**CFR 47 FCC PART 15 SUBPART C**

**TEST REPORT**

*For*

**Baby Monitor Camera**

**MODEL NUMBER: TL-BM501C**

**REPORT NUMBER: E04A24060681F01101**

**ISSUE DATE: July 22, 2024**

**FCC ID: 2BHDZTL-BM501C**

*Prepared for*

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*Prepared by*

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Revision History

| Rev. | Issue Date | Revisions | Revised By |
|---|---|---|---|
| V0 | July 22, 2024 | Initial Issue | |

## Summary of Test Results

| Test Item | Clause | Limit/Requirement | Result |
|---|---|---|---|
| Antenna Requirement | N/A | FCC Part 15.203/15.247 (c) | Pass |
| AC Power Line Conducted Emission | ANSI C63.10-2013, Clause 6.2 | FCC Part 15.207 | Pass |
| Conducted Output Power | ANSI C63.10-2013, Clause 11.9.1.3 | FCC Part 15.247 (b)(3) | Pass |
| 6dB Bandwidth and 99% Occupied Bandwidth | ANSI C63.10-2013, Clause 11.8.1 | FCC Part 15.247 (a)(2) | Pass |
| Power Spectral Density | ANSI C63.10-2013, Clause 11.10.2 | FCC Part 15.247 (e) | Pass |
| Conducted Band edge and spurious emission | ANSI C63.10-2013, Clause 11.11 | FCC Part 15.247(d) | Pass |
| Radiated Band edge and Spurious Emission | ANSI C63.10-2013, Clause 11.11 & Clause 11.12 | FCC Part 15.247 (d)<br>FCC Part 15.205/15.209 | Pass |
| Duty Cycle | ANSI C63.10-2013, Clause 11.6 | None; for reporting purposes only. | Pass |

*This test report is only published to and used by the applicant, and it is not for evidence purpose in China.
*The measurement result for the sample received is <Pass> according to <CFR 47 FCC PART 15 SUBPART C> when <Accuracy Method> decision rule is applied.

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# 1. ATTESTATION OF TEST RESULTS

**Applicant Information**

| | |
|---|---|
| Company Name: | Dongguan Tianluo Electronic Technology Co.,Ltd |
| Address: | 201room,Block 4,Longchang Science Park,No.26,Hantang Street,Dongcheng District,Dongguan,Guangdong,China |

**Manufacturer Information**

| | |
|---|---|
| Company Name: | Dongguan Tianluo Electronic Technology Co.,Ltd |
| Address: | 201room,Block 4,Longchang Science Park,No.26,Hantang Street,Dongcheng District,Dongguan,Guangdong,China |

**EUT Information**

| | |
|---|---|
| Product Description: | Baby Monitor Camera |
| Model: | TL-BM501C |
| Series Model: | N/A |
| Trademark: | N/A |
| Sample Received Date: | June 28 2024 |
| Sample Status: | Normal |
| Sample ID: | A24060681 011 |
| Date of Tested: | June 28 2024 to July 15 2024 |

| APPLICABLE STANDARDS | |
|---|---|
| **STANDARD** | **TEST RESULTS** |
| **CFR 47 FCC PART 15 SUBPART C** | **Pass** |

Prepared By:

Win

Project Engineer

Checked By:

Alan He

Laboratory Leader

Approved By:

Shawn Wen

Laboratory Manager

Guangdong Global Testing Technology Co., Ltd. GTG CERTIFICATE

## 2. TEST METHODOLOGY

All tests were performed in accordance with the standard CFR 47 FCC PART 15 SUBPART C(DTS)

## 3. FACILITIES AND ACCREDITATION

| | |
|---|---|
| Accreditation Certificate | **A2LA (Certificate No.: 6947.01)**<br>Guangdong Global Testing Technology Co., Ltd.<br>has been assessed and proved to be in compliance with A2LA.<br>**FCC (FCC Designation No.: CN1343)**<br>Guangdong Global Testing Technology Co., Ltd.<br>has been recognized to perform compliance testing on equipment subject to Supplier's Declaration of Conformity (SDoC) and Certification rules<br>**ISED (Company No.: 30714)**<br>Guangdong Global Testing Technology Co., Ltd.<br>has been registered and fully described in a report filed with ISED. The Company Number is 30714 and the test lab Conformity Assessment Body Identifier (CABID) is CN0148. |

Note: All tests measurement facilities use to collect the measurement data are located at
Room 101-105, 203-210, Building 1, No.2, Keji 8 Road, Songshan Lake Park, Dongguan city, Guangdong, People’s Republic of China, 523808

# 4. CALIBRATION AND UNCERTAINTY

## 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

## 4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| Test Items | k | Uncertainty |
|---|---|---|
| DTS Bandwidth | 1.96 | ±9.2 PPM |
| 20dB Emission Bandwidth | 1.96 | ±9.2 PPM |
| Carrier Frequency Separation | 1.96 | ±9.2 PPM |
| Time of Occupancy | 1.96 | ±0.57% |
| Conducted Output Power | 1.96 | ±1.5 dB |
| Power Spectral Density Level | 1.96 | ±1.9 dB |
| Conducted Spurious Emission | 1.96 | 9 kHz-30 MHz: ± 0.95 dB<br>30 MHz-1 GHz: ± 1.5 dB<br>1GHz-12.75GHz: ± 1.8 dB<br>12.75 GHz-26.5 GHz: ± 2.1dB |
| Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96. | | |

| Test Item | Measurement Frequency Range | K | U(dB) |
|---|---|---|---|
| Conducted emissions from the AC mains power ports (AMN) | 150 kHz ~ 30 MHz | 2 | 3.37 |
| Radiated emissions | 9 kHz ~ 30 MHz | 2 | 4.16 |
| Radiated emissions | 30 MHz ~ 1 GHz | 2 | 3.79 |
| Radiated emissions | 1 GHz ~ 18 GHz | 2 | 5.62 |
| Radiated emissions | 18 GHz ~ 40 GHz | 2 | 5.54 |
| Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2. | | | |

# 5. EQUIPMENT UNDER TEST

## 5.1. DESCRIPTION OF EUT

| | | |
|---|---|---|
| EUT Name | | Baby Monitor Camera |
| Model | | TL-BM501C |
| Series Model | | N/A |
| Hardware Version | | TL-BM01-BU-V1.2 |
| Software Version | | JST31_BABY_MONITOR_JS00_202405080002 |
| Ratings | | Input: AC 100-240V<br>Output: DC 5V |
| Power Supply | AC | AC120V/60Hz |
| | | |

| | |
|---|---|
| Frequency Band: | 2400 MHz to 2483.5 MHz |
| Frequency Range: | 2412 MHz to 2462 MHz |
| Support Standards: | IEEE 802.11b, IEEE 802.11g, IEEE 802.11n-HT20 |
| Type of Modulation: | IEEE 802.11b: DSSS(CCK, DQPSK, DBPSK)<br>IEEE 802.11g/n: OFDM(64-QAM, 16-QAM, QPSK, BPSK) |
| Data Rate: | IEEE 802.11b: Up to 11 Mbps<br>IEEE 802.11g: Up to 54 Mbps<br>IEEE 802.11n: Up to MCS7 |
| Number of Channels: | IEEE 802.11b/g/n-HT20: 11 |
| Maximum Peak Power: | IEEE 802.11b: 16.48dBm<br>IEEE 802.11g: 13.26dBm<br>IEEE 802.11n-HT20: 13.27dBm |
| Antenna Type: | Internal antenna |
| Antenna Gain: | 4.4dBi |
| Normal Test Voltage: | 5 Vdc |
| EUT Test software: | SecureCRT |
| Chip type: | AB6031X |

## 5.2. CHANNEL LIST

| Channel List for 802.11b/g/n (20 MHz) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 1 | 2412 | 4 | 2427 | 7 | 2442 | 10 | 2457 |
| 2 | 2417 | 5 | 2432 | 8 | 2447 | 11 | 2462 |
| 3 | 2422 | 6 | 2437 | 9 | 2452 | / | / |

## 5.3. MAXIMUM PEAK EIRP

| IEEE Std. 802.11 | Frequency (MHz) | Channel Number | Maximum Conducted Peak Output Power (dBm) |
|---|---|---|---|
| b | 2412 ~ 2462 | 1-11[11] | 16.48 |
| g | 2412 ~ 2462 | 1-11[11] | 13.26 |
| n HT20 | 2412 ~ 2462 | 1-11[11] | 13.27 |

## 5.4. TEST CHANNEL CONFIGURATION

| IEEE Std. 802.11 | Test Channel Number | Frequency |
|---|---|---|
| b | CH 1(Low Channel), CH 6(MID Channel), CH 11(High Channel) | 2412 MHz, 2437 MHz, 2462 MHz |
| g | CH 1(Low Channel), CH 6(MID Channel), CH 11(High Channel) | 2412 MHz, 2437 MHz, 2462 MHz |
| n HT20 | CH 1(Low Channel), CH 6(MID Channel), CH 11(High Channel) | 2412 MHz, 2437 MHz, 2462 MHz |
| | | |

## 5.5. THE WORSE CASE POWER SETTING PARAMETER

| The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band | | | | | | | |
|---|---|---|---|---|---|---|---|
| Test Software | | SecureCRT | | | | | |
| Modulation Mode | Transmit Antenna Number | Test Channel | | | | | |
| | | NCB: 20MHz | | | NCB: 40MHz | | |
| | | CH 1 | CH 6 | CH 11 | CH 3 | CH 6 | CH 9 |
| 802.11b | 1 | 30 | 30 | 30 | | | |
| 802.11g | 1 | 50 | 50 | 50 | | | |
| 802.11n HT20 | 1 | 50 | 50 | 50 | | | |

# WORST-CASE CONFIGURATIONS

The EUT was tested in the following configuration(s):

Controlled in test mode using a software application on the EUT supplied by customer. The application was used to enable a continuous transmission and to select the mode, test channels, bandwidth, data rates as required.

Test channels referring to section 5.4.

Maximum power setting referring to section 5.5.

Worst-case data rates as provided by the client were:

802.11b mode: 1 Mbps
802.11g mode: 6 Mbps
802.11n HT20 mode: MCS0

The measured additional path loss was included in any path loss calculations for all RF cable used during tested.

Conducted output power, power spectral density tests separately on each port with all supported SISO & MIMO port combinations.

Conducted bandedge and spurious emissions tests were performed with SISO mode, as this port was found to have the worst case in terms of power settings amongst all supported possible SISO & MIMO port combinations.

Radiated emissions tests were performed with the MIMO modes. These were found to be the worst modulation scheme with regards to emissions after preliminary investigations and, as this mode emits the highest conducted output power level, it was deemed to be the worst case.

The EUT support Cyclic Shift Diversity(CDD), Space Time Coding(STBC), Spartial Division Multiplexing(SDM) modes. They use the same conducted power per chain in any given mode, so we only chose the worst case mode CDD for final testing.

## 5.6. DESCRIPTION OF AVAILABLE ANTENNAS

| Antenna | Frequency (MHz) | Antenna Type | MAX Antenna Gain (dBi) |
|---|---|---|---|
| 1 | 2412-2462 | Internal antenna | 4.4 |

| Test Mode | Transmit and Receive Mode | Description |
|---|---|---|
| IEEE 802.11b | ☒1TX, 1RX | ANT 1 can be used as transmitting/receiving antenna. |
| IEEE 802.11g | ☒1TX, 1RX | ANT 1 can be used as transmitting/receiving antenna. |

| | | |
|---|---|---|
| IEEE 802.11n HT20 | ☒1TX, 1RX | ANT 1 can be used as transmitting/receiving antenna. |
| | | |

Note: The value of the antenna gain was declared by customer.

## 5.7. SUPPORT UNITS FOR SYSTEM TEST

The following support units or accessories were used to form a representative test configuration during the tests.

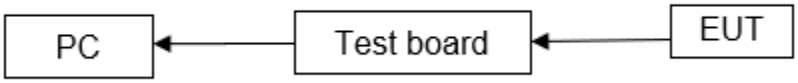
| Item | Equipment | Mfr/Brand | Model/Type No. | Series No. | Note |
|---|---|---|---|---|---|
| E-1 | PC | Lenovo | B4650-D002 | M90601U3 | GTG Support |

The following cables were used to form a representative test configuration during the tests.

| Item | Type of cable | Shielded Type | Ferrite Core | Length |
|---|---|---|---|---|
| C-1 | RJ45 cable | Unshielded | without ferrite | 1 m |

## 5.8. SETUP DIAGRAM

Radiated emissions:



# 6. MEASURING EQUIPMENT AND SOFTWARE USED

| Test Equipment of Conducted RF | | | | | |
|---|---|---|---|---|---|
| **Equipment** | **Manufacturer** | **Model No.** | **Serial No.** | **Last Cal.** | **Due Date** |
| Spectrum Analyzer | Rohde & Schwarz | FSV40 | 102257 | 2023/09/18 | 2024/09/17 |
| Spectrum Analyzer | KEYSIGHT | N9020A | MY51285127 | 2023/09/18 | 2024/09/17 |
| EXG Analog Signal Generator | KEYSIGHT | N5173B | MY61253075 | 2023/09/18 | 2024/09/17 |
| Vector Signal Generator | Rohde & Schwarz | SMM100A | 101899 | 2023/09/18 | 2024/09/17 |
| RF Control box | MWRF-test | MW100-RFCB | MW220926GTG | 2023/09/18 | 2024/09/17 |
| Wideband Radio Communication Tester | Rohde & Schwarz | CMW270 | 102792 | 2023/09/18 | 2024/09/17 |
| Wideband Radio Communication Tester | Rohde & Schwarz | CMW500 | 103235 | 2023/09/18 | 2024/09/17 |
| temperature humidity chamber | Espec | SH-241 | SH-241-2014 | 2023/09/18 | 2024/09/17 |
| RF Test Software | MWRF-test | MTS8310E (Ver. V2/0) | N/A | N/A | N/A |

| Test Equipment of Radiated emissions below 1GHz | | | | | |
|---|---|---|---|---|---|
| **Equipment** | **Manufacturer** | **Model No.** | **Serial No.** | **Last Cal.** | **Due Date** |
| 3m Semi-anechoic Chamber | ETS | 9m*6m*6m | Q2146 | 2022/08/30 | 2025/08/29 |
| EMI Test Receiver | Rohde & Schwarz | ESCI3 | 101409 | 2023/09/18 | 2024/09/17 |
| Spectrum Analyzer | KEYSIGHT | N9020A | MY51283932 | 2023/09/18 | 2024/09/17 |
| Pre-Amplifier | HzEMC | HPA-9K0130 | HYPA21001 | 2023/09/18 | 2024/09/17 |
| Biconilog Antenna | Schwarzbeck | VULB 9168 | 01315 | 2022/10/10 | 2025/10/09 |
| Biconilog Antenna | ETS | 3142E | 00243646 | 2022/03/23 | 2025/03/22 |
| Loop Antenna | ETS | 6502 | 243668 | 2022/03/30 | 2025/03/29 |
| Test Software | Farad | EZ-EMC (Ver.FA-03A2 RE) | N/A | N/A | N/A |

| Test Equipment of Radiated emissions above 1GHz | | | | | |
|---|---|---|---|---|---|
| **Equipment** | **Manufacturer** | **Model No.** | **Serial No.** | **Last Cal.** | **Due Date** |
| 3m Semi-anechoic Chamber | ETS | 9m*6m*6m | Q2149 | 2022/08/30 | 2025/08/29 |
| Spectrum Analyzer | Rohde & Schwarz | FSV40 | 101413 | 2023/09/18 | 2024/09/17 |
| Spectrum Analyzer | KEYSIGHT | N9020A | MY51283932 | 2023/09/18 | 2024/09/17 |
| Pre-Amplifier | A-INFO | HPA-1G1850 | HYPA21003 | 2023/09/18 | 2024/09/17 |
| Horn antenna | A-INFO | 3117 | 246069 | 2022/03/11 | 2025/03/10 |
| Pre-Amplifier | ZKJC | HPA-184057 | HYPA21004 | 2023/09/18 | 2024/09/17 |
| Horn antenna | ZKJC | 3116C | 246265 | 2022/03/29 | 2025/03/28 |
| Test Software | Farad | EZ-EMC (Ver.FA-03A2 RE+) | N/A | N/A | N/A |

| Test Equipment of Conducted emissions | | | | | |
|---|---|---|---|---|---|
| **Equipment** | **Manufacturer** | **Model No.** | **Serial No.** | **Last Cal.** | **Due Date** |
| Shielded Room | CHENG YU | 8m*5m*4m | N/A | 2022/10/29 | 2025/10/28 |
| EMI Test Receiver | Rohde & Schwarz | ESR3 | 102647 | 2023/09/18 | 2024/09/17 |
| LISN/AMN | Rohde & Schwarz | ENV216 | 102843 | 2023/09/18 | 2024/09/17 |
| NNLK 8129 RC | Schwarzbeck | NNLK 8129 RC | 5046 | 2023/09/18 | 2024/09/17 |
| Test Software | Farad | EZ-EMC (Ver. EMC-con-3A1 1+) | N/A | N/A | N/A |

# 7. ANTENNA PORT TEST RESULTS

## 7.1. CONDUCTED OUTPUT POWER

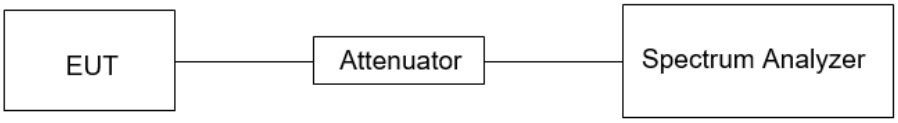
**LIMITS**

| CFR 47 FCC Part15 (15.247) Subpart C | | | |
|---|---|---|---|
| Section | Test Item | Limit | Frequency Range (MHz) |
| CFR 47 FCC 15.247(b)(3) | Peak Conduct Output Power | 1 watt or 30 dBm | 2400-2483.5 |

**TEST PROCEDURE**

Connect the EUT to a low loss RF cable from the antenna port to the power sensor (video bandwidth is greater than the occupied bandwidth).
Measure peak emission level, the indicated level is the peak output power, after any corrections for external attenuators and cables.

**TEST SETUP**




**TEST ENVIRONMENT**

| | | | |
|---|---|---|---|
| Temperature | 24℃ | Relative Humidity | 55% |
| Atmosphere Pressure | 101kPa | | |

**TEST RESULTS**

Please refer to section "Test Data" - Appendix A

## 7.2. 6DB BANDWIDTH OCCUPIED BANDWIDTH

**LIMITS**

| CFR 47 FCC Part15 (15.247) Subpart C | | | |
|---|---|---|---|
| Section | Test Item | Limit | Frequency Range (MHz) |
| CFR 47 FCC 15.247(a)(2) | 6 dB Bandwidth | ≥ 500 kHz | 2400-2483.5 |

**TEST PROCEDURE**

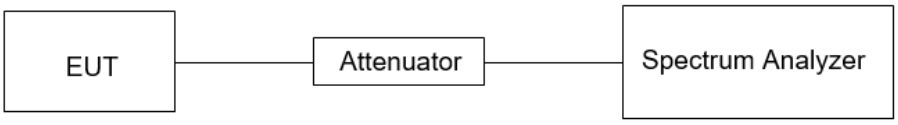
Refer to ANSI C63.10-2013 clause 11.8 for DTS bandwidth and clause 6.9 for Occupied Bandwidth.

Connect the EUT to the spectrum analyser and use the following settings:

| | |
|---|---|
| Center Frequency | The center frequency of the channel under test |
| Frequency Span | For 6 dB Bandwidth: Enough to capture all products of the modulation carrier emission |
| Detector | Peak |
| RBW | For 6 dB Bandwidth: 100 kHz |
| VBW | For 6 dB Bandwidth: ≥3 × RBW |
| Trace | Max hold |
| Sweep | Auto couple |

a) Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

**TEST SETUP**




**TEST ENVIRONMENT**

| | | | |
|---|---|---|---|
| Temperature | 24℃ | Relative Humidity | 55% |
| Atmosphere Pressure | 101kPa | | |

**TEST RESULTS**

Please refer to section "Test Data" - Appendix A

## 7.3. POWER SPECTRAL DENSITY

**LIMITS**

| CFR 47 FCC Part15 (15.247) Subpart C | | | |
|---|---|---|---|
| Section | Test Item | Limit | Frequency Range (MHz) |
| CFR 47 FCC §15.247 (e) | Power Spectral Density | 8 dBm in any 3 kHz band | 2400-2483.5 |

**TEST PROCEDURE**

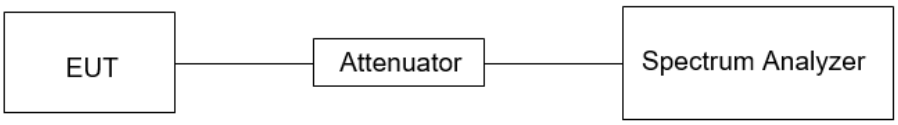
Refer to ANSI C63.10-2013 clause 11.10.

Connect the EUT to the spectrum analyser and use the following settings:

| | |
|---|---|
| Center Frequency | The center frequency of the channel under test |
| Detector | PEAK |
| RBW | 3 kHz ≤ RBW ≤ 100 kHz |
| VBW | ≥3 × RBW |
| Span | 1.5 x DTS bandwidth |
| Trace | Max hold |
| Sweep time | Auto couple |

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.
If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

**TEST SETUP**




**TEST ENVIRONMENT**

| | | | |
|---|---|---|---|
| Temperature | 24℃ | Relative Humidity | 55% |
| Atmosphere Pressure | 101kPa | | |

**TEST RESULTS**

Please refer to section "Test Data" - Appendix A

## 7.4. CONDUCTED BAND EDGE AND SPURIOUS EMISSION

**LIMITS**

| CFR 47 FCC Part15 (15.247) Subpart C | | |
|---|---|---|
| Section | Test Item | Limit |
| CFR 47 FCC §15.247 (d) | Conducted Bandedge and Spurious Emissions | at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power |

**TEST PROCEDURE**

Refer to ANSI C63.10-2013 clause 11.11 and 11.13.

Connect the EUT to the spectrum analyser and use the following settings for reference level measurement:

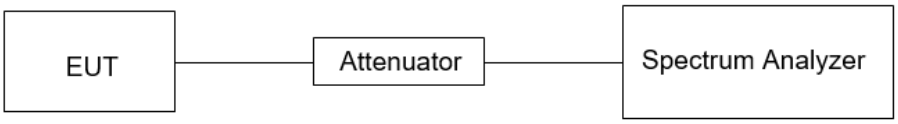
| | |
|---|---|
| Center Frequency | The center frequency of the channel under test |
| Detector | Peak |
| RBW | 100 kHz |
| VBW | ≥3 × RBW |
| Span | 1.5 x DTS bandwidth |
| Trace | Max hold |
| Sweep time | Auto couple. |

Allow trace to fully stabilize and use the peak marker function to determine the maximum PSD level. Change the settings for emission level measurement:

| | |
|---|---|
| Span | Set the center frequency and span to encompass frequency range to be measured |
| Detector | Peak |
| RBW | 100 kHz |
| VBW | ≥3 × RBW |
| measurement points | ≥span/RBW |
| Trace | Max hold |
| Sweep time | Auto couple. |

Allow trace to fully stabilize and use the peak marker function to determine the maximum PSD level. Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11.

**TEST SETUP**




**TEST ENVIRONMENT**

| | | | |
|---|---|---|---|
| Temperature | 24℃ | Relative Humidity | 55% |
| Atmosphere Pressure | 101kPa | | |

**TEST RESULTS**

Please refer to section "Test Data" - Appendix A

## 7.5. DUTY CYCLE

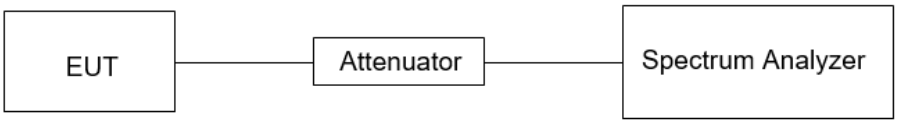
**LIMITS**

None; for reporting purposes only.

**TEST PROCEDURE**

Refer to ANSI C63.10-2013 clause 11.6 Zero – Span Spectrum Analyzer method.

**TEST SETUP**




**TEST ENVIRONMENT**

| | | | |
|---|---|---|---|
| Temperature | 24℃ | Relative Humidity | 55% |
| Atmosphere Pressure | 101kPa | | |

**TEST RESULTS**

Please refer to section "Test Data" - Appendix A

# 8. RADIATED TEST RESULTS

**LIMITS**

Please refer to CFR 47 FCC §15.205 and §15.209.

Radiation Disturbance Test Limit for FCC (Class B) (9 kHz ~ 1 GHz)

| Emissions radiated outside of the specified frequency bands above 30 MHz | | | |
|---|---|---|---|
| Frequency Range (MHz) | Field Strength Limit (uV/m) at 3 m | Field Strength Limit (dBuV/m) at 3 m | |
| | | Quasi-Peak | |
| 30 - 88 | 100 | 40 | |
| 88 - 216 | 150 | 43.5 | |
| 216 - 960 | 200 | 46 | |
| Above 960 | 500 | 54 | |
| Above 1000 | 500 | Peak | Average |
| | | 74 | 54 |

| FCC Emissions radiated outside of the specified frequency bands below 30 MHz | | |
|---|---|---|
| Frequency (MHz) | Field strength (microvolts/meter) | Measurement distance (meters) |
| 0.009-0.490 | 2400/F(kHz) | 300 |
| 0.490-1.705 | 24000/F(kHz) | 30 |
| 1.705-30.0 | 30 | 30 |

FCC Restricted bands of operation refer to FCC §15.205 (a):

| MHz | MHz | MHz | GHz |
|---|---|---|---|
| 0.090-0.110 | 16.42-16.423 | 399.9-410 | 4.5-5.15 |
| [1]0.495-0.505 | 16.69475-16.69525 | 608-614 | 5.35-5.46 |
| 2.1735-2.1905 | 16.80425-16.80475 | 960-1240 | 7.25-7.75 |
| 4.125-4.128 | 25.5-25.67 | 1300-1427 | 8.025-8.5 |
| 4.17725-4.17775 | 37.5-38.25 | 1435-1626.5 | 9.0-9.2 |
| 4.20725-4.20775 | 73-74.6 | 1645.5-1646.5 | 9.3-9.5 |
| 6.215-6.218 | 74.8-75.2 | 1660-1710 | 10.6-12.7 |
| 6.26775-6.26825 | 108-121.94 | 1718.8-1722.2 | 13.25-13.4 |
| 6.31175-6.31225 | 123-138 | 2200-2300 | 14.47-14.5 |
| 8.291-8.294 | 149.9-150.05 | 2310-2390 | 15.35-16.2 |
| 8.362-8.366 | 156.52475-156.52525 | 2483.5-2500 | 17.7-21.4 |
| 8.37625-8.38675 | 156.7-156.9 | 2690-2900 | 22.01-23.12 |
| 8.41425-8.41475 | 162.0125-167.17 | 3260-3267 | 23.6-24.0 |
| 12.29-12.293 | 167.72-173.2 | 3332-3339 | 31.2-31.8 |
| 12.51975-12.52025 | 240-285 | 3345.8-3358 | 36.43-36.5 |
| 12.57675-12.57725 | 322-335.4 | 3600-4400 | ([2]) |
| 13.36-13.41 | | | |

Note:1. Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
2. Above 38.6c

**TEST PROCEDURE**

Below 30 MHz

The setting of the spectrum analyser

| | |
|---|---|
| RBW | 200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz) |
| VBW | 200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz) |
| Sweep | Auto |

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.4.

2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1 m height antenna tower.

5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

6. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak and average detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak and average detector and reported.

7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.

8. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377Ω. For example, the measurement frequency X KHz resulted in a level of Y dBuV/m, which is equivalent to Y-51.5 = Z dBuA/m, which has the same margin, W dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.

Below 1 GHz and above 30 MHz

The setting of the spectrum analyser

| | |
|---|---|
| RBW | 120 kHz |
| VBW | 300 kHz |
| Sweep | Auto |
| Detector | Peak/QP |
| Trace | Max hold |

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.5.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

Above 1G

The setting of the spectrum analyser

| | |
|---|---|
| RBW | 1 MHz |
| VBW | PEAK: 3 MHz<br>AVG: see note 6 |
| Sweep | Auto |
| Detector | Peak |
| Trace | Max hold |

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.6.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

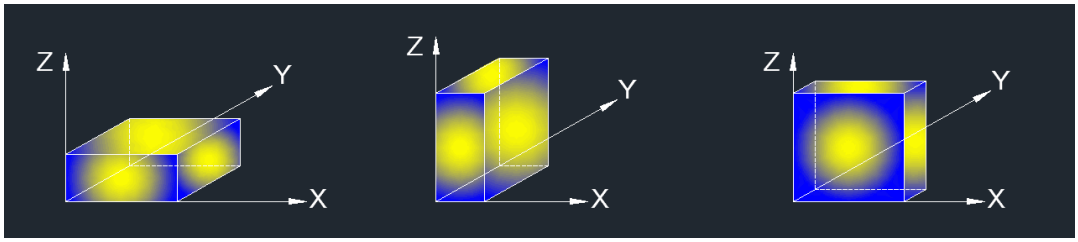
3. The EUT was placed on a turntable with 1.5 m above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement above 1 GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.

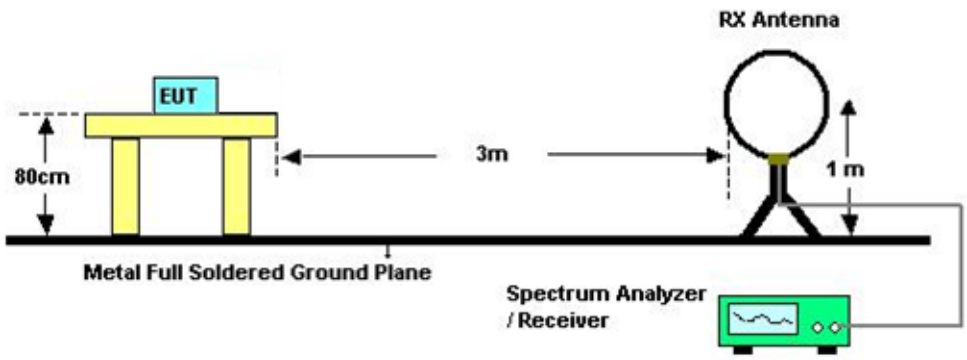
6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 7.1.ON TIME AND DUTY CYCLE.

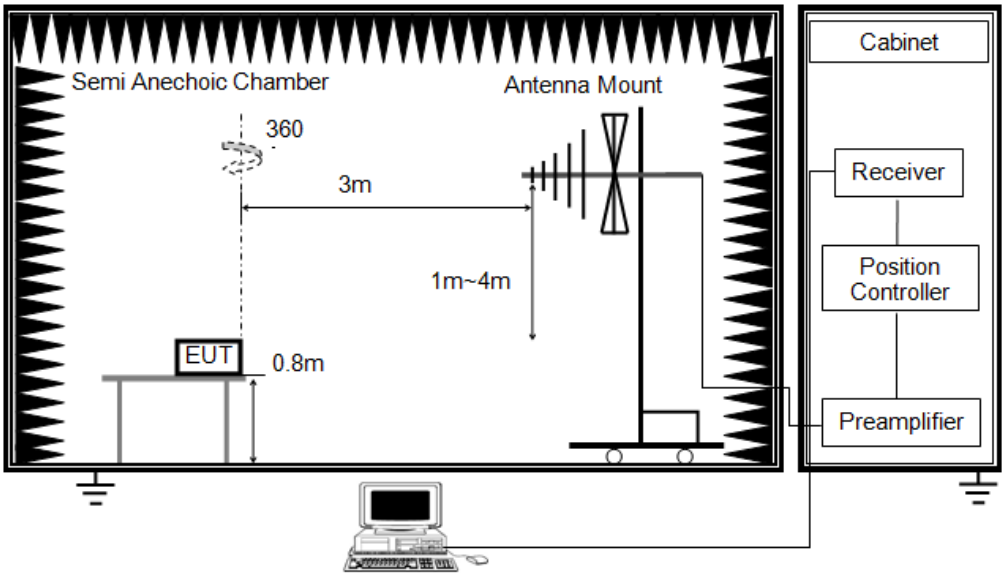
X axis, Y axis, Z axis positions:

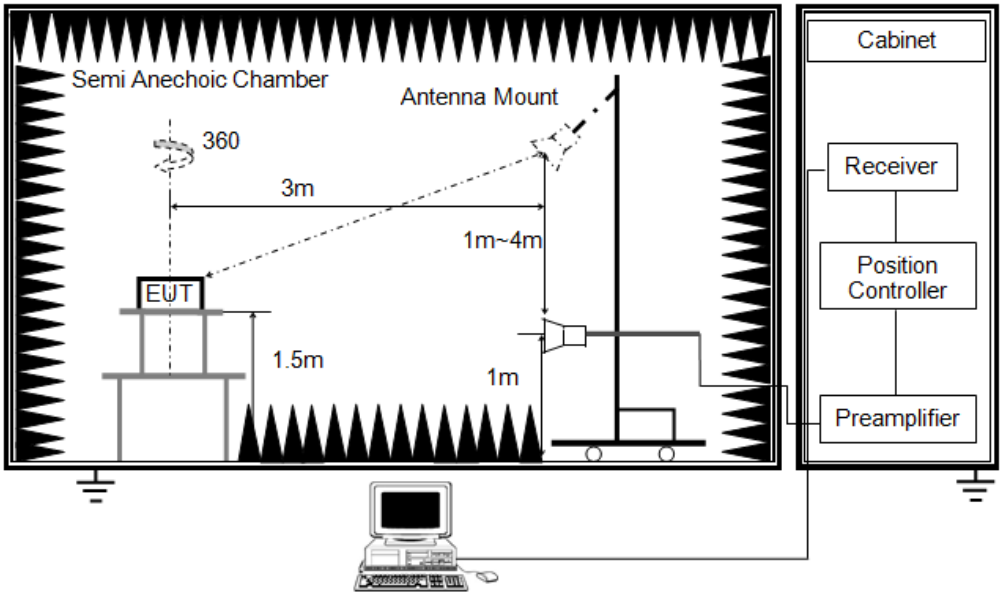



Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

**TEST SETUP**





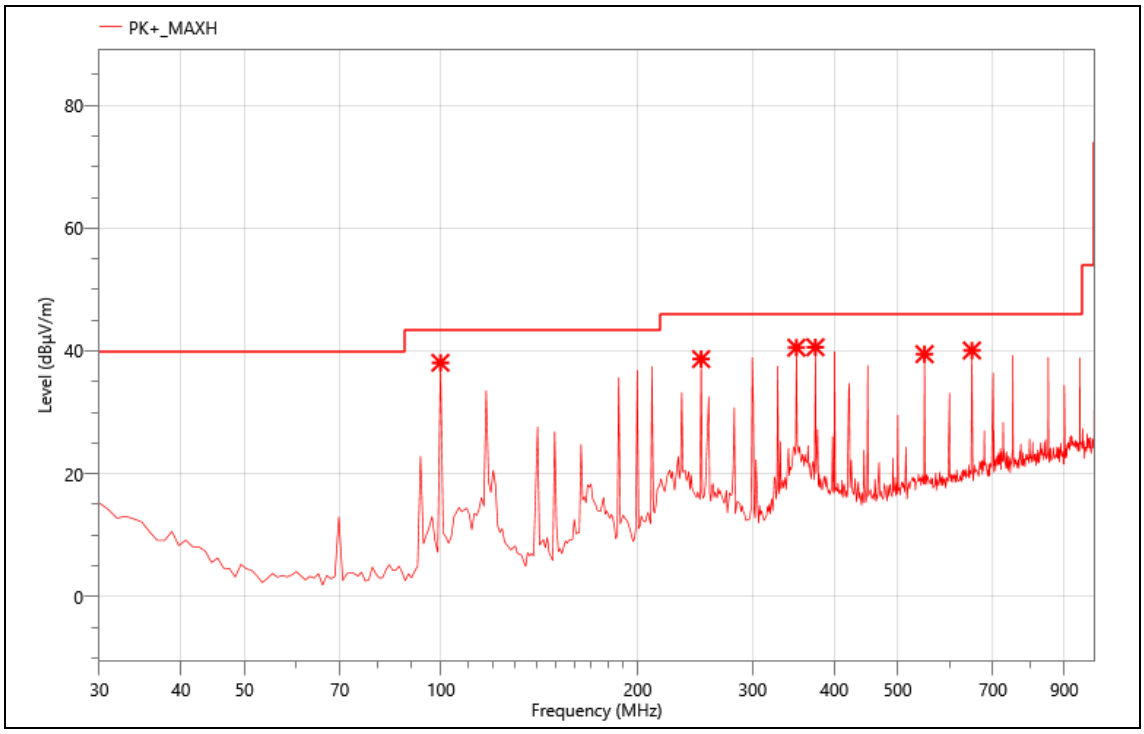

**TEST ENVIRONMENT**

| | | | |
|---|---|---|---|
| Temperature | 24.1℃ | Relative Humidity | 53% |
| Atmosphere Pressure | 101kPa | | |

**TEST RESULTS**

The worst data of the mode (802.11b 2412MHz) are recorded in the following pages.

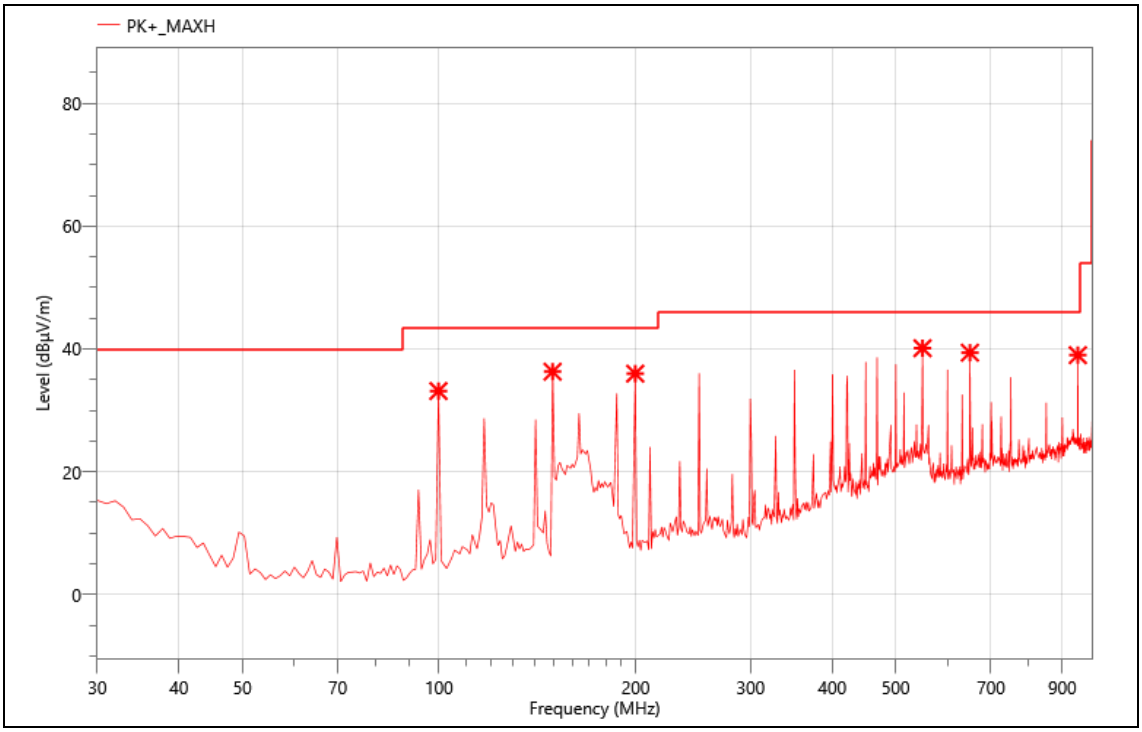
| | |
|---|---|
| Mode: | 11B-2412 |
| Power: | DC 5V |
| TE: | Berny |
| Date | 2024/7/3 |
| T/A/P | 24.1℃/53%/101Kpa |




## Critical_Freqs

| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|---|---|---|---|---|---|---|---|---|
| 1 | 99.840 | 62.05 | -23.97 | 38.08 | 43.50 | 5.42 | PK+ | H |
| 2 | 250.190 | 57.75 | -19.07 | 38.68 | 46.00 | 7.32 | PK+ | H |
| 3 | 350.100 | 56.94 | -16.4 | 40.54 | 46.00 | 5.46 | PK+ | H |
| 4 | 374.350 | 55.80 | -15.19 | 40.61 | 46.00 | 5.39 | PK+ | H |
| 5 | 549.920 | 49.22 | -9.73 | 39.49 | 46.00 | 6.51 | PK+ | H |
| 6 | 649.830 | 48.56 | -8.48 | 40.08 | 46.00 | 5.92 | PK+ | H |

| | |
|---|---|
| Mode: | 11B-2412 |
| Power: | DC 5V |
| TE: | Berny |
| Date | 2024/7/3 |
| T/A/P | 24.1□/53%/101Kpa |

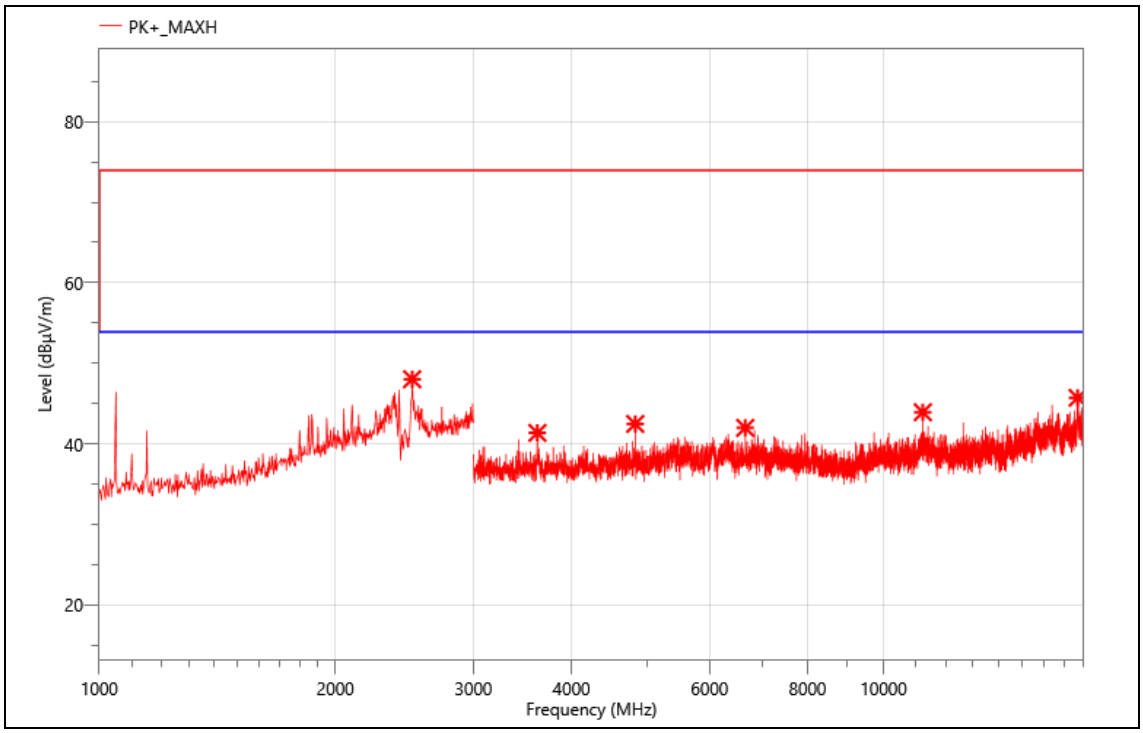



## Critical_Freqs

| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|---|---|---|---|---|---|---|---|---|
| 1 | 99.840 | 57.12 | -23.97 | 33.15 | 43.50 | 10.35 | PK+ | V |
| 2 | 149.310 | 59.16 | -22.86 | 36.30 | 43.50 | 7.20 | PK+ | V |
| 3 | 199.750 | 58.07 | -22.08 | 35.99 | 43.50 | 7.51 | PK+ | V |
| 4 | 549.920 | 49.86 | -9.73 | 40.13 | 46.00 | 5.87 | PK+ | V |
| 5 | 649.830 | 47.88 | -8.48 | 39.40 | 46.00 | 6.60 | PK+ | V |
| 6 | 950.530 | 42.42 | -3.42 | 39.00 | 46.00 | 7.00 | PK+ | V |

Above 1GHz
The worst result as bellow:

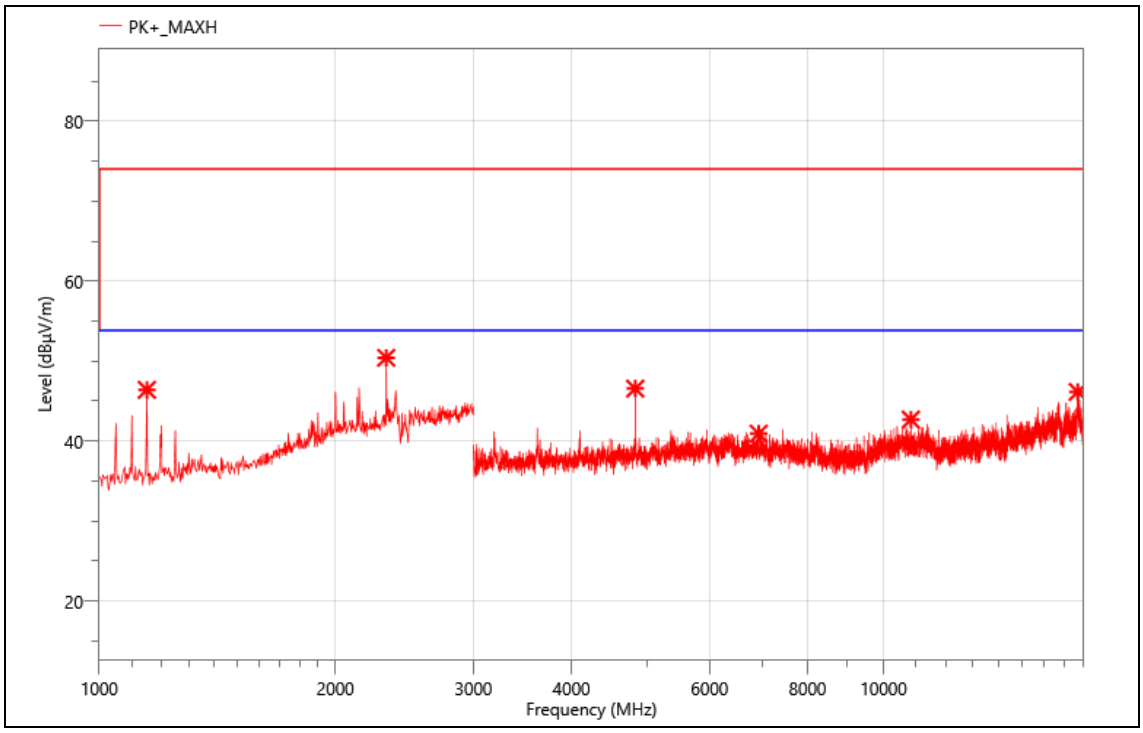
| | |
|---|---|
| Mode: | 11B-2412 |
| Power: | DC 5V |
| TE: | Berny |
| Date | 2024/7/3 |
| T/A/P | 24.1℃/53%/101Kpa |




## Critical_Freqs

| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|---|---|---|---|---|---|---|---|---|
| 1 | 2506.000 | 56.43 | -8.41 | 48.02 | 74.00 | 25.98 | PK+ | H |
| 2 | 3619.500 | 54.85 | -13.49 | 41.36 | 74.00 | 32.64 | PK+ | H |
| 3 | 4824.000 | 53.94 | -11.47 | 42.47 | 74.00 | 31.53 | PK+ | H |
| 4 | 6663.000 | 50.20 | -8.22 | 41.98 | 74.00 | 32.02 | PK+ | H |
| 5 | 11221.500 | 48.18 | -4.26 | 43.92 | 74.00 | 30.08 | PK+ | H |
| 6 | 17676.000 | 45.40 | 0.31 | 45.71 | 74.00 | 28.29 | PK+ | H |

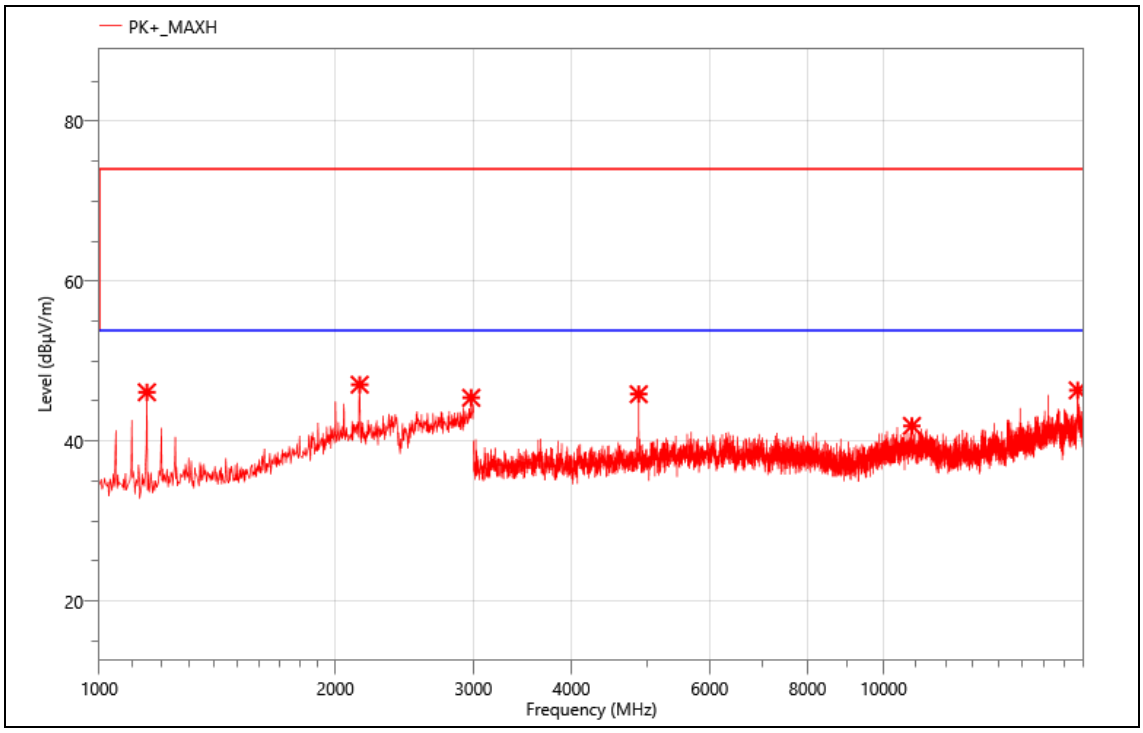
| | |
|---|---|
| Mode: | 11B-2412 |
| Power: | DC 5V |
| TE: | Berny |
| Date | 2024/7/3 |
| T/A/P | 24.1˚C/53%/101Kpa |




## Critical_Freqs

| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|---|---|---|---|---|---|---|---|---|
| 1 | 1150.000 | 61.35 | -14.95 | 46.40 | 74.00 | 27.60 | PK+ | V |
| 2 | 2322.000 | 59.21 | -8.8 | 50.41 | 74.00 | 23.59 | PK+ | V |
| 3 | 4824.000 | 58.03 | -11.47 | 46.56 | 74.00 | 27.44 | PK+ | V |
| 4 | 6931.500 | 49.08 | -8.15 | 40.93 | 74.00 | 33.07 | PK+ | V |
| 5 | 10834.500 | 47.82 | -5.13 | 42.69 | 74.00 | 31.31 | PK+ | V |
| 6 | 17686.500 | 45.89 | 0.25 | 46.14 | 74.00 | 27.86 | PK+ | V |

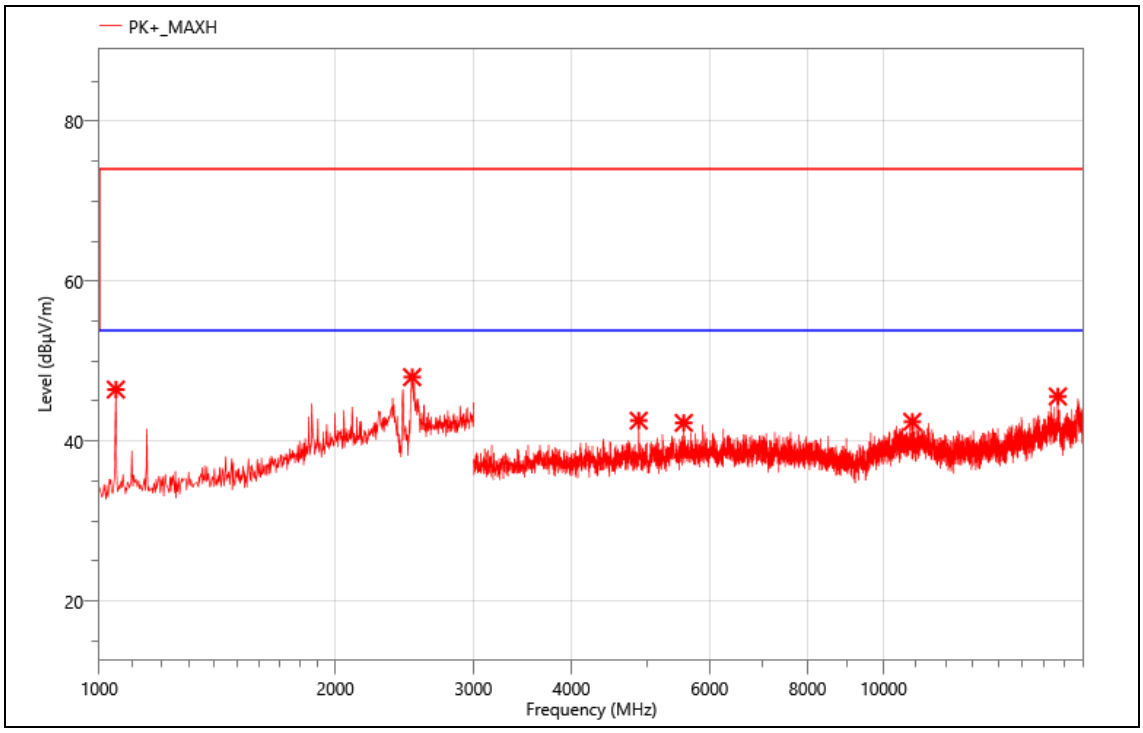
| | |
|---|---|
| Mode: | 11B-2437 |
| Power: | DC 5V |
| TE: | Berny |
| Date | 2024/7/3 |
| T/A/P | 24.1˚C/53%/101Kpa |




## Critical_Freqs

| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|---|---|---|---|---|---|---|---|---|
| 1 | 1150.000 | 61.05 | -14.95 | 46.10 | 74.00 | 27.90 | PK+ | V |
| 2 | 2148.000 | 56.10 | -9.05 | 47.05 | 74.00 | 26.95 | PK+ | V |
| 3 | 2980.000 | 52.40 | -6.99 | 45.41 | 74.00 | 28.59 | PK+ | V |
| 4 | 4873.500 | 57.01 | -11.15 | 45.86 | 74.00 | 28.14 | PK+ | V |
| 5 | 10869.000 | 47.01 | -5.12 | 41.89 | 74.00 | 32.11 | PK+ | V |
| 6 | 17688.000 | 46.09 | 0.25 | 46.34 | 74.00 | 27.66 | PK+ | V |

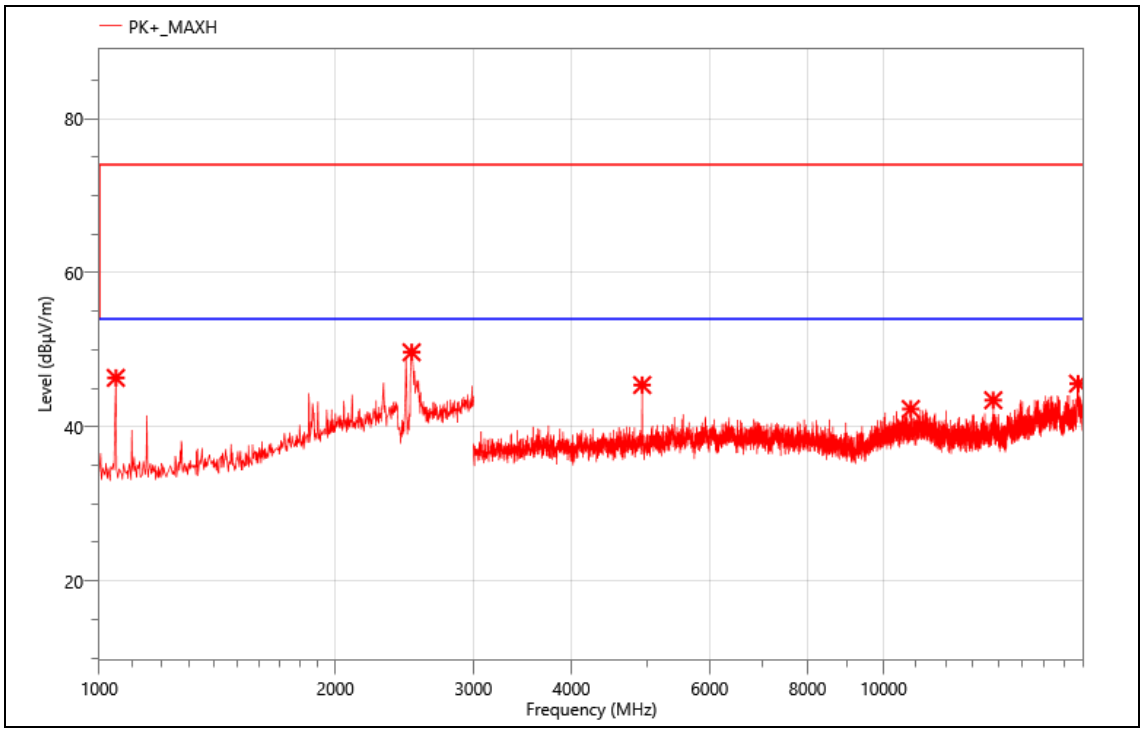
| | |
|---|---|
| Mode: | 11B-2437 |
| Power: | DC 5V |
| TE: | Berny |
| Date | 2024/7/3 |
| T/A/P | 24.1˚C/53%/101Kpa |




## Critical_Freqs

| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|---|---|---|---|---|---|---|---|---|
| 1 | 1050.000 | 61.70 | -15.26 | 46.44 | 74.00 | 27.56 | PK+ | H |
| 2 | 2506.000 | 56.40 | -8.41 | 47.99 | 74.00 | 26.01 | PK+ | H |
| 3 | 4873.500 | 53.70 | -11.15 | 42.55 | 74.00 | 31.45 | PK+ | H |
| 4 | 5562.000 | 51.64 | -9.37 | 42.27 | 74.00 | 31.73 | PK+ | H |
| 5 | 10881.000 | 47.54 | -5.13 | 42.41 | 74.00 | 31.59 | PK+ | H |
| 6 | 16680.000 | 46.06 | -0.49 | 45.57 | 74.00 | 28.43 | PK+ | H |

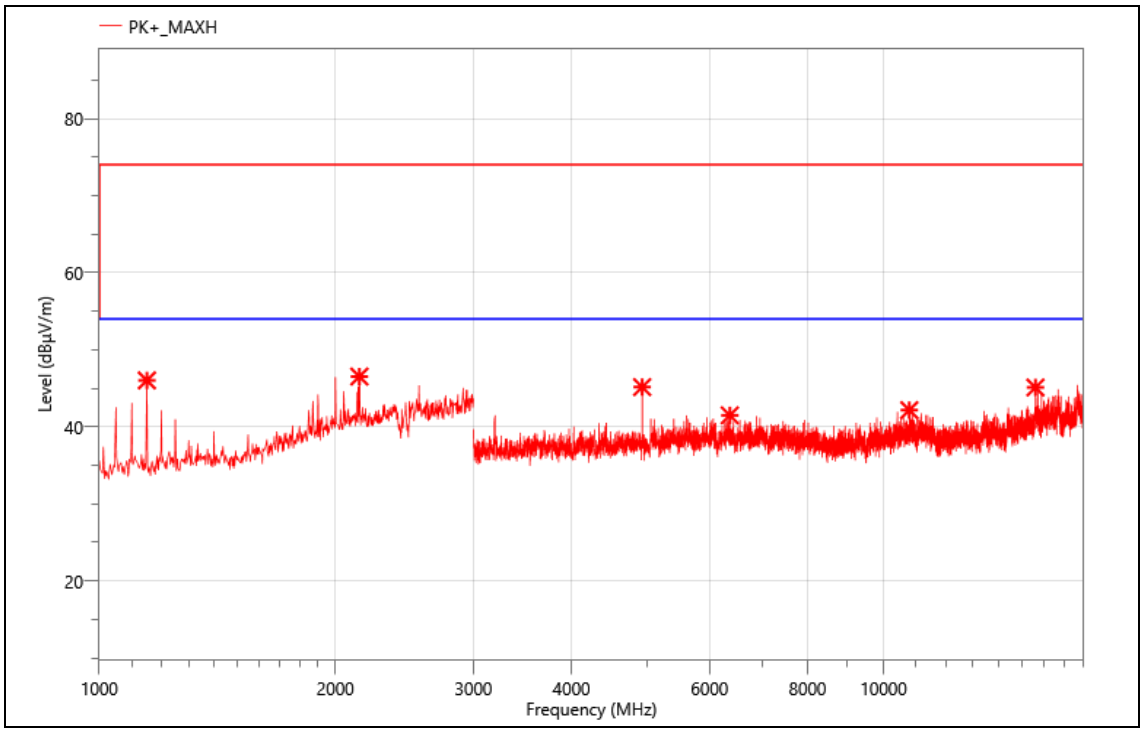
| | |
|---|---|
| Mode: | 11B-2462 |
| Power: | DC 5V |
| TE: | Berny |
| Date | 2024/7/3 |
| T/A/P | 24.1˚C/53%/101Kpa |




## Critical_Freqs

| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|---|---|---|---|---|---|---|---|---|
| 1 | 1050.000 | 61.61 | -15.26 | 46.35 | 74.00 | 27.65 | PK+ | H |
| 2 | 2502.000 | 58.08 | -8.41 | 49.67 | 74.00 | 24.33 | PK+ | H |
| 3 | 4923.000 | 56.53 | -11.11 | 45.42 | 74.00 | 28.58 | PK+ | H |
| 4 | 10833.000 | 47.43 | -5.13 | 42.30 | 74.00 | 31.70 | PK+ | H |
| 5 | 13800.000 | 47.17 | -3.72 | 43.45 | 74.00 | 30.55 | PK+ | H |
| 6 | 17701.500 | 45.46 | 0.14 | 45.60 | 74.00 | 28.40 | PK+ | H |

| | |
|---|---|
| Mode: | 11B-2462 |
| Power: | DC 5V |
| TE: | Berny |
| Date | 2024/7/3 |
| T/A/P | 24.1˚C/53%/101Kpa |




## Critical_Freqs

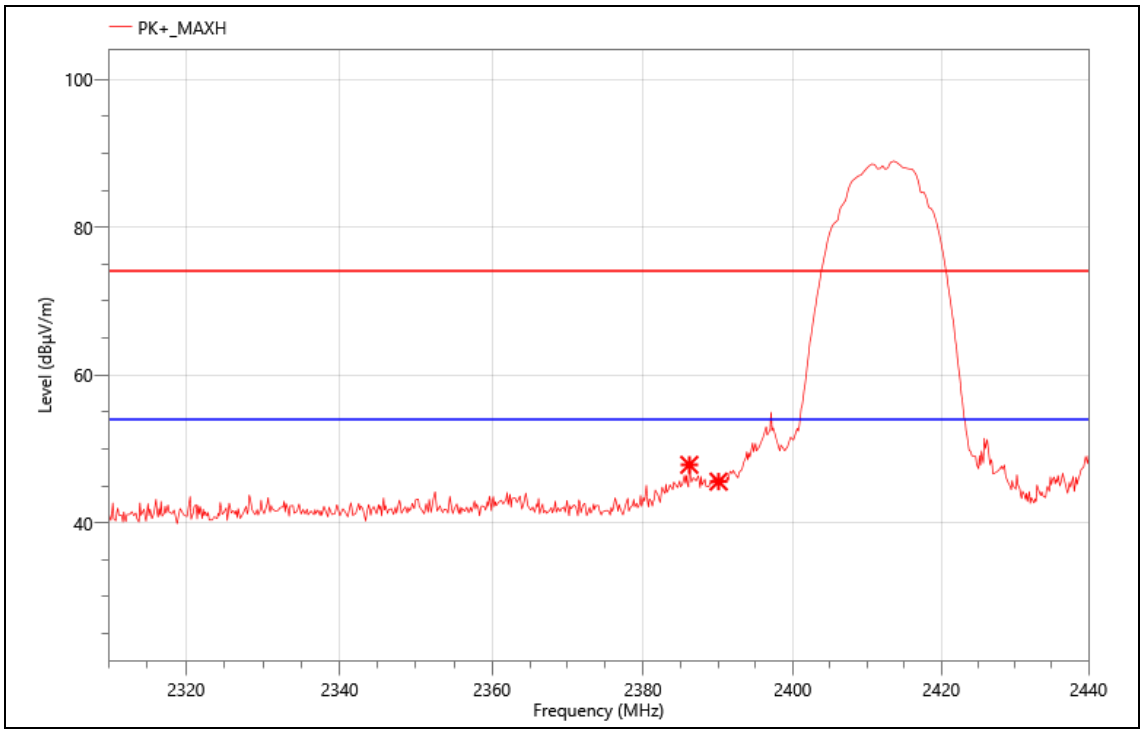
| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|---|---|---|---|---|---|---|---|---|
| 1 | 1150.000 | 60.97 | -14.95 | 46.02 | 74.00 | 27.98 | PK+ | V |
| 2 | 2146.000 | 55.57 | -9.05 | 46.52 | 74.00 | 27.48 | PK+ | V |
| 3 | 4923.000 | 56.26 | -11.11 | 45.15 | 74.00 | 28.85 | PK+ | V |
| 4 | 6367.500 | 49.39 | -7.9 | 41.49 | 74.00 | 32.51 | PK+ | V |
| 5 | 10785.000 | 47.17 | -5.01 | 42.16 | 74.00 | 31.84 | PK+ | V |
| 6 | 15618.000 | 47.42 | -2.32 | 45.10 | 74.00 | 28.90 | PK+ | V |

No others harmonics emissions are higher than 20 dB below the limits of 47 CFR Part 15.247.

**Note:** (1) All Readings are Peak Value.
(2) Emission Level= Reading Level+ Probe Factor +Cable Loss.
(3) The average measurement was not performed when the peak measured data under the limit of average detection.
(4) Measuring frequencies from 1GHz to 25GHz.

Band Edge
The worst result as bellow:

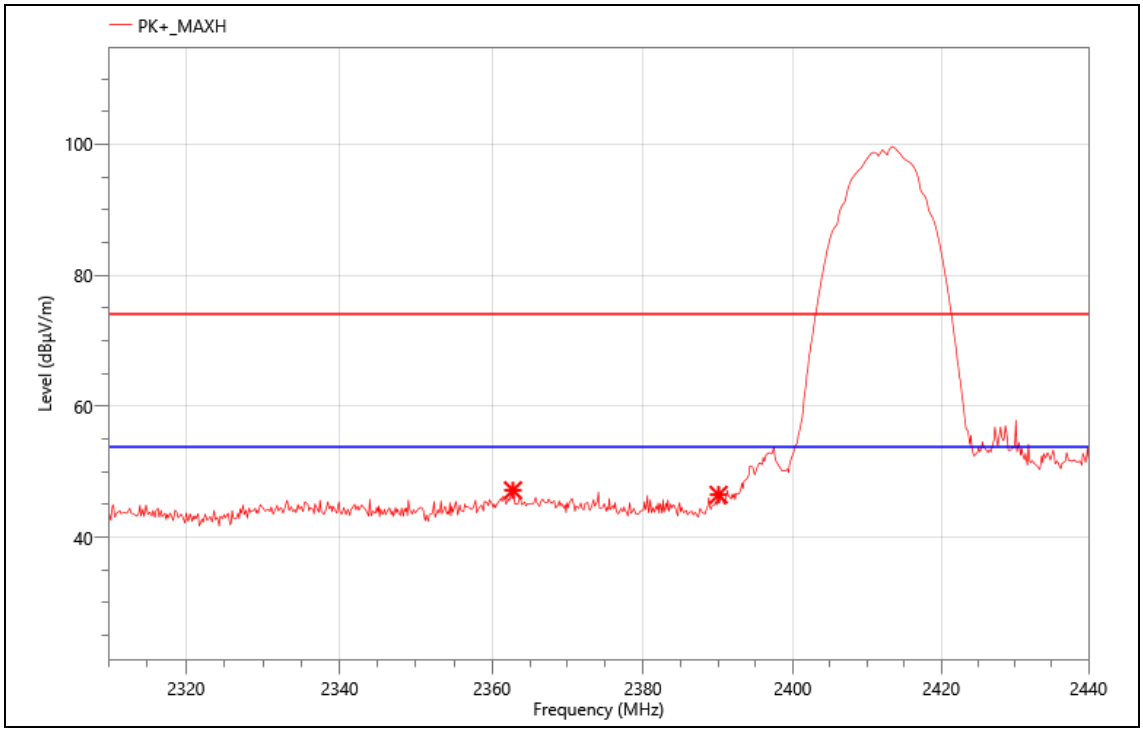
| | |
|---|---|
| Mode: | 11B-2412 |
| Power: | DC 5V |
| TE: | Berny |
| Date | 2024/7/3 |
| T/A/P | 24.1℃/53%/101Kpa |




## Critical_Freqs

| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|---|---|---|---|---|---|---|---|---|
| 1 | 2386.180 | 25.20 | 22.65 | 47.85 | 74.00 | 26.15 | PK+ | V |
| 2 | 2390.080 | 22.86 | 22.72 | 45.58 | 74.00 | 28.42 | PK+ | V |

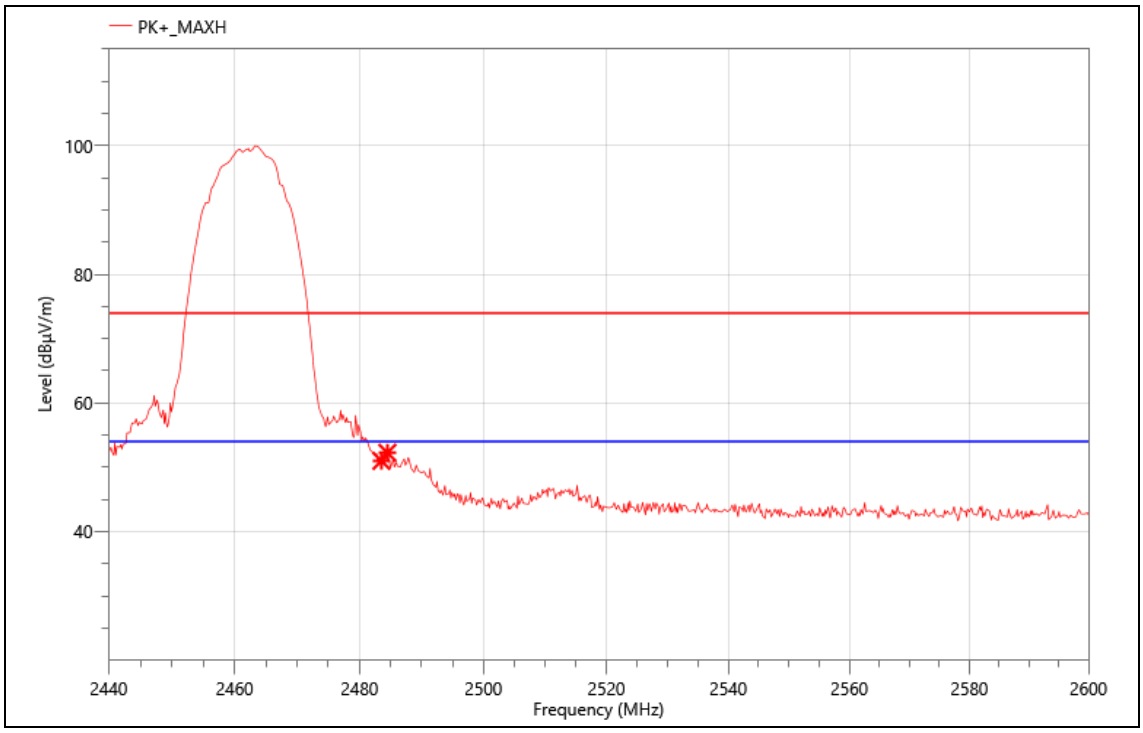
| | |
|---|---|
| Mode: | 11B-2412 |
| Power: | DC 5V |
| TE: | Berny |
| Date | 2024/7/3 |
| T/A/P | 24.1℃/53%/101Kpa |




## Critical_Freqs

| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|---|---|---|---|---|---|---|---|---|
| 1 | 2362.780 | 24.48 | 22.7 | 47.18 | 74.00 | 26.82 | PK+ | H |
| 2 | 2390.080 | 23.78 | 22.72 | 46.50 | 74.00 | 27.50 | PK+ | H |

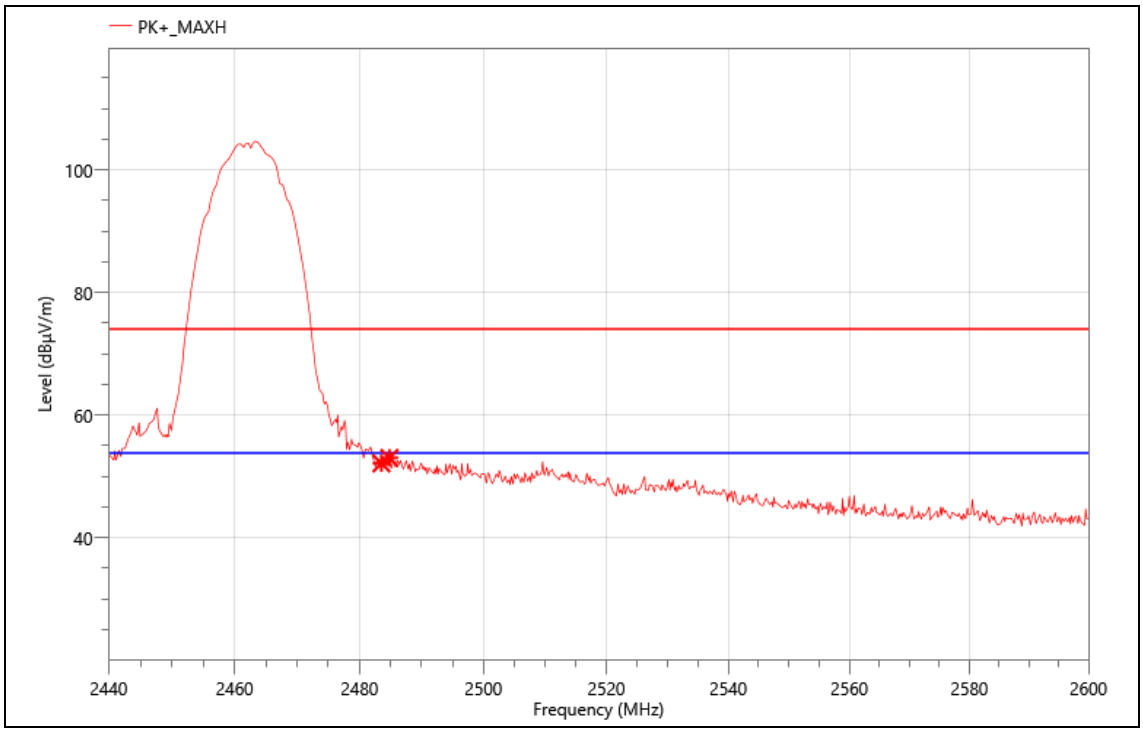
| | |
|---|---|
| Mode: | 11B-2462 |
| Power: | DC 5V |
| TE: | Berny |
| Date | 2024/7/3 |
| T/A/P | 24.1˚C/53%/101Kpa |




## Critical_Freqs

| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|---|---|---|---|---|---|---|---|---|
| 1 | 2483.520 | 27.85 | 23.15 | 51.00 | 74.00 | 23.00 | PK+ | V |
| 2 | 2484.480 | 29.12 | 23.15 | 52.27 | 74.00 | 21.73 | PK+ | V |

| | |
|---|---|
| Mode: | 11B-2462 |
| Power: | DC 5V |
| TE: | Berny |
| Date | 2024/7/3 |
| T/A/P | 24.1˚C/53%/101Kpa |




## Critical_Freqs

| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|---|---|---|---|---|---|---|---|---|
| 1 | 2483.520 | 28.98 | 23.15 | 52.13 | 74.00 | 21.87 | PK+ | H |
| 2 | 2484.800 | 29.87 | 23.15 | 53.02 | 74.00 | 20.98 | PK+ | H |

Note:

1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

# 9. ANTENNA REQUIREMENT

**REQUIREMENT**

The EUT'S antenna is met the requirement of FCC part 15C section 15.203 and 15.247.

FCC part 15C section 15.247 requirements:

Systems operating in the 2402-2480MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum peak output power of the intentional radiator is reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

**DESCRIPTION**

The EUT's antenna, permanent attached antenna, used Internal antenna, The antenna's gain is 4.4dBi and meets the requirement.

# 10. AC POWER LINE CONDUCTED EMISSION

**LIMITS**

Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

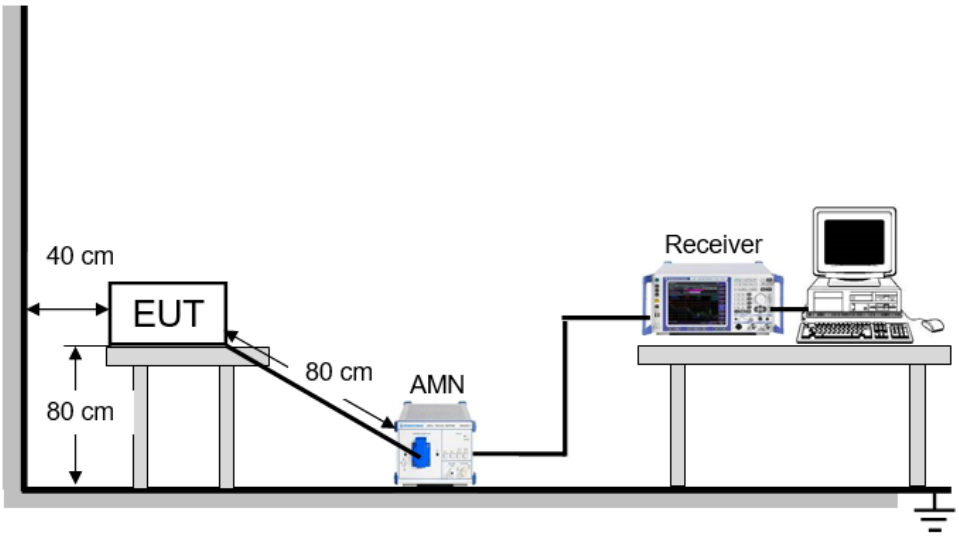
| FREQUENCY (MHz) | Quasi-peak | Average |
|---|---|---|
| 0.15 -0.5 | 66 - 56 * | 56 - 46 * |
| 0.50 -5.0 | 56.00 | 46.00 |
| 5.0 -30.0 | 60.00 | 50.00 |

**TEST PROCEDURE**

The EUT is put on a table of non-conducting material that is 80 cm high. The vertical conducting wall of shielding is located 40 cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9 kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

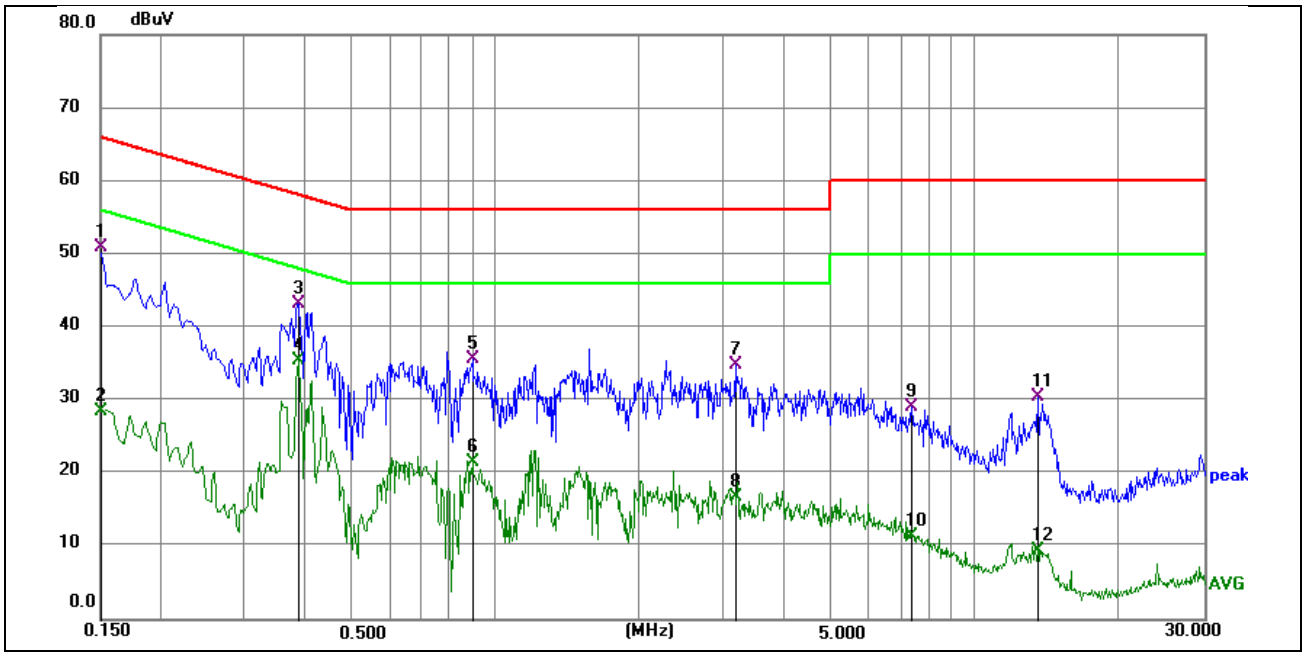
**TEST SETUP**




**TEST ENVIRONMENT**

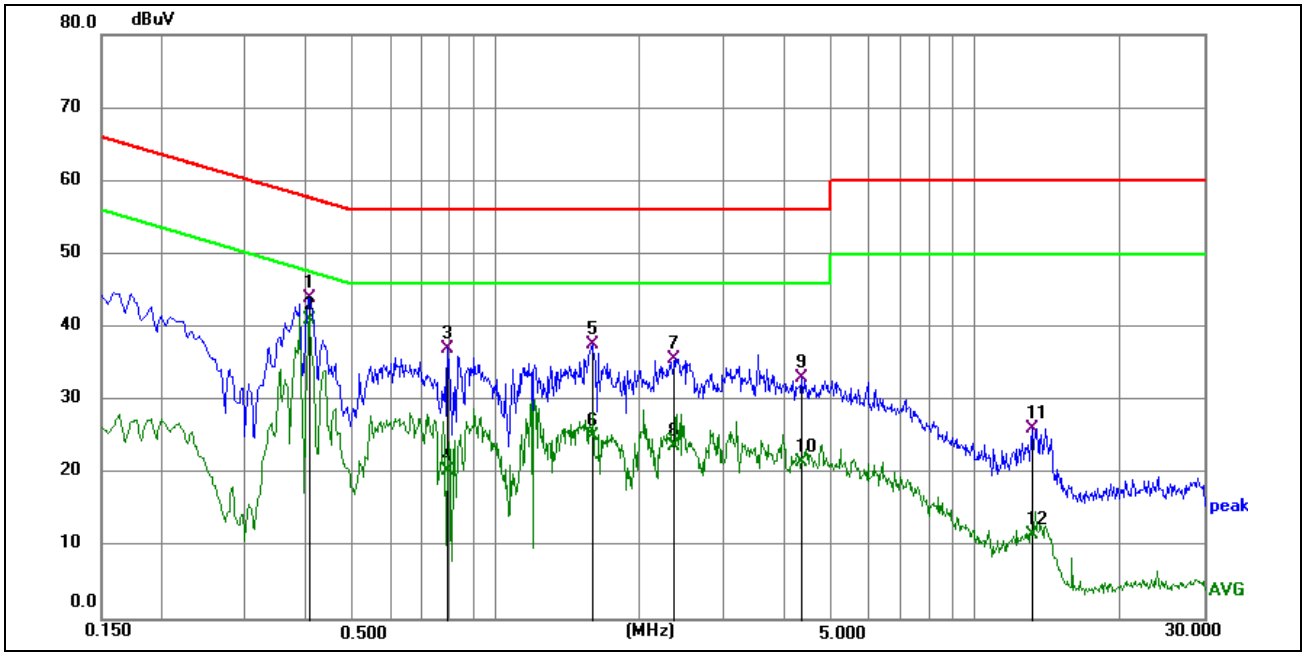
| | | | |
|---|---|---|---|
| Temperature | 26℃ | Relative Humidity | 54% |
| Atmosphere Pressure | 101kPa | | |

**TEST RESULTS**




| Phase: N | Mode: 802.11b 2412MHz |
|---|---|

| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 0.1500 | 41.00 | 10.00 | 51.00 | 66.00 | -15.00 | QP |
| 2 | 0.1500 | 18.57 | 10.00 | 28.57 | 56.00 | -27.43 | AVG |
| 3 | 0.3885 | 33.27 | 9.93 | 43.20 | 58.10 | -14.90 | QP |
| 4 | 0.3885 | 25.43 | 9.93 | 35.36 | 48.10 | -12.74 | AVG |
| 5 | 0.8970 | 25.53 | 10.05 | 35.58 | 56.00 | -20.42 | QP |
| 6 | 0.8970 | 11.55 | 10.05 | 21.60 | 46.00 | -24.40 | AVG |
| 7 | 3.1695 | 24.65 | 10.21 | 34.86 | 56.00 | -21.14 | QP |
| 8 | 3.1695 | 6.54 | 10.21 | 16.75 | 46.00 | -29.25 | AVG |
| 9 | 7.3905 | 18.44 | 10.55 | 28.99 | 60.00 | -31.01 | QP |
| 10 | 7.3905 | 0.87 | 10.55 | 11.42 | 50.00 | -38.58 | AVG |
| 11 | 13.5195 | 19.49 | 10.99 | 30.48 | 60.00 | -29.52 | QP |
| 12 | 13.5195 | -1.63 | 10.99 | 9.36 | 50.00 | -40.64 | AVG |




| Phase: L1 | Mode: 802.11b 2412MHz |
|---|---|

| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 0.4065 | 34.20 | 9.82 | 44.02 | 57.72 | -13.70 | QP |
| 2 | 0.4065 | 31.12 | 9.82 | 40.94 | 47.72 | -6.78 | AVG |
| 3 | 0.7935 | 27.00 | 10.12 | 37.12 | 56.00 | -18.88 | QP |
| 4 | 0.7935 | 10.27 | 10.12 | 20.39 | 46.00 | -25.61 | AVG |
| 5 | 1.5855 | 27.26 | 10.26 | 37.52 | 56.00 | -18.48 | QP |
| 6 | 1.5855 | 14.89 | 10.26 | 25.15 | 46.00 | -20.85 | AVG |
| 7 | 2.3594 | 25.58 | 10.12 | 35.70 | 56.00 | -20.30 | QP |
| 8 | 2.3594 | 13.58 | 10.12 | 23.70 | 46.00 | -22.30 | AVG |
| 9 | 4.3485 | 22.91 | 10.22 | 33.13 | 56.00 | -22.87 | QP |
| 10 | 4.3485 | 11.26 | 10.22 | 21.48 | 46.00 | -24.52 | AVG |
| 11 | 13.1640 | 15.22 | 10.98 | 26.20 | 60.00 | -33.80 | QP |
| 12 | 13.1640 | 0.58 | 10.98 | 11.56 | 50.00 | -38.44 | AVG |

Note: 1. Result = Reading + Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).
4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

Note: All the modes have been tested, only the worst data was recorded in the report.
.

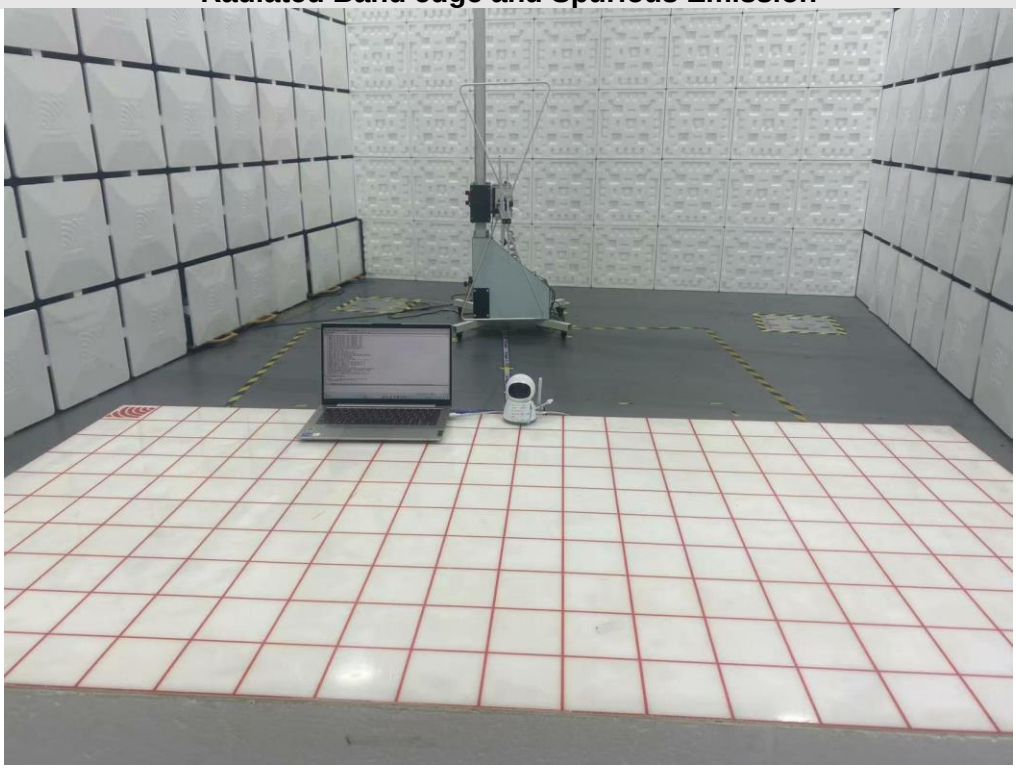
# 11. TEST DATA

Please refer to section "Test Data" - Appendix A

# APPENDIX: PHOTOGRAPHS OF TEST CONFIGURATION

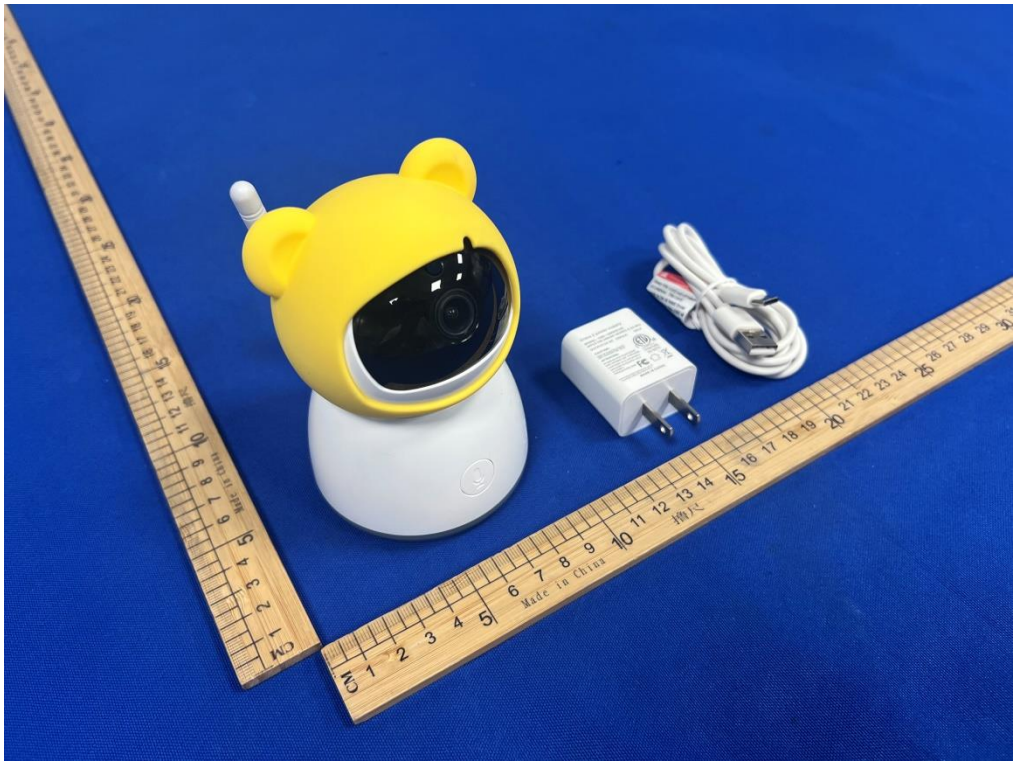
**AC Power Line Conducted Emission**

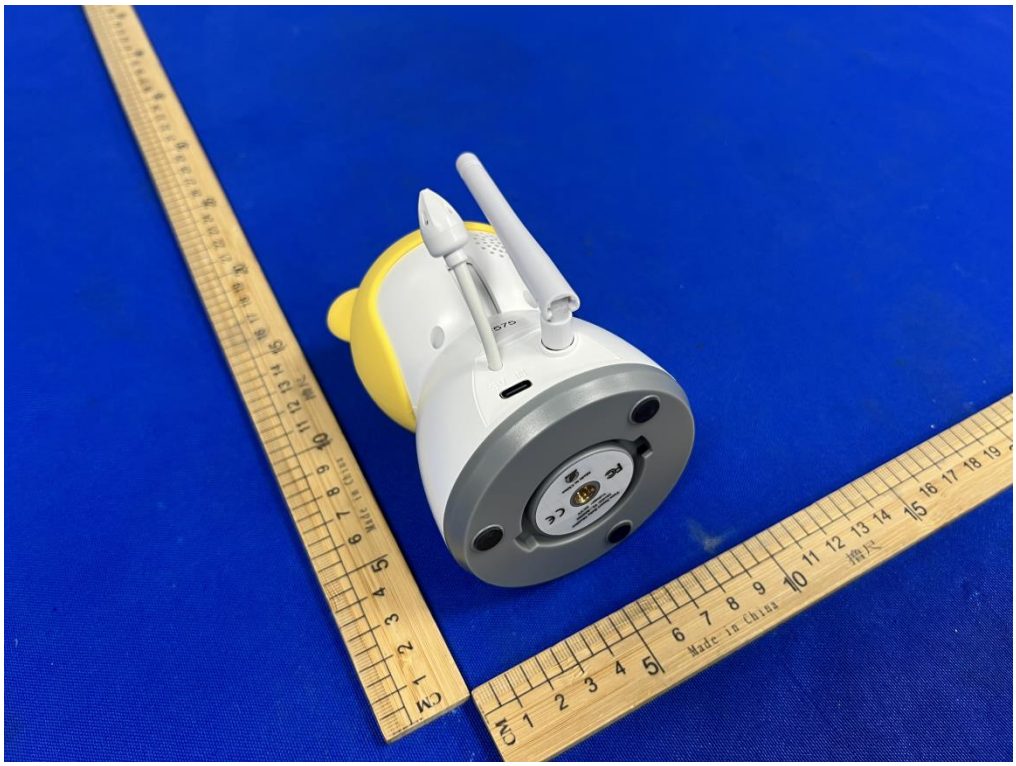
**Radiated Band edge and Spurious Emission**



3m法电波暗室

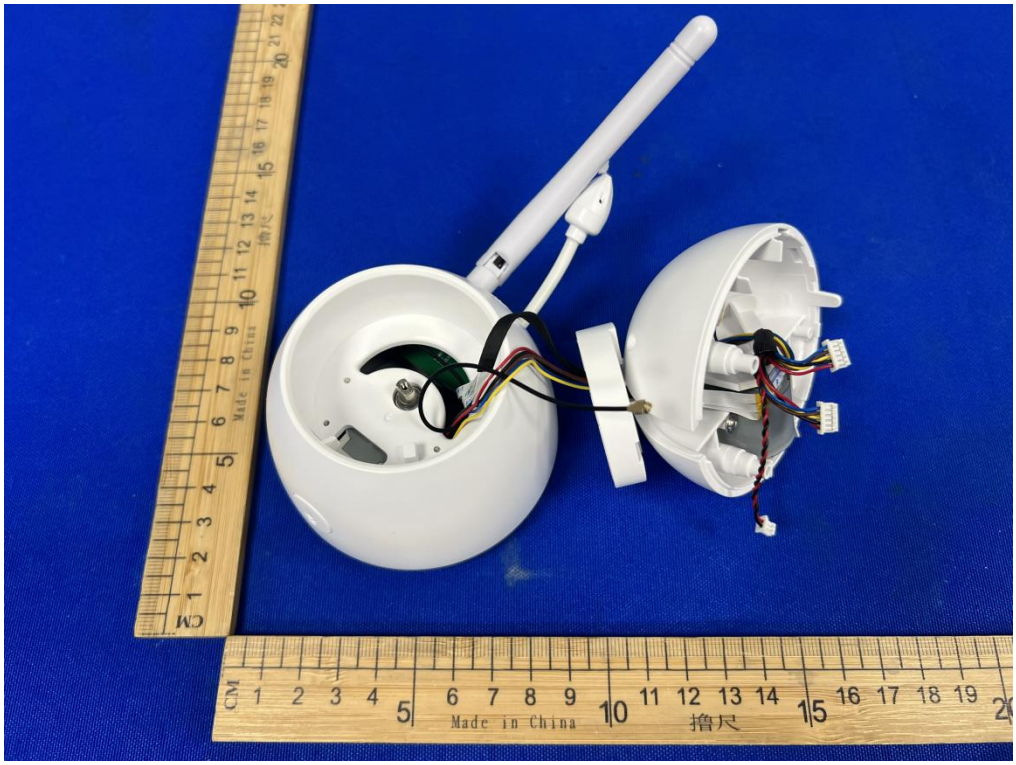
# APPENDIX: PHOTOGRAPHS OF THE EUT





44fd48
31c-01
27
Made in China
撸尺

44fd48
31c-01
27
Made in China
撸尺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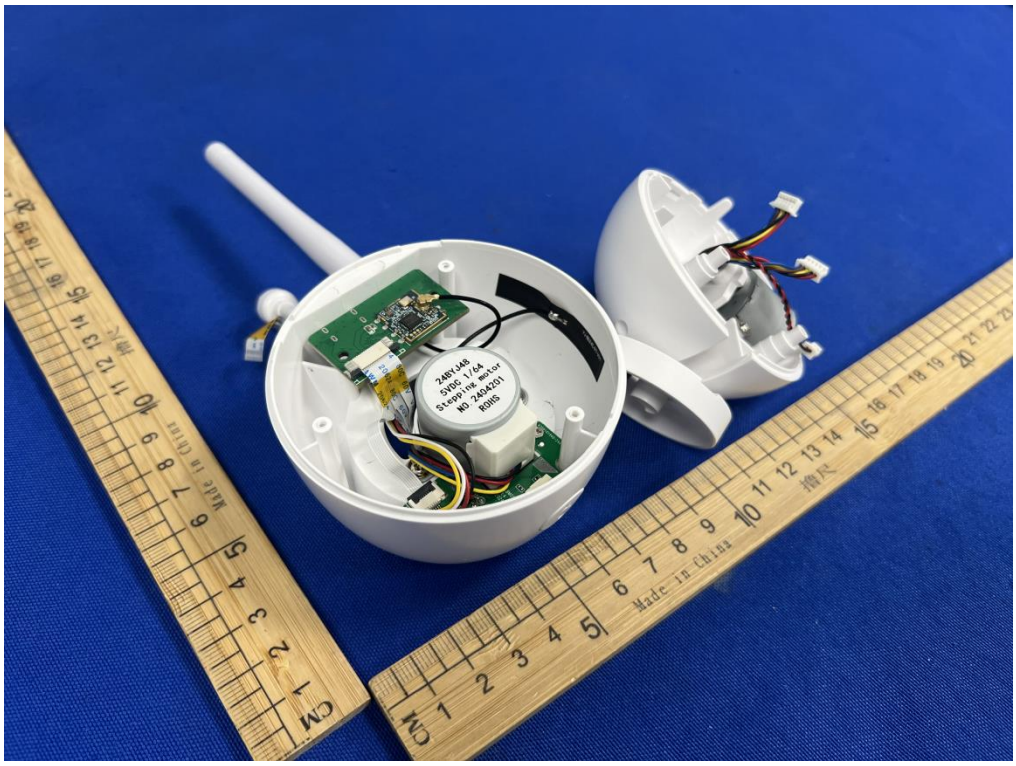
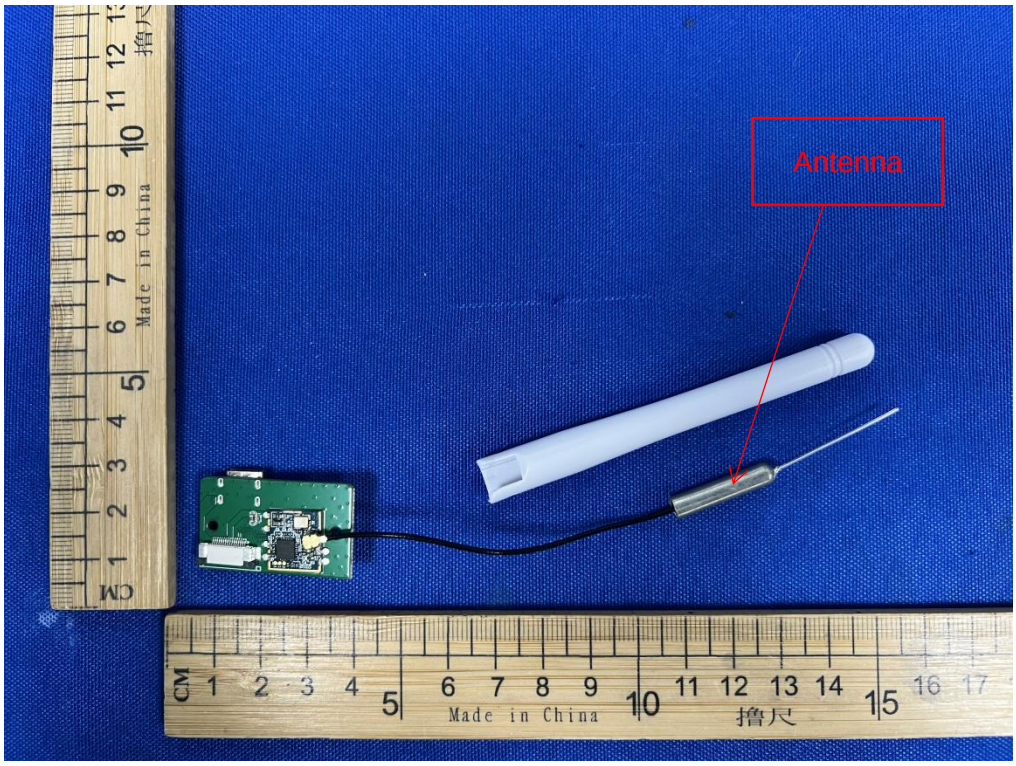
撸尺


24BYJ48
5VDC 1/64
Stepping motor
NO. 24042Z01
ROHS
Made in China
撸尺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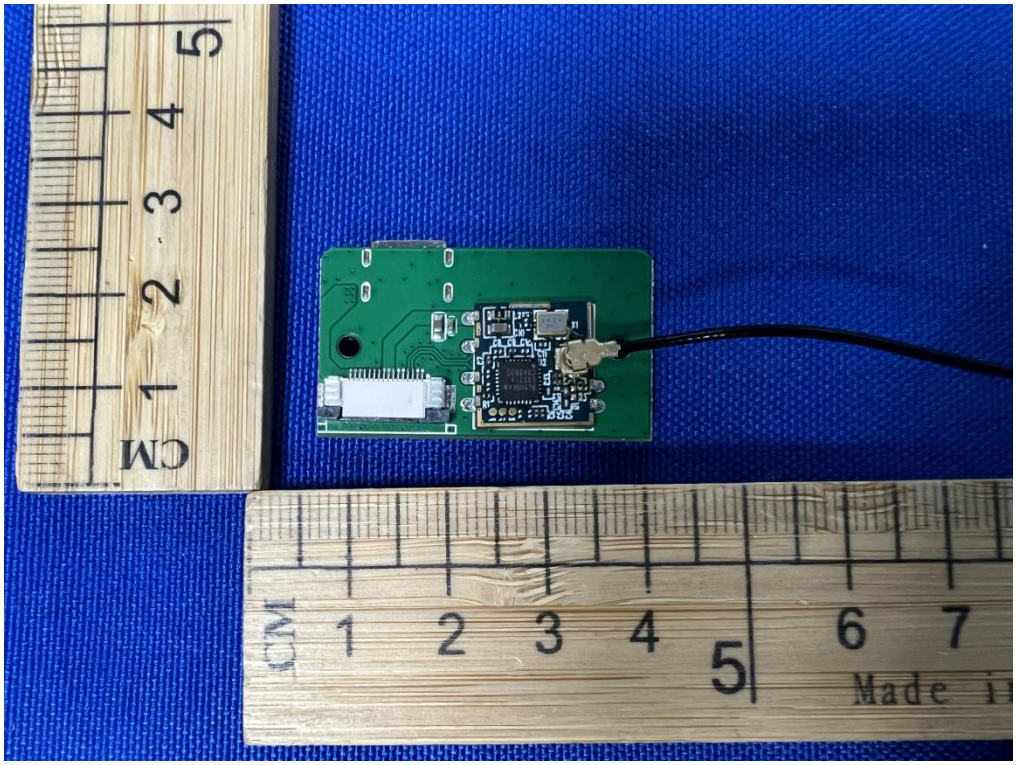
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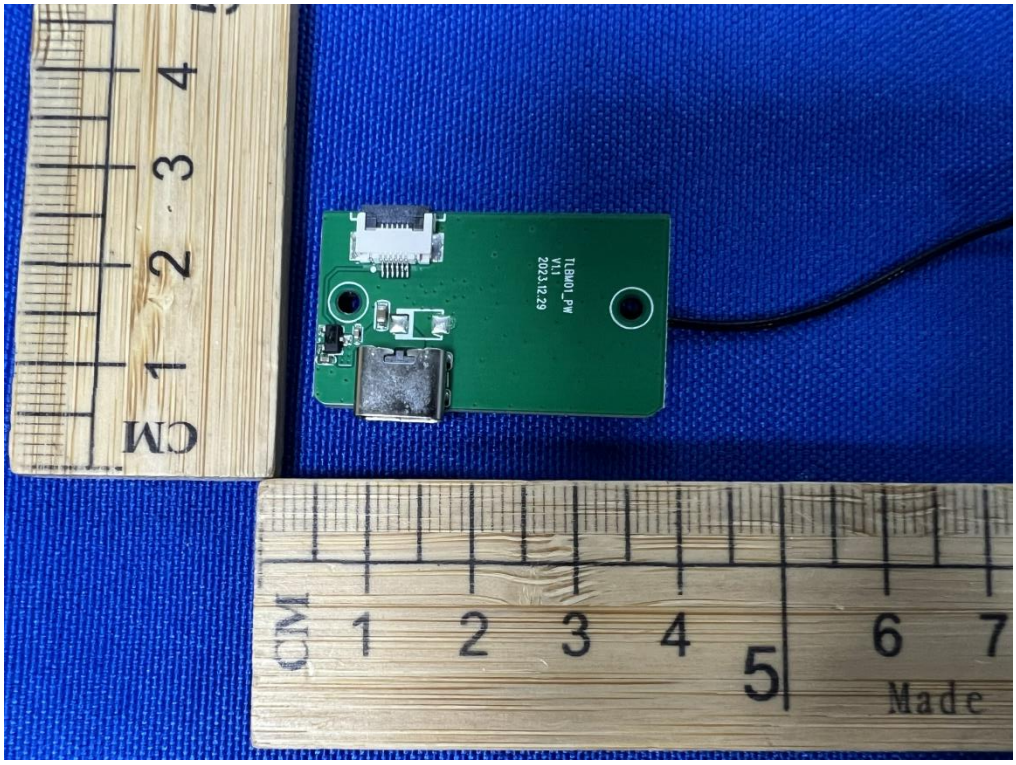
Made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V1.1
2023.12.29
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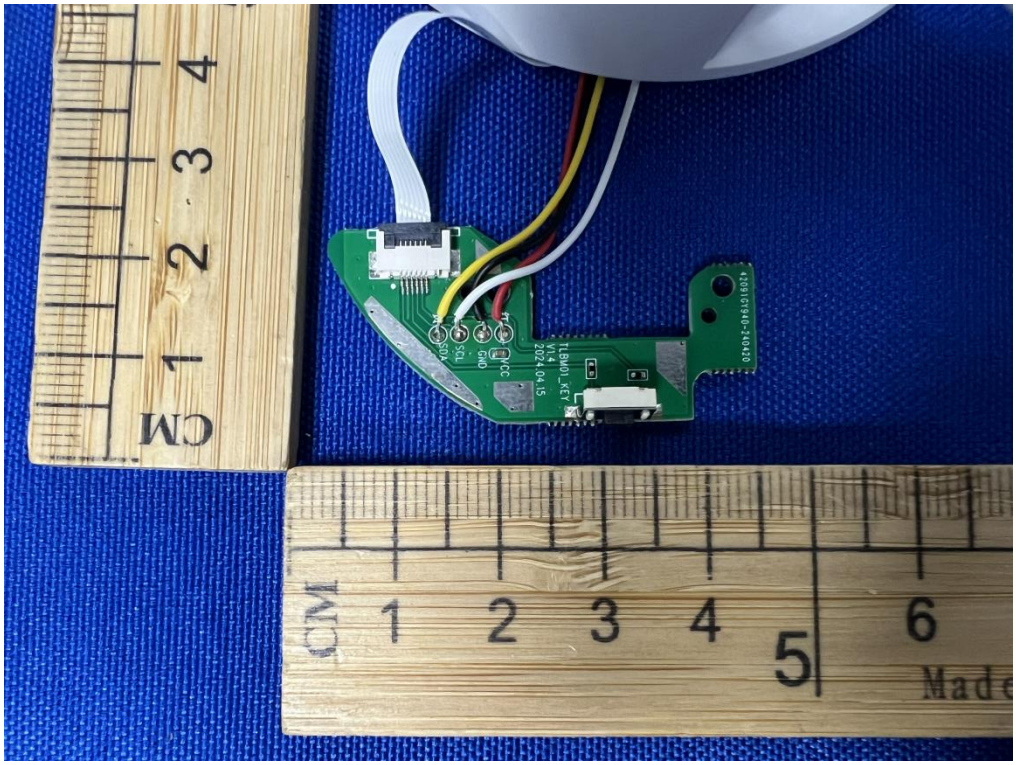
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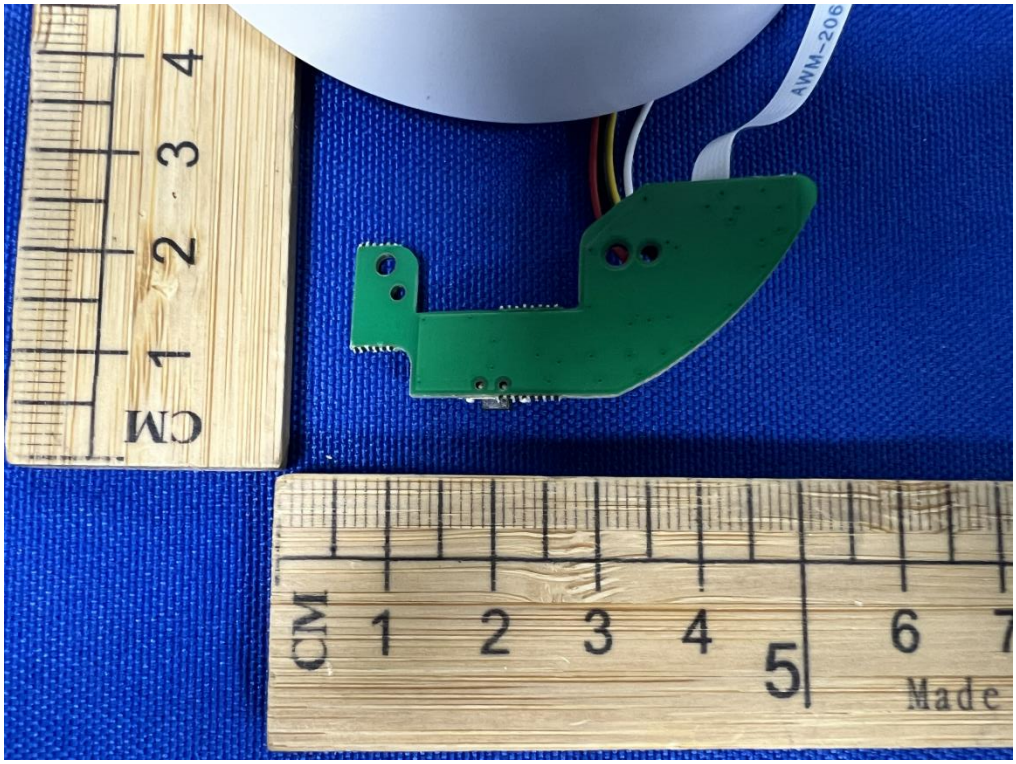
CM
1 2 3 4 5 6
Made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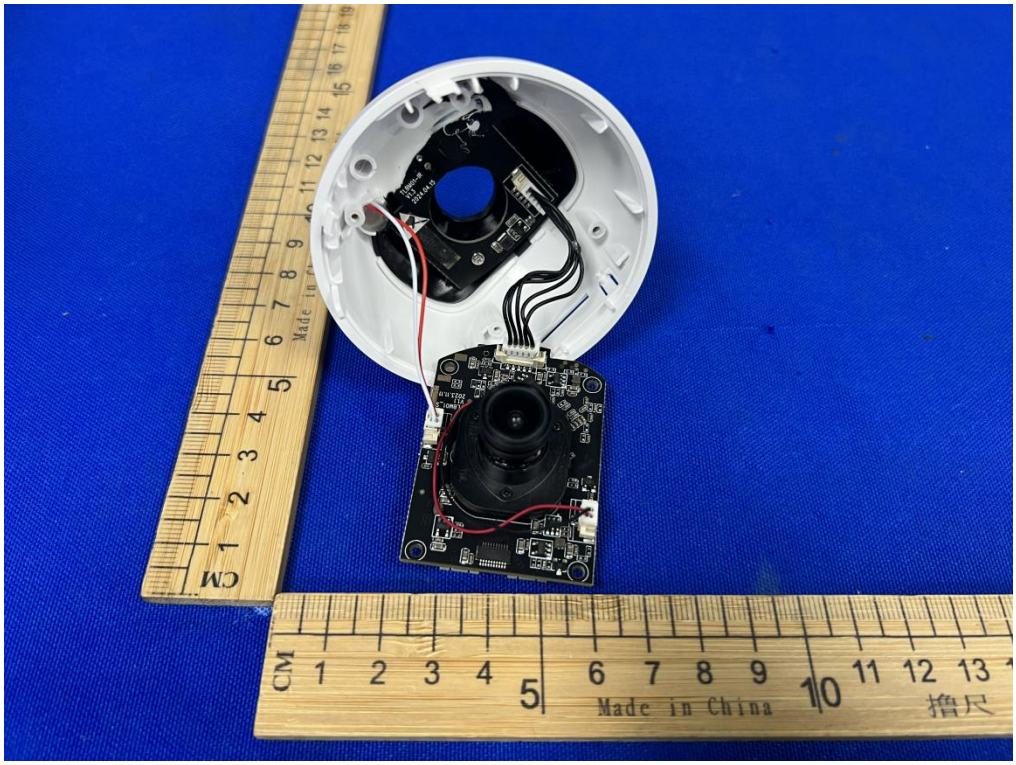
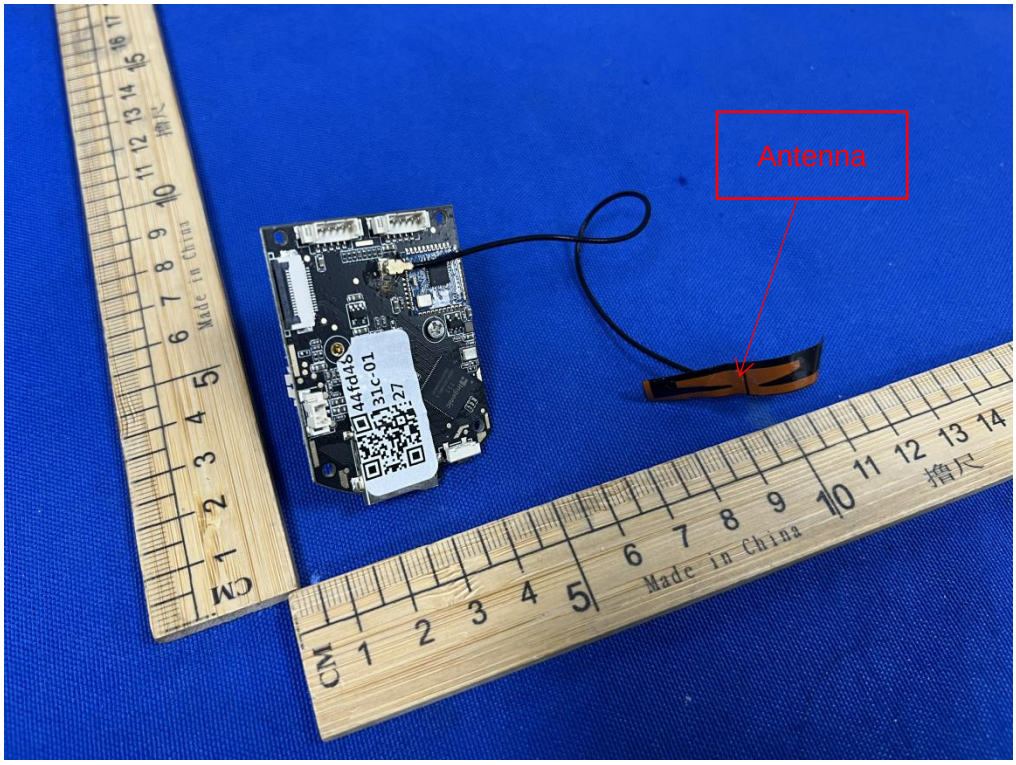

Made in China
撸尺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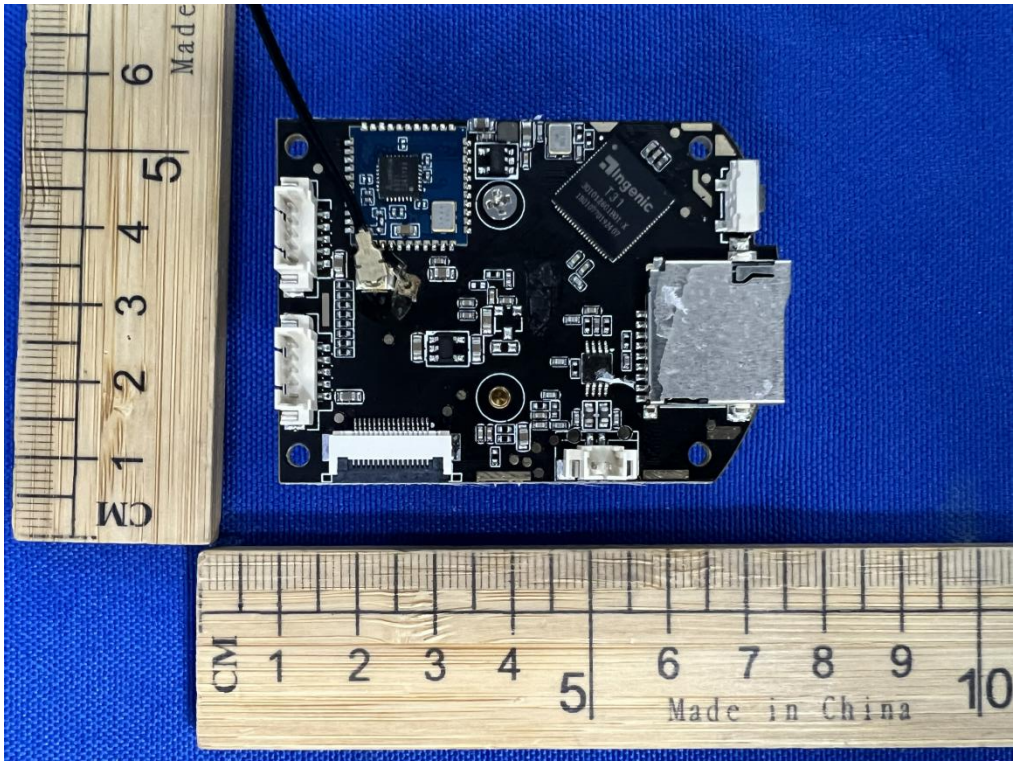
Made in China
撸尺


Ingenic
T31
CM
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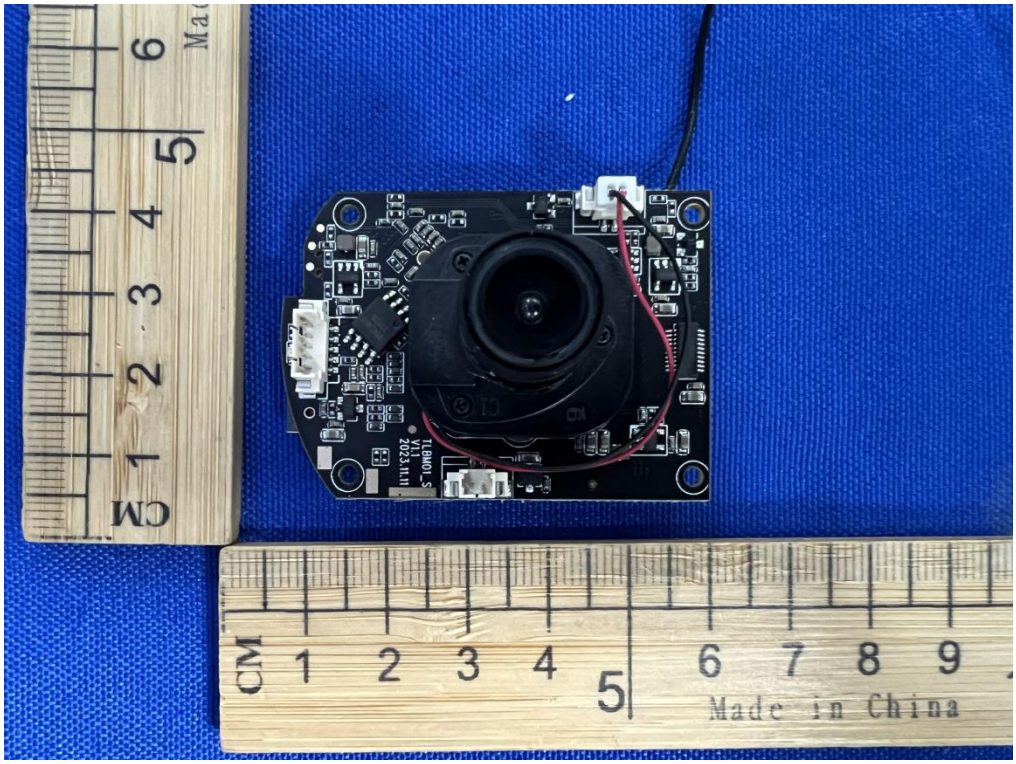
Made in China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V1.1
2023.11.11
CM
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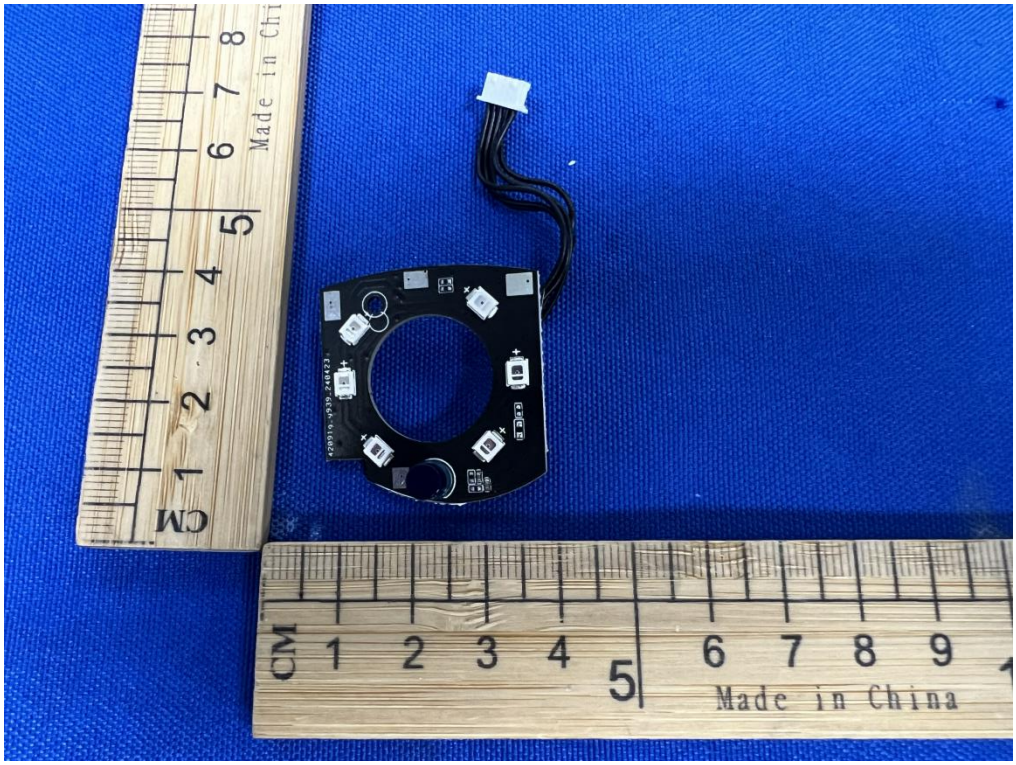
Made in China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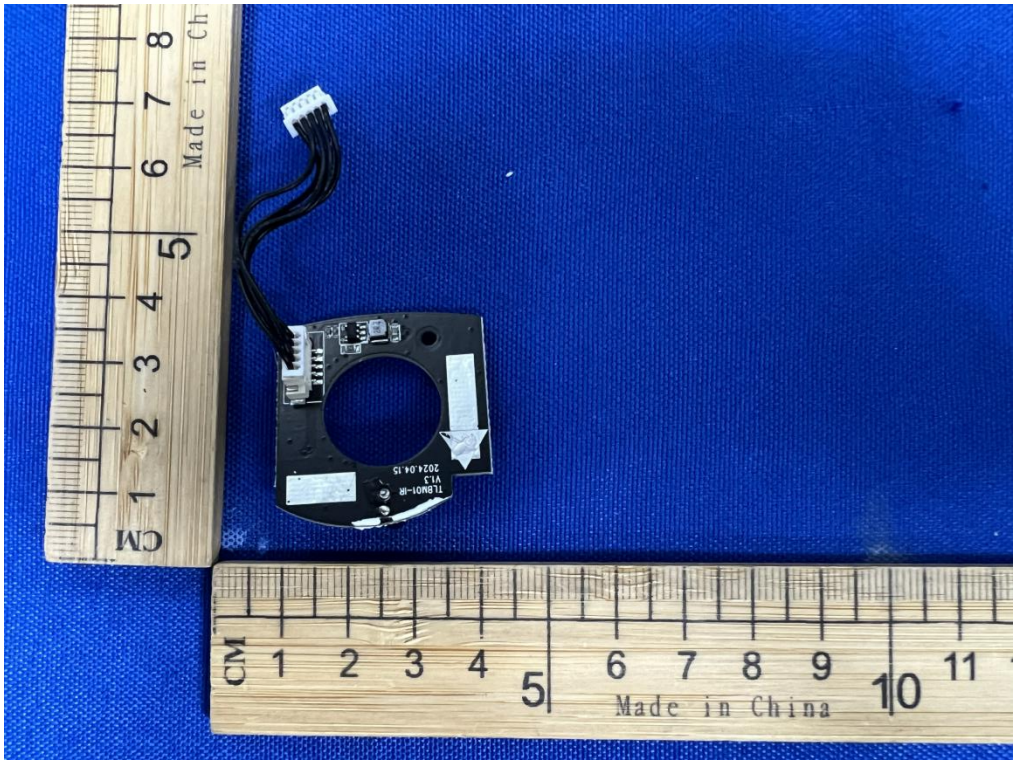
Made in China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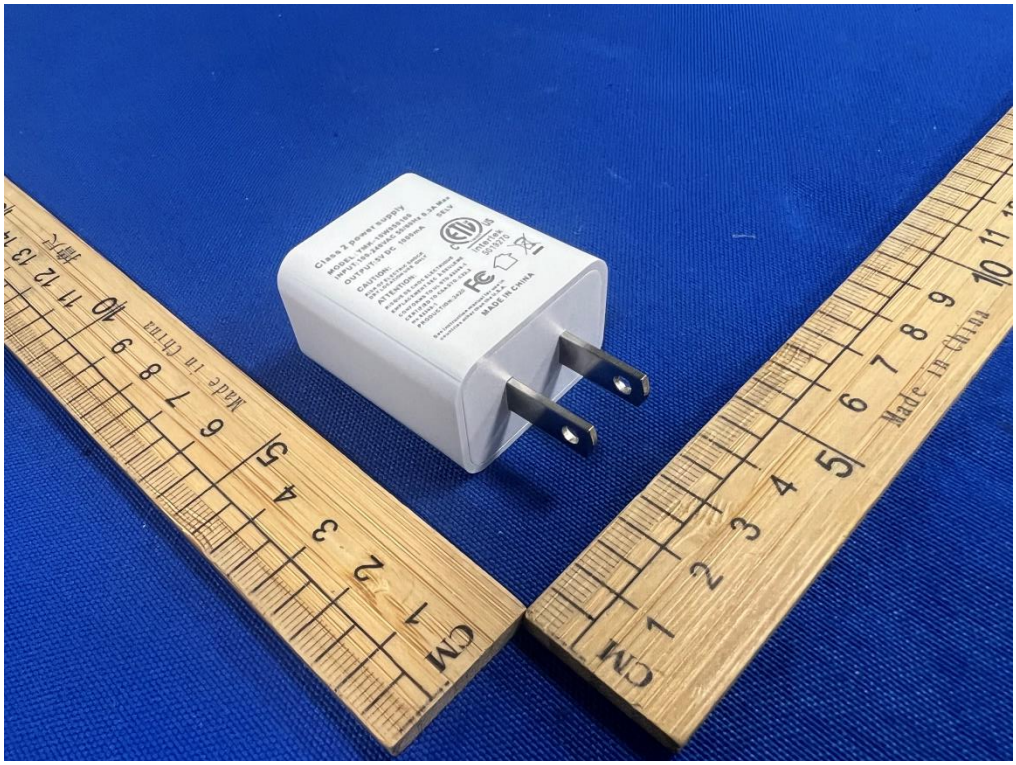


**END OF REPORT**