



FCC Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2435-2
FCC ID : IHDT56AM5
STANDARD : 47 CFR Part 15 Subpart B
CLASSIFICATION : Certification
TEST DATE(S) : Jun. 05, 2024 ~ Jun. 06, 2024

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 |
|-------------|---------|-------------------------|---------------|
| FC352916-19 | Rev. 01 | Initial issue of report | Jun. 24, 2024 |
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SUMMARY OF TEST RESULT

| Report Section | FCC Rule | Description | Limit | Result | Remark |
|----------------|----------|-----------------------|-----------------|--------|---|
| 3.1 | 15.107 | AC Conducted Emission | < 15.107 limits | PASS | Under limit 11.70 dB at 0.166 MHz |
| 3.2 | 15.109 | Radiated Emission | < 15.109 limits | PASS | Under limit 8.26 dB at 36.79 MHz |

Note : This is a variant report for XT2435-2, the change note could be referred to the XT2435-2_Operational Description of Product Equality Declaration which is exhibit separately. According to the change, only the related test cases were verified from original report FC352916-01.

| |
|--|
| 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/manufacturer 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

Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

1.2. Manufacturer

Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

1.3. Product Feature of Equipment Under Test

| Product Feature | |
|---------------------------------|--|
| Equipment | Mobile Cellular Phone |
| Brand Name | Motorola |
| Model Name | XT2435-2 |
| FCC ID | IHDT56AM5 |
| EUT supports Radios application | GSM/WCDMA/LTE/5G NR WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE GNSS/NFC/FM |
| IMEI Code | Conduction: 352159390002911/352159390002929 for Sample 1 352159390007639/352159390007647 for Sample 2 352159390004859/352159390004867 for Sample 3 Radiation: 352159390002911/352159390002929 for Sample 1 352159390007498/352159390007506 for Sample 2 352159390004859 /352159390004867 for Sample 3 |
| HW Version | DVT1 |
| SW Version | U3UT34.4 |
| EUT Stage | Identical Prototype |

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. There are three types of EUT, the sample 1 is 1st source, the sample 2 is 2nd source and the sample 3 is 3rd source. The differences could be referred to the XT2435-2_Operational Description of Product Equality Declaration which is exhibit separately. According to the difference, we choose sample 1 to full test and the sample 2/3 is verified for the difference.
3. The device supports single P-SIM + E-SIM and Dual SIM.



1.4. Product Specification of Equipment Under Test

| Standards-related Product Specification | |
|---|--|
| Tx Frequency | GSM850: 824 MHz ~ 849 MHz GSM1900: 1850MHz ~ 1910MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2 : 1850 MHz ~ 1910 MHz LTE Band 5 : 824 MHz ~ 849 MHz LTE Band 7 : 2500 MHz ~ 2570 MHz LTE Band 26 : 814 MHz ~ 849 MHz LTE Band 38 : 2570 MHz ~ 2620 MHz LTE Band 41 : 2496 MHz ~ 2690 MHz LTE Band 42 : 3450 MHz ~ 3550 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n26 : 814 MHz ~ 849 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n77 : 3700 MHz ~ 3980 MHz; 5G NR n78 : 3700 MHz ~ 3800 MHz; 802.11b/g/n: 2400 MHz ~ 2483.5 MHz 802.11a/n/ac: 5150 MHz ~ 5250 MHz; 5250 MHz ~ 5350 MHz; 5470 MHz ~ 5725 MHz 5725 MHz ~ 5850 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz NFC : 13.56 MHz |
| Rx Frequency | GSM850: 869 MHz ~ 894 MHz GSM1900: 1930 MHz ~ 1990 MHz WCDMA Band II: 1930 MHz ~ 1990 MHz WCDMA Band V: 869 MHz ~ 894 MHz LTE Band 2 : 1930 MHz ~ 1990 MHz LTE Band 5 : 869 MHz ~ 894 MHz LTE Band 7 : 2620 MHz ~ 2690 MHz LTE Band 26 : 859 MHz ~ 894 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41 : 2496 MHz ~ 2690 MHz LTE Band 42 : 3450 MHz ~ 3550 MHz 5G NR n5 : 869 MHz ~ 894 MHz 5G NR n7 : 2620 MHz ~ 2690 MHz 5G NR n26 : 859 MHz ~ 894 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n77 : 3700 MHz ~ 3980 MHz; 5G NR n78 : 3700 MHz ~ 3800 MHz; 802.11b/g/n: 2400 MHz ~ 2483.5 MHz 802.11a/n/ac: 5150 MHz ~ 5250 MHz; 5250 MHz ~ 5350 MHz; 5470 MHz ~ 5725 MHz 5725 MHz ~ 5850 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz NFC : 13.56 MHz GNSS : 1559 MHz ~ 1610 MHz |



| | |
|---------------------------|--|
| | FM : 88 MHz ~ 108 MHz |
| Antenna Type | WWAN : PIFA Antenna WLAN : IFA Antenna Bluetooth : IFA Antenna GNSS: IFA Antenna NFC: FPC + Ferrite Antenna FM : External Earphone Antenna |
| Type of Modulation | GSM/GPRS: GMSK EDGE(MCS 0-4): GMSK / (MCS 5-9): 8PSK WCDMA : BPSK HSPA : QPSK HSPA+ : 16QAM DC-HSDPA : 64QAM LTE: QPSK / 16QAM / 64QAM 5G NR: DFT-s-OFDM (PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM) CP-OFDM (QPSK / 16QAM / 64QAM / 256QAM) 802.11b: DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) Bluetooth LE : GFSK Bluetooth (1Mbps) : GFSK Bluetooth (2Mbps) : $\pi/4$ -DQPSK Bluetooth (3Mbps) : 8-DPSK GNSS : BPSK NFC: ASK FM |

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 Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 | | |
| Test Site No. | Sporton Site No. | FCC Designation No. | FCC Test Firm Registration No. |
| | CO01-KS 03CH02-KS | CN1257 | 314309 |



1.7. Test Software

| Item | Site | Manufacturer | Name | Version |
|------|-----------|--------------|------|---------------|
| 1. | 03CH02-KS | AUDIX | E3 | 6.2009-8-24a1 |
| 2. | CO01-KS | AUDIX | E3 | 6.2009-8-24 |

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.

1.9. Specification of Accessory

| Specification of Accessory | | | | |
|----------------------------|------------|--------------------|------------|------------|
| AC Adapter 1 (US) | Brand Name | Motorola(Salcomp) | Model Name | MC-331L |
| AC Adapter 1 (EU) | Brand Name | Motorola(Salcomp) | Model Name | MC-332L |
| AC Adapter 1 (UK) | Brand Name | Motorola(Salcomp) | Model Name | MC-333L |
| AC Adapter 1 (BR) | Brand Name | Motorola(Salcomp) | Model Name | MC-337L |
| AC Adapter 2 (US) | Brand Name | Motorola(Chenyang) | Model Name | MC-331 |
| AC Adapter 2 (EU) | Brand Name | Motorola(Chenyang) | Model Name | MC-332 |
| AC Adapter 2 (BR) | Brand Name | Motorola(Chenyang) | Model Name | MC-337 |
| Battery 1 | Brand Name | Motorola(Jiade) | Model Name | QA50 |
| USB Cable 1 | Brand Name | Motorola (WASHIN) | Model Name | S928D92375 |
| USB Cable 2 | Brand Name | Motorola (Saibao) | Model Name | S928D95755 |



2. Test Configuration of Equipment Under Test

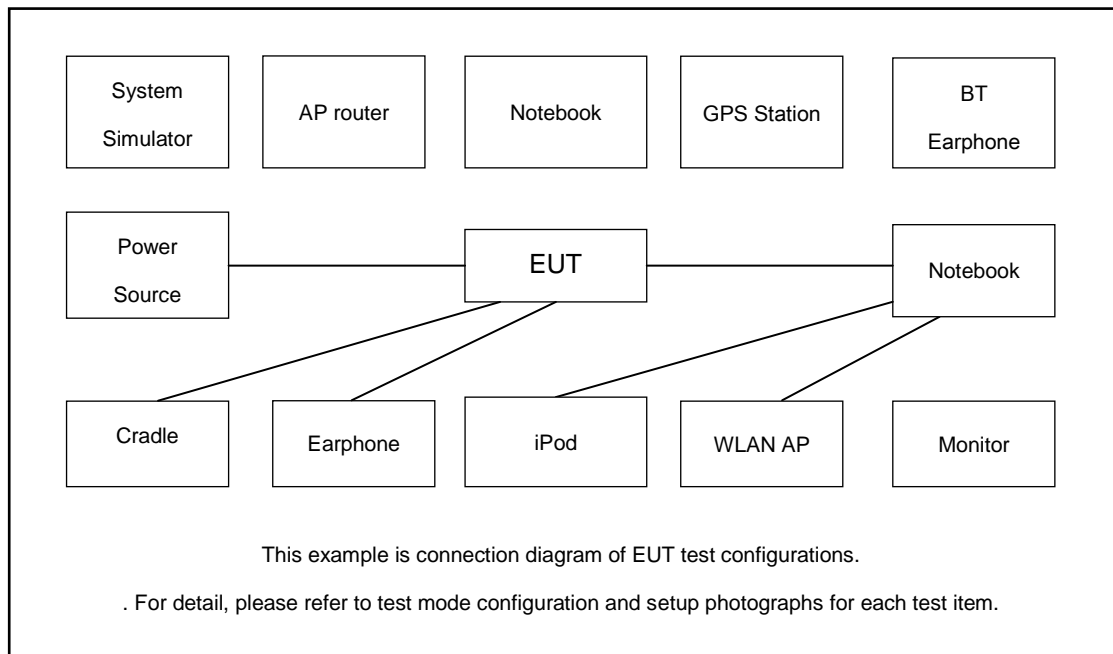
2.1. Test Mode

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: conduction emission (150 kHz to 30 MHz), radiation emission (30MHz to the 5th harmonic of the highest frequency or to 40 GHz, whichever is lower).

| Test Items | Function Type |
|--|---|
| AC Conducted Emission | Mode 1: LTE Band 26 Rx(Low) + Bluetooth Idle + WLAN (2.4G) Idle + MPEG4(Run Color Bar) + Earphone + Battery 1 + USB Cable 1(Charging from Adapter 1) + SIM for Sample 1 |
| | Mode 2: LTE Band 26 Rx(Low) + Bluetooth Idle + WLAN (2.4G) Idle + MPEG4(Run Color Bar) + Earphone + Battery 1 + USB Cable 1(Charging from Adapter 2) + SIM for Sample 1 |
| | Mode 3: LTE Band 26 Rx(Low) + Bluetooth Idle + WLAN (2.4G) Idle + Camera(Rear) + Earphone + Battery 1 + USB Cable 1(Charging from Adapter 1) + SIM for Sample 1 |
| | Mode 4: LTE Band 26 Rx(Low) + Bluetooth Idle + WLAN (2.4G) Idle + Camera(Front) + Earphone + Battery 1 + USB Cable 1(Charging from Adapter 1) + SIM for Sample 2 |
| | Mode 5: LTE Band 26 Rx(Low) + Bluetooth Idle + WLAN (2.4G) Idle + MPEG4(Run Color Bar) + Earphone + Battery 1 + USB Cable 1 + EUT (eMMC) USB Data Link to Notebook + SIM for Sample 2 |
| | Mode 6: LTE Band 26 Rx(Low) + Bluetooth Idle + WLAN (2.4G) Idle + Camera(Front) + Earphone + Battery 1 + USB Cable 1(Charging from Adapter 1)+ SIM for Sample 3 |
| Radiated Emissions | Mode 1: LTE Band 41 RX + Bluetooth Idle + WLAN (5G) Idle + GNSS Rx + Earphone + Battery 1 + USB Cable 1(Charging from Adapter 1) + SIM for Sample 1 |
| | Mode 2: LTE Band 41 RX + Bluetooth Idle + WLAN (5G) Idle + GNSS Rx + Earphone + Battery 1 + USB Cable 1(Charging from Adapter 2) + SIM for Sample 1 |
| | Mode 3: LTE Band 41 RX + Bluetooth Idle + WLAN (5G) Idle + Camera(Rear) + Earphone + Battery 1 + USB Cable 1(Charging from Adapter 1) + SIM for Sample 1 |
| | Mode 4: LTE Band 41 RX + Bluetooth Idle + WLAN (5G) Idle + Camera(Front) + Earphone + Battery 1 + USB Cable 1(Charging from Adapter 1) + E-SIM for Sample 2 |
| | Mode 5: LTE Band 41 RX + Bluetooth Idle + WLAN (5G) Idle + MPEG4(Run Color Bar) + Earphone + Battery 1 + USB Cable 1 + Notebook USB Data Link to EUT (eMMC) + E-SIM for Sample 2 |
| | Mode 6: LTE Band 41 RX + Bluetooth Idle + WLAN (5G) Idle + Camera(Front) + Earphone + Battery 1 + USB Cable 1(Charging from Adapter 1) + E-SIM for Sample 3 |
| Remark: | |
| <ol style="list-style-type: none"> 1. The worst case of AC is mode 5; only the test data of this mode is reported. 2. The worst case of RE is mode 1; only the test data of this mode is reported. 3. Data Link with Notebook / PC means data application transferred mode between EUT and Notebook / PC. 4. Pre-scanned Low/Middle/High channel, 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. | LTE Base Station | Anritus | MT8821C | N/A | N/A | Unshielded,1.8m |
| 2. | 5GNR Base Station | Anritus | MT8000A | N/A | N/A | Unshielded,1.8m |
| 3. | Vector Signal Generator | R&S | SMBV100A | 258305 | N/A | N/A |
| 4. | Bluetooth Earphone | Lenovo | thinkplus-BH3 | N/A | N/A | N/A |
| 5. | Notebook | Lenovo | G480 | QDS-BRCM1050I | N/A | shielded cable DC O/P 1.8m , Unshielded AC I/P cable 1.8m |
| 6. | Notebook | Acer | N20C5 | N/A | N/A | Notebook |
| 7. | WLAN AP | D-link | DIR-655 | KA21R655B1 | N/A | Unshielded,1.8m |
| 8. | WLAN AP | D-Link | G415 | N/A | N/A | Router |
| 9. | Hard Disk | Lenovo | F310 | DoC | Shielded, 1.2m | N/A |
| 10. | SD Card | Kingston | 8GB | N/A | N/A | N/A |
| 11. | Bluetooth Earphone | Lenovo | R15 | N/A | N/A | Bluetooth Earphone |
| 12. | Hard disk | KINGSHARE | KSP6120G | N/A | N/A | Hard disk |



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 EUT was attached to the Bluetooth earphone or WLAN AP, and the following programs installed in the EUT were programmed during the test.

1. Data application is transferred between notebook and EUT via USB cable.
2. Turn on camera to capture images.
3. Turn on MPEG4 function.
4. Turn on GNSS function to make the EUT receive continuous signals from GNSS station.



3. Test Result

3.1. Test of AC Conducted Emission Measurement

3.1.1 Limits of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

<Class B Limit>

| Frequency of emission (MHz) | Conducted limit (dBuV) | |
|--------------------------------|------------------------|-----------|
| | Quasi-peak | Average |
| 0.15-0.5 | 66 to 56* | 56 to 46* |
| 0.5-5 | 56 | 46 |
| 5-30 | 60 | 50 |

*Decreases with the logarithm of the frequency.

3.1.2 Measuring Instruments

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

3.1.3 Test Procedure

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

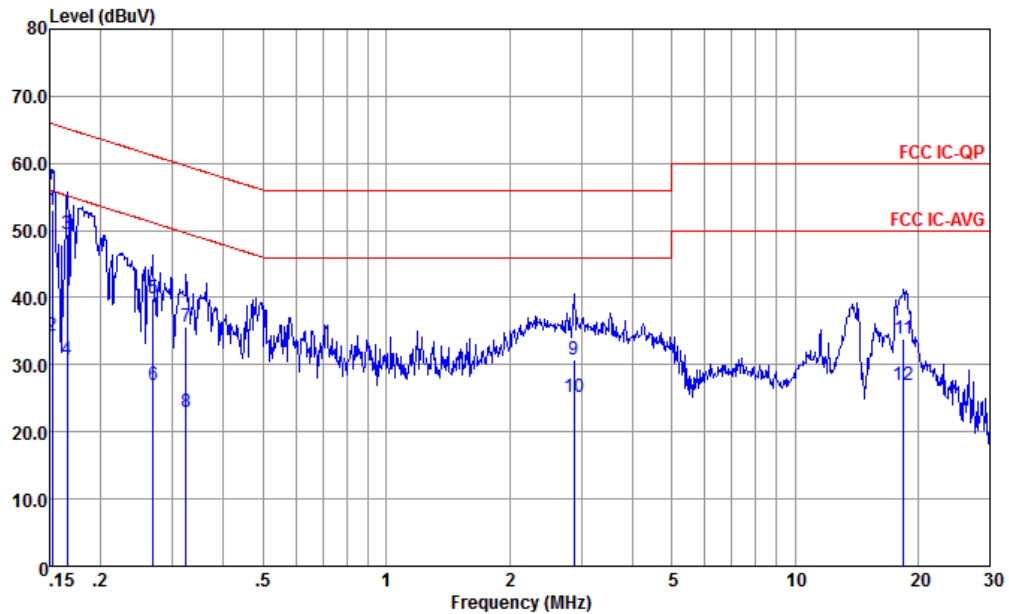
3.1.4 Test Setup





3.1.5 Test Result of AC Conducted Emission

| | | | |
|-----------------|---|---------------------|-------------|
| Test Engineer : | Amos | Temperature : | 25.3~26.2°C |
| | | Relative Humidity : | 38~40% |
| Test Voltage : | 120Vac / 60Hz | Phase : | Line |
| Remark : | All emissions not reported here are more than 10 dB below the prescribed limit. | | |

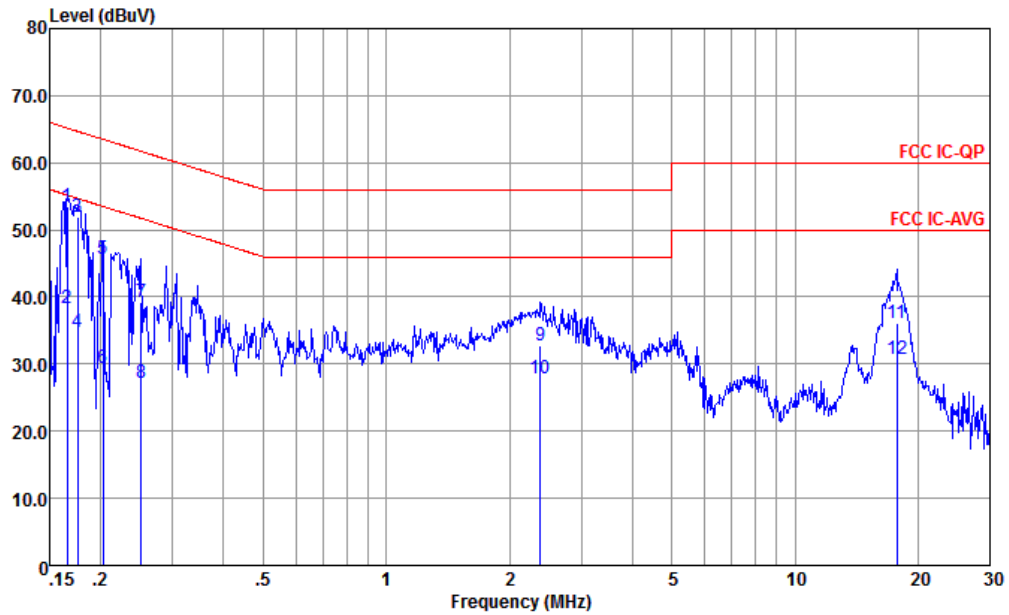


Site : CO01-KS
 Condition : FCC IC-QP LISN-060105-L 2023 LINE

| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Remark |
|-----|--------|-------|------------|------------|------------|-------------|------------|---------|
| | MHz | dBuV | dB | dBuV | dBuV | dB | dB | |
| 1 * | 0.152 | 52.97 | -12.90 | 65.87 | 42.50 | 0.05 | 10.42 | QP |
| 2 | 0.152 | 34.37 | -21.50 | 55.87 | 23.90 | 0.05 | 10.42 | Average |
| 3 | 0.166 | 49.36 | -15.80 | 65.16 | 38.90 | 0.04 | 10.42 | QP |
| 4 | 0.166 | 30.76 | -24.40 | 55.16 | 20.30 | 0.04 | 10.42 | Average |
| 5 | 0.269 | 39.99 | -21.17 | 61.16 | 29.60 | 0.04 | 10.35 | QP |
| 6 | 0.269 | 26.89 | -24.27 | 51.16 | 16.50 | 0.04 | 10.35 | Average |
| 7 | 0.323 | 35.75 | -23.87 | 59.62 | 25.40 | 0.03 | 10.32 | QP |
| 8 | 0.323 | 23.05 | -26.57 | 49.62 | 12.70 | 0.03 | 10.32 | Average |
| 9 | 2.884 | 30.68 | -25.32 | 56.00 | 20.70 | -0.09 | 10.07 | QP |
| 10 | 2.884 | 25.18 | -20.82 | 46.00 | 15.20 | -0.09 | 10.07 | Average |
| 11 | 18.426 | 33.81 | -26.19 | 60.00 | 22.81 | -0.30 | 11.30 | QP |
| 12 | 18.426 | 26.91 | -23.09 | 50.00 | 15.91 | -0.30 | 11.30 | Average |



| | | | |
|-----------------|---|---------------------|-------------|
| Test Engineer : | Amos | Temperature : | 25.3~26.2°C |
| | | Relative Humidity : | 38~40% |
| Test Voltage : | 120Vac / 60Hz | Phase : | Neutral |
| Remark : | All emissions not reported here are more than 10 dB below the prescribed limit. | | |



Site : CO01-KS
Condition : FCC IC-QP LISN-060105-N 2023 NEUTRAL

| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Remark |
|-----|--------|-------|------------|------------|------------|-------------|------------|---------|
| | MHz | dBuV | dB | dBuV | dBuV | dB | dB | |
| 1 * | 0.166 | 53.46 | -11.70 | 65.16 | 43.00 | 0.04 | 10.42 | QP |
| 2 | 0.166 | 38.36 | -16.80 | 55.16 | 27.90 | 0.04 | 10.42 | Average |
| 3 | 0.176 | 51.96 | -12.72 | 64.68 | 41.50 | 0.05 | 10.41 | QP |
| 4 | 0.176 | 34.76 | -19.92 | 54.68 | 24.30 | 0.05 | 10.41 | Average |
| 5 | 0.203 | 45.75 | -17.74 | 63.49 | 35.29 | 0.05 | 10.41 | QP |
| 6 | 0.203 | 29.35 | -24.14 | 53.49 | 18.89 | 0.05 | 10.41 | Average |
| 7 | 0.251 | 39.27 | -22.46 | 61.73 | 28.90 | 0.00 | 10.37 | QP |
| 8 | 0.251 | 27.17 | -24.56 | 51.73 | 16.80 | 0.00 | 10.37 | Average |
| 9 | 2.384 | 32.85 | -23.15 | 56.00 | 22.90 | -0.12 | 10.07 | QP |
| 10 | 2.384 | 27.75 | -18.25 | 46.00 | 17.80 | -0.12 | 10.07 | Average |
| 11 | 17.755 | 35.99 | -24.01 | 60.00 | 24.90 | -0.20 | 11.29 | QP |
| 12 | 17.755 | 30.69 | -19.31 | 50.00 | 19.60 | -0.20 | 11.29 | Average |

Note:

- Level(dBμV) = Read Level(dBμV) + LISN Factor(dB) + Cable Loss(dB)
- Over Limit(dB) = Level(dBμV) – Limit Line(dBμV)



3.2. Test of Radiated Emission Measurement

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

3.2.2. Measuring Instruments

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

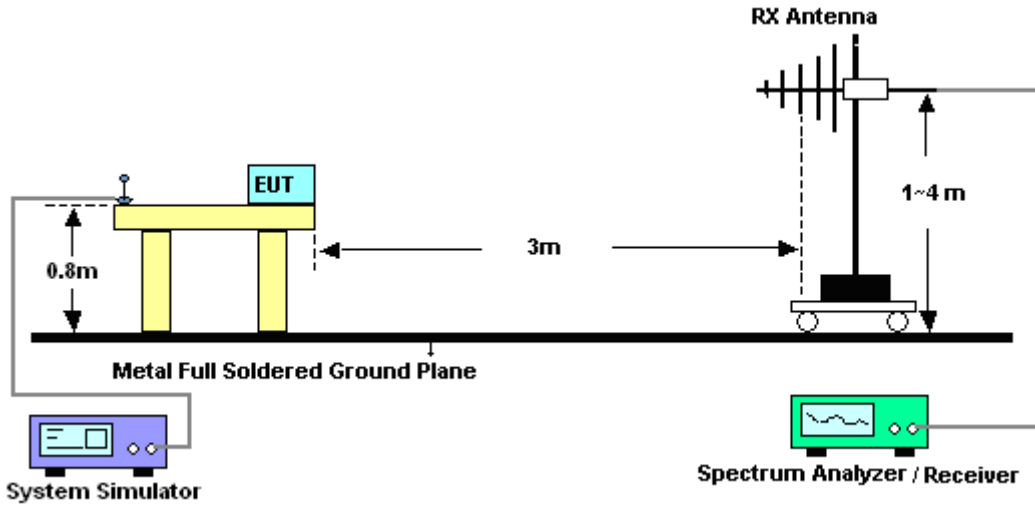


3.2.3. Test Procedures

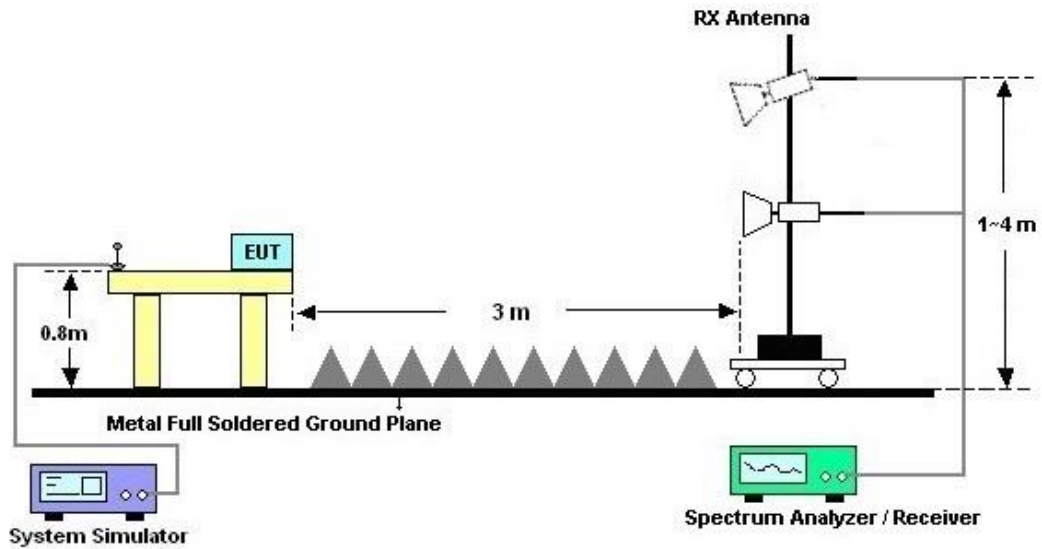
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest radiation.
5. 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.
6. 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.
7. 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).
8. 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.
9. Emission level (dB μ V/m) = 20 log Emission level (μ V/m)
10. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
11. 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.

3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



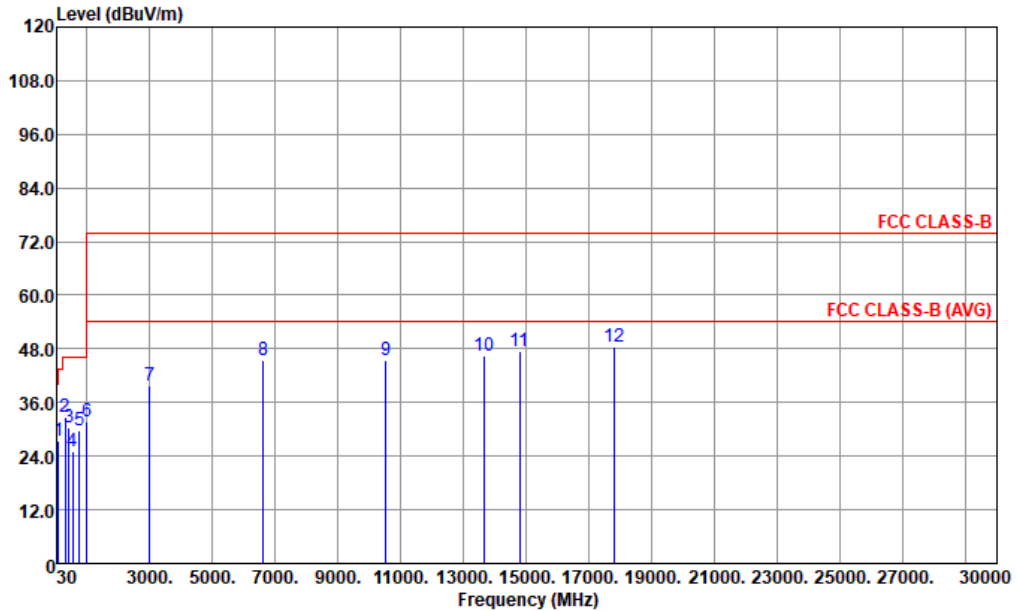
For radiated emissions above 1GHz





3.2.5. Test Result of Radiated Emission

| | | | |
|-----------------|------|---------------------|------------|
| Test Engineer : | Moon | Temperature : | 21~22°C |
| | | Relative Humidity : | 41~42% |
| Test Distance : | 3m | Polarization : | Horizontal |

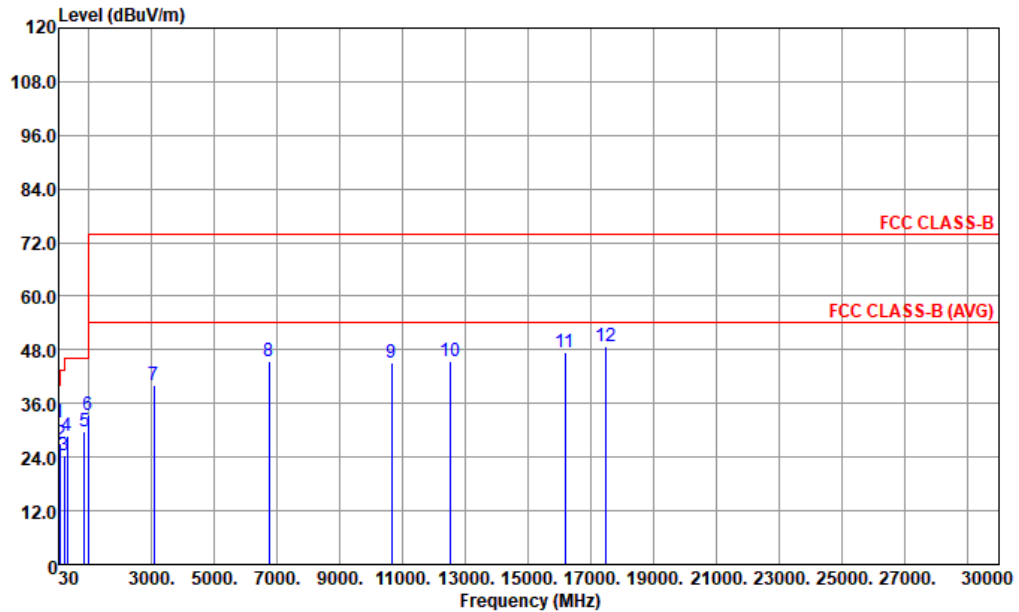


Site : 03CH02-KS
 Condition : FCC CLASS-B 3m 3117 SN00240132 HORIZONTAL

| | Freq | Level | Over Limit | Limit Line | ReadAntenna Level | Cable Preamp | A/Pos | T/Pos | Remark | | |
|-----|----------|--------|------------|------------|-------------------|--------------|-------|-------|--------|-----|------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | cm | deg | |
| 1 | 97.90 | 27.45 | -16.05 | 43.50 | 43.17 | 15.69 | 1.43 | 32.84 | --- | --- | Peak |
| 2 p | 303.54 | 32.81 | -13.19 | 46.00 | 43.89 | 19.18 | 2.57 | 32.83 | --- | --- | Peak |
| 3 | 416.06 | 30.57 | -15.43 | 46.00 | 38.42 | 22.36 | 3.04 | 33.25 | --- | --- | Peak |
| 4 | 552.83 | 25.08 | -20.92 | 46.00 | 29.65 | 25.77 | 3.22 | 33.56 | --- | --- | Peak |
| 5 | 761.38 | 29.79 | -16.21 | 46.00 | 30.90 | 28.07 | 4.10 | 33.28 | --- | --- | Peak |
| 6 | 988.36 | 31.87 | -22.13 | 54.00 | 27.99 | 30.65 | 4.66 | 31.43 | --- | --- | Peak |
| 7 | 2989.00 | 39.86 | -34.14 | 74.00 | 61.76 | 32.73 | 8.34 | 62.97 | --- | --- | Peak |
| 8 | 6627.00 | 45.48 | -28.52 | 74.00 | 61.06 | 35.83 | 12.69 | 64.10 | --- | --- | Peak |
| 9 | 10520.00 | 45.52 | -28.48 | 74.00 | 53.39 | 37.81 | 16.30 | 61.98 | --- | --- | Peak |
| 10 | 13648.00 | 46.47 | -27.53 | 74.00 | 50.77 | 39.24 | 18.72 | 62.26 | --- | --- | Peak |
| 11 | 14787.00 | 47.51 | -26.49 | 74.00 | 50.50 | 40.04 | 19.37 | 62.40 | --- | --- | Peak |
| 12 | 17796.00 | 48.41 | -25.59 | 74.00 | 48.52 | 41.42 | 21.28 | 62.81 | --- | --- | Peak |



| | | | |
|-----------------|------|---------------------|----------|
| Test Engineer : | Moon | Temperature : | 21~22°C |
| | | Relative Humidity : | 41~42% |
| Test Distance : | 3m | Polarization : | Vertical |



Site : 03CH02-KS
 Condition : FCC CLASS-B 3m 3117 SN00240132 VERTICAL

| | Freq | Level | Over Limit | Limit Line | ReadAntenna Level | Cable Preamp | A/Pos | T/Pos | Remark | | |
|-----|----------|--------|------------|------------|-------------------|--------------|-------|-------|--------|-----|------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | cm | deg | |
| 1 p | 36.79 | 31.74 | -8.26 | 40.00 | 42.70 | 21.24 | 0.80 | 33.00 | --- | --- | Peak |
| 2 | 90.14 | 27.18 | -16.32 | 43.50 | 43.95 | 14.62 | 1.34 | 32.73 | --- | --- | Peak |
| 3 | 196.84 | 24.38 | -19.12 | 43.50 | 40.52 | 14.66 | 2.07 | 32.87 | --- | --- | Peak |
| 4 | 309.36 | 28.65 | -17.35 | 46.00 | 39.70 | 19.21 | 2.59 | 32.85 | --- | --- | Peak |
| 5 | 844.80 | 29.89 | -16.11 | 46.00 | 29.29 | 29.17 | 4.26 | 32.83 | --- | --- | Peak |
| 6 | 960.23 | 33.35 | -20.65 | 54.00 | 29.53 | 31.01 | 4.61 | 31.80 | --- | --- | Peak |
| 7 | 3074.00 | 39.99 | -34.01 | 74.00 | 61.66 | 32.87 | 8.47 | 63.01 | --- | --- | Peak |
| 8 | 6729.00 | 45.54 | -28.46 | 74.00 | 61.09 | 35.77 | 12.77 | 64.09 | --- | --- | Peak |
| 9 | 10639.00 | 45.07 | -28.93 | 74.00 | 52.76 | 37.86 | 16.38 | 61.93 | --- | --- | Peak |
| 10 | 12509.00 | 45.37 | -28.63 | 74.00 | 49.70 | 39.10 | 17.88 | 61.31 | --- | --- | Peak |
| 11 | 16164.00 | 47.46 | -26.54 | 74.00 | 48.81 | 40.93 | 20.46 | 62.74 | --- | --- | Peak |
| 12 | 17456.00 | 48.65 | -25.35 | 74.00 | 48.93 | 41.33 | 21.18 | 62.79 | --- | --- | Peak |

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 | R&S | ESR7 | 101403 | 9kHz~7GHz;Max 30dBm | Oct. 10, 2023 | Jun. 06, 2024 | Oct. 09, 2024 | Radiation (03CH02-KS) |
| EXA Spectrum Analyzer | Keysight | N9010A | MY55370528 | 10Hz-44G,MAX 30dB | Oct. 10, 2023 | Jun. 06, 2024 | Oct. 09, 2024 | Radiation (03CH02-KS) |
| Bilog Antenna | TeseQ | CBL6111D | 44483 | 30MHz-1GHz | Dec. 21, 2023 | Jun. 06, 2024 | Dec. 20, 2024 | Radiation (03CH02-KS) |
| Double Ridge Horn Antenna | ETS-Lindgren | 3117 | 75957 | 1GHz~18GHz | Nov. 23, 2024 | Jun. 06, 2024 | Nov. 22, 2024 | Radiation (03CH02-KS) |
| SHF-EHF Horn | Com-power | AH-840 | 101070 | 18GHz~40GHz | Jan. 05, 2024 | Jun. 06, 2024 | Jan. 04, 2025 | Radiation (03CH02-KS) |
| Amplifier | EM | EM18G40GGA | 060852 | 18~40GHz | Jan. 05, 2024 | Jun. 06, 2024 | Jan. 04, 2025 | Radiation (03CH02-KS) |
| Amplifier | SONOMA | 310N | 380826 | 9KHz-1GHz | Jul 06, 2023 | Jun. 06, 2024 | Jul 05, 2024 | Radiation (03CH02-KS) |
| Amplifier | EM | EM01G18G | 060806 | 1GHz~18GHz | Oct. 10, 2023 | Jun. 06, 2024 | Oct. 09, 2024 | Radiation (03CH02-KS) |
| AC Power Source | Chroma | 61601 | 616010002473 | N/A | NCR | Jun. 06, 2024 | NCR | Radiation (03CH02-KS) |
| Turn Table | MF | MF7802 | N/A | 0~360 degree | NCR | Jun. 06, 2024 | NCR | Radiation (03CH02-KS) |
| Antenna Mast | MF | MF7802 | N/A | 1 m~4 m | NCR | Jun. 06, 2024 | NCR | Radiation (03CH02-KS) |
| EMI Receiver | R&S | ESC17 | 100768 | 9kHz~7GHz; | Apr. 18, 2024 | Jun. 05, 2024 | Apr. 17, 2025 | Conduction (CO01-KS) |
| AC LISN (for auxiliary equipment) | MessTec | AN3016 | 060103 | 9kHz~30MHz | Oct. 11, 2023 | Jun. 05, 2024 | Oct. 10, 2024 | Conduction (CO01-KS) |
| AC LISN | MessTec | AN3016 | 060105 | 9kHz~30MHz | Apr. 18, 2024 | Jun. 05, 2024 | Apr. 17, 2025 | Conduction (CO01-KS) |
| AC Power Source | Chroma | 61602 | ABP000000811 | AC 0V~300V, 45Hz~1000Hz | Oct. 11, 2023 | Jun. 05, 2024 | Oct. 10, 2024 | Conduction (CO01-KS) |

NCR: No Calibration Required



5. Measurement Uncertainty

Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

| | |
|---|---------|
| Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y)) | 2.84 dB |
|---|---------|

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

| | |
|---|---------|
| Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y)) | 6.04 dB |
|---|---------|

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

| | |
|---|---------|
| Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y)) | 5.12 dB |
|---|---------|

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

| | |
|---|---------|
| Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y)) | 5.30 dB |
|---|---------|

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