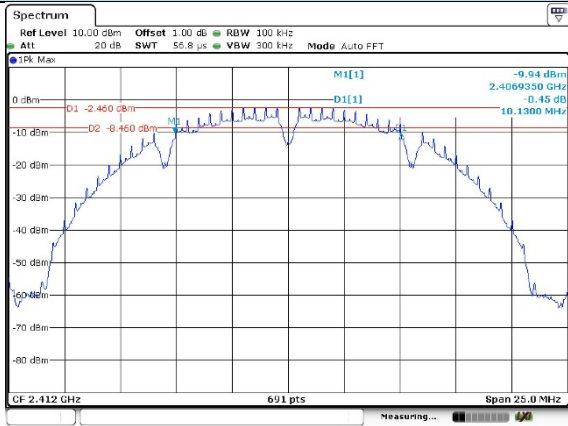
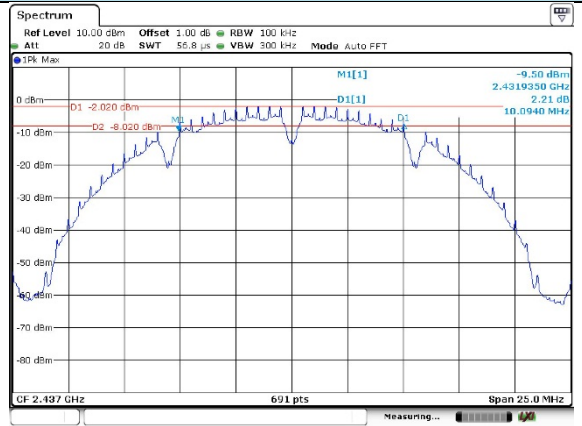


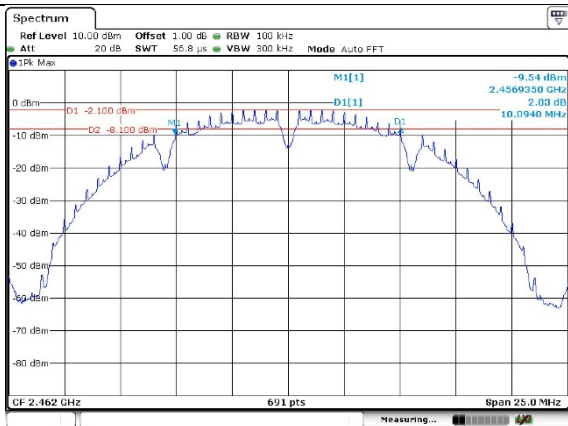
802.11b



CH01



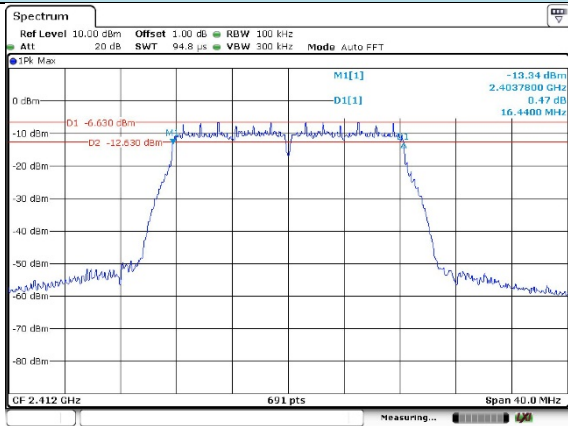
CH06



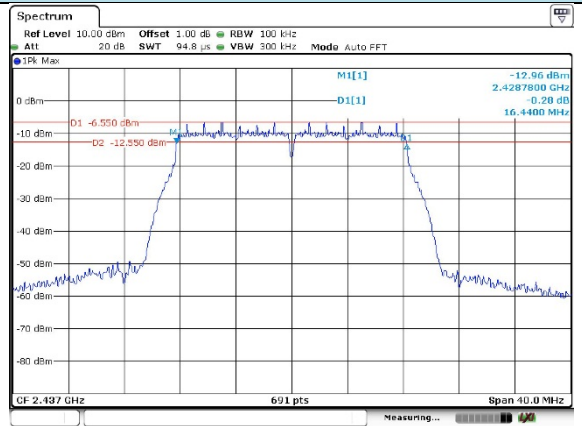
CH11

No Plot

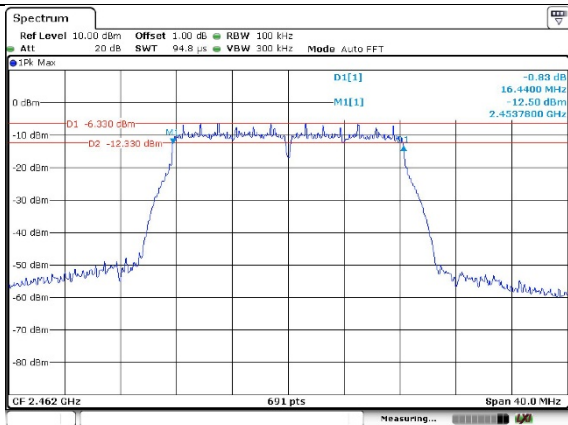
802.11g



CH01



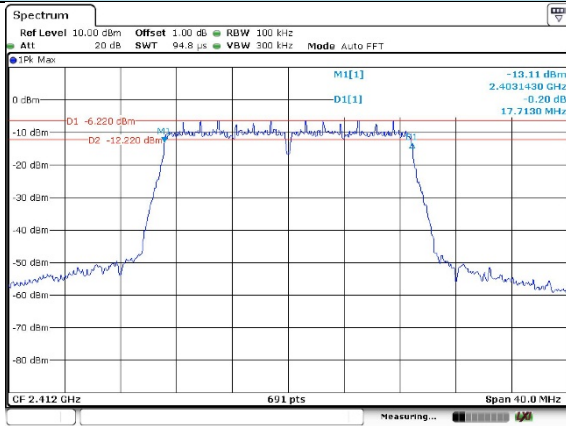
CH06



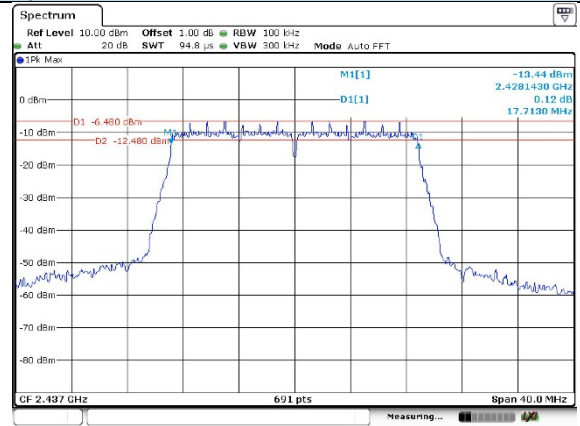
CH11

No Plot

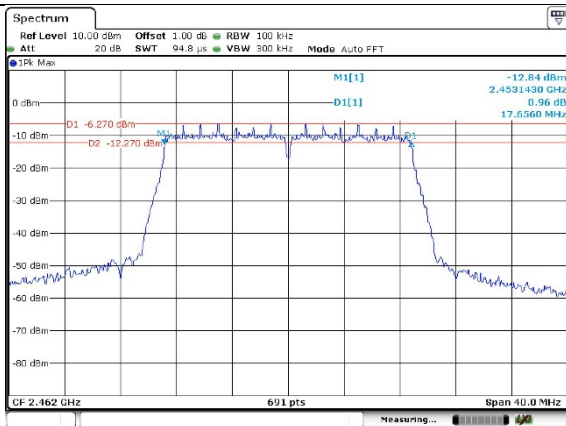
802.11n(H20)



CH01



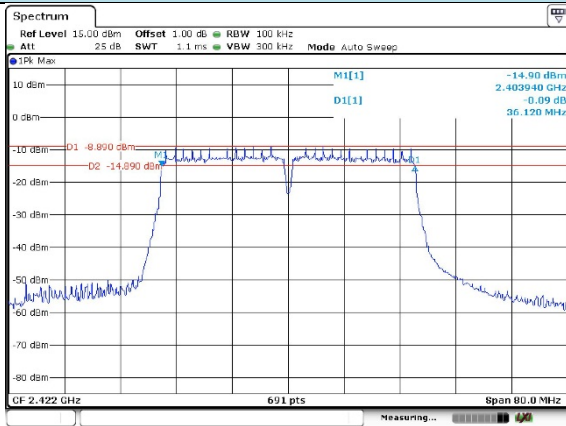
CH06



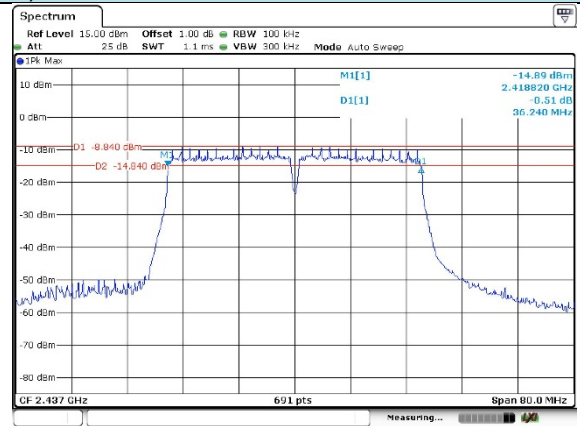
CH11

No Plot

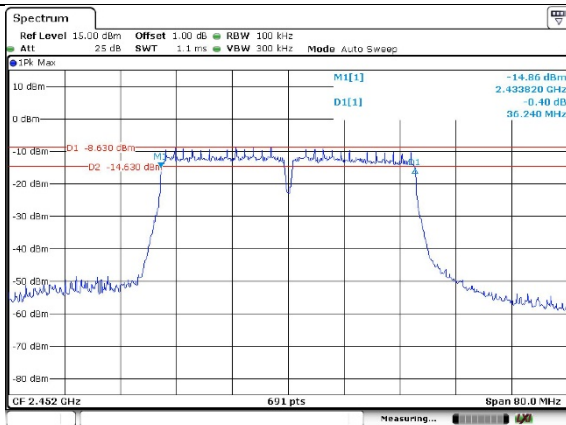
802.11n(H40)



CH03



CH06



CH09

No Plot

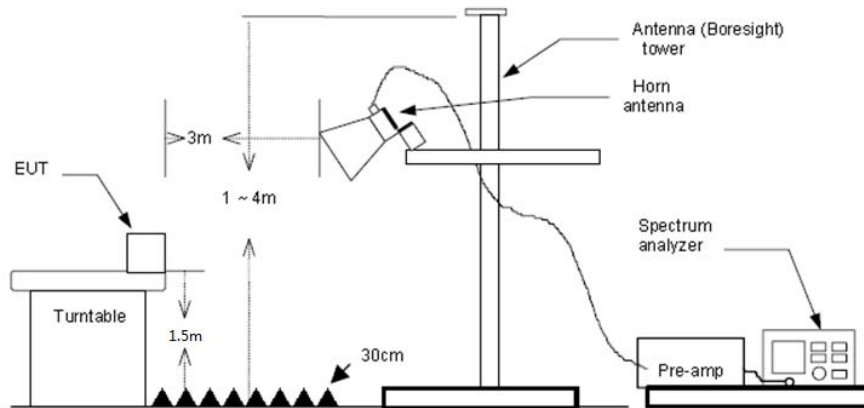
## 5.6. Restricted band

### LIMIT

#### **FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d):**

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

### TEST CONFIGURATION



### TEST PROCEDURE

- 1) The EUT was setup and tested according to ANSI C63.10:2013 for compliance to FCC 47CFR 15.247 requirements.
- 2) The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
- 3) The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
- 4) The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.
- 5) The receiver set as follow:  
 RBW=1MHz, VBW=3MHz for Peak value  
 RBW=1MHz, VBW=3MHz RMS detector for Average value.

### TEST MODE:

Please refer to the clause 3.3

### TEST RESULTS

Passed       Not Applicable

Note:

- 1)  $Final\ level = Read\ level + Antenna\ Factor + Cable\ Loss - Preamp\ Factor$

| 802.11b         |                   |                       |                 |                    | CH01           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 2310.00         | 17.73             | 28.05                 | 6.62            | 0.00               | 52.40          | 74.00               | -21.60            | Vertical     | Peak       |
| 2390.00         | 17.45             | 27.65                 | 6.75            | 0.00               | 51.85          | 74.00               | -22.15            | Vertical     |            |
| 2310.00         | 16.79             | 28.05                 | 6.62            | 0.00               | 51.46          | 74.00               | -22.54            | Horizontal   |            |
| 2390.00         | 17.92             | 27.65                 | 6.75            | 0.00               | 52.32          | 74.00               | -21.68            | Horizontal   |            |
| 2310.00         | 12.23             | 28.05                 | 6.62            | 0.00               | 46.90          | 54.00               | -7.10             | Vertical     | Average    |
| 2390.00         | 11.83             | 27.65                 | 6.75            | 0.00               | 46.23          | 54.00               | -7.77             | Vertical     |            |
| 2310.00         | 12.23             | 28.05                 | 6.62            | 0.00               | 46.90          | 54.00               | -7.10             | Horizontal   |            |
| 2390.00         | 11.83             | 27.65                 | 6.75            | 0.00               | 46.23          | 54.00               | -7.77             | Horizontal   |            |

| 802.11b         |                   |                       |                 |                    | CH11           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 2483.49         | 18.63             | 27.26                 | 6.83            | 0.00               | 52.72          | 74.00               | -21.28            | Vertical     | Peak       |
| 2500.00         | 16.60             | 27.20                 | 6.84            | 0.00               | 50.64          | 74.00               | -23.36            | Vertical     |            |
| 2483.49         | 17.61             | 27.26                 | 6.83            | 0.00               | 51.70          | 74.00               | -22.30            | Horizontal   |            |
| 2500.00         | 17.74             | 27.20                 | 6.84            | 0.00               | 51.78          | 74.00               | -22.22            | Horizontal   |            |
| 2483.49         | 11.98             | 27.26                 | 6.83            | 0.00               | 46.07          | 54.00               | -7.93             | Vertical     | Average    |
| 2500.00         | 11.91             | 27.20                 | 6.84            | 0.00               | 45.95          | 54.00               | -8.05             | Vertical     |            |
| 2483.49         | 11.98             | 27.26                 | 6.83            | 0.00               | 46.07          | 54.00               | -7.93             | Horizontal   |            |
| 2500.00         | 11.91             | 27.20                 | 6.84            | 0.00               | 45.95          | 54.00               | -8.05             | Horizontal   |            |

| 802.11g         |                   |                       |                 |                    | CH01           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 2310.00         | 17.84             | 28.05                 | 6.62            | 0.00               | 52.51          | 74.00               | -21.49            | Vertical     | Peak       |
| 2390.00         | 18.49             | 27.65                 | 6.75            | 0.00               | 52.89          | 74.00               | -21.11            | Vertical     |            |
| 2310.00         | 17.53             | 28.05                 | 6.62            | 0.00               | 52.20          | 74.00               | -21.80            | Horizontal   |            |
| 2390.00         | 17.93             | 27.65                 | 6.75            | 0.00               | 52.33          | 74.00               | -21.67            | Horizontal   |            |
| 2310.00         | 12.24             | 28.05                 | 6.62            | 0.00               | 46.91          | 54.00               | -7.09             | Vertical     | Average    |
| 2390.00         | 12.70             | 27.65                 | 6.75            | 0.00               | 47.10          | 54.00               | -6.90             | Vertical     |            |
| 2310.00         | 12.21             | 28.05                 | 6.62            | 0.00               | 46.88          | 54.00               | -7.12             | Horizontal   |            |
| 2390.00         | 12.31             | 27.65                 | 6.75            | 0.00               | 46.71          | 54.00               | -7.29             | Horizontal   |            |

| 802.11g         |                   |                       |                 |                    | CH11           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 2483.49         | 17.79             | 27.26                 | 6.83            | 0.00               | 51.88          | 74.00               | -22.12            | Vertical     | Peak       |
| 2500.00         | 17.60             | 27.20                 | 6.84            | 0.00               | 51.64          | 74.00               | -22.36            | Vertical     |            |
| 2483.49         | 17.06             | 27.26                 | 6.83            | 0.00               | 51.15          | 74.00               | -22.85            | Horizontal   |            |
| 2500.00         | 16.84             | 27.20                 | 6.84            | 0.00               | 50.88          | 74.00               | -23.12            | Horizontal   |            |
| 2483.49         | 12.37             | 27.26                 | 6.83            | 0.00               | 46.46          | 54.00               | -7.54             | Vertical     | Average    |
| 2500.00         | 11.99             | 27.20                 | 6.84            | 0.00               | 46.03          | 54.00               | -7.97             | Vertical     |            |
| 2483.49         | 12.22             | 27.26                 | 6.83            | 0.00               | 46.31          | 54.00               | -7.69             | Horizontal   |            |
| 2500.00         | 11.91             | 27.20                 | 6.84            | 0.00               | 45.95          | 54.00               | -8.05             | Horizontal   |            |

| 802.11n(H20)    |                   |                       |                 |                    | CH01           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 2310.00         | 17.55             | 28.05                 | 6.62            | 0.00               | 52.22          | 74.00               | -21.78            | Vertical     | Peak       |
| 2390.00         | 19.21             | 27.65                 | 6.75            | 0.00               | 53.61          | 74.00               | -20.39            | Vertical     |            |
| 2310.00         | 17.36             | 28.05                 | 6.62            | 0.00               | 52.03          | 74.00               | -21.97            | Horizontal   |            |
| 2390.00         | 17.76             | 27.65                 | 6.75            | 0.00               | 52.16          | 74.00               | -21.84            | Horizontal   |            |
| 2310.00         | 12.24             | 28.05                 | 6.62            | 0.00               | 46.91          | 54.00               | -7.09             | Vertical     | Average    |
| 2390.00         | 13.22             | 27.65                 | 6.75            | 0.00               | 47.62          | 54.00               | -6.38             | Vertical     |            |
| 2310.00         | 12.20             | 28.05                 | 6.62            | 0.00               | 46.87          | 54.00               | -7.13             | Horizontal   |            |
| 2390.00         | 12.47             | 27.65                 | 6.75            | 0.00               | 46.87          | 54.00               | -7.13             | Horizontal   |            |

| 802.11n(H20)    |                   |                       |                 |                    | CH11           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 2483.49         | 18.49             | 27.26                 | 6.83            | 0.00               | 52.58          | 74.00               | -21.42            | Vertical     | Peak       |
| 2500.00         | 17.03             | 27.20                 | 6.84            | 0.00               | 51.07          | 74.00               | -22.93            | Vertical     |            |
| 2483.49         | 18.75             | 27.26                 | 6.83            | 0.00               | 52.84          | 74.00               | -21.16            | Horizontal   |            |
| 2500.00         | 16.95             | 27.20                 | 6.84            | 0.00               | 50.99          | 74.00               | -23.01            | Horizontal   |            |
| 2483.49         | 12.68             | 27.26                 | 6.83            | 0.00               | 46.77          | 54.00               | -7.23             | Vertical     | Average    |
| 2500.00         | 12.00             | 27.20                 | 6.84            | 0.00               | 46.04          | 54.00               | -7.96             | Vertical     |            |
| 2483.49         | 12.69             | 27.26                 | 6.83            | 0.00               | 46.78          | 54.00               | -7.22             | Horizontal   |            |
| 2500.00         | 12.05             | 27.20                 | 6.84            | 0.00               | 46.09          | 54.00               | -7.91             | Horizontal   |            |

| 802.11n(H40)    |                   |                       |                 |                    | CH03           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 2310.00         | 17.29             | 28.05                 | 6.62            | 0.00               | 51.96          | 74.00               | -22.04            | Vertical     | Peak       |
| 2389.99         | 17.20             | 27.65                 | 6.75            | 0.00               | 51.60          | 74.00               | -22.40            | Vertical     |            |
| 2310.00         | 17.89             | 28.05                 | 6.62            | 0.00               | 52.56          | 74.00               | -21.44            | Horizontal   |            |
| 2389.99         | 18.13             | 27.65                 | 6.75            | 0.00               | 52.53          | 74.00               | -21.47            | Horizontal   |            |
| 2310.00         | 12.18             | 28.05                 | 6.62            | 0.00               | 46.85          | 54.00               | -7.15             | Vertical     | Average    |
| 2389.99         | 12.27             | 27.65                 | 6.75            | 0.00               | 46.67          | 54.00               | -7.33             | Vertical     |            |
| 2310.00         | 12.15             | 28.05                 | 6.62            | 0.00               | 46.82          | 54.00               | -7.18             | Horizontal   |            |
| 2389.99         | 13.16             | 27.65                 | 6.75            | 0.00               | 47.56          | 54.00               | -6.44             | Horizontal   |            |

| 802.11n(H40)    |                   |                       |                 |                    | CH09           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 2483.50         | 19.04             | 27.26                 | 6.83            | 0.00               | 53.13          | 74.00               | -20.87            | Vertical     | Peak       |
| 2500.00         | 16.96             | 27.20                 | 6.84            | 0.00               | 51.00          | 74.00               | -23.00            | Vertical     |            |
| 2483.50         | 17.47             | 27.26                 | 6.83            | 0.00               | 51.56          | 74.00               | -22.44            | Horizontal   |            |
| 2500.00         | 16.66             | 27.20                 | 6.84            | 0.00               | 50.70          | 74.00               | -23.30            | Horizontal   |            |
| 2483.50         | 13.09             | 27.26                 | 6.83            | 0.00               | 47.18          | 54.00               | -6.82             | Vertical     | Average    |
| 2500.00         | 12.07             | 27.20                 | 6.84            | 0.00               | 46.11          | 54.00               | -7.89             | Vertical     |            |
| 2483.50         | 12.87             | 27.26                 | 6.83            | 0.00               | 46.96          | 54.00               | -7.04             | Horizontal   |            |
| 2500.00         | 11.98             | 27.20                 | 6.84            | 0.00               | 46.02          | 54.00               | -7.98             | Horizontal   |            |

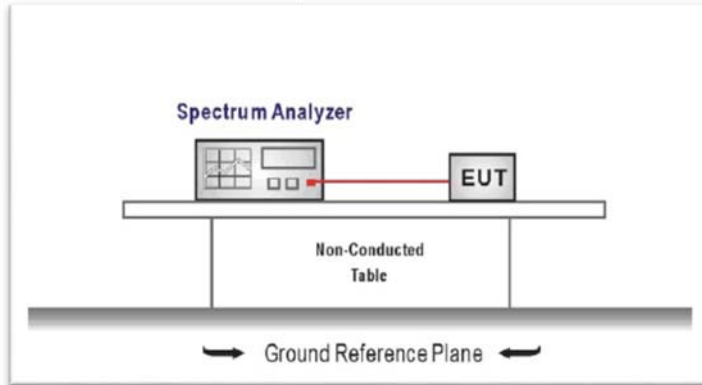
## 5.7. Band edge and Spurious Emission (conducted)

### LIMIT

#### **FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d):**

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

### TEST CONFIGURATION



### TEST PROCEDURE

1. Connect the antenna port(s) to the spectrum analyzer input.
2. Establish a reference level by using the following procedure  
*Center frequency=DTS channel center frequency*  
*The span = 1.5 times the DTS bandwidth.*  
*RBW = 100 kHz, VBW ≥ 3 x RBW*  
*Detector = peak, Sweep time = auto couple, Trace mode = max hold*  
*Allow trace to fully stabilize*  
*Use the peak marker function to determine the maximum PSD level*

Note: the channel found to contain the maximum PSD level can be used to establish the reference level.

3. Emission level measurement  
Set the center frequency and span to encompass frequency range to be measured  
RBW = 100 kHz, VBW ≥ 3 x RBW  
Detector = peak, Sweep time = auto couple, Trace mode = max hold  
Allow trace to fully stabilize  
Use the peak marker function to determine the maximum amplitude level.
4. Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter waveform on the spectrum analyzer.
5. Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band excluding restricted frequency bands) are attenuated by at least the minimum requirements specified (at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz). Report the three highest emissions relative to the limit.

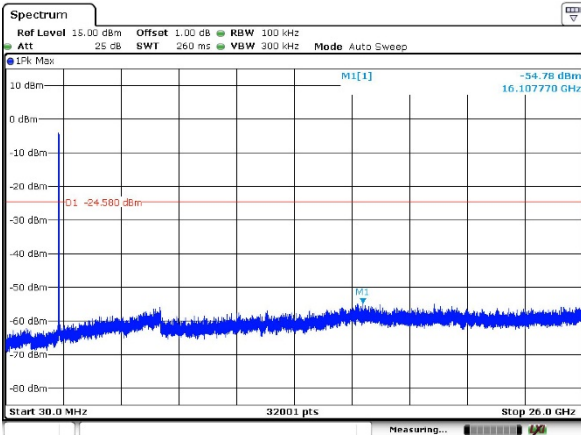
### TEST MODE:

Please refer to the clause 3.3

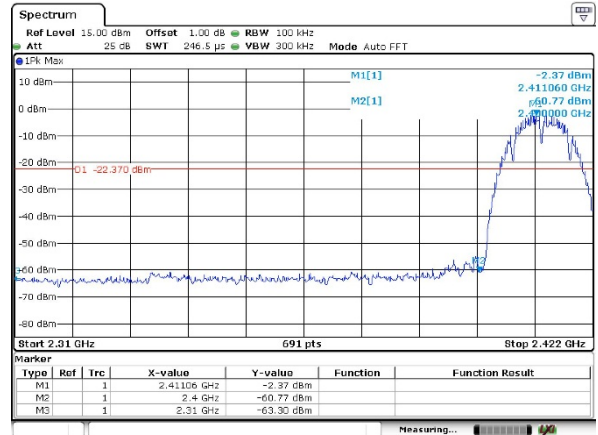
### TEST RESULTS

Passed       Not Applicable

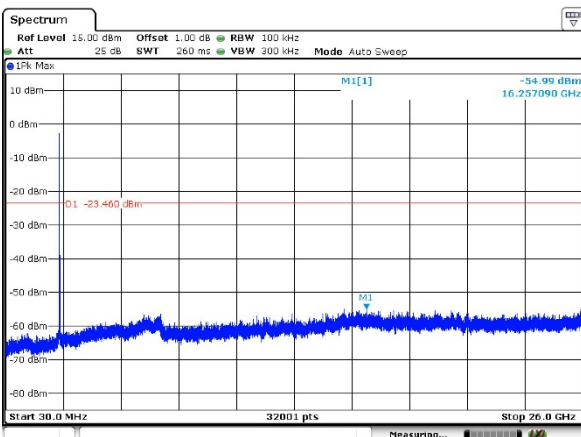
802.11b



CH01-SE

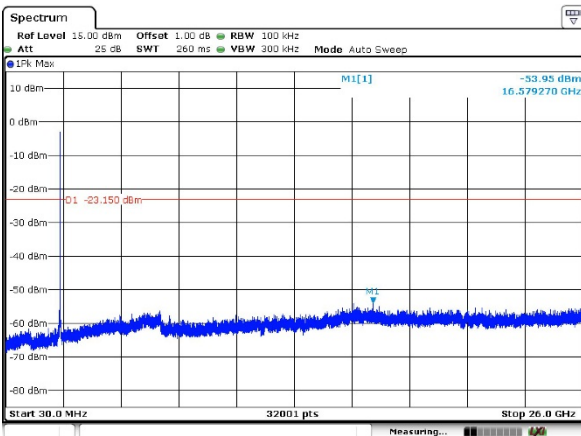


CH01-Bandedge

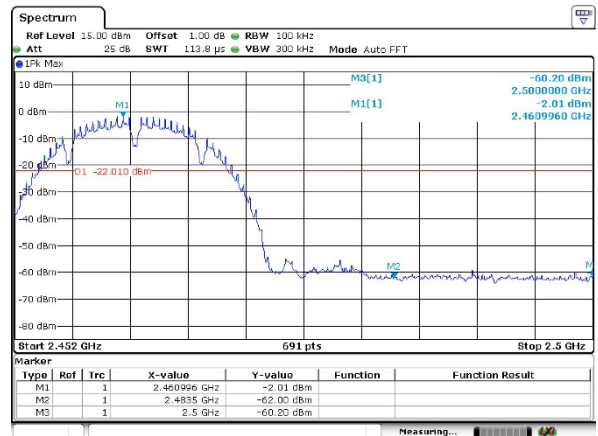


CH06-SE

No Plot

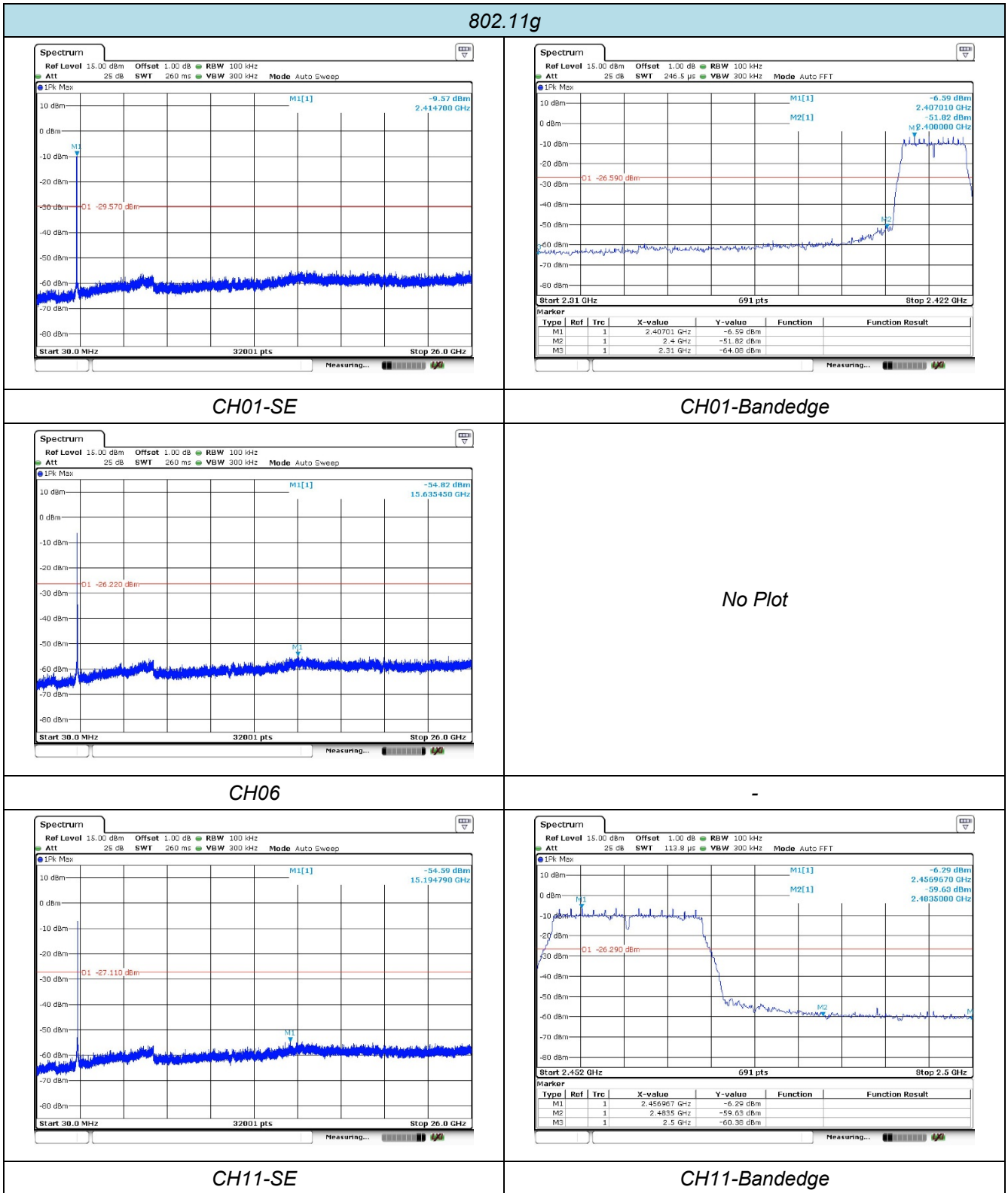


CH11-SE

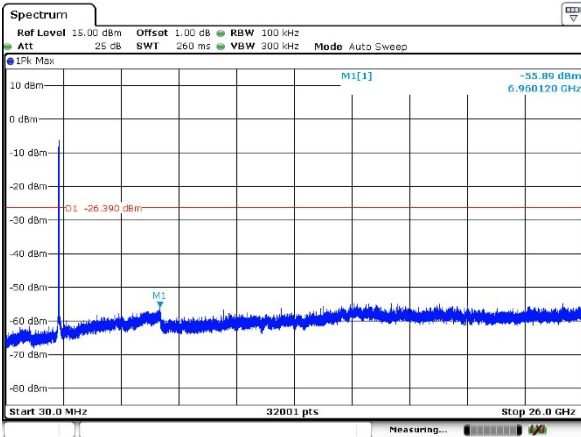


CH11-Bandedge

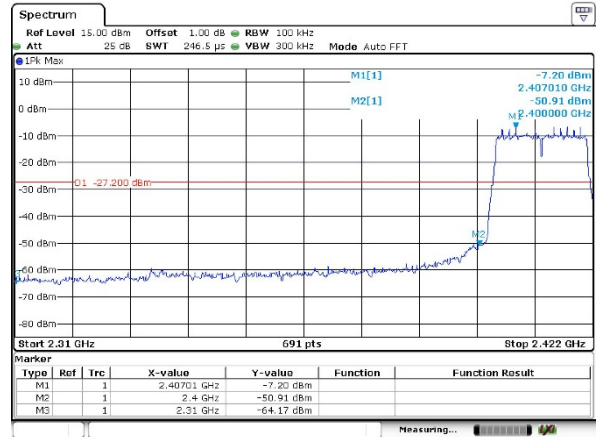




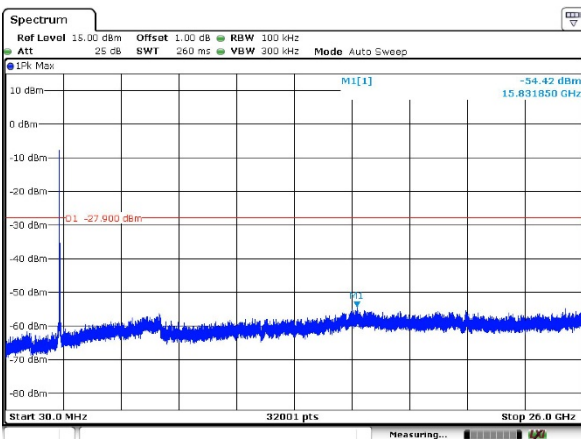
802.11n(H2O)



CH01-SE

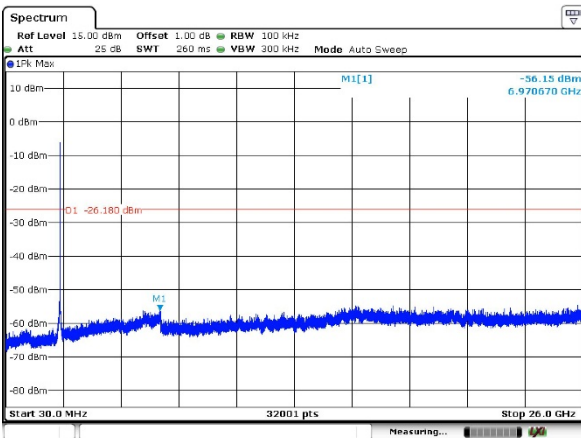


CH01-Bandedge

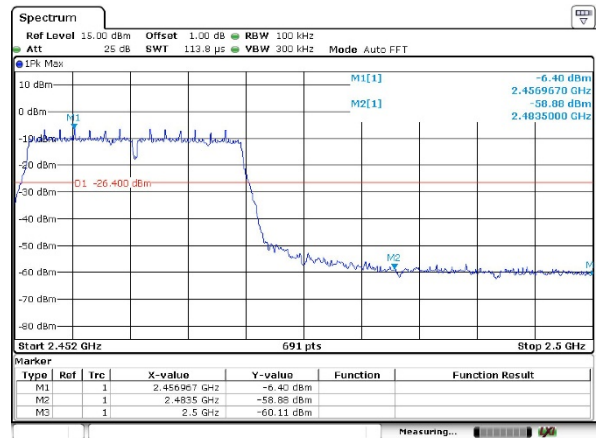


CH06

No Plot

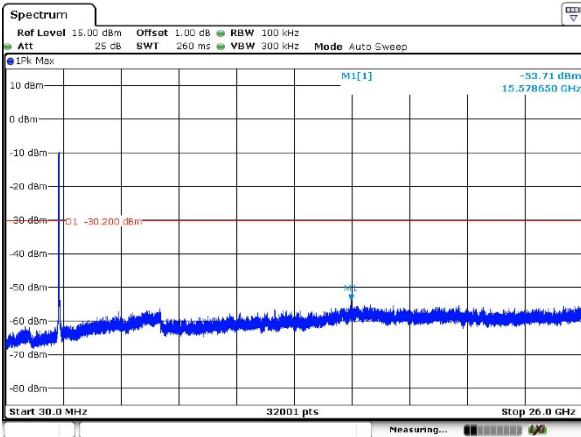


CH11-SE

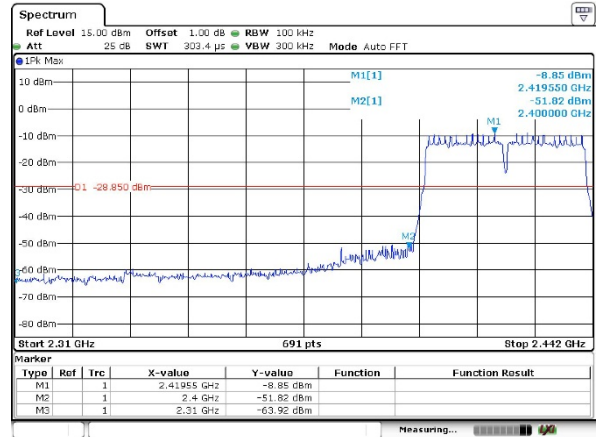


CH11-Bandedge

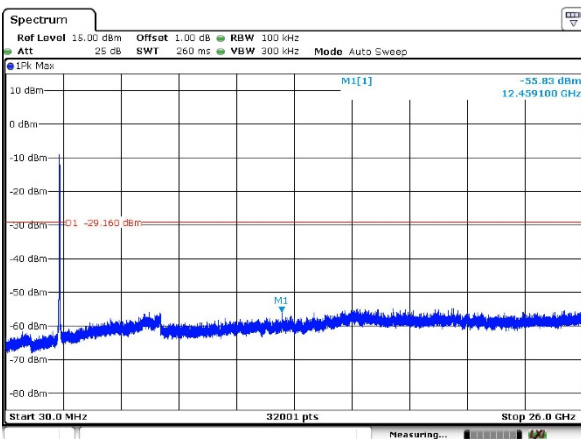
802.11n(H40)



CH03-SE

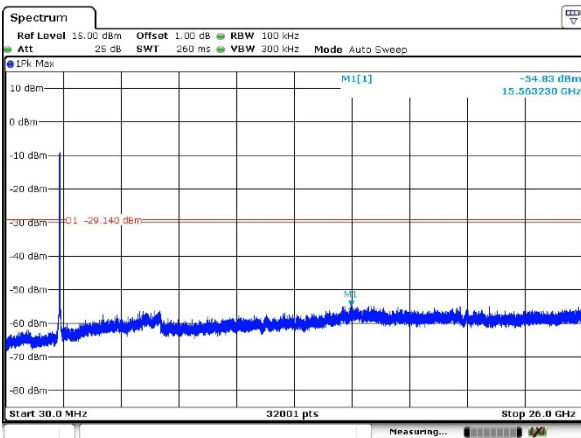


CH03-Bandedge

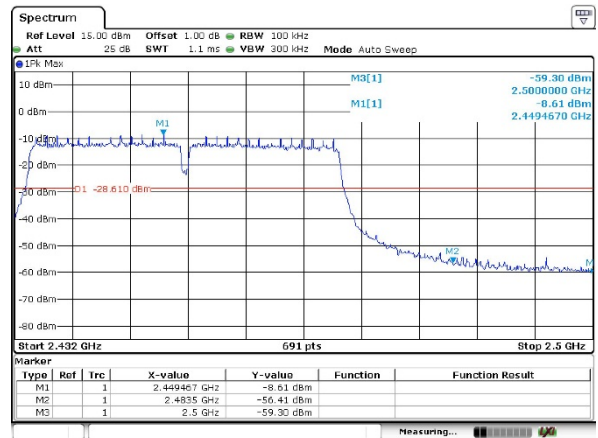


CH06

No Plot



CH09-SE



CH09-Bandedge

### 5.8. Spurious Emission (radiated)

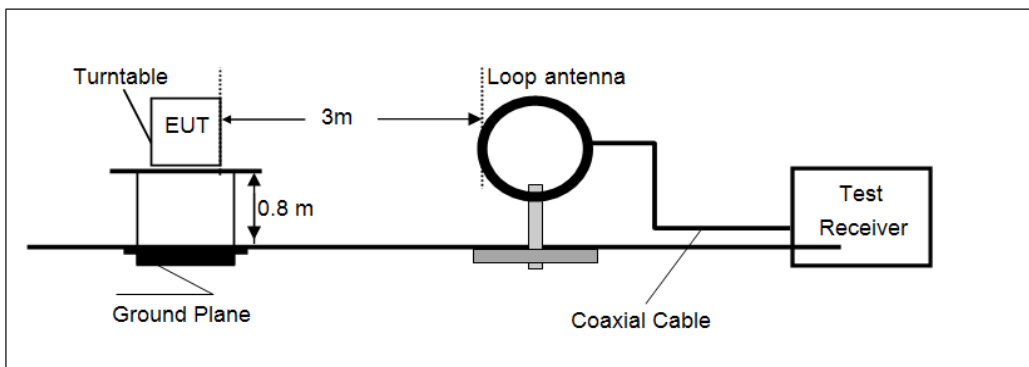
#### LIMIT

#### FCC CFR Title 47 Part 15 Subpart C Section 15.209

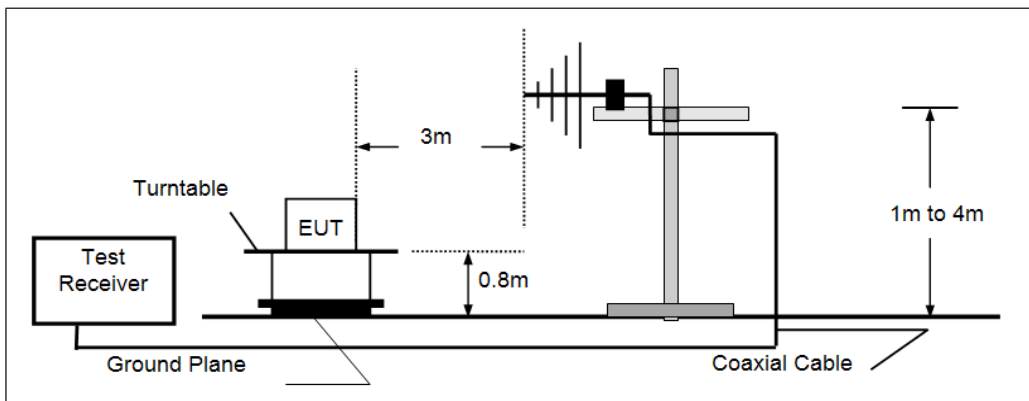
| Frequency     | Limit (dBuV/m @3m) | Value      |
|---------------|--------------------|------------|
| 30MHz-88MHz   | 40.00              | Quasi-peak |
| 88MHz-216MHz  | 43.50              | Quasi-peak |
| 216MHz-960MHz | 46.00              | Quasi-peak |
| 960MHz-1GHz   | 54.00              | Quasi-peak |
| Above 1GHz    | 54.00              | Average    |
|               | 74.00              | Peak       |

#### TEST CONFIGURATION

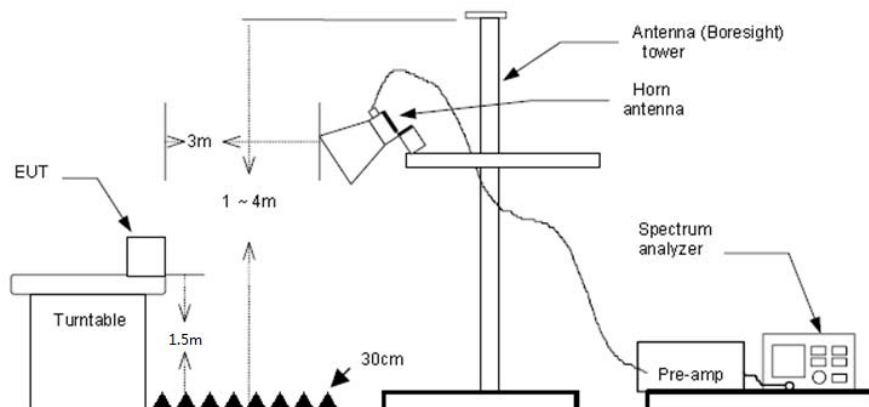
➤ 9kHz ~30MHz



➤ 30MHz ~ 1GHz



➤ Above 1GHz



## TEST PROCEDURE

1. The EUT was tested according to ANSI C63.10:2013 for compliance to FCC 47CFR 15.247 requirements.
2. The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna.
5. Use the following spectrum analyzer settings
  - (1) Span shall be wide enough to fully capture the emission being measured;
  - (2) Below 1GHz, RBW=120kHz, VBW=300kHz, Sweep=auto, Detector function=peak, Trace=max hold;  
*If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.*
  - (3) Above 1GHz, RBW=1MHz, VBW=3MHz for Peak value  
RBW=1MHz, VBW=3MHz RMS detector for Average value.

## TEST MODE:

Please refer to the clause 3.3

## TEST RESULTS

**Passed**       **Not Applicable**

Note:

- 1) *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
- 2) *The emission levels of other frequencies are very lower than the limit and not show in test report.*

➤ **9kHz ~ 30MHz**

The EUT was pre-scanned the frequency band (9kHz~30MHz), found the radiated level lower than the limit, so don't show on the report.

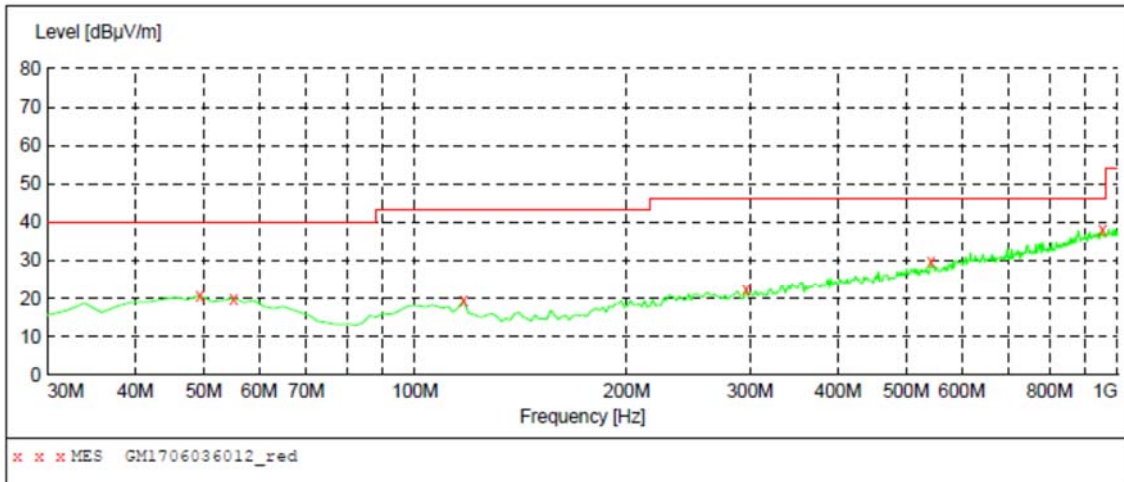
➤ **30MHz ~1000MHz**

*Have pre-scan all modulation mode, found the 802.11b mode CH01 which it was worst case, so only the worst case's data on the test report.*

➤ 30MHz ~ 1GHz

Polarization:

Vertical



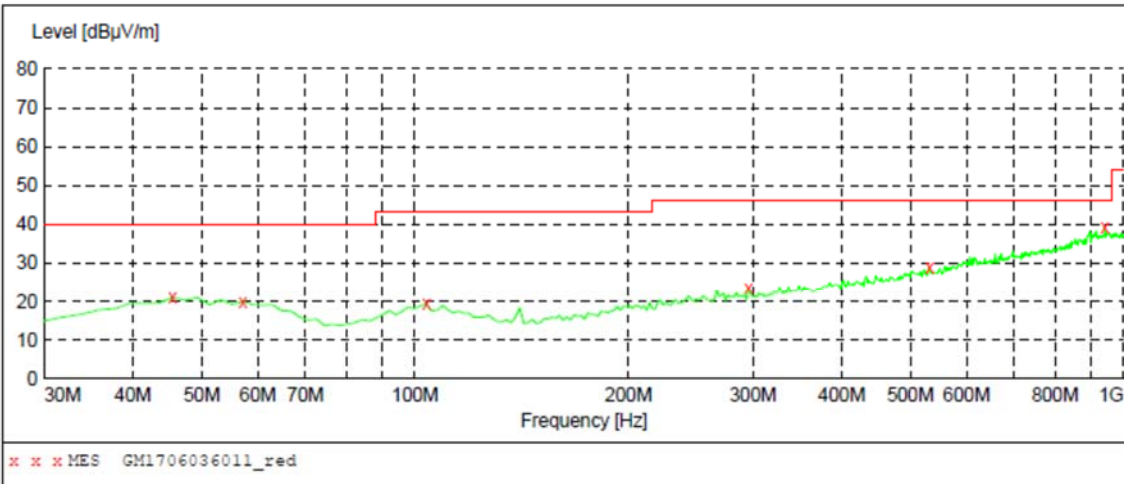
**MEASUREMENT RESULT: "GM1706036012\_red"**

6/3/2017 10:00AM

| Frequency<br>MHz | Level<br>dBµV/m | Transd<br>dB | Limit<br>dBµV/m | Margin<br>dB | Det. | Height<br>cm | Azimuth<br>deg | Polarization |
|------------------|-----------------|--------------|-----------------|--------------|------|--------------|----------------|--------------|
| 49.400000        | 20.80           | -8.7         | 40.0            | 19.2         | QP   | 100.0        | 321.00         | VERTICAL     |
| 55.220000        | 20.00           | -9.2         | 40.0            | 20.0         | QP   | 100.0        | 80.00          | VERTICAL     |
| 117.300000       | 19.30           | -11.9        | 43.5            | 24.2         | QP   | 100.0        | 0.00           | VERTICAL     |
| 295.780000       | 22.50           | -7.3         | 46.0            | 23.5         | QP   | 100.0        | 353.00         | VERTICAL     |
| 542.160000       | 30.00           | -0.9         | 46.0            | 16.0         | QP   | 100.0        | 213.00         | VERTICAL     |
| 951.500000       | 37.90           | 7.3          | 46.0            | 8.1          | QP   | 100.0        | 0.00           | VERTICAL     |

Polarization:

Horizontal



**MEASUREMENT RESULT: "GM1706036011\_red"**

6/3/2017 9:58AM

| Frequency<br>MHz | Level<br>dBµV/m | Transd<br>dB | Limit<br>dBµV/m | Margin<br>dB | Det. | Height<br>cm | Azimuth<br>deg | Polarization |
|------------------|-----------------|--------------|-----------------|--------------|------|--------------|----------------|--------------|
| 45.520000        | 21.10           | -8.8         | 40.0            | 18.9         | QP   | 300.0        | 273.00         | HORIZONTAL   |
| 57.160000        | 19.90           | -9.4         | 40.0            | 20.1         | QP   | 100.0        | 63.00          | HORIZONTAL   |
| 103.720000       | 19.30           | -10.5        | 43.5            | 24.2         | QP   | 300.0        | 0.00           | HORIZONTAL   |
| 295.780000       | 23.70           | -7.3         | 46.0            | 22.3         | QP   | 100.0        | 0.00           | HORIZONTAL   |
| 532.460000       | 28.90           | -1.1         | 46.0            | 17.1         | QP   | 300.0        | 360.00         | HORIZONTAL   |
| 939.860000       | 39.30           | 7.2          | 46.0            | 6.7          | QP   | 300.0        | 85.00          | HORIZONTAL   |

## ➤ Above 1 GHz

| 802.11b         |                   |                       |                 |                    | CH01           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 1360.71         | 35.94             | 26.02                 | 4.93            | 36.48              | 30.41          | 74.00               | -43.59            | Vertical     | Peak       |
| 3507.65         | 36.43             | 29.02                 | 8.13            | 38.40              | 35.18          | 74.00               | -38.82            | Vertical     |            |
| 5217.66         | 33.96             | 31.46                 | 9.86            | 36.25              | 39.03          | 74.00               | -34.97            | Vertical     |            |
| 7063.69         | 32.39             | 35.49                 | 11.85           | 34.88              | 44.85          | 74.00               | -29.15            | Vertical     |            |
| 1198.10         | 37.67             | 26.29                 | 4.66            | 36.57              | 32.05          | 74.00               | -41.95            | Horizontal   |            |
| 1768.62         | 37.05             | 25.34                 | 5.90            | 37.07              | 31.22          | 74.00               | -42.78            | Horizontal   |            |
| 3738.13         | 35.47             | 29.42                 | 8.43            | 38.24              | 35.08          | 74.00               | -38.92            | Horizontal   |            |
| 6478.05         | 32.54             | 33.85                 | 11.13           | 35.33              | 42.19          | 74.00               | -31.81            | Horizontal   |            |

| 802.11b         |                   |                       |                 |                    | CH06           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 1750.70         | 36.15             | 25.30                 | 5.86            | 37.04              | 30.27          | 74.00               | -43.73            | Vertical     | Peak       |
| 3096.33         | 36.88             | 28.79                 | 7.60            | 38.22              | 35.05          | 74.00               | -38.95            | Vertical     |            |
| 5747.59         | 35.19             | 31.84                 | 10.51           | 35.46              | 42.08          | 74.00               | -31.92            | Vertical     |            |
| 7027.82         | 32.44             | 35.38                 | 11.85           | 34.83              | 44.84          | 74.00               | -29.16            | Vertical     |            |
| 1244.73         | 36.43             | 26.25                 | 4.74            | 36.55              | 30.87          | 74.00               | -43.13            | Horizontal   |            |
| 1773.13         | 36.02             | 25.35                 | 5.91            | 37.08              | 30.20          | 74.00               | -43.80            | Horizontal   |            |
| 4676.70         | 34.72             | 31.13                 | 9.49            | 37.13              | 38.21          | 74.00               | -35.79            | Horizontal   |            |
| 7154.17         | 32.55             | 35.93                 | 11.86           | 35.01              | 45.33          | 74.00               | -28.67            | Horizontal   |            |

| 802.11b         |                   |                       |                 |                    | CH11           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 1715.41         | 36.55             | 25.23                 | 5.80            | 36.96              | 30.62          | 74.00               | -43.38            | Vertical     | Peak       |
| 3738.13         | 36.62             | 29.42                 | 8.43            | 38.24              | 36.23          | 74.00               | -37.77            | Vertical     |            |
| 4920.96         | 35.34             | 31.42                 | 9.62            | 36.62              | 39.76          | 74.00               | -34.24            | Vertical     |            |
| 8002.06         | 33.46             | 37.10                 | 12.30           | 34.53              | 48.33          | 74.00               | -25.67            | Vertical     |            |
| 1336.68         | 36.64             | 26.09                 | 4.89            | 36.49              | 31.13          | 74.00               | -42.87            | Horizontal   |            |
| 2218.32         | 34.97             | 27.61                 | 6.47            | 37.39              | 31.66          | 74.00               | -42.34            | Horizontal   |            |
| 4559.15         | 34.59             | 30.82                 | 9.39            | 37.30              | 37.50          | 74.00               | -36.50            | Horizontal   |            |
| 8002.06         | 33.23             | 37.10                 | 12.30           | 34.53              | 48.10          | 74.00               | -25.90            | Horizontal   |            |

## Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor
2. The peak level is lower than average limit(54 dBuV/m), this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

| 802.11g         |                   |                       |                 |                    | CH01           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 1395.80         | 35.33             | 25.91                 | 4.99            | 36.46              | 29.77          | 74.00               | -44.23            | Vertical     | Peak       |
| 2070.98         | 34.59             | 26.59                 | 6.33            | 37.31              | 30.20          | 74.00               | -43.80            | Vertical     |            |
| 5151.68         | 33.79             | 31.69                 | 9.79            | 36.25              | 39.02          | 74.00               | -34.98            | Vertical     |            |
| 7172.41         | 31.09             | 36.04                 | 11.86           | 35.04              | 43.95          | 74.00               | -30.05            | Vertical     |            |
| 1737.38         | 36.38             | 25.28                 | 5.84            | 37.01              | 30.49          | 74.00               | -43.51            | Horizontal   |            |
| 3128.01         | 37.02             | 28.80                 | 7.63            | 38.21              | 35.24          | 74.00               | -38.76            | Horizontal   |            |
| 4641.12         | 35.33             | 31.02                 | 9.48            | 37.17              | 38.66          | 74.00               | -35.34            | Horizontal   |            |
| 7172.41         | 32.55             | 36.04                 | 11.86           | 35.04              | 45.41          | 74.00               | -28.59            | Horizontal   |            |

| 802.11g         |                   |                       |                 |                    | CH06           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 1364.18         | 36.31             | 26.00                 | 4.94            | 36.48              | 30.77          | 74.00               | -43.23            | Vertical     | Peak       |
| 2229.65         | 36.56             | 27.68                 | 6.49            | 37.42              | 33.31          | 74.00               | -40.69            | Vertical     |            |
| 4086.46         | 36.56             | 29.87                 | 8.85            | 37.91              | 37.37          | 74.00               | -36.63            | Vertical     |            |
| 6494.56         | 33.00             | 33.96                 | 11.16           | 35.33              | 42.79          | 74.00               | -31.21            | Vertical     |            |
| 1192.01         | 36.29             | 26.24                 | 4.64            | 36.57              | 30.60          | 74.00               | -43.40            | Horizontal   |            |
| 1621.99         | 36.15             | 24.97                 | 5.61            | 36.77              | 29.96          | 74.00               | -44.04            | Horizontal   |            |
| 4490.05         | 35.00             | 30.68                 | 9.28            | 37.41              | 37.55          | 74.00               | -36.45            | Horizontal   |            |
| 6527.71         | 33.27             | 34.06                 | 11.23           | 35.34              | 43.22          | 74.00               | -30.78            | Horizontal   |            |

| 802.11g         |                   |                       |                 |                    | CH11           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 1750.70         | 35.56             | 25.30                 | 5.86            | 37.04              | 29.68          | 74.00               | -44.32            | Vertical     | Peak       |
| 4045.06         | 36.04             | 29.79                 | 8.82            | 38.01              | 36.64          | 74.00               | -37.36            | Vertical     |            |
| 4858.72         | 33.76             | 31.48                 | 9.58            | 36.80              | 38.02          | 74.00               | -35.98            | Vertical     |            |
| 7981.72         | 33.00             | 37.03                 | 12.39           | 34.58              | 47.84          | 74.00               | -26.16            | Vertical     |            |
| 1392.25         | 34.99             | 25.92                 | 4.99            | 36.46              | 29.44          | 74.00               | -44.56            | Horizontal   |            |
| 1856.26         | 35.80             | 25.34                 | 6.05            | 37.19              | 30.00          | 74.00               | -44.00            | Horizontal   |            |
| 3570.71         | 36.12             | 29.21                 | 8.22            | 38.31              | 35.24          | 74.00               | -38.76            | Horizontal   |            |
| 7981.72         | 33.30             | 37.03                 | 12.39           | 34.58              | 48.14          | 74.00               | -25.86            | Horizontal   |            |

## Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor
2. The peak level is lower than average limit(54 dBuV/m), this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.



| 802.11n(H20)    |                   |                       |                 |                    | CH01           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 1724.17         | 36.35             | 25.25                 | 5.81            | 36.98              | 30.43          | 74.00               | -43.57            | Vertical     | Peak       |
| 3192.37         | 36.54             | 28.80                 | 7.71            | 38.20              | 34.85          | 74.00               | -39.15            | Vertical     |            |
| 4288.96         | 34.94             | 30.18                 | 9.02            | 37.61              | 36.53          | 74.00               | -37.47            | Vertical     |            |
| 6577.75         | 34.33             | 34.16                 | 11.32           | 35.35              | 44.46          | 74.00               | -29.54            | Vertical     |            |
| 1755.16         | 36.01             | 25.31                 | 5.87            | 37.05              | 30.14          | 74.00               | -43.86            | Horizontal   |            |
| 3747.66         | 35.42             | 29.44                 | 8.44            | 38.24              | 35.06          | 74.00               | -38.94            | Horizontal   |            |
| 5732.97         | 33.90             | 31.77                 | 10.48           | 35.50              | 40.65          | 74.00               | -33.35            | Horizontal   |            |
| 7489.60         | 33.07             | 36.12                 | 12.36           | 34.89              | 46.66          | 74.00               | -27.34            | Horizontal   |            |

| 802.11n(H20)    |                   |                       |                 |                    | CH06           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 1764.12         | 34.91             | 25.33                 | 5.89            | 37.06              | 29.07          | 74.00               | -44.93            | Vertical     | Peak       |
| 3168.08         | 37.21             | 28.80                 | 7.68            | 38.20              | 35.49          | 74.00               | -38.51            | Vertical     |            |
| 4570.77         | 35.40             | 30.84                 | 9.41            | 37.28              | 38.37          | 74.00               | -35.63            | Vertical     |            |
| 7981.72         | 32.55             | 37.03                 | 12.39           | 34.58              | 47.39          | 74.00               | -26.61            | Vertical     |            |
| 1693.72         | 35.77             | 25.18                 | 5.75            | 36.92              | 29.78          | 74.00               | -44.22            | Horizontal   |            |
| 3128.01         | 36.79             | 28.80                 | 7.63            | 38.21              | 35.01          | 74.00               | -38.99            | Horizontal   |            |
| 5138.58         | 33.51             | 31.74                 | 9.78            | 36.26              | 38.77          | 74.00               | -35.23            | Horizontal   |            |
| 7376.08         | 33.20             | 36.30                 | 12.04           | 34.85              | 46.69          | 74.00               | -27.31            | Horizontal   |            |

| 802.11n(H20)    |                   |                       |                 |                    | CH11           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 1791.27         | 35.08             | 25.38                 | 5.94            | 37.12              | 29.28          | 74.00               | -44.72            | Vertical     | Peak       |
| 4055.37         | 36.15             | 29.81                 | 8.82            | 37.98              | 36.80          | 74.00               | -37.20            | Vertical     |            |
| 5448.41         | 33.93             | 31.69                 | 10.16           | 36.57              | 39.21          | 74.00               | -34.79            | Vertical     |            |
| 8002.06         | 32.52             | 37.10                 | 12.30           | 34.53              | 47.39          | 74.00               | -26.61            | Vertical     |            |
| 1737.38         | 34.63             | 25.28                 | 5.84            | 37.01              | 28.74          | 74.00               | -45.26            | Horizontal   |            |
| 3963.52         | 36.13             | 29.70                 | 8.73            | 38.13              | 36.43          | 74.00               | -37.57            | Horizontal   |            |
| 5776.92         | 32.53             | 31.99                 | 10.55           | 35.38              | 39.69          | 74.00               | -34.31            | Horizontal   |            |
| 8571.38         | 33.52             | 37.19                 | 12.88           | 34.48              | 49.11          | 74.00               | -24.89            | Horizontal   |            |

## Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor
2. The peak level is lower than average limit(54 dBuV/m), this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

| 802.11n(H40)    |                   |                       |                 |                    | CH03           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 1663.80         | 35.57             | 25.09                 | 5.69            | 36.85              | 29.50          | 74.00               | -44.50            | Vertical     | Peak       |
| 3200.50         | 36.52             | 28.80                 | 7.72            | 38.20              | 34.84          | 74.00               | -39.16            | Vertical     |            |
| 5047.83         | 33.19             | 31.69                 | 9.71            | 36.35              | 38.24          | 74.00               | -35.76            | Vertical     |            |
| 7063.69         | 31.38             | 35.49                 | 11.85           | 34.88              | 43.84          | 74.00               | -30.16            | Vertical     |            |
| 1621.99         | 35.34             | 24.97                 | 5.61            | 36.77              | 29.15          | 74.00               | -44.85            | Horizontal   |            |
| 3805.33         | 35.34             | 29.61                 | 8.51            | 38.23              | 35.23          | 74.00               | -38.77            | Horizontal   |            |
| 4310.85         | 36.63             | 30.23                 | 9.05            | 37.60              | 38.31          | 74.00               | -35.69            | Horizontal   |            |
| 7027.82         | 32.37             | 35.38                 | 11.85           | 34.83              | 44.77          | 74.00               | -29.23            | Horizontal   |            |

| 802.11n(H40)    |                   |                       |                 |                    | CH06           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 1388.71         | 35.82             | 25.93                 | 4.98            | 36.47              | 30.26          | 74.00               | -43.74            | Vertical     | Peak       |
| 3216.84         | 36.10             | 28.70                 | 7.74            | 38.23              | 34.31          | 74.00               | -39.69            | Vertical     |            |
| 4785.08         | 34.27             | 31.54                 | 9.53            | 36.98              | 38.36          | 74.00               | -35.64            | Vertical     |            |
| 8063.40         | 32.85             | 37.04                 | 12.45           | 34.54              | 47.80          | 74.00               | -26.20            | Vertical     |            |
| 1276.82         | 35.62             | 26.22                 | 4.79            | 36.53              | 30.10          | 74.00               | -43.90            | Horizontal   |            |
| 1755.16         | 34.73             | 25.31                 | 5.87            | 37.05              | 28.86          | 74.00               | -45.14            | Horizontal   |            |
| 4547.56         | 34.78             | 30.80                 | 9.37            | 37.32              | 37.63          | 74.00               | -36.37            | Horizontal   |            |
| 7547.01         | 33.21             | 36.15                 | 12.55           | 34.94              | 46.97          | 74.00               | -27.03            | Horizontal   |            |

| 802.11n(H40)    |                   |                       |                 |                    | CH09           |                     |                   |              |            |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-------------------|--------------|------------|
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin Limit (dB) | Polarization | Test value |
| 1435.43         | 34.49             | 25.86                 | 5.10            | 36.51              | 28.94          | 74.00               | -45.06            | Vertical     | Peak       |
| 2018.93         | 33.00             | 26.38                 | 6.29            | 37.30              | 28.37          | 74.00               | -45.63            | Vertical     |            |
| 3472.12         | 36.56             | 28.78                 | 8.07            | 38.45              | 34.96          | 74.00               | -39.04            | Vertical     |            |
| 5086.52         | 33.09             | 31.85                 | 9.74            | 36.31              | 38.37          | 74.00               | -35.63            | Vertical     |            |
| 1424.51         | 35.98             | 25.87                 | 5.07            | 36.49              | 30.43          | 74.00               | -43.57            | Horizontal   |            |
| 2097.51         | 34.87             | 26.69                 | 6.35            | 37.32              | 30.59          | 74.00               | -43.41            | Horizontal   |            |
| 3376.24         | 36.75             | 28.20                 | 7.93            | 38.51              | 34.37          | 74.00               | -39.63            | Horizontal   |            |
| 5022.19         | 34.11             | 31.59                 | 9.69            | 36.38              | 39.01          | 74.00               | -34.99            | Horizontal   |            |

## Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor
2. The peak level is lower than average limit(54 dBuV/m), this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

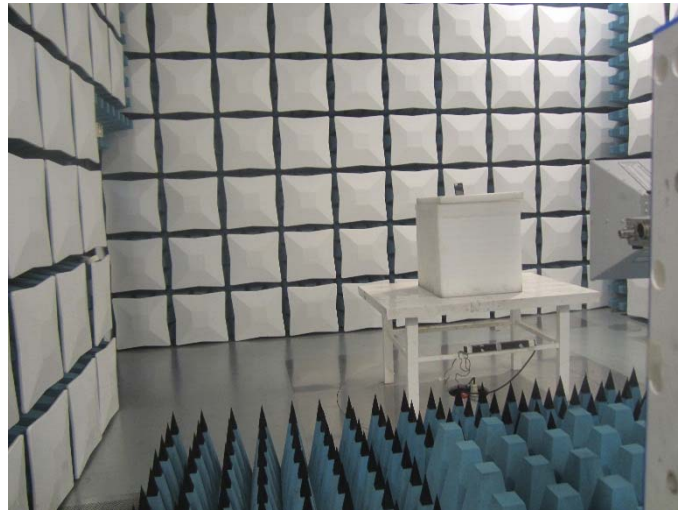
## 6. Test Setup Photos of the EUT

Conducted Emission



Radiated Emission





## 7. External and Internal Photos of the EUT

Reference to Test Report No.: TRE1705024001.

*.....End of Report.....*