# FCC 15B Test Report

| | | |
|---|---|---|
| **FCC ID** | : | **2AQYEFMP177** |
| **Equipment** | : | **Mobile Phone** |
| **Model No.** | : | **F-41A** |
| **Brand Name** | : | **FUJITSU** |
| **Applicant** | : | **FUJITSU CONNECTED TECHNOLOGIES Ltd.** |
| **Address** | : | **Chuorinkan 7-10-1 Yamato, Kanagawa 242-0007, Japan.** |
| **Standard** | : | **FCC Part 15, Subpart B, Class B<br>ICES-003 Issue 6, Class B<br>ANSI C63.4:2014** |
| **Received Date** | : | **Feb. 01, 2020** |
| **Tested Date** | : | **Feb. 06 ~ Feb. 19, 2020** |

**We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.**

**Reviewed by:**

**Peter Lin / Supervisor**

**Approved by:**

**Kent Chen / Assistant Manager**

Testing Laboratory 2732

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# Release Record

| Report No. | Version | Description | Issued Date |
|---|---|---|---|
| FD8D1403-01 | Rev. 01 | Initial issue | Feb. 21, 2020 |
| FD8D1403-01 | Rev. 02 | Revised general information on page 5. | Mar. 10, 2020 |
| FD8D1403-01 | Rev. 03 | Revised testing condition on page 9. | Mar. 24, 2020 |

# Summary of Test Results

| FCC Part 15, Subpart B Emission Tests | | | | |
|---|---|---|---|---|
| **Ref. Std. Clause** | **Test Standard** | **Test Items** | **Measured** | **Result** |
| 15.107 | FCC Part 15, Subpart B, Class B | Conducted Emissions | -16.65dB QP@ 1.037MHz. | Pass |
| 15.109 | FCC Part 15, Subpart B, Class B | Radiated Emissions | -3.81dB QP@ 720.00MHz. | Pass |

| **Declaration of Conformity:** |
|---|
| The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. |

# 1 General Description

## 1.1 Information

### 1.1.1 Product Details

| | |
|---|---|
| **Product Name** | Mobile Phone |
| **Brand Name** | FUJITSU |
| **Model Name** | F-41A |
| **IMEI Code** | 353531110004378 |
| **H/W Version** | v1.2.0 |
| **S/W Version** | R022.1e |

### 1.1.2 Specification of the Equipment under Test (EUT)

| | |
|---|---|
| **WLAN** | |
| **Operating Frequency** | 802.11b/g/n: 2412 MHz ~ 2462 MHz<br>802.11a/n/ac: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz;<br>5500 MHz ~ 5720 MHz |
| **Antenna Type** | Monopole antenna |
| **Modulation Type** | 802.11b: DSSS (DBPSK / DQPSK / CCK)<br>802.11a/g/n/ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) |
| **Bluetooth** | |
| **Operating Frequency** | 2402 MHz ~ 2480 MHz |
| **Antenna Type** | Monopole antenna |
| **Modulation Type** | Bluetooth 4.2 LE: GFSK<br>Bluetooth BR(1Mbps): GFSK<br>Bluetooth EDR (2Mbps): π/4-DQPSK<br>Bluetooth EDR (3Mbps): 8-DPSK |
| **LTE** | |
| **Operating Frequency** | Band 5: 824 MHz ~ 849 MHz<br>Band 12: 699 MHz ~ 716 MHz<br>Band 17: 704 MHz ~ 716 MHz |
| **Antenna Type** | Monopole antenna |
| **Modulation Type** | QPSK, 16QAM (Uplink) |
| **WWAN** | |
| **Operating Frequency** | GSM850: 824.2 MHz ~ 848.8 MHz<br>GSM1900: 1850.2 MHz ~ 1909.8MHz<br>WCDMA Band V: 826.4 MHz ~ 846.6 MHz |
| **Antenna Type** | Monopole antenna |
| **Modulation Type** | GSM / GPRS: GMSK<br>WCDMA / HSDPA / HSUPA: QPSK (Uplink) |

| NFC | |
|---|---|
| **Operating Frequency** | 13.56 MHz |
| **Antenna Type** | Loop antenna |
| **Modulation Type** | ASK |
| **GNSS** | |
| **Operating Frequency** | 1.57542 GHz |
| **Modulation Type** | BPSK |

### 1.1.3 Power Supply Type of Equipment under Test (EUT)

| | |
|---|---|
| **Supply Voltage** | 3.8Vdc from battery:<br>9Vdc,1.5A from adapter (No bundle, support unit only) |

### 1.1.4 Accessories

| Accessories | | |
|---|---|---|
| **No.** | **Equipment** | **Description** |
| 1 | Battery | Brand: FUJITSU CONNECTED TECHNOLOGIES LIMITED<br>Model Name: CA54310-0074<br>Power Rating: 3.8Vdc, 2,780mAh, 10.6Wh |

## 1.2 The Equipment List

| Test Item | Conducted Emission | | | | |
|---|---|---|---|---|---|
| Test Site | Conduction room 1 / (CO01-WS) | | | | |
| Test Date | Feb. 06, 2020 | | | | |
| **Instrument** | **Manufacturer** | **Model No.** | **Serial No.** | **Calibration Date** | **Calibration Until** |
| Receiver | R&S | ESR3 | 101658 | Dec. 12, 2019 | Dec. 11, 2020 |
| LISN | R&S | ENV216 | 101579 | Mar. 08, 2019 | Mar. 07, 2020 |
| RF Cable-CON | Woken | CFD200-NL | CFD200-NL-001 | Oct. 22, 2019 | Oct. 21, 2020 |
| Measurement Software | AUDIX | e3 | 6.120210k | NA | NA |
| Note: Calibration Interval of instruments listed above is one year. | | | | | |

| Test Item | Radiated Emission below 1GHz | | | | |
|---|---|---|---|---|---|
| Test Site | 966 chamber 2 / (03CH02-WS) | | | | |
| Test Date | Feb. 19, 2020 | | | | |
| **Instrument** | **Manufacturer** | **Model No.** | **Serial No.** | **Calibration Date** | **Calibration Until** |
| Receiver | Agilent | N9038A | MY53290044 | Sep. 17, 2019 | Sep. 16, 2020 |
| Loop Antenna | R&S | HFH2-Z2 | 100330 | Nov. 13, 2019 | Nov. 12, 2020 |
| Bilog Antenna | SCHWARZBECK | VULB9168 | VULB9168-523 | Dec. 26, 2019 | Dec. 25, 2020 |
| Preamplifier | EMC | EMC02325 | 980194 | Sep. 18, 2019 | Sep. 17, 2020 |
| LF cable 1M | EMC | EMCCFD400-NM-NM-1000 | 160501 | Oct. 18, 2019 | Oct. 17, 2020 |
| LF cable 3M | Woken | CFD400NL-LW | CFD400NL-003 | Oct. 18, 2019 | Oct. 17, 2020 |
| LF cable 10M | EMCC | CFD400-E | CFD400-001 | Oct. 18, 2019 | Oct. 17, 2020 |
| Measurement Software | AUDIX | e3 | 6.120210g | NA | NA |
| Note: Calibration Interval of instruments listed above is one year. | | | | | |

| Test Item | Radiated Emission above 1GHz | | | | |
|---|---|---|---|---|---|
| Test Site | 966 chamber 2 / (03CH02-WS) | | | | |
| Test Date | Feb. 07, 2020 | | | | |
| **Instrument** | **Manufacturer** | **Model No.** | **Serial No.** | **Calibration Date** | **Calibration Until** |
| Spectrum Analyzer | Agilent | N9010A | MY53400091 | Nov. 15, 2019 | Nov. 14, 2020 |
| Horn Antenna 1G-18G | SCHWARZBECK | BBHA 9120 D | BBHA 9120 D 1095 | Sep. 26, 2019 | Sep. 25, 2020 |
| Horn Antenna 18G-40G | SCHWARZBECK | BBHA 9170 | BBHA 9170517 | Nov. 15, 2019 | Nov. 14, 2020 |
| Preamplifier | Agilent | 83017A | MY39501309 | Sep. 24, 2019 | Sep. 23, 2020 |
| Preamplifier | EMC | EMC184045B | 980192 | Aug. 01, 2019 | Jul. 31, 2020 |
| RF Cable | EMC | EMC105-SM-SM-8000 | 180512 | Oct. 18, 2019 | Oct. 17, 2020 |
| RF Cable | HUBER+SUHNER | SUCOFLEX104 | MY16018/4 | Oct. 18, 2019 | Oct. 17, 2020 |
| Measurement Software | AUDIX | e3 | 6.120210g | NA | NA |
| Note: Calibration Interval of instruments listed above is one year. | | | | | |

## 1.3 Testing Applied Standards

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

FCC Part 15, Subpart B, Class B
ICES-003 Issue 6, Class B
ANSI C63.4:2014

## 1.4 Deviation from Test Standard and Measurement Procedure

None

## 1.5 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2).

| Measurement Uncertainty | | |
|---|---|---|
| **Test Item** | **Frequency** | **Uncertainty** |
| Conducted Emissions | 150kHz ~ 30MHz | ±2.92 dB |
| Radiated Emissions | 30MHz ~ 1GHz | ±4.32 dB |
| | Above 1GHz | ±4.9 dB |

Note: The results of measurements of emissions shall reference the measurement uncertainty considerations contained in CISPR 16-4-2.

# 2 Test Configuration

## 2.1 Testing Condition

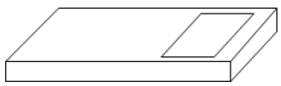
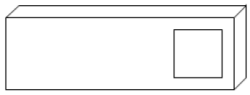
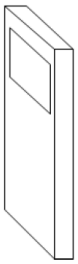
| Test Item | Test Site | Ambient Condition | Tested By |
|---|---|---|---|
| AC Conduction | CO01-WS | 22°C / 58% | Alex Tsai |
| Radiated Emissions ≤1GHz | 03CH02-WS | 21°C / 63% | Brad Wu |
| Radiated Emissions >1GHz | 03CH02-WS | 20°C / 61% | Brad Wu |

- FCC Designation No.: TW1073
- FCC site registration No.: 933633

## 2.2 The Worst Case Measurement Configuration

| The Determined Worst Case Configurations | |
|---|---|
| **Conducted Emissions** | |
| **Test Mode** | **Operating Description** |
| 1 | 2G link, BT & Wifi 5G idle, Run Camera(Front), w/ Earphone, Battery 20%, EUT: Z-axis, w/ Adapter, 120V/60Hz |
| **2** | **3G link, BT/Wifi 2.4G idle, MPEG4 play from Micro SD, w/ Earphone, Battery 20%, EUT: Z-axis, w/ Adapter, 120V/60Hz** |
| 3 | 4G link, BT/Wifi 5G idle, SD R/W & EUT charged via USB w/ NB, w/ Earphone, Battery 20%, EUT: Z-axis, 120V/60Hz |
| 4 | 2G link, BT & Wifi 2.4G idle, GPS Rx Mode, w/ Earphone, Battery 20%, EUT: Z-axis, w/ Adapter, 120V/60Hz |
| 5 | 3G idle, BT/Wifi 2.4G idle, Camera(Back), w/ Earphone, Battery 20%, EUT: Z-axis, w/ Adapter, 120V/60Hz |
| Note: The worst case was marked in boldface, therefore, only its data was recorded in this report. | |

| The Determined Worst Case Configurations | |
|---|---|
| **Radiated Emissions** | |
| **Pretest Mode** | **Operating Description** |
| 1 | NFC R/W Mode, BT & Wifi 2.4G idle, Battery 80%, EUT: X-axis, Standalone |
| 2 | 2G link, BT & Wifi 5G idle, Run Camera(Front), w/ Earphone, Battery 20%, EUT: Y-axis, w/ Adapter, 120V/60Hz |
| 3 | 3G link, BT/Wifi 2.4G idle, MPEG4 play from Micro SD, w/ Earphone, Battery 20%, EUT: Z-axis, w/ Adapter, 120V/60Hz |
| **4** | **4G link, BT/Wifi 5G idle, SD R/W & EUT charged via USB w/ NB, w/ Earphone, Battery 20%, EUT: Z-axis, 120V/60Hz** |
| 5 | 2G link, BT & Wifi 2.4G idle, GPS Rx Mode, w/ Earphone, Battery 20%, EUT: Z-axis, w/ Adapter, 120V/60Hz |
| 6 | 3G idle, BT/Wifi 2.4G idle, Camera(Back), w/ Earphone, Battery 20%, EUT: Z-axis, w/ Adapter, 120V/60Hz |
| Note: The worst case was marked in boldface, therefore, only its data was recorded in this report. | |

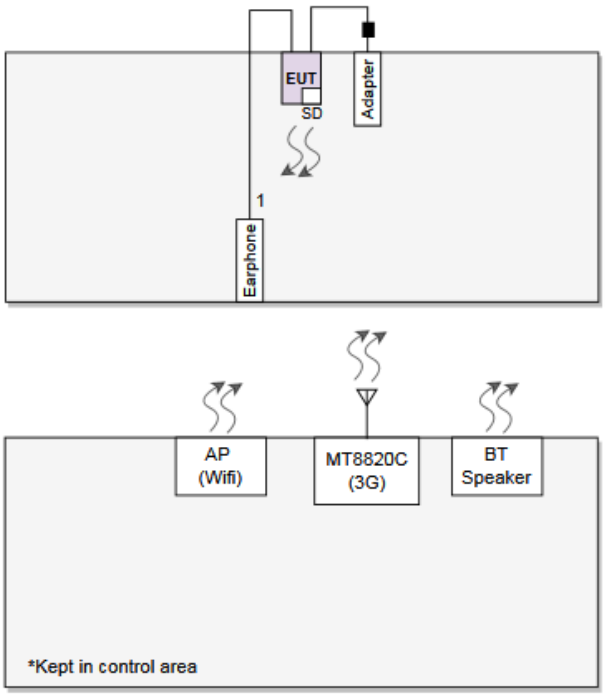
| X-Axis | Y-Axis | Z-Axis |
|---|---|---|
|  |  |  |

## 2.3 Local Support Equipment List

| Support Equipment List | | | | | |
|---|---|---|---|---|---|
| **No.** | **Equipment** | **Brand** | **Model** | **S/N** | **Remarks** |
| 1 | Earphone | APPLE | MD827FE/A | 6 | --- |
| 2 | Wireless AP | D-LINK | DIR-815 | 3000228 | --- |
| 3 | Radio Communication Tester | ANRITSU | MT8820C | 6201240341 | --- |
| 4 | MXG | Agilent | N5182B | --- | --- |
| 5 | BT speaker | Nokia | HF-34W | --- | --- |
| 6 | Adapter | NTT docomo | AC Adapter 06 | --- | Provided by applicant. |
| 7 | SD Card | SanDisk | Micro SDHC | --- | --- |
| 8 | Notebook | DELL | Inspiron 15 5570 | DZ7SZ32 | --- |
| 9 | USB 3.0 HDD | WD | WDBKXH5000 ABK | WX31AB210213 | --- |
| 10 | Printer | EPSON | XP-30 | QSDK002410 | --- |

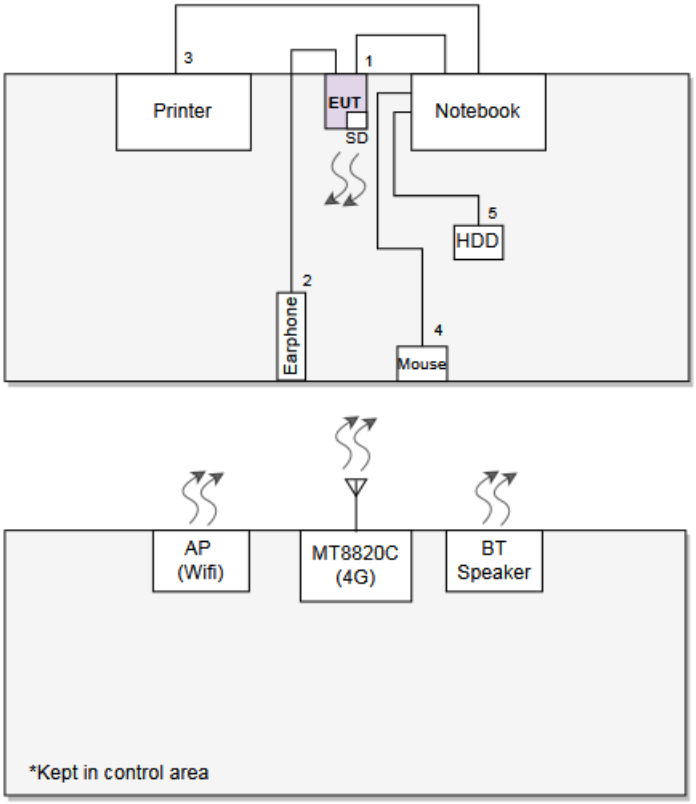
## 2.4 Test Setup Chart

**Test Setup Diagram (for Conducted Emissions)**




| No. | Signal cable / Length (m) |
|---|---|
| 1 | Audio, 1.2m non-shielded. |

## Test Setup Diagram (for Radiated Emissions)




| No. | Signal cable / Length (m) |
|---|---|
| 1 | USB, 0.4m shielded. |
| 2 | Audio, 1.2m non-shielded. |
| 3-4 | USB, 1.8m shielded. |
| 5 | USB, 0.5m shielded. |

## 2.5 Test Software and Operating Condition

<Conducted Emissions>

a. The EUT was charging with adapter during the test.
b. Support earphone was connecting to the EUT. The audio output to support earphone.
c. The EUT was attached to the support BT speaker and WLAN AP in idle mode.
d. The EUT was in 3G link mode during the test.
e. The EUT played colorbar from SD card.

<Radiated Emissions>

a. The EUT was charging with support notebook during the test.
b. Support earphone was connecting to the EUT. The audio output to support earphone.
c. The EUT was in LTE link mode during the test.
d. The EUT was attached to the support BT speaker and WLAN AP in idle mode.
e. The support notebook copied data from SD card in EUT via USB cable.

# 3 Emission Tests Results

## 3.1 Conducted Emissions

### 3.1.1 Limit of Conducted Emissions

| Conducted Emissions Limit | | |
|---|---|---|
| **Frequency Emission (MHz)** | **Quasi-Peak** | **Average** |
| 0,15 to 0,5 | 66 - 56 * | 56 - 46 * |
| 0,5 to 5 | 56 | 46 |
| 5 to 30 | 60 | 50 |
| Note 1: * Decreases with the logarithm of the frequency. | | |

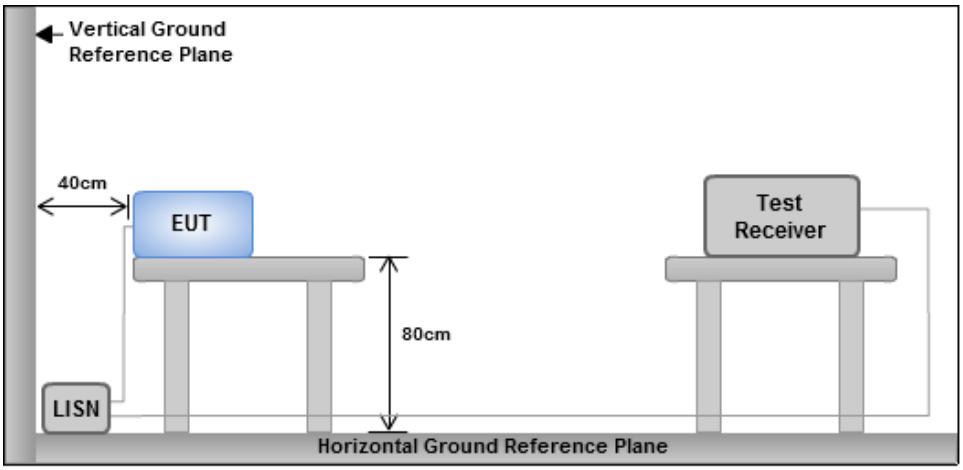
### 3.1.2 Test Procedures

a. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.

b. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50 Ω LISN port.

c. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.

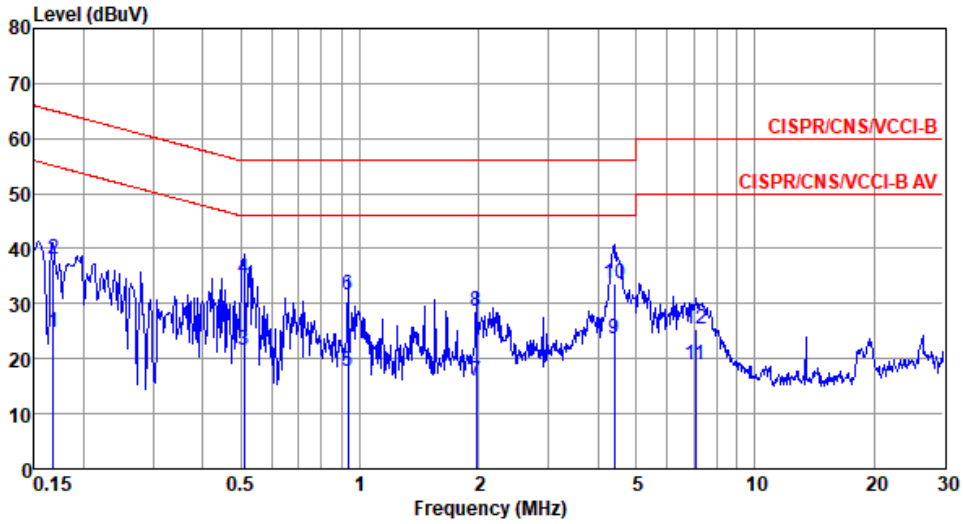
### 3.1.3 Test Setup




Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

### 3.1.4 Test Result of Conducted Emissions

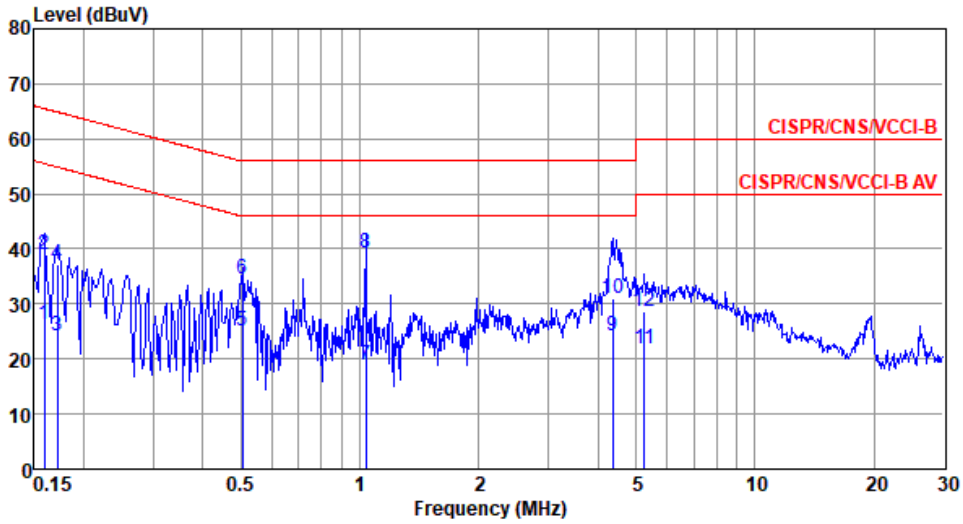
| Power Phase | Line | Test Mode | 2 |
|---|---|---|---|




| | Freq MHz | Level dBuV | Limit Line dBuV | Over Limit dB | Read Level dBuV | LISN factor dB | cable loss dB | Remark |
|---|---|---|---|---|---|---|---|---|
| 1 | 0.168 | 24.93 | 55.08 | -30.15 | 15.18 | 9.53 | 0.05 | Average |
| 2 | 0.168 | 37.99 | 65.08 | -27.09 | 28.24 | 9.53 | 0.05 | QP |
| 3 | 0.510 | 21.50 | 46.00 | -24.50 | 11.56 | 9.58 | 0.09 | Average |
| 4* | 0.510 | 34.56 | 56.00 | -21.44 | 24.62 | 9.58 | 0.09 | QP |
| 5 | 0.933 | 17.65 | 46.00 | -28.35 | 7.62 | 9.60 | 0.12 | Average |
| 6 | 0.933 | 31.51 | 56.00 | -24.49 | 21.48 | 9.60 | 0.12 | QP |
| 7 | 1.970 | 15.82 | 46.00 | -30.18 | 5.70 | 9.60 | 0.18 | Average |
| 8 | 1.970 | 28.50 | 56.00 | -27.50 | 18.38 | 9.60 | 0.18 | QP |
| 9 | 4.407 | 23.68 | 46.00 | -22.32 | 13.40 | 9.61 | 0.30 | Average |
| 10 | 4.407 | 33.61 | 56.00 | -22.39 | 23.33 | 9.61 | 0.30 | QP |
| 11 | 7.062 | 18.92 | 50.00 | -31.08 | 8.55 | 9.63 | 0.35 | Average |
| 12 | 7.062 | 25.40 | 60.00 | -34.60 | 15.03 | 9.63 | 0.35 | QP |

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

| Power Phase | Neutral | Test Mode | 2 |
|---|---|---|---|




| | Freq MHz | Level dBuV | Limit Line dBuV | Over Limit dB | Read Level dBuV | LISN factor dB | cable loss dB | Remark |
|---|---|---|---|---|---|---|---|---|
| 1 | 0.159 | 26.22 | 55.52 | -29.30 | 16.47 | 9.57 | 0.05 | Average |
| 2 | 0.159 | 39.06 | 65.52 | -26.46 | 29.31 | 9.57 | 0.05 | QP |
| 3 | 0.171 | 24.31 | 54.90 | -30.59 | 14.56 | 9.57 | 0.05 | Average |
| 4 | 0.171 | 37.29 | 64.90 | -27.61 | 27.54 | 9.57 | 0.05 | QP |
| 5 | 0.505 | 25.17 | 46.00 | -20.83 | 15.28 | 9.62 | 0.09 | Average |
| 6 | 0.505 | 34.46 | 56.00 | -21.54 | 24.57 | 9.62 | 0.09 | QP |
| 7 | 1.037 | 18.78 | 46.00 | -27.22 | 8.82 | 9.64 | 0.12 | Average |
| 8* | 1.037 | 39.35 | 56.00 | -16.65 | 29.39 | 9.64 | 0.12 | QP |
| 9 | 4.361 | 24.14 | 46.00 | -21.86 | 13.91 | 9.66 | 0.30 | Average |
| 10 | 4.361 | 30.91 | 56.00 | -25.09 | 20.68 | 9.66 | 0.30 | QP |
| 11 | 5.249 | 21.94 | 50.00 | -28.06 | 11.67 | 9.67 | 0.32 | Average |
| 12 | 5.249 | 28.52 | 60.00 | -31.48 | 18.25 | 9.67 | 0.32 | QP |

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

## 3.2 Radiated Emissions

### 3.2.1 Limit of Radiated Emissions

According to FCC Part 15, Subpart B §15.109, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

| Frequency of Emission (MHz) | Field Strength (uV/m) | Field Strength (dBuV/m) | Measure Distance (m) |
|---|---|---|---|
| 30 - 88 | 100 | 40 | 3 |
| 88 - 216 | 150 | 43.5 | 3 |
| 216 - 960 | 200 | 46 | 3 |
| Above 960 | 500 | 54 | 3 |

| Highest frequency generated or used in the device or on which the device operates or tunes (MHz) | Upper frequency of measurement range (MHz) |
|---|---|
| Below 1.705 | 30 |
| 1.705-108 | 1000 |
| 108-500 | 2000 |
| 500-1000 | 5000 |
| Above 1000 | 5th harmonic of the highest frequency or 40 GHz, whichever is lower |

Note: According to FCC Part 15, Subpart B §15.33: For an unintentional radiator is shown in the table above.

### 3.2.2 Test Procedures

**Measuring below 1 GHz:**

a. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at a height of 0.8 m test table above the ground plane.

b. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.

c. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

**Measuring above 1 GHz:**

a. Same test set up as below 1GHz radiated testing.

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

c. There should be absorber placed between the EUT and Antenna and its located size should let the test site meet CISPR16-1-4 requirement.

d. The table was rotated 360 degrees to determine the position of the highest radiation.

e. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

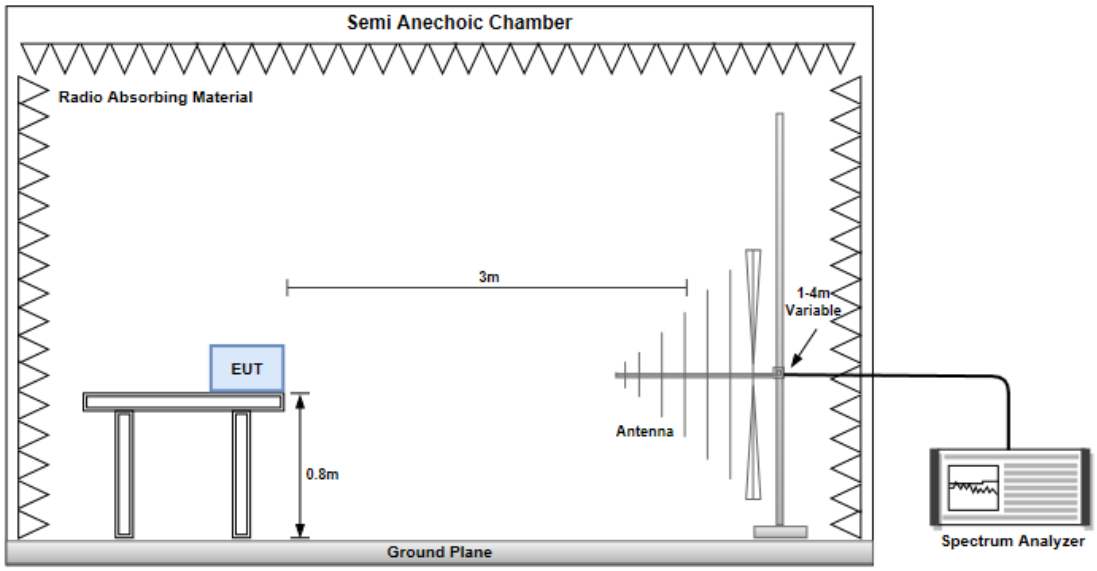
f. Set the Horn Antenna at 1m height, then run the turn table to get the maximum noise reading from Horizontal and Vertical polarity separately.

g. When EUT locating on the turn-table, the Horn Antenna must be raised up and descended down, then turning around the turn-table to get the maximum noise reading of the Horizontal and Vertical polarity separately. Note the maximum raise up height is same as the top of EUT.

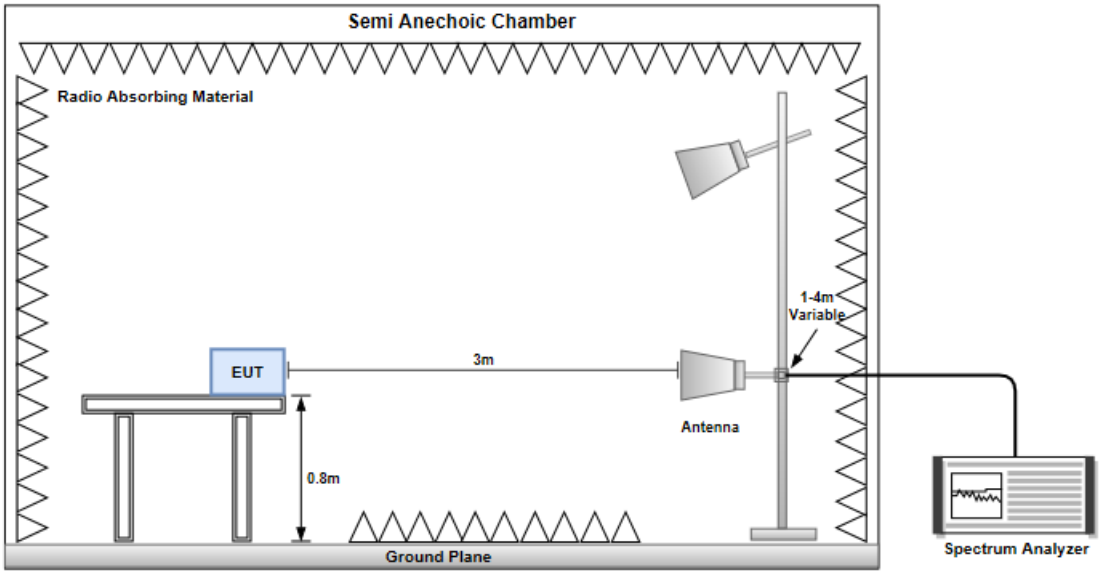
h. If emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

### 3.2.3 Test Setup

**Radiated Emissions below 1 GHz**

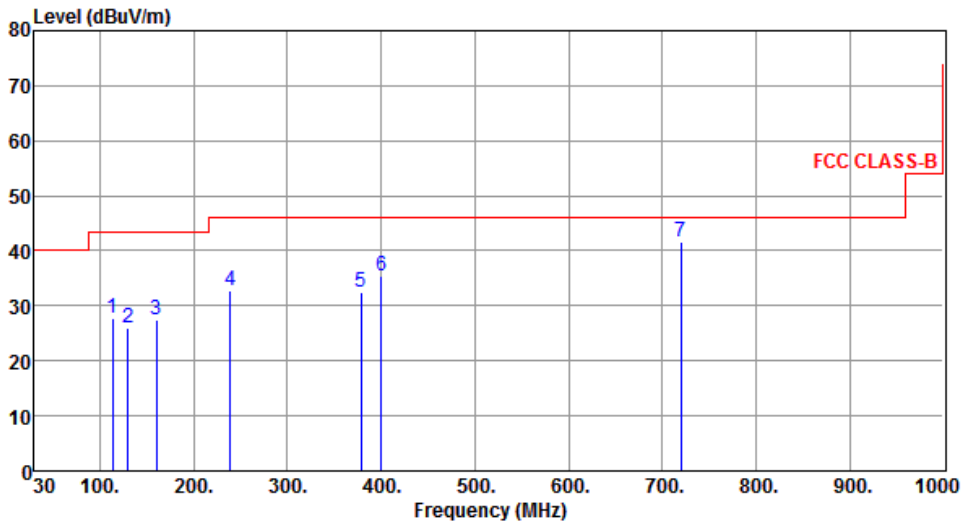



**Radiated Emissions above 1 GHz**



### 3.2.4 Radiated Emissions (Below 1GHz)

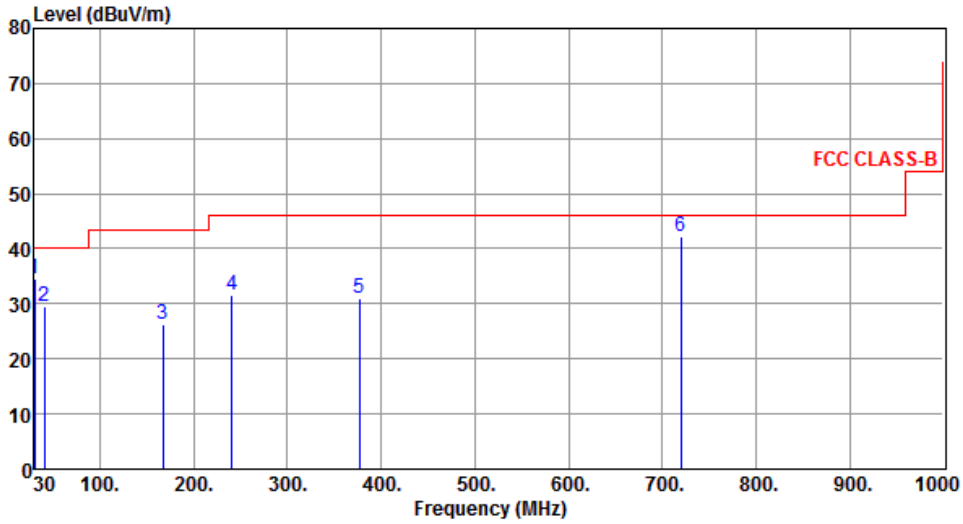
| Polarization | Horizontal | Test Mode | 4 |
|---|---|---|---|




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 113.42 | 27.68 | 43.50 | -15.82 | 38.99 | -11.31 | Peak | --- | --- |
| 2 | 129.91 | 25.83 | 43.50 | -17.67 | 35.44 | -9.61 | Peak | --- | --- |
| 3 | 159.98 | 27.54 | 43.50 | -15.96 | 35.42 | -7.88 | Peak | --- | --- |
| 4 | 239.52 | 32.89 | 46.00 | -13.11 | 41.85 | -8.96 | Peak | --- | --- |
| 5 | 378.23 | 32.60 | 46.00 | -13.40 | 37.73 | -5.13 | Peak | --- | --- |
| 6 | 400.54 | 35.29 | 46.00 | -10.71 | 39.86 | -4.57 | Peak | --- | --- |
| 7 | 719.67 | 41.74 | 46.00 | -4.26 | 39.97 | 1.77 | QP | 100 | 102 |

Note 1: Emission level (dBuV/m) = SA reading (dBuV) + Factor (dB)
2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m)

| Polarization | Vertical | Test Mode | 4 |
|---|---|---|---|

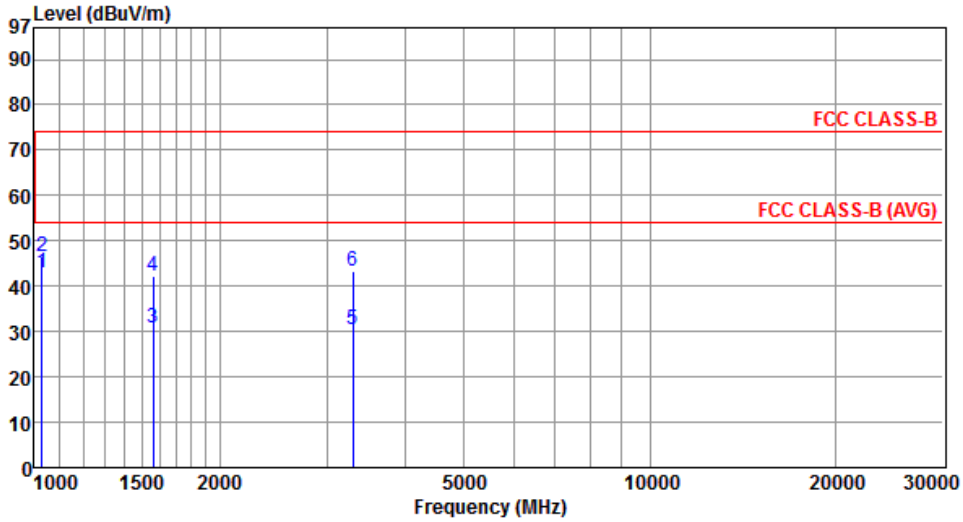



| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 30.00 | 34.48 | 40.00 | -5.52 | 43.52 | -9.04 | Peak | --- | --- |
| 2 | 40.67 | 29.43 | 40.00 | -10.57 | 37.73 | -8.30 | Peak | --- | --- |
| 3 | 166.77 | 26.39 | 43.50 | -17.11 | 34.24 | -7.85 | Peak | --- | --- |
| 4 | 240.49 | 31.53 | 46.00 | -14.47 | 40.51 | -8.98 | Peak | --- | --- |
| 5 | 377.26 | 30.96 | 46.00 | -15.04 | 36.13 | -5.17 | Peak | --- | --- |
| 6 | 720.00 | 42.19 | 46.00 | -3.81 | 40.42 | 1.77 | QP | 100 | 2 |

Note 1: Emission level (dBuV/m) = SA reading (dBuV) + Factor (dB)
2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m)

### 3.2.5 Radiated Emissions (Above 1GHz)

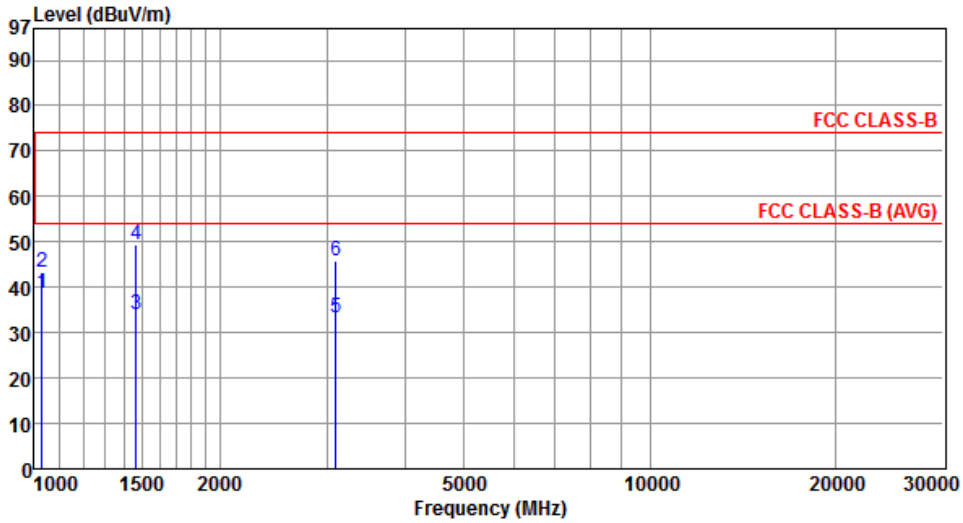
| Polarization | Horizontal | Test Mode | 4 |
|---|---|---|---|




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1028.00 | 43.03 | 54.00 | -10.97 | 52.77 | -9.74 | Average | 100 | 357 |
| 2 | 1028.00 | 46.62 | 74.00 | -27.38 | 56.36 | -9.74 | Peak | 100 | 357 |
| 3 | 1560.00 | 30.78 | 54.00 | -23.22 | 37.16 | -6.38 | Average | 100 | 21 |
| 4 | 1560.00 | 42.23 | 74.00 | -31.77 | 48.61 | -6.38 | Peak | 100 | 21 |
| 5 | 3291.00 | 30.46 | 54.00 | -23.54 | 30.64 | -0.18 | Average | 100 | 16 |
| 6 | 3291.00 | 43.46 | 74.00 | -30.54 | 43.64 | -0.18 | Peak | 100 | 16 |

Note 1: Emission level (dBuV/m) = SA reading (dBuV) + Factor (dB)
2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m)

| Polarization | Vertical | Test Mode | 4 |
|---|---|---|---|




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1028.00 | 38.56 | 54.00 | -15.44 | 48.30 | -9.74 | Average | 179 | 312 |
| 2 | 1028.00 | 43.32 | 74.00 | -30.68 | 53.06 | -9.74 | Peak | 179 | 312 |
| 3 | 1465.00 | 33.99 | 54.00 | -20.01 | 40.13 | -6.14 | Average | 100 | 276 |
| 4 | 1465.00 | 49.45 | 74.00 | -24.55 | 55.59 | -6.14 | Peak | 100 | 276 |
| 5 | 3089.00 | 33.12 | 54.00 | -20.88 | 33.16 | -0.04 | Average | 100 | 125 |
| 6 | 3089.00 | 45.85 | 74.00 | -28.15 | 45.89 | -0.04 | Peak | 100 | 125 |

Note 1: Emission level (dBuV/m) = SA reading (dBuV) + Factor (dB)
2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m)

# 4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website http://www.icertifi.com.tw.

| **Linkou** | **Kwei Shan** | **Kwei Shan Site II** |
|---|---|---|
| Tel: 886-2-2601-1640 | Tel: 886-3-271-8666 | Tel: 886-3-271-8640 |
| No. 30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan, R.O.C. | No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C. | No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C. |

If you have any suggestion, please feel free to contact us as below information

Tel: 886-3-271-8666
Fax: 886-3-318-0155
Email: ICC_Service@icertifi.com.tw

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