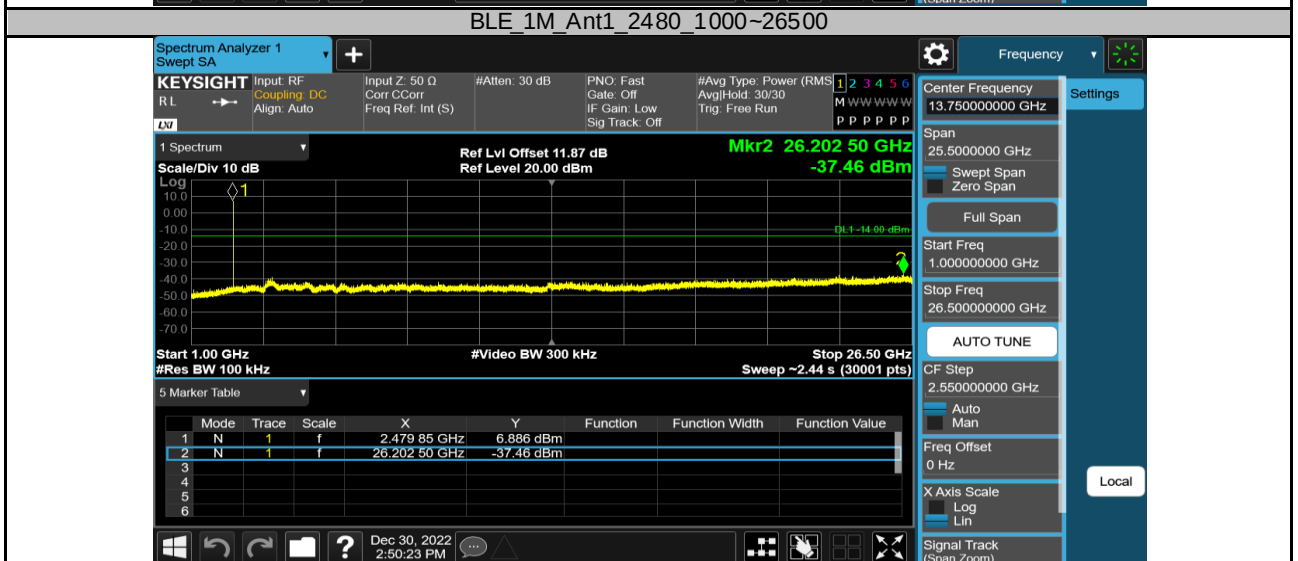
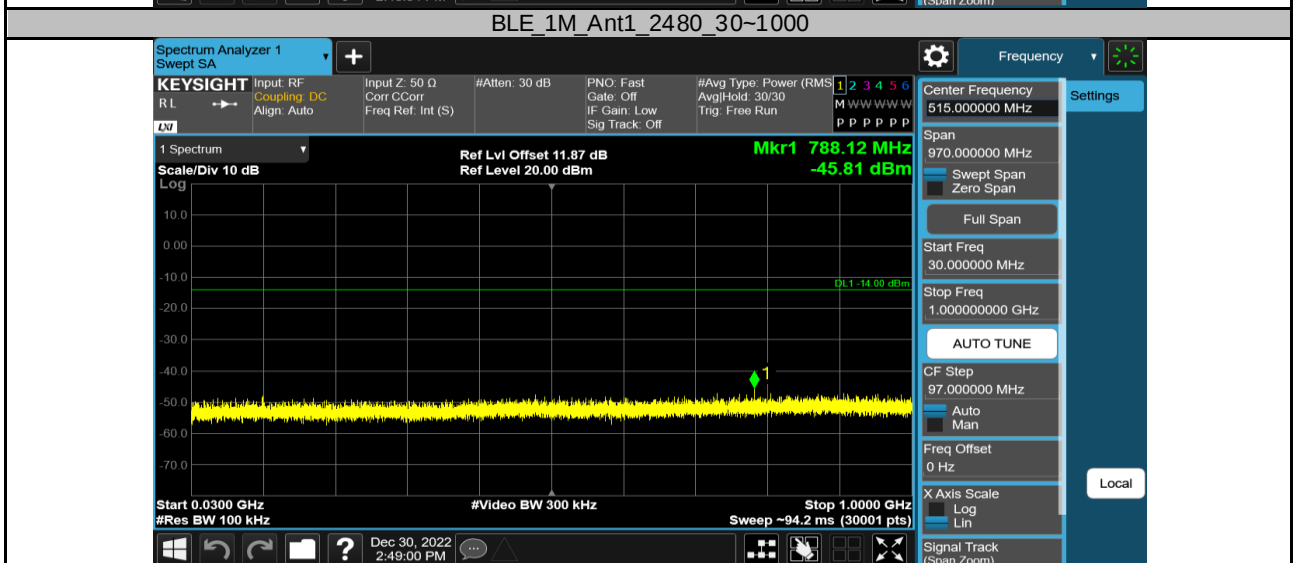
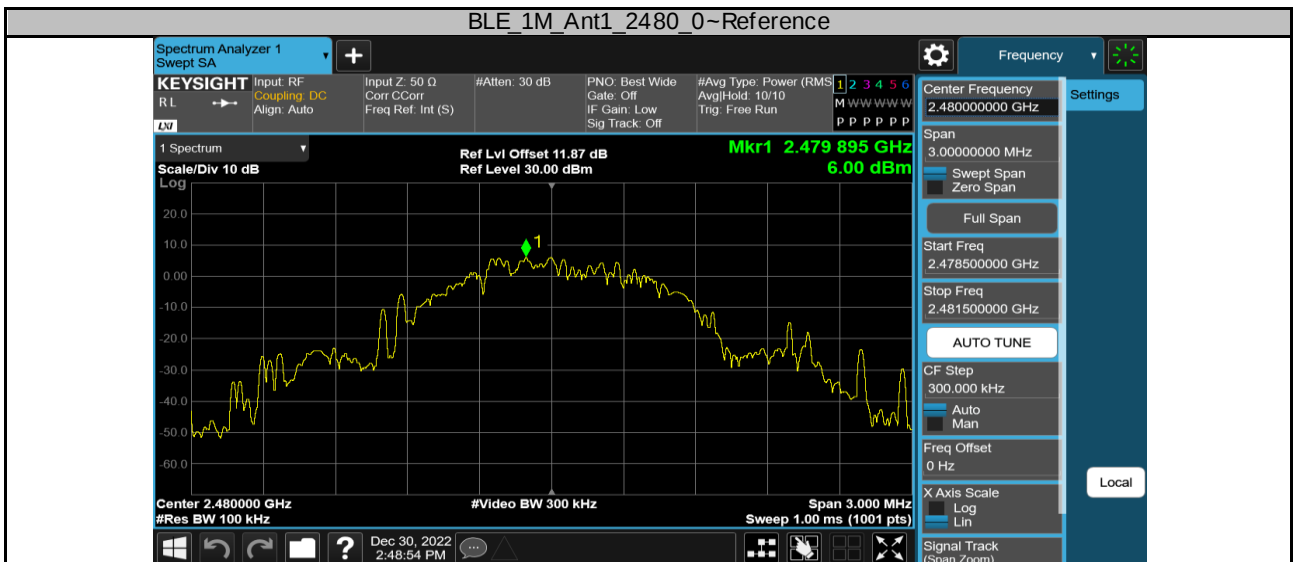
**Table 10: Test Result of Conducted Spurious Emission, BLE**

| TestMode  | Channel | FreqRange [MHz] | RefLevel [dBm] | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|-----------------|----------------|-------------|------------|---------|
| BLE_1Mbps | 2402    | Reference       | 6.67           | 6.67        | ---        | PASS    |
|           |         | 30~1000         | 6.67           | -46.1       | ≤-13.33    | PASS    |
|           |         | 1000~26500      | 6.67           | -36.8       | ≤-13.33    | PASS    |
|           | 2440    | Reference       | 6.56           | 6.56        | ---        | PASS    |
|           |         | 30~1000         | 6.56           | -45.48      | ≤-13.44    | PASS    |
|           |         | 1000~26500      | 6.56           | -37.37      | ≤-13.44    | PASS    |
|           | 2480    | Reference       | 6.00           | 6.00        | ---        | PASS    |
|           |         | 30~1000         | 6.00           | -45.81      | ≤-14       | PASS    |
|           |         | 1000~26500      | 6.00           | -37.47      | ≤-14       | PASS    |

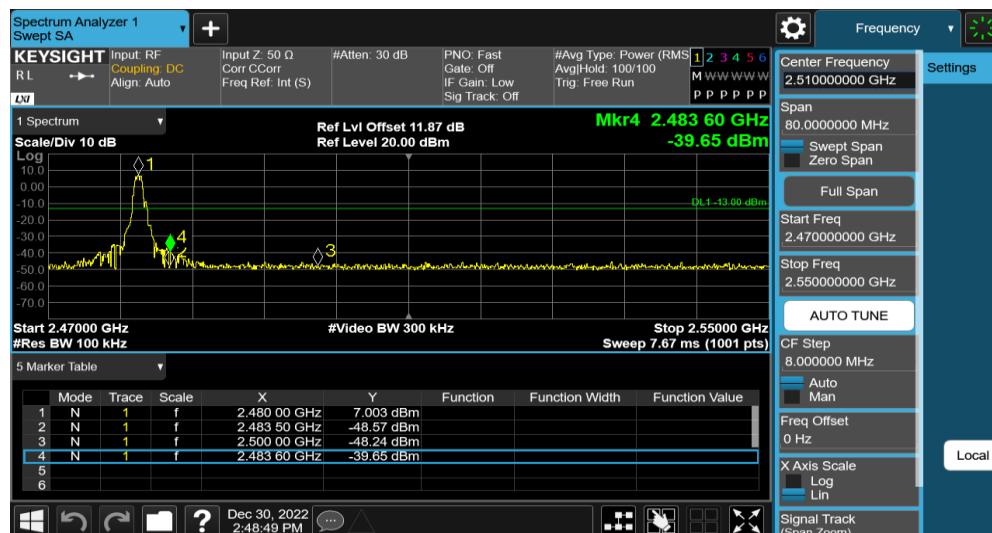
## Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth







## Band Edge



Prüfbericht - Nr.: CN22JPD6 002  
Test Report No.Seite 29 von 51  
Page 29 of 51

## 5.1.7 Radiated Spurious Emission

RESULT:

Pass

### Test Specification

|                   |                                            |
|-------------------|--------------------------------------------|
| Test standard     | : FCC Part 15.247(d) & FCC Part 15.205     |
| Basic standard    | : ANSI C63.10: 2013                        |
| Limits            | : Refer to 15.209(a) of FCC part 15.247(d) |
| Kind of test site | : 3m Semi-anechoic Chamber                 |

### Test Setup

|                      |                                                         |
|----------------------|---------------------------------------------------------|
| Date of testing      | : 2022-12-30                                            |
| Input voltage        | : DC 5V by USB Port of Laptop(Laptop Input AC120V 60Hz) |
| Operation mode       | : A                                                     |
| Test channel         | : Low / Middle / High                                   |
| Ambient temperature  | : Refer to test result                                  |
| Relative humidity    | : Refer to test result                                  |
| Atmospheric pressure | : 101 kPa                                               |

### Remark:

- 1) This testing was carried out on different modulations, but only the worst case was presented in this report.
- 2) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

**Prüfbericht - Nr.: CN22JPD6 002**  
Test Report No.

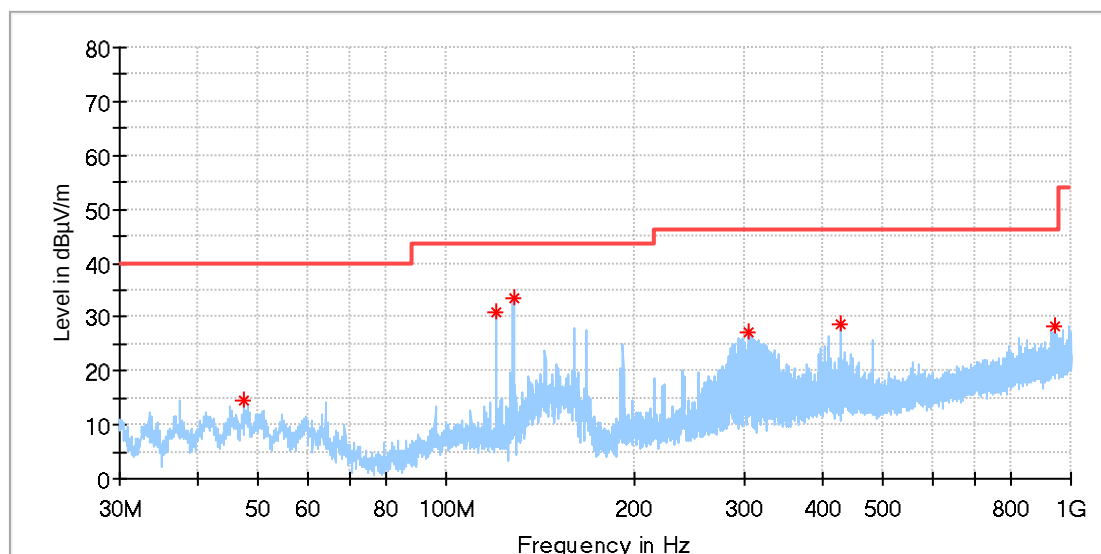
Seite 30 von 51  
Page 30 of 51

## Test Results of Radiated Spurious Emissions

30 MHz to 1GHz

### EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | ZG CHAIR                 |
| Model:              | CIRCA                    |
| TestMode:           | BLE 1M_Mid channel       |
| Order No/Sample No: | 168394818/A003388414-002 |
| Test Voltage::      | DC 5V From USB           |
| Remark:             | Temp 22 Humi:52%         |
| Test Standard:      | FCC 15.247               |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



### Critical Freqs

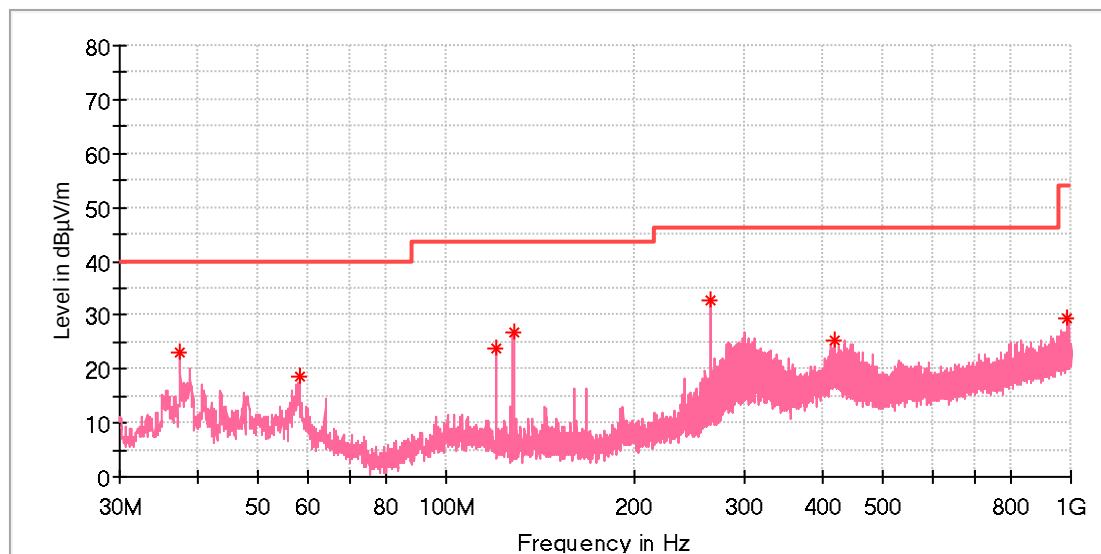
| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 47.422692       | 14.55            | 40.00          | 25.45       | 100.0       | H   | 147.0         | -18.8        |
| 119.986154      | 30.90            | 43.50          | 12.60       | 100.0       | H   | 171.0         | -21.1        |
| 128.007308      | 33.63            | 43.50          | 9.87        | 100.0       | H   | 331.0         | -22.0        |
| 304.957692      | 27.33            | 46.00          | 18.67       | 100.0       | H   | 225.0         | -16.5        |
| 428.558077      | 28.72            | 46.00          | 17.28       | 100.0       | H   | 67.0          | -13.6        |
| 946.015769      | 28.36            | 46.00          | 17.64       | 100.0       | H   | 243.0         | -4.9         |

### Final Result

| Frequency (MHz) | QuasiPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|--------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---                | ---            | ---         | ---         | --- | ---           | ---          |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | ZG CHAIR                 |
| Model:              | CIRCA                    |
| Test Mode:          | BLE 1M_Mid channel       |
| Order No/Sample No: | 168394818/A003388414-002 |
| Test Voltage::      | DC 5V From USB           |
| Remark:             | Temp 22 Humi:52%         |
| Test Standard:      | FCC 15.247               |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 37.498846       | 23.16            | 40.00          | 16.84       | 100.0       | V   | 306.0         | -21.2        |
| 58.167308       | 18.78            | 40.00          | 21.22       | 100.0       | V   | 14.0          | -19.1        |
| 119.986154      | 23.81            | 43.50          | 19.69       | 100.0       | V   | 264.0         | -21.1        |
| 128.007308      | 26.91            | 43.50          | 16.59       | 100.0       | V   | 248.0         | -22.0        |
| 265.635385      | 32.69            | 46.00          | 13.31       | 100.0       | V   | 0.0           | -17.3        |
| 419.716154      | 25.15            | 46.00          | 20.85       | 100.0       | V   | 170.0         | -13.7        |
| 987.054231      | 29.23            | 54.00          | 24.77       | 100.0       | V   | 240.0         | -4.3         |

## Final\_Result

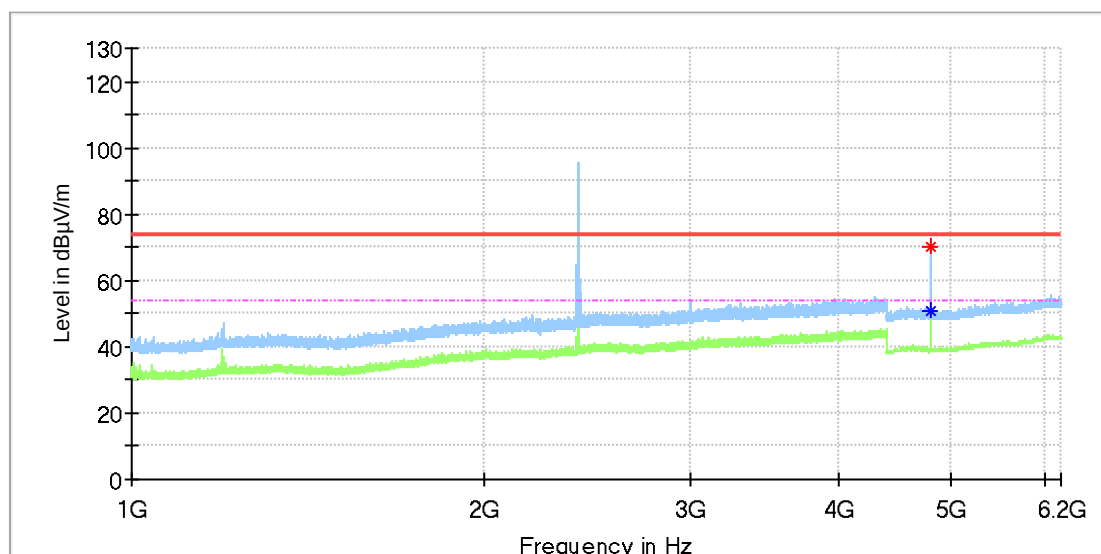
| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|--------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---                | ---            | ---         | ---         | --- | ---           | ---          |

Above 1GHz

Note: The highest waveform in the figure is 2.4GHz BLE Fundamental.

## EUT Information

|                      |                          |
|----------------------|--------------------------|
| EUT Name:            | ZG CHAIR                 |
| Model:               | CIRCA                    |
| TestMode:            | BLE 1M_Low channel       |
| Order No./Sample No: | 168394818/A003388414-002 |
| Test Voltage::       | DC 5V From USB           |
| Remark:              | Temp 22 Humi:52%         |
| Test Standard:       | FCC 15.247               |
| Tested By:           | Kei Zhang                |
| Reviewed By:         | Terry Yin                |



## Critical\_Freqs

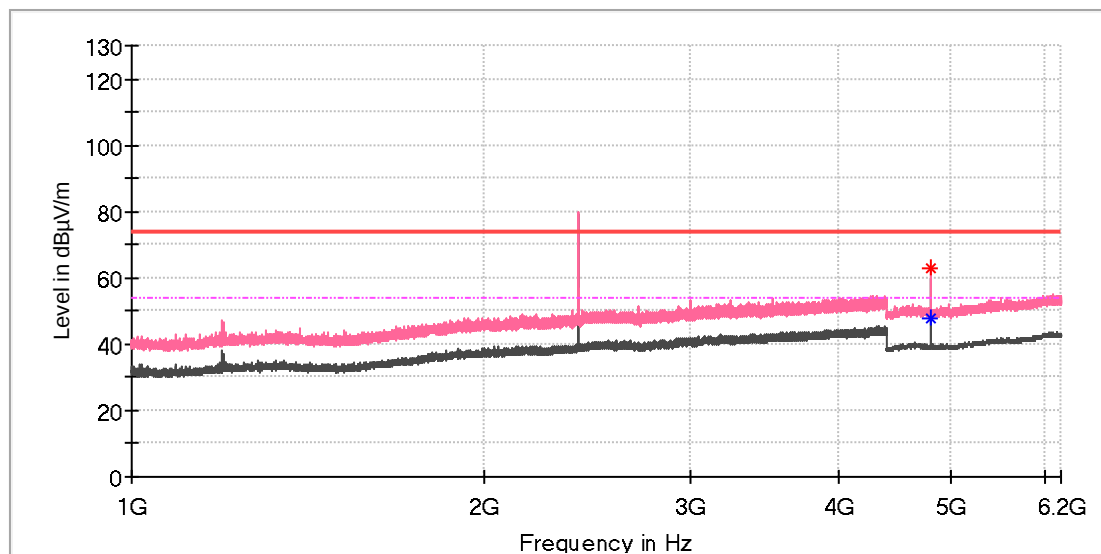
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4803.500000     | 70.14            | ---              | 74.00          | 3.86        | 100.0       | H   | 158.0         | 11.8         |
| 4805.500000     | ---              | 50.78            | 54.00          | 3.22        | 100.0       | H   | 151.0         | 11.8         |

## Final\_Result

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---         | ---         | --- | ---           | ---          |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | ZG CHAIR                 |
| Model:              | CIRCA                    |
| Test Mode:          | BLE 1M_Low channel       |
| Order No/Sample No: | 168394818/A003388414-002 |
| Test Voltage::      | DC 5V From USB           |
| Remark:             | Temp 22 Humi:52%         |
| Test Standard:      | FCC 15.247               |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



## Critical Freqs

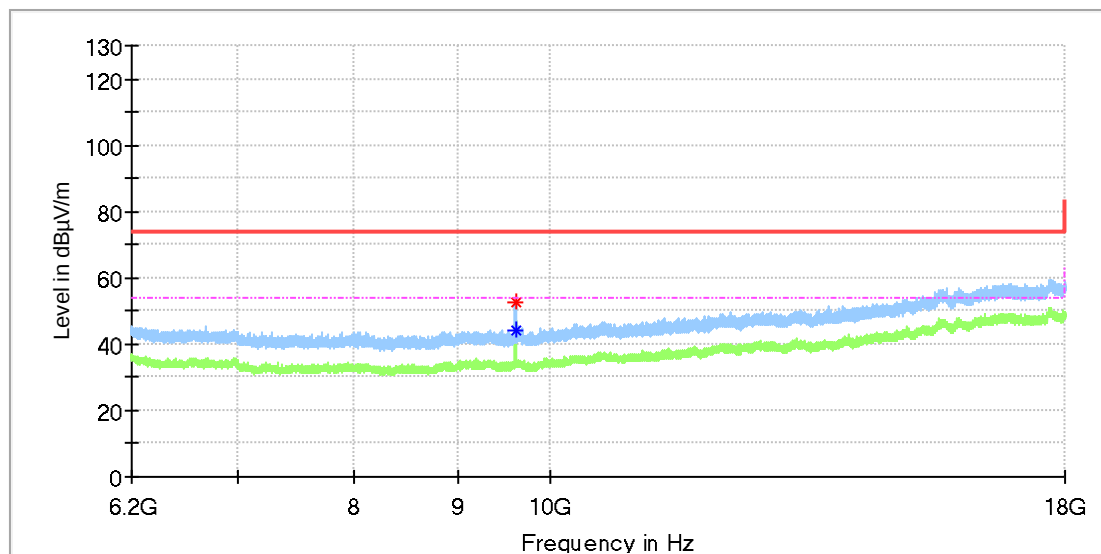
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4802.500000     | ---              | 47.47            | 54.00          | 6.53        | 100.0       | V   | 46.0          | 11.8         |
| 4803.500000     | 62.93            | ---              | 74.00          | 11.07       | 100.0       | V   | 46.0          | 11.8         |

## Final Result

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---         | ---         | --- | ---           | ---          |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | ZG CHAIR                 |
| Model:              | CIRCA                    |
| Test Mode:          | BLE 1M_Low channel       |
| Order No/Sample No: | 168394818/A003388414-002 |
| Test Voltage::      | DC 5V From USB           |
| Remark:             | Temp 22 Humi:52%         |
| Test Standard:      | FCC 15.247               |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



## Critical Freqs

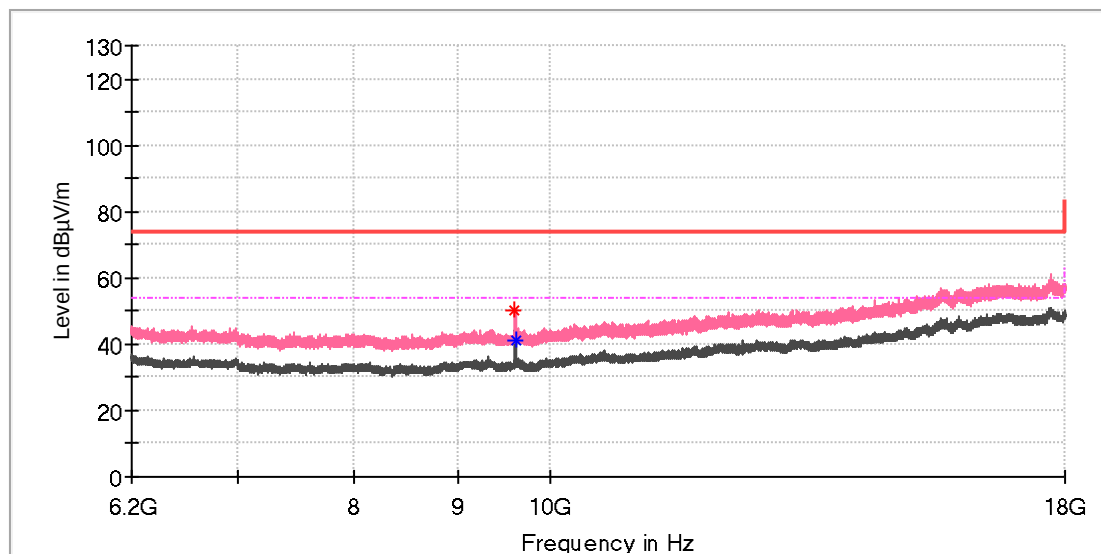
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 9607.741667     | ---              | 43.92            | 54.00          | 10.08       | 100.0       | H   | 117.0         | 10.4         |
| 9609.216667     | 52.31            | ---              | 74.00          | 21.69       | 100.0       | H   | 117.0         | 10.4         |

## Final Result

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---         | ---         | --- | ---           | ---          |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | ZG CHAIR                 |
| Model:              | CIRCA                    |
| Test Mode:          | BLE 1M_Low channel       |
| Order No/Sample No: | 168394818/A003388414-002 |
| Test Voltage::      | DC 5V From USB           |
| Remark:             | Temp 22 Humi:52%         |
| Test Standard:      | FCC 15.247               |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



## Critical Freqs

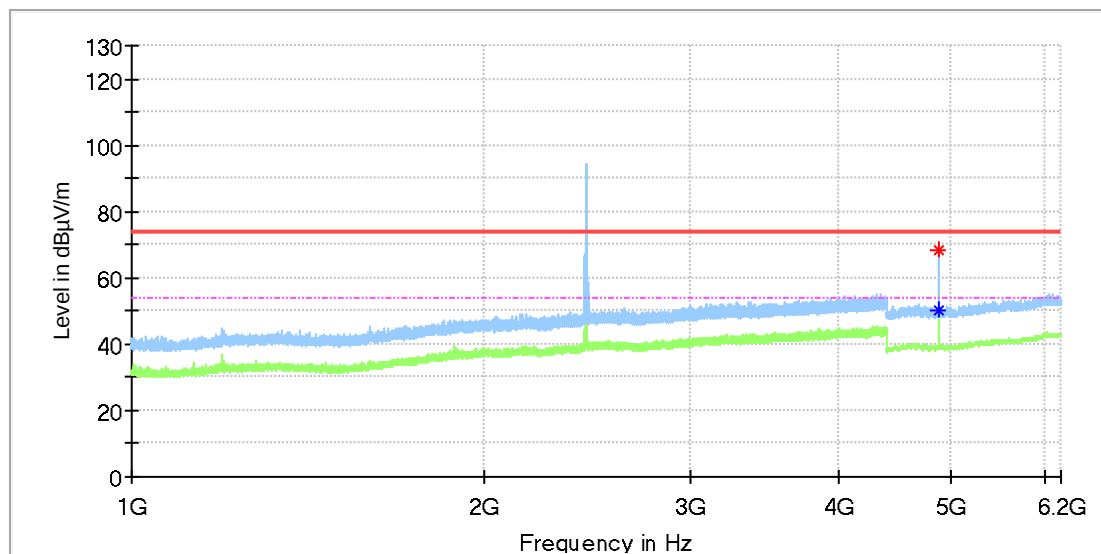
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 9607.250000     | 50.48            | ---              | 74.00          | 23.52       | 100.0       | V   | 91.0          | 10.4         |
| 9608.233333     | ---              | 41.41            | 54.00          | 12.59       | 100.0       | V   | 80.0          | 10.4         |

## Final Result

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---         | ---         | --- | ---           | ---          |

## EUT Information

EUT Name: ZG CHAIR  
Model: CIRCA  
Test Mode: BLE 1M\_Mid channel  
Order No/Sample No: 168394818/A003388414-002  
Test Voltage:: DC 5V From USB  
Remark: Temp 22 Humi:52%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical Freqs

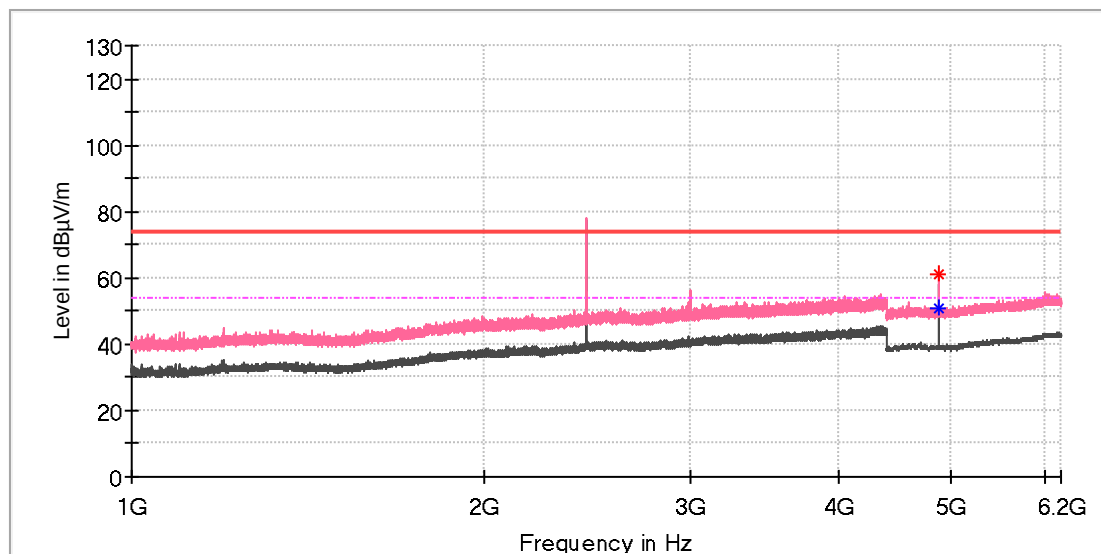
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4879.500000     | 68.38            | ---              | 74.00          | 5.62        | 100.0       | H   | 152.0         | 11.8         |
| 4881.500000     | ---              | 49.99            | 54.00          | 4.01        | 100.0       | H   | 143.0         | 11.8         |

## Final Result

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---         | ---         | --- | ---           | ---          |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | ZG CHAIR                 |
| Model:              | CIRCA                    |
| Test Mode:          | BLE 1M_Mid channel       |
| Order No/Sample No: | 168394818/A003388414-002 |
| Test Voltage::      | DC 5V From USB           |
| Remark:             | Temp 22 Humi:52%         |
| Test Standard:      | FCC 15.247               |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



## Critical Freqs

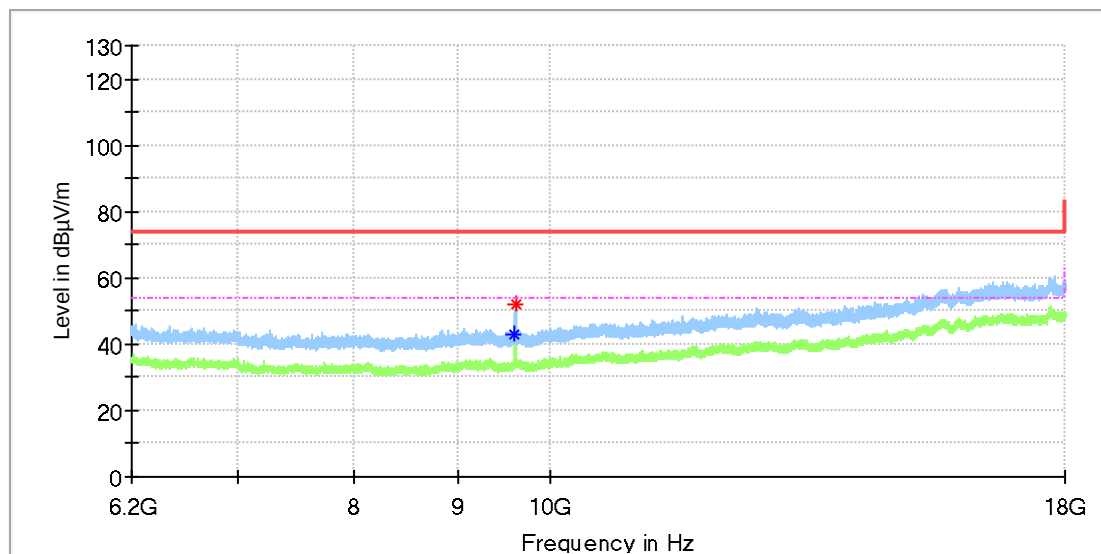
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4879.500000     | 61.26            | ---              | 74.00          | 12.74       | 100.0       | V   | 289.0         | 11.8         |
| 4881.000000     | ---              | 50.71            | 54.00          | 3.29        | 100.0       | V   | 289.0         | 11.8         |

## Final Result

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---         | ---         | --- | ---           | ---          |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | ZG CHAIR                 |
| Model:              | CIRCA                    |
| Test Mode:          | BLE 1M_Mid channel       |
| Order No/Sample No: | 168394818/A003388414-002 |
| Test Voltage::      | DC 5V From USB           |
| Remark:             | Temp 22 Humi:52%         |
| Test Standard:      | FCC 15.247               |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



## Critical Freqs

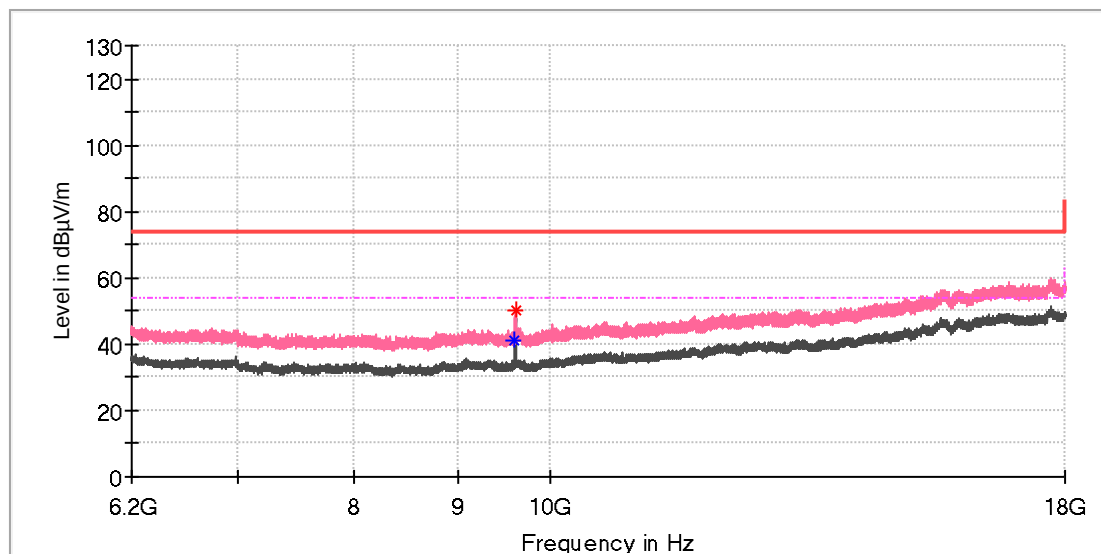
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 9607.250000     | ---              | 43.12            | 54.00          | 10.88       | 100.0       | H   | 115.0         | 10.4         |
| 9608.233333     | 51.82            | ---              | 74.00          | 22.18       | 100.0       | H   | 128.0         | 10.4         |

## Final Result

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---         | ---         | --- | ---           | ---          |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | ZG CHAIR                 |
| Model:              | CIRCA                    |
| Test Mode:          | BLE 1M_Mid channel       |
| Order No/Sample No: | 168394818/A003388414-002 |
| Test Voltage::      | DC 5V From USB           |
| Remark:             | Temp 22 Humi:52%         |
| Test Standard:      | FCC 15.247               |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



## Critical Freqs

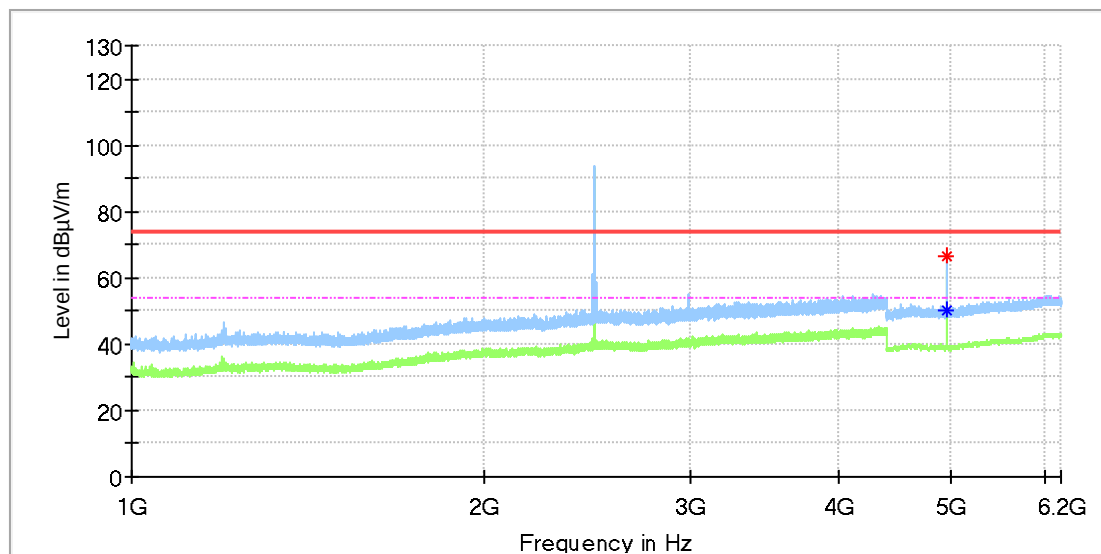
| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 9607.250000     | ---              | 41.36            | 54.00          | 12.64       | 100.0       | V   | 87.0          | 10.4         |
| 9607.741667     | 50.01            | ---              | 74.00          | 23.99       | 100.0       | V   | 87.0          | 10.4         |

## Final Result

| Frequency (MHz) | MaxPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---         | ---         |     | ---           | ---          |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | ZG CHAIR                 |
| Model:              | CIRCA                    |
| Test Mode:          | BLE 1M_High channel      |
| Order No/Sample No: | 168394818/A003388414-002 |
| Test Voltage::      | DC 5V From USB           |
| Remark:             | Temp 22 Humi:52%         |
| Test Standard:      | FCC 15.247               |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



## Critical Freqs

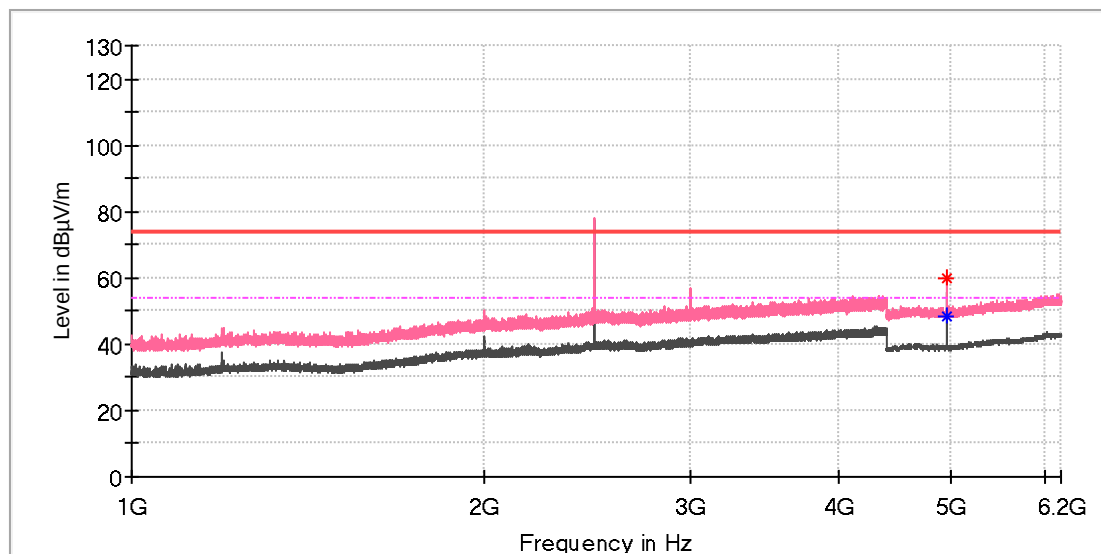
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4958.500000     | ---              | 50.47            | 54.00          | 3.53        | 100.0       | H   | 135.0         | 11.8         |
| 4959.500000     | 66.24            | ---              | 74.00          | 7.76        | 100.0       | H   | 141.0         | 11.8         |

## Final Result

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---         | ---         | --- | ---           | ---          |

## EUT Information

EUT Name: ZG CHAIR  
Model: CIRCA  
Test Mode: BLE 1M\_High channel  
Order No/Sample No: 168394818/A003388414-002  
Test Voltage:: DC 5V From USB  
Remark: Temp 22 Humi:52%  
Test Standard: FCC 15.247  
Tested By: Kei Zhang  
Reviewed By: Terry Yin



## Critical Freqs

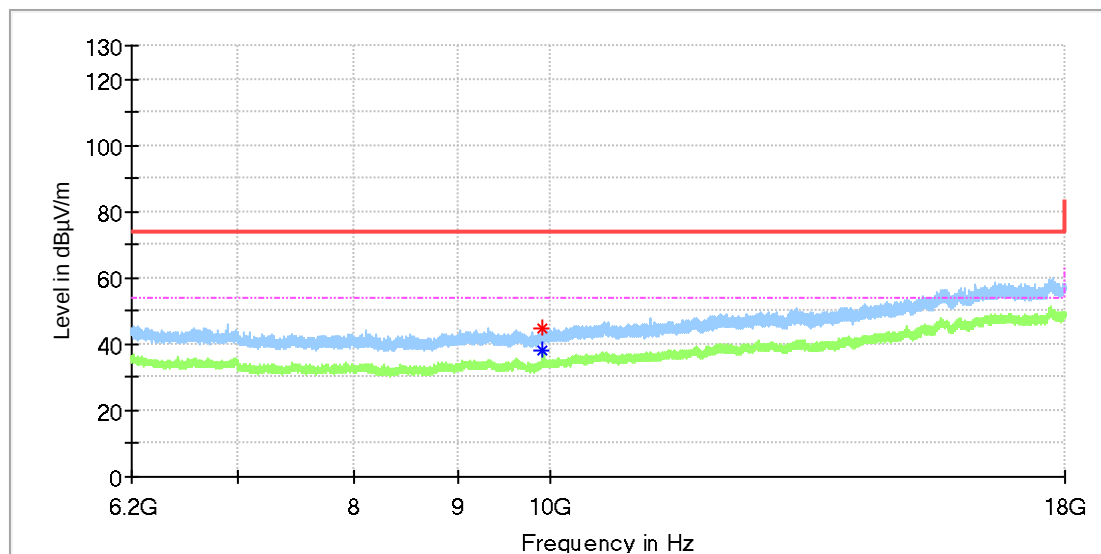
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4960.500000     | 59.69            | ---              | 74.00          | 14.31       | 100.0       | V   | 62.0          | 11.8         |
| 4961.000000     | ---              | 48.32            | 54.00          | 5.68        | 100.0       | V   | 62.0          | 11.8         |

## Final Result

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---         | ---         | --- | ---           | ---          |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | ZG CHAIR                 |
| Model:              | CIRCA                    |
| Test Mode:          | BLE 1M_High channel      |
| Order No/Sample No: | 168394818/A003388414-002 |
| Test Voltage::      | DC 5V From USB           |
| Remark:             | Temp 22 Humi:52%         |
| Test Standard:      | FCC 15.247               |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



## Critical Freqs

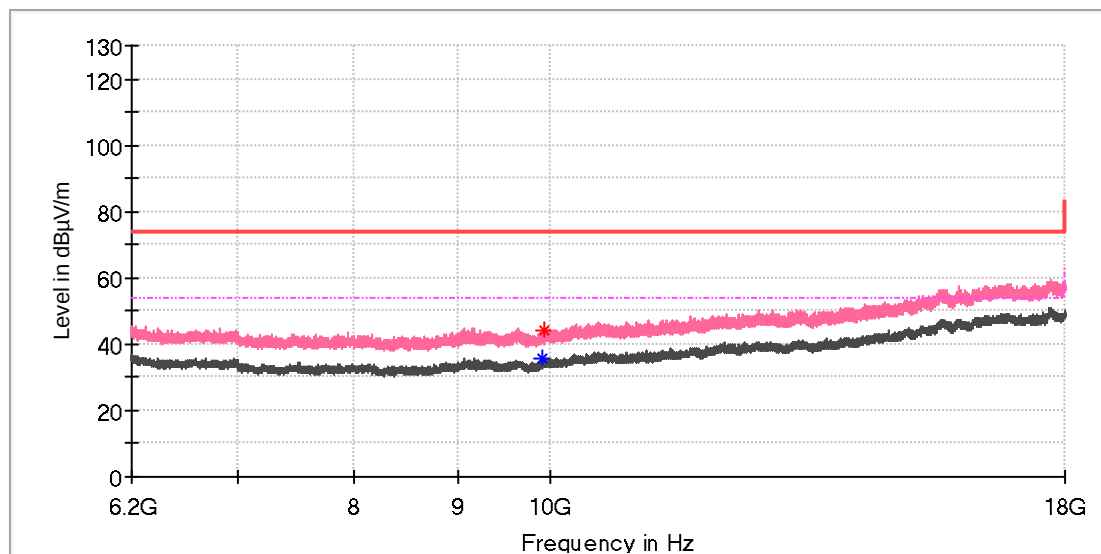
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 9918.966667     | 44.56            | ---              | 74.00          | 29.44       | 100.0       | H   | 111.0         | 10.8         |
| 9918.966667     | ---              | 37.96            | 54.00          | 16.04       | 100.0       | H   | 111.0         | 10.8         |

## Final Result

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---         | ---         | --- | ---           | ---          |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | ZG CHAIR                 |
| Model:              | CIRCA                    |
| Test Mode:          | BLE 1M_High channel      |
| Order No/Sample No: | 168394818/A003388414-002 |
| Test Voltage::      | DC 5V From USB           |
| Remark:             | Temp 22 Humi:52%         |
| Test Standard:      | FCC 15.247               |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



## Critical Freqs

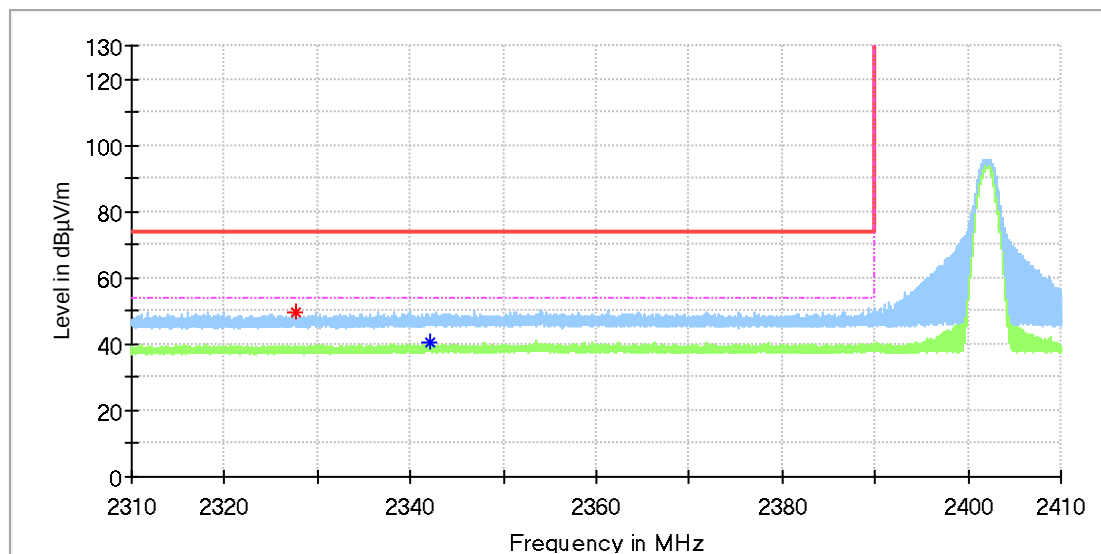
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 9919.458333     | ---              | 35.59            | 54.00          | 18.41       | 100.0       | V   | 85.0          | 10.8         |
| 9927.816667     | 44.07            | ---              | 74.00          | 29.93       | 100.0       | V   | 24.0          | 10.9         |

## Final Result

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---         | ---         |     | ---           | ---          |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | ZG CHAIR                 |
| Model:              | CIRCA                    |
| Test Mode:          | BLE 1M_Low channel       |
| Order No/Sample No: | 168394818/A003388414-002 |
| Test Voltage::      | DC 5V From USB           |
| Remark:             | Temp 22 Humi:52%         |
| Test Standard:      | FCC 15.247               |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



## Critical\_Freqs

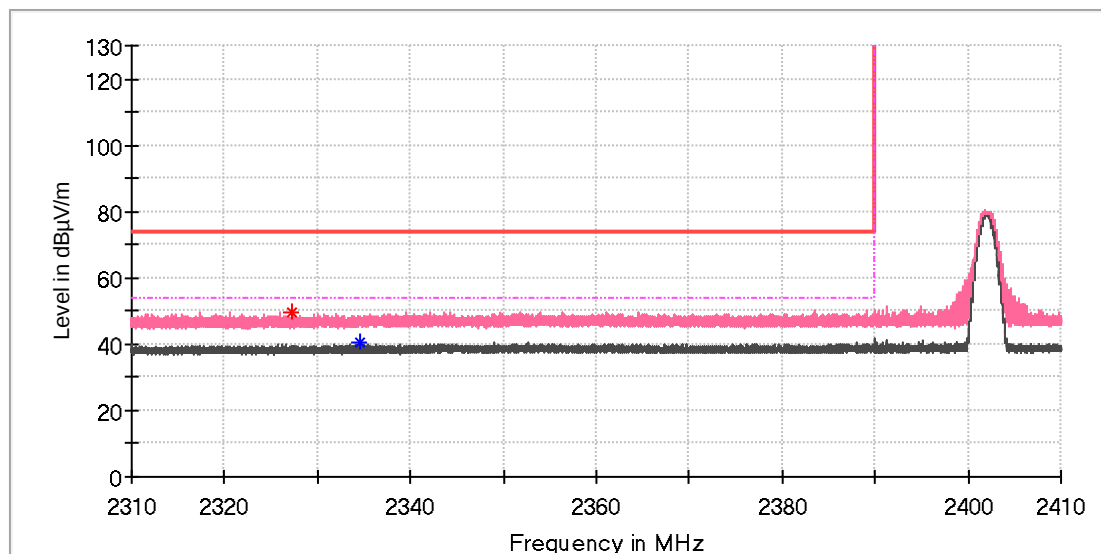
| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2327.755000     | 49.86            | ---              | 74.00          | 24.14       | 100.0       | H   | 140.0         | 6.7          |
| 2342.125000     | ---              | 40.50            | 54.00          | 13.50       | 100.0       | H   | 173.0         | 6.8          |

## Final Result

| Frequency (MHz) | MaxPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---         | ---         | --- | ---           | ---          |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | ZG CHAIR                 |
| Model:              | CIRCA                    |
| Test Mode:          | BLE 1M_Low channel       |
| Order No/Sample No: | 168394818/A003388414-002 |
| Test Voltage::      | DC 5V From USB           |
| Remark:             | Temp 22 Humi:52%         |
| Test Standard:      | FCC 15.247               |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



## Critical Freqs

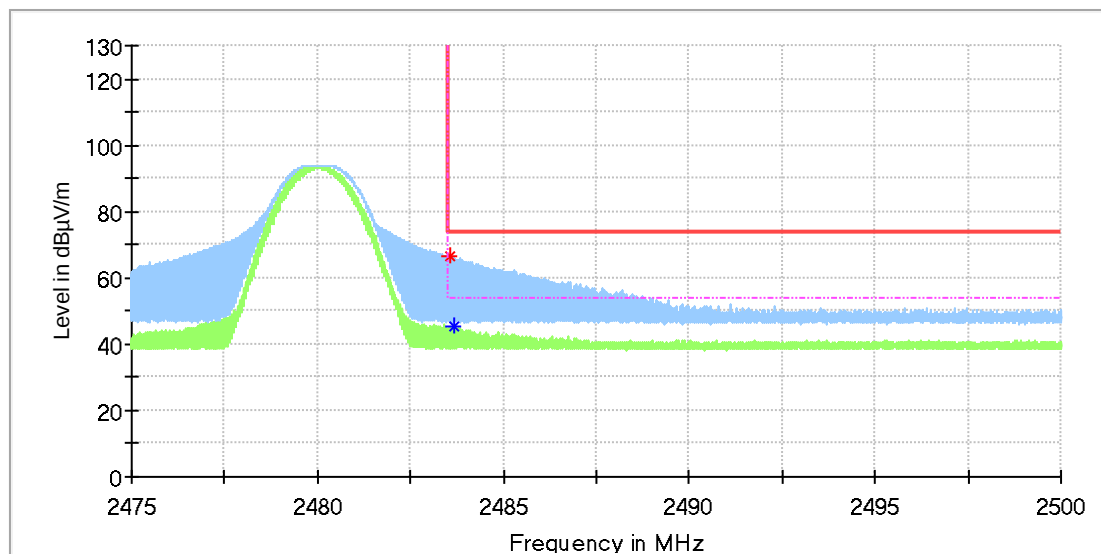
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2327.270000     | 49.64            | ---              | 74.00          | 24.36       | 100.0       | V   | 304.0         | 6.7          |
| 2334.620000     | ---              | 40.24            | 54.00          | 13.76       | 100.0       | V   | 188.0         | 6.8          |

## Final Result

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---         | ---         | --- | ---           | ---          |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | ZG CHAIR                 |
| Model:              | CIRCA                    |
| Test Mode:          | BLE 1M_High channel      |
| Order No/Sample No: | 168394818/A003388414-002 |
| Test Voltage::      | DC 5V From USB           |
| Remark:             | Temp 22 Humi:52%         |
| Test Standard:      | FCC 15.247               |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



## Critical Freqs

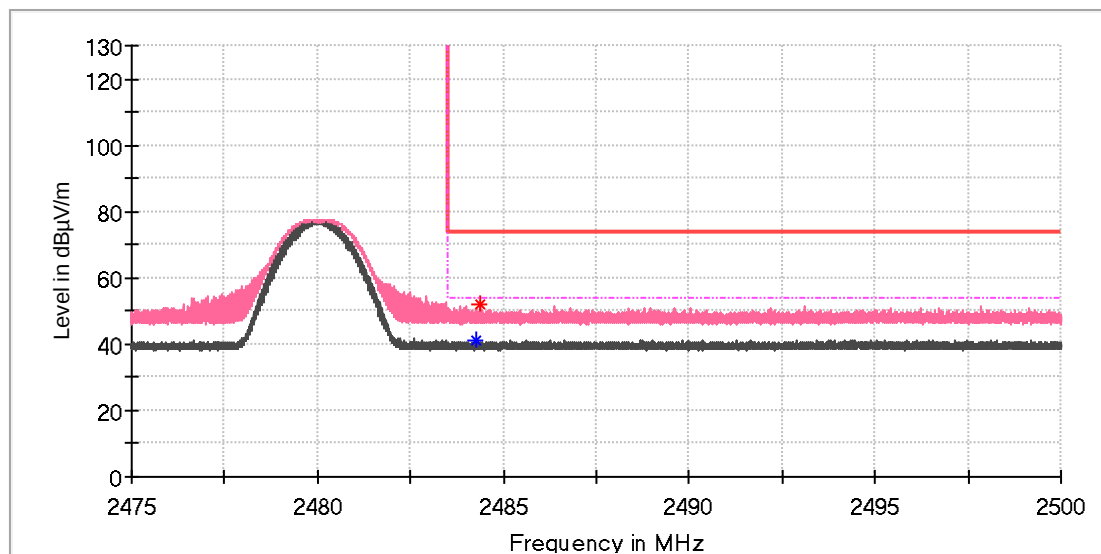
| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2483.543750     | 66.32            | ---              | 74.00          | 7.68        | 100.0       | H   | 191.0         | 7.4          |
| 2483.680000     | ---              | 45.49            | 54.00          | 8.51        | 100.0       | H   | 202.0         | 7.4          |

## Final Result

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---         | ---         | --- | ---           | ---          |

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | ZG CHAIR                 |
| Model:              | CIRCA                    |
| Test Mode:          | BLE 1M_High channel      |
| Order No/Sample No: | 168394818/A003388414-002 |
| Test Voltage::      | DC 5V From USB           |
| Remark:             | Temp 22 Humi:52%         |
| Test Standard:      | FCC 15.247               |
| Tested By:          | Kei Zhang                |
| Reviewed By:        | Terry Yin                |



## Critical Freqs

| Frequency (MHz) | MaxPeak (dBμV/m) | Average (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2484.250000     | ---              | 41.32            | 54.00          | 12.68       | 100.0       | V   | 49.0          | 7.4          |
| 2484.395000     | 51.86            | ---              | 74.00          | 22.14       | 100.0       | V   | 107.0         | 7.4          |

## Final Result

| Frequency (MHz) | MaxPeak (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---         | ---         |     | ---           | ---          |

Prüfbericht - Nr.: CN22JPD6 002  
Test Report No.Seite 48 von 51  
Page 48 of 51

## 5.1.8 Conducted Emission on AC Mains

RESULT:

Pass

### Test Specification

Test standard : FCC Part 15.207(a)

Basic standard : ANSI C63.10: 2013

Frequency range : 0.15 – 30MHz

Limits : FCC Part 15.207(a)

Kind of test site : Shielded Room

### Test Setup

Date of testing : 2022-12-30

Input voltage : AC 120V/60Hz

Operation mode : B

Earthing : Not connected

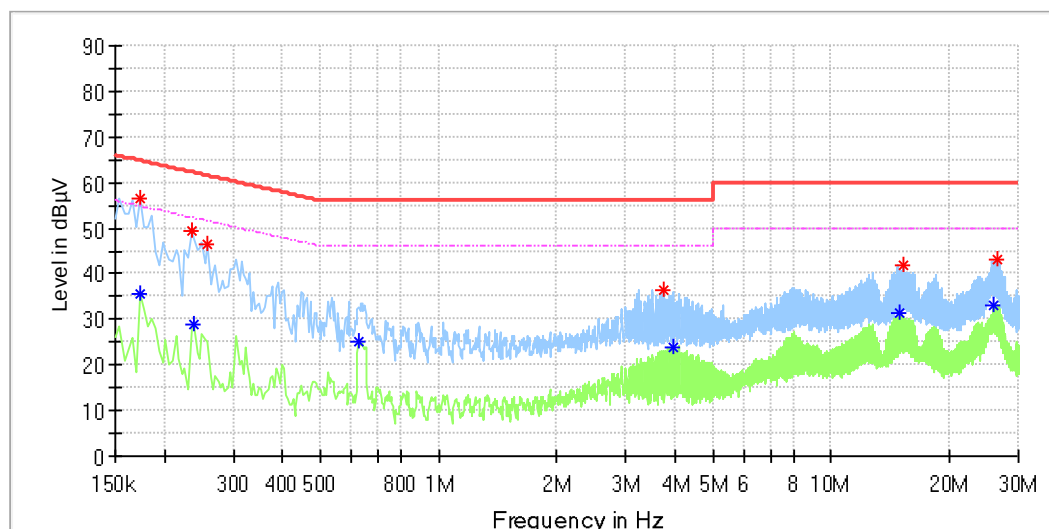
Ambient temperature : 24.55 °C

Relative humidity : 431.2 %

Atmospheric pressure : 101 kPa

## EUT Information

|                     |                     |
|---------------------|---------------------|
| EUT Name:           | ZG CHAIR            |
| Model:              | CIRCA               |
| Test Mode:          | B                   |
| Test Voltage:       | AC 120V/60Hz        |
| Test By./Review By: | Eric Guo/Gary Chen  |
| Test Standard:      | FCC Part 15         |
| Tem./Hum./Pressure: | 21.5°C/51.2%/101kPa |
| Remark:             | SR2                 |

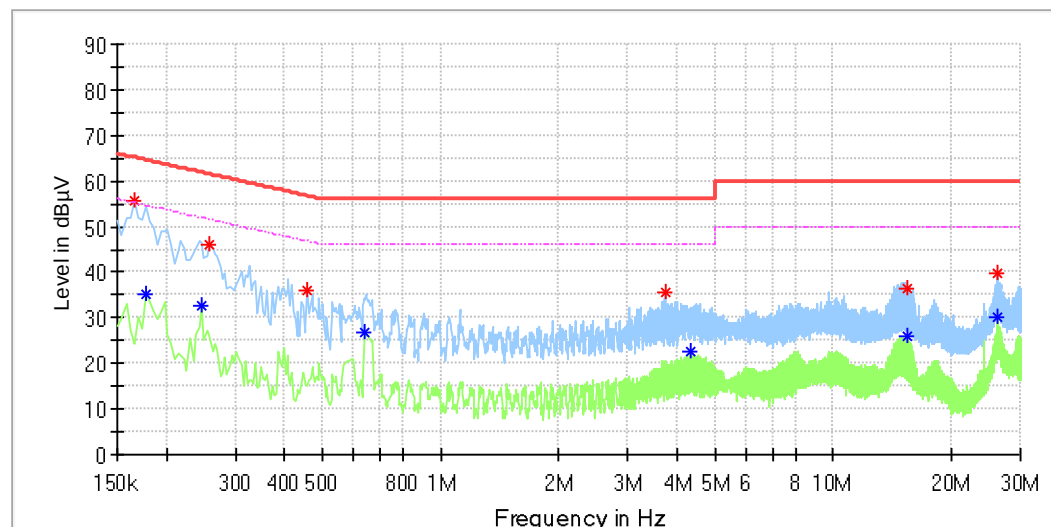


## Critical Freqs

| Frequency (MHz) | MaxPeak (dBµV) | Average (dBµV) | Limit (dBµV) | Margin (dB) | Line | Corr. (dB) |
|-----------------|----------------|----------------|--------------|-------------|------|------------|
| 0.174000        | 56.55          | ---            | 64.77        | 8.22        | L1   | 9.9        |
| 0.174000        | ---            | 35.43          | 54.77        | 19.33       | L1   | 9.9        |
| 0.234000        | 49.31          | ---            | 62.31        | 13.00       | L1   | 9.9        |
| 0.238000        | ---            | 29.05          | 52.17        | 23.12       | L1   | 9.9        |
| 0.258000        | 46.46          | ---            | 61.50        | 15.03       | L1   | 9.9        |
| 0.626000        | ---            | 25.00          | 46.00        | 21.00       | L1   | 10.0       |
| 3.726000        | 36.28          | ---            | 56.00        | 19.72       | L1   | 10.2       |
| 3.946000        | ---            | 24.02          | 46.00        | 21.98       | L1   | 10.2       |
| 14.974000       | ---            | 31.29          | 50.00        | 18.71       | L1   | 10.4       |
| 15.350000       | 41.83          | ---            | 60.00        | 18.17       | L1   | 10.4       |
| 25.982000       | ---            | 33.19          | 50.00        | 16.81       | L1   | 10.4       |
| 26.478000       | 42.97          | ---            | 60.00        | 17.03       | L1   | 10.4       |

## EUT Information

EUT Name: ZG CHAIR  
Model: CIRCA  
Test Mode: B  
Test Voltage: AC 120V/60Hz  
Test By./Review By: Eric Guo/Gary Chen  
Test Standard: FCC Part 15  
Tem./Hum./Pressure: 21.5°C/51.2%/101kPa  
Remark: SR2



## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBµV) | Average (dBµV) | Limit (dBµV) | Margin (dB) | Line | Corr. (dB) |
|-----------------|----------------|----------------|--------------|-------------|------|------------|
| 0.166000        | 55.54          | ---            | 65.16        | 9.62        | N    | 9.8        |
| 0.178000        | ---            | 35.20          | 54.58        | 19.38       | N    | 9.8        |
| 0.246000        | ---            | 32.76          | 51.89        | 19.13       | N    | 9.8        |
| 0.258000        | 46.01          | ---            | 61.50        | 15.48       | N    | 9.8        |
| 0.458000        | 36.19          | ---            | 56.73        | 20.54       | N    | 9.8        |
| 0.642000        | ---            | 26.84          | 46.00        | 19.16       | N    | 9.8        |
| 3.726000        | 35.46          | ---            | 56.00        | 20.54       | N    | 9.9        |
| 4.310000        | ---            | 22.46          | 46.00        | 23.54       | N    | 9.9        |
| 15.434000       | ---            | 25.75          | 50.00        | 24.25       | N    | 10.1       |
| 15.446000       | 36.40          | ---            | 60.00        | 23.60       | N    | 10.1       |
| 26.214000       | ---            | 30.21          | 50.00        | 19.79       | N    | 10.4       |
| 26.214000       | 39.69          | ---            | 60.00        | 20.31       | N    | 10.4       |

## 6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix A.