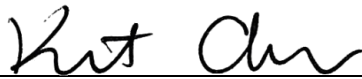


# FCC 15B Test Report

**Equipment** : Intelligent BT4.0 Dual Mode USB Dongle  
**Model No.** : BT900-US  
**Brand Name** : Laird Technologies  
**Applicant** : Laird Technologies  
**Address** : 11160 Thompson Ave., Lenexa, Kansas 66219,  
USA  
**Standard** : FCC Part 15, Subpart B, Class B  
ICES-003 Issue 5  
ANSI C63.4:2009  
**Received Date** : Dec. 16, 2014  
**Tested Date** : Dec. 16 ~ Dec. 17, 2014

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.

Approved & Reviewed by:



Kent Chen / Assistant Manager



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## Release Record

| Report No.  | Version | Description   | Issued Date   |
|-------------|---------|---------------|---------------|
| FD442807-01 | Rev. 01 | Initial issue | Jan. 07, 2015 |

## 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 | -10.59dB QP@<br>0.154MHz. | Pass   |
| 15.109                                | FCC Part 15, Subpart B, Class B | Radiated Emissions  | -3.20dB PK@<br>166.77MHz. | Pass   |

# 1 General Description

## 1.1 Information

### 1.1.1 Feature of Equipment under Test (EUT)

|  |                |
|--|----------------|
| <b>Power Supply Type</b>                         | 5Vdc from host |
| <b>Highest Frequency of the Internal Sources</b> | 2483.5MHz      |

### 1.1.2 Accessories

N/A

## 1.2 Test Equipment and Calibration Data

|   |                               |                  |                   |                         |                          |
|---|-------------------------------|------------------|-------------------|-------------------------|--------------------------|
| <b>Test Item</b>  | Conducted Emission            |                  |                   |                         |                          |
| <b>Test Site</b>  | Conduction room 1 / (CO01-WS) |                  |                   |                         |                          |
| <b>Test Date</b>  | Dec. 17, 2014                 |                  |                   |                         |                          |
| <b>Instrument</b>   | <b>Manufacturer</b>           | <b>Model No.</b> | <b>Serial No.</b> | <b>Calibration Date</b> | <b>Calibration Until</b> |
| EMC Receiver  | R&S                           | ESCS 30          | 100169            | Oct. 17, 2014           | Oct. 16, 2015            |
| LISN  | SCHWARZBECK                   | Schwarzbeck 8127 | 8127-667          | Nov. 17, 2014           | Nov. 16, 2015            |
| LISN (Support Unit)   | SCHWARZBECK                   | Schwarzbeck 8127 | 8127-666          | Nov. 26, 2014           | Nov. 25, 2015            |
| RF Cable-CON  | Woken                         | CFD200-NL        | CFD200-NL-001     | Apr. 23, 2014           | Apr. 22, 2015            |
| 50 ohm terminal (Support Unit)                                      | NA                            | 50               | 04                | Apr. 18, 2014           | Apr. 17, 2015            |
| Measurement Software  | AUDIX                         | e3               | 6.120210k         | NA                      | NA                       |
| Note: Calibration Interval of instruments listed above is one year. |                               |                  |                   |                         |                          |

|   |                              |                  |                   |                         |                          |
|---|------------------------------|------------------|-------------------|-------------------------|--------------------------|
| <b>Test Item</b>  | Radiated Emission below 1GHz |                  |                   |                         |                          |
| <b>Test Site</b>  | 966 chamber 1 / (03CH01-WS)  |                  |                   |                         |                          |
| <b>Test Date</b>  | Dec. 16, 2014                |                  |                   |                         |                          |
| <b>Instrument</b>   | <b>Manufacturer</b>          | <b>Model No.</b> | <b>Serial No.</b> | <b>Calibration Date</b> | <b>Calibration Until</b> |
| Receiver  | R&S                          | ESR3             | 101658            | Nov. 10, 2014           | Nov. 09, 2015            |
| Bilog Antenna   | SCHWARZBECK                  | VULB9168         | VULB9168-522      | Sep. 05, 2014           | Sep. 04, 2015            |
| Preamplifier  | Burgeon                      | BPA-530          | SN:100219         | Sep. 09, 2014           | Sep. 08, 2015            |
| LF cable 3M   | Woken                        | CFD400NL-LW      | CFD400NL-001      | Dec. 15, 2014           | Dec. 14, 2015            |
| LF cable 10M  | Woken                        | CFD400NL-LW      | CFD400NL-002      | Dec. 15, 2014           | Dec. 14, 2015            |
| Measurement Software  | AUDIX                        | e3               | 6.120210g         | NA                      | NA                       |
| Note: Calibration Interval of instruments listed above is one year. |                              |                  |                   |                         |                          |

|   |                            |                  |                   |                         |                          |
|---|----------------------------|------------------|-------------------|-------------------------|--------------------------|
| <b>Test Item</b>  | Radiated Emission          |                  |                   |                         |                          |
| <b>Test Site</b>  | 966 chamber1 / (03CH01-WS) |                  |                   |                         |                          |
| <b>Test Date</b>  | Dec. 16, 2014              |                  |                   |                         |                          |
| <b>Instrument</b>   | <b>Manufacturer</b>        | <b>Model No.</b> | <b>Serial No.</b> | <b>Calibration Date</b> | <b>Calibration Until</b> |
| Spectrum Analyzer   | R&S                        | FSV40            | 101498            | Jan. 25, 2014           | Jan. 24, 2015            |
| Horn Antenna 1G-18G   | SCHWARZBECK                | BBHA 9120 D      | BBHA 9120 D 1096  | Feb. 13, 2014           | Feb. 12, 2015            |
| Preamplifier  | Agilent                    | 83017A           | MY39501308        | Oct. 09, 2014           | Oct. 08, 2015            |
| RF Cable  | HUBER+SUHNER               | SUCOFLEX104      | MY16014/4         | Dec. 15, 2014           | Dec. 14, 2015            |
| RF Cable  | HUBER+SUHNER               | SUCOFLEX104      | MY16019/4         | Dec. 15, 2014           | Dec. 14, 2015            |
| RF Cable  | HUBER+SUHNER               | SUCOFLEX104      | MY16139/4         | Dec. 15, 2014           | Dec. 14, 2015            |
| 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 5  
ANSI C63.4:2009

### 1.4 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 | $\pm 2.92$ dB |
|                         | 30MHz ~ 1GHz   | $\pm 3.56$ dB |
| Radiated Emissions      | Above 1GHz     | $\pm 4.94$ dB |

## 2 Test Configuration

### 2.1 Testing Condition

| Test Item          | Test Site | Ambient Condition | Tested By |
|--------------------|-----------|-------------------|-----------|
| AC Conduction      | CO01-WS   | 19°C/67%          | Peter Lin |
| Radiated Emissions | 03CH01-WS | 21°C/63%          | Peter Lin |

### 2.2 The Worst Case Measurement Configuration

| The Determined Worst Case Configurations |                       |
|--|-----------------------|
| <b>Conducted Emissions</b>               |                       |
| Test Mode                                | Operating Description |
| 1  | BT Link               |
| <b>Radiated Emissions</b>                |                       |
| Test Mode ≤ 1GHz                         | Operating Description |
| 1  | BT Link               |
| Test Mode > 1GHz                         | Operating Description |
| 1  | BT Link               |

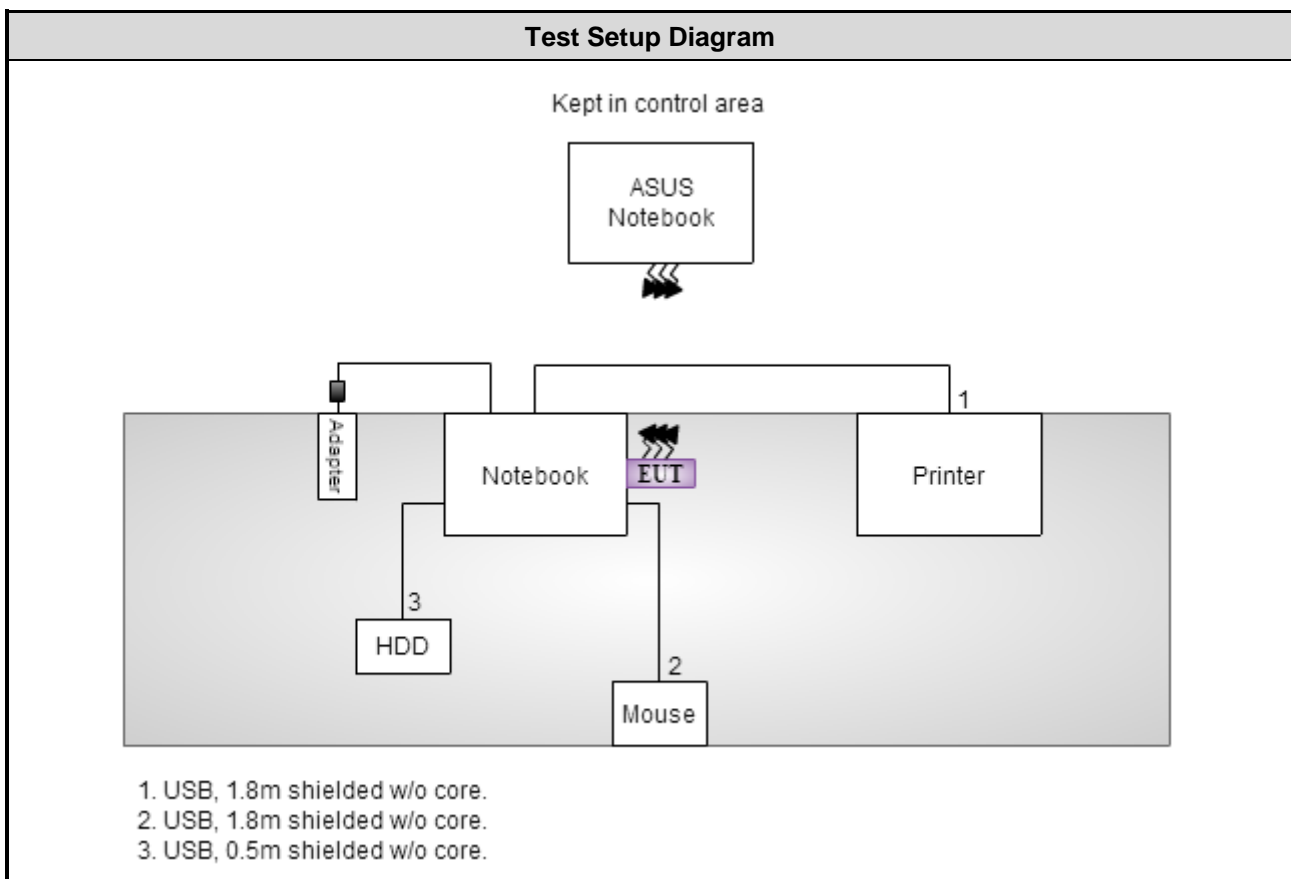


## 2.3 Local Support Equipment List

| Support Equipment List |             |       |                |               |                              |
|------------------------|-------------|-------|----------------|---------------|------------------------------|
| No.                    | Equipment   | Brand | Model          | S/N           | Signal cable / Length (m)    |
| 1                      | Notebook    | DELL  | Latitude E5430 | 6R4RWW1       | ---                          |
| 2                      | Notebook    | ASUS  | F8S            | ---           | ---                          |
| 3                      | Printer     | EPSON | XP-30          | QSDK002461    | USB, 1.8m shielded w/o core. |
| 4                      | USB 3.0 HDD | WD    | WDBKXH500 0ABK | WX31AB210 213 | USB, 0.5m shielded w/o core. |
| 5                      | Mouse       | DELL  | MS111-L        | 2C3-00N9      | USB, 1.8m shielded w/o core. |

Note: No. 2 was supplied by applicant.

## 2.4 Test Setup Chart



## 2.5 Test Software and Operating Condition

- a. To enable all function of test system.
- b. To enable BT function of the support ASUS notebook.
- c. The support notebook executed "Uw Terminal.exe" to transmit and receive BT signal with support ASUS notebook via EUT.
- d. The notebook ran "EMCTest.exe" to send "H" patterns to its monitor and the monitor displayed them.
- e. The notebook ran "EMCTest.exe" to send "H" patterns to the printer.
- f. The notebook ran "EMCTest.exe" to read and write data from HDD.

## 3 Emission Tests Results

### 3.1 Conducted Emissions

#### 3.1.1 Limit of Conducted Emissions

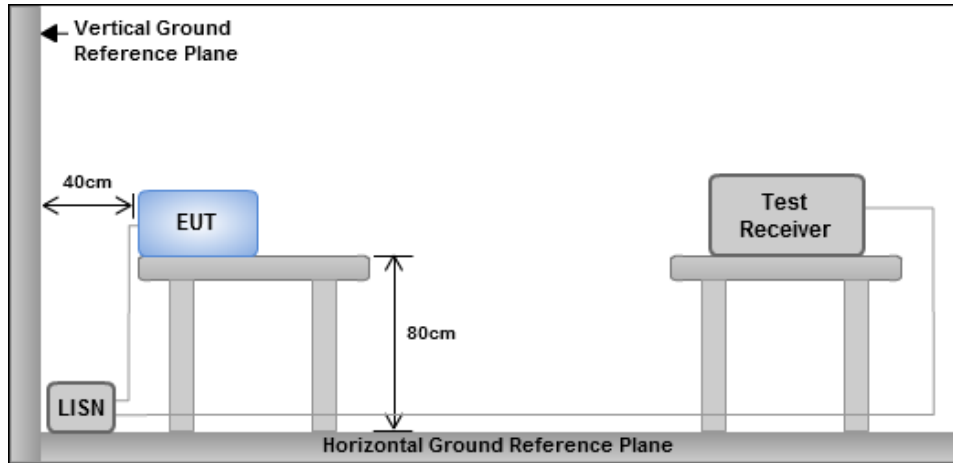
| Applicable Standard: FCC Part 15, Subpart B §15.107, ICES-003 §6.1 |                      |         |                      |          |
|--|----------------------|---------|----------------------|----------|
| Frequency Range<br>(MHz)   | Class A (dB $\mu$ V) |         | Class B (dB $\mu$ V) |          |
|  | Limits               |         |                      |          |
|  | Quasi-peak           | Average | Quasi-peak           | Average  |
| 0.15 to 0.50   | 79                   | 66      | 66 to 56             | 56 to 46 |
| 0.50 to 5  | 73                   | 60      | 56                   | 46       |
| 5 to 30  | 73                   | 60      | 60                   | 50       |

Note 1: The lower limit shall apply at the transition frequencies.  
 Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

#### 3.1.2 Test Procedures

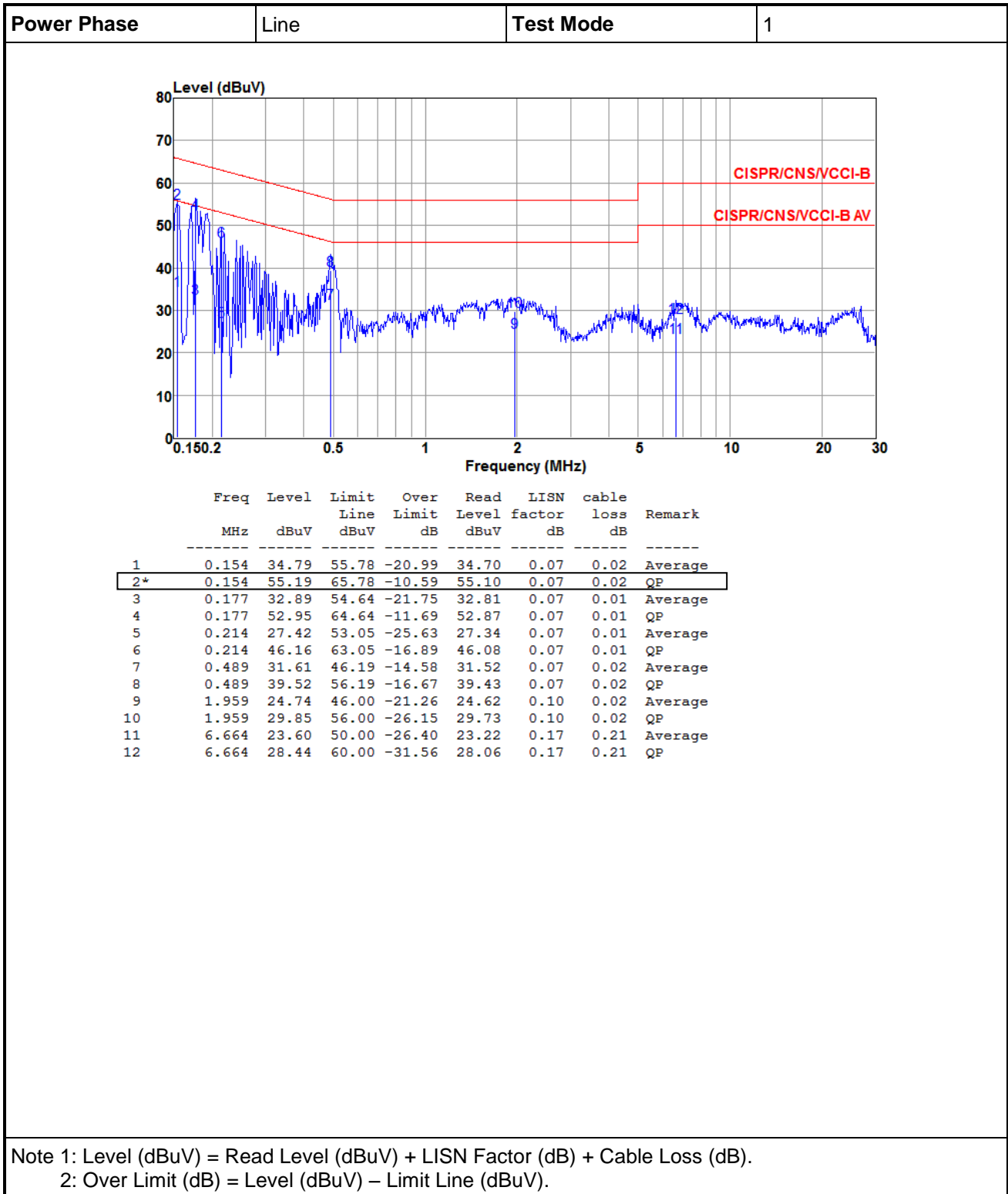
- a. The EUT was placed on a table with a height of 0.8 meters from the metal ground plane and 0.4 meters from the conducting wall of the shielding room and it was kept at least 0.8 meters from any other grounded conducting surface.
- b. The test equipment EUT installed received DC power through a Line Impedance Stabilization Network (LISN), which supplied power source and was grounded to the ground plane.
- c. All the support units were connected to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The CISPR states that a 50 ohm, 50 microhenry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The measurement frequency range extends from 150 kHz to 30 MHz.
- h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

### 3.1.3 Test Setup

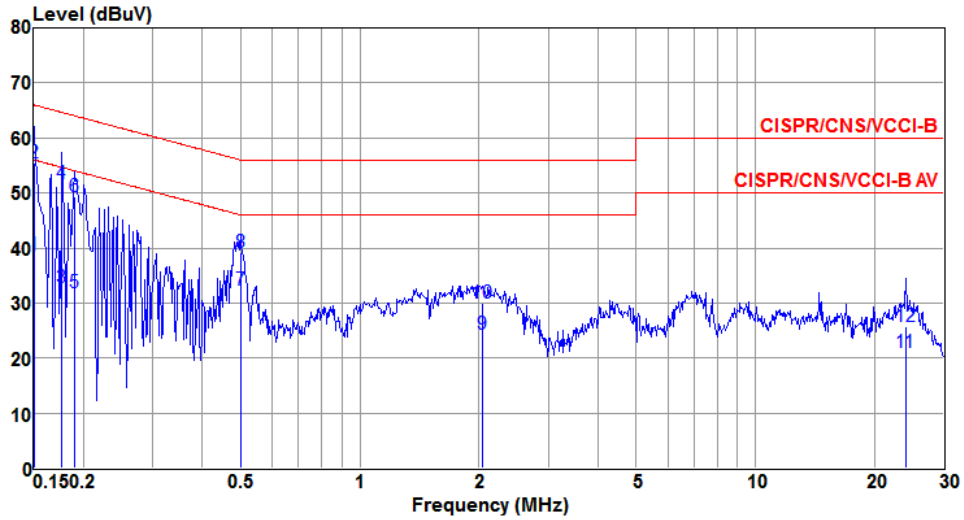


- Note: 1. Support units were connected to second LISN.  
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

### 3.1.4 Test Result of Conducted Emissions



|             |         |           |   |
|-------------|---------|-----------|---|
| Power Phase | Neutral | Test Mode | 1 |
|-------------|---------|-----------|---|



|    | Freq   | Level | Limit | Over   | Read  | LISN   | cable | Remark  |
|----|--------|-------|-------|--------|-------|--------|-------|---------|
|    | MHz    | dBuV  | Line  | Limit  | Level | factor | loss  |         |
|    |        |       | dBuV  | dB     | dBuV  | dB     | dB    |         |
| 1  | 0.150  | 38.67 | 56.00 | -17.33 | 38.58 | 0.07   | 0.02  | Average |
| 2* | 0.150  | 55.39 | 66.00 | -10.61 | 55.30 | 0.07   | 0.02  | QP      |
| 3  | 0.177  | 32.89 | 54.64 | -21.75 | 32.81 | 0.07   | 0.01  | Average |
| 4  | 0.177  | 51.65 | 64.64 | -12.99 | 51.57 | 0.07   | 0.01  | QP      |
| 5  | 0.189  | 31.77 | 54.06 | -22.29 | 31.69 | 0.07   | 0.01  | Average |
| 6  | 0.189  | 49.22 | 64.06 | -14.84 | 49.14 | 0.07   | 0.01  | QP      |
| 7  | 0.499  | 32.25 | 46.01 | -13.76 | 32.16 | 0.07   | 0.02  | Average |
| 8  | 0.499  | 39.20 | 56.01 | -16.81 | 39.11 | 0.07   | 0.02  | QP      |
| 9  | 2.044  | 24.33 | 46.00 | -21.67 | 24.21 | 0.10   | 0.02  | Average |
| 10 | 2.044  | 29.92 | 56.00 | -26.08 | 29.80 | 0.10   | 0.02  | QP      |
| 11 | 24.015 | 20.92 | 50.00 | -29.08 | 20.10 | 0.38   | 0.44  | Average |
| 12 | 24.015 | 25.62 | 60.00 | -34.38 | 24.80 | 0.38   | 0.44  | 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.

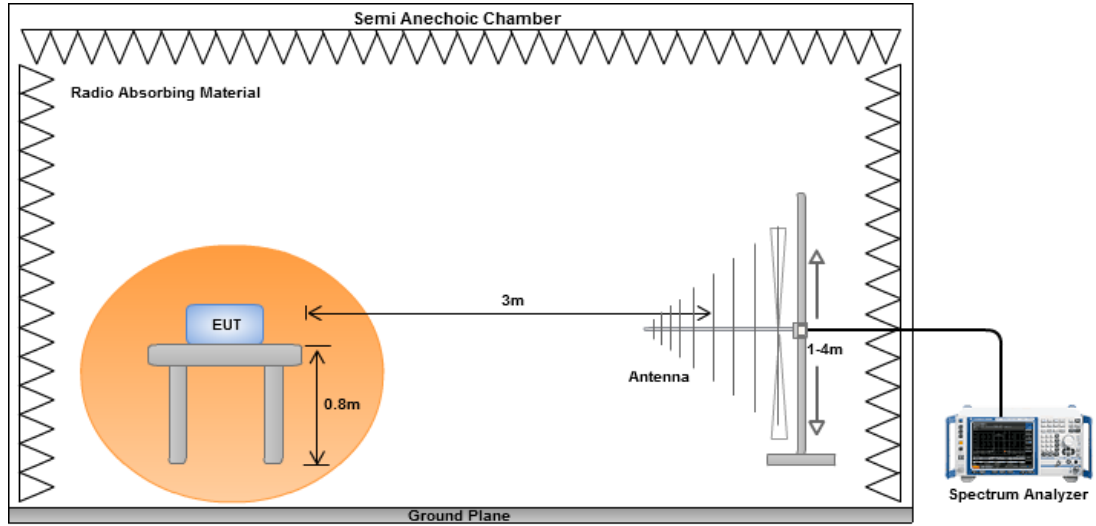
#### Measuring above 1 GHz:

- 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.

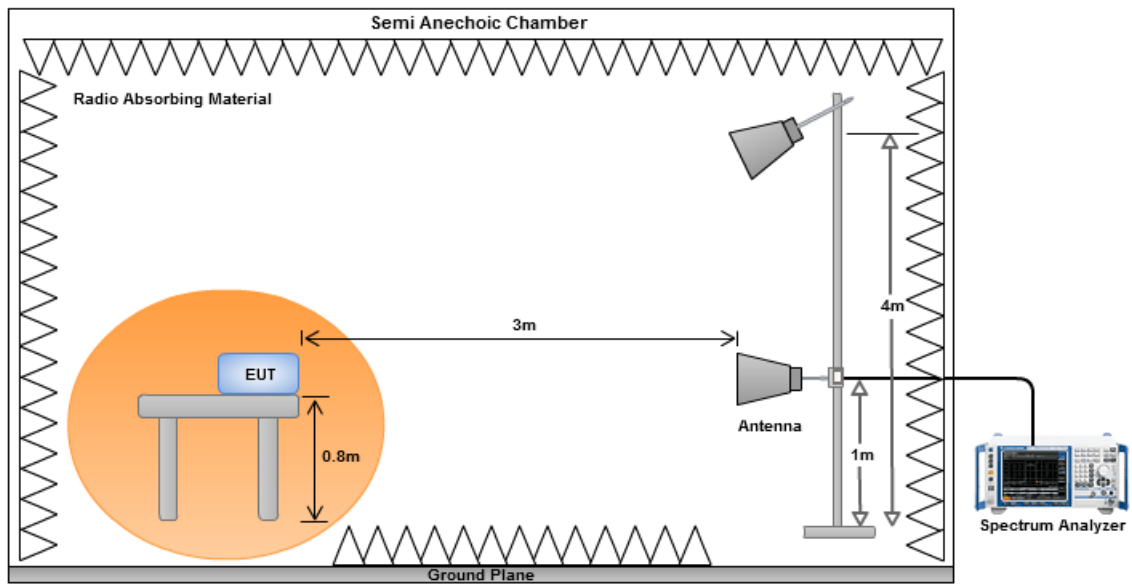


### 3.2.3 Test Setup

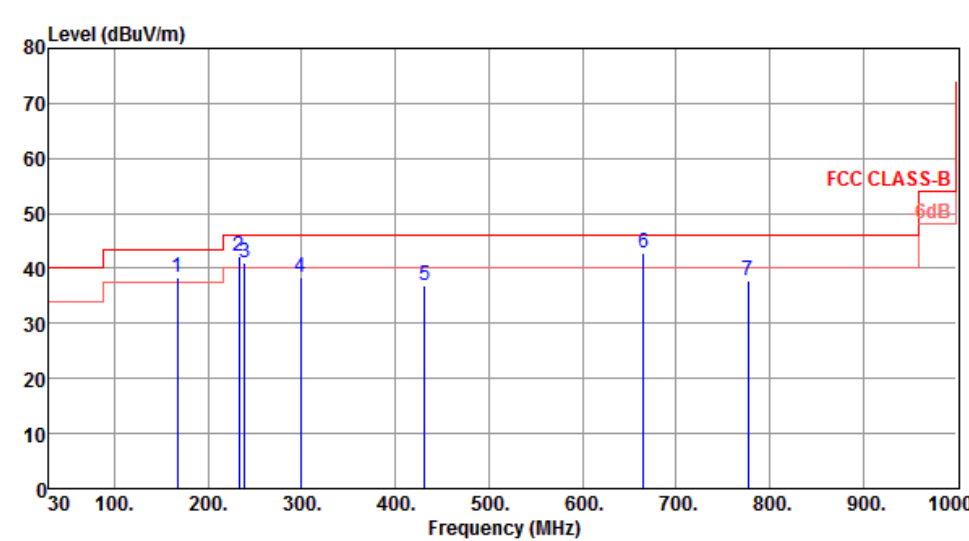
#### Radiated Emissions below 1 GHz



#### Radiated Emissions above 1 GHz

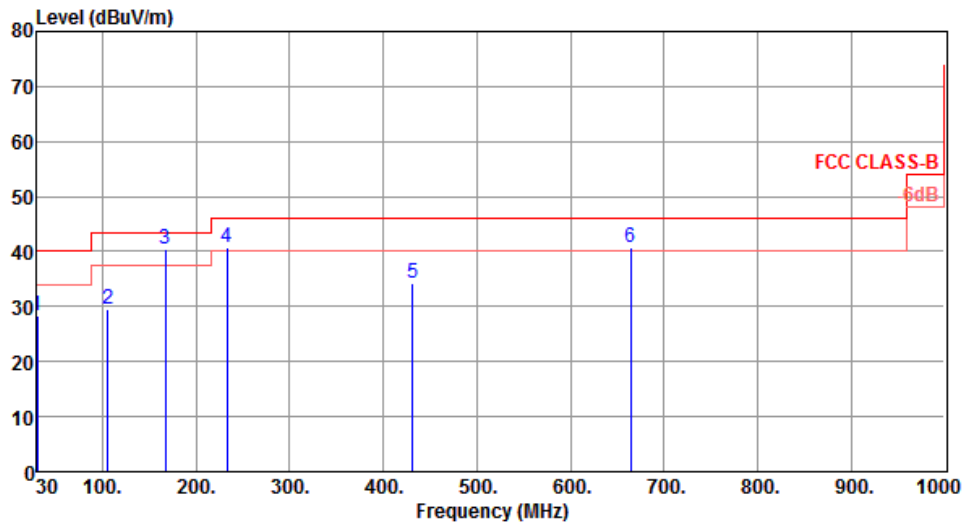


### 3.2.4 Radiated Emissions (Below 1GHz)

| Polarization   | Horizontal   |                             | Test Mode       | 1            |                       |              |        |                   |                      |
|--|--------------|-----------------------------|-----------------|--------------|-----------------------|--------------|--------|-------------------|----------------------|
|  |              |                             |                 |              |                       |              |        |                   |                      |
|  | Freq.<br>MHz | Emission<br>level<br>dBuV/m | Limit<br>dBuV/m | Margin<br>dB | SA<br>reading<br>dBuV | Factor<br>dB | Remark | ANT<br>High<br>cm | Turn<br>Table<br>deg |
| 1  | 166.77       | 38.29                       | 43.50           | -5.21        | 55.12                 | -16.83       | Peak   | ---               | ---                  |
| 2  | 232.73       | 42.28                       | 46.00           | -3.72        | 60.22                 | -17.94       | Peak   | ---               | ---                  |
| 3  | 239.52       | 41.02                       | 46.00           | -4.98        | 58.81                 | -17.79       | Peak   | ---               | ---                  |
| 4  | 298.69       | 38.48                       | 46.00           | -7.52        | 54.53                 | -16.05       | Peak   | ---               | ---                  |
| 5  | 431.58       | 37.01                       | 46.00           | -8.99        | 49.86                 | -12.85       | Peak   | ---               | ---                  |
| 6  | 665.35       | 42.75                       | 46.00           | -3.25        | 51.35                 | -8.60        | Peak   | ---               | ---                  |
| 7  | 776.90       | 37.90                       | 46.00           | -8.10        | 44.78                 | -6.88        | Peak   | ---               | ---                  |

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

|                     |          |                  |   |
|---------------------|----------|------------------|---|
| <b>Polarization</b> | Vertical | <b>Test Mode</b> | 1 |
|---------------------|----------|------------------|---|

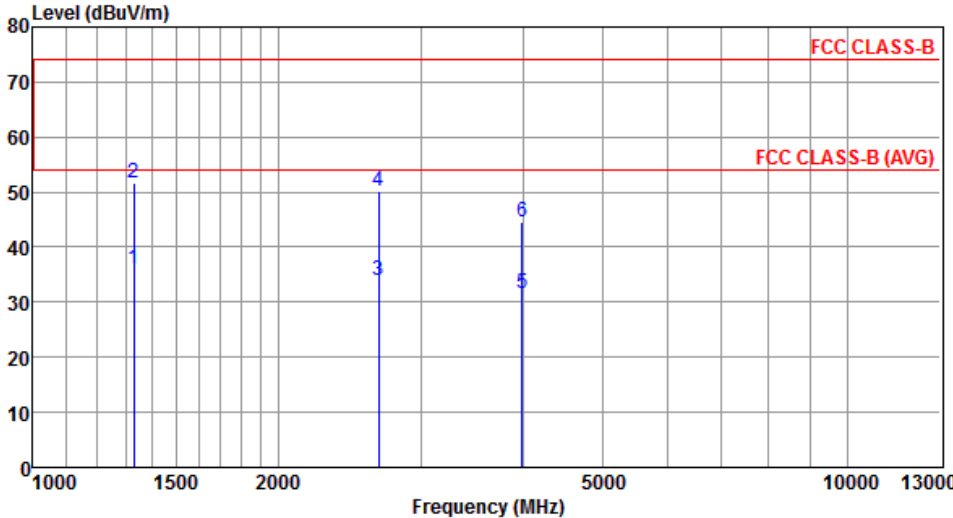


|   | Freq.<br>MHz | Emission<br>level<br>dBuV/m | Limit<br>dBuV/m | Margin<br>dB | SA<br>reading<br>dBuV | Factor<br>dB | Remark | ANT<br>High<br>cm | Turn<br>Table<br>deg |
|---|--------------|-----------------------------|-----------------|--------------|-----------------------|--------------|--------|-------------------|----------------------|
| 1 | 30.00        | 28.28                       | 40.00           | -11.72       | 45.71                 | -17.43       | Peak   | ---               | ---                  |
| 2 | 105.66       | 29.50                       | 43.50           | -14.00       | 50.10                 | -20.60       | Peak   | ---               | ---                  |
| 3 | 166.77       | 40.30                       | 43.50           | -3.20        | 57.13                 | -16.83       | Peak   | ---               | ---                  |
| 4 | 232.73       | 40.69                       | 46.00           | -5.31        | 58.63                 | -17.94       | Peak   | ---               | ---                  |
| 5 | 431.58       | 34.37                       | 46.00           | -11.63       | 47.22                 | -12.85       | Peak   | ---               | ---                  |
| 6 | 664.38       | 40.64                       | 46.00           | -5.36        | 49.25                 | -8.61        | Peak   | ---               | ---                  |

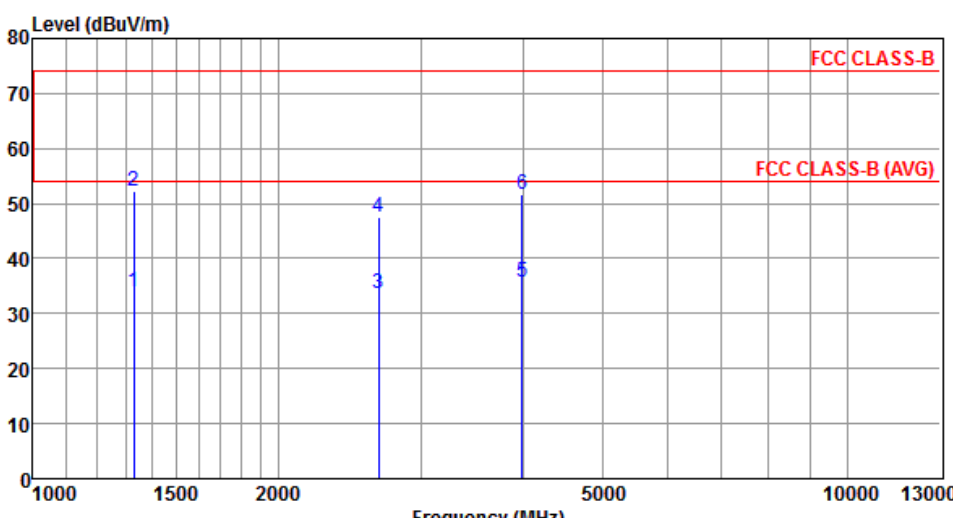
Note 1: Emission level (dBuV/m) = SA reading (dBuV) + Factor (dB)

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m)

### 3.2.5 Radiated Emissions (Above 1GHz)

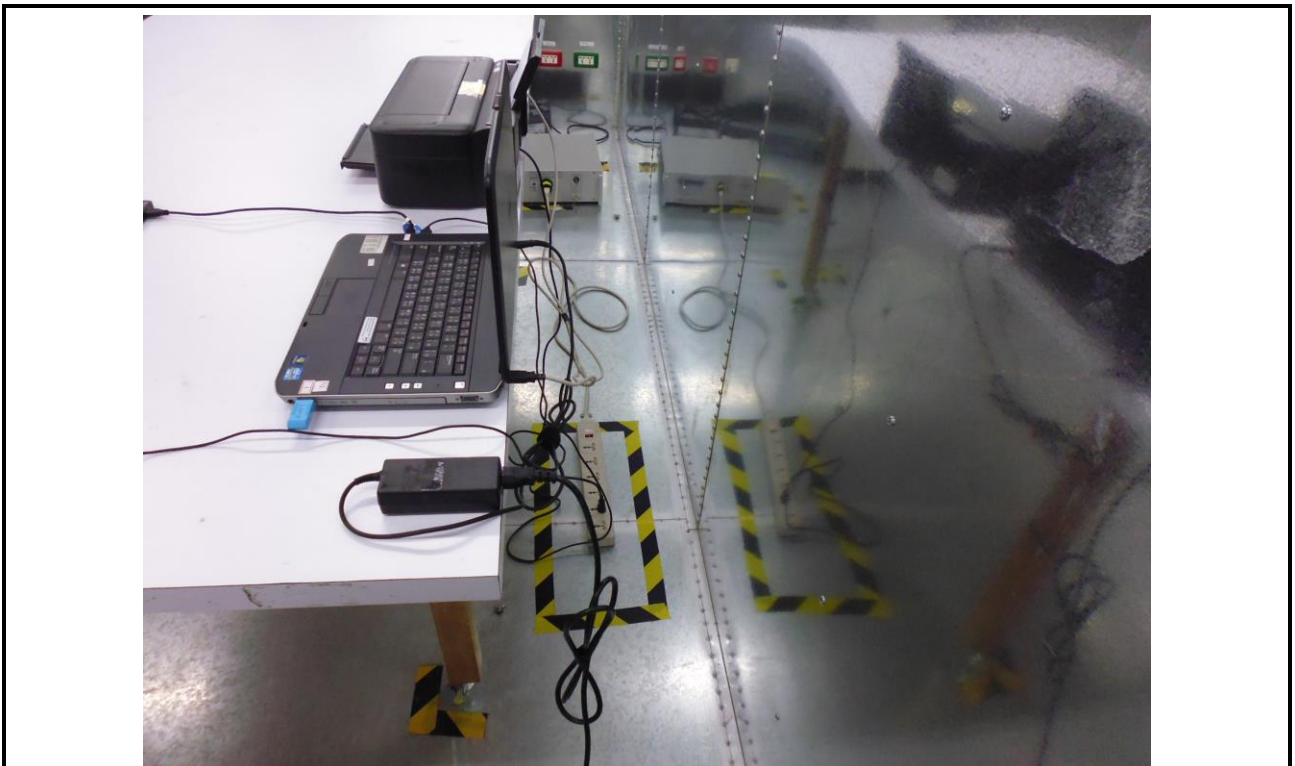
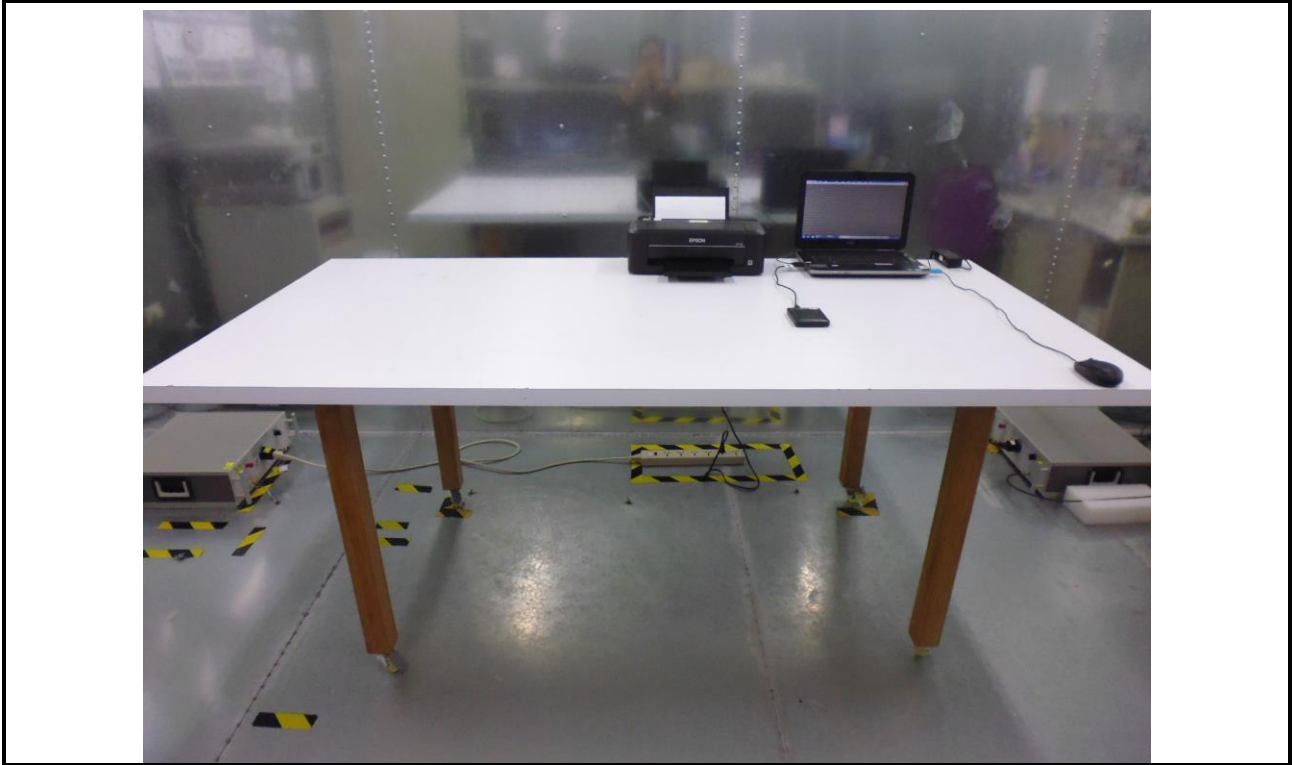
| Polarization   | Horizontal |                | Test Mode | 1      |            |        |         |          |            |
|--|------------|----------------|-----------|--------|------------|--------|---------|----------|------------|
|  |            |                |           |        |            |        |         |          |            |
|  | Freq.      | Emission level | Limit     | Margin | SA reading | Factor | Remark  | ANT High | Turn Table |
|  | MHz        | dBuV/m         | dBuV/m    | dB     | dBuV       | dB     |         | cm       | deg        |
| 1  | 1329.55    | 36.15          | 54.00     | -17.85 | 44.31      | -8.16  | Average | 100      | 73         |
| 2  | 1329.55    | 51.77          | 74.00     | -22.23 | 59.93      | -8.16  | Peak    | 100      | 73         |
| 3  | 2656.77    | 33.84          | 54.00     | -20.16 | 36.57      | -2.73  | Average | 108      | 13         |
| 4  | 2656.77    | 50.30          | 74.00     | -23.70 | 53.03      | -2.73  | Peak    | 108      | 13         |
| 5  | 3983.49    | 31.46          | 54.00     | -22.54 | 30.39      | 1.07   | Average | 100      | 352        |
| 6  | 3983.49    | 44.49          | 74.00     | -29.51 | 43.42      | 1.07   | Peak    | 100      | 352        |

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                   | 1               |                             |                       |              |                       |                   |                      |                   |                      |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |      |         |     |    |   |         |       |       |        |       |      |      |     |    |  |  |  |
|---|---|-----------------------------|-----------------|-----------------------------|-----------------------|--------------|-----------------------|-------------------|----------------------|-------------------|----------------------|---|---------|-------|-------|--------|-------|-------|---------|-----|-----|---|---------|-------|-------|--------|-------|-------|------|-----|-----|---|---------|-------|-------|--------|-------|-------|---------|-----|-----|---|---------|-------|-------|--------|-------|-------|------|-----|-----|---|---------|-------|-------|--------|-------|------|---------|-----|----|---|---------|-------|-------|--------|-------|------|------|-----|----|--|--|--|
|   |   |                             |                 |                             |                       |              |                       |                   |                      |                   |                      |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |      |         |     |    |   |         |       |       |        |       |      |      |     |    |  |  |  |
|   | <table border="1"> <thead> <tr> <th></th> <th>Freq.<br/>MHz</th> <th>Emission<br/>level<br/>dBuV/m</th> <th>Limit<br/>dBuV/m</th> <th>Margin<br/>dB</th> <th>SA<br/>reading<br/>dBuV</th> <th>Factor<br/>dB</th> <th>Remark</th> <th>ANT<br/>High<br/>cm</th> <th>Turn<br/>Table<br/>deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1330.70</td> <td>33.85</td> <td>54.00</td> <td>-20.15</td> <td>42.00</td> <td>-8.15</td> <td>Average</td> <td>113</td> <td>317</td> </tr> <tr> <td>2</td> <td>1330.70</td> <td>52.35</td> <td>74.00</td> <td>-21.65</td> <td>60.50</td> <td>-8.15</td> <td>Peak</td> <td>113</td> <td>317</td> </tr> <tr> <td>3</td> <td>2656.56</td> <td>33.55</td> <td>54.00</td> <td>-20.45</td> <td>36.28</td> <td>-2.73</td> <td>Average</td> <td>113</td> <td>336</td> </tr> <tr> <td>4</td> <td>2656.56</td> <td>47.43</td> <td>74.00</td> <td>-26.57</td> <td>50.16</td> <td>-2.73</td> <td>Peak</td> <td>113</td> <td>336</td> </tr> <tr> <td>5</td> <td>3983.99</td> <td>35.81</td> <td>54.00</td> <td>-18.19</td> <td>34.74</td> <td>1.07</td> <td>Average</td> <td>107</td> <td>20</td> </tr> <tr> <td>6</td> <td>3983.99</td> <td>51.73</td> <td>74.00</td> <td>-22.27</td> <td>50.66</td> <td>1.07</td> <td>Peak</td> <td>107</td> <td>20</td> </tr> </tbody> </table> |                             | Freq.<br>MHz    | Emission<br>level<br>dBuV/m | Limit<br>dBuV/m       | Margin<br>dB | SA<br>reading<br>dBuV | Factor<br>dB      | Remark               | ANT<br>High<br>cm | Turn<br>Table<br>deg | 1 | 1330.70 | 33.85 | 54.00 | -20.15 | 42.00 | -8.15 | Average | 113 | 317 | 2 | 1330.70 | 52.35 | 74.00 | -21.65 | 60.50 | -8.15 | Peak | 113 | 317 | 3 | 2656.56 | 33.55 | 54.00 | -20.45 | 36.28 | -2.73 | Average | 113 | 336 | 4 | 2656.56 | 47.43 | 74.00 | -26.57 | 50.16 | -2.73 | Peak | 113 | 336 | 5 | 3983.99 | 35.81 | 54.00 | -18.19 | 34.74 | 1.07 | Average | 107 | 20 | 6 | 3983.99 | 51.73 | 74.00 | -22.27 | 50.66 | 1.07 | Peak | 107 | 20 |  |  |  |
|   | Freq.<br>MHz  | Emission<br>level<br>dBuV/m | Limit<br>dBuV/m | Margin<br>dB                | SA<br>reading<br>dBuV | Factor<br>dB | Remark                | ANT<br>High<br>cm | Turn<br>Table<br>deg |                   |                      |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |      |         |     |    |   |         |       |       |        |       |      |      |     |    |  |  |  |
| 1   | 1330.70   | 33.85                       | 54.00           | -20.15                      | 42.00                 | -8.15        | Average               | 113               | 317                  |                   |                      |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |      |         |     |    |   |         |       |       |        |       |      |      |     |    |  |  |  |
| 2   | 1330.70   | 52.35                       | 74.00           | -21.65                      | 60.50                 | -8.15        | Peak                  | 113               | 317                  |                   |                      |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |      |         |     |    |   |         |       |       |        |       |      |      |     |    |  |  |  |
| 3   | 2656.56   | 33.55                       | 54.00           | -20.45                      | 36.28                 | -2.73        | Average               | 113               | 336                  |                   |                      |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |      |         |     |    |   |         |       |       |        |       |      |      |     |    |  |  |  |
| 4   | 2656.56   | 47.43                       | 74.00           | -26.57                      | 50.16                 | -2.73        | Peak                  | 113               | 336                  |                   |                      |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |      |         |     |    |   |         |       |       |        |       |      |      |     |    |  |  |  |
| 5   | 3983.99   | 35.81                       | 54.00           | -18.19                      | 34.74                 | 1.07         | Average               | 107               | 20                   |                   |                      |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |      |         |     |    |   |         |       |       |        |       |      |      |     |    |  |  |  |
| 6   | 3983.99   | 51.73                       | 74.00           | -22.27                      | 50.66                 | 1.07         | Peak                  | 107               | 20                   |                   |                      |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |      |         |     |    |   |         |       |       |        |       |      |      |     |    |  |  |  |
| <p>Note 1: Emission level (dBuV/m) = SA reading (dBuV) + Factor (dB)<br/>           2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m)</p> |   |                             |                 |                             |                       |              |                       |                   |                      |                   |                      |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |       |         |     |     |   |         |       |       |        |       |       |      |     |     |   |         |       |       |        |       |      |         |     |    |   |         |       |       |        |       |      |      |     |    |  |  |  |

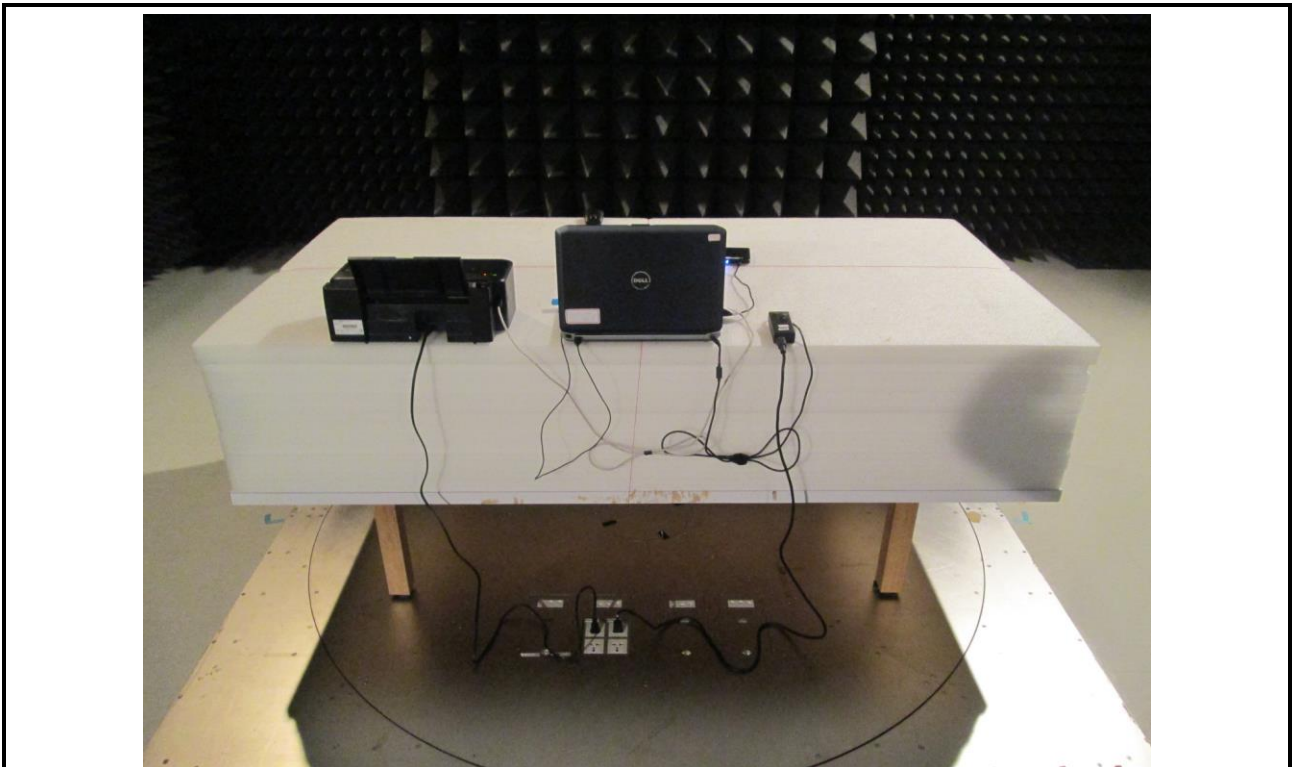
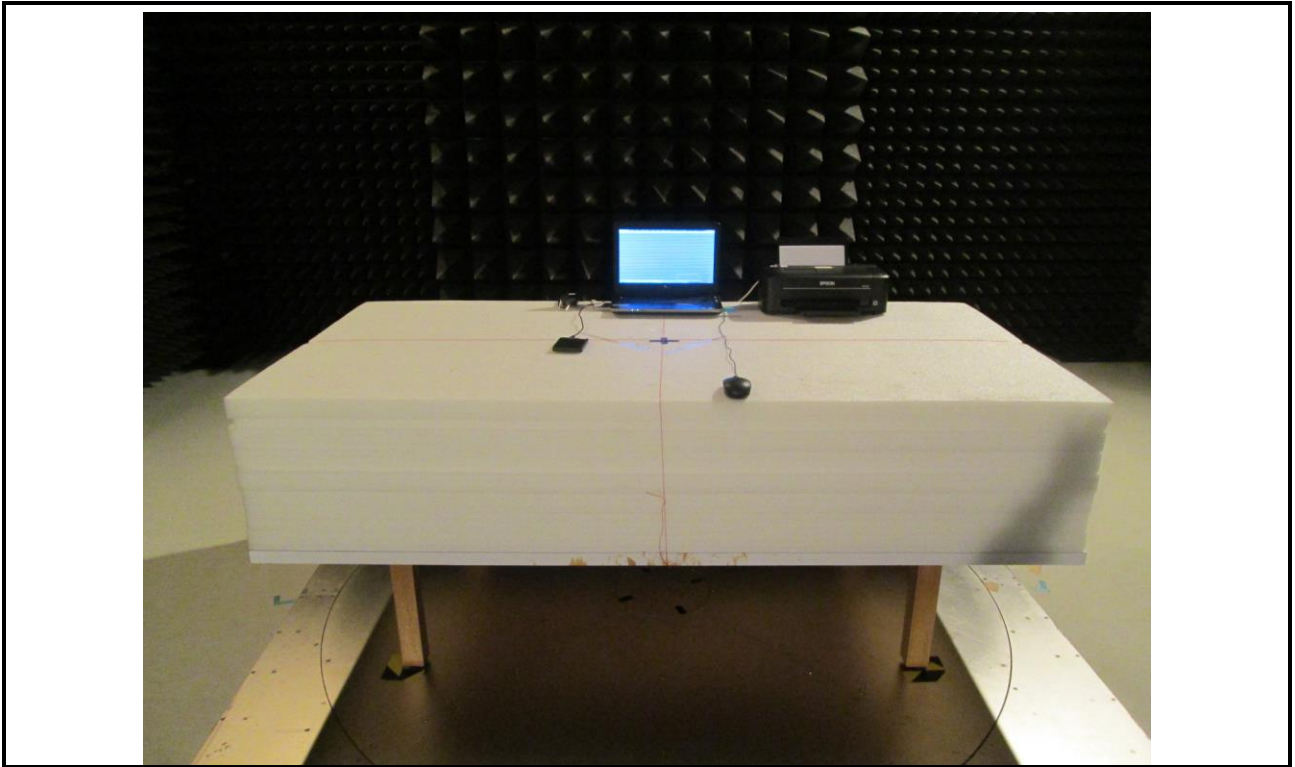
## 4 Photographs of the Test Configuration

### Conducted Emission Test

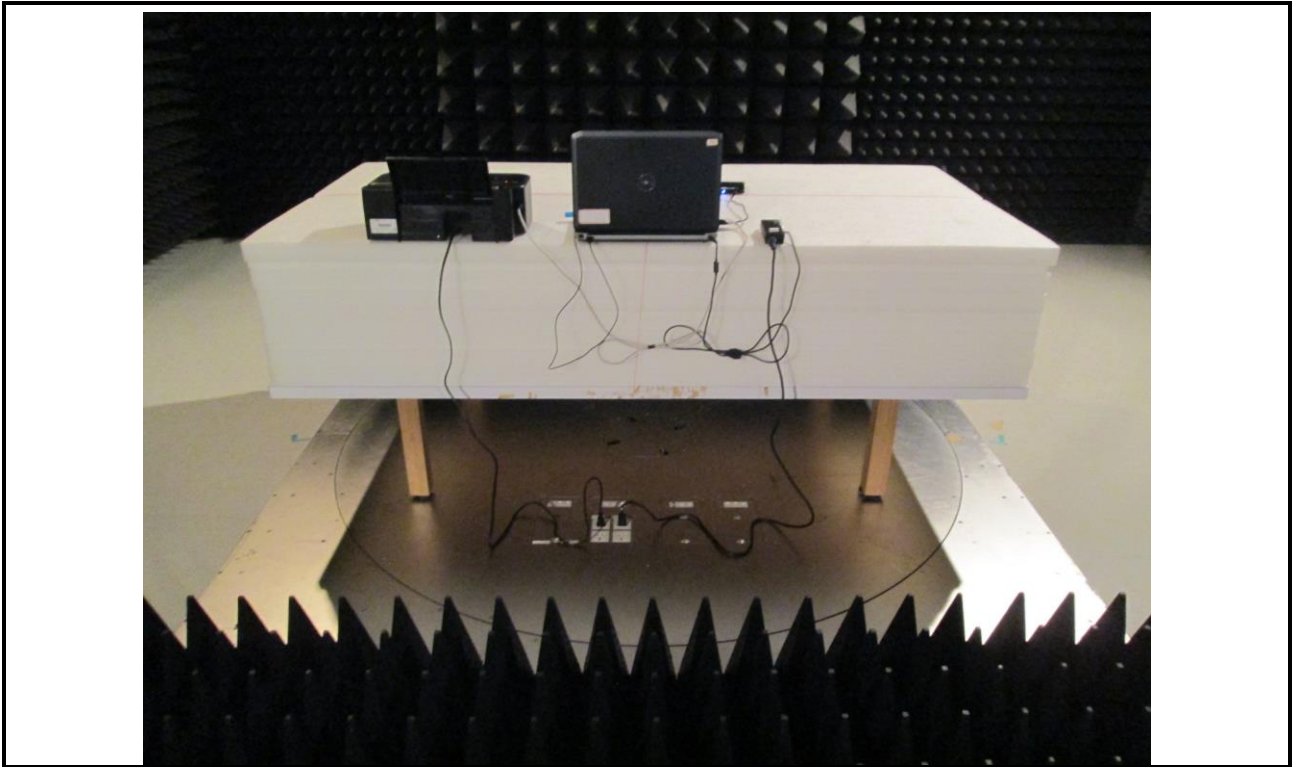
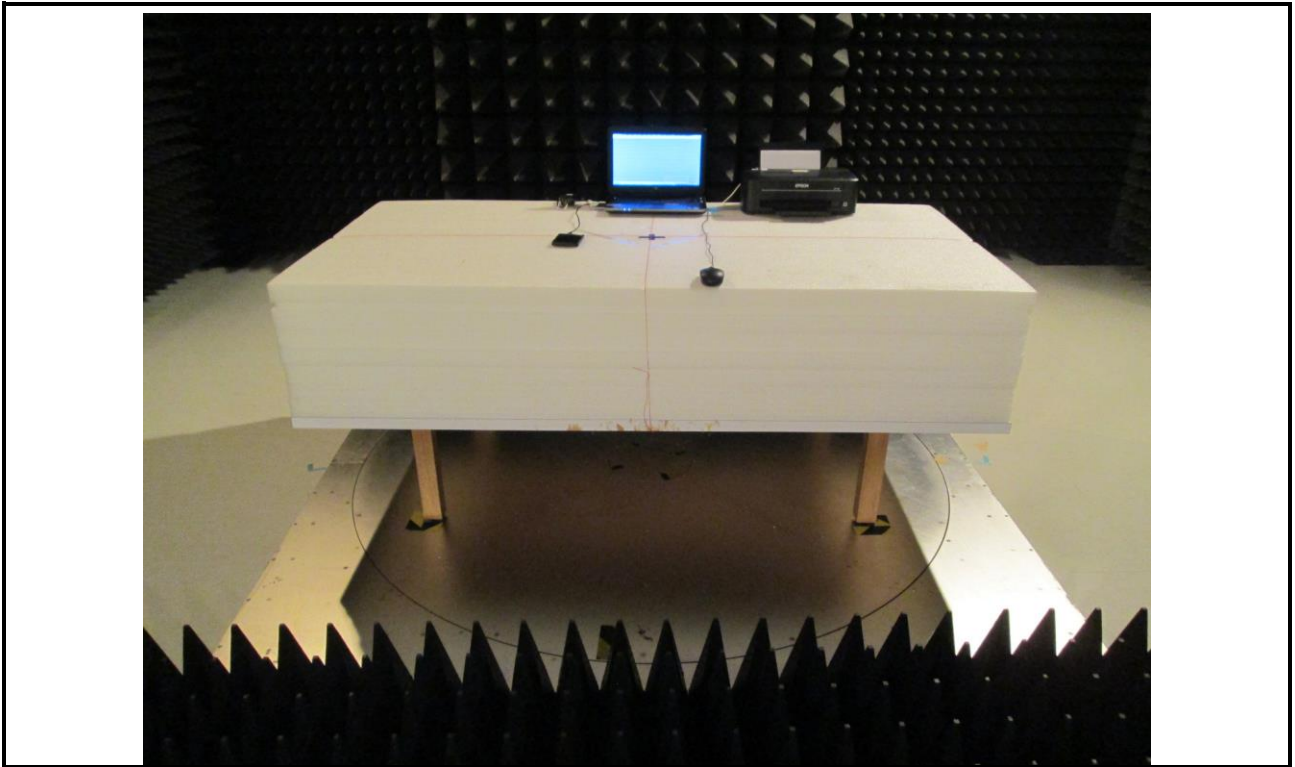




**Radiated Emission Below 1GHz Test**



**Radiated Emission Above 1GHz Test**





## 5 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, 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 Hsiang. Location map can be found on our website <http://www.icertifi.com.tw>.

### **Linkou**

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District, New Taipei City, Taiwan,  
R.O.C.

### **Kwei Shan**

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No. 3-1, Lane 6, Wen San 3rd  
St., Kwei Shan Hsiang, Tao Yuan  
Hsien 333, Taiwan, R.O.C.

### **Kwei Shan Site II**

Tel: 886-3-271-8640

No. 14-1, Lane 19, Wen San 3rd  
St., Kwei Shan Hsiang, Tao Yuan  
Hsien 333, Taiwan, R.O.C.

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

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Fax: 886-3-318-0155

Email: ICC\_Service@icertifi.com.tw

==END==