

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                      |                                      |                                          |                                                                                       |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------|---------------------------------------------------------------------------------------|--|
| <b>Prüfbericht-Nr.:</b><br>Test report no.:                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>CN24CMA8 001</b>                                                                                                                                                                                                  | <b>Auftrags-Nr.:</b><br>Order no.:   | 168516453                                | Seite 1 von 23<br>Page 1 of 23                                                        |  |
| <b>Kunden-Referenz-Nr.:</b><br>Client reference no.:                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                  | <b>Auftragsdatum:</b><br>Order date: | 2024-12-02                               |                                                                                       |  |
| <b>Auftraggeber:</b><br>Client:                                                                                                                                                                                                                                                                                                                                                                                                                                      | LEEDARSON LIGHTING CO., LTD.<br>Xingda Road, Xingtai Industrial Zone, Changtai County, Zhangzhou, Fujian, China                                                                                                      |                                      |                                          |                                                                                       |  |
| <b>Prüfgegenstand:</b><br>Test item:                                                                                                                                                                                                                                                                                                                                                                                                                                 | LED Smart Bulb                                                                                                                                                                                                       |                                      |                                          |                                                                                       |  |
| <b>Bezeichnung / Typ-Nr.:</b><br>Identification / Type no.:                                                                                                                                                                                                                                                                                                                                                                                                          | 14aSA-C500ST-E1T_NA_2P, 14ySA-C500ST-E1T_NA_xP(Where "y" may be "a" to "z", which designates for different enclosure pattern design; "x and xx" may be "0" to "99", which designates for different package of style) |                                      |                                          |                                                                                       |  |
| <b>Auftrags-Inhalt:</b><br>Order content:                                                                                                                                                                                                                                                                                                                                                                                                                            | Test Report                                                                                                                                                                                                          |                                      |                                          |                                                                                       |  |
| <b>Prüfgrundlage:</b><br>Test specification:                                                                                                                                                                                                                                                                                                                                                                                                                         | CFR47 FCC Part 15: Subpart C Section 15.247<br>RSS-247 Issue 3 August 2023<br>RSS-Gen Issue 5 February 2021                                                                                                          |                                      |                                          |                                                                                       |  |
| <b>Wareneingangsdatum:</b><br>Date of sample receipt:                                                                                                                                                                                                                                                                                                                                                                                                                | 2024-12-06                                                                                                                                                                                                           | Please refer to Photo Document       |                                          |                                                                                       |  |
| <b>Prüfmuster-Nr.:</b><br>Test sample no.:                                                                                                                                                                                                                                                                                                                                                                                                                           | A003877474-001~004                                                                                                                                                                                                   |                                      |                                          |                                                                                       |  |
| <b>Prüfzeitraum:</b><br>Testing period:                                                                                                                                                                                                                                                                                                                                                                                                                              | 2024-12-06 - 2024-12-17                                                                                                                                                                                              |                                      |                                          |                                                                                       |  |
| <b>Ort der Prüfung:</b><br>Place of testing:                                                                                                                                                                                                                                                                                                                                                                                                                         | TÜV Rheinland<br>(Shenzhen) Co., Ltd.                                                                                                                                                                                |                                      |                                          |                                                                                       |  |
| <b>Prüflaboratorium:</b><br>Testing laboratory:                                                                                                                                                                                                                                                                                                                                                                                                                      | TÜV Rheinland<br>(Shenzhen) Co., Ltd.                                                                                                                                                                                |                                      |                                          |                                                                                       |  |
| <b>Prüfergebnis*:</b><br>Test result*:                                                                                                                                                                                                                                                                                                                                                                                                                               | Pass                                                                                                                                                                                                                 |                                      |                                          |                                                                                       |  |
| <b>geprüft von:</b><br>tested by:                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                   |                                      | <b>genehmigt von:</b><br>authorized by:  |  |  |
| <b>Datum:</b><br>Date:                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2024-12-19<br><small>Signed by: Jonathan Li</small>                                                                                                                                                                  |                                      | <b>Ausstellungsdatum:</b><br>Issue date: | 2024-12-19<br><small>Signed by: Bell Hu</small>                                       |  |
| <b>Stellung / Position:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                          | Sachverständige(r)/Expert                                                                                                                                                                                            |                                      | <b>Stellung / Position:</b>              | Sachverständige(r)/Expert                                                             |  |
| <b>Sonstiges /</b><br><b>Other:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                  | FCC ID: 2AB2Q14AC500ST<br>IC: 10256A-14AC500ST, HVIN: 14aSA-C500ST-E1T_NA                                                                                                                                            |                                      |                                          |                                                                                       |  |
| <b>Zustand des Prüfgegenstandes bei Anlieferung:</b><br>Condition of the test item at delivery:                                                                                                                                                                                                                                                                                                                                                                      | Prüfmuster vollständig und unbeschädigt<br>Test item complete and undamaged                                                                                                                                          |                                      |                                          |                                                                                       |  |
| * Legende:                                                                                                                                                                                                                                                                                                                                                                                                                                                           | P(ass) = entspricht o.g. Prüfgrundlage(n)    F(ail) = entspricht nicht o.g. Prüfgrundlage(n)    N/A = nicht anwendbar    N/T = nicht getestet                                                                        |                                      |                                          |                                                                                       |  |
| * Legend:                                                                                                                                                                                                                                                                                                                                                                                                                                                            | P(ass) = passed a.m. test specification(s)    F(ail) = failed a.m. test specification(s)    N/A = not applicable    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 above mentioned 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> |                                                                                                                                                                                                                      |                                      |                                          |                                                                                       |  |

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**Anmerkungen**  
*Remarks*

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | <p>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.</p> <p>Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</p> <p><i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2 | <p>Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben. Informationen zur Verifizierung der Authentizität unserer Dokumente erhalten Sie auf folgender Webseite: <a href="http://go.tuv.com/digital-signature">go.tuv.com/digital-signature</a></p> <p><i>As contractually agreed, this document has been signed digitally only. TUV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TUV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged. For information on verifying the authenticity of our documents, please visit the following website: <a href="http://go.tuv.com/digital-signature">go.tuv.com/digital-signature</a></i></p> |
| 3 | <p>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben.</p> <p>Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</p> <p><i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.</i></p> <p><i>Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 4 | <p>Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.</p> <p><i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i></p>                                                                                                                                                                                                                                                                                       |

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## ***Test Summary***

**5.1.1 ANTENNA REQUIREMENT**

*RESULT: Pass*

**5.1.2 MAXIMUM 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*

**5.1.8 CONDUCTED EMISSION ON AC MAINS**

*RESULT: Pass*

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# 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: Test Results of Bluetooth BLE;

Appendix B: Test Results of 2.4GHz Wi-Fi;

Appendix C: Photographs of Test Set-up.

## 2 Test Sites

### 2.1 Test Facilities

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

No. 362 Huanguan Road Middle, Longhua District, 518110, Shenzhen, P. R. China.

FCC Registration No.: 694916

ISED Wireless Device Testing Laboratory: 25069

### 2.2 List of Test and Measurement Instruments

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

| Radio Spectrum Testing (SRD-Tonscend)          |              |                   |            |            |
|------------------------------------------------|--------------|-------------------|------------|------------|
| Equipment                                      | Manufacturer | Model             | Serial No. | Cal. until |
| EXA Signal Analyzer, Multi-touch               | Keysight     | N9010B            | MY60241175 | 25.09.2025 |
| MXG X-Series RF Vector Signal Generator        | Keysight     | N5182B            | MY61250137 | 25.09.2025 |
| EXG X-Series Microwave Analog Signal Generator | Keysight     | N5173B            | MY61250141 | 25.09.2025 |
| DC Power Supply                                | Keysight     | E3642A            | MY61276100 | 25.09.2025 |
| Wireless Connectivity Tester                   | R&S          | CMW270            | 102505     | 25.09.2025 |
| Power Control Unit                             | Tonscend     | JS0806-4ADC       | N/A        | 25.09.2025 |
| Automation Control Unit                        | Tonscend     | JS0806-2          | 21C8060396 | 25.09.2025 |
| Test Software                                  | Tonscend     | JS1120-3          | N/A        | N/A        |
| Control PC                                     | Lenovo       | TianYi510S-071MB  | YLX23JMF   | N/A        |
| Unwanted Emission Testing (TS9975)             |              |                   |            |            |
| Equipment                                      | Manufacturer | Model             | Serial No. | Cal. until |
| EMI Test Receiver                              | R&S          | ESR 7             | 102021     | 28.09.2025 |
| Signal Analyzer                                | R&S          | FSV 40            | 101439     | 28.09.2025 |
| System Controller Interface                    | R&S          | SCI-100           | S10010038  | N/A        |
| Filterbank                                     | R&S          | Wlan              | 100759     | 28.09.2025 |
| OSP                                            | R&S          | OSP 120           | 102040     | N/A        |
| Pre-amplifier                                  | R&S          | SCU08F1           | 08320031   | 28.09.2025 |
| Amplifier                                      | R&S          | SCU-18F           | 180070     | 28.09.2025 |
| Amplifier                                      | R&S          | SCU40A            | 100475     | 28.09.2025 |
| Trilog Broadband Antenna (30 MHz - 7 GHz)      | Schwarzbeck  | VULB 9162         | 193        | 27.09.2026 |
| Double-Ridged Antenna (1 -18 GHz)              | ETS-LINDGREN | 3117              | 00218717   | 27.09.2026 |
| Wideband Ridged Horn Antenna (18-40 GHz)       | Steatite     | QMS-00880         | 19067      | 27.09.2026 |
| Active Loop Antenna                            | Schwarzbeck  | FMZB 1513         | 302        | 27.09.2026 |
| Test software                                  | R&S          | EMC32 (V10.60.10) | N/A        | N/A        |

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|--------------------------|-----------|---------------|--------------|------------|
| Control PC               | Dell      | OptiPlex 7050 | 36NV9P2      | N/A        |
| 3m Semi-Anechoic Chamber | Albatross | SAC-3m        | APC17151-SAC | 13.09.2027 |

| Conducted Emission       |              |                     |            |            |
|--------------------------|--------------|---------------------|------------|------------|
| Equipment                | Manufacturer | Model No.           | Serial No. | Cal. Until |
| EMI Test Receiver        | R&S          | ESR3                | 102680     | 2025-02-22 |
| Artificial Mains Network | R&S          | ENV216              | 102333     | 2025-07-22 |
| 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.

**Table 2: Measurement Uncertainty**

| Parameter                                              | Uncertainty (k=2)     |
|--------------------------------------------------------|-----------------------|
| RF output power, conducted                             | ± 0.99 dB             |
| Occupied Channel Bandwidth                             | ± 2.08 %              |
| RF power density, conducted                            | ± 0.99 dB             |
| Unwanted Emissions, conducted                          | ± 0.89 dB             |
| All emissions, radiated                                | ± 4.17 dB             |
| Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz) | ± 3.70 dB / ± 3.30 dB |

## 2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B & C of 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 No. 362 Huanguan Road Middle, Longhua District, 518110, Shenzhen, P. R. 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 (Equipment Under Test) is a LED Smart Bulb which support BLE and 2.4GHz Wi-Fi wireless technology.

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

#### 3.2 Ratings and System Details

**Table 3: Technical Specification of EUT**

| General Information of EUT                       | Value                                                                                                                                                                                                                 |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Kind of Equipment                                | LED Smart Bulb                                                                                                                                                                                                        |
| Type Designation                                 | 14aSA-C500ST-E1T_NA_2P, 14ySA-C500ST-E1T_NA_xP(Where "y" may be "a" to "z", which designates for different enclosure pattern design; "x and xx" may be "00" to "99", which designates for different package of style) |
| FCC ID:                                          | 2AB2Q14AC500ST                                                                                                                                                                                                        |
| IC:                                              | 10256A-14AC500ST                                                                                                                                                                                                      |
| HVIN:                                            | 14aSA-C500ST-E1T_NA                                                                                                                                                                                                   |
| Operating Voltage                                | AC120V/60Hz                                                                                                                                                                                                           |
| Testing Voltage                                  | AC120V/60Hz                                                                                                                                                                                                           |
| <b>Technical Specification of Bluetooth</b>      |                                                                                                                                                                                                                       |
| Operating Frequency                              | 2402-2480MHz                                                                                                                                                                                                          |
| Type of Modulation                               | GFSK                                                                                                                                                                                                                  |
| Data Rate                                        | 1Mbps, 2Mbps                                                                                                                                                                                                          |
| Channel Number                                   | 40 channels for Bluetooth BLE                                                                                                                                                                                         |
| Channel Separation                               | 1MHz and 2MHz                                                                                                                                                                                                         |
| Antenna Type                                     | Integral Antenna                                                                                                                                                                                                      |
| Antenna Number                                   | 1Tx1Rx                                                                                                                                                                                                                |
| Antenna Gain                                     | -1.74 dBi (Provided by the Client)                                                                                                                                                                                    |
| The type of wideband data transmission equipment | Non-FHSS for Bluetooth BLE                                                                                                                                                                                            |
| <b>Technical Specification of 2.4GHz Wi-Fi</b>   |                                                                                                                                                                                                                       |
| Operating Frequency                              | 2412 - 2462MHz for 802.11b/g/n(HT20)<br>2422 - 2452MHz for 802.11n(HT40)                                                                                                                                              |
| Type of Modulation                               | DSSS(DBPSK/DQPSK/CCK)<br>OFDM(BPSK/QPSK/16QAM/64QAM)                                                                                                                                                                  |
| Data Rate                                        | 1/2/5.5/11 Mbps for 802.11b<br>6/9/12/18/24/36/48/54 Mbps for 802.11g<br>MCS0 ~ MCS7 for 802.11n                                                                                                                      |
| Channel Number                                   | 11 channels for 802.11b/g/n(HT20)<br>7 channels for 802.11n(HT40)                                                                                                                                                     |
| Channel Separation                               | 5 MHz                                                                                                                                                                                                                 |
| Antenna Type                                     | Integral Antenna                                                                                                                                                                                                      |

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|--------------------------------------------------|------------------------------------|
| Antenna Number                                   | 1Tx1Rx                             |
| Antenna Gain                                     | -1.74 dBi (Provided by the Client) |
| The type of wideband data transmission equipment | DTS                                |

**Table 4: RF Channel and Frequency of Bluetooth LE**

| RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) |
|------------|-----------------|------------|-----------------|------------|-----------------|------------|-----------------|
| <b>0</b>   | <b>2402</b>     | 10         | 2422            | 20         | 2442            | 30         | 2462            |
| 1          | 2404            | 11         | 2424            | 21         | 2444            | 31         | 2464            |
| 2          | 2406            | 12         | 2426            | 22         | 2446            | 32         | 2466            |
| 3          | 2408            | 13         | 2428            | 23         | 2448            | 33         | 2468            |
| 4          | 2410            | 14         | 2430            | 24         | 2450            | 34         | 2470            |
| 5          | 2412            | 15         | 2432            | 25         | 2452            | 35         | 2472            |
| 6          | 2414            | 16         | 2434            | 26         | 2454            | 36         | 2474            |
| 7          | 2416            | 17         | 2436            | 27         | 2456            | 37         | 2476            |
| 8          | 2418            | 18         | 2438            | 28         | 2458            | 38         | 2478            |
| 9          | 2420            | <b>19</b>  | <b>2440</b>     | 29         | 2460            | <b>39</b>  | <b>2480</b>     |

**Table 5: RF Channel and Frequency of 2.4GHz Wi-Fi 802.11 b/g/n**

| RF Channel | 802.11 b/g/n(HT20) | 802.11 n(HT40)  |
|------------|--------------------|-----------------|
|            | Frequency (MHz)    | Frequency (MHz) |
| 01         | 2412               |                 |
| 02         | 2417               |                 |
| 03         | 2422               | 2422            |
| 04         | 2427               | 2427            |
| 05         | 2432               | 2432            |
| 06         | 2437               | 2437            |
| 07         | 2442               | 2442            |
| 08         | 2447               | 2447            |
| 09         | 2452               | 2452            |
| 10         | 2457               |                 |
| 11         | 2462               |                 |

### 3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Bluetooth BLE wireless transmitting mode
  - 1) Low Channel
  - 2) Middle Channel
  - 3) High Channel
- B. On, 2.4GHz Wi-Fi wireless transmitting mode
  - 1) Low Channel
  - 2) Middle Channel
  - 3) High Channel
- C. On, Normal Operation
- D. Off

### 3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

### 3.5 Submitted Documents

- |                              |                         |
|------------------------------|-------------------------|
| - Application Form           | - Operation Description |
| - ID Label and Location Info | - Block Diagram         |
| - Schematics                 | - PCB Layout            |

## 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.

According to clause 3.1, all tests were performed on model 14aSA-C500ST-E1T\_NA\_2P in this report.

### 4.3 Special Accessories and Auxiliary Equipment

Table 6: Auxiliary Equipment Used during Test

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

### 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 1GHz)

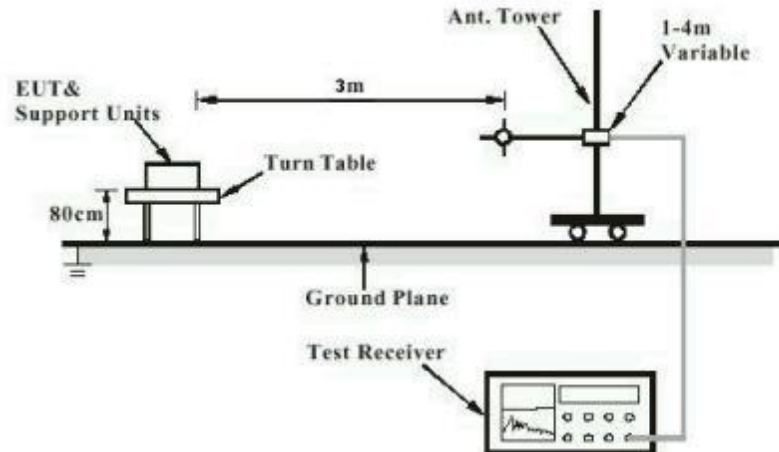
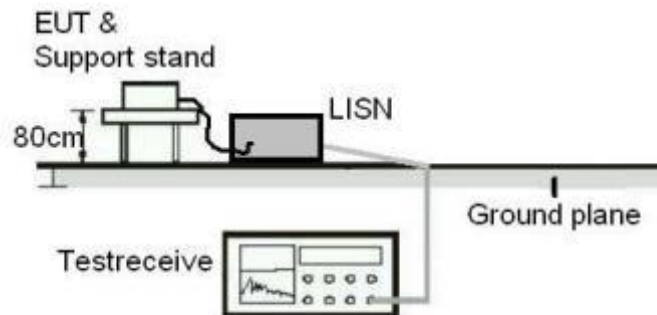


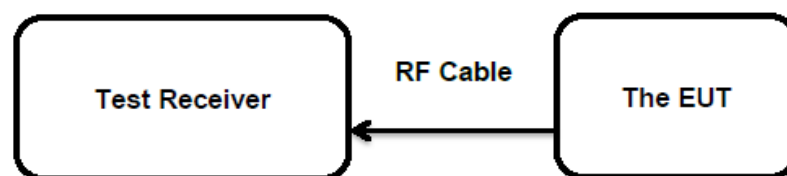
Diagram of Measurement Configuration for Radiation Test (Above 1GHz)



### 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  
RSS-Gen Clause 6.8

According to the manufacturer declared, the EUT has an internal antenna, the directional gain of antenna is -1.74dBi, and the antenna connector is designed with 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.

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## 5.1.2 Maximum Conducted Output Power

**RESULT:**

**Pass**

### Test Specification

|                   |   |                                                |
|-------------------|---|------------------------------------------------|
| Test standard     | : | FCC Part 15.247(b)(3)<br>RSS-247 Clause 5.4(d) |
| Basic standard    | : | ANSI C63.10: 2013                              |
| Limits            | : | 1.0 Watts                                      |
| Kind of test site | : | Shielded Room                                  |

### Test Setup

|                      |   |                         |
|----------------------|---|-------------------------|
| Date of testing      | : | 2024-12-06 - 2024-12-17 |
| Input voltage        | : | AC120V/60Hz             |
| Operation mode       | : | A, B                    |
| Test channel         | : | Low / Middle / High     |
| Ambient temperature  | : | 25 °C                   |
| Relative humidity    | : | 56 %                    |
| Atmospheric pressure | : | 101 kPa                 |

For details refer to following test result.

**Table 7: Test Result of Maximum Conducted Output Power, Bluetooth LE**

| Test Mode                                                             | Data Rate | Test Channel (MHz) | Measured Peak Power |        | Limit (W) |
|-----------------------------------------------------------------------|-----------|--------------------|---------------------|--------|-----------|
|                                                                       |           |                    | (dBm)               | (W)    |           |
| GFSK (BLE)                                                            | 1 Mbps    | 2402               | 13.73               | 0.0236 | < 1.0     |
|                                                                       |           | 2440               | 14.17               | 0.0261 |           |
|                                                                       |           | 2480               | 14.78               | 0.0301 |           |
|                                                                       | 2 Mbps    | 2402               | 12.83               | 0.0192 |           |
|                                                                       |           | 2440               | 14.13               | 0.0259 |           |
|                                                                       |           | 2480               | 14.72               | 0.0296 |           |
| Max. e.i.r.p.=14.78dBm-1.74dBi=13.04dBm, which is less than 36dBm=4W. |           |                    |                     |        |           |

**Table 8: Test Result of Maximum Conducted Output Power, Wi-Fi 802.11 b/g/n**

| Test Mode                                                             | Data Rate | Test Channel (MHz) | Measured Average Power |        | Limit (W) |
|-----------------------------------------------------------------------|-----------|--------------------|------------------------|--------|-----------|
|                                                                       |           |                    | (dBm)                  | (W)    |           |
| 802.11b                                                               | 1 Mbps    | 2412               | 19.06                  | 0.0805 | < 1.0     |
|                                                                       |           | 2437               | 18.98                  | 0.0791 |           |
|                                                                       |           | 2462               | 17.95                  | 0.0624 |           |
| 802.11g                                                               | 6 Mbps    | 2412               | 22.38                  | 0.1730 |           |
|                                                                       |           | 2437               | 22.09                  | 0.1618 |           |
|                                                                       |           | 2462               | 21.39                  | 0.1377 |           |
| 802.11n (HT20)                                                        | MCS0      | 2412               | 21.61                  | 0.1449 |           |
|                                                                       |           | 2437               | 22.79                  | 0.1901 |           |
|                                                                       |           | 2462               | 21.89                  | 0.1545 |           |
| 802.11n (HT40)                                                        | MCS0      | 2422               | 22.25                  | 0.1679 |           |
|                                                                       |           | 2437               | 21.91                  | 0.1552 |           |
|                                                                       |           | 2452               | 21.55                  | 0.1429 |           |
| Max. e.i.r.p.=22.25dBm-1.74dBi=20.51dBm, which is less than 36dBm=4W. |           |                    |                        |        |           |

Note:

- 1) The cable loss is taken into account in results.
- 2) Antenna gain(G) : -1.74dBi  
e.i.r.p.=P<sub>(Conducted power)</sub>+ G, which is far below the 4 W

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### 5.1.3 Conducted Power Spectral Density

RESULT:

Pass

**Test Specification**

|                   |                                               |
|-------------------|-----------------------------------------------|
| Test standard     | : FCC Part 15.247(e)<br>RSS-247 Clause 5.2(b) |
| Basic standard    | : ANSI C63.10: 2013                           |
| Limits            | : < 8 dBm / 3kHz                              |
| Kind of test site | : Shielded Room                               |

**Test Setup**

|                      |                           |
|----------------------|---------------------------|
| Date of testing      | : 2024-12-06 - 2024-12-17 |
| Input voltage        | : AC120V/60Hz             |
| Operation mode       | : A, B                    |
| Test channel         | : Low / Middle / High     |
| Ambient temperature  | : 25 °C                   |
| Relative humidity    | : 56 %                    |
| Atmospheric pressure | : 101 kPa                 |

For the measurement records, refer to the appendix A, B.

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### 5.1.4 6dB Bandwidth

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

|                   |   |                                                |
|-------------------|---|------------------------------------------------|
| Test standard     | : | FCC Part 15.247(a)(2)<br>RSS-247 Clause 5.2(a) |
| Basic standard    | : | ANSI C63.10: 2013                              |
| Limits            | : | > 500 KHz                                      |
| Kind of test site | : | Shielded Room                                  |

**Test Setup**

|                      |   |                         |
|----------------------|---|-------------------------|
| Date of testing      | : | 2024-12-06 - 2024-12-17 |
| Input voltage        | : | AC120V/60Hz             |
| Operation mode       | : | A, B                    |
| Test channel         | : | Low / Middle / High     |
| Ambient temperature  | : | 25 °C                   |
| Relative humidity    | : | 56 %                    |
| Atmospheric pressure | : | 101 kPa                 |

For the measurement records, refer to the appendix A, B.

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### 5.1.5 99% Bandwidth

**RESULT:**

**Pass**

#### Test Specification

|                   |                      |
|-------------------|----------------------|
| Test standard     | : RSS-Gen Clause 6.7 |
| Basic standard    | : ANSI C63.10: 2013  |
| Kind of test site | : Shielded Room      |

#### Test Setup

|                      |                           |
|----------------------|---------------------------|
| Date of testing      | : 2024-12-06 - 2024-12-17 |
| Input voltage        | : AC120V/60Hz             |
| Operation mode       | : A, B                    |
| Test channel         | : Low / Middle / High     |
| Ambient temperature  | : 25 °C                   |
| Relative humidity    | : 56 %                    |
| Atmospheric pressure | : 101 kPa                 |

For the measurement records, refer to the appendix A, B.

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## 5.1.6 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

RESULT:

Pass

### Test Specification

|                   |                                                                                                                                                                                                                                                                    |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test standard     | : FCC Part 15.247(d)<br>RSS-247 Clause 5.5                                                                                                                                                                                                                         |
| 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      | : 2024-12-06 - 2024-12-17 |
| Input voltage        | : AC120V/60Hz             |
| Operation mode       | : A, B                    |
| Test channel         | : Low / Middle / High     |
| Ambient temperature  | : 25 °C                   |
| Relative humidity    | : 56 %                    |
| 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.

For the measurement records, refer to the appendix A, B.

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### 5.1.7 Radiated Spurious Emission

RESULT:

Pass

**Test Specification**

|                   |                                                                          |
|-------------------|--------------------------------------------------------------------------|
| Test standard     | : FCC Part 15.247(d) & FCC Part 15.205<br>RSS-247 Clause 3.3             |
| Basic standard    | : ANSI C63.10: 2013                                                      |
| Limits            | : Refer to 15.209(a) of FCC part 15.247(d)<br>RSS-Gen Section 8.9 & 8.10 |
| Kind of test site | : 3m Semi-anechoic Chamber                                               |

**Test Setup**

|                      |                            |
|----------------------|----------------------------|
| Date of testing      | : 2022-02-08 to 2022-02-15 |
| Input voltage        | : AC120V/60Hz              |
| Operation mode       | : A, B                     |
| Test channel         | : Low / Middle / High      |
| Ambient temperature  | : Refer to test result     |
| Relative humidity    | : Refer to test result     |
| Atmospheric pressure | : 101 kPa                  |

## Remark:

Testing was carried out within frequency range 9kHz to the tenth harmonics. Only the worst case spurious emissions configuration of the each mode were reported.

For the measurement records, refer to the appendix A, B.

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### 5.1.8 Conducted Emission on AC Mains

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

|                   |                                             |
|-------------------|---------------------------------------------|
| Test standard     | : FCC Part 15.207(a)<br>RSS-Gen Section 8.8 |
| Basic standard    | : ANSI C63.10: 2013                         |
| Frequency range   | : 0.15 – 30MHz                              |
| Limits            | : FCC Part 15.207(a)<br>RSS-Gen Table 4     |
| Kind of test site | : Shielded Room                             |

**Test Setup**

|                      |                            |
|----------------------|----------------------------|
| Date of testing      | : 2022-02-08 to 2022-02-15 |
| Input voltage        | : AC 120V, 60Hz            |
| Operation mode       | : C                        |
| Earthing             | : Not connected            |
| Ambient temperature  | : 25.0 °C                  |
| Relative humidity    | : 51.2 %                   |
| Atmospheric pressure | : 101 kPa                  |

For the measurement records, refer to the appendix A, B.

## 6 Photographs of the Test Set-Up

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

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## Appendix A: Test Results of Bluetooth LE

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## Appendix A.1: Test Results of Maximum conducted output power

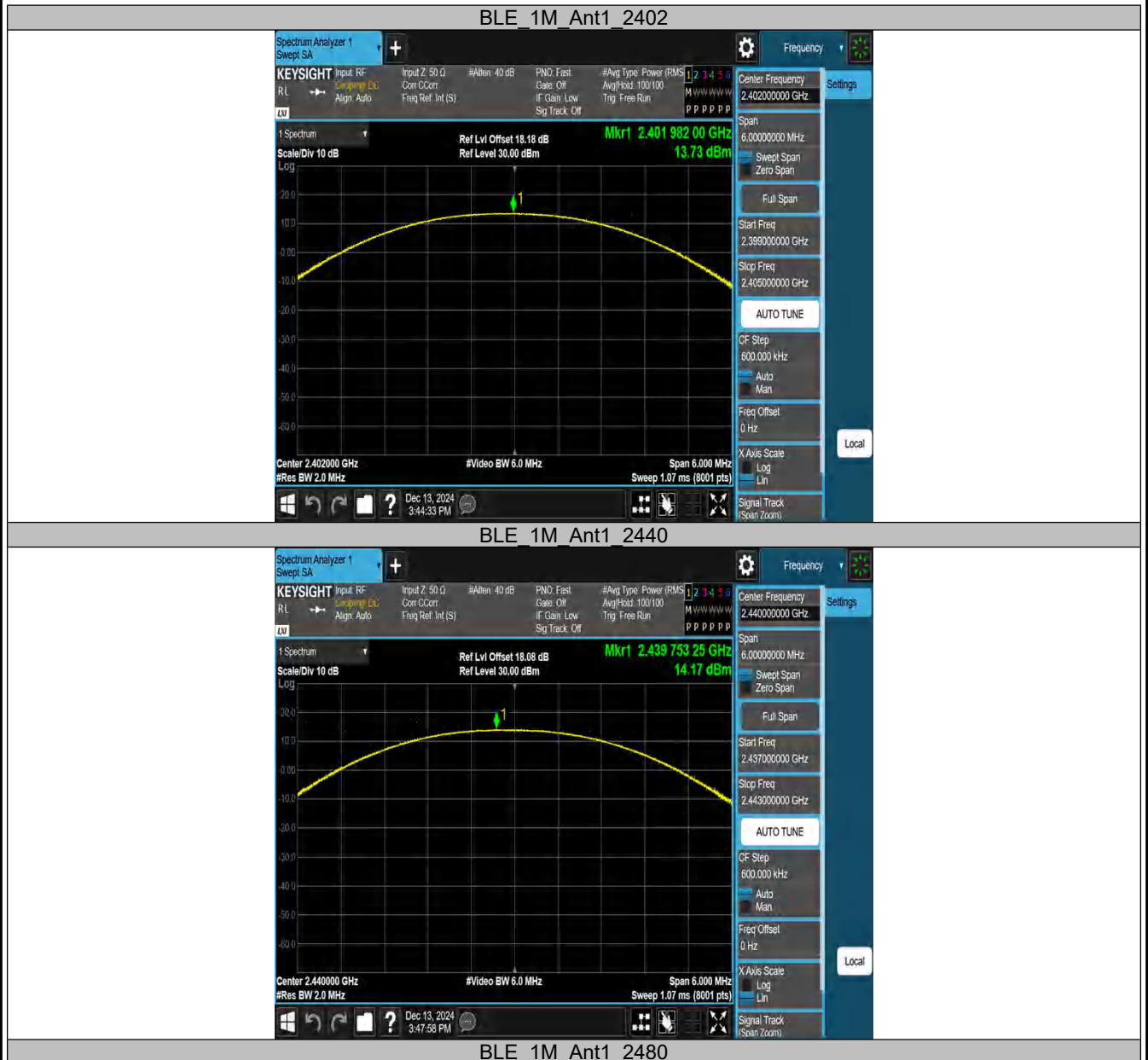
### Test Result PK

| TestMode | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| BLE_1M   | Ant1    | 2402    | 13.73       | ≤30        | PASS    |
|          |         | 2440    | 14.17       | ≤30        | PASS    |
|          |         | 2480    | 14.78       | ≤30        | PASS    |
| BLE_2M   | Ant1    | 2402    | 12.83       | ≤30        | PASS    |
|          |         | 2440    | 14.13       | ≤30        | PASS    |
|          |         | 2480    | 14.72       | ≤30        | PASS    |

### Test Result AV

| TestMode | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| BLE_1M   | Ant1    | 2402    | 12.42       | ≤30        | PASS    |
|          |         | 2440    | 13.11       | ≤30        | PASS    |
|          |         | 2480    | 13.21       | ≤30        | PASS    |
| BLE_2M   | Ant1    | 2402    | 11.81       | ≤30        | PASS    |
|          |         | 2440    | 13.08       | ≤30        | PASS    |
|          |         | 2480    | 13.35       | ≤30        | PASS    |

## Test GraphsPK





BLE 2M Ant1 2402



BLE 2M Ant1 2440



BLE 2M Ant1 2480



## Appendix A.2: Test Results of Conducted Power Spectral Density

| TestMode | Antenna | Channel | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|----------|---------|---------|----------------------|-----------------|---------|
| BLE_1M   | Ant1    | 2402    | -1.65                | ≤8.00           | PASS    |
|          |         | 2440    | -1.04                | ≤8.00           | PASS    |
|          |         | 2480    | -0.57                | ≤8.00           | PASS    |
| BLE_2M   | Ant1    | 2402    | -4.09                | ≤8.00           | PASS    |
|          |         | 2440    | -2.58                | ≤8.00           | PASS    |
|          |         | 2480    | -2.23                | ≤8.00           | PASS    |

BLE 1M Ant1 2402



BLE 1M Ant1 2440



BLE 1M Ant1 2480



BLE 2M Ant1 2402



BLE 2M Ant1 2440



BLE 2M Ant1 2480



### Appendix A.3: Test Results of 6dB Bandwidth

| TestMode | Antenna | Channel | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|---------|--------------|----------|----------|------------|---------|
| BLE_1M   | Ant1    | 2402    | 0.624        | 2401.636 | 2402.260 | 0.5        | PASS    |
|          |         | 2440    | 0.636        | 2439.608 | 2440.244 | 0.5        | PASS    |
|          |         | 2480    | 0.648        | 2479.600 | 2480.248 | 0.5        | PASS    |
| BLE_2M   | Ant1    | 2402    | 1.104        | 2401.396 | 2402.500 | 0.5        | PASS    |
|          |         | 2440    | 1.076        | 2439.400 | 2440.476 | 0.5        | PASS    |
|          |         | 2480    | 1.016        | 2479.388 | 2480.404 | 0.5        | PASS    |

BLE 1M Ant1 2402



BLE 1M Ant1 2440



BLE 1M Ant1 2480



BLE 2M Ant1 2402



BLE 2M Ant1 2440



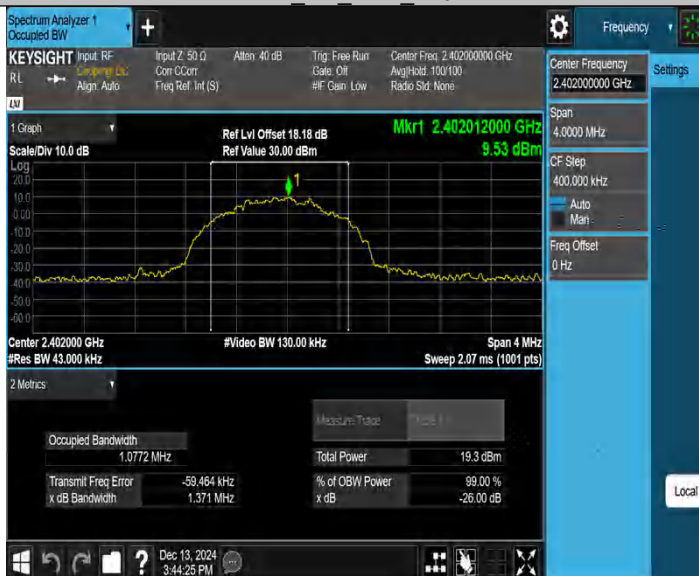
BLE 2M Ant1 2480



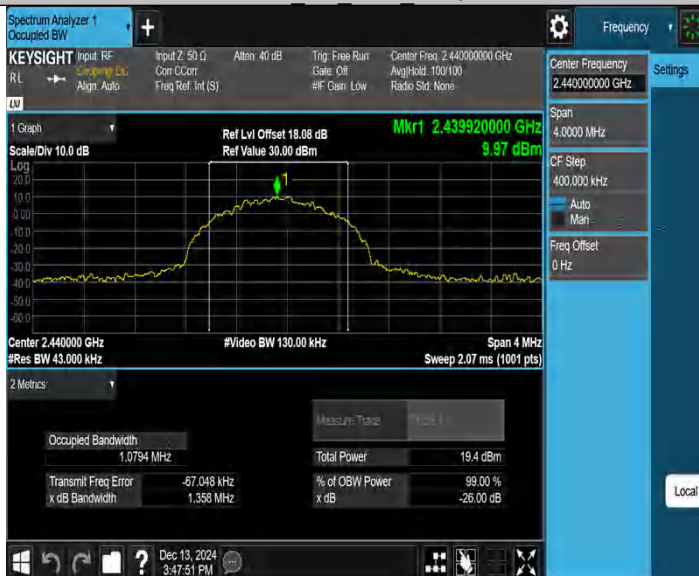
#### Appendix A.4: Test Results of 99% Bandwidth

| TestMode | Antenna | Channel | OCB [MHz] | FL[MHz]   | FH[MHz]   | Limit[MHz] | Verdict |
|----------|---------|---------|-----------|-----------|-----------|------------|---------|
| BLE_1M   | Ant1    | 2402    | 1.0772    | 2401.4019 | 2402.4791 | ---        | ---     |
|          |         | 2440    | 1.0794    | 2439.3933 | 2440.4727 | ---        | ---     |
|          |         | 2480    | 1.0788    | 2479.3915 | 2480.4703 | ---        | ---     |
| BLE_2M   | Ant1    | 2402    | 2.1179    | 2400.8879 | 2403.0058 | ---        | ---     |
|          |         | 2440    | 2.0966    | 2438.8971 | 2440.9937 | ---        | ---     |
|          |         | 2480    | 2.1214    | 2478.8827 | 2481.0041 | ---        | ---     |

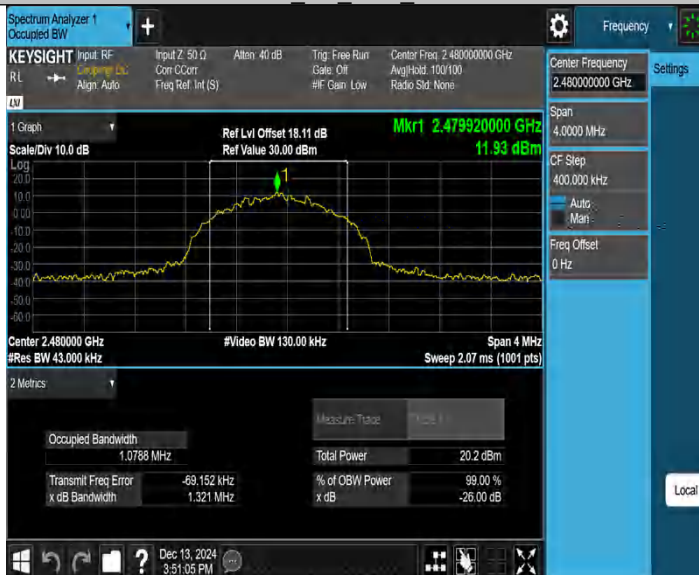
BLE 1M Ant1 2402



BLE 1M Ant1 2440



BLE 1M Ant1 2480



BLE 2M Ant1 2402



BLE 2M Ant1 2440



BLE 2M Ant1 2480



## Appendix A.5: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

Band Edge

| TestMode | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|--------|---------|---------------|-------------|------------|---------|
| BLE_1M   | Ant1    | Low    | 2402    | 12.15         | -40.69      | ≤-7.85     | PASS    |
|          |         | High   | 2480    | 12.90         | -44.57      | ≤-7.10     | PASS    |
| BLE_2M   | Ant1    | Low    | 2402    | 12.84         | -42.03      | ≤-7.16     | PASS    |
|          |         | High   | 2480    | 12.93         | -43.81      | ≤-7.07     | PASS    |

BLE 1M\_Ant1\_Low\_2402



BLE 1M\_Ant1\_High\_2480



BLE 2M\_Ant1\_Low\_2402



BLE 2M\_Ant1\_High\_2480



### Conducted Spurious Emission

| TestMode | Antenna | Channel | FreqRange [MHz] | RefLevel [dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-----------------|----------------|-------------|------------|---------|
| BLE_1M   | Ant1    | 2402    | Reference       | 12.14          | 12.14       | ---        | PASS    |
|          |         |         | 30~1000         | 12.14          | -41.32      | ≤-7.86     | PASS    |
|          |         |         | 1000~26500      | 12.14          | -32.17      | ≤-7.86     | PASS    |
|          |         | 2440    | Reference       | 14.45          | 14.45       | ---        | PASS    |
|          |         |         | 30~1000         | 14.45          | -41.62      | ≤-5.55     | PASS    |
|          |         |         | 1000~26500      | 14.45          | -31.99      | ≤-5.55     | PASS    |
|          |         | 2480    | Reference       | 14.56          | 14.56       | ---        | PASS    |
|          |         |         | 30~1000         | 14.56          | -41.57      | ≤-5.44     | PASS    |
|          |         |         | 1000~26500      | 14.56          | -32.23      | ≤-5.44     | PASS    |
| BLE_2M   | Ant1    | 2402    | Reference       | 12.71          | 12.71       | ---        | PASS    |
|          |         |         | 30~1000         | 12.71          | -41.31      | ≤-7.29     | PASS    |
|          |         |         | 1000~26500      | 12.71          | -31.9       | ≤-7.29     | PASS    |
|          |         | 2440    | Reference       | 14.01          | 14.01       | ---        | PASS    |
|          |         |         | 30~1000         | 14.01          | -41.28      | ≤-5.99     | PASS    |
|          |         |         | 1000~26500      | 14.01          | -31.17      | ≤-5.99     | PASS    |
|          |         | 2480    | Reference       | 15.14          | 15.14       | ---        | PASS    |
|          |         |         | 30~1000         | 15.14          | -40.83      | ≤-4.86     | PASS    |
|          |         |         | 1000~26500      | 15.14          | -32.65      | ≤-4.86     | PASS    |

BLE\_1M\_Ant1\_2402\_0~Reference



BLE\_1M\_Ant1\_2402\_30~1000



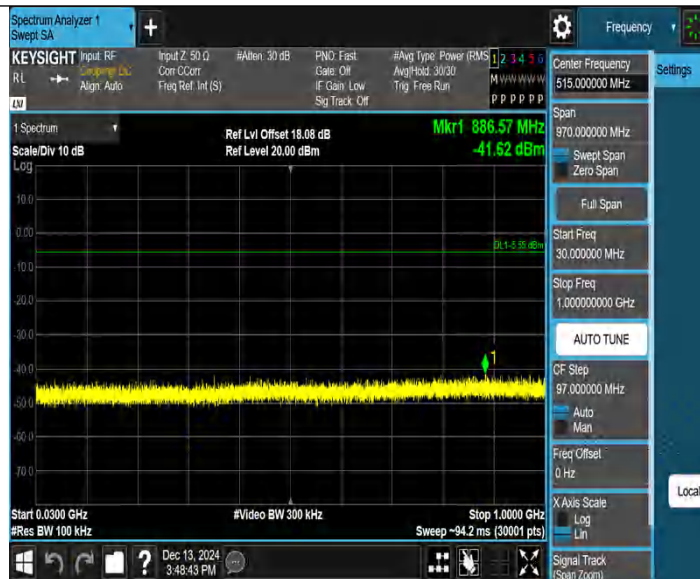
BLE 1M Ant1 2402 1000~26500



BLE 1M Ant1 2440 0~Reference



BLE 1M Ant1 2440 30~1000



BLE 1M Ant1 2440 1000~26500



BLE 1M Ant1 2480 0~Reference



BLE 1M Ant1 2480 30~1000



BLE 1M Ant1 2480 1000~26500



BLE 2M Ant1 2402 0~Reference



BLE 2M Ant1 2402 30~1000



BLE 2M Ant1 2402 1000~26500



BLE 2M Ant1 2440 0~Reference



BLE 2M Ant1 2440 30~1000



BLE 2M Ant1 2440 1000~26500



BLE 2M Ant1 2480 0~Reference



BLE 2M Ant1 2480 30~1000



BLE 2M Ant1 2480 1000~26500



## Appendix A.6: Test Results of Radiated Spurious Emissions

Note:

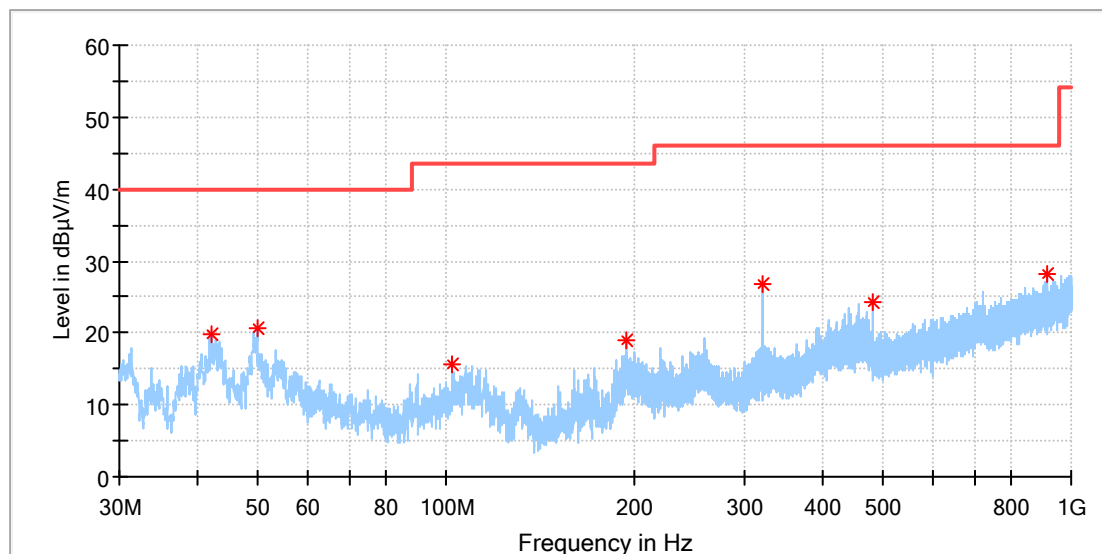
- 1) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

30 MHz - 1GHz(Worst case)

# Test Report

## EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: BLE 1M\_Mid channel  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 42.087692       | 19.87            | 40.00          | 20.13       | 100.0       | H   | 163.0         | -19.7        |
| 49.847692       | 20.54            | 40.00          | 19.46       | 100.0       | H   | 187.0         | -18.4        |
| 101.929231      | 15.58            | 43.50          | 27.92       | 100.0       | H   | 229.0         | -19.0        |
| 193.706154      | 19.02            | 43.50          | 24.48       | 100.0       | H   | 245.0         | -19.4        |
| 319.992692      | 26.89            | 46.00          | 19.11       | 100.0       | H   | 7.0           | -15.7        |
| 480.005385      | 24.31            | 46.00          | 21.69       | 100.0       | H   | 354.0         | -12.1        |
| 913.856539      | 28.21            | 46.00          | 17.79       | 100.0       | H   | 132.0         | -4.7         |

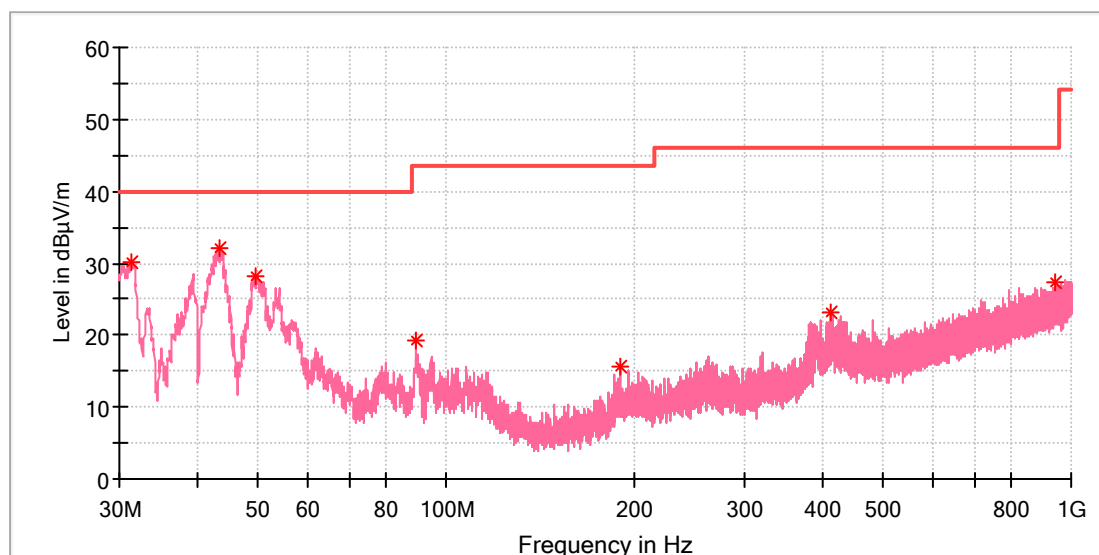
## Final\_Result

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

# Test Report

## EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: BLE 1M\_Mid channel  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 31.380385       | 30.07            | 40.00          | 9.93        | 100.0       | V   | 214.0         | -22.8        |
| 43.281539       | 31.98            | 40.00          | 8.02        | 100.0       | V   | 143.0         | -19.3        |
| 49.735769       | 28.25            | 40.00          | 11.75       | 100.0       | V   | 189.0         | -18.4        |
| 89.617692       | 19.33            | 43.50          | 24.17       | 100.0       | V   | 181.0         | -21.2        |
| 190.385769      | 15.54            | 43.50          | 27.96       | 100.0       | V   | 206.0         | -19.6        |
| 411.918846      | 23.08            | 46.00          | 22.92       | 100.0       | V   | 269.0         | -13.4        |
| 944.374231      | 27.25            | 46.00          | 18.75       | 100.0       | V   | 197.0         | -4.3         |

## Final Result

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

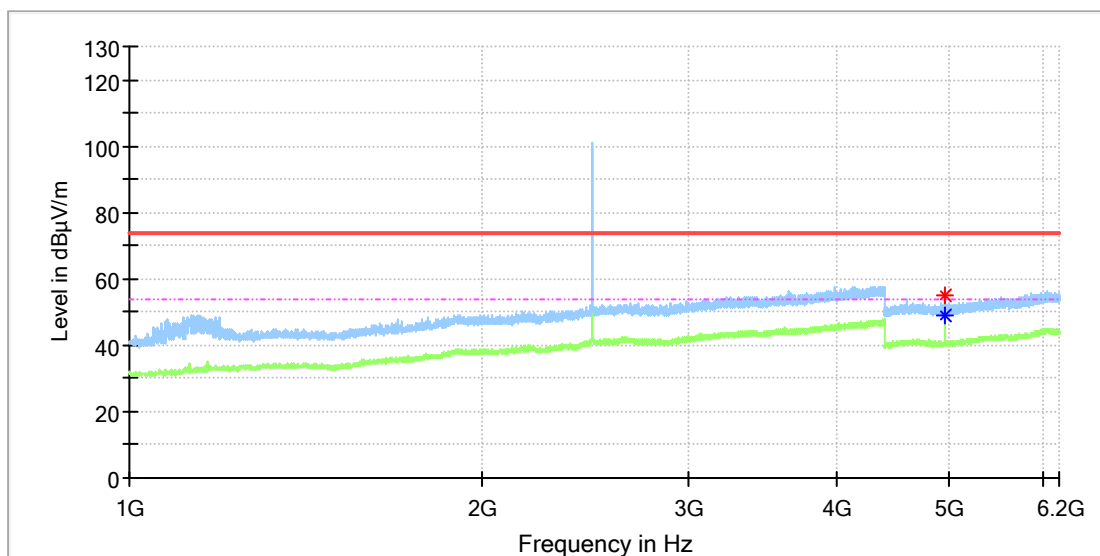
1GHz - 18GHz

Note: The highest waveform in the figure is Bluetooth Fundamental. The test were performed on Lowest, middle, highest channels, here just show the worst case result.

## Test Report

### EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | LED Smart Bulb           |
| Model:              | 14aSA-C500ST-E1T_NA_2P   |
| Test Mode:          | BLE 1M_High channel      |
| Order No/Sample No: | 168516453/A003877474-003 |
| Test Voltage::      | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4960.000000     | 55.31            | ---              | 74.00          | 18.69       | 150.0       | H   | 203.0         | 13.3         |
| 4960.000000     | ---              | 48.94            | 54.00          | 5.06        | 150.0       | H   | 203.0         | 13.3         |

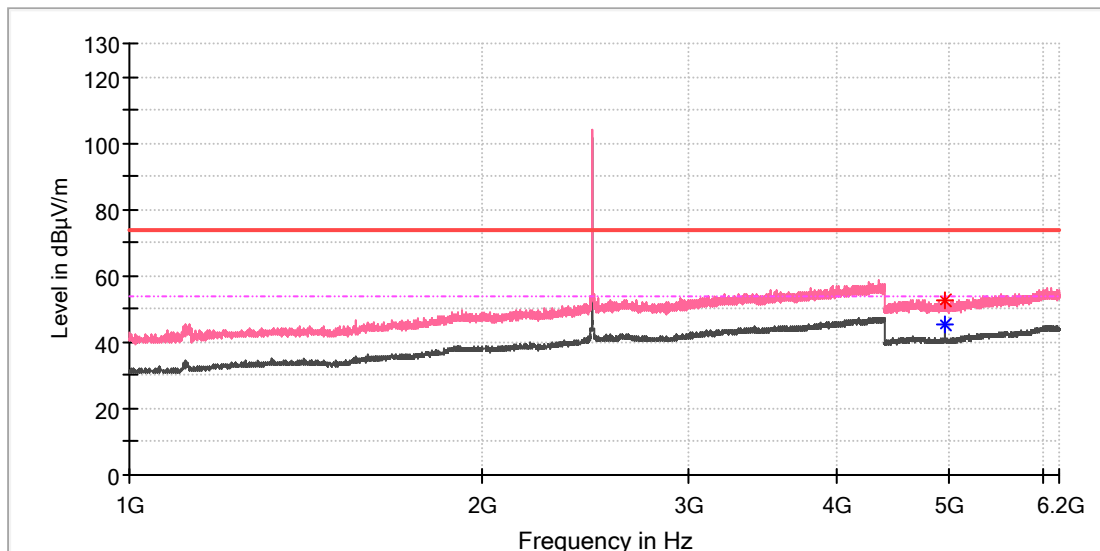
### Final Result

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

## Test Report

### EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: BLE 1M\_High channel  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4959.500000     | ---              | 45.22            | 54.00          | 8.78        | 150.0       | V   | 178.0         | 13.3         |
| 4960.000000     | 52.67            | ---              | 74.00          | 21.33       | 150.0       | V   | 178.0         | 13.3         |

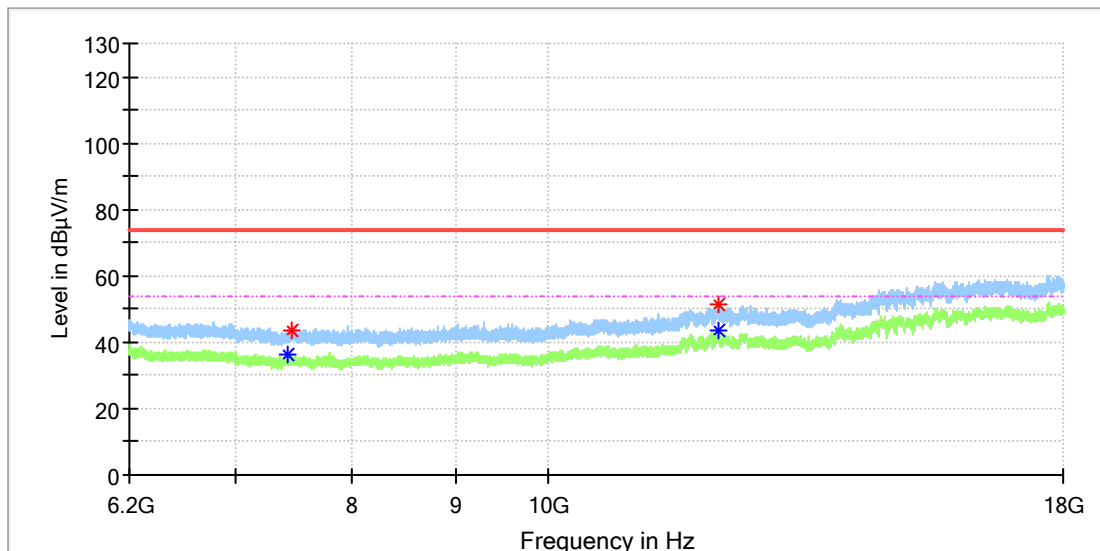
### Final Result

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

# Test Report

## EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: BLE 1M\_High channel  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 7435.066667     | ---              | 36.25            | 54.00          | 17.75       | 150.0       | H   | 277.0         | 8.4          |
| 7458.666667     | 43.31            | ---              | 74.00          | 30.69       | 150.0       | H   | 82.0          | 8.5          |
| 12147.200000    | ---              | 43.74            | 54.00          | 10.26       | 150.0       | H   | 0.0           | 16.7         |
| 12152.116667    | 51.60            | ---              | 74.00          | 22.40       | 150.0       | H   | 17.0          | 16.6         |

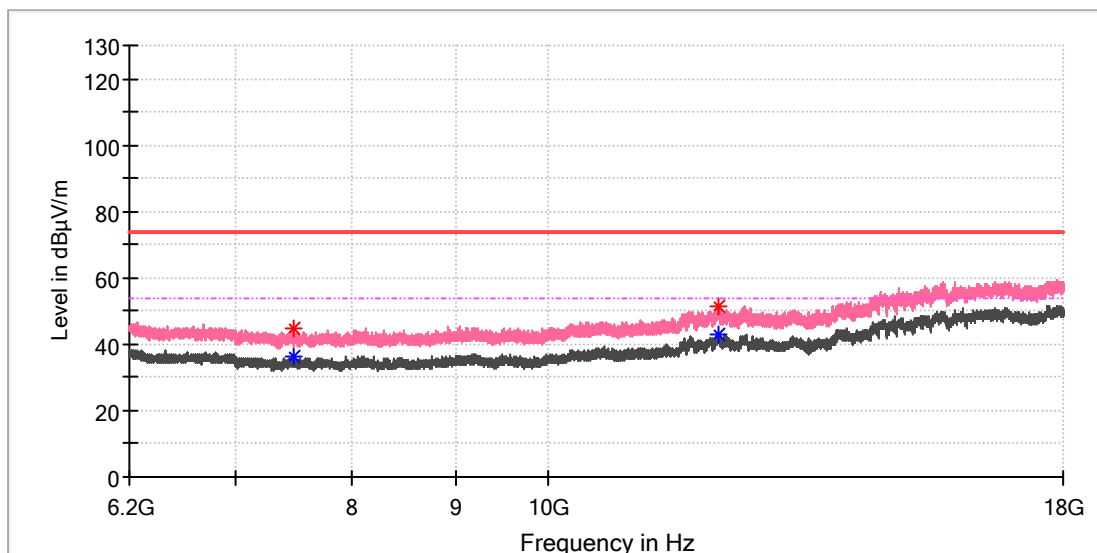
## Final Result

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

## Test Report

### EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: BLE 1M\_High channel  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 7475.875000     | 44.47            | ---              | 74.00          | 29.53       | 150.0       | V   | 248.0         | 8.6          |
| 7479.808333     | ---              | 36.10            | 54.00          | 17.90       | 150.0       | V   | 353.0         | 8.7          |
| 12138.841667    | 51.32            | ---              | 74.00          | 22.68       | 150.0       | V   | 114.0         | 16.4         |
| 12152.608333    | ---              | 43.07            | 54.00          | 10.93       | 150.0       | V   | 190.0         | 16.6         |

### Final Result

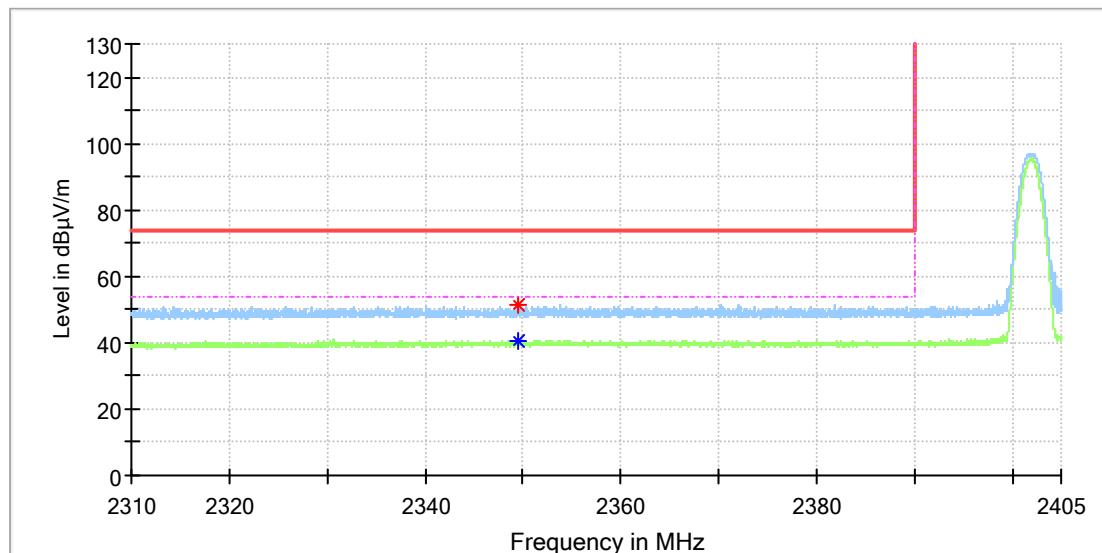
| Frequency (MHz) | MaxPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---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

## Appendix A.7: Test Results of Radiated Emissions in Restricted Bands

# Test Report

### EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: BLE 1M\_Low channel  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2349.508824     | 51.46            | ---              | 74.00          | 22.54       | 150.0       | H   | 290.0         | 8.5          |
| 2349.550735     | ---              | 40.31            | 54.00          | 13.69       | 150.0       | H   | 328.0         | 8.5          |

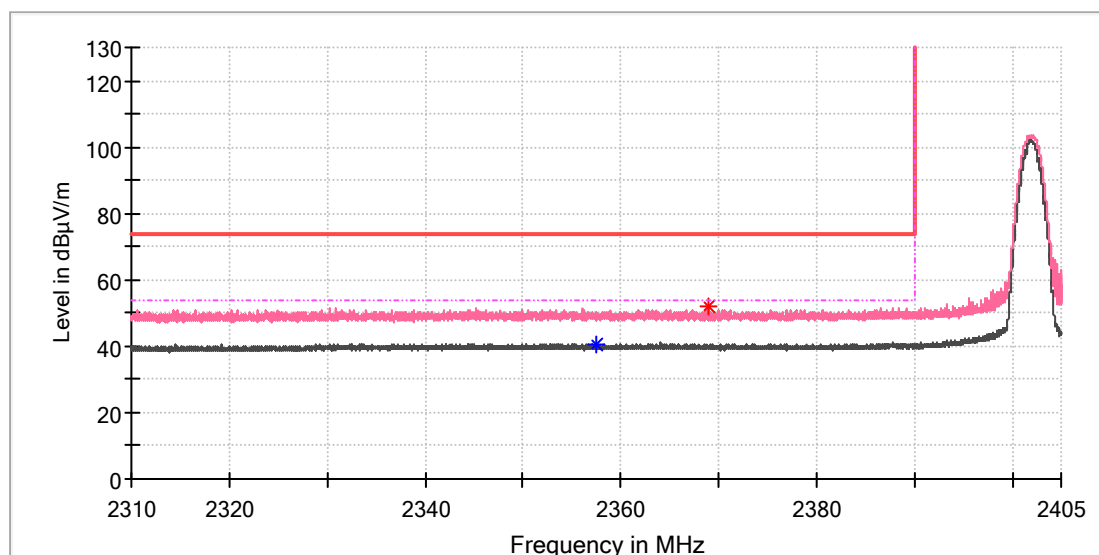
### Final\_Result

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

# Test Report

## EUT Information

EUT Name: LED Smart Bulb  
 Model: 14aSA-C500ST-E1T\_NA\_2P  
 Test Mode: BLE 1M\_Low channel  
 Order No/Sample No: 168516453/A003877474-003  
 Test Voltage:: 120V/60Hz  
 Remark: Temp 23 Humi:53%  
 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2357.402206     | ---              | 40.77            | 54.00          | 13.23       | 150.0       | V   | 247.0         | 8.5          |
| 2368.900000     | 51.74            | ---              | 74.00          | 22.26       | 150.0       | V   | 191.0         | 8.5          |

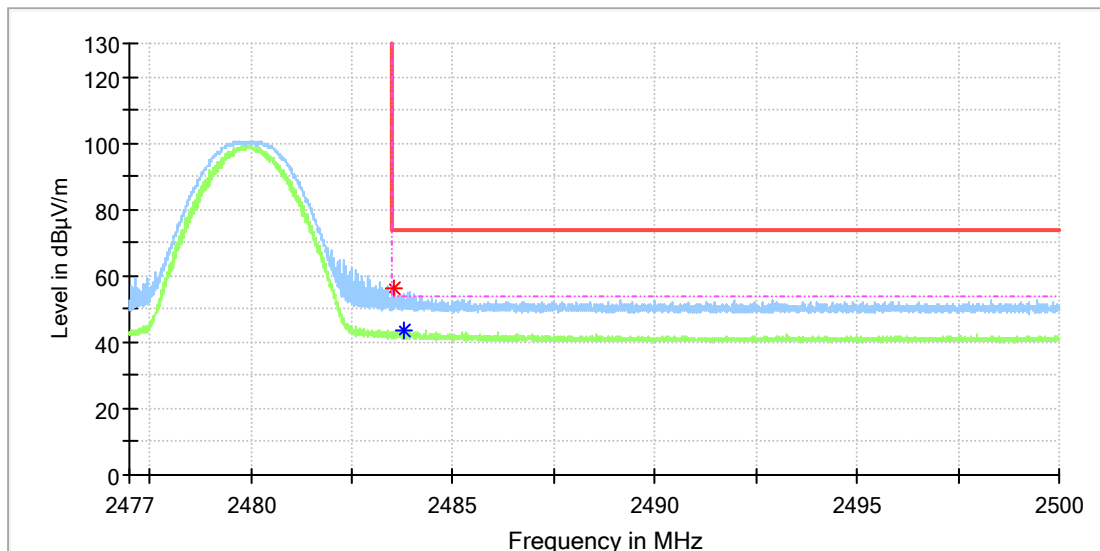
## Final Result

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

## Test Report

### EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | LED Smart Bulb           |
| Model:              | 14aSA-C500ST-E1T_NA_2P   |
| Test Mode:          | BLE 1M_High channel      |
| Order No/Sample No: | 168516453/A003877474-003 |
| Test Voltage::      | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2483.566177     | 56.37            | ---              | 74.00          | 17.63       | 150.0       | H   | 211.0         | 9.0          |
| 2483.801471     | ---              | 43.40            | 54.00          | 10.60       | 150.0       | H   | 327.0         | 9.0          |

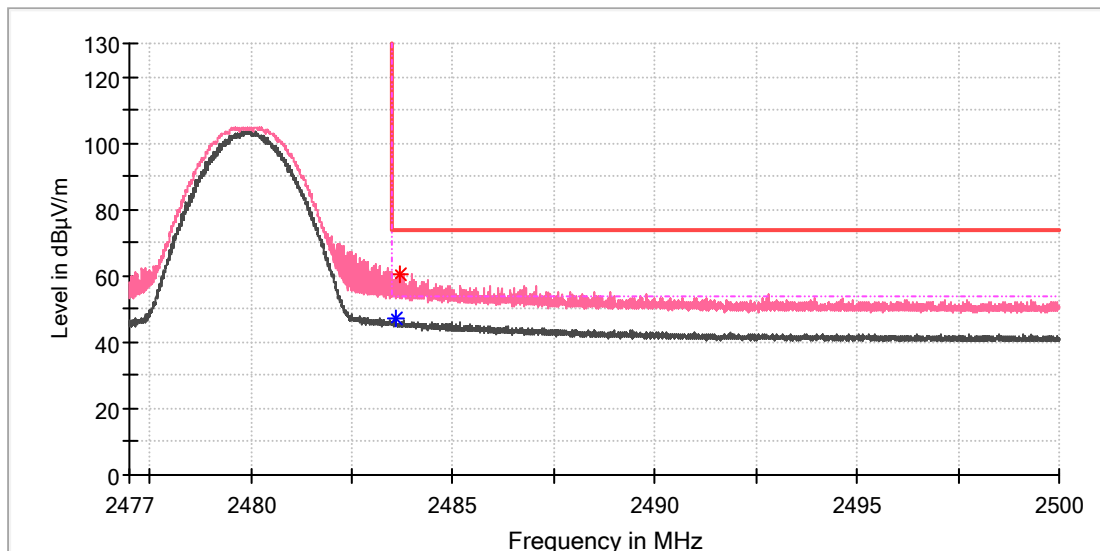
### Final Result

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

## Test Report

### EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: BLE 1M\_High channel  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2483.606618     | ---              | 46.87            | 54.00          | 7.13        | 150.0       | V   | 42.0          | 9.0          |
| 2483.683824     | 60.32            | ---              | 74.00          | 13.68       | 150.0       | V   | 208.0         | 9.0          |

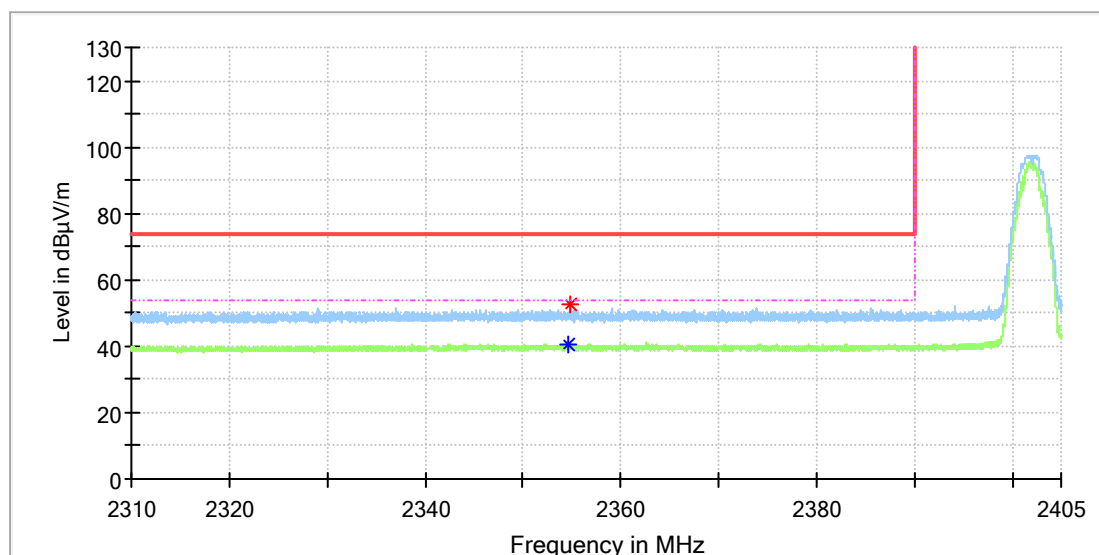
### Final Result

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

# Test Report

## EUT Information

EUT Name: LED Smart Bulb  
 Model: 14aSA-C500ST-E1T\_NA\_2P  
 Test Mode: BLE 2M\_Low channel  
 Order No/Sample No: 168516453/A003877474-003  
 Test Voltage:: 120V/60Hz  
 Remark: Temp 23 Humi:53%  
 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2354.580147     | ---              | 40.68            | 54.00          | 13.33       | 150.0       | H   | 279.0         | 8.5          |
| 2354.789706     | 52.31            | ---              | 74.00          | 21.69       | 150.0       | H   | 335.0         | 8.5          |

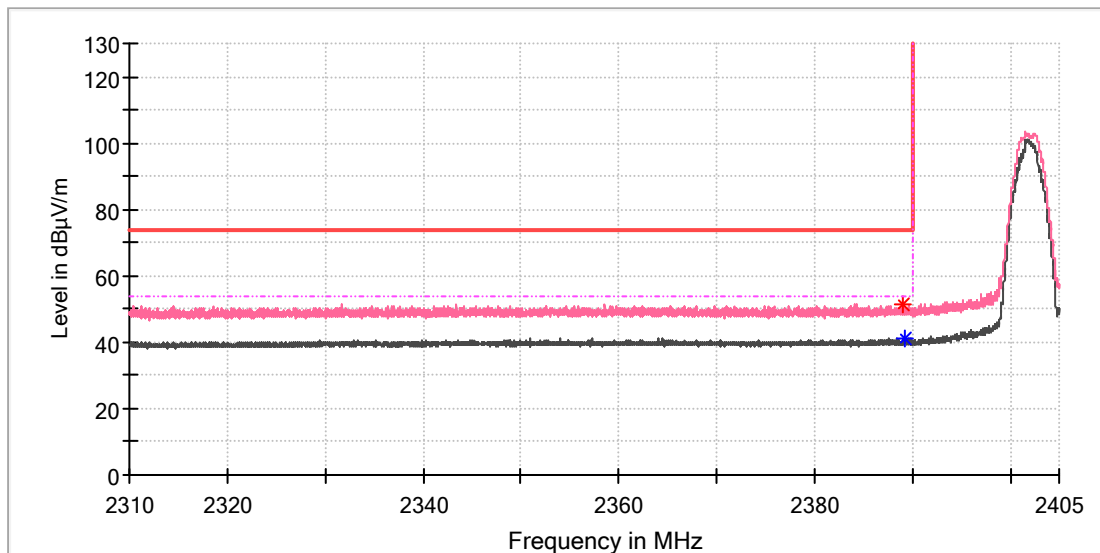
## Final Result

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

## Test Report

### EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: BLE 2M\_Low channel  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2389.087500     | 51.27            | ---              | 74.00          | 22.73       | 150.0       | V   | 110.0         | 8.5          |
| 2389.269118     | ---              | 41.12            | 54.00          | 12.88       | 150.0       | V   | 1.0           | 8.5          |

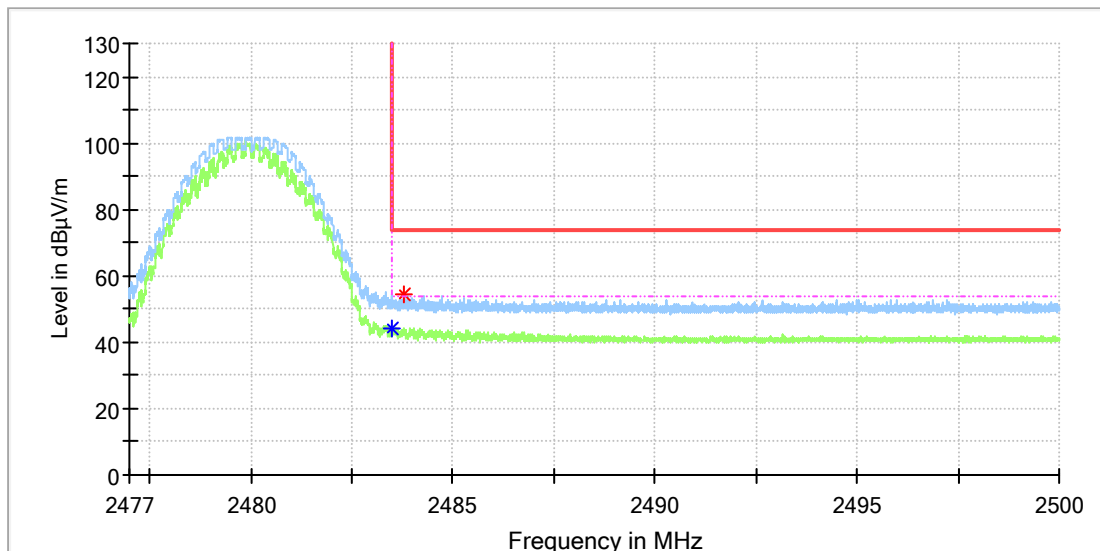
### Final Result

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

## Test Report

### EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | LED Smart Bulb           |
| Model:              | 14aSA-C500ST-E1T_NA_2P   |
| Test Mode:          | BLE 2M_High channel      |
| Order No/Sample No: | 168516453/A003877474-003 |
| Test Voltage::      | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2483.507353     | ---              | 44.40            | 54.00          | 9.60        | 150.0       | H   | 123.0         | 9.0          |
| 2483.812500     | 54.61            | ---              | 74.00          | 19.39       | 150.0       | H   | 254.0         | 9.0          |

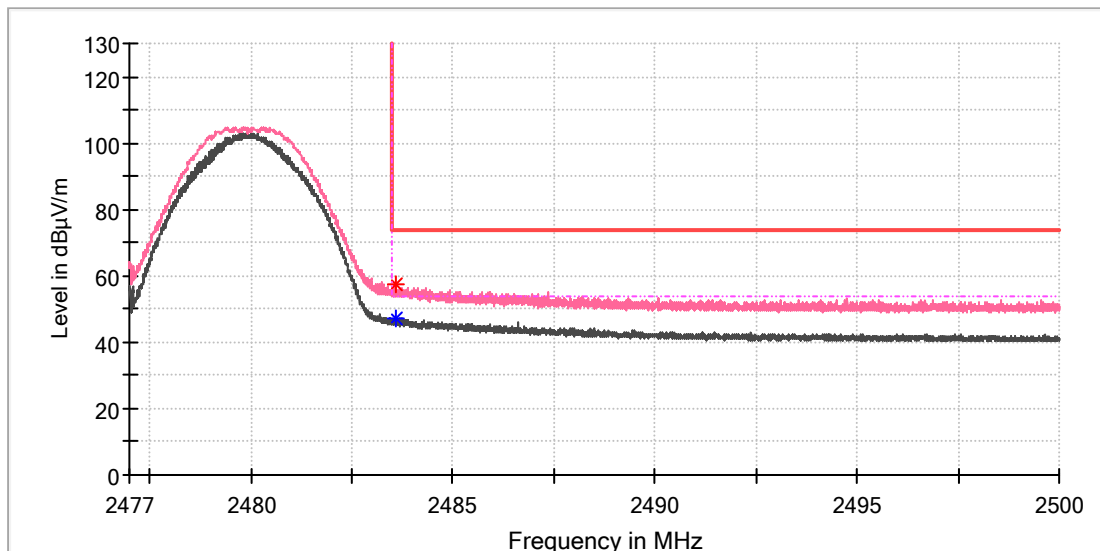
### Final Result

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

## Test Report

### EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | LED Smart Bulb           |
| Model:              | 14aSA-C500ST-E1T_NA_2P   |
| Test Mode:          | BLE 2M_High channel      |
| Order No/Sample No: | 168516453/A003877474-003 |
| Test Voltage::      | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2483.591912     | ---              | 47.27            | 54.00          | 6.73        | 150.0       | V   | 288.0         | 9.0          |
| 2483.595588     | 57.60            | ---              | 74.00          | 16.40       | 150.0       | V   | 259.0         | 9.0          |

### Final Result

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

---End of appendix---

## Appendix B: Test Results of 2.4GHz Wi-Fi

|                                                                                                       |           |
|-------------------------------------------------------------------------------------------------------|-----------|
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## Appendix B.1: Test Results of Maximum conducted output power

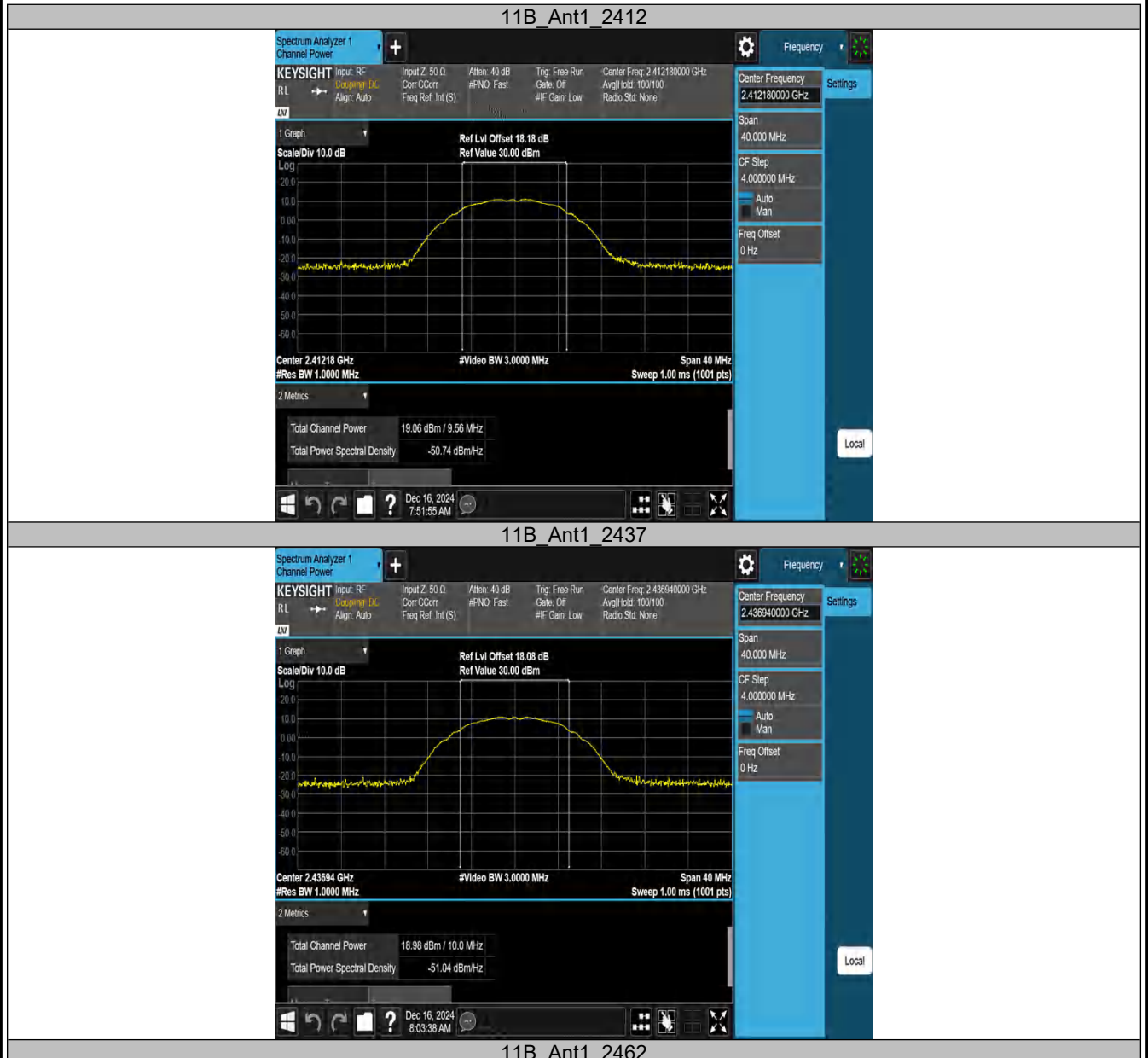
### Test Result PK

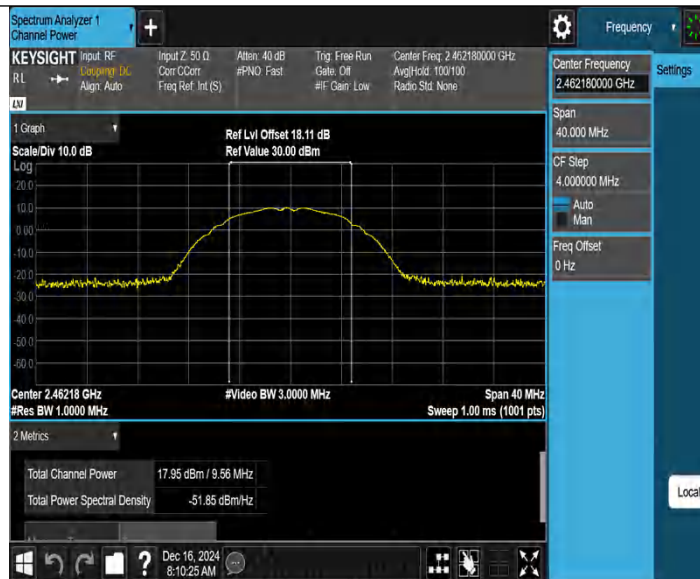
| TestMode  | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|---------|-------------|------------|---------|
| 11B       | Ant1    | 2412    | 19.06       | ≤30.00     | PASS    |
|           |         | 2437    | 18.98       | ≤30.00     | PASS    |
|           |         | 2462    | 17.95       | ≤30.00     | PASS    |
| 11G       | Ant1    | 2412    | 22.38       | ≤30.00     | PASS    |
|           |         | 2437    | 22.09       | ≤30.00     | PASS    |
|           |         | 2462    | 21.39       | ≤30.00     | PASS    |
| 11N20SISO | Ant1    | 2412    | 21.61       | ≤30.00     | PASS    |
|           |         | 2437    | 22.79       | ≤30.00     | PASS    |
|           |         | 2462    | 21.89       | ≤30.00     | PASS    |
| 11N40SISO | Ant1    | 2422    | 22.25       | ≤30.00     | PASS    |
|           |         | 2437    | 21.91       | ≤30.00     | PASS    |
|           |         | 2452    | 21.55       | ≤30.00     | PASS    |

### Test Result AV

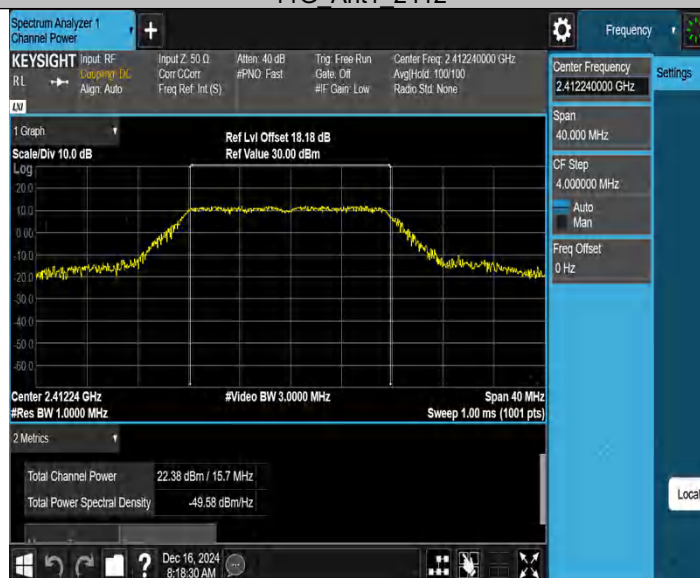
| TestMode  | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|---------|-------------|------------|---------|
| 11B       | Ant1    | 2412    | 16.23       | ≤30.00     | PASS    |
|           |         | 2437    | 16.01       | ≤30.00     | PASS    |
|           |         | 2462    | 15.36       | ≤30.00     | PASS    |
| 11G       | Ant1    | 2412    | 15.44       | ≤30.00     | PASS    |
|           |         | 2437    | 15.26       | ≤30.00     | PASS    |
|           |         | 2462    | 14.47       | ≤30.00     | PASS    |
| 11N20SISO | Ant1    | 2412    | 14.61       | ≤30.00     | PASS    |
|           |         | 2437    | 14.59       | ≤30.00     | PASS    |
|           |         | 2462    | 13.66       | ≤30.00     | PASS    |
| 11N40SISO | Ant1    | 2422    | 14.16       | ≤30.00     | PASS    |
|           |         | 2437    | 13.99       | ≤30.00     | PASS    |
|           |         | 2452    | 13.77       | ≤30.00     | PASS    |

## Test Graphs PK

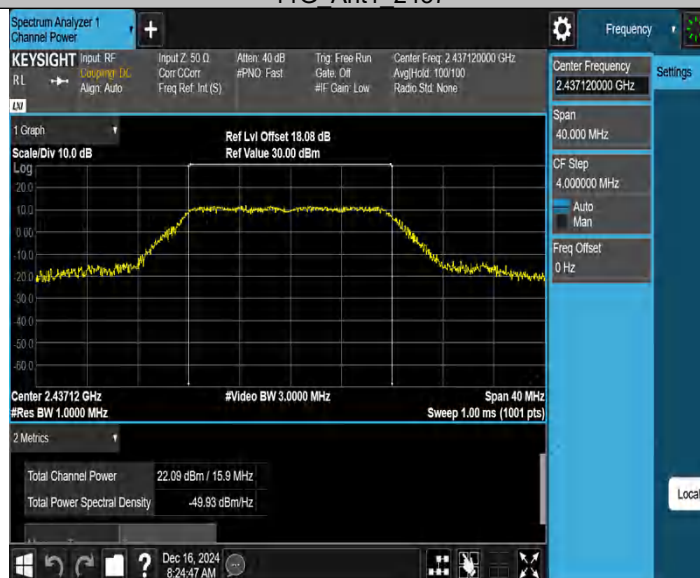




11G\_Ant1\_2412



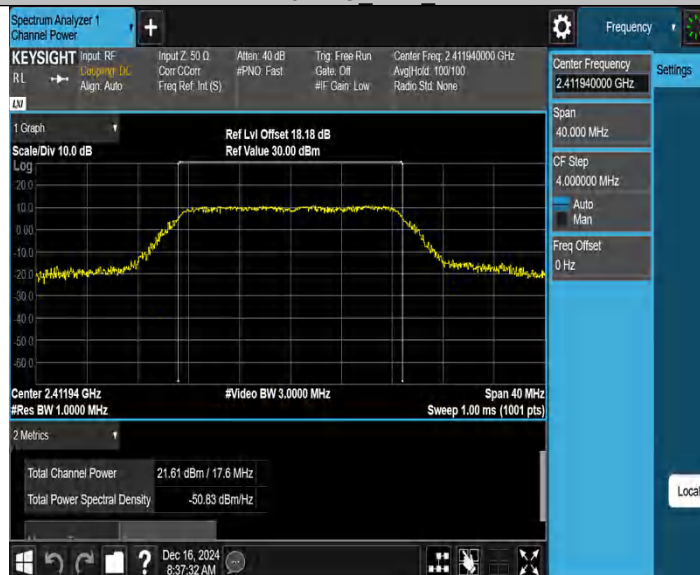
11G\_Ant1\_2437



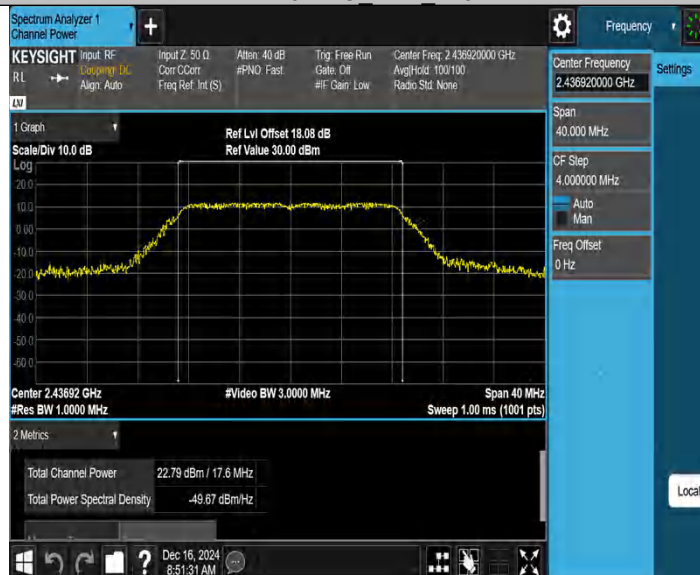
11G\_Ant1\_2462



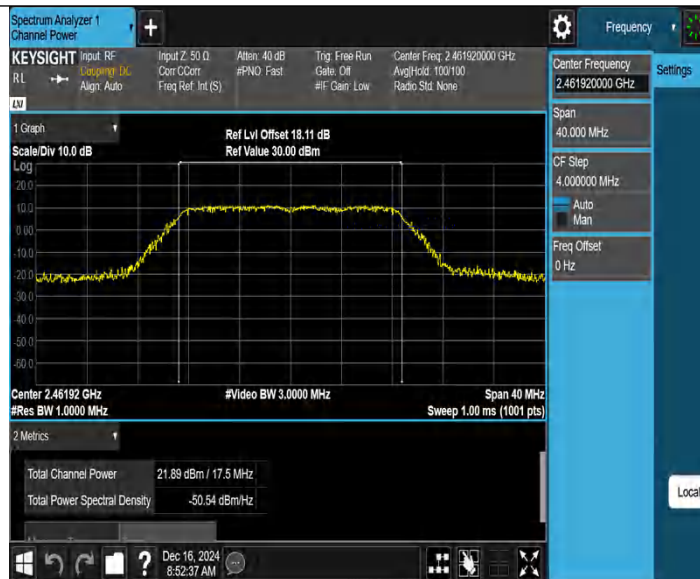
11N20SISO Ant1 2412



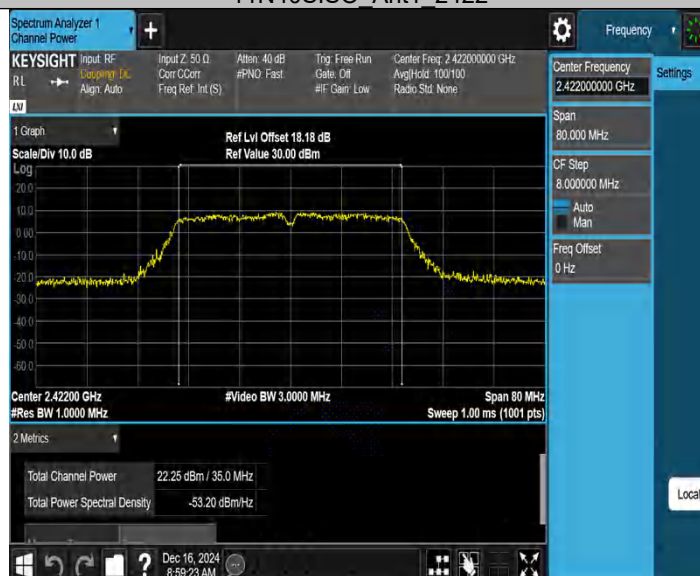
11N20SISO Ant1 2437



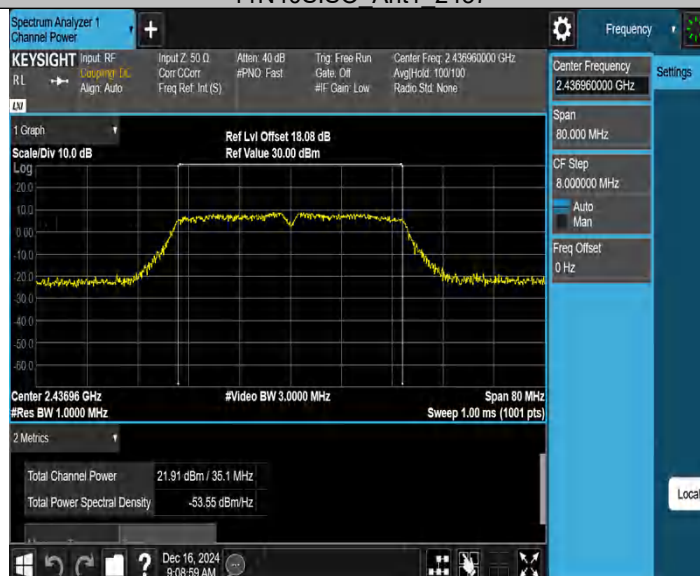
11N20SISO Ant1 2462



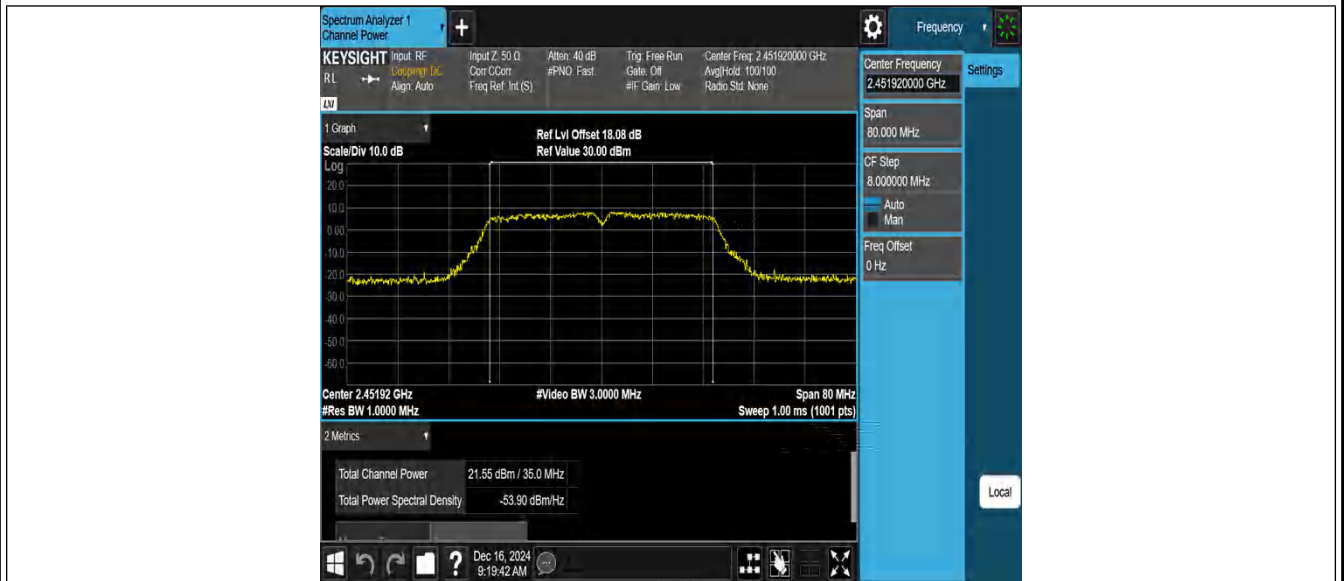
11N40SISO Ant1 2422



11N40SISO Ant1 2437



11N40SISO Ant1 2452



## Appendix B.2: Test Results of Conducted Power Spectral Density

### Test Result

| TestMode  | Antenna | Channel | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|---------|---------|----------------------|-----------------|---------|
| 11B       | Ant1    | 2412    | -7.26                | ≤8.00           | PASS    |
|           |         | 2437    | -7.28                | ≤8.00           | PASS    |
|           |         | 2462    | -7.96                | ≤8.00           | PASS    |
| 11G       | Ant1    | 2412    | -10.03               | ≤8.00           | PASS    |
|           |         | 2437    | -10.33               | ≤8.00           | PASS    |
|           |         | 2462    | -11.25               | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2412    | -10.07               | ≤8.00           | PASS    |
|           |         | 2437    | -10.86               | ≤8.00           | PASS    |
|           |         | 2462    | -11.55               | ≤8.00           | PASS    |
| 11N40SISO | Ant1    | 2422    | -12.40               | ≤8.00           | PASS    |
|           |         | 2437    | -12.86               | ≤8.00           | PASS    |
|           |         | 2452    | -13.28               | ≤8.00           | PASS    |

## Test Graphs

11B\_Ant1\_2412



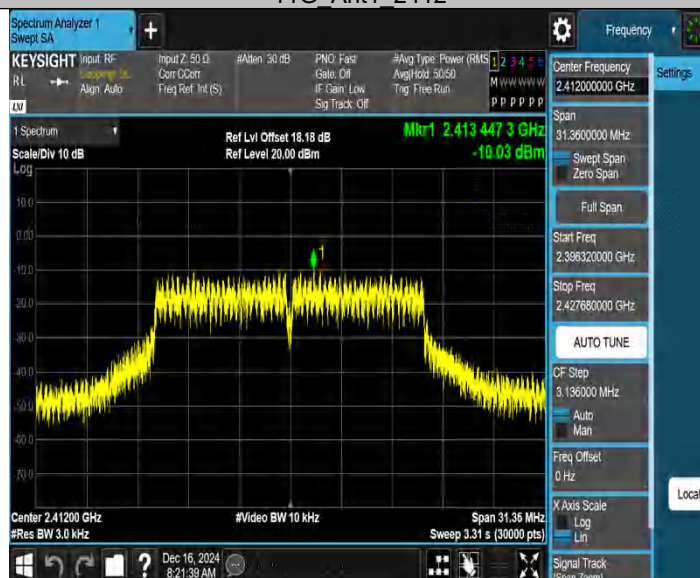
11B\_Ant1\_2437



11B\_Ant1\_2462



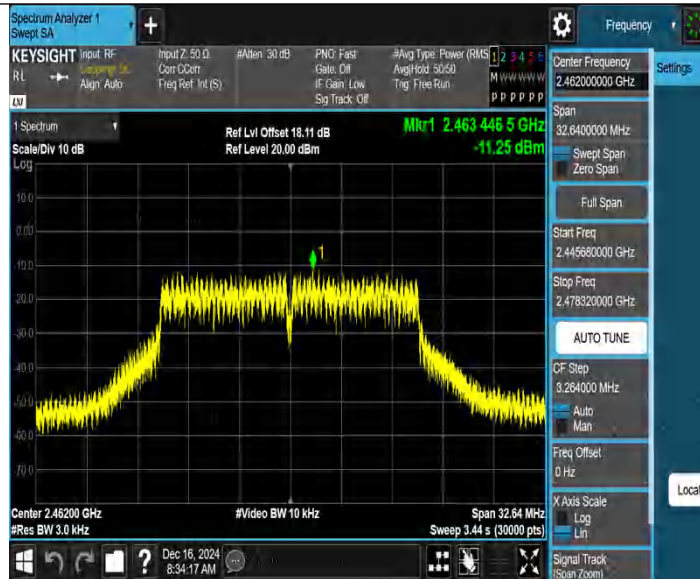
11G\_Ant1\_2412



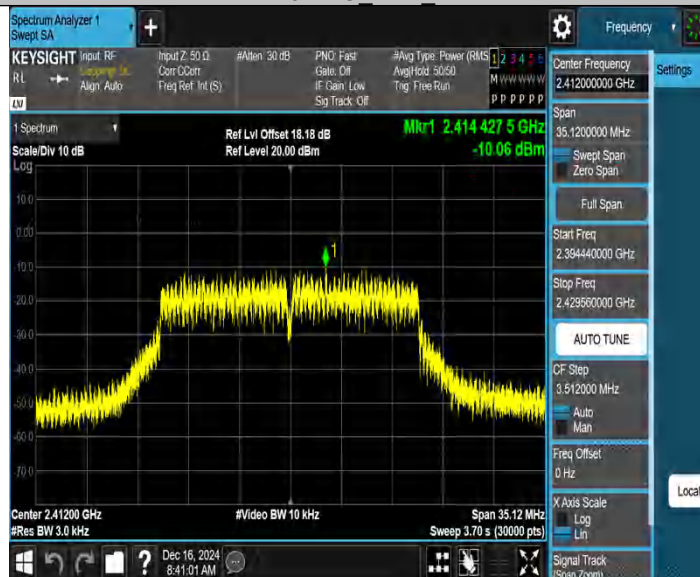
11G\_Ant1\_2437



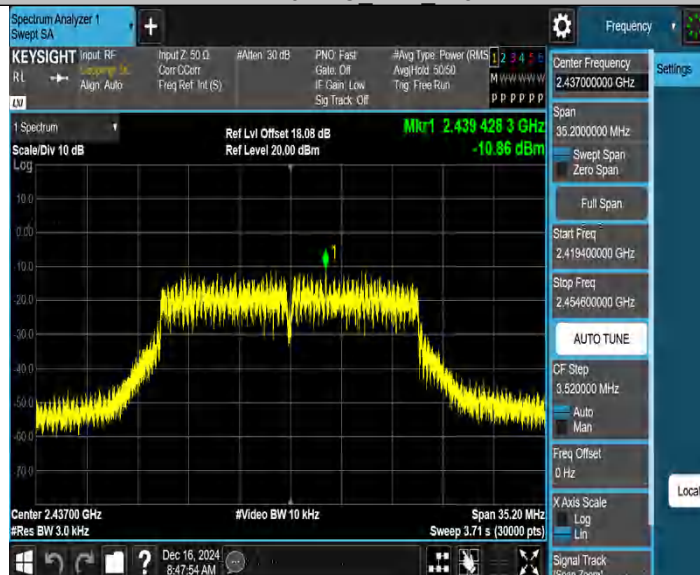
11G\_Ant1\_2462



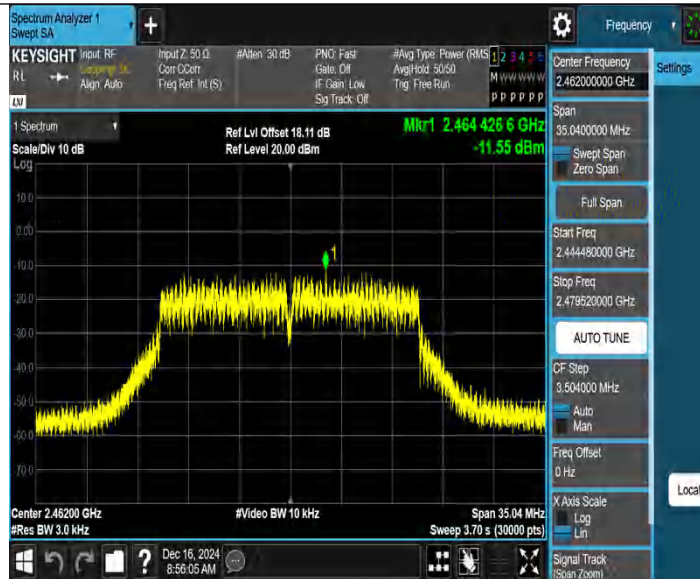
11N20SISO Ant1 2412



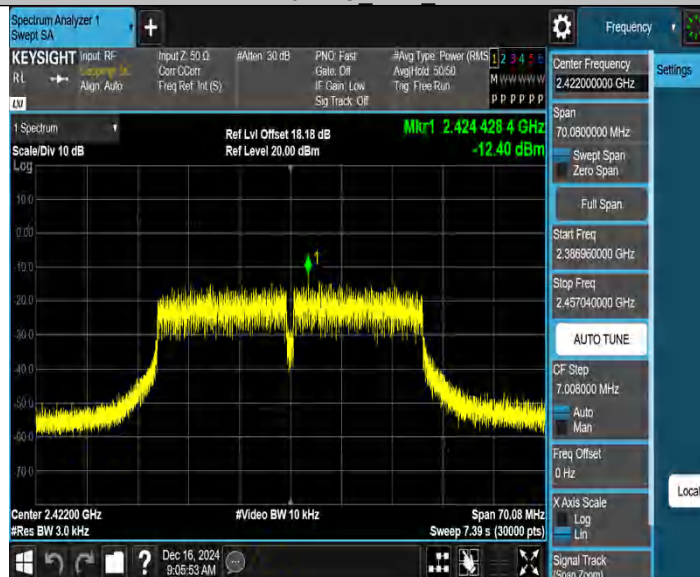
11N20SISO Ant1 2437



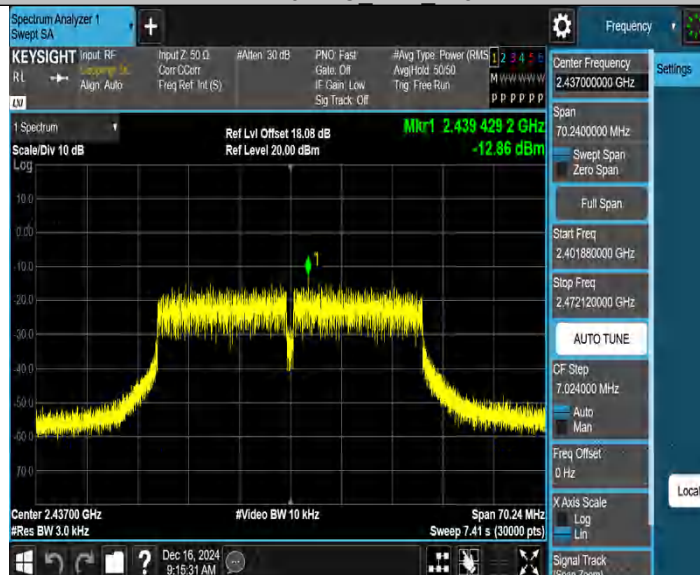
11N20SISO Ant1 2462



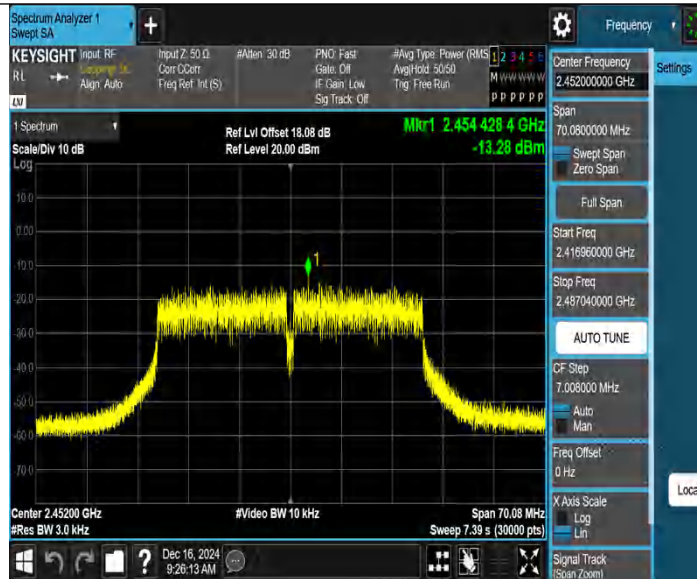
11N40SISO Ant1 2422



11N40SISO Ant1 2437



11N40SISO Ant1 2452



## Appendix B.3: Test Results of 6dB Bandwidth

### Test Result

| TestMode  | Antenna | Channel | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|-----------|---------|---------|--------------|----------|----------|------------|---------|
| 11B       | Ant1    | 2412    | 9.560        | 2407.400 | 2416.960 | 0.5        | PASS    |
|           |         | 2437    | 10.040       | 2431.920 | 2441.960 | 0.5        | PASS    |
|           |         | 2462    | 9.560        | 2457.400 | 2466.960 | 0.5        | PASS    |
| 11G       | Ant1    | 2412    | 15.680       | 2404.400 | 2420.080 | 0.5        | PASS    |
|           |         | 2437    | 15.920       | 2429.160 | 2445.080 | 0.5        | PASS    |
|           |         | 2462    | 16.320       | 2453.760 | 2470.080 | 0.5        | PASS    |
| 11N20SISO | Ant1    | 2412    | 17.560       | 2403.160 | 2420.720 | 0.5        | PASS    |
|           |         | 2437    | 17.600       | 2428.120 | 2445.720 | 0.5        | PASS    |
|           |         | 2462    | 17.520       | 2453.160 | 2470.680 | 0.5        | PASS    |
| 11N40SISO | Ant1    | 2422    | 35.040       | 2404.480 | 2439.520 | 0.5        | PASS    |
|           |         | 2437    | 35.120       | 2419.400 | 2454.520 | 0.5        | PASS    |
|           |         | 2452    | 35.040       | 2434.400 | 2469.440 | 0.5        | PASS    |

## Test Graphs

11B\_Ant1\_2412



11B\_Ant1\_2437



11B\_Ant1\_2462



11G Ant1 2412



11G Ant1 2437



11G Ant1 2462



11N20SISO Ant1 2412



11N20SISO Ant1 2437



11N20SISO Ant1 2462





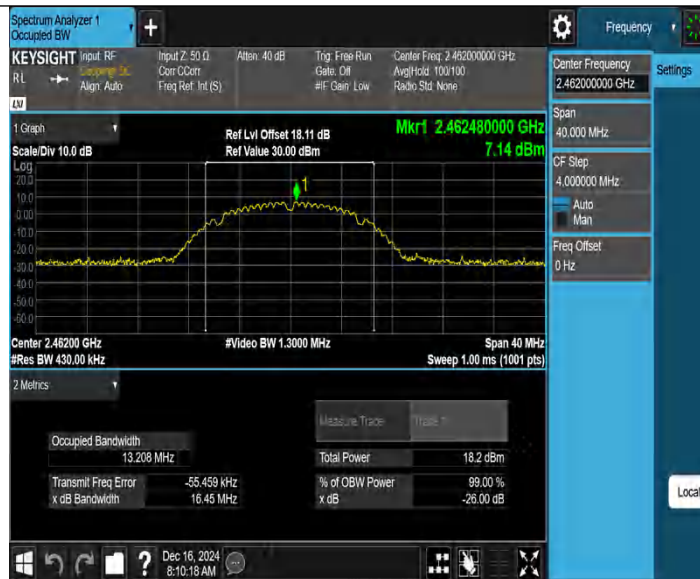
## Appendix B.4: Test Results of 99% Bandwidth

### Test Result

| TestMode  | Antenna | Channel | OCB [MHz] | FL[MHz]   | FH[MHz]   | Limit[MHz] | Verdict |
|-----------|---------|---------|-----------|-----------|-----------|------------|---------|
| 11B       | Ant1    | 2412    | 13.226    | 2405.3542 | 2418.5802 | ---        | ---     |
|           |         | 2437    | 13.205    | 2430.3320 | 2443.5370 | ---        | ---     |
|           |         | 2462    | 13.208    | 2455.3405 | 2468.5485 | ---        | ---     |
| 11G       | Ant1    | 2412    | 18.013    | 2403.0305 | 2421.0435 | ---        | ---     |
|           |         | 2437    | 17.745    | 2428.1078 | 2445.8528 | ---        | ---     |
|           |         | 2462    | 17.730    | 2453.1232 | 2470.8532 | ---        | ---     |
| 11N20SISO | Ant1    | 2412    | 18.673    | 2402.6774 | 2421.3504 | ---        | ---     |
|           |         | 2437    | 18.697    | 2427.5443 | 2446.2413 | ---        | ---     |
|           |         | 2462    | 18.642    | 2452.6236 | 2471.2656 | ---        | ---     |
| 11N40SISO | Ant1    | 2422    | 37.034    | 2403.4920 | 2440.5260 | ---        | ---     |
|           |         | 2437    | 37.088    | 2418.3844 | 2455.4724 | ---        | ---     |
|           |         | 2452    | 37.168    | 2433.2853 | 2470.4533 | ---        | ---     |

## Test Graphs

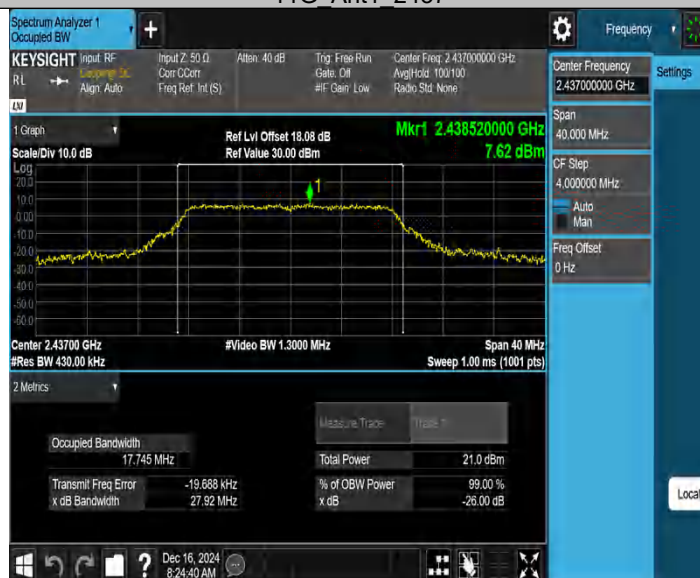




11G Ant1 2412



11G Ant1 2437



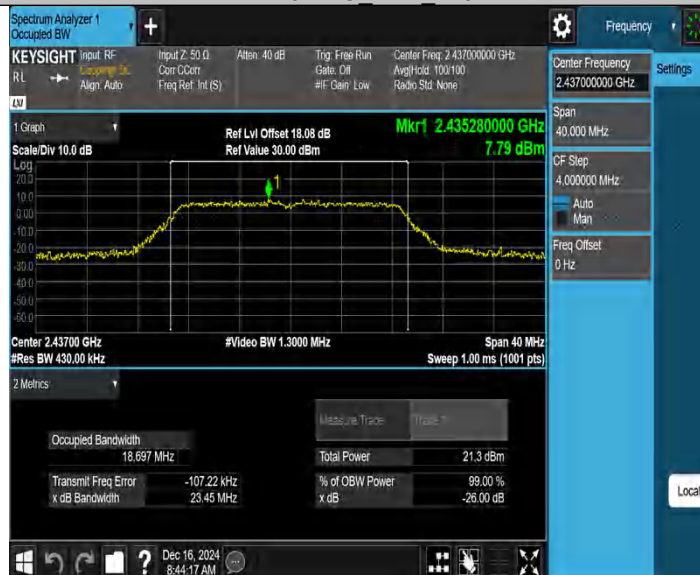
11G Ant1 2462



11N20SISO Ant1 2412



11N20SISO Ant1 2437



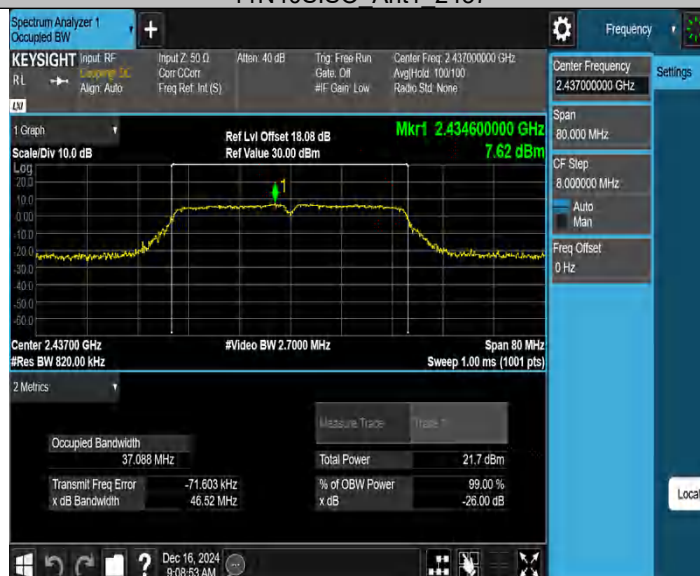
11N20SISO Ant1 2462



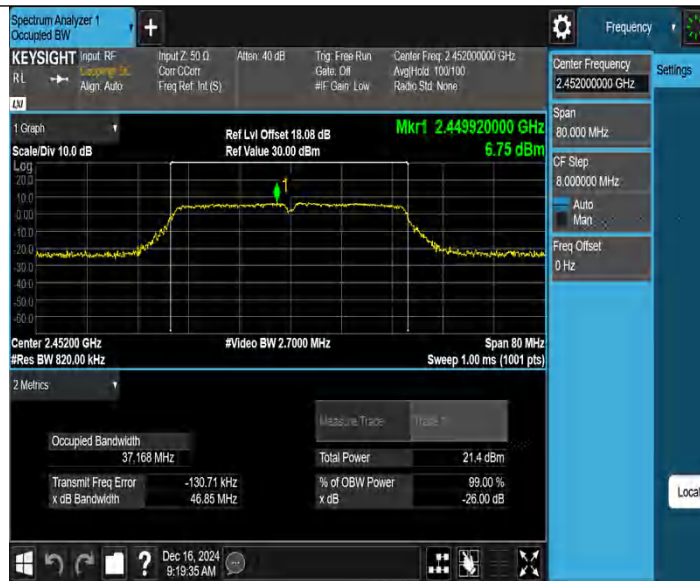
11N40SISO Ant1 2422



11N40SISO Ant1 2437



11N40SISO Ant1 2452



## Appendix B.5: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

Band Edge

### Test Result

| TestMode  | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|--------|---------|---------------|-------------|------------|---------|
| 11B       | Ant1    | Low    | 2412    | 6.56          | -37.8       | ≤-13.44    | PASS    |
|           |         | High   | 2462    | 6.82          | -40.02      | ≤-13.18    | PASS    |
| 11G       | Ant1    | Low    | 2412    | 4.57          | -24.22      | ≤-15.43    | PASS    |
|           |         | High   | 2462    | 3.90          | -38.24      | ≤-16.1     | PASS    |
| 11N20SISO | Ant1    | Low    | 2412    | 4.41          | -27.91      | ≤-15.6     | PASS    |
|           |         | High   | 2462    | 2.00          | -38.96      | ≤-18       | PASS    |
| 11N40SISO | Ant1    | Low    | 2422    | 0.15          | -30.42      | ≤-19.85    | PASS    |
|           |         | High   | 2452    | -0.14         | -35.19      | ≤-20.14    | PASS    |

## Test Graphs





11G Ant1 High 2462



11N20SISO Ant1 Low 2412



11N20SISO Ant1 High 2462



11N40SISO Ant1 Low 2422



11N40SISO Ant1 High 2452

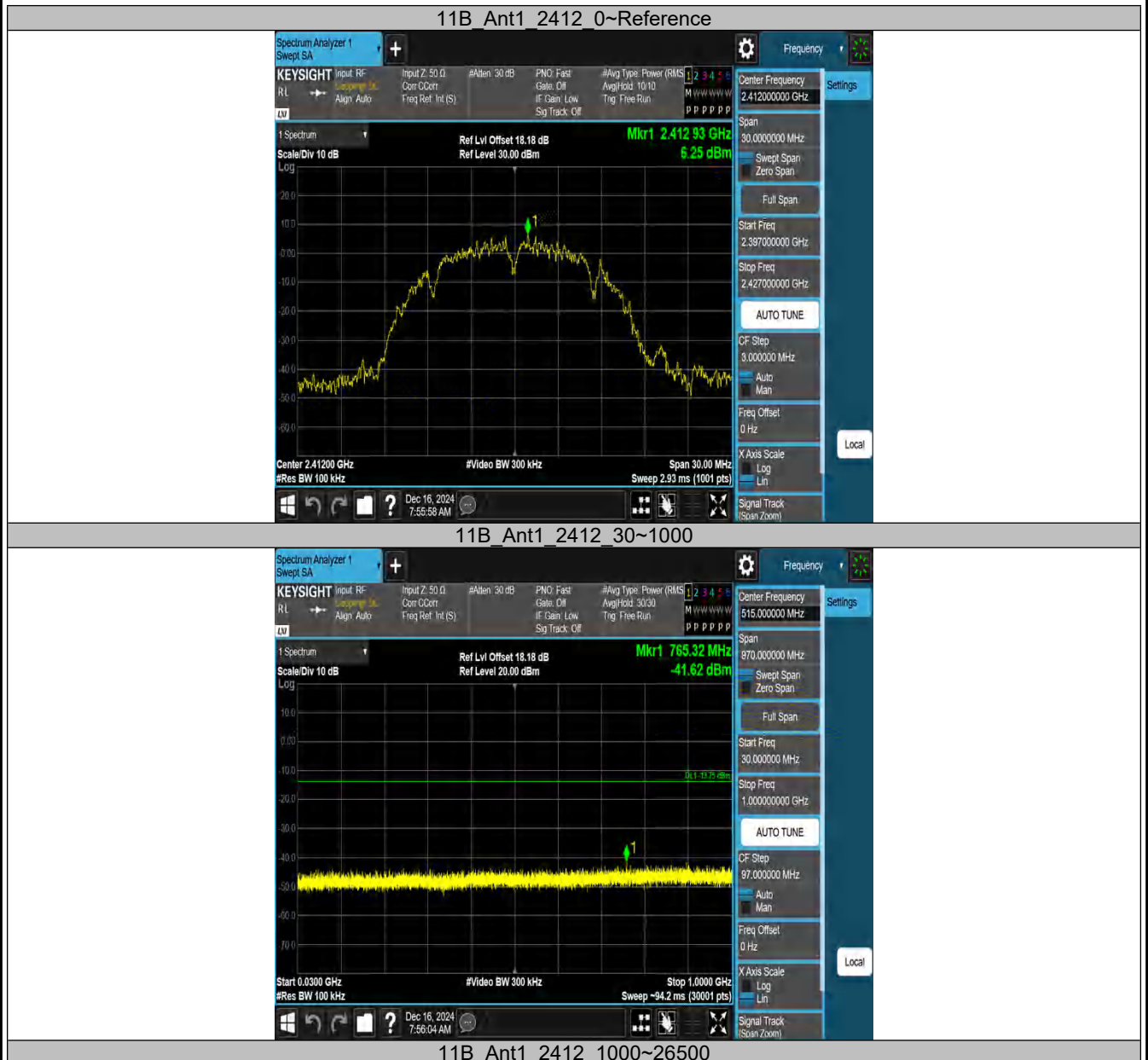


Conducted Spurious Emission

**Test Result**

| TestMode  | Antenna | Channel | FreqRange [Mhz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|-----------|---------|---------|-----------------|----------------|--------------|-------------|---------|
| 11B       | Ant1    | 2412    | Reference       | 6.25           | 6.25         | ---         | PASS    |
|           |         |         | 30~1000         | 6.25           | -41.62       | ≤-13.75     | PASS    |
|           |         |         | 1000~26500      | 6.25           | -33.24       | ≤-13.75     | PASS    |
|           |         | 2437    | Reference       | 6.02           | 6.02         | ---         | PASS    |
|           |         |         | 30~1000         | 6.02           | -41.47       | ≤-13.98     | PASS    |
|           |         |         | 1000~26500      | 6.02           | -31.66       | ≤-13.98     | PASS    |
|           |         | 2462    | Reference       | 5.95           | 5.95         | ---         | PASS    |
|           |         |         | 30~1000         | 5.95           | -42.38       | ≤-14.05     | PASS    |
|           |         |         | 1000~26500      | 5.95           | -32.62       | ≤-14.05     | PASS    |
| 11G       | Ant1    | 2412    | Reference       | 4.04           | 4.04         | ---         | PASS    |
|           |         |         | 30~1000         | 4.04           | -42.01       | ≤-15.96     | PASS    |
|           |         |         | 1000~26500      | 4.04           | -32.9        | ≤-15.96     | PASS    |
|           |         | 2437    | Reference       | 4.30           | 4.30         | ---         | PASS    |
|           |         |         | 30~1000         | 4.30           | -41.7        | ≤-15.7      | PASS    |
|           |         |         | 1000~26500      | 4.30           | -32.75       | ≤-15.7      | PASS    |
|           |         | 2462    | Reference       | -0.13          | -0.13        | ---         | PASS    |
|           |         |         | 30~1000         | -0.13          | -41.66       | ≤-20.13     | PASS    |
|           |         |         | 1000~26500      | -0.13          | -32.42       | ≤-20.13     | PASS    |
| 11N20SISO | Ant1    | 2412    | Reference       | 2.68           | 2.68         | ---         | PASS    |
|           |         |         | 30~1000         | 2.68           | -41.88       | ≤-17.32     | PASS    |
|           |         |         | 1000~26500      | 2.68           | -32.49       | ≤-17.32     | PASS    |
|           |         | 2437    | Reference       | 2.17           | 2.17         | ---         | PASS    |
|           |         |         | 30~1000         | 2.17           | -42.47       | ≤-17.83     | PASS    |
|           |         |         | 1000~26500      | 2.17           | -33.39       | ≤-17.83     | PASS    |
|           |         | 2462    | Reference       | 1.88           | 1.88         | ---         | PASS    |
|           |         |         | 30~1000         | 1.88           | -42.4        | ≤-18.12     | PASS    |
|           |         |         | 1000~26500      | 1.88           | -32.73       | ≤-18.12     | PASS    |
| 11N40SISO | Ant1    | 2422    | Reference       | -0.71          | -0.71        | ---         | PASS    |
|           |         |         | 30~1000         | -0.71          | -42.15       | ≤-20.71     | PASS    |
|           |         |         | 1000~26500      | -0.71          | -33.35       | ≤-20.71     | PASS    |
|           |         | 2437    | Reference       | -0.67          | -0.67        | ---         | PASS    |
|           |         |         | 30~1000         | -0.67          | -41.05       | ≤-20.67     | PASS    |
|           |         |         | 1000~26500      | -0.67          | -32.56       | ≤-20.67     | PASS    |
|           |         | 2452    | Reference       | -1.82          | -1.82        | ---         | PASS    |
|           |         |         | 30~1000         | -1.82          | -42.25       | ≤-21.82     | PASS    |
|           |         |         | 1000~26500      | -1.82          | -33.37       | ≤-21.82     | PASS    |

## Test Graphs





11B\_Ant1\_2437\_0~Reference



11B\_Ant1\_2437\_30~1000



11B\_Ant1\_2437\_1000~26500



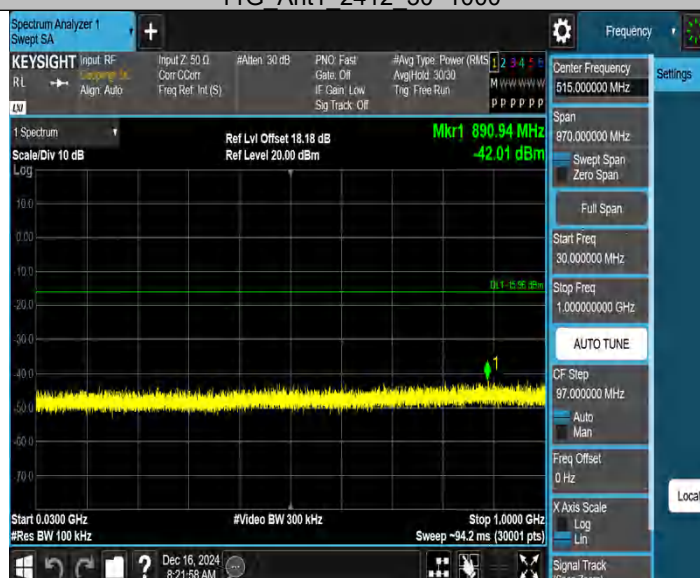
11B\_Ant1\_2462\_0~Reference



11B\_Ant1\_2462\_30~1000

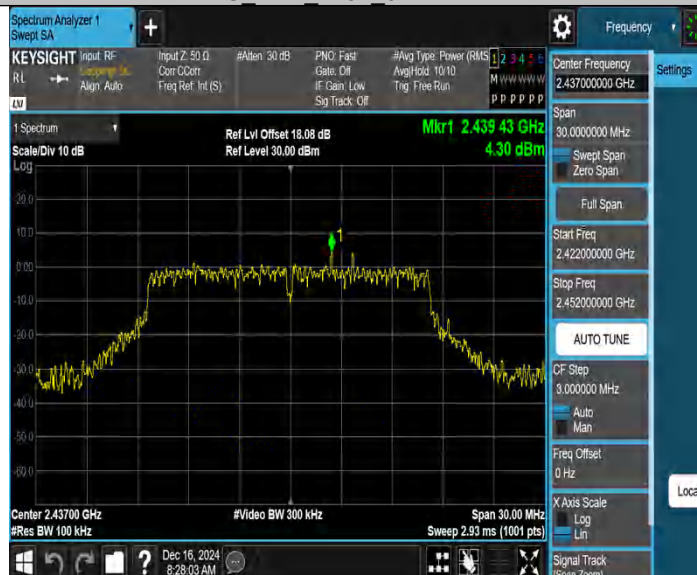


11B\_Ant1\_2462\_1000~26500

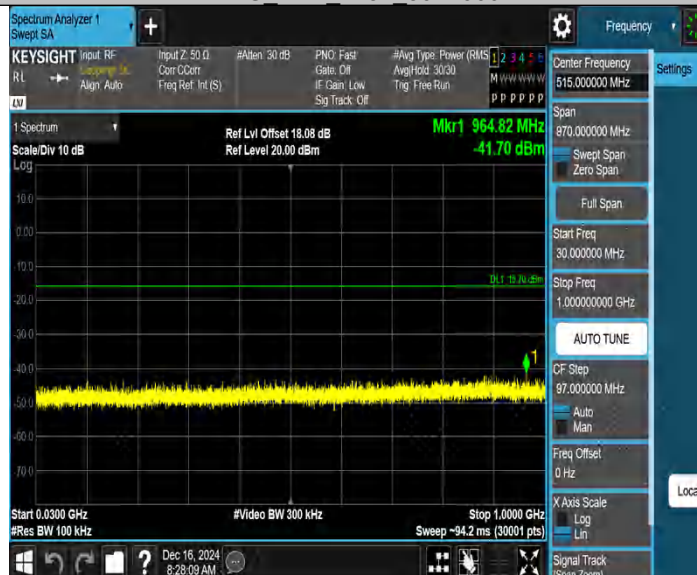




11G\_Ant1\_2437\_0~Reference



11G\_Ant1\_2437\_30~1000



11G\_Ant1\_2437\_1000~26500



11G\_Ant1\_2462\_0~Reference



11G\_Ant1\_2462\_30~1000

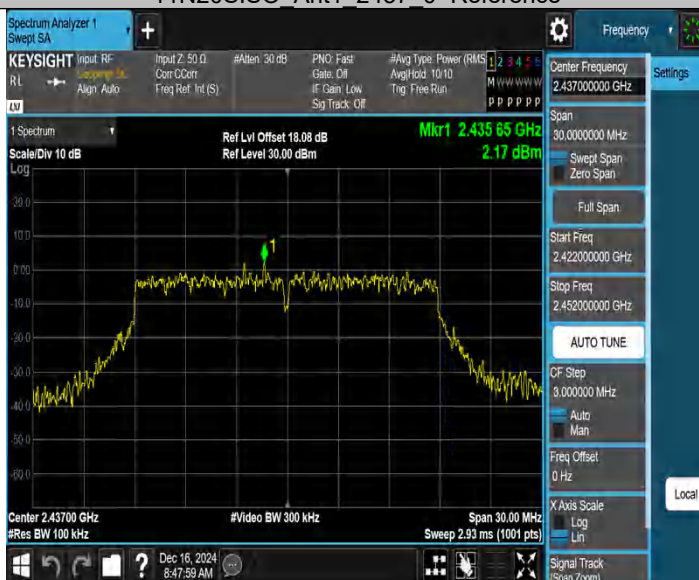


11G\_Ant1\_2462\_1000~26500





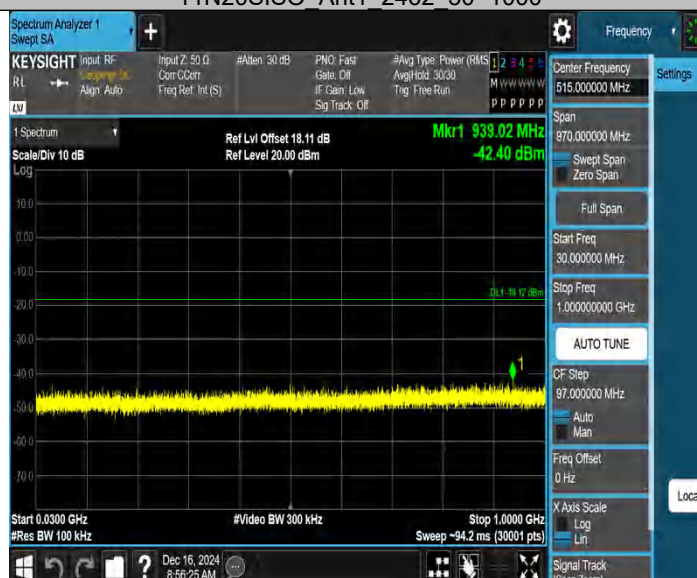
11N20SISO\_Ant1\_2437\_0~Reference

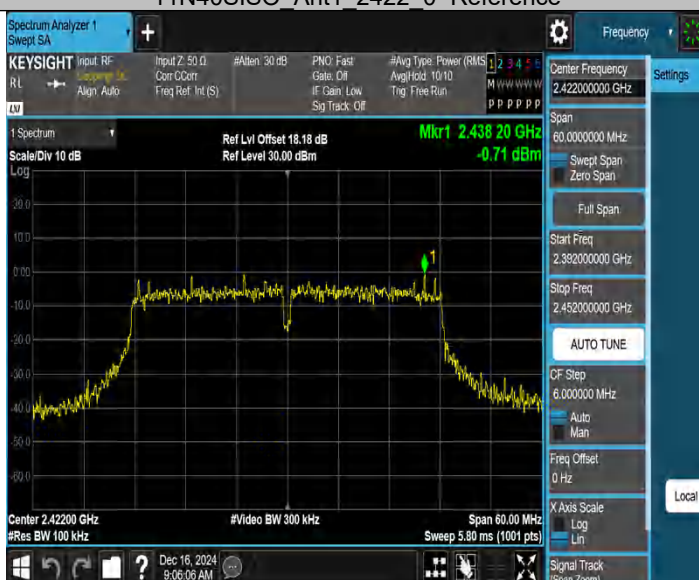


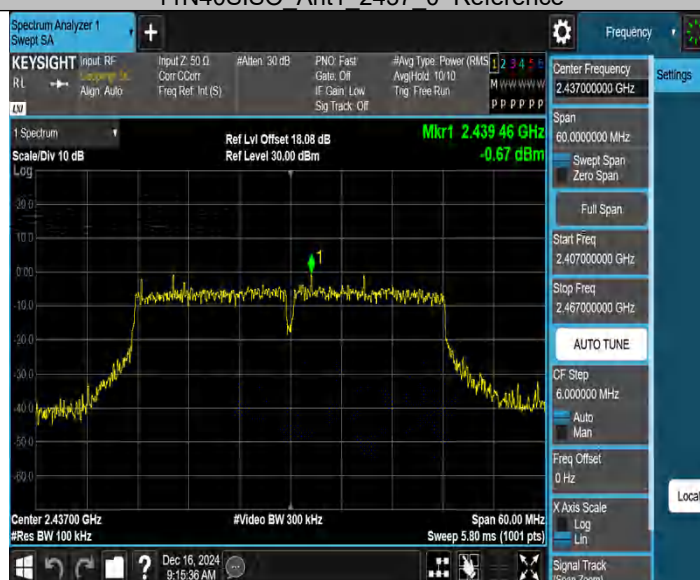
11N20SISO\_Ant1\_2437\_30~1000

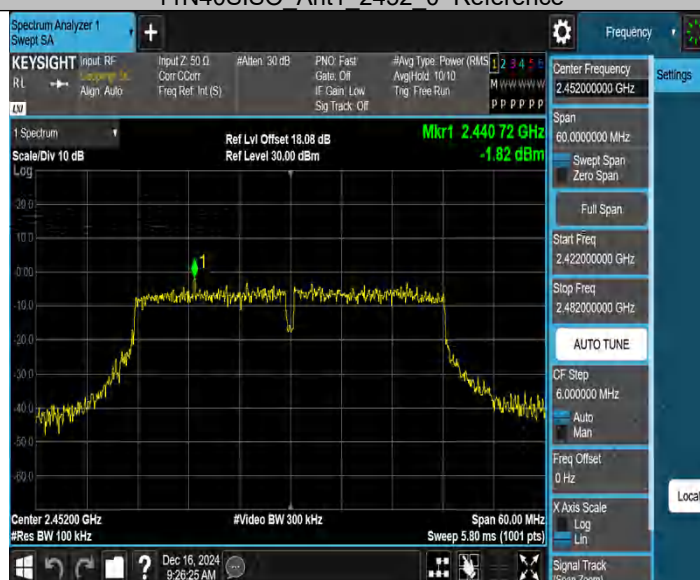


11N20SISO\_Ant1\_2437\_1000~26500











## Appendix B.6: Test Results of Radiated Spurious Emissions

Note:

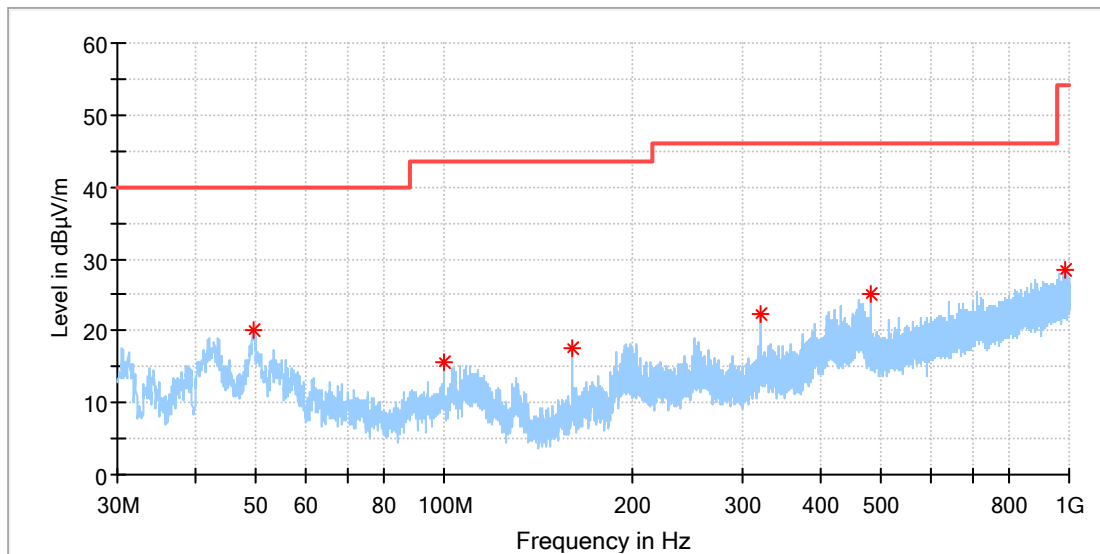
- 1) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

30 MHz - 1GHz(Worst case)

# Test Report

## EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | LED Smart Bulb           |
| Model:              | 14aSA-C500ST-E1T_NA_2P   |
| Test Mode:          | WIFI 2.4G_11b_Ch6        |
| Order No/Sample No: | 168516453/A003877474-003 |
| Test Voltage::      | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| 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) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 49.400000       | 20.03            | 40.00          | 19.97       | 100.0       | H   | 266.0         | -18.4        |
| 99.989231       | 15.61            | 43.50          | 27.89       | 100.0       | H   | 243.0         | -19.1        |
| 160.017308      | 17.46            | 43.50          | 26.04       | 100.0       | H   | 250.0         | -21.8        |
| 319.992692      | 22.42            | 46.00          | 23.58       | 100.0       | H   | 266.0         | -15.7        |
| 480.005385      | 25.15            | 46.00          | 20.85       | 100.0       | H   | 0.0           | -12.1        |
| 986.867692      | 28.42            | 54.00          | 25.58       | 100.0       | H   | 322.0         | -3.7         |

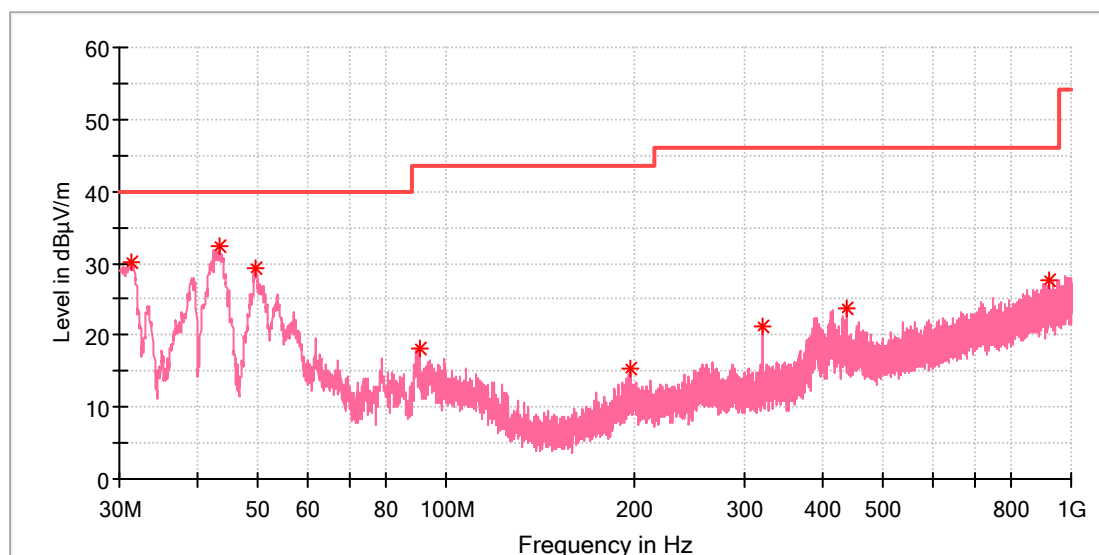
## Final\_Result

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

## Test Report

### EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | LED Smart Bulb           |
| Model:              | 14aSA-C500ST-E1T_NA_2P   |
| Test Mode:          | WIFI 2.4G_11b_Ch6        |
| Order No/Sample No: | 168516453/A003877474-003 |
| Test Voltage::      | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| 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) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 31.268462       | 30.15            | 40.00          | 9.85        | 100.0       | V   | 163.0         | -22.8        |
| 43.468077       | 32.42            | 40.00          | 7.58        | 100.0       | V   | 105.0         | -19.3        |
| 49.698462       | 29.26            | 40.00          | 10.74       | 100.0       | V   | 105.0         | -18.4        |
| 90.475769       | 18.13            | 43.50          | 25.37       | 100.0       | V   | 179.0         | -21.0        |
| 197.287692      | 15.39            | 43.50          | 28.11       | 100.0       | V   | 113.0         | -19.2        |
| 319.992692      | 21.22            | 46.00          | 24.78       | 100.0       | V   | 339.0         | -15.7        |
| 436.504615      | 23.67            | 46.00          | 22.33       | 100.0       | V   | 264.0         | -13.0        |
| 921.094231      | 27.70            | 46.00          | 18.30       | 100.0       | V   | 89.0          | -4.6         |

### Final Result

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

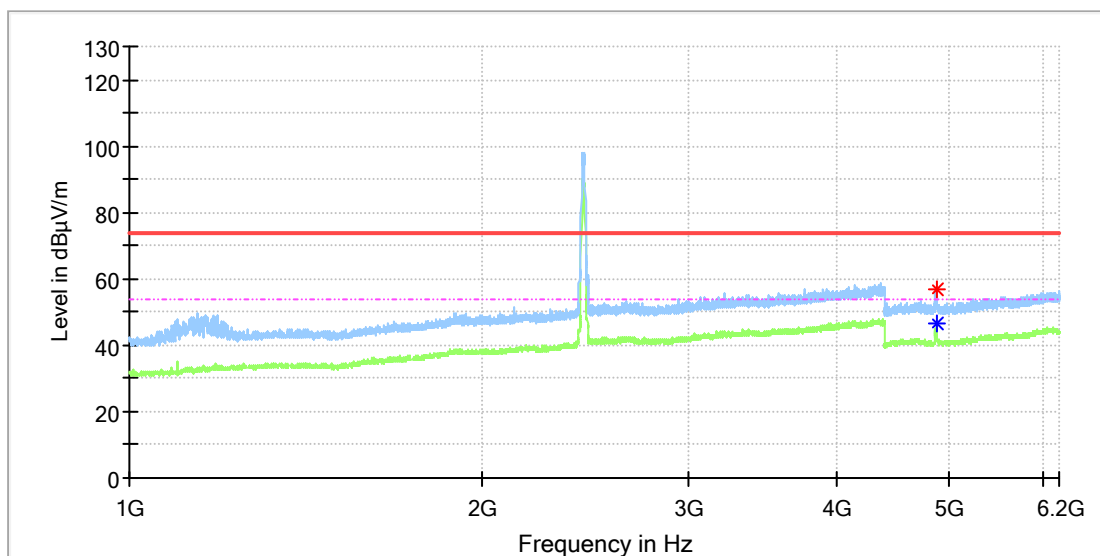
1GHz - 18GHz

Note: The highest waveform in the figure is Bluetooth Fundamental. The test were performed on 802.11b/g/n20/n40 mode with Lowest, middle, highest channels, here just show the worst case result.

## Test Report

### EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | LED Smart Bulb           |
| Model:              | 14aSA-C500ST-E1T_NA_2P   |
| Test Mode:          | WIFI 2.4G_11n20_Ch6      |
| Order No/Sample No: | 168516453/A003877474-003 |
| Test Voltage::      | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4873.500000     | ---              | 46.34            | 54.00          | 7.66        | 150.0       | H   | 197.0         | 13.3         |
| 4879.000000     | 56.67            | ---              | 74.00          | 17.33       | 150.0       | H   | 180.0         | 13.3         |

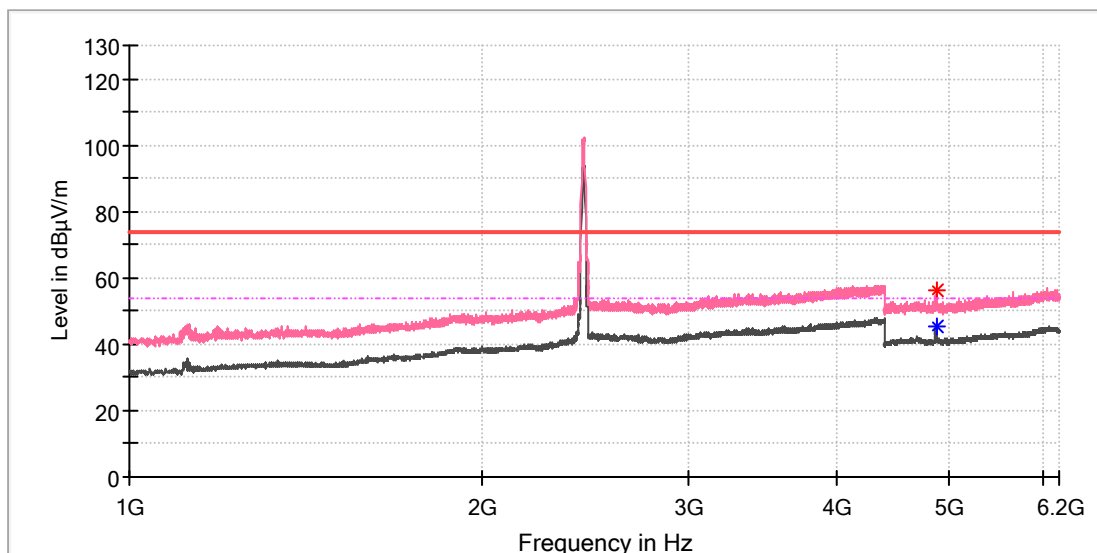
### Final Result

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

# Test Report

## EUT Information

EUT Name: LED Smart Bulb  
 Model: 14aSA-C500ST-E1T\_NA\_2P  
 Test Mode: WIFI 2.4G\_11n20\_Ch6  
 Order No/Sample No: 168516453/A003877474-003  
 Test Voltage:: 120V/60Hz  
 Remark: Temp 23 Humi:53%  
 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 4875.500000     | ---              | 45.47            | 54.00          | 8.53        | 150.0       | V   | 217.0         | 13.3         |
| 4877.000000     | 55.96            | ---              | 74.00          | 18.04       | 150.0       | V   | 181.0         | 13.3         |

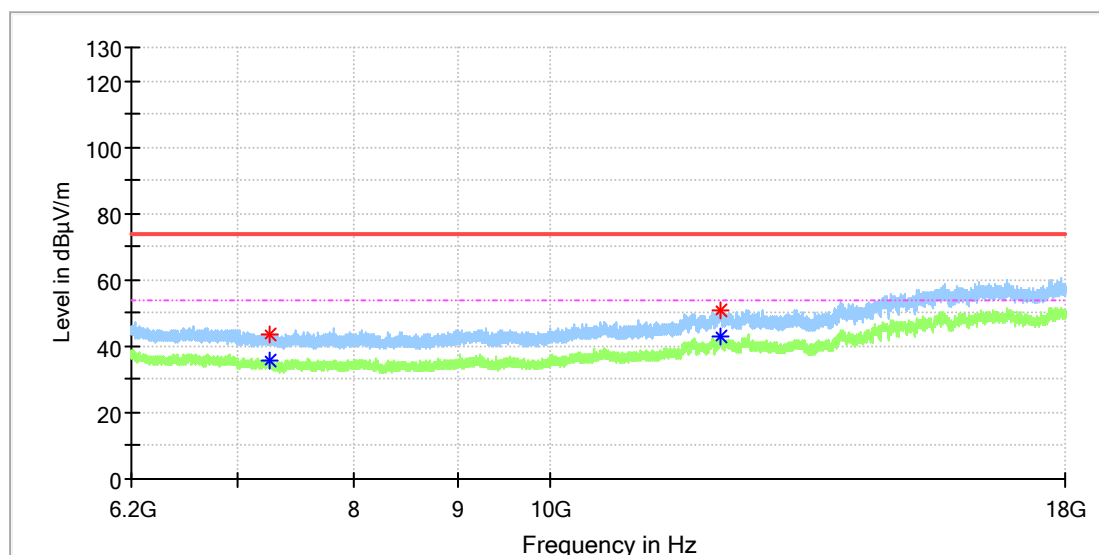
## Final Result

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

# Test Report

## EUT Information

EUT Name: LED Smart Bulb  
 Model: 14aSA-C500ST-E1T\_NA\_2P  
 Test Mode: WIFI 2.4G\_11n20\_Ch6  
 Order No/Sample No: 168516453/A003877474-003  
 Test Voltage:: 120V/60Hz  
 Remark: Temp 23 Humi:53%  
 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 7256.100000     | ---              | 35.75            | 54.00          | 18.25       | 150.0       | H   | 0.0           | 8.5          |
| 7266.425000     | 43.71            | ---              | 74.00          | 30.29       | 150.0       | H   | 323.0         | 8.5          |
| 12140.808333    | 50.79            | ---              | 74.00          | 23.21       | 150.0       | H   | 257.0         | 16.5         |
| 12156.050000    | ---              | 42.88            | 54.00          | 11.12       | 150.0       | H   | 235.0         | 16.4         |

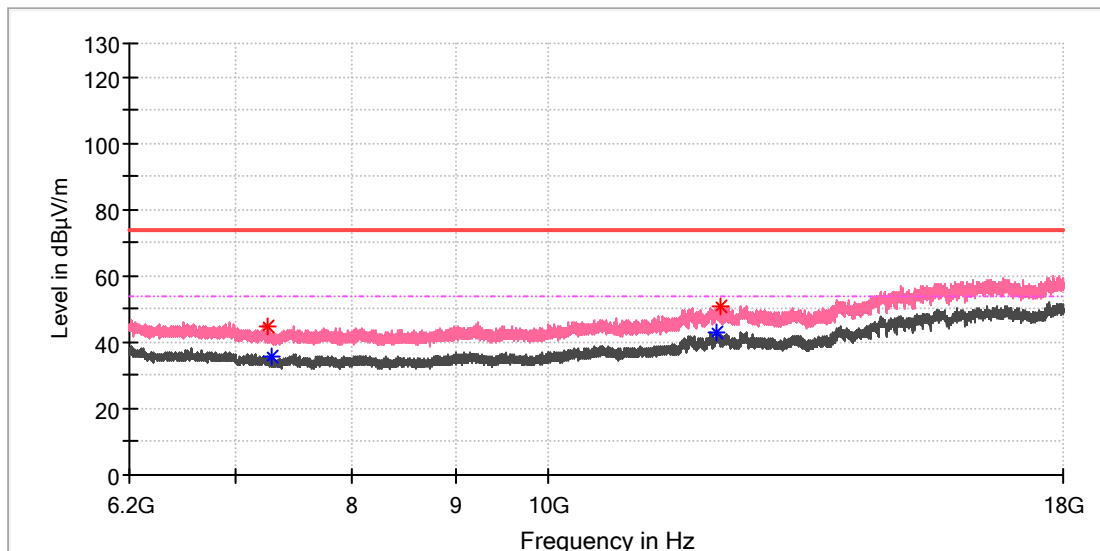
## Final Result

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

# Test Report

## EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: WIFI 2.4G\_11n20\_Ch6  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 7259.050000     | 44.64            | ---              | 74.00          | 29.36       | 150.0       | V   | 3.0           | 8.5          |
| 7291.991667     | ---              | 35.51            | 54.00          | 18.49       | 150.0       | V   | 22.0          | 8.3          |
| 12121.141667    | ---              | 42.83            | 54.00          | 11.17       | 150.0       | V   | 12.0          | 16.0         |
| 12165.391667    | 50.98            | ---              | 74.00          | 23.02       | 150.0       | V   | 92.0          | 15.9         |

## Final Result

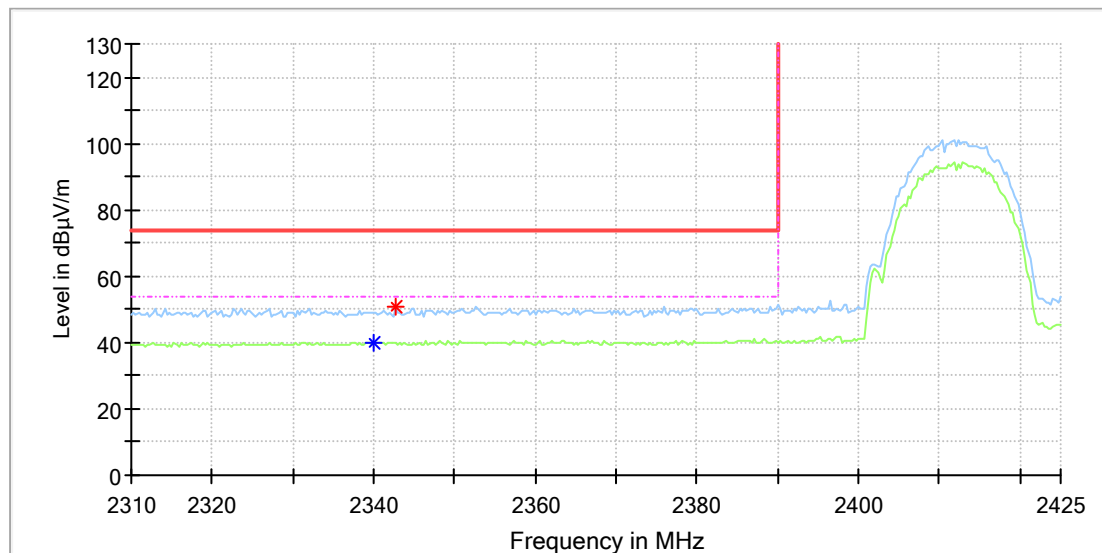
| Frequency (MHz) | MaxPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---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

## Appendix B.7: Test Results of Radiated Emissions in Restricted Bands

# Test Report

### EUT Information

|                     |                          |
|---------------------|--------------------------|
| EUT Name:           | LED Smart Bulb           |
| Model:              | 14aSA-C500ST-E1T_NA_2P   |
| Test Mode:          | WIFI 2.4G_11b_Ch1        |
| Order No/Sample No: | 168516453/A003877474-003 |
| Test Voltage::      | 120V/60Hz                |
| Remark:             | Temp 23 Humi:53%         |
| 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2340.000000     | ---              | 40.07            | 54.00          | 13.93       | 150.0       | H   | 344.0         | 8.4          |
| 2342.647059     | 50.54            | ---              | 74.00          | 23.46       | 150.0       | H   | 236.0         | 8.4          |

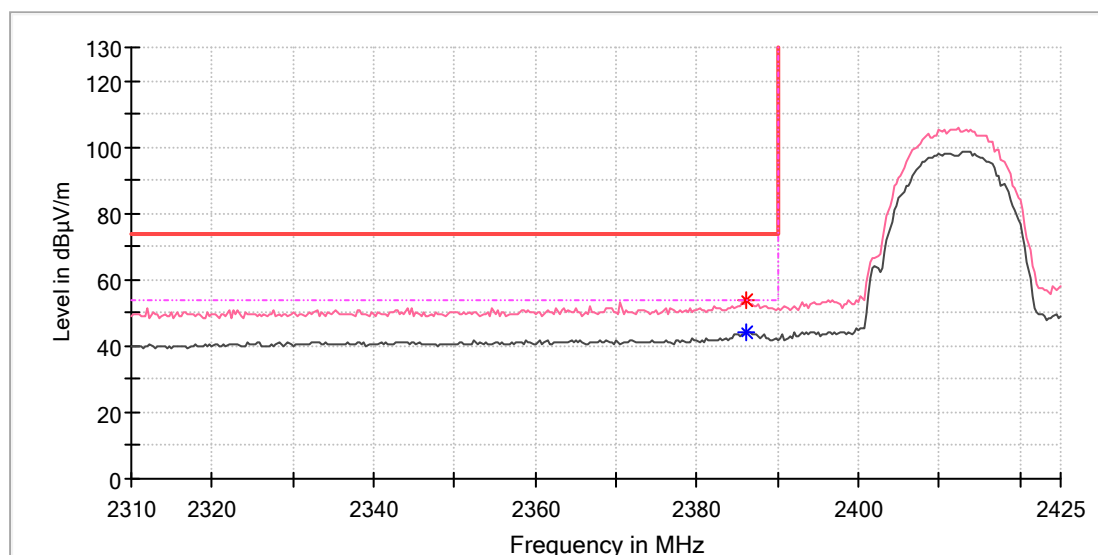
### Final\_Result

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

## Test Report

### EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: WIFI 2.4G\_11b\_Ch1  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2386.176471     | 54.01            | ---              | 74.00          | 19.99       | 150.0       | V   | 306.0         | 8.5          |
| 2386.176471     | ---              | 44.41            | 54.00          | 9.59        | 150.0       | V   | 306.0         | 8.5          |

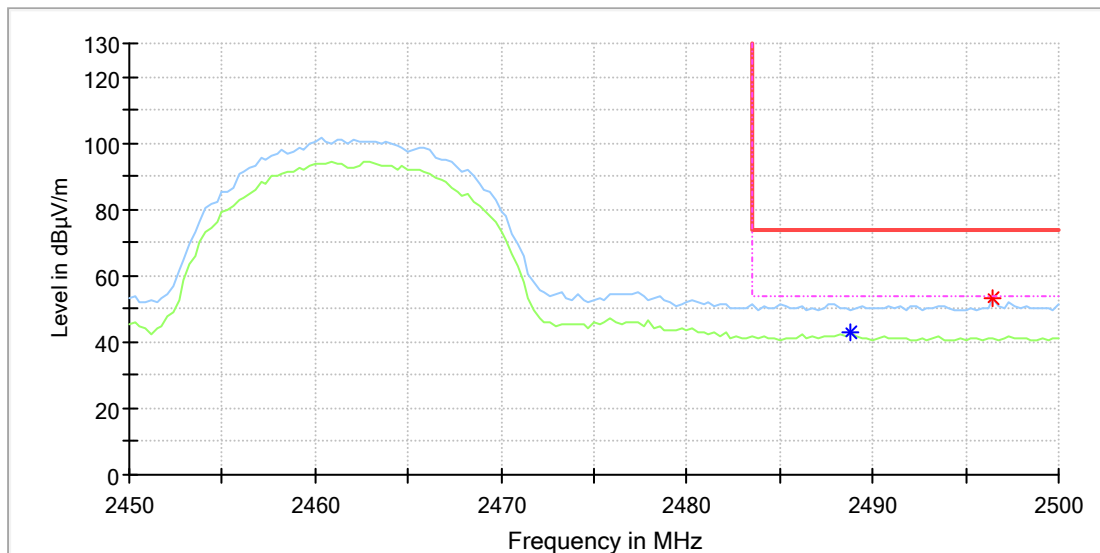
### Final\_Result

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

## Test Report

### EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: WIFI 2.4G\_11b\_Ch11  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2488.823529     | ---              | 42.77            | 54.00          | 11.23       | 150.0       | H   | 352.0         | 9.0          |
| 2496.470588     | 52.95            | ---              | 74.00          | 21.05       | 150.0       | H   | 347.0         | 9.0          |

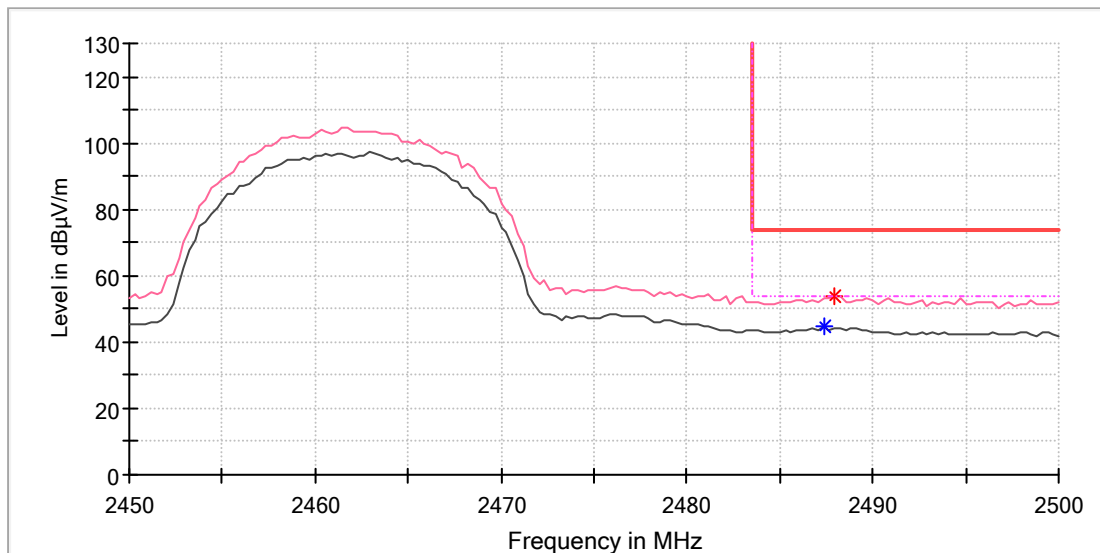
### Final\_Result

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

## Test Report

### EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: WIFI 2.4G\_11b\_Ch11  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2487.352941     | ---              | 44.84            | 54.00          | 9.16        | 150.0       | V   | 292.0         | 9.0          |
| 2487.941177     | 53.75            | ---              | 74.00          | 20.25       | 150.0       | V   | 94.0          | 9.0          |

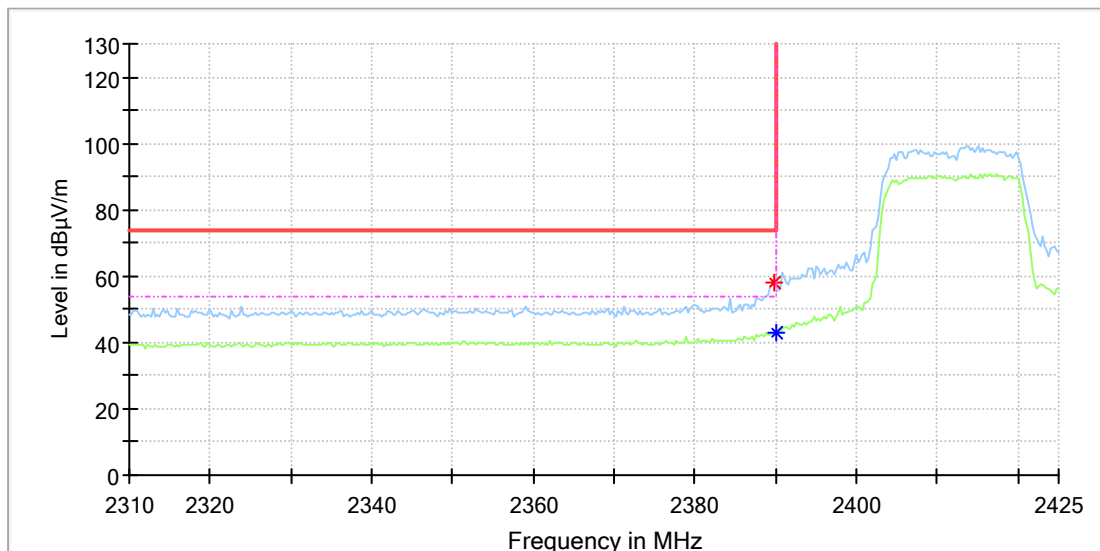
### Final\_Result

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

## Test Report

### EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: WIFI 2.4G\_11g\_Ch1  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2389.705882     | 57.93            | ---              | 74.00          | 16.07       | 150.0       | H   | 259.0         | 8.5          |
| 2390.000000     | ---              | 43.05            | 54.00          | 10.95       | 150.0       | H   | 216.0         | 8.5          |

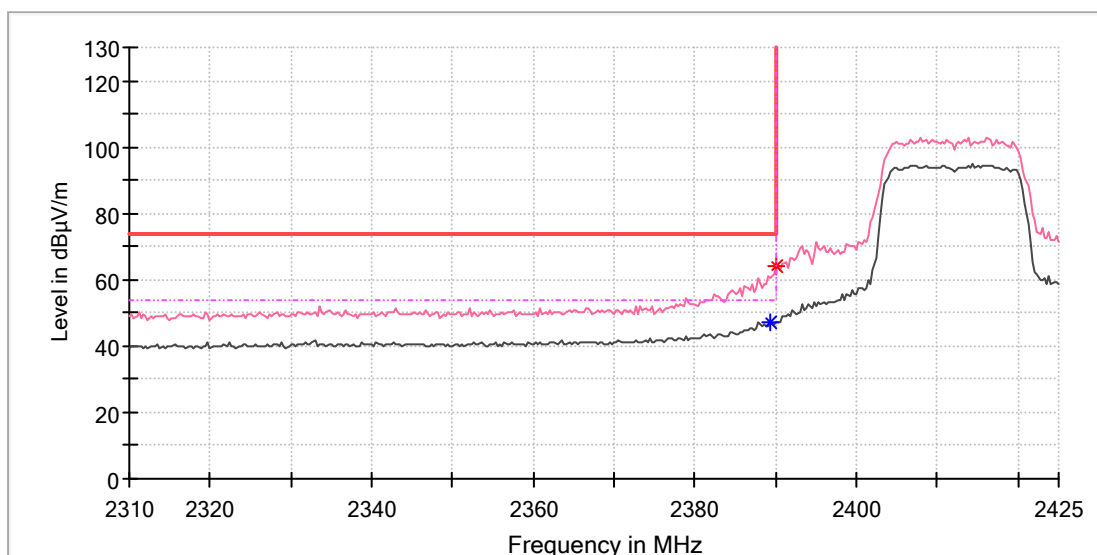
### Final\_Result

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

## Test Report

### EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: WIFI 2.4G\_11g\_Ch1  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2389.411765     | ---              | 47.44            | 54.00          | 6.56        | 150.0       | V   | 312.0         | 8.5          |
| 2390.000000     | 64.18            | ---              | 74.00          | 9.82        | 150.0       | V   | 307.0         | 8.5          |

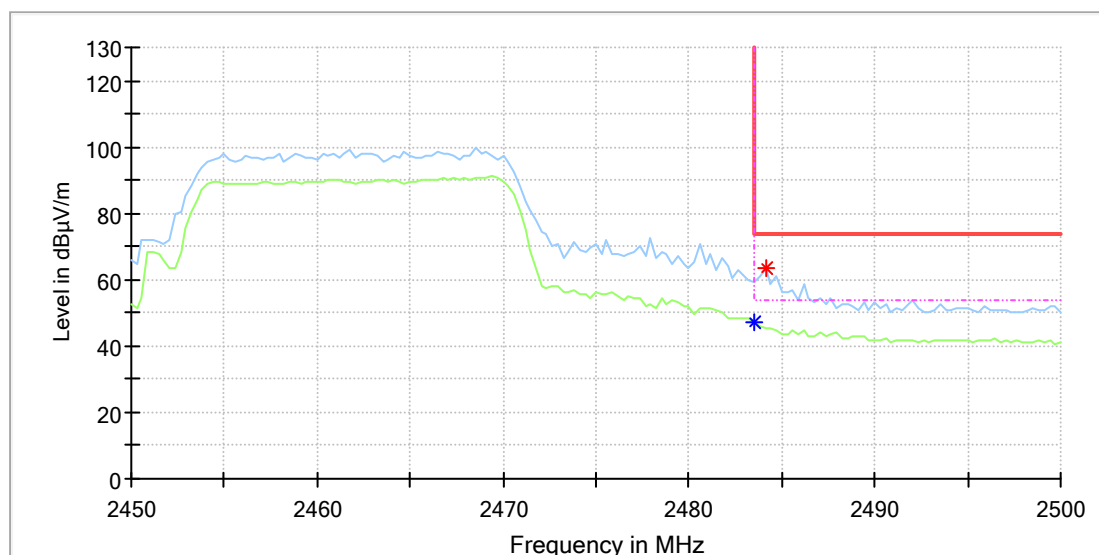
### Final\_Result

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

# Test Report

## EUT Information

EUT Name: LED Smart Bulb  
 Model: 14aSA-C500ST-E1T\_NA\_2P  
 Test Mode: WIFI 2.4G\_11g\_Ch11  
 Order No/Sample No: 168516453/A003877474-003  
 Test Voltage:: 120V/60Hz  
 Remark: Temp 23 Humi:53%  
 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2483.529412     | ---              | 47.10            | 54.00          | 6.90        | 150.0       | H   | 328.0         | 9.0          |
| 2484.117647     | 63.75            | ---              | 74.00          | 10.25       | 150.0       | H   | 323.0         | 9.0          |

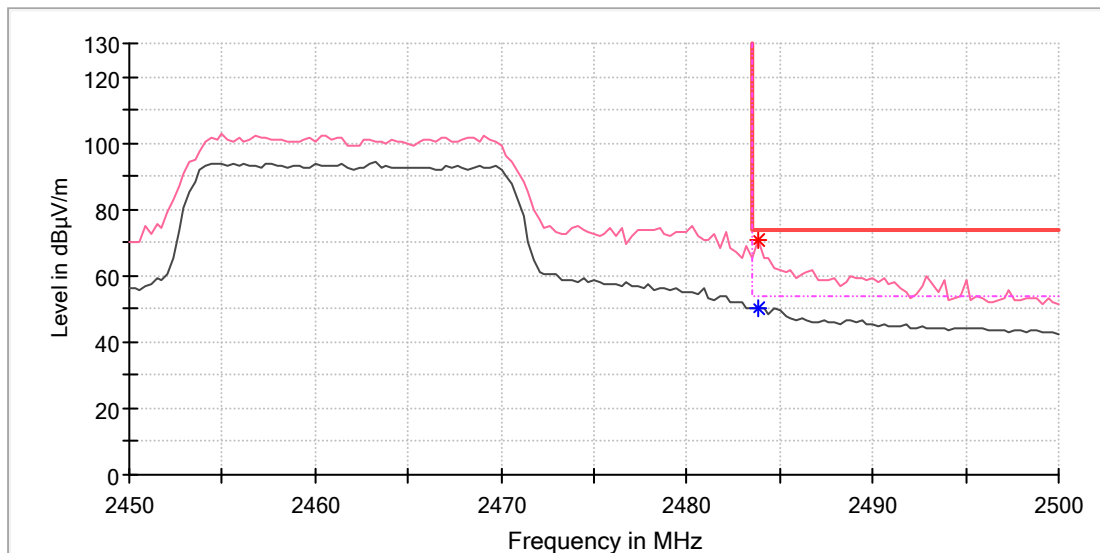
## Final\_Result

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

## Test Report

### EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: WIFI 2.4G\_11g\_Ch11  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2483.823529     | 70.52            | ---              | 74.00          | 3.48        | 150.0       | V   | 282.0         | 9.0          |
| 2483.823529     | ---              | 50.27            | 54.00          | 3.73        | 150.0       | V   | 282.0         | 9.0          |

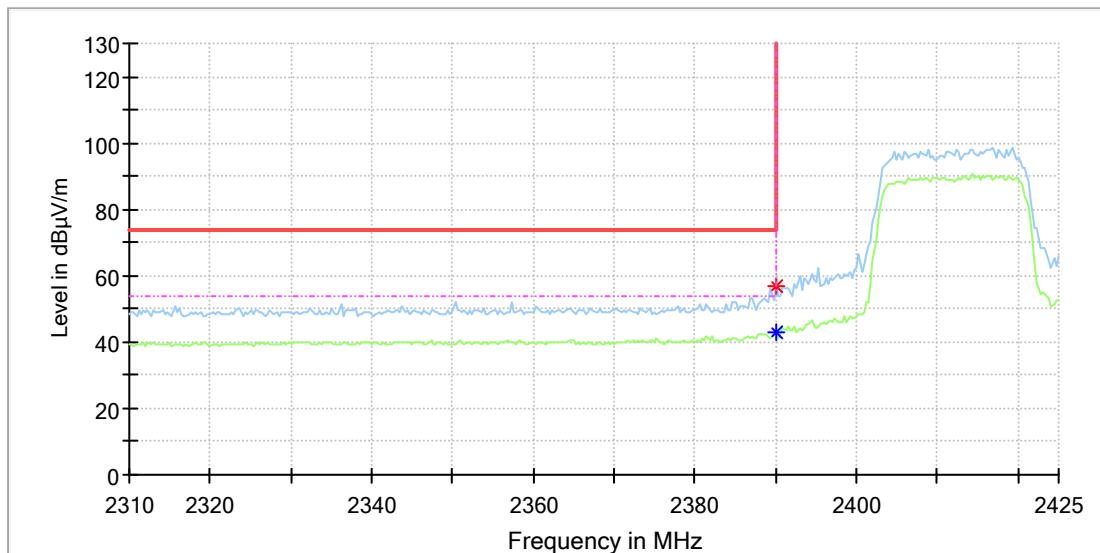
### Final\_Result

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

# Test Report

## EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: WIFI 2.4G\_11n20\_Ch1  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2390.000000     | ---              | 43.14            | 54.00          | 10.86       | 150.0       | H   | 210.0         | 8.5          |
| 2390.000000     | 56.62            | ---              | 74.00          | 17.38       | 150.0       | H   | 210.0         | 8.5          |

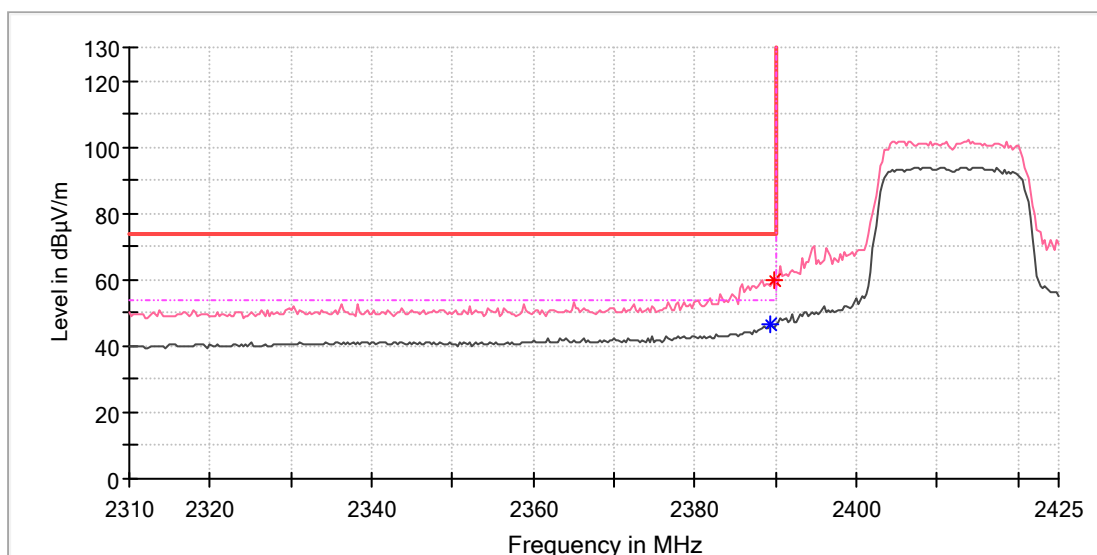
## Final\_Result

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

# Test Report

## EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: WIFI 2.4G\_11n20\_Ch1  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2389.411765     | ---              | 46.36            | 54.00          | 7.64        | 150.0       | V   | 314.0         | 8.5          |
| 2389.705882     | 60.02            | ---              | 74.00          | 13.98       | 150.0       | V   | 115.0         | 8.5          |

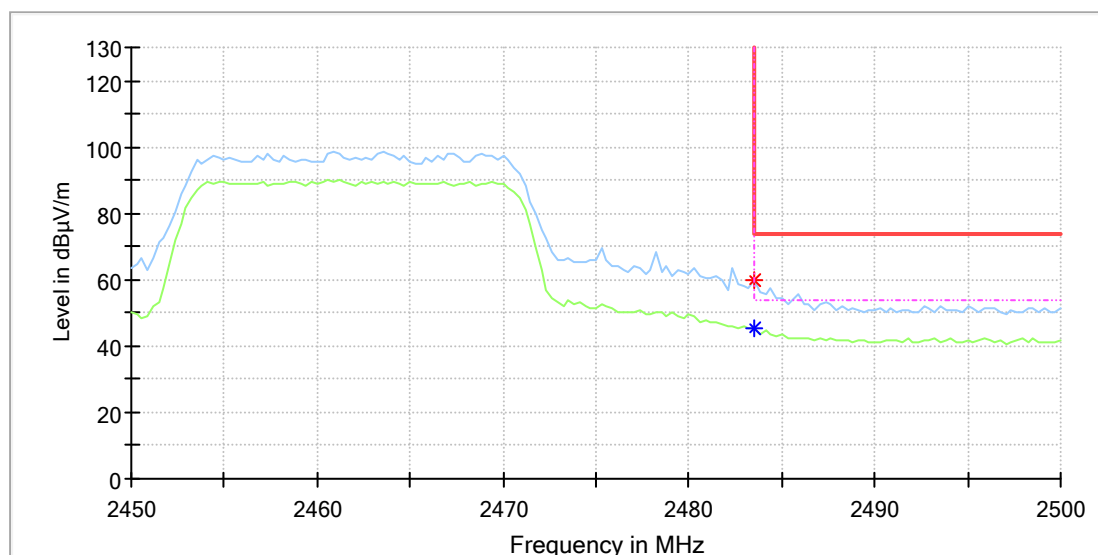
## Final\_Result

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

# Test Report

## EUT Information

EUT Name: LED Smart Bulb  
 Model: 14aSA-C500ST-E1T\_NA\_2P  
 Test Mode: WIFI 2.4G\_11n20\_Ch11  
 Order No/Sample No: 168516453/A003877474-003  
 Test Voltage:: 120V/60Hz  
 Remark: Temp 23 Humi:53%  
 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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2483.529412     | ---              | 45.46            | 54.00          | 8.54        | 150.0       | H   | 253.0         | 9.0          |
| 2483.529412     | 59.62            | ---              | 74.00          | 14.38       | 150.0       | H   | 253.0         | 9.0          |

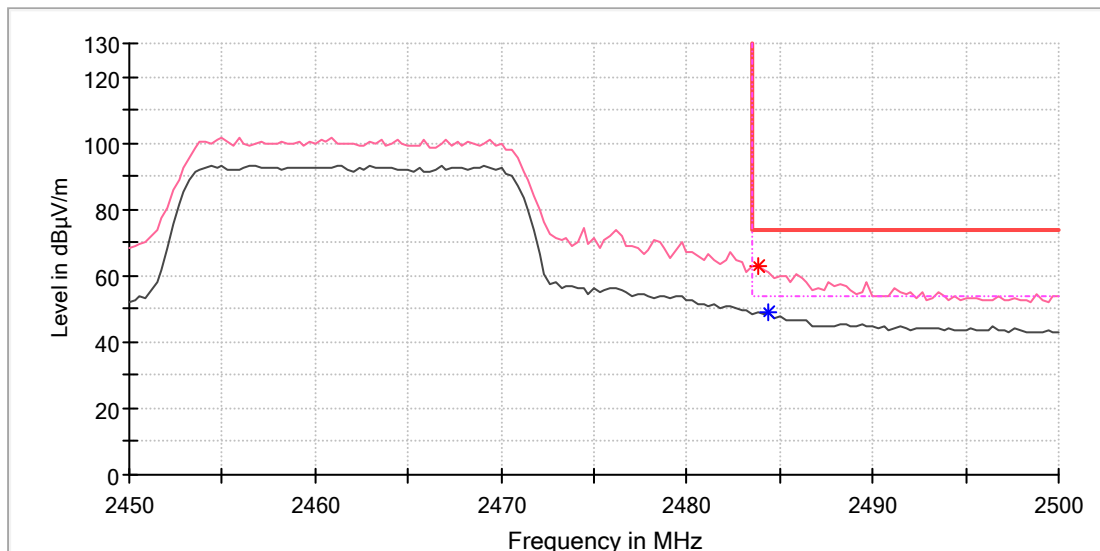
## Final\_Result

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

## Test Report

### EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: WIFI 2.4G\_11n20\_Ch11  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2483.823529     | 63.06            | ---              | 74.00          | 10.94       | 150.0       | V   | 289.0         | 9.0          |
| 2484.411765     | ---              | 49.16            | 54.00          | 4.84        | 150.0       | V   | 262.0         | 9.0          |

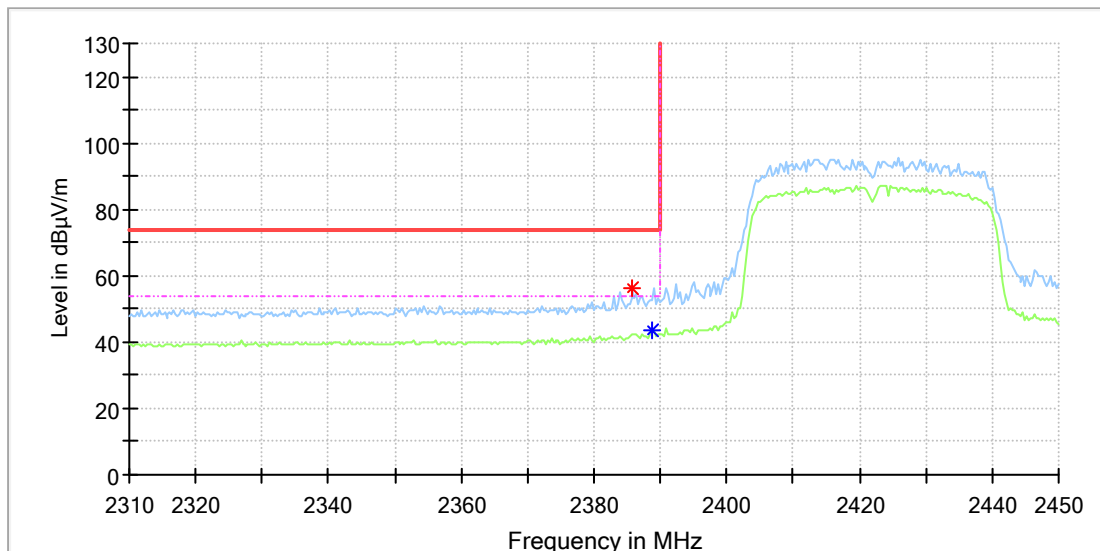
### Final\_Result

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

# Test Report

## EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: WIFI 2.4G\_11n40\_Ch3  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2385.882353     | 56.52            | ---              | 74.00          | 17.48       | 150.0       | H   | 257.0         | 8.5          |
| 2388.823529     | ---              | 43.58            | 54.00          | 10.42       | 150.0       | H   | 257.0         | 8.5          |

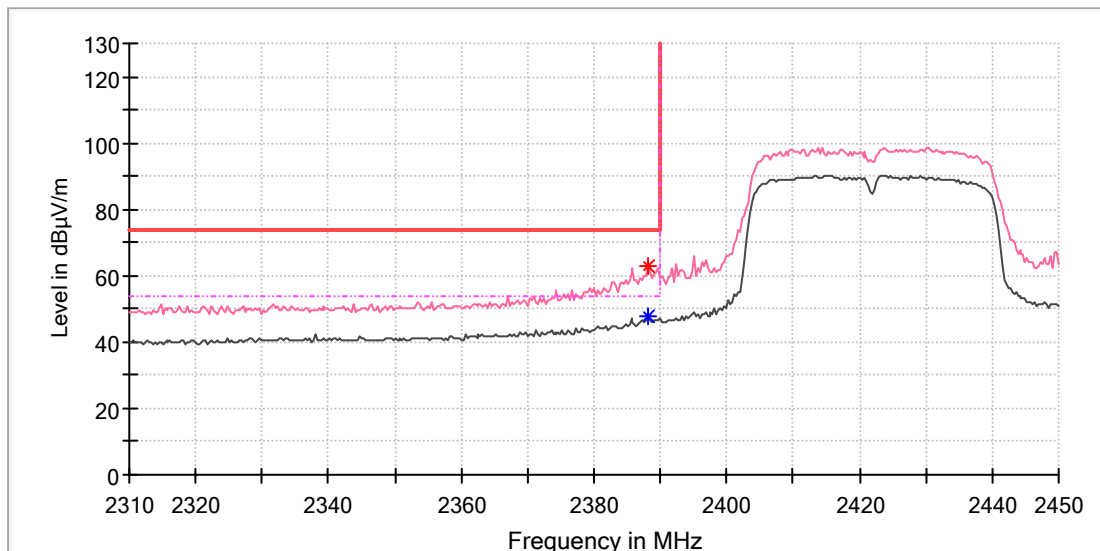
## Final\_Result

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

## Test Report

### EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: WIFI 2.4G\_11n40\_Ch3  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2388.235294     | 63.05            | ---              | 74.00          | 10.95       | 150.0       | V   | 310.0         | 8.5          |
| 2388.235294     | ---              | 47.89            | 54.00          | 6.11        | 150.0       | V   | 310.0         | 8.5          |

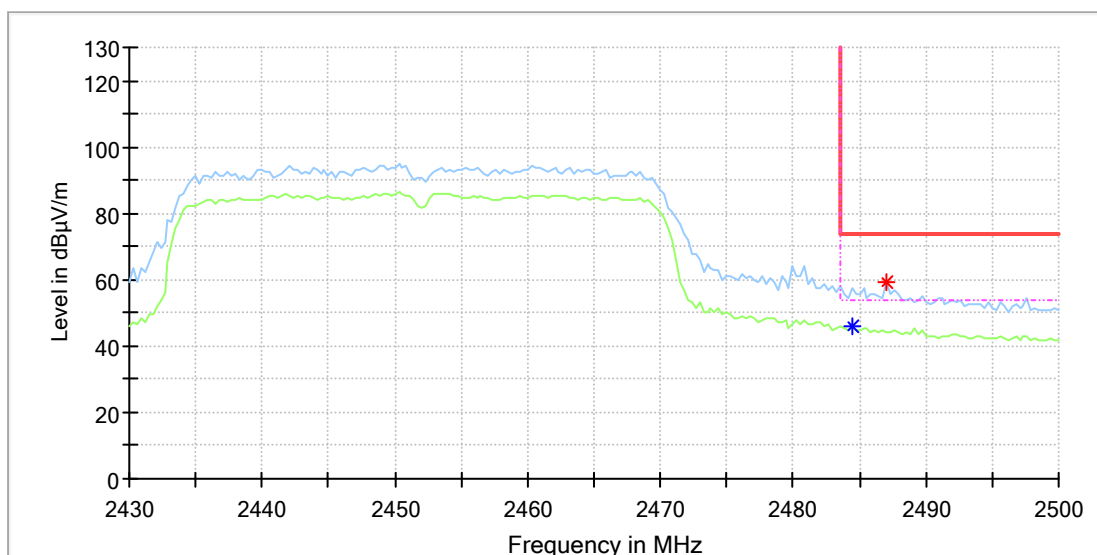
### Final\_Result

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

## Test Report

### EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: WIFI 2.4G\_11n40\_Ch9  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2484.411765     | ---              | 46.10            | 54.00          | 7.90        | 150.0       | H   | 253.0         | 9.0          |
| 2487.058824     | 59.22            | ---              | 74.00          | 14.78       | 150.0       | H   | 245.0         | 9.0          |

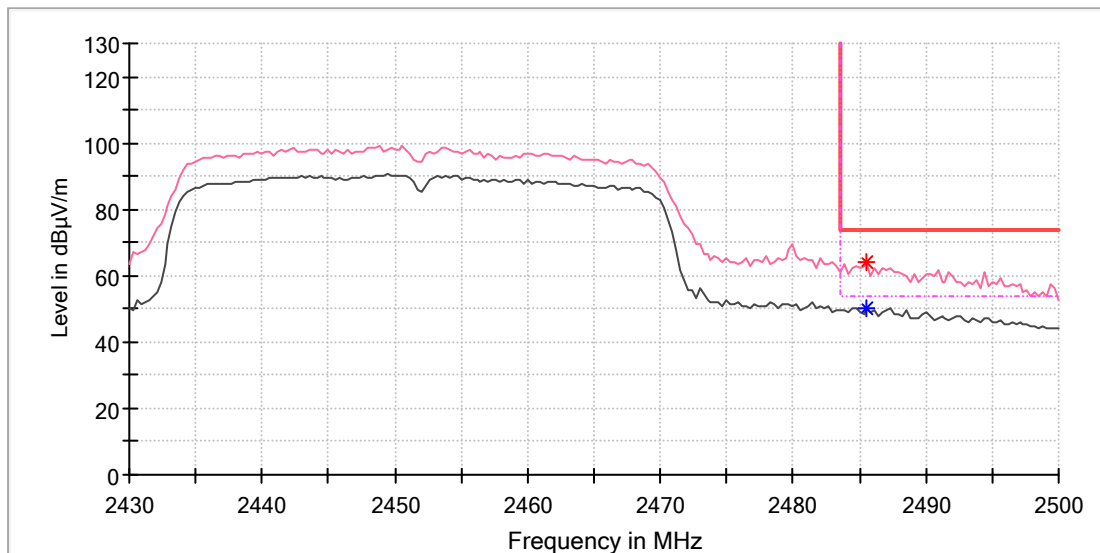
### Final\_Result

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

## Test Report

### EUT Information

EUT Name: LED Smart Bulb  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: WIFI 2.4G\_11n40\_Ch9  
Order No/Sample No: 168516453/A003877474-003  
Test Voltage:: 120V/60Hz  
Remark: Temp 23 Humi:53%  
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) |
|-----------------|------------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| 2485.588235     | 64.38            | ---              | 74.00          | 9.62        | 150.0       | V   | 258.0         | 9.0          |
| 2485.588235     | ---              | 50.33            | 54.00          | 3.67        | 150.0       | V   | 258.0         | 9.0          |

### Final\_Result

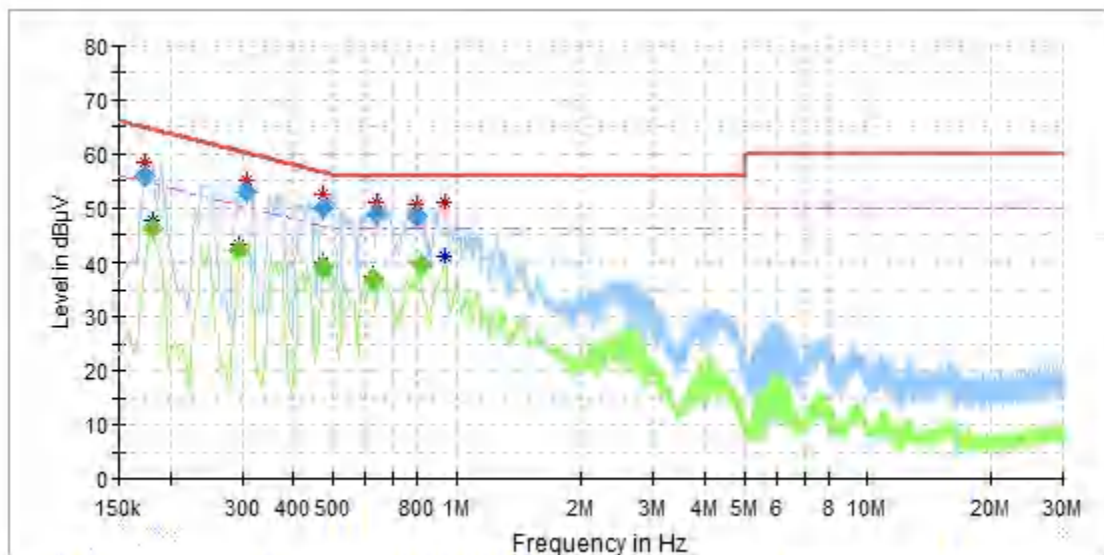
| Frequency (MHz) | MaxPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|--------------|
| ---             | ---              | ---            | ---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

## Appendix B.8: Test Results of Conducted Emissions

# Test Report

### EUT Information

EUT Name: LED Smart Bulb  
Order Number: 168516453  
Model: 14aSA-C500ST-E1T\_NA\_2P  
Test Mode: Lighting+BT+Wifi  
Test Voltage: AC 120V/60Hz  
Test Standard: FCC Part 15B  
Test By./Review By: Soloman Wu/Shower Dai  
Tem./Hum./Pressure: 23.7°C/50.3%/101kPa  
Remark: SR2



### Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBμV) | Average (dBμV) | Limit (dBμV) | Margin (dB) | Line | Corr. (dB) |
|-----------------|----------------|----------------|--------------|-------------|------|------------|
| 0.174000        | 58.26          | ---            | 64.77        | 6.51        | L1   | 10         |
| 0.182000        | ---            | 47.60          | 54.39        | 6.79        | L1   | 10         |
| 0.296000        | ---            | 43.27          | 50.35        | 7.08        | L1   | 10         |
| 0.308000        | 55.14          | ---            | 60.02        | 4.88        | L1   | 10         |
| 0.472000        | 52.49          | ---            | 56.48        | 3.99        | L1   | 10         |
| 0.472000        | ---            | 39.97          | 46.48        | 6.51        | L1   | 10         |
| 0.626000        | ---            | 37.40          | 46.00        | 8.60        | L1   | 10         |
| 0.642000        | 50.81          | ---            | 56.00        | 5.19        | L1   | 10         |
| 0.802000        | 50.47          | ---            | 56.00        | 5.53        | L1   | 10         |
| 0.818000        | ---            | 39.46          | 46.00        | 6.54        | L1   | 10         |
| 0.936000        | ---            | 40.89          | 46.00        | 5.11        | L1   | 10         |
| 0.936000        | 50.83          | ---            | 56.00        | 5.17        | L1   | 10         |

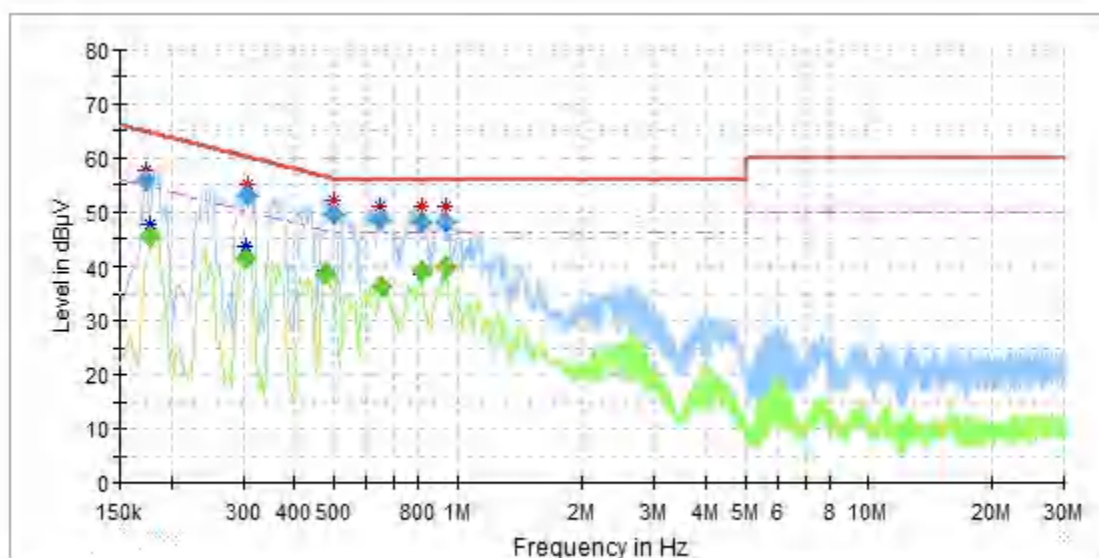
### Final\_Result

| Frequency (MHz) | QuasiPeak (dBμV) | Average (dBμV) | Limit (dBμV) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Line | Corr. (dB) |
|-----------------|------------------|----------------|--------------|-------------|-----------------|-----------------|------|------------|
| 0.174000        | 55.91            | ---            | 64.77        | 8.86        | 1000.0          | 9.000           | L1   | 10         |
| 0.182000        | ---              | 46.10          | 54.39        | 8.29        | 1000.0          | 9.000           | L1   | 10         |
| 0.296000        | ---              | 41.89          | 50.35        | 8.46        | 1000.0          | 9.000           | L1   | 10         |
| 0.308000        | 52.98            | ---            | 60.02        | 7.04        | 1000.0          | 9.000           | L1   | 10         |
| 0.472000        | ---              | 39.08          | 46.48        | 7.40        | 1000.0          | 9.000           | L1   | 10         |
| 0.472000        | 49.70            | ---            | 56.48        | 6.78        | 1000.0          | 9.000           | L1   | 10         |
| 0.626000        | ---              | 36.72          | 46.00        | 9.28        | 1000.0          | 9.000           | L1   | 10         |
| 0.642000        | 48.68            | ---            | 56.00        | 7.32        | 1000.0          | 9.000           | L1   | 10         |
| 0.802000        | 48.20            | ---            | 56.00        | 7.80        | 1000.0          | 9.000           | L1   | 10         |
| 0.818000        | ---              | 39.57          | 46.00        | 6.43        | 1000.0          | 9.000           | L1   | 10         |

# Test Report

## EUT Information

EUT Name: LED Smart Bulb  
 Order Number: 168516453  
 Model: 14aSA-C500ST-E1T\_NA\_2P  
 Test Mode: Lighting+BT+Wifi  
 Test Voltage: AC 120V/60Hz  
 Test Standard: FCC Part 15B  
 Test By./Review By: Soloman Wu/Shower Dai  
 Tem./Hum./Pressure: 23.7°C/50.3%/101kPa  
 Remark: SR2



## Critical\_Freqs

| Frequency (MHz) | MaxPeak (dBμV) | Average (dBμV) | Limit (dBμV) | Margin (dB) | Line | Corr. (dB) |
|-----------------|----------------|----------------|--------------|-------------|------|------------|
| 0.174000        | 57.84          | ---            | 64.77        | 6.93        | N    | 10         |
| 0.178000        | ---            | 47.58          | 54.58        | 7.00        | N    | 10         |
| 0.304000        | ---            | 43.53          | 50.13        | 6.60        | N    | 10         |
| 0.308000        | 55.11          | ---            | 60.02        | 4.91        | N    | 10         |
| 0.476000        | ---            | 39.11          | 46.41        | 7.30        | N    | 10         |
| 0.500000        | 52.19          | ---            | 56.00        | 3.81        | N    | 10         |
| 0.650000        | 51.10          | ---            | 56.00        | 4.90        | N    | 10         |
| 0.654000        | ---            | 36.68          | 46.00        | 9.32        | N    | 10         |
| 0.818000        | 51.11          | ---            | 56.00        | 4.89        | N    | 10         |
| 0.818000        | ---            | 38.76          | 46.00        | 7.24        | N    | 10         |
| 0.934000        | 50.93          | ---            | 56.00        | 5.07        | N    | 10         |
| 0.938000        | ---            | 39.92          | 46.00        | 6.08        | N    | 10         |

## Final Result

| Frequency (MHz) | QuasiPeak (dBμV) | Average (dBμV) | Limit (dBμV) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Line | Corr. (dB) |
|-----------------|------------------|----------------|--------------|-------------|-----------------|-----------------|------|------------|
| 0.174000        | 55.82            | ---            | 64.77        | 8.95        | 1000.0          | 9.000           | N    | 10         |
| 0.178000        | ---              | 45.52          | 54.58        | 9.06        | 1000.0          | 9.000           | N    | 10         |
| 0.304000        | ---              | 41.37          | 50.13        | 8.76        | 1000.0          | 9.000           | N    | 10         |
| 0.308000        | 52.90            | ---            | 60.02        | 7.12        | 1000.0          | 9.000           | N    | 10         |
| 0.476000        | ---              | 38.83          | 46.41        | 7.58        | 1000.0          | 9.000           | N    | 10         |
| 0.500000        | 49.48            | ---            | 56.00        | 6.52        | 1000.0          | 9.000           | N    | 10         |
| 0.650000        | 48.21            | ---            | 56.00        | 7.79        | 1000.0          | 9.000           | N    | 10         |
| 0.654000        | ---              | 36.37          | 46.00        | 9.63        | 1000.0          | 9.000           | N    | 10         |
| 0.818000        | ---              | 39.18          | 46.00        | 6.82        | 1000.0          | 9.000           | N    | 10         |
| 0.818000        | 48.04            | ---            | 56.00        | 7.96        | 1000.0          | 9.000           | N    | 10         |
| 0.934000        | 47.97            | ---            | 56.00        | 8.03        | 1000.0          | 9.000           | N    | 10         |
| 0.938000        | ---              | 39.71          | 46.00        | 6.29        | 1000.0          | 9.000           | N    | 10         |

---End of appendix---