



# FCC Test Report

APPLICANT : AUMOVIO Systems, Inc.  
EQUIPMENT : FE5RW0020  
BRAND NAME : Continental  
MODEL NAME : FE5RW0020  
FCC ID : LHJ-FE5RW0020  
STANDARD : 47 CFR Part 15 Subpart B  
CLASSIFICATION : Certification  
TEST DATE(S) : Mar. 16, 2026

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI C63.4-2014 and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia



**Sporton International Inc. (Kunshan)**

**No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300  
People's Republic of China**



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## REVISION HISTORY

| REPORT NO. | VERSION | DESCRIPTION             | ISSUED DATE   |
|------------|---------|-------------------------|---------------|
| FC630307   | Rev. 01 | Initial issue of report | Apr. 23, 2026 |
|            |         |                         |               |
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## SUMMARY OF TEST RESULT

| Report Section | FCC Rule | Description           | Limit           | Result         | Remark                                  |
|----------------|----------|-----------------------|-----------------|----------------|-----------------------------------------|
| -              | 15.107   | AC Conducted Emission | < 15.107 limits | Not Applicable | EUT not connect to the AC mains         |
| 3.1            | 15.109   | Radiated Emission     | < 15.109 limits | PASS           | Under limit<br>14.44 dB at<br>43.34 MHz |

**Conformity Assessment Condition:**

The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account. Please refer to each test results in the section "Measurement Uncertainty".

**Disclaimer:**

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.



## 1. General Description

### 1.1. Applicant

**AUMOVIO Systems, Inc.**

21440 West Lake Cook Road, Deer Park, Illinois 60010, United States

### 1.2. Manufacturer

**AUMOVIO Systems, Inc.**

21440 West Lake Cook Road, Deer Park, Illinois 60010, United States

### 1.3. Product Feature of Equipment Under Test

| Product Feature                 |                             |
|---------------------------------|-----------------------------|
| Equipment                       | FE5RW0020                   |
| Brand Name                      | Continental                 |
| Model Name                      | FE5RW0020                   |
| FCC ID                          | LHJ-FE5RW0020               |
| EUT supports Radios application | GSM/WCDMA/LTE/5G NR<br>GNSS |
| IMEI Code                       | Radiation: 860806081152356  |
| EUT Stage                       | Production Unit             |

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

## 1.4. Product Specification of Equipment Under Test

| Standards-related Product Specification |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tx Frequency</b>                     | GSM850: 824 MHz ~ 849 MHz<br>GSM1900: 1850MHz ~ 1910MHz<br>WCDMA Band V: 824 MHz ~ 849 MHz<br>LTE Band 2 : 1850 MHz ~ 1910 MHz<br>LTE Band 4 : 1710 MHz ~ 1755 MHz<br>LTE Band 5 : 824 MHz ~ 849 MHz<br>LTE Band 7 : 2500 MHz ~ 2570 MHz<br>LTE Band 25 : 1850 MHz ~ 1915 MHz<br>LTE Band 26 : 814 MHz ~ 849 MHz<br>LTE Band 38 : 2570 MHz ~ 2620 MHz<br>LTE Band 41 : 2496 MHz ~ 2690 MHz<br>5G NR n41 : 2496 MHz ~ 2690 MHz<br>5G NR n77 : 3700 MHz ~ 3980 MHz;                                                     |
| <b>Rx Frequency</b>                     | GSM850: 869 MHz ~ 894 MHz<br>GSM1900: 1930 MHz ~ 1990 MHz<br>WCDMA Band V: 869 MHz ~ 894 MHz<br>LTE Band 2 : 1930 MHz ~ 1990 MHz<br>LTE Band 4 : 2110 MHz ~ 2155 MHz<br>LTE Band 5 : 869 MHz ~ 894 MHz<br>LTE Band 7 : 2620 MHz ~ 2690 MHz<br>LTE Band 25 : 1930 MHz ~ 1995 MHz<br>LTE Band 26 : 859 MHz ~ 894 MHz<br>LTE Band 38: 2570 MHz ~ 2620 MHz<br>LTE Band 41 : 2496 MHz ~ 2690 MHz<br>5G NR n41 : 2496 MHz ~ 2690 MHz<br>5G NR n77 : 3700 MHz ~ 3980 MHz;<br>GNSS : 1559 MHz ~ 1610 MHz, 1164 MHz ~ 1215 MHz |
| <b>Antenna Type</b>                     | WWAN : Monopole Antenna<br>GNSS: Multi-Constellation Triple-Band Antenna                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Type of Modulation</b>               | GSM/GPRS: GMSK<br>EDGE(MCS 0-4): GMSK / (MCS 5-9): 8PSK<br>WCDMA : BPSK<br>HSPA : QPSK<br>DC-HSDPA : 64QAM<br>HSPA+ : 16QAM(16QAM not support uplink)<br>LTE: QPSK / 16QAM / 64QAM<br>5G NR:<br>DFT-s-OFDM (PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM)<br>CP-OFDM (QPSK / 16QAM / 64QAM / 256QAM)<br>GNSS : BPSK                                                                                                                                                                                                      |

## 1.5. Modification of EUT

No modifications are made to the EUT during all test items.

## 1.6. Test Location

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

|                    |                                                                                                                                                |                     |                                   |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------|
| Test Firm          | Sporton International Inc. (Kunshan)                                                                                                           |                     |                                   |
| Test Site Location | No. 1098, Pengxi North Road, Kunshan Economic Development Zone<br>Jiangsu Province 215300 People's Republic of China<br>TEL : +86-512-57900158 |                     |                                   |
| Test Site No.      | Sporton Site No.                                                                                                                               | FCC Designation No. | FCC Test Firm<br>Registration No. |
|                    | 03CH08-KS                                                                                                                                      | CN1257              | 314309                            |

## 1.7. Test Software

| Item | Site      | Manufacturer | Name | Version |
|------|-----------|--------------|------|---------|
| 1.   | 03CH08-KS | AUDIX        | E3   | 210616  |

## 1.8. Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR Part 15 Subpart B
- ♦ ANSI C63.4-2014

**Remark:** All test items were verified and recorded according to the standards and without any deviation during the test.

## 2. Test Configuration of Equipment Under Test

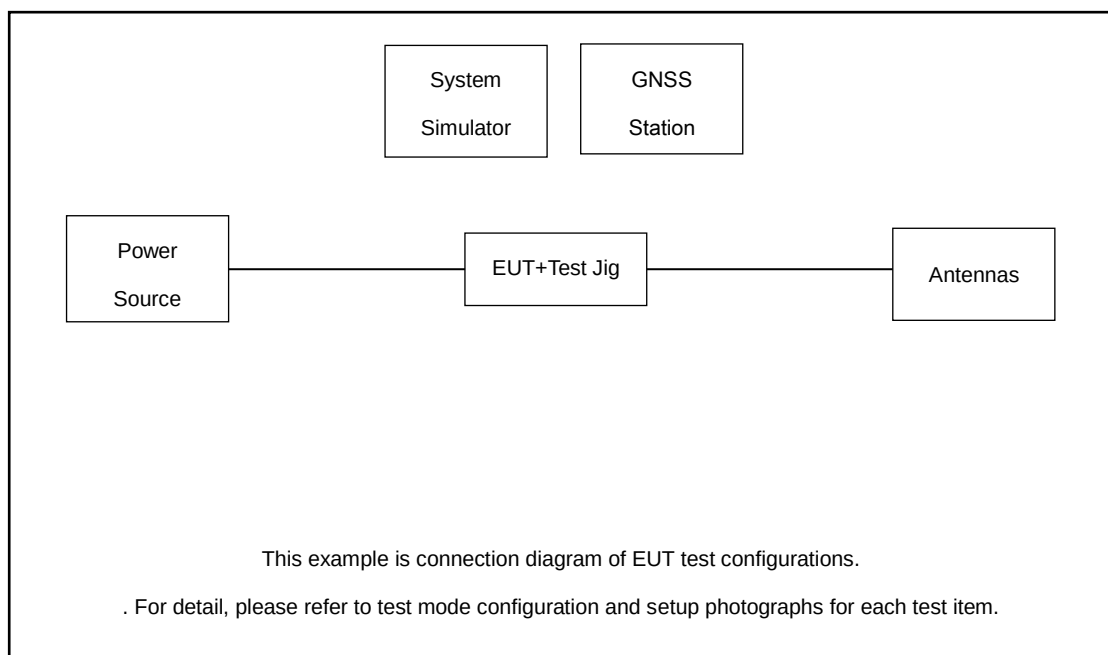
### 2.1. Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2014 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

Frequency range investigated: radiation emission (30MHz to the 5th harmonic of the highest frequency or to 40 GHz, whichever is lower).

| Test Items                                                                                          | Function Type                                                                                |
|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Radiated Emissions                                                                                  | Mode 1: LTE Band 26(Middle) Idle + GNSS Rx + SIM 1 + Charging cable + Charging from DC power |
| <b>Remark:</b> Pre-scanned Low/Middle/High channels, the worst channel was recorded in this report. |                                                                                              |

### 2.2.Connection Diagram of Test System



The EUT has been associated with peripherals pursuant to ANSI C63.4-2014 and configuration operated in a manner tended to maximize its emission characteristics in a typical application

## 2.3. Support Unit used in test configuration and system

| Item | Equipment               | Trade Name | Model Name | FCC ID | Data Cable | Power Cord      |
|------|-------------------------|------------|------------|--------|------------|-----------------|
| 1.   | Base Station            | Anritus    | MT8821C    | N/A    | N/A        | Unshielded,1.8m |
| 2.   | Vector Signal Generator | R&S        | SMBV100A   | 258305 | N/A        | N/A             |
| 3.   | DC power supply         | N/A        | N/A        | N/A    | N/A        | N/A             |
| 4.   | WWAN Antenna            | N/A        | N/A        | N/A    | N/A        | N/A             |
| 5.   | GNSS Antenna            | N/A        | N/A        | N/A    | N/A        | N/A             |
| 6.   | Test Jig                | N/A        | N/A        | N/A    | N/A        | N/A             |

## 2.4. EUT Operation Test Setup

The EUT was in LTE idle mode during the testing. The EUT was synchronized to the BCCH, and is in continuous receiving mode by setting system simulator's paging reorganization.

At the same time, the following programs installed in the EUT were programmed during the test.

1. Turn on GNSS function to make the EUT receive continuous signals from GNSS station.

### 3. Test Result

#### 3.1. Test of Radiated Emission Measurement

##### 3.1.1. Limit of Radiated Emission

The emissions from an unintentional radiator shall not exceed the field strength levels specified in the following table:

**<Class B Limit>**

| Frequency<br>(MHz) | Field Strength<br>(microvolts/meter) | Measurement Distance<br>(meters) |
|--------------------|--------------------------------------|----------------------------------|
| 30 – 88            | 100                                  | 3                                |
| 88 – 216           | 150                                  | 3                                |
| 216 - 960          | 200                                  | 3                                |
| Above 960          | 500                                  | 3                                |

##### 3.1.2. Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

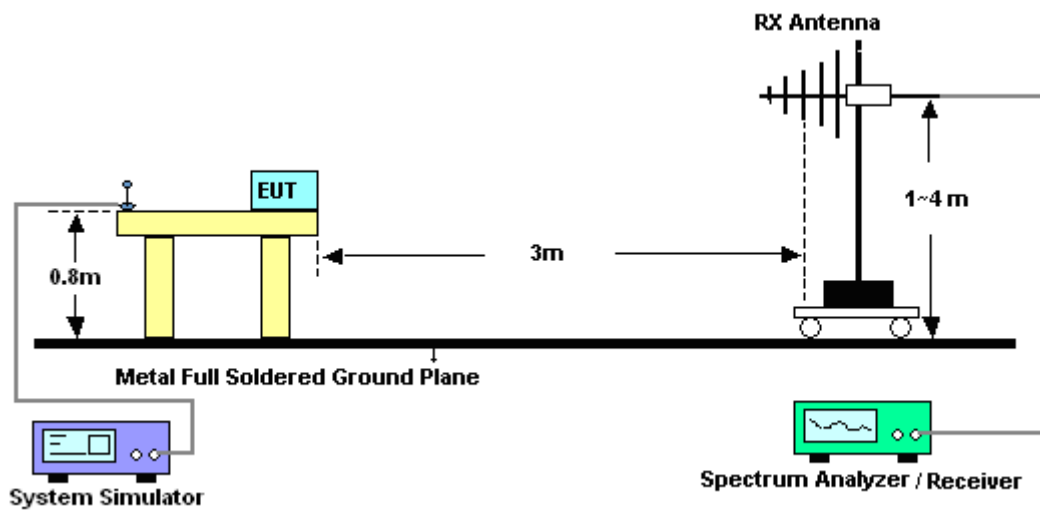
##### 3.1.3. Test Procedures

1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a Bi-Log antenna and its height is adjusted between one to four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, 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.
6. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode (RBW=120kHz/VBW=300kHz for frequency below 1GHz; RBW=1MHz VBW=3MHz (Peak), RBW=1MHz/VBW=10Hz (Average) for frequency above 1GHz).
7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.

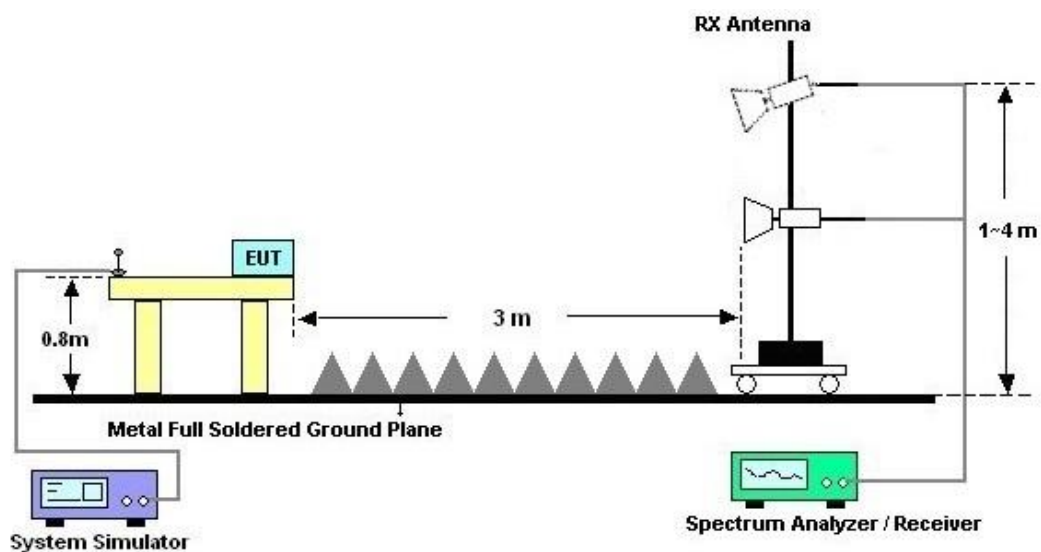
8. Emission level (dB $\mu$ V/m) = 20 log Emission level ( $\mu$ V/m)
9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamplifier Factor = Level
10. Exploratory radiated emissions testing of handheld and/or body-worn devices shall include rotation of the EUT through three orthogonal axes (X/Y/Z Plane) to determine the orientation (attitude) that maximizes the emissions.

### 3.1.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz

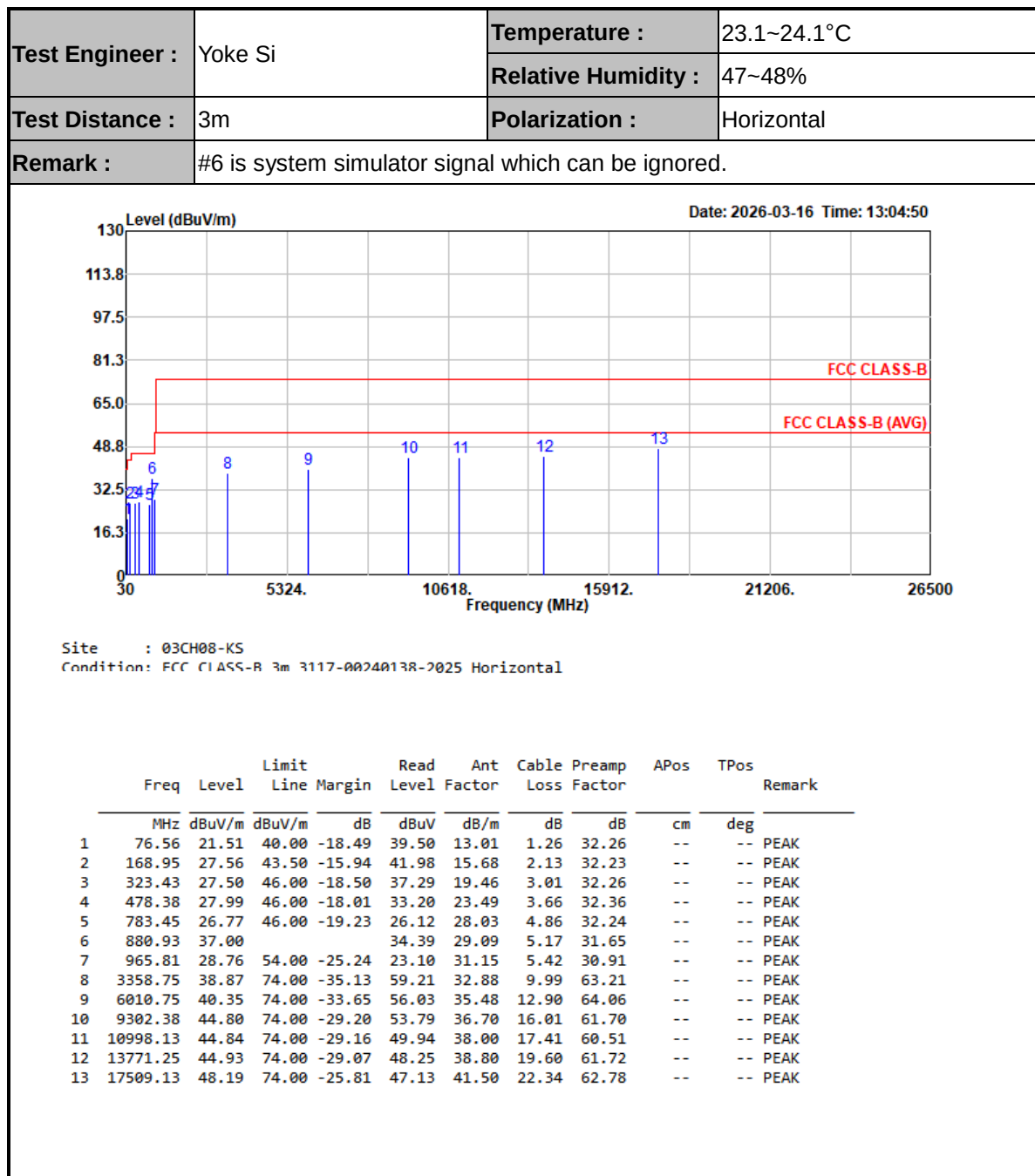


For radiated emissions above 1GHz

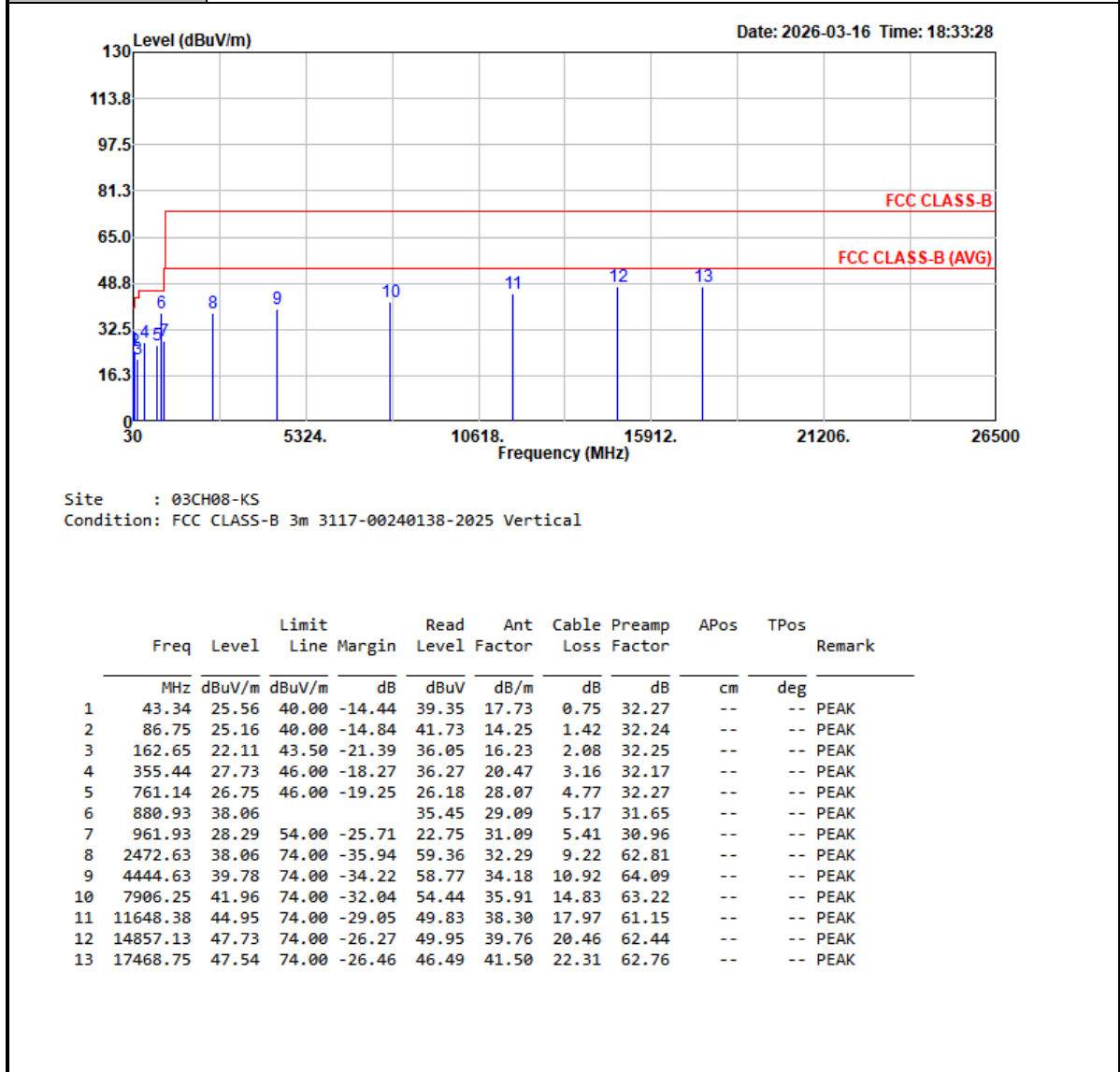




## 3.1.5. Test Result of Radiated Emission



|                        |                                                     |                            |             |
|------------------------|-----------------------------------------------------|----------------------------|-------------|
| <b>Test Engineer :</b> | Yoke Si                                             | <b>Temperature :</b>       | 23.1~24.1°C |
|                        |                                                     | <b>Relative Humidity :</b> | 47~48%      |
| <b>Test Distance :</b> | 3m                                                  | <b>Polarization :</b>      | Vertical    |
| <b>Remark :</b>        | #6 is system simulator signal which can be ignored. |                            |             |



Note:

- Level(dBμV/m) = Read Level(dBμV) + Antenna Factor(dB/m) + Cable Loss(dB) - Preamp Factor(dB)
- Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)



## 4. List of Measuring Equipment

| Instrument                | Manufacturer | Model No.  | Serial No.   | Characteristics      | Calibration Date | Test Date     | Due Date      | Remark                |
|---------------------------|--------------|------------|--------------|----------------------|------------------|---------------|---------------|-----------------------|
| EMI Test Receiver         | Keysight     | N9038A     | MY57290151   | 3Hz~8.5GHz;Max 30dBm | Jul. 02, 2025    | Mar. 16, 2026 | Jul. 01, 2026 | Radiation (03CH08-KS) |
| EXA Spectrum Analyzer     | Keysight     | N9010B     | MY57471079   | 10Hz~44GHz           | Oct. 09, 2025    | Mar. 16, 2026 | Oct. 08, 2026 | Radiation (03CH08-KS) |
| Bilog Antenna             | TESEQ        | CBL 6111D  | 59915        | 30MHz~1GHz           | Aug. 12, 2025    | Mar. 16, 2026 | Aug. 11, 2026 | Radiation (03CH08-KS) |
| Double Ridge Horn Antenna | ETS-Lindgren | 3117       | 00240138     | 1GHz~18GHz           | Jun. 26, 2025    | Mar. 16, 2026 | Jun. 25, 2026 | Radiation (03CH08-KS) |
| SHF-EHF Horn              | Com-power    | AH-840     | 101115       | 18GHz~40GHz          | Oct. 18, 2025    | Mar. 16, 2026 | Oct. 17, 2026 | Radiation (03CH08-KS) |
| Amplifier                 | EM           | EM18G40GGA | 060737       | 18~40GHz             | Dec. 26, 2025    | Mar. 16, 2026 | Dec. 25, 2026 | Radiation (03CH08-KS) |
| Amplifier                 | SONOMA       | 310N       | 413741       | 9KHz~1GHz            | Dec. 25, 2025    | Mar. 16, 2026 | Dec. 24, 2026 | Radiation (03CH08-KS) |
| Amplifier                 | Keysight     | 83017A     | MY53270417   | 500MHz~26.5GHz       | Oct. 10, 2025    | Mar. 16, 2026 | Oct. 09, 2026 | Radiation (03CH08-KS) |
| AC Power Source           | Chroma       | 61601      | 616010002473 | N/A                  | NCR              | Mar. 16, 2026 | NCR           | Radiation (03CH08-KS) |
| Turn Table                | EM           | EM 1000-T  | N/A          | 0~360 degree         | NCR              | Mar. 16, 2026 | NCR           | Radiation (03CH08-KS) |
| Antenna Mast              | EM           | EM 1000-A  | N/A          | 1 m~4 m              | NCR              | Mar. 16, 2026 | NCR           | Radiation (03CH08-KS) |

NCR: No Calibration Required



## 5. Measurement Uncertainty

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)-03CH08-KS

|                                                                            |     |
|----------------------------------------------------------------------------|-----|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2Uc(y)$ ) | 6.2 |
|----------------------------------------------------------------------------|-----|

### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)-03CH08-KS

|                                                                            |      |
|----------------------------------------------------------------------------|------|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2Uc(y)$ ) | 4.88 |
|----------------------------------------------------------------------------|------|

### Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)-03CH08-KS

|                                                                            |      |
|----------------------------------------------------------------------------|------|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2Uc(y)$ ) | 5.36 |
|----------------------------------------------------------------------------|------|

----- THE END -----