

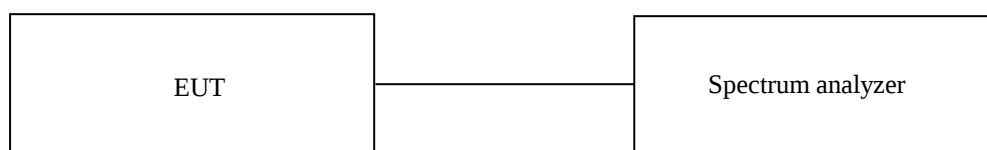
## 12. 100 kHz BANDWIDTH OUTSIDE THE FREQUENCY BAND

### 12.1 Operating environment

Temperature : 21.4 °C  
Relative humidity : 45.1 % R.H

### 12.2 Test set-up for conducted measurement

The antenna output of the EUT was connected to the spectrum analyzer. The resolution and video bandwidth is set to 100 kHz, and peak detection was used.



### 12.3 Test set-up for radiated measurement

The radiated emissions measurements were performed on the 3 m, open-field test site. The EUT was placed on a non-conductive turntable approximately 0.8 m above the ground plane.

The frequency spectrum from 30 kHz to 26.5 GHz was scanned and maximum emission levels at each frequency recorded. The system was rotated 360°, and the antenna was varied in the height between 1.0 m and 4.0 ms in order to determine the maximum emission levels. This procedure was performed for horizontal and vertical polarization of the receiving antenna.

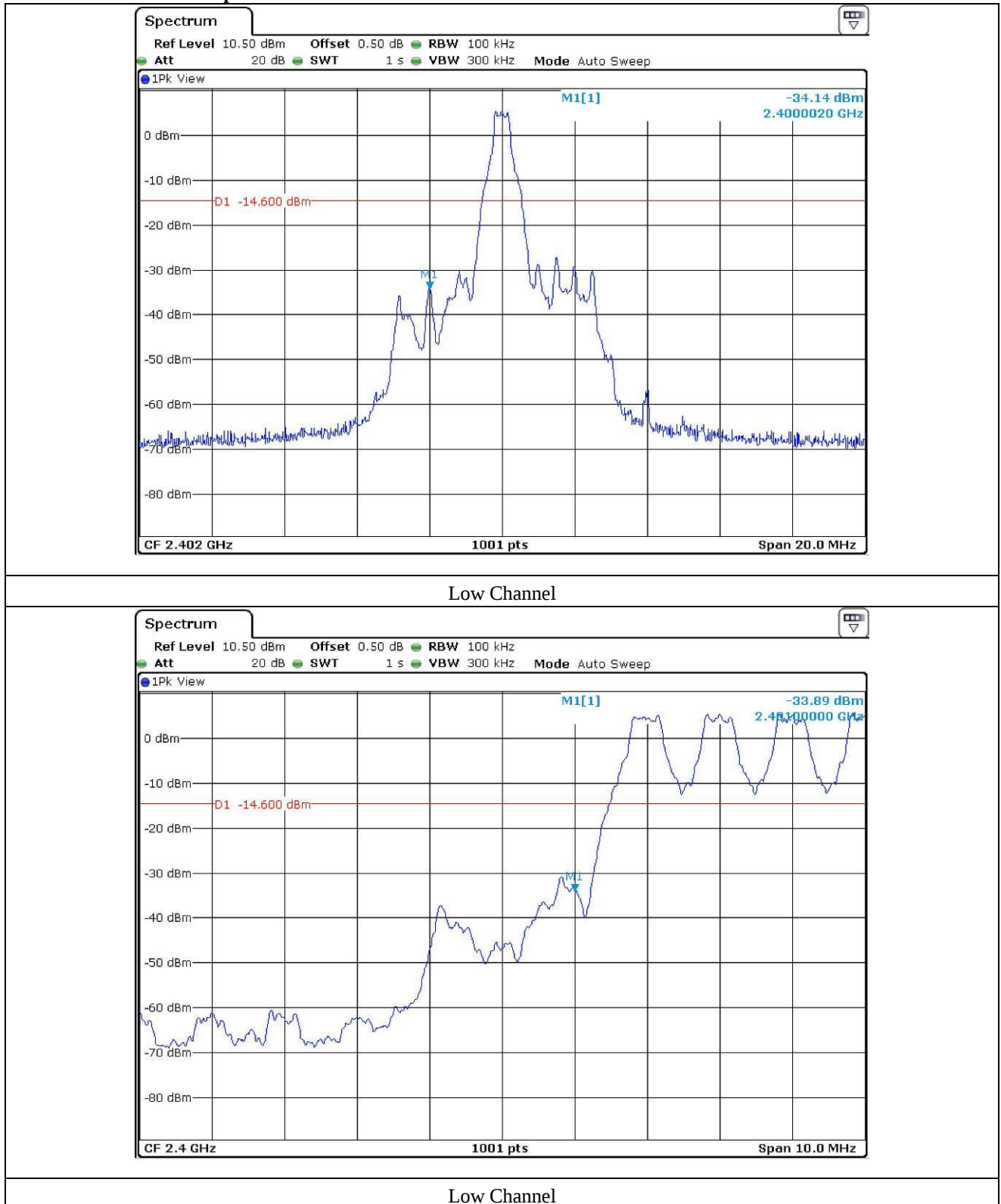
### 12.4 Test equipment used

|     | Model Number | Manufacturer      | Description                   | Serial Number | Last Cal. (Interval) |
|-----|--------------|-------------------|-------------------------------|---------------|----------------------|
| □ - | ESCI         | Rohde & Schwarz   | EMI Test Receiver             | 101012        | Nov. 03, 2014(1Y)    |
| ■ - | ESU          | Rohde & Schwarz   | EMI Test Receiver             | 100261        | Apr. 29, 2014(1Y)    |
| □ - | 8564E        | HP                | Spectrum Analyzer             | 3650A00756    | Apr. 28, 2014(1Y)    |
| □ - | FSP          | Rohde & Schwarz   | Spectrum Analyzer             | 100017        | Oct. 08, 2014(1Y)    |
| ■ - | 310N         | Sonoma Instrument | AMPLIFIER                     | 312544        | Apr. 28, 2014(1Y)    |
| ■ - | FSV30        | Rohde & Schwarz   | Signal Analyzer               | 101372        | Apr. 28, 2014(1Y)    |
| ■ - | SCU-18       | Rohde & Schwarz   | PRE-AMPLIFIER                 | 102209        | Jun. 12, 2014(1Y)    |
| ■ - | MA240        | HD GmbH           | Antenna Master                | N/A           | N/A                  |
| ■ - | HD100        | HD GmbH           | Position Controller           | N/A           | N/A                  |
| ■ - | DS420S       | HD GmbH           | Turn Table                    | N/A           | N/A                  |
| ■ - | HFH2-Z2      | Rohde & Schwarz   | Loop Antenna                  | 879 285/26    | Dec. 09, 2014(2Y)    |
| ■ - | VULB9163     | Schwarzbeck       | TRILOG Broadband Antenna      | 9163-255      | May 02, 2014(2Y)     |
| ■ - | BBHA9120D    | Schwarzbeck       | Horn Antenna                  | BBHA9120D295  | Sep. 05, 2013(2Y)    |
| ■ - | BBHA9170     | Schwarzbeck       | Horn Antenna                  | BBHA9170178   | N/A                  |
| ■ - | 83051A       | Agilent           | Microwave System Preamplifier | 3950M00201    | Apr. 30, 2014(1Y)    |

All test equipment used is calibrated on a regular basis.

## 12.5 Test data for conducted emission

### 12.5.1 Test data for 1 Mbps

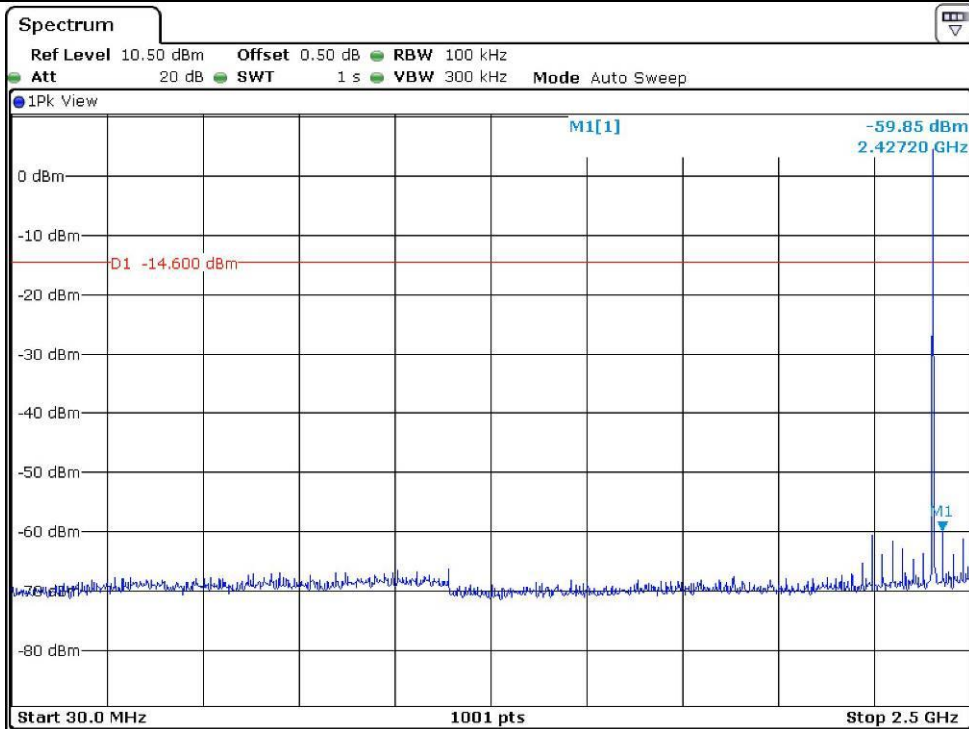


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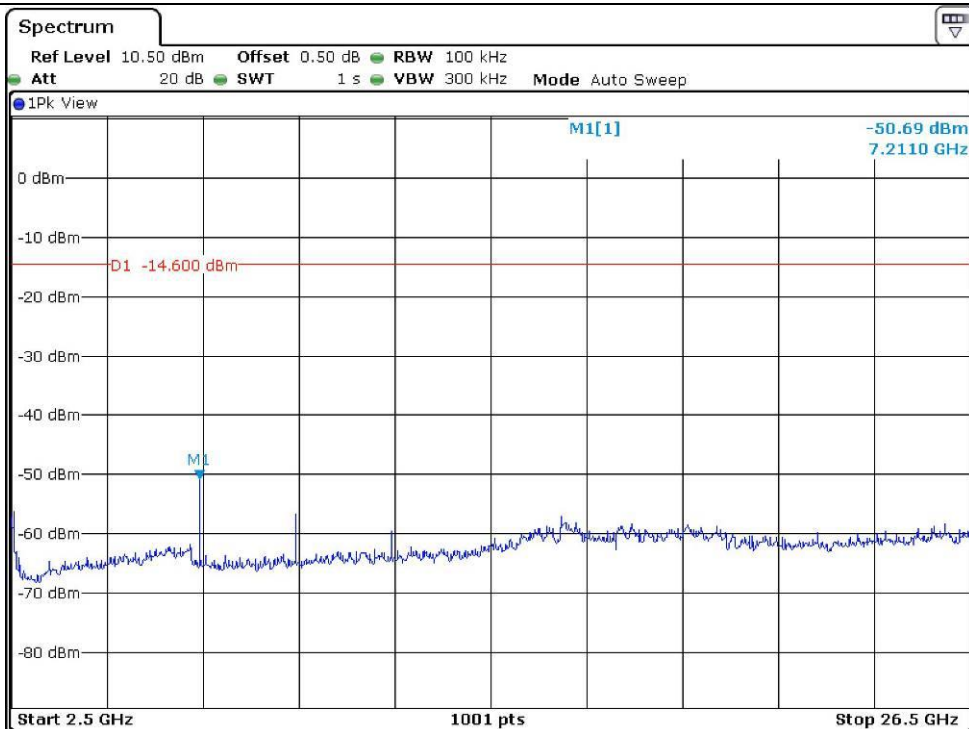
EMC-002 (Rev.3)

**HEAD OFFICE** : #505 SK APT. Factory 223-28, Sangdaewon 1 Dong, Jungwon-Gu, Seongnam-City, Gyunggi-Do, 462-121, Korea  
(TEL: +82-31-746-8500 FAX: +82-31-746-8700)

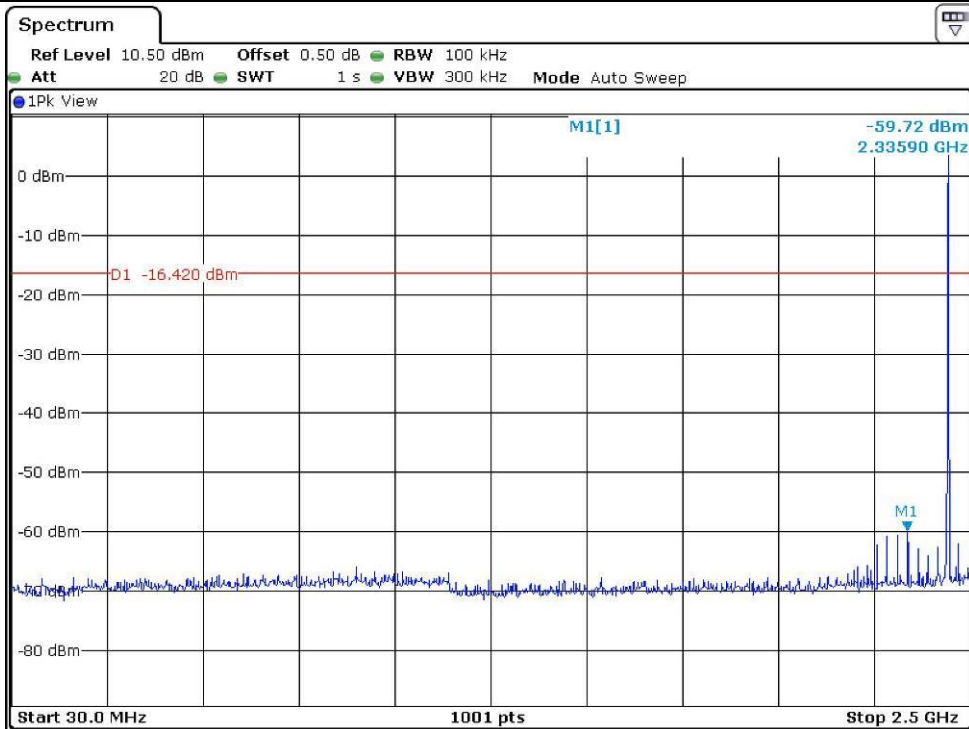
**EMC Testing Div** : 307-51 Daessangnyeong-ri, Chowol-eup, Gwangju-si, Gyeonggi-do 464-862 Korea (TEL: 82-31-765-8289, FAX: 82-31-766-2904)



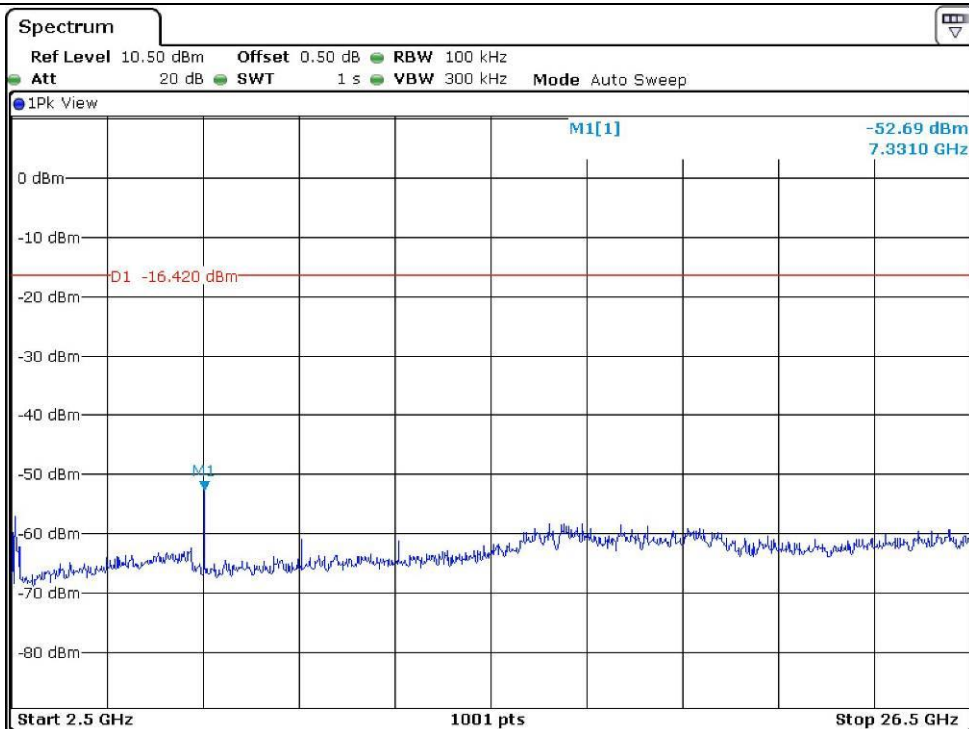
Low Channel



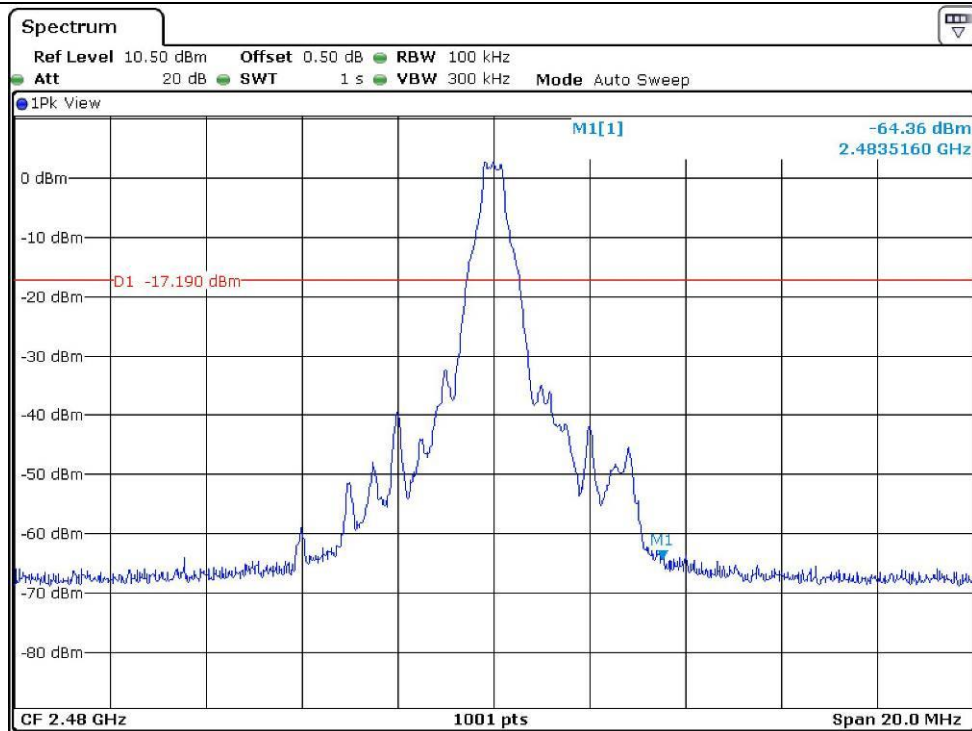
Low Channel



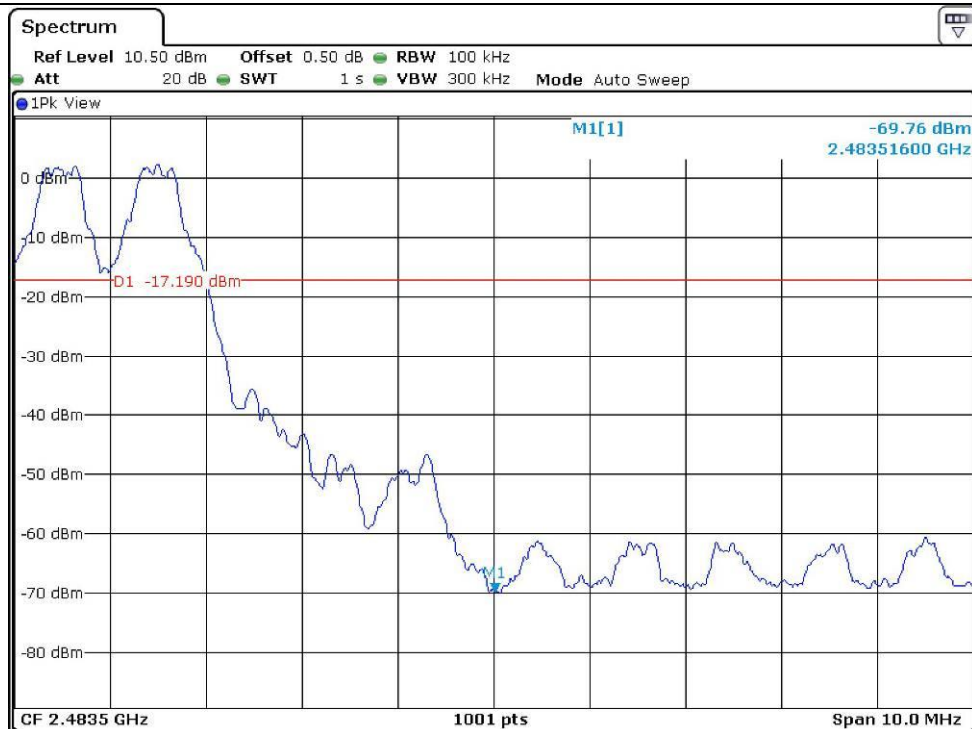
Middle Channel



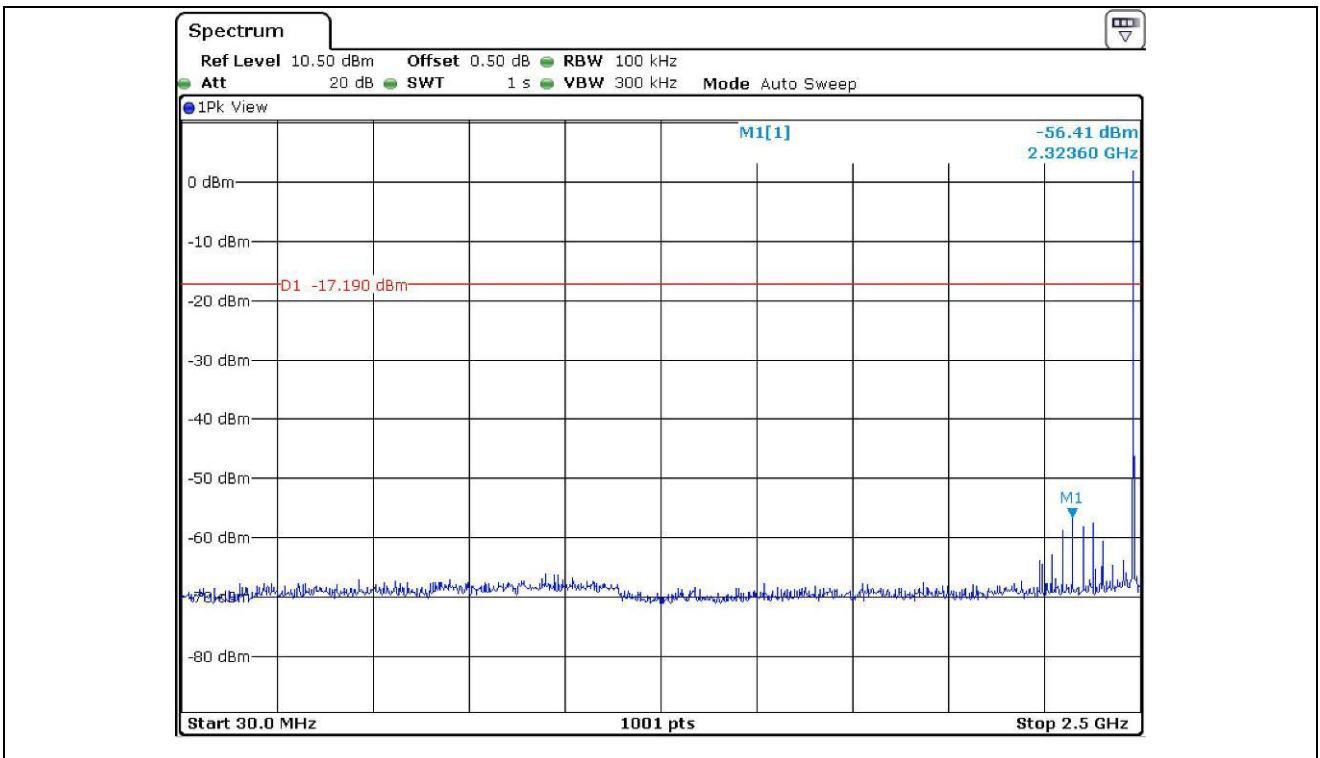
Middle Channel



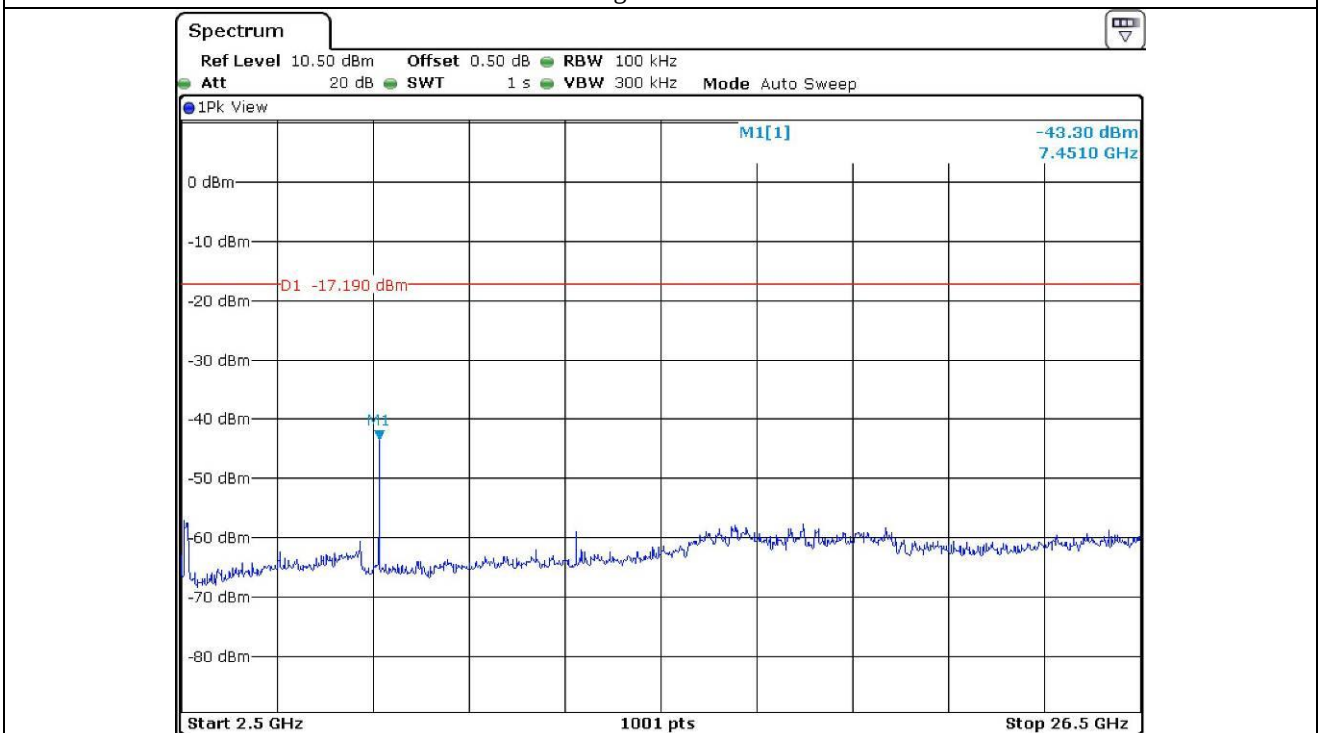
High Channel



High Channel

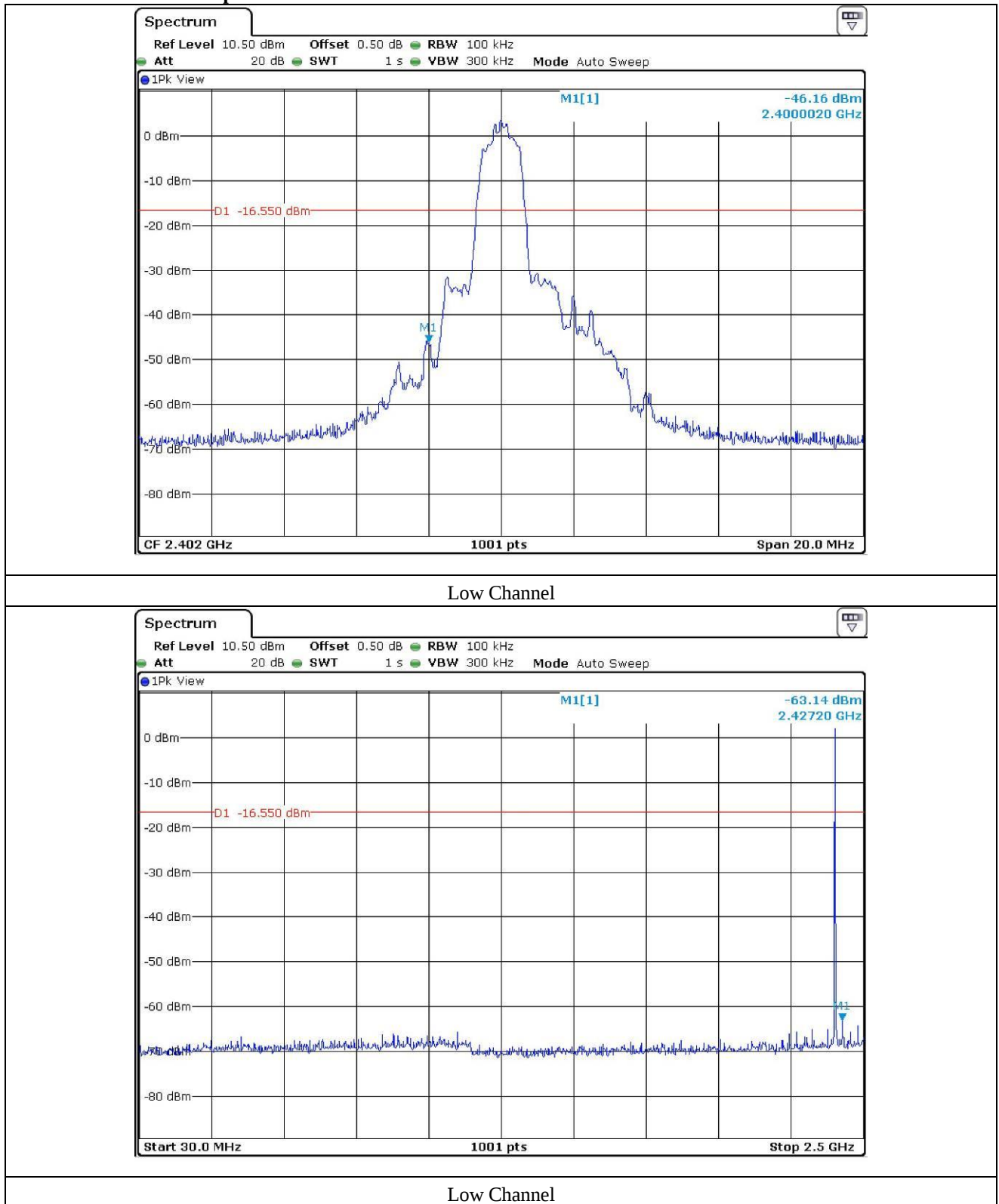


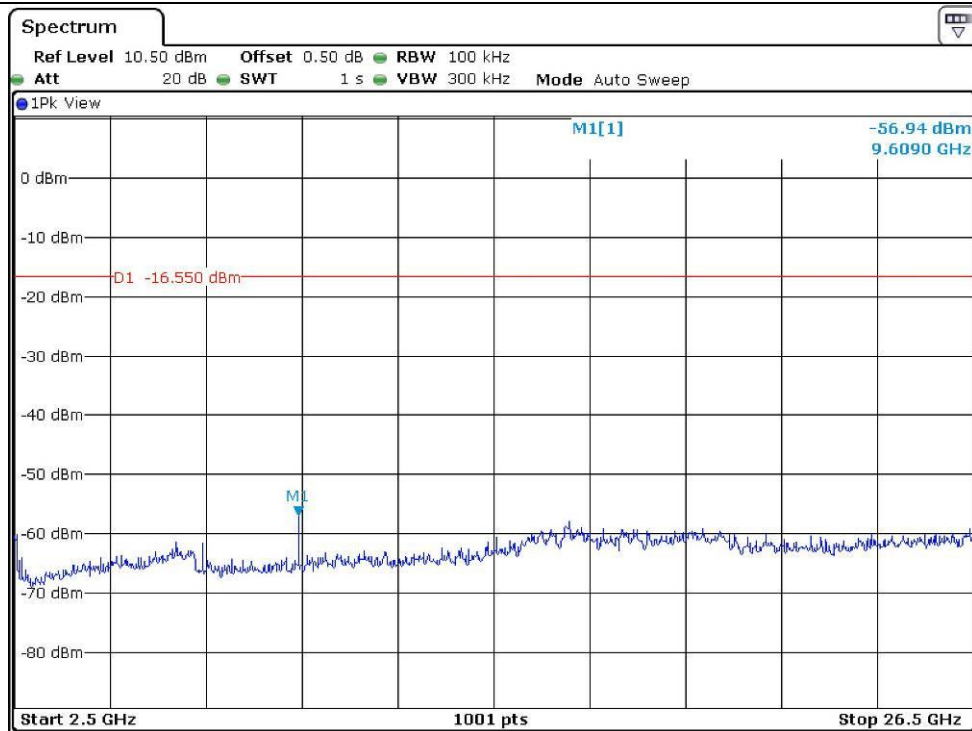
### High Channel



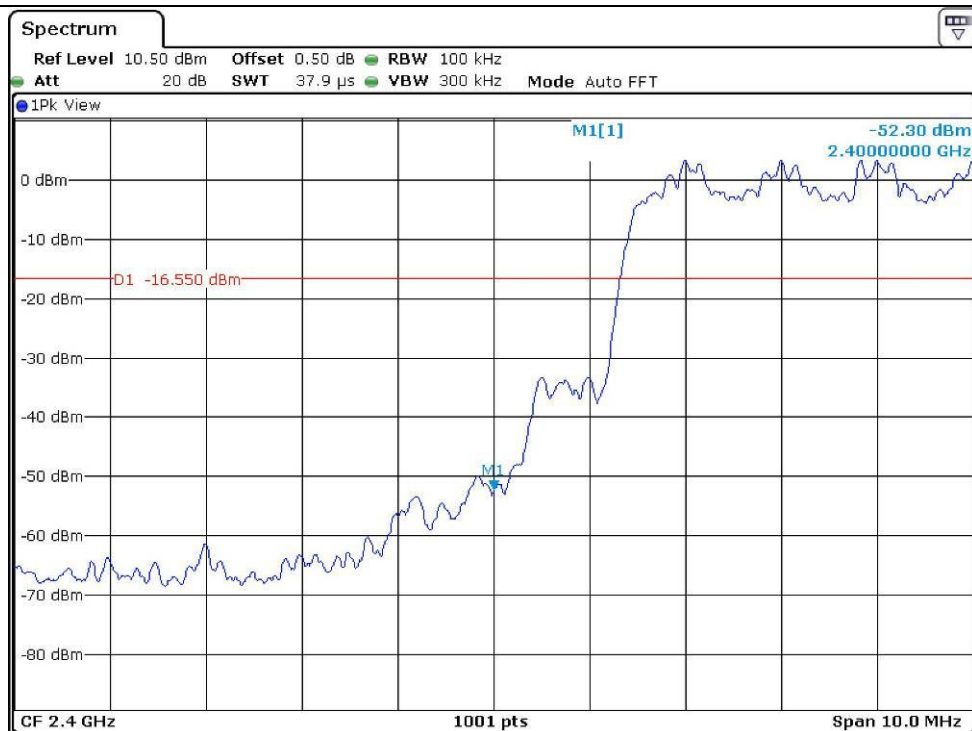
### High Channel

### 12.5.2 Test data for 2 Mbps

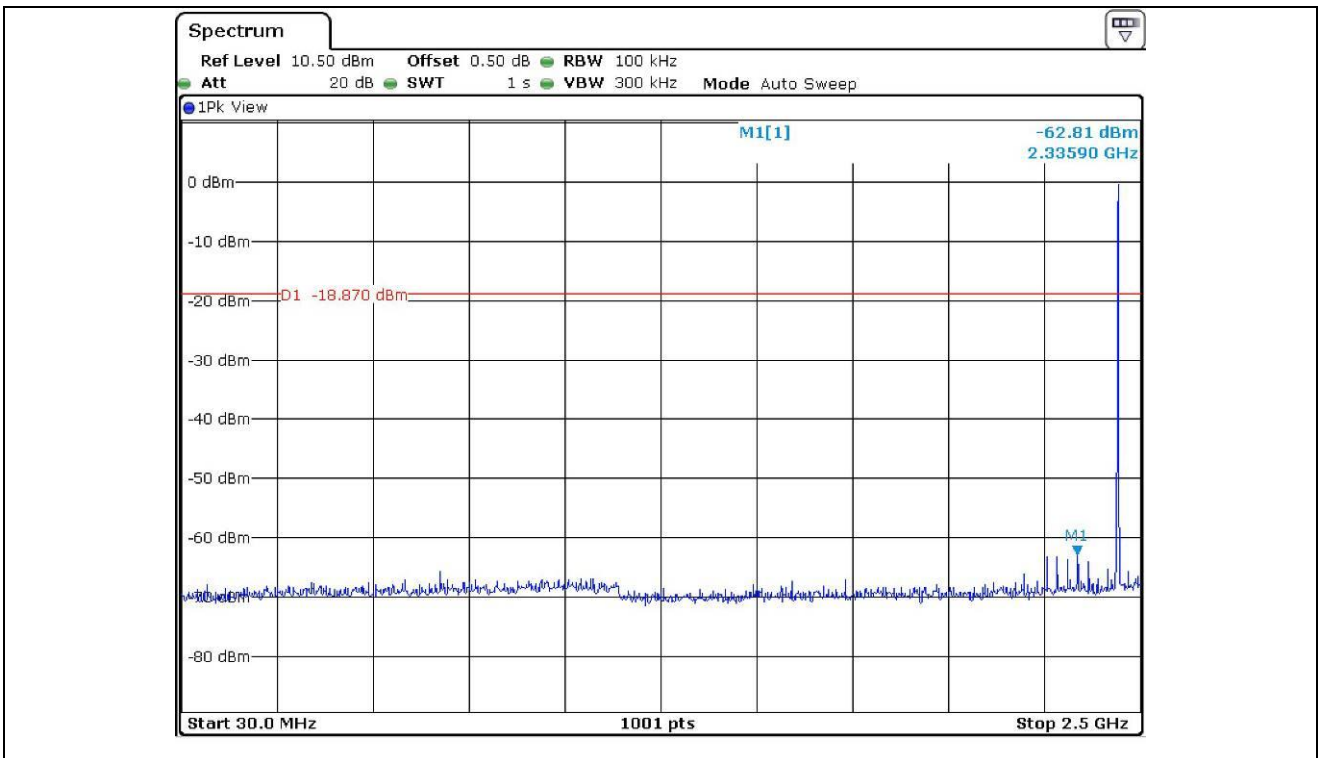




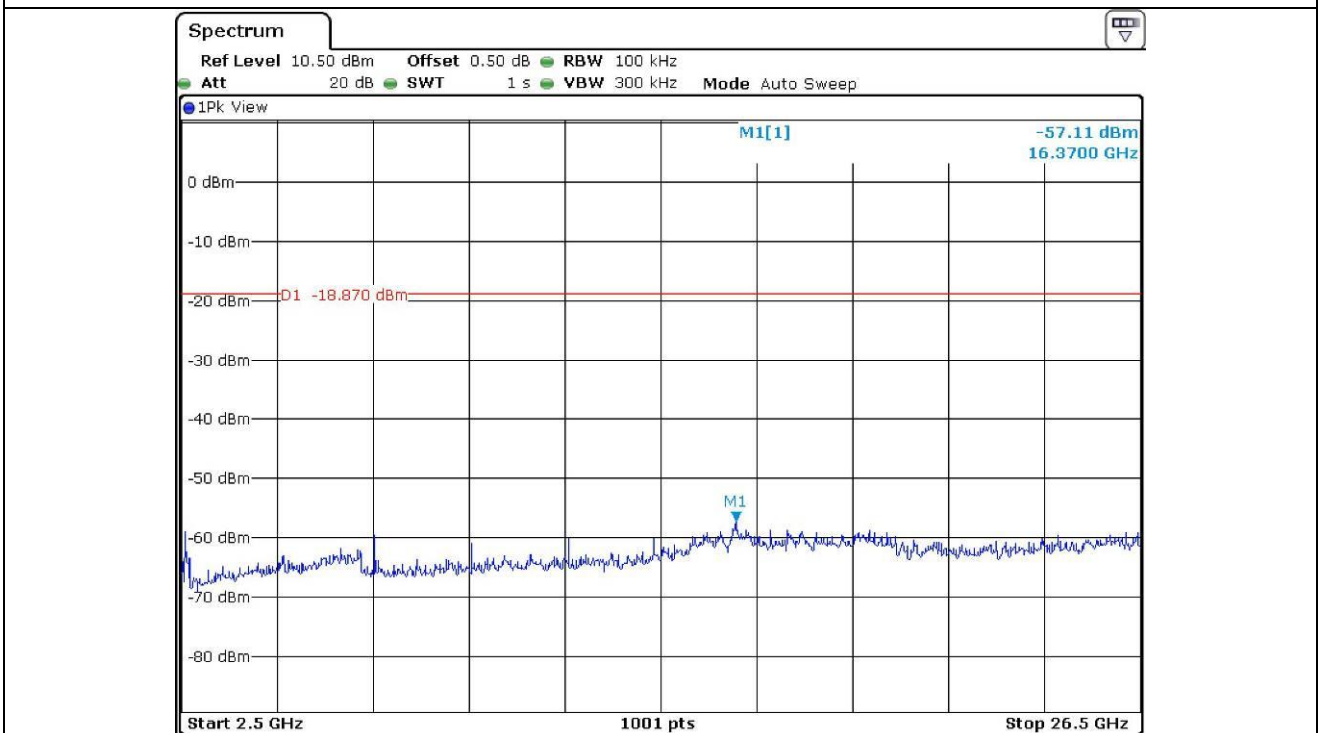
Low Channel



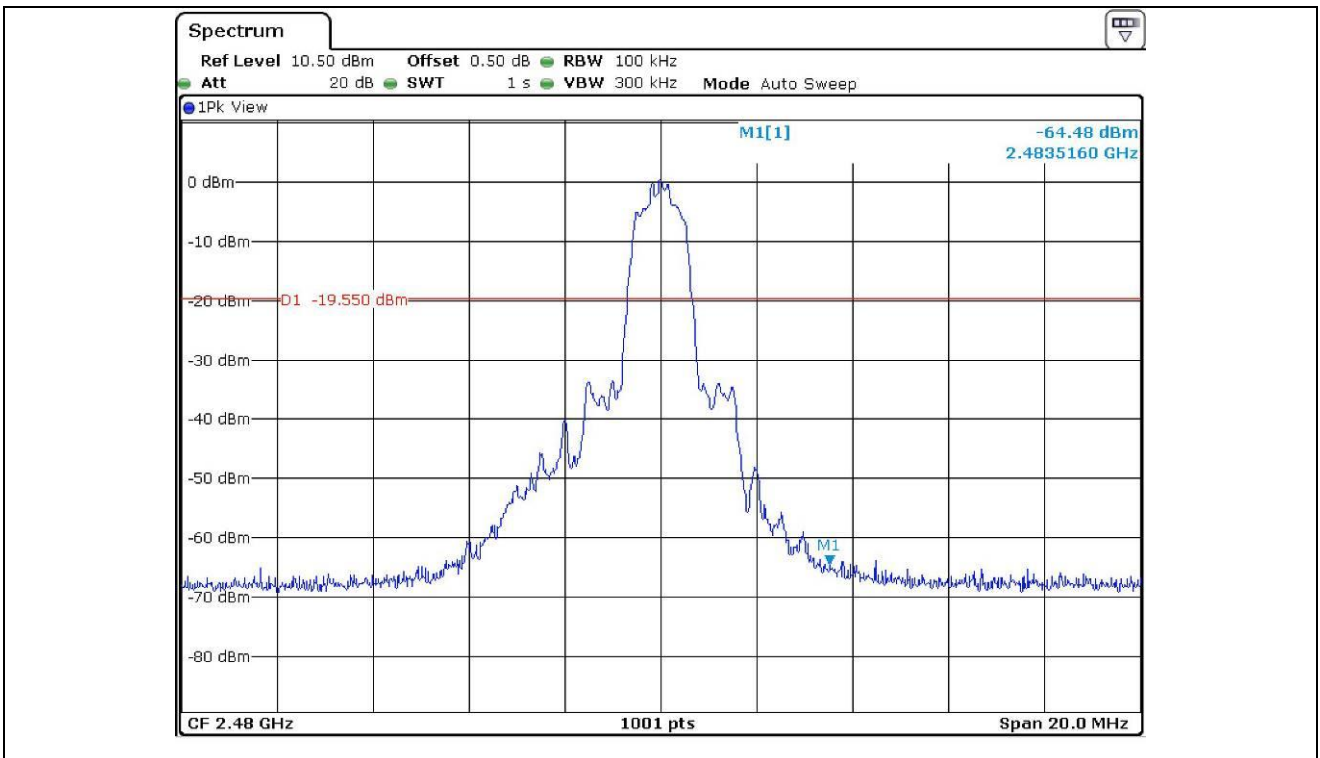
Low Channel



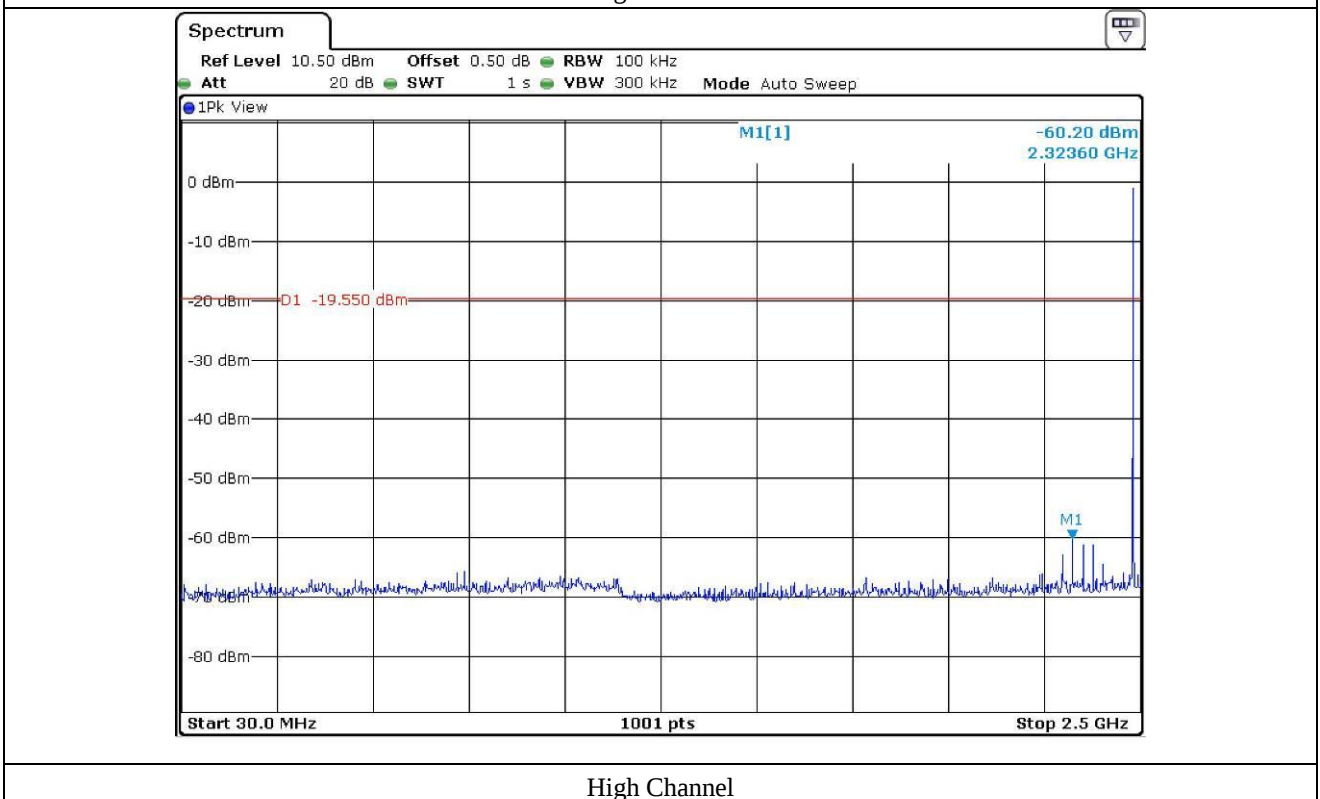
Middle Channel



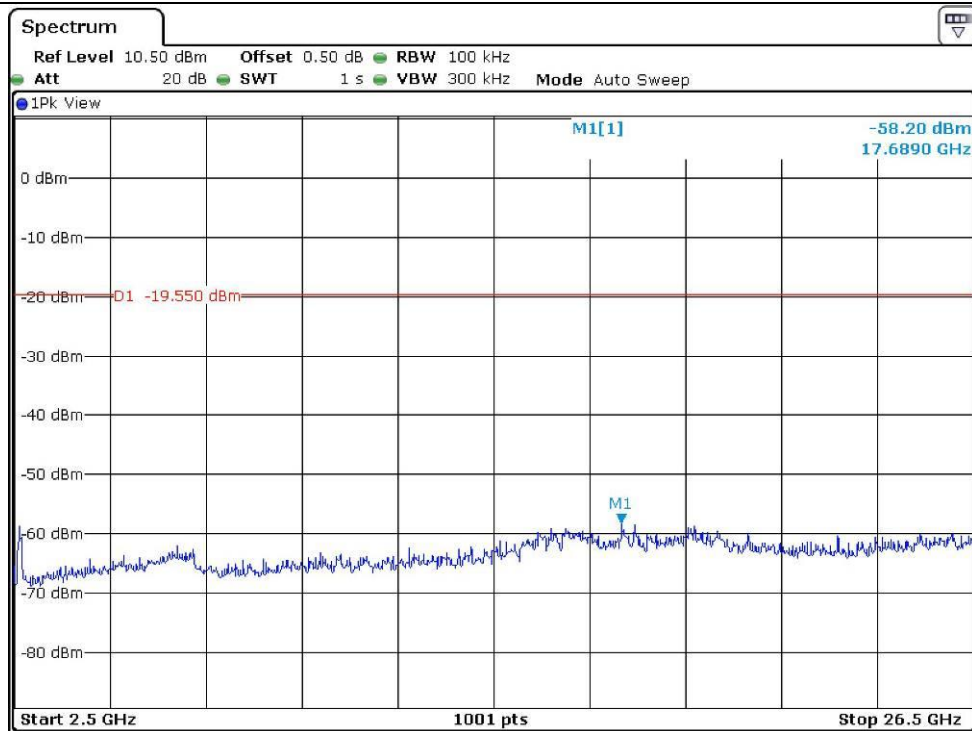
Middle Channel



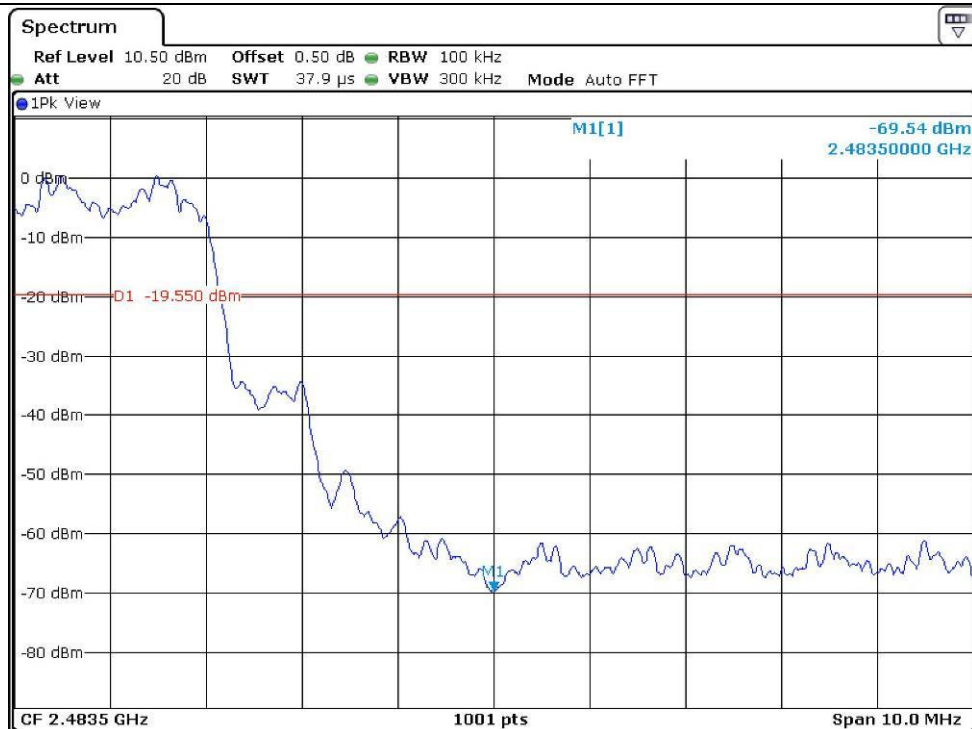
### High Channel



### High Channel

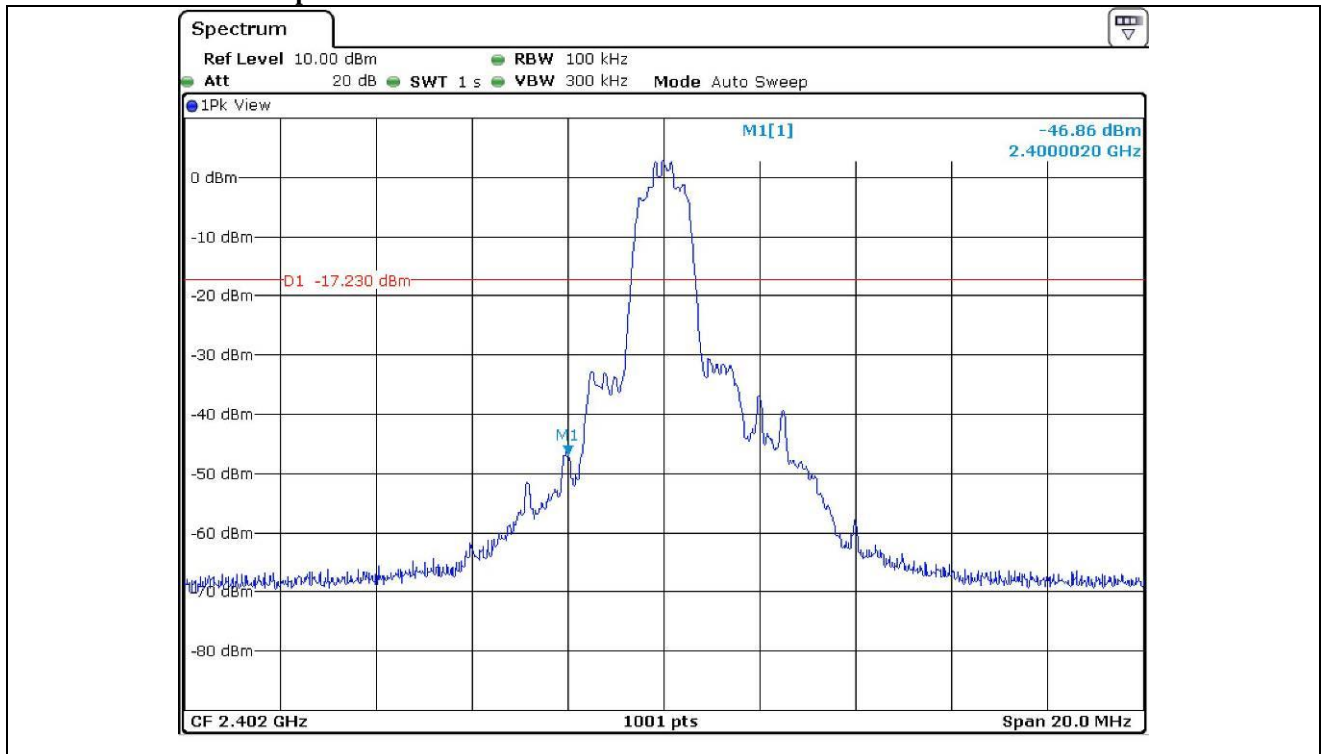


High Channel

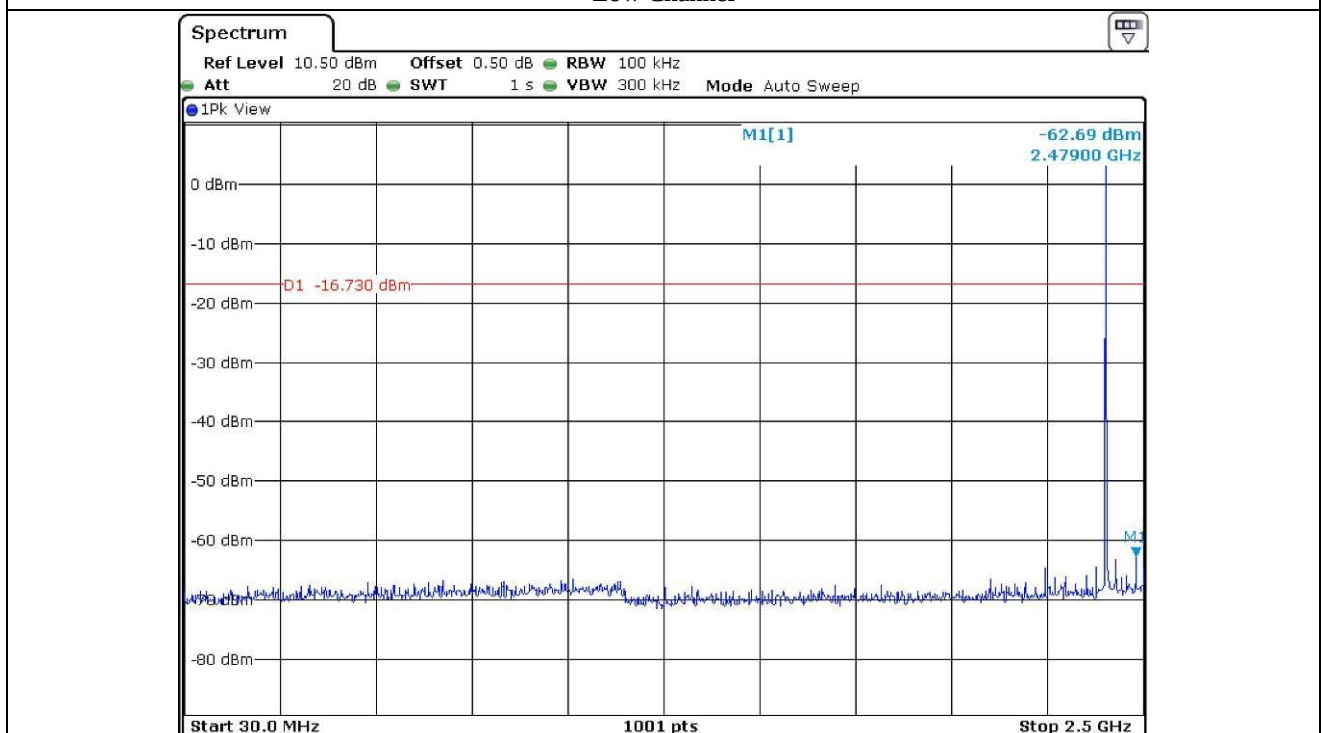


High Channel

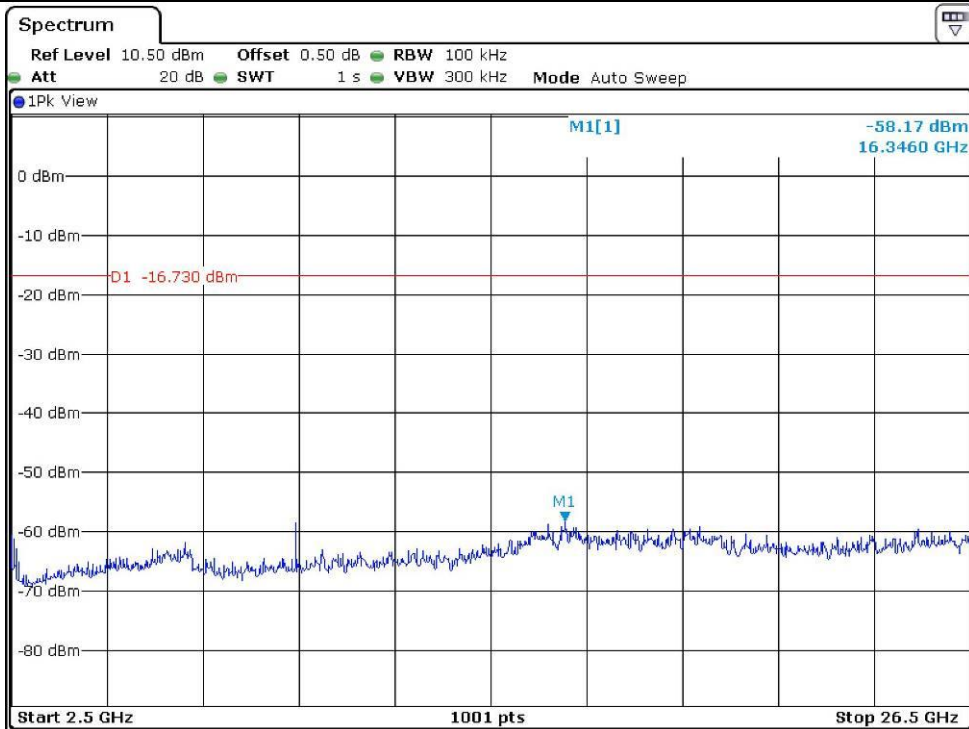
### 12.5.3 Test data for 3 Mbps



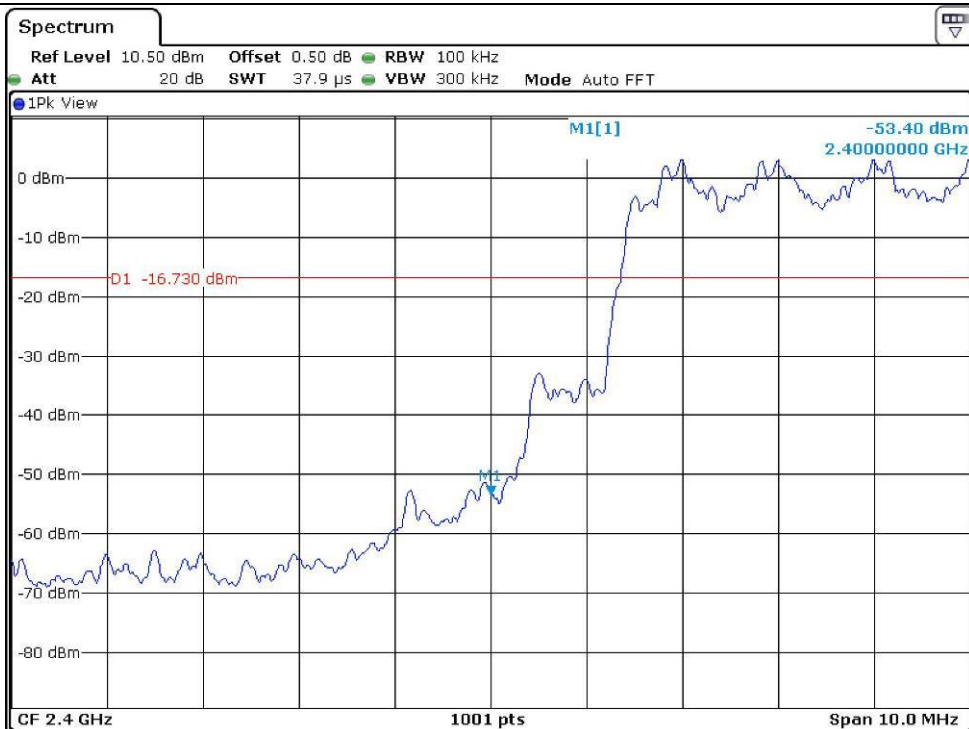
#### Low Channel



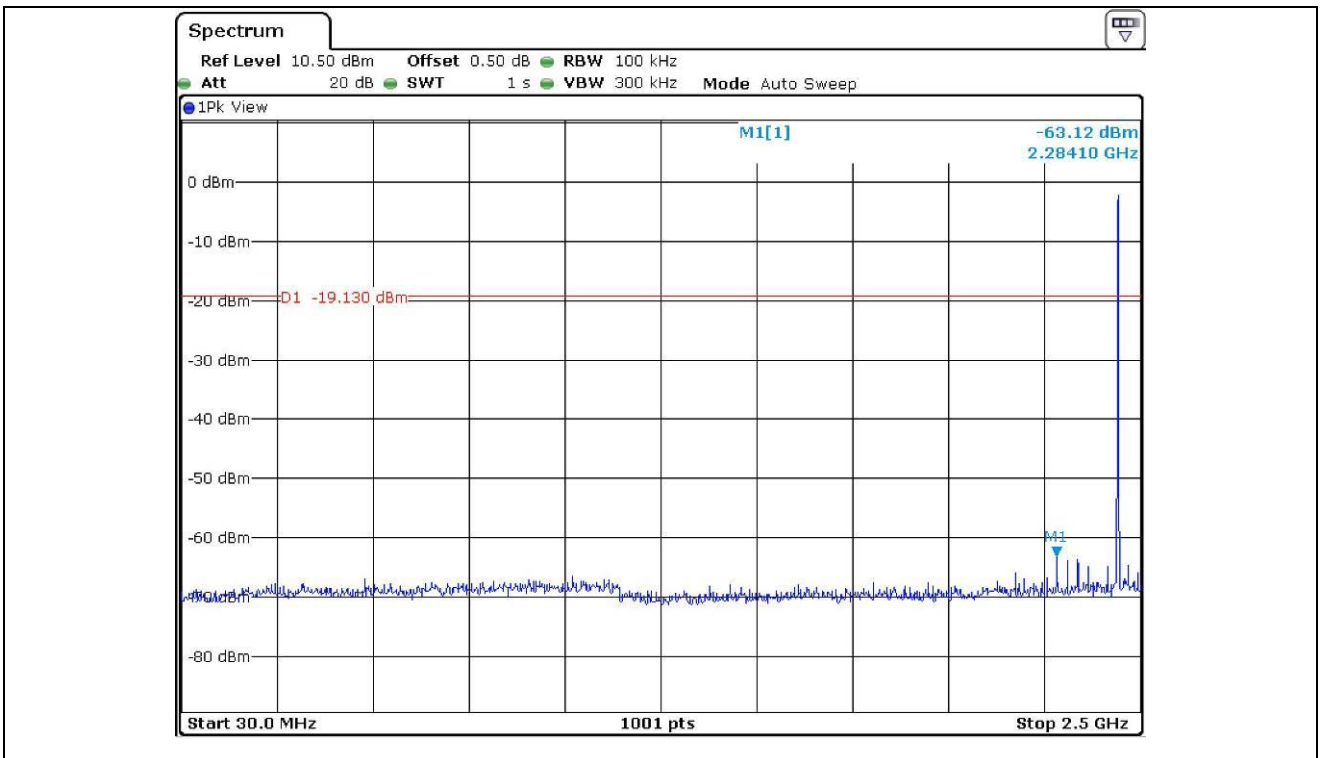
#### Low Channel



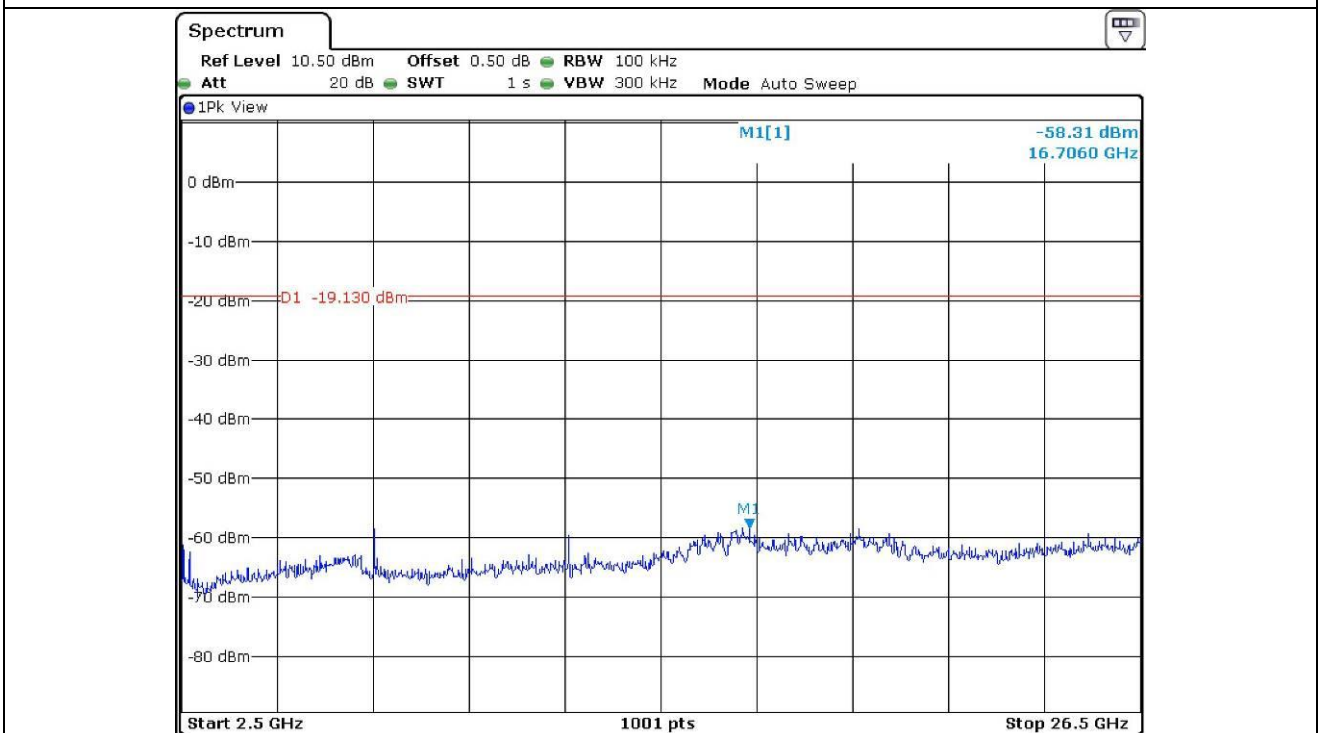
Low Channel



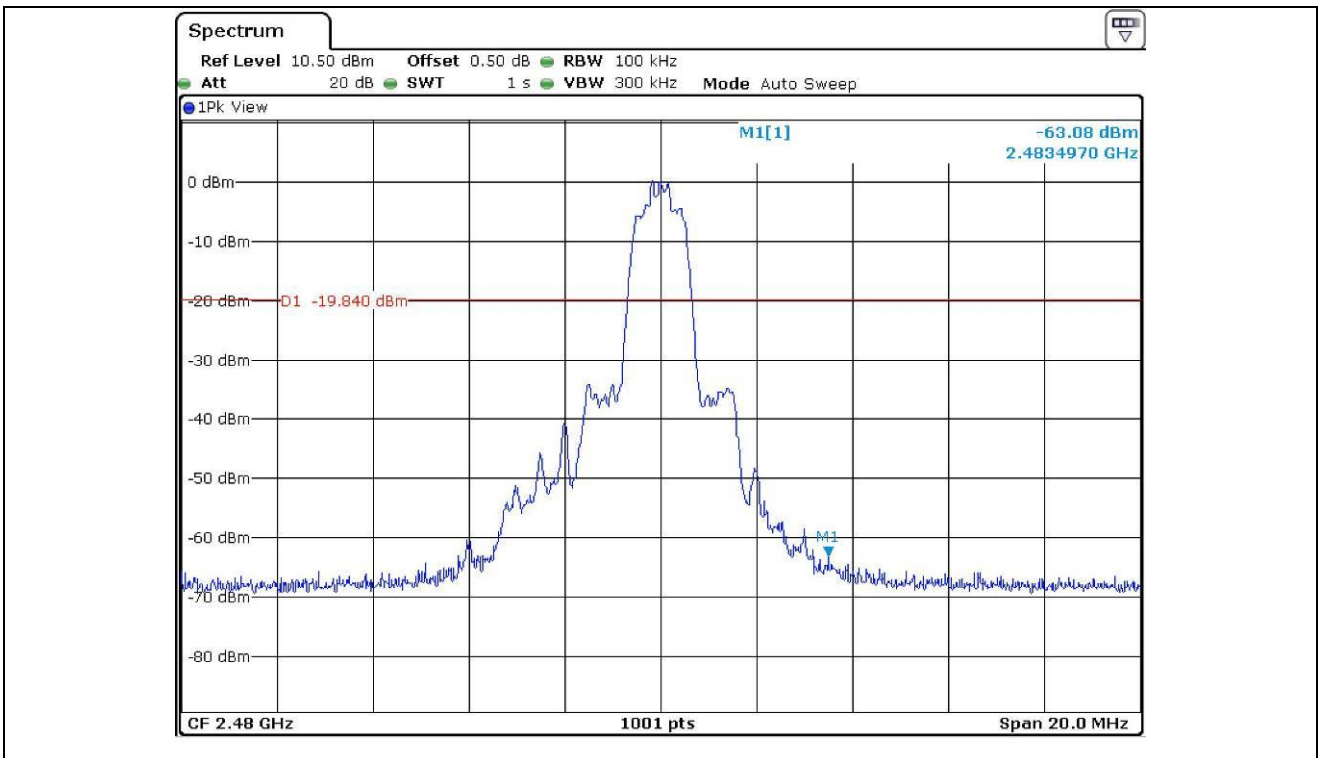
Low Channel



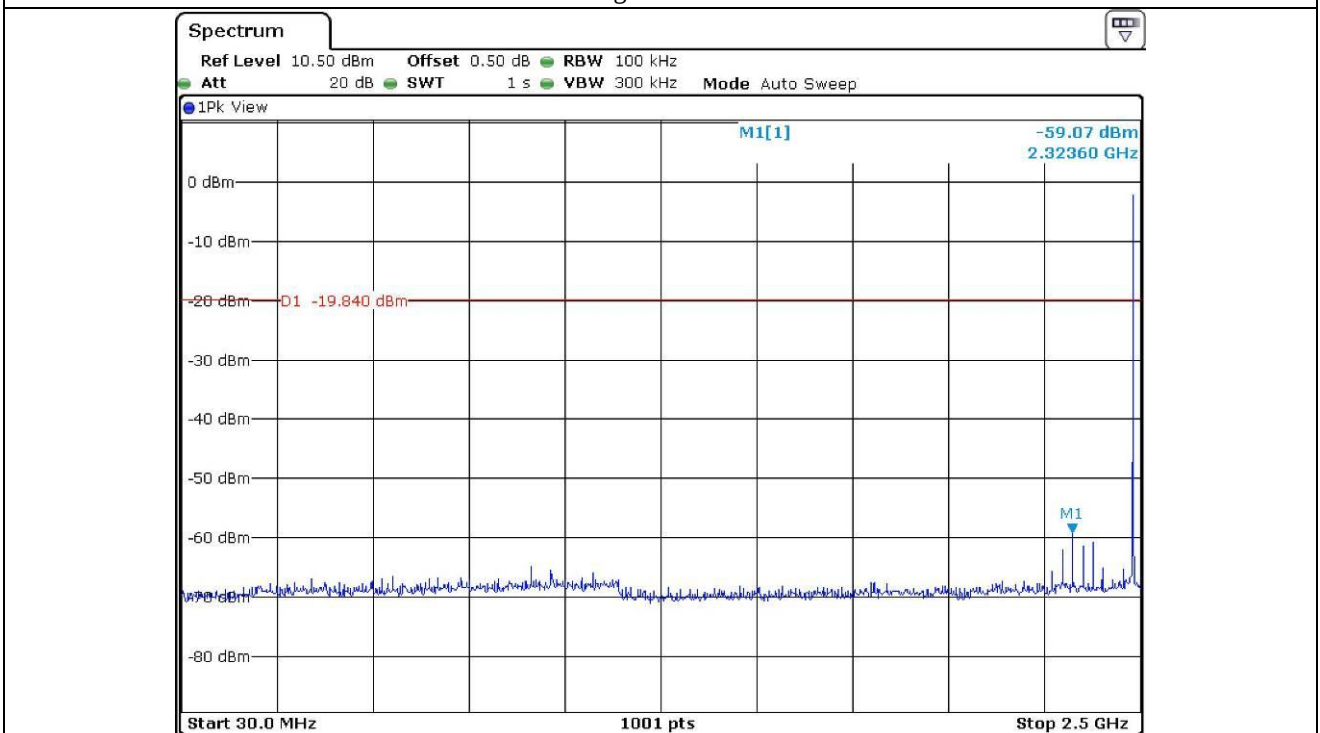
Middle Channel



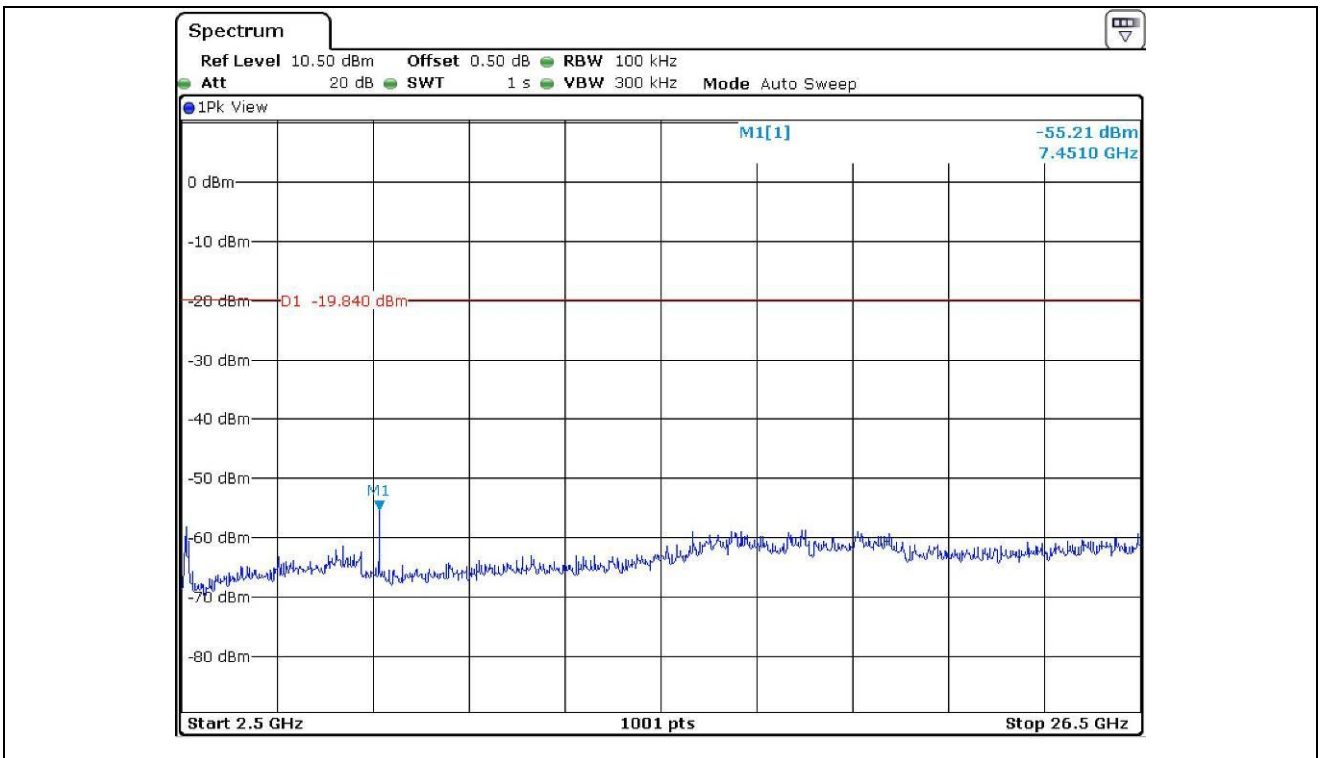
Middle Channel



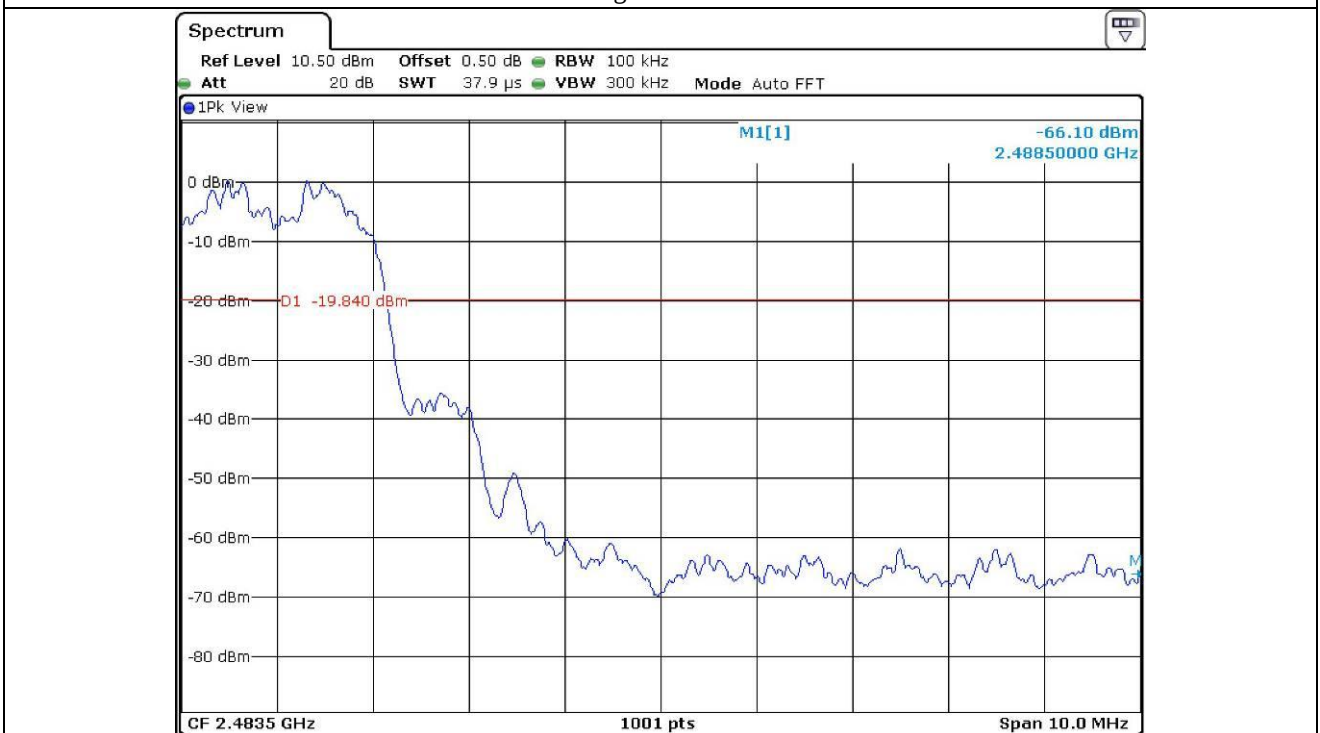
High Channel



High Channel



### High Channel



### High Channel

## 12.6 Test data for Transmitting mode radiated emission

### 12.6.1 Radiated Emission which fall in the Restricted Band

#### 12.6.1.1 Test data for 1 Mbps

- . Test Date : January 14, 2015
- . Resolution bandwidth : 1 MHz for Peak and Average Mode
- . Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- . Measurement distance : 3 m
- . Operating Condition : Highest Output Power Transmitting Mode(Low Channel and High Channel)
- . Result : PASSED

| Frequency<br>(MHz)         | Reading<br>(dBμV) | Detector<br>Mode | Ant. Pol.<br>(H/V) | Ant.<br>Factor | Cable<br>Loss | Amp<br>Gain | Total<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|----------------------------|-------------------|------------------|--------------------|----------------|---------------|-------------|-------------------|--------------------|----------------|
| Test Data for Low Channel  |                   |                  |                    |                |               |             |                   |                    |                |
| 2 389.48                   | 48.20             | Peak             | H                  | 27.10          | 7.50          | 43.00       | 39.80             | 74.00              | 34.20          |
|                            | 34.69             | Average          | H                  |                |               |             | 26.29             | 54.00              | 27.71          |
| 2 388.15                   | 47.98             | Peak             | V                  |                |               |             | 39.58             | 74.00              | 34.42          |
|                            | 34.35             | Average          | V                  |                |               |             | 25.95             | 54.00              | 28.05          |
| Test Data for High Channel |                   |                  |                    |                |               |             |                   |                    |                |
| 2 483.50                   | 48.27             | Peak             | H                  | 27.10          | 7.50          | 43.00       | 39.87             | 74.00              | 34.13          |
|                            | 33.58             | Average          | H                  |                |               |             | 25.18             | 54.00              | 28.82          |
| 2 489.42                   | 48.32             | Peak             | V                  |                |               |             | 39.92             | 74.00              | 34.08          |
|                            | 33.98             | Average          | V                  |                |               |             | 25.58             | 54.00              | 28.42          |

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical



Tested by: Tae-Ho, Kim / Project Engineer

### 12.6.1.2 Test data for 2 Mbps

- . Test Date : January 14, 2015
- . Resolution bandwidth : 1 MHz for Peak and Average Mode
- . Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- . Measurement distance : 3 m
- . Operating Condition : Highest Output Power Transmitting Mode(Low Channel and High Channel)
- . Result : PASSED

| Frequency<br>(MHz)         | Reading<br>(dBμV) | Detector<br>Mode | Ant. Pol.<br>(H/V) | Ant.<br>Factor | Cable<br>Loss | Amp<br>Gain | Total<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|----------------------------|-------------------|------------------|--------------------|----------------|---------------|-------------|-------------------|--------------------|----------------|
| Test Data for Low Channel  |                   |                  |                    |                |               |             |                   |                    |                |
| 2 384.67                   | 47.92             | Peak             | H                  | 27.10          | 7.50          | 43.00       | 39.52             | 74.00              | 34.48          |
|                            | 33.72             | Average          | H                  |                |               |             | 25.32             | 54.00              | 28.68          |
| 2 389.27                   | 48.08             | Peak             | V                  |                |               |             | 39.68             | 74.00              | 34.32          |
|                            | 33.89             | Average          | V                  |                |               |             | 25.49             | 54.00              | 28.51          |
| Test Data for High Channel |                   |                  |                    |                |               |             |                   |                    |                |
| 2 485.84                   | 47.28             | Peak             | H                  | 27.10          | 7.50          | 43.00       | 38.88             | 74.00              | 35.12          |
|                            | 34.35             | Average          | H                  |                |               |             | 25.95             | 54.00              | 28.05          |
| 2 484.11                   | 47.62             | Peak             | V                  |                |               |             | 39.22             | 74.00              | 34.78          |
|                            | 34.09             | Average          | V                  |                |               |             | 25.69             | 54.00              | 28.31          |

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical



Tested by: Tae-Ho, Kim / Project Engineer

### 12.6.1.3 Test data for 3 Mbps

- . Test Date : January 14, 2015
- . Resolution bandwidth : 1 MHz for Peak and Average Mode
- . Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- . Measurement distance : 3 m
- . Operating Condition : Highest Output Power Transmitting Mode(Low Channel and High Channel)
- . Result : PASSED

| Frequency<br>(MHz)         | Reading<br>(dBμV) | Detector<br>Mode | Ant. Pol.<br>(H/V) | Ant.<br>Factor | Cable<br>Loss | Amp<br>Gain | Total<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|----------------------------|-------------------|------------------|--------------------|----------------|---------------|-------------|-------------------|--------------------|----------------|
| Test Data for Low Channel  |                   |                  |                    |                |               |             |                   |                    |                |
| 2 389.91                   | 47.45             | Peak             | H                  | 27.10          | 7.50          | 43.00       | 39.05             | 74.00              | 34.95          |
|                            | 33.89             | Average          | H                  |                |               |             | 25.49             | 54.00              | 28.51          |
| 2 386.62                   | 47.35             | Peak             | V                  |                |               |             | 38.95             | 74.00              | 35.05          |
|                            | 33.92             | Average          | V                  |                |               |             | 25.52             | 54.00              | 28.48          |
| Test Data for High Channel |                   |                  |                    |                |               |             |                   |                    |                |
| 2 491.51                   | 47.52             | Peak             | H                  | 27.10          | 7.50          | 43.00       | 39.12             | 74.00              | 34.88          |
|                            | 33.85             | Average          | H                  |                |               |             | 25.45             | 54.00              | 28.55          |
| 2 489.58                   | 47.34             | Peak             | V                  |                |               |             | 38.94             | 74.00              | 35.06          |
|                            | 33.61             | Average          | V                  |                |               |             | 25.21             | 54.00              | 28.79          |

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical



Tested by: Tae-Ho, Kim / Project Engineer

## 12.6.2 Spurious & Harmonic Radiated Emission above 1 GHz

### 12.6.2.1 Test data for 1 Mbps

- . Test Date : January 14, 2015
- . Resolution bandwidth : 1 MHz for Peak and Average Mode for the emissions fall in restricted band,  
100 kHz for Peak Mode for the emissions outside restricted band
- . Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- . Frequency range : 1 GHz ~ 26.5 GHz
- . Measurement distance : 3 m
- . Operating Condition : Highest Output Power Transmitting Mode
- . Result : PASSED

| Frequency<br>(GHz)           | Reading<br>(dBμV) | Detector<br>Mode | Ant. Pol.<br>(H/V) | Ant.<br>Factor | Cable<br>Loss | Amp<br>Gain | Total<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|------------------------------|-------------------|------------------|--------------------|----------------|---------------|-------------|-------------------|--------------------|----------------|
| Test Data for Low Channel    |                   |                  |                    |                |               |             |                   |                    |                |
| 2 402.00                     | 93.04             | Peak             | H                  | 27.00          | 7.50          | 42.80       | 84.74             | -                  | 84.74          |
|                              | 93.55             | Peak             | V                  |                |               |             | 85.25             | -                  | 85.25          |
| 4 804.00                     | 50.51             | Peak             | H                  | 30.60          | 11.10         | 42.50       | 49.71             | 74.00              | 24.29          |
|                              | 39.11             | Average          | H                  |                |               |             | 38.31             | 54.00              | 15.69          |
|                              | 50.38             | Peak             | V                  |                |               |             | 49.58             | 74.00              | 24.42          |
|                              | 38.84             | Average          | V                  |                |               |             | 38.04             | 54.00              | 15.96          |
| Test Data for Middle Channel |                   |                  |                    |                |               |             |                   |                    |                |
| 2 441.00                     | 92.97             | Peak             | H                  | 27.20          | 7.60          | 42.80       | 84.97             | -                  | 84.97          |
|                              | 93.10             | Peak             | V                  |                |               |             | 85.10             | -                  | 85.10          |
| 4 882.00                     | 50.15             | Peak             | H                  | 30.70          | 11.20         | 42.50       | 49.55             | 74.00              | 24.45          |
|                              | 39.84             | Average          | H                  |                |               |             | 39.24             | 54.00              | 14.76          |
|                              | 50.05             | Peak             | V                  |                |               |             | 49.45             | 74.00              | 24.55          |
|                              | 39.24             | Average          | V                  |                |               |             | 38.64             | 54.00              | 15.36          |

| Test Data for High Channel |       |         |   |       |       |       |       |       |       |
|----------------------------|-------|---------|---|-------|-------|-------|-------|-------|-------|
| 2 480.00                   | 93.90 | Peak    | H | 27.40 | 7.70  | 42.90 | 86.10 | -     | 86.10 |
|                            | 94.28 | Peak    | V |       |       |       | 86.48 | -     | 86.48 |
| 4 960.00                   | 50.35 | Peak    | H | 30.80 | 11.30 | 42.50 | 49.95 | 74.00 | 24.05 |
|                            | 38.26 | Average | H |       |       |       | 37.86 | 54.00 | 16.14 |
|                            | 48.31 | Peak    | V |       |       |       | 47.91 | 74.00 | 26.09 |
|                            | 39.92 | Average | V |       |       |       | 39.52 | 54.00 | 14.48 |

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical, "\*" Frequency fall in restricted band



Tested by: Tae-Ho, Kim / Project Engineer

### 12.6.2.2 Test data for 2 Mbps

- Test Date : January 14, 2015
- Resolution bandwidth : 1 MHz for Peak and Average Mode for the emissions fall in restricted band,  
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Operating Condition : Highest Output Power Transmitting Mode
- Result : PASSED

| Frequency<br>(GHz)           | Reading<br>(dBμV) | Detector<br>Mode | Ant. Pol.<br>(H/V) | Ant.<br>Factor | Cable<br>Loss | Amp<br>Gain | Total<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|------------------------------|-------------------|------------------|--------------------|----------------|---------------|-------------|-------------------|--------------------|----------------|
| Test Data for Low Channel    |                   |                  |                    |                |               |             |                   |                    |                |
| 2 402.00                     | 89.38             | Peak             | H                  | 27.00          | 7.50          | 42.80       | 81.08             | -                  | 81.08          |
|                              | 90.22             | Peak             | V                  |                |               |             | 81.92             | -                  | 81.92          |
| 4 804.00                     | 48.35             | Peak             | H                  | 30.60          | 11.10         | 42.50       | 47.55             | 74.00              | 26.45          |
|                              | 34.80             | Average          | H                  |                |               |             | 34.00             | 54.00              | 20.00          |
|                              | 48.64             | Peak             | V                  |                |               |             | 47.84             | 74.00              | 26.16          |
|                              | 34.59             | Average          | V                  |                |               |             | 33.79             | 54.00              | 20.21          |
| Test Data for Middle Channel |                   |                  |                    |                |               |             |                   |                    |                |
| 2 441.00                     | 89.22             | Peak             | H                  | 27.20          | 7.60          | 42.80       | 81.22             | -                  | 81.22          |
|                              | 90.39             | Peak             | V                  |                |               |             | 82.39             | -                  | 82.39          |
| 4 882.00                     | 48.37             | Peak             | H                  | 30.70          | 11.20         | 42.50       | 47.77             | 74.00              | 26.23          |
|                              | 34.84             | Average          | H                  |                |               |             | 34.24             | 54.00              | 19.76          |
|                              | 47.99             | Peak             | V                  |                |               |             | 47.39             | 74.00              | 26.61          |
|                              | 34.95             | Average          | V                  |                |               |             | 34.35             | 54.00              | 19.65          |

| Test Data for High Channel |       |         |   |       |       |       |       |       |       |
|----------------------------|-------|---------|---|-------|-------|-------|-------|-------|-------|
| 2 480.00                   | 89.20 | Peak    | H | 27.40 | 7.70  | 42.90 | 81.40 |       | 81.40 |
|                            | 90.06 | Peak    | V |       |       |       | 82.26 |       | 82.26 |
| 4 960.00                   | 48.29 | Peak    | H | 30.80 | 11.30 | 42.50 | 47.89 | 74.00 | 26.11 |
|                            | 34.52 | Average | H |       |       |       | 34.12 | 54.00 | 19.88 |
|                            | 48.98 | Peak    | V |       |       |       | 48.58 | 74.00 | 25.42 |
|                            | 34.68 | Average | V |       |       |       | 34.28 | 54.00 | 19.72 |

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical, "\*" Frequency fall in restricted band



Tested by: Tae-Ho, Kim / Project Engineer

### 12.6.2.3 Test data for 3 Mbps

- Test Date : January 14, 2015
- Resolution bandwidth : 1 MHz for Peak and Average Mode for the emissions fall in restricted band,  
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Operating Condition : Highest Output Power Transmitting Mode
- Result : PASSED

| Frequency<br>(GHz)           | Reading<br>(dBμV) | Detector<br>Mode | Ant. Pol.<br>(H/V) | Ant.<br>Factor | Cable<br>Loss | Amp<br>Gain | Total<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|------------------------------|-------------------|------------------|--------------------|----------------|---------------|-------------|-------------------|--------------------|----------------|
| Test Data for Low Channel    |                   |                  |                    |                |               |             |                   |                    |                |
| 2 402.00                     | 89.47             | Peak             | H                  | 27.00          | 7.50          | 42.80       | 81.17             | -                  | 81.17          |
|                              | 90.24             | Peak             | V                  |                |               |             | 81.94             | -                  | 81.94          |
| 4 804.00                     | 48.21             | Peak             | H                  | 30.60          | 11.10         | 42.50       | 47.41             | 74.00              | 26.59          |
|                              | 34.68             | Average          | H                  |                |               |             | 33.88             | 54.00              | 20.12          |
|                              | 48.30             | Peak             | V                  |                |               |             | 47.50             | 74.00              | 26.50          |
|                              | 34.52             | Average          | V                  |                |               |             | 33.72             | 54.00              | 20.28          |
| Test Data for Middle Channel |                   |                  |                    |                |               |             |                   |                    |                |
| 2 441.00                     | 89.24             | Peak             | H                  | 27.20          | 7.60          | 42.80       | 81.24             | -                  | 81.24          |
|                              | 89.07             | Peak             | V                  |                |               |             | 81.07             | -                  | 81.07          |
| 4 882.00                     | 48.06             | Peak             | H                  | 30.70          | 11.20         | 42.50       | 47.46             | 74.00              | 26.54          |
|                              | 34.38             | Average          | H                  |                |               |             | 33.78             | 54.00              | 20.22          |
|                              | 48.25             | Peak             | V                  |                |               |             | 47.65             | 74.00              | 26.35          |
|                              | 34.27             | Average          | V                  |                |               |             | 33.67             | 54.00              | 20.33          |

| Test Data for High Channel |       |         |   |       |       |       |       |       |       |
|----------------------------|-------|---------|---|-------|-------|-------|-------|-------|-------|
| 2 480.00                   | 89.36 | Peak    | H | 27.40 | 7.70  | 42.90 | 81.56 | -     | 81.56 |
|                            | 89.22 | Peak    | V |       |       |       | 81.42 | -     | 81.42 |
| 4 960.00                   | 48.58 | Peak    | H | 30.80 | 11.30 | 42.50 | 48.18 | 74.00 | 25.82 |
|                            | 34.85 | Average | H |       |       |       | 34.45 | 54.00 | 19.55 |
|                            | 48.64 | Peak    | V |       |       |       | 48.24 | 74.00 | 25.76 |
|                            | 34.59 | Average | V |       |       |       | 34.19 | 54.00 | 19.81 |

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical, "\*" Frequency fall in restricted band



Tested by: Tae-Ho, Kim / Project Engineer

### 12.6.3 Spurious Radiated Emission

#### 12.6.3.1 Test Data for 1 Mbps

##### 12.6.3.1.1 Test Data for 30 MHz ~ 1 000 MHz

Humidity Level : (45 ~ 46) % R.H.

Temperature: (24 ~ 25) °C

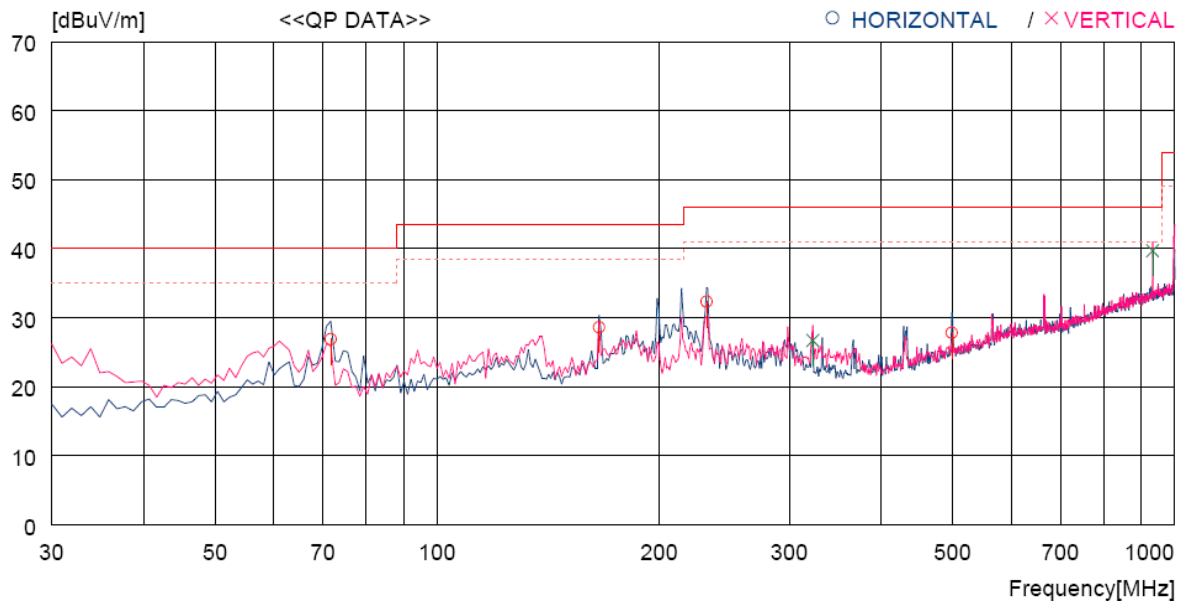
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

Result : PASSED

EUT : Pocket Photo

Date: January 14, 2015

Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)



| No.                    | FREQ<br>[MHz] | READING<br>QP<br>[dBuV] | ANT<br>FACTOR<br>[dB] | LOSS<br>[dB] | GAIN<br>[dB] | RESULT<br>[dBuV/m] | LIMIT<br>[dBuV/m] | MARGIN<br>[dB] | ANTENNA<br>[cm] | TABLE<br>[DEG] |
|------------------------|---------------|-------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- |               |                         |                       |              |              |                    |                   |                |                 |                |
| 1                      | 71.710        | 42.5                    | 9.9                   | 7.6          | 33.1         | 26.9               | 40.0              | 13.1           | 300             | 158            |
| 2                      | 165.800       | 43.5                    | 9.5                   | 8.6          | 33.0         | 28.6               | 43.5              | 14.9           | 100             | 81             |
| 3                      | 231.760       | 43.1                    | 13.1                  | 9.1          | 33.0         | 32.3               | 46.0              | 13.7           | 100             | 88             |
| 4                      | 498.511       | 31.9                    | 18.4                  | 10.6         | 33.1         | 27.8               | 46.0              | 18.2           | 100             | 0              |
| ----- Vertical -----   |               |                         |                       |              |              |                    |                   |                |                 |                |
| 5                      | 322.940       | 34.8                    | 15.3                  | 9.6          | 33.0         | 26.7               | 46.0              | 19.3           | 100             | 286            |
| 6                      | 933.058       | 35.8                    | 23.6                  | 12.5         | 32.2         | 39.7               | 46.0              | 6.3            | 100             | 359            |

Tested by: Tae-Ho, Kim / Project Engineer

### 12.6.3.1.2 Test Data for Below 30 MHz

- . Test Date : January 14, 2015
- . Resolution bandwidth : 200 Hz (from 9 kHz to 0.15 MHz), 9 kHz (from 0.15 MHz to 30 MHz)
- . Frequency range : 9 kHz ~ 30 MHz
- . Measurement distance : 3 m
- . Operating Condition : Highest Output Power Transmitting Mode
- . Result : PASSED

| Frequency<br>(MHz)                              | Reading<br>(dBμV) | Ant. Pol.<br>(H/V) | Ant. Factor<br>(dB/m) | Cable<br>Loss | Amp<br>Gain | Emission<br>Level(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|-------------------------------------------------|-------------------|--------------------|-----------------------|---------------|-------------|---------------------------|--------------------|----------------|
| It was not observed any emissions from the EUT. |                   |                    |                       |               |             |                           |                    |                |



Tested by: Tae-Ho, Kim / Project Engineer

### 12.6.3.2 Test Data for 2 Mbps

#### 12.6.3.2.1 Test Data for 30 MHz ~ 1 000 MHz

Humidity Level : (45 ~ 46) % R.H.

Temperature: (24 ~ 25) °C

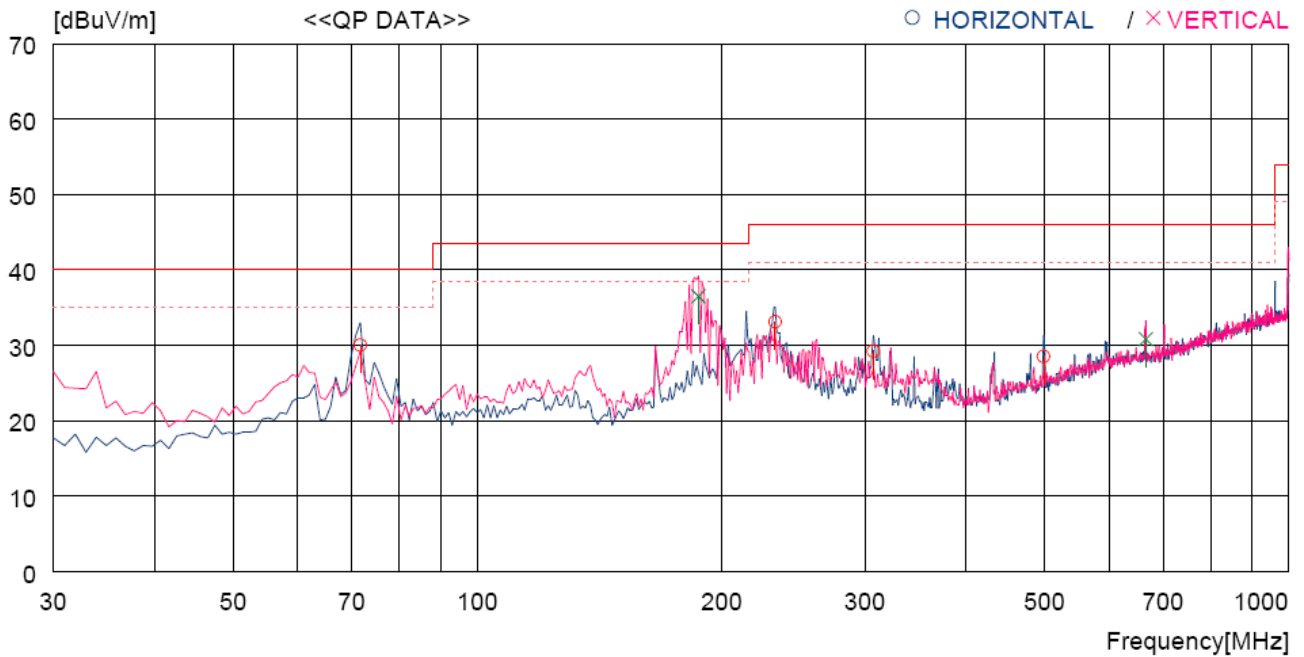
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

Result : PASSED

EUT : Pocket Photo

Date: January 14, 2015

Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)



| No.                    | FREQ    | READING | ANT    | LOSS | GAIN | RESULT   | LIMIT    | MARGIN | ANTENNA | TABLE |
|------------------------|---------|---------|--------|------|------|----------|----------|--------|---------|-------|
|                        | [MHz]   | QP      | FACTOR | [dB] | [dB] | [dBuV/m] | [dBuV/m] | [dB]   | [cm]    | [DEG] |
| ----- Horizontal ----- |         |         |        |      |      |          |          |        |         |       |
| 1                      | 71.710  | 45.6    | 9.9    | 7.6  | 33.1 | 30.0     | 40.0     | 10.0   | 300     | 352   |
| 2                      | 232.730 | 43.9    | 13.1   | 9.1  | 33.0 | 33.1     | 46.0     | 12.9   | 100     | 82    |
| 3                      | 307.420 | 37.8    | 14.9   | 9.5  | 33.0 | 29.2     | 46.0     | 16.8   | 200     | 193   |
| 4                      | 498.511 | 32.6    | 18.4   | 10.6 | 33.1 | 28.5     | 46.0     | 17.5   | 100     | 359   |
| ----- Vertical -----   |         |         |        |      |      |          |          |        |         |       |
| 5                      | 187.140 | 50.1    | 10.7   | 8.7  | 33.0 | 36.5     | 43.5     | 7.0    | 200     | 359   |
| 6                      | 666.316 | 32.1    | 20.6   | 11.4 | 33.3 | 30.8     | 46.0     | 15.2   | 100     | 0     |

Tested by: Tae-Ho, Kim / Project Engineer

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EMC-002 (Rev.3)

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EMC Testing Div : 307-51 Daessangnyeong-ri, Chowol-eup, Gwangju-si, Gyeonggi-do 464-862 Korea (TEL: 82-31-765-8289, FAX: 82-31-766-2904)

### 12.6.3.2.2 Test Data for Below 30 MHz

- . Test Date : January 14, 2015
- . Resolution bandwidth : 200 Hz (from 9 kHz to 0.15 MHz), 9 kHz (from 0.15 MHz to 30 MHz)
- . Frequency range : 9 kHz ~ 30 MHz
- . Measurement distance : 3 m
- . Operating Condition : Highest Output Power Transmitting Mode
- . Result : PASSED

| Frequency<br>(MHz)                              | Reading<br>(dBμV) | Ant. Pol.<br>(H/V) | Ant. Factor<br>(dB/m) | Cable<br>Loss | Amp<br>Gain | Emission<br>Level(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|-------------------------------------------------|-------------------|--------------------|-----------------------|---------------|-------------|---------------------------|--------------------|----------------|
| It was not observed any emissions from the EUT. |                   |                    |                       |               |             |                           |                    |                |



Tested by: Tae-Ho, Kim / Project Engineer

### 12.6.3.3 Test Data for 3 Mbps

#### 12.6.3.3.1 Test Data for 30 MHz ~ 1 000 MHz

Humidity Level : (45 ~ 46) % R.H.

Temperature: (24 ~ 25) °C

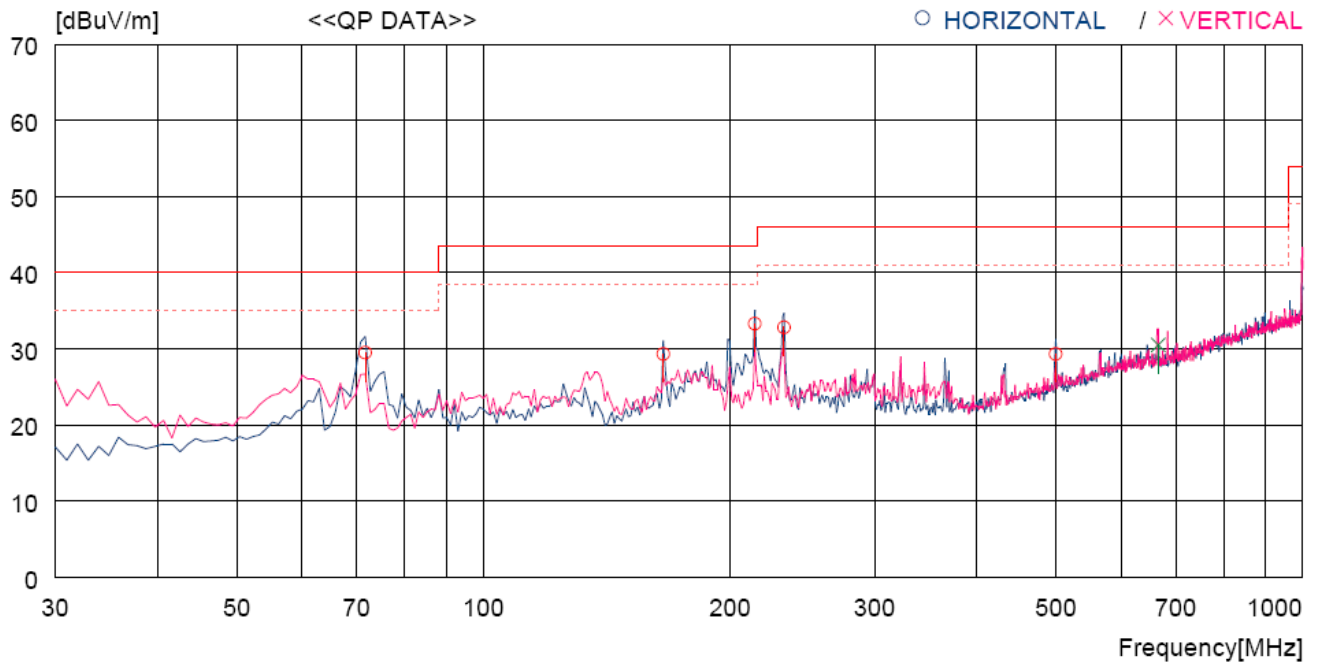
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

Result : PASSED

EUT : Pocket Photo

Date: January 14, 2015

Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)



| No.                    | FREQ    | READING | ANT    | LOSS | GAIN | RESULT   | LIMIT    | MARGIN | ANTENNA | TABLE |
|------------------------|---------|---------|--------|------|------|----------|----------|--------|---------|-------|
|                        | [MHz]   | [dBuV]  | FACTOR | [dB] | [dB] | [dBuV/m] | [dBuV/m] | [dB]   | [cm]    | [DEG] |
| ----- Horizontal ----- |         |         |        |      |      |          |          |        |         |       |
| 1                      | 71.710  | 45.1    | 9.9    | 7.6  | 33.1 | 29.5     | 40.0     | 10.5   | 300     | 359   |
| 2                      | 165.800 | 44.2    | 9.5    | 8.6  | 33.0 | 29.3     | 43.5     | 14.2   | 100     | 216   |
| 3                      | 214.300 | 44.7    | 12.7   | 8.9  | 33.0 | 33.3     | 43.5     | 10.2   | 100     | 89    |
| 4                      | 232.730 | 43.6    | 13.1   | 9.1  | 33.0 | 32.8     | 46.0     | 13.2   | 100     | 359   |
| 5                      | 499.481 | 33.4    | 18.4   | 10.6 | 33.1 | 29.3     | 46.0     | 16.7   | 100     | 118   |
| ----- Vertical -----   |         |         |        |      |      |          |          |        |         |       |
| 6                      | 666.316 | 31.8    | 20.6   | 11.4 | 33.3 | 30.5     | 46.0     | 15.5   | 100     | 0     |

Tested by: Tae-Ho, Kim / Project Engineer

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EMC Testing Div : 307-51 Daessangnyeong-ri, Chowol-eup, Gwangju-si, Gyeonggi-do 464-862 Korea (TEL: 82-31-765-8289, FAX: 82-31-766-2904)

### 12.6.3.3.2 Test Data for Below 30 MHz

- . Test Date : January 14, 2015
- . Resolution bandwidth : 200 Hz (from 9 kHz to 0.15 MHz), 9 kHz (from 0.15 MHz to 30 MHz)
- . Frequency range : 9 kHz ~ 30 MHz
- . Measurement distance : 3 m
- . Operating Condition : Highest Output Power Transmitting Mode
- . Result : PASSED

| Frequency<br>(MHz)                              | Reading<br>(dBμV) | Ant. Pol.<br>(H/V) | Ant. Factor<br>(dB/m) | Cable<br>Loss | Amp<br>Gain | Emission<br>Level(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|-------------------------------------------------|-------------------|--------------------|-----------------------|---------------|-------------|---------------------------|--------------------|----------------|
| It was not observed any emissions from the EUT. |                   |                    |                       |               |             |                           |                    |                |



Tested by: Tae-Ho, Kim / Project Engineer

## 12.7 Test data for Charging & Transmitting mode radiated emission

### 12.7.1 Radiated Emission which fall in the Restricted Band

#### 12.7.1.1 Test data for 1 Mbps

- . Test Date : January 14, 2015
- . Resolution bandwidth : 1 MHz for Peak and Average Mode
- . Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- . Measurement distance : 3 m
- . Operating Condition : Highest Output Power Transmitting Mode(Low Channel and High Channel)
- . Result : PASSED

| Frequency<br>(MHz)         | Reading<br>(dBμV) | Detector<br>Mode | Ant. Pol.<br>(H/V) | Ant.<br>Factor | Cable<br>Loss | Amp<br>Gain | Total<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|----------------------------|-------------------|------------------|--------------------|----------------|---------------|-------------|-------------------|--------------------|----------------|
| Test Data for Low Channel  |                   |                  |                    |                |               |             |                   |                    |                |
| 2 389.28                   | 48.12             | Peak             | H                  | 27.10          | 7.50          | 43.00       | 39.72             | 74.00              | 34.28          |
|                            | 34.52             | Average          | H                  |                |               |             | 26.12             | 54.00              | 27.88          |
| 2 388.32                   | 47.68             | Peak             | V                  |                |               |             | 39.28             | 74.00              | 34.72          |
|                            | 34.12             | Average          | V                  |                |               |             | 25.72             | 54.00              | 28.28          |
| Test Data for High Channel |                   |                  |                    |                |               |             |                   |                    |                |
| 2 483.77                   | 48.22             | Peak             | H                  | 27.10          | 7.50          | 43.00       | 39.82             | 74.00              | 34.18          |
|                            | 33.69             | Average          | H                  |                |               |             | 25.29             | 54.00              | 28.71          |
| 2 489.02                   | 48.29             | Peak             | V                  |                |               |             | 39.89             | 74.00              | 34.11          |
|                            | 33.25             | Average          | V                  |                |               |             | 24.85             | 54.00              | 29.15          |

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical



Tested by: Tae-Ho, Kim / Project Engineer

### 12.7.1.2 Test data for 2 Mbps

- . Test Date : January 14, 2015
- . Resolution bandwidth : 1 MHz for Peak and Average Mode
- . Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- . Measurement distance : 3 m
- . Operating Condition : Highest Output Power Transmitting Mode(Low Channel and High Channel)
- . Result : PASSED

| Frequency<br>(MHz)         | Reading<br>(dBμV) | Detector<br>Mode | Ant. Pol.<br>(H/V) | Ant.<br>Factor | Cable<br>Loss | Amp<br>Gain | Total<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|----------------------------|-------------------|------------------|--------------------|----------------|---------------|-------------|-------------------|--------------------|----------------|
| Test Data for Low Channel  |                   |                  |                    |                |               |             |                   |                    |                |
| 2 386.48                   | 47.84             | Peak             | H                  | 27.10          | 7.50          | 43.00       | 39.44             | 74.00              | 34.56          |
|                            | 33.68             | Average          | H                  |                |               |             | 25.28             | 54.00              | 28.72          |
| 2 388.65                   | 48.05             | Peak             | V                  |                |               |             | 39.65             | 74.00              | 34.35          |
|                            | 33.49             | Average          | V                  |                |               |             | 25.09             | 54.00              | 28.91          |
| Test Data for High Channel |                   |                  |                    |                |               |             |                   |                    |                |
| 2 487.28                   | 47.35             | Peak             | H                  | 27.10          | 7.50          | 43.00       | 38.95             | 74.00              | 35.05          |
|                            | 34.12             | Average          | H                  |                |               |             | 25.72             | 54.00              | 28.28          |
| 2 484.69                   | 47.58             | Peak             | V                  |                |               |             | 39.18             | 74.00              | 34.82          |
|                            | 34.26             | Average          | V                  |                |               |             | 25.86             | 54.00              | 28.14          |

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical



Tested by: Tae-Ho, Kim / Project Engineer

### 12.7.1.3 Test data for 3 Mbps

- . Test Date : January 14, 2015
- . Resolution bandwidth : 1 MHz for Peak and Average Mode
- . Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- . Measurement distance : 3 m
- . Operating Condition : Highest Output Power Transmitting Mode(Low Channel and High Channel)
- . Result : PASSED

| Frequency<br>(MHz)         | Reading<br>(dBμV) | Detector<br>Mode | Ant. Pol.<br>(H/V) | Ant.<br>Factor | Cable<br>Loss | Amp<br>Gain | Total<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|----------------------------|-------------------|------------------|--------------------|----------------|---------------|-------------|-------------------|--------------------|----------------|
| Test Data for Low Channel  |                   |                  |                    |                |               |             |                   |                    |                |
| 2 389.56                   | 47.21             | Peak             | H                  | 27.10          | 7.50          | 43.00       | 38.81             | 74.00              | 35.19          |
|                            | 33.59             | Average          | H                  |                |               |             | 25.19             | 54.00              | 28.81          |
| 2 389.68                   | 47.11             | Peak             | V                  |                |               |             | 38.71             | 74.00              | 35.29          |
|                            | 33.68             | Average          | V                  |                |               |             | 25.28             | 54.00              | 28.72          |
| Test Data for High Channel |                   |                  |                    |                |               |             |                   |                    |                |
| 2 490.54                   | 47.09             | Peak             | H                  | 27.10          | 7.50          | 43.00       | 38.69             | 74.00              | 35.31          |
|                            | 33.56             | Average          | H                  |                |               |             | 25.16             | 54.00              | 28.84          |
| 2 488.29                   | 47.56             | Peak             | V                  |                |               |             | 39.16             | 74.00              | 34.84          |
|                            | 33.86             | Average          | V                  |                |               |             | 25.46             | 54.00              | 28.54          |

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical



Tested by: Tae-Ho, Kim / Project Engineer

## 12.7.2 Spurious & Harmonic Radiated Emission above 1 GHz

### 12.7.2.1 Test data for 1 Mbps

- . Test Date : January 14, 2015
- . Resolution bandwidth : 1 MHz for Peak and Average Mode for the emissions fall in restricted band,  
100 kHz for Peak Mode for the emissions outside restricted band
- . Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- . Frequency range : 1 GHz ~ 26.5 GHz
- . Measurement distance : 3 m
- . Operating Condition : Highest Output Power Transmitting Mode
- . Result : PASSED

| Frequency<br>(GHz)           | Reading<br>(dBμV) | Detector<br>Mode | Ant. Pol.<br>(H/V) | Ant.<br>Factor | Cable<br>Loss | Amp<br>Gain | Total<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|------------------------------|-------------------|------------------|--------------------|----------------|---------------|-------------|-------------------|--------------------|----------------|
| Test Data for Low Channel    |                   |                  |                    |                |               |             |                   |                    |                |
| 2 402.00                     | 92.94             | Peak             | H                  | 27.00          | 7.50          | 42.80       | 84.64             | -                  | 84.64          |
|                              | 93.45             | Peak             | V                  |                |               |             | 85.15             | -                  | 85.15          |
| 4 804.00                     | 50.45             | Peak             | H                  | 30.60          | 11.10         | 42.50       | 49.65             | 74.00              | 24.35          |
|                              | 39.05             | Average          | H                  |                |               |             | 38.25             | 54.00              | 15.75          |
|                              | 50.35             | Peak             | V                  |                |               |             | 49.55             | 74.00              | 24.45          |
|                              | 38.61             | Average          | V                  |                |               |             | 37.81             | 54.00              | 16.19          |
| Test Data for Middle Channel |                   |                  |                    |                |               |             |                   |                    |                |
| 2 441.00                     | 92.85             | Peak             | H                  | 27.20          | 7.60          | 42.80       | 84.85             | -                  | 84.85          |
|                              | 93.01             | Peak             | V                  |                |               |             | 85.01             | -                  | 85.01          |
| 4 882.00                     | 50.05             | Peak             | H                  | 30.70          | 11.20         | 42.50       | 49.45             | 74.00              | 24.55          |
|                              | 39.77             | Average          | H                  |                |               |             | 39.17             | 54.00              | 14.83          |
|                              | 50.09             | Peak             | V                  |                |               |             | 49.49             | 74.00              | 24.51          |
|                              | 39.25             | Average          | V                  |                |               |             | 38.65             | 54.00              | 15.35          |

| Test Data for High Channel |       |         |   |       |       |       |       |       |       |
|----------------------------|-------|---------|---|-------|-------|-------|-------|-------|-------|
| 2 480.00                   | 93.81 | Peak    | H | 27.40 | 7.70  | 42.90 | 86.01 | -     | 86.01 |
|                            | 94.25 | Peak    | V |       |       |       | 86.45 | -     | 86.45 |
| 4 960.00                   | 50.31 | Peak    | H | 30.80 | 11.30 | 42.50 | 49.91 | 74.00 | 24.09 |
|                            | 38.24 | Average | H |       |       |       | 37.84 | 54.00 | 16.16 |
|                            | 48.22 | Peak    | V |       |       |       | 47.82 | 74.00 | 26.18 |
|                            | 39.84 | Average | V |       |       |       | 39.44 | 54.00 | 14.56 |

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical, "\*" Frequency fall in restricted band



Tested by: Tae-Ho, Kim / Project Engineer

### 12.7.2.2 Test data for 2 Mbps

- Test Date : January 14, 2015
- Resolution bandwidth : 1 MHz for Peak and Average Mode for the emissions fall in restricted band,  
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Operating Condition : Highest Output Power Transmitting Mode
- Result : PASSED

| Frequency<br>(GHz)           | Reading<br>(dBμV) | Detector<br>Mode | Ant. Pol.<br>(H/V) | Ant.<br>Factor | Cable<br>Loss | Amp<br>Gain | Total<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|------------------------------|-------------------|------------------|--------------------|----------------|---------------|-------------|-------------------|--------------------|----------------|
| Test Data for Low Channel    |                   |                  |                    |                |               |             |                   |                    |                |
| 2 402.00                     | 89.22             | Peak             | H                  | 27.00          | 7.50          | 42.80       | 80.92             | -                  | 80.92          |
|                              | 90.15             | Peak             | V                  |                |               |             | 81.85             | -                  | 81.85          |
| 4 804.00                     | 48.22             | Peak             | H                  | 30.60          | 11.10         | 42.50       | 47.42             | 74.00              | 26.58          |
|                              | 34.69             | Average          | H                  |                |               |             | 33.89             | 54.00              | 20.11          |
|                              | 48.59             | Peak             | V                  |                |               |             | 47.79             | 74.00              | 26.21          |
|                              | 34.51             | Average          | V                  |                |               |             | 33.71             | 54.00              | 20.29          |
| Test Data for Middle Channel |                   |                  |                    |                |               |             |                   |                    |                |
| 2 441.00                     | 89.13             | Peak             | H                  | 27.20          | 7.60          | 42.80       | 81.13             | -                  | 81.13          |
|                              | 90.35             | Peak             | V                  |                |               |             | 82.35             | -                  | 82.35          |
| 4 882.00                     | 48.35             | Peak             | H                  | 30.70          | 11.20         | 42.50       | 47.75             | 74.00              | 26.25          |
|                              | 34.95             | Average          | H                  |                |               |             | 34.35             | 54.00              | 19.65          |
|                              | 47.84             | Peak             | V                  |                |               |             | 47.24             | 74.00              | 26.76          |
|                              | 34.85             | Average          | V                  |                |               |             | 34.25             | 54.00              | 19.75          |

| Test Data for High Channel |       |         |   |       |       |       |       |       |       |
|----------------------------|-------|---------|---|-------|-------|-------|-------|-------|-------|
| 2 480.00                   | 89.11 | Peak    | H | 27.40 | 7.70  | 42.90 | 81.31 | -     | 81.31 |
|                            | 90.02 | Peak    | V |       |       |       | 82.22 | -     | 82.22 |
| 4 960.00                   | 48.20 | Peak    | H | 30.80 | 11.30 | 42.50 | 47.80 | 74.00 | 26.20 |
|                            | 34.45 | Average | H |       |       |       | 34.05 | 54.00 | 19.95 |
|                            | 48.90 | Peak    | V |       |       |       | 48.50 | 74.00 | 25.50 |
|                            | 34.62 | Average | V |       |       |       | 34.22 | 54.00 | 19.78 |

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical, "\*" Frequency fall in restricted band



Tested by: Tae-Ho, Kim / Project Engineer

### 12.7.2.3 Test data for 3 Mbps

- Test Date : January 14, 2015
- Resolution bandwidth : 1 MHz for Peak and Average Mode for the emissions fall in restricted band,  
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Operating Condition : Highest Output Power Transmitting Mode
- Result : PASSED

| Frequency<br>(GHz)           | Reading<br>(dBμV) | Detector<br>Mode | Ant. Pol.<br>(H/V) | Ant.<br>Factor | Cable<br>Loss | Amp<br>Gain | Total<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|------------------------------|-------------------|------------------|--------------------|----------------|---------------|-------------|-------------------|--------------------|----------------|
| Test Data for Low Channel    |                   |                  |                    |                |               |             |                   |                    |                |
| 2 402.00                     | 89.51             | Peak             | H                  | 27.00          | 7.50          | 42.80       | 81.21             | -                  | 81.21          |
|                              | 90.15             | Peak             | V                  |                |               |             | 81.85             | -                  | 81.85          |
| 4 804.00                     | 48.15             | Peak             | H                  | 30.60          | 11.10         | 42.50       | 47.35             | 74.00              | 26.65          |
|                              | 34.52             | Average          | H                  |                |               |             | 33.72             | 54.00              | 20.28          |
|                              | 48.26             | Peak             | V                  |                |               |             | 47.46             | 74.00              | 26.54          |
|                              | 34.48             | Average          | V                  |                |               |             | 33.68             | 54.00              | 20.32          |
| Test Data for Middle Channel |                   |                  |                    |                |               |             |                   |                    |                |
| 2 441.00                     | 89.10             | Peak             | H                  | 27.20          | 7.60          | 42.80       | 81.10             | -                  | 81.10          |
|                              | 89.02             | Peak             | V                  |                |               |             | 81.02             | -                  | 81.02          |
| 4 882.00                     | 48.05             | Peak             | H                  | 30.70          | 11.20         | 42.50       | 47.45             | 74.00              | 26.55          |
|                              | 34.35             | Average          | H                  |                |               |             | 33.75             | 54.00              | 20.25          |
|                              | 48.20             | Peak             | V                  |                |               |             | 47.60             | 74.00              | 26.40          |
|                              | 34.21             | Average          | V                  |                |               |             | 33.61             | 54.00              | 20.39          |

| Test Data for High Channel |       |         |   |       |       |       |       |       |       |
|----------------------------|-------|---------|---|-------|-------|-------|-------|-------|-------|
| 2 480.00                   | 89.22 | Peak    | H | 27.40 | 7.70  | 42.90 | 81.42 | -     | 81.42 |
|                            | 89.25 | Peak    | V |       |       |       | 81.45 | -     | 81.45 |
| 4 960.00                   | 48.52 | Peak    | H | 30.80 | 11.30 | 42.50 | 48.12 | 74.00 | 25.88 |
|                            | 34.82 | Average | H |       |       |       | 34.42 | 54.00 | 19.58 |
|                            | 48.55 | Peak    | V |       |       |       | 48.15 | 74.00 | 25.85 |
|                            | 34.53 | Average | V |       |       |       | 34.13 | 54.00 | 19.87 |

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical, "\*" Frequency fall in restricted band



Tested by: Tae-Ho, Kim / Project Engineer

### 12.7.3 Spurious Radiated Emission

#### 12.7.3.1 Test Data for 1 Mbps

##### 12.7.3.1.1 Test Data for 30 MHz ~ 1 000 MHz

Humidity Level : (45 ~ 46) % R.H.

Temperature: (24 ~ 25) °C

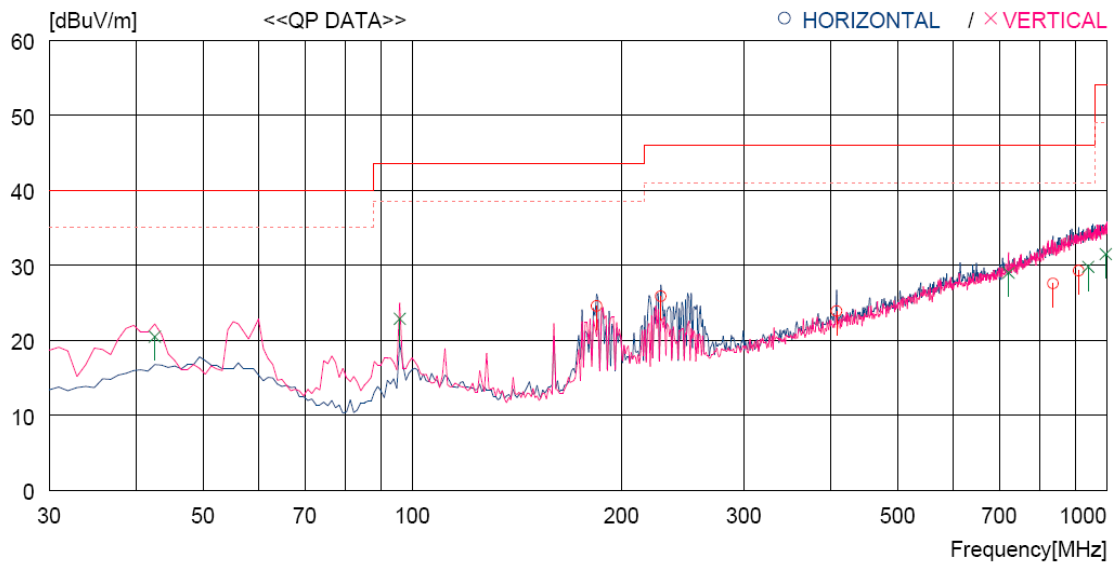
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

Result : PASSED

EUT : Pocket Photo

Date: January 14, 2015

Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)



| No.                    | FREQ    | READING | ANT    | LOSS | GAIN | RESULT   | LIMIT    | MARGIN | ANTENNA | TABLE |
|------------------------|---------|---------|--------|------|------|----------|----------|--------|---------|-------|
|                        | [MHz]   | [dBuV]  | FACTOR | [dB] | [dB] | [dBuV/m] | [dBuV/m] | [dB]   | [cm]    | [DEG] |
| ----- Horizontal ----- |         |         |        |      |      |          |          |        |         |       |
| 1                      | 184.230 | 38.4    | 9.8    | 9.3  | 32.9 | 24.6     | 43.5     | 18.9   | 400     | 81    |
| 2                      | 227.880 | 37.1    | 11.9   | 9.8  | 32.9 | 25.9     | 46.0     | 20.1   | 400     | 0     |
| 3                      | 408.300 | 30.1    | 15.7   | 11.1 | 33.0 | 23.9     | 46.0     | 22.1   | 200     | 0     |
| 4                      | 836.061 | 25.8    | 20.9   | 13.7 | 32.8 | 27.6     | 46.0     | 18.4   | 400     | 221   |
| 5                      | 910.749 | 25.7    | 21.8   | 14.1 | 32.3 | 29.3     | 46.0     | 16.7   | 300     | 359   |
| ----- Vertical -----   |         |         |        |      |      |          |          |        |         |       |
| 6                      | 42.610  | 31.8    | 13.6   | 7.7  | 32.6 | 20.5     | 40.0     | 19.5   | 100     | 0     |
| 7                      | 95.960  | 35.9    | 11.2   | 8.5  | 32.7 | 22.9     | 43.5     | 20.6   | 100     | 0     |
| 8                      | 721.604 | 28.5    | 19.9   | 13.2 | 32.6 | 29.0     | 46.0     | 17.0   | 400     | 359   |
| 9                      | 939.848 | 24.6    | 22.4   | 14.3 | 31.5 | 29.8     | 46.0     | 16.2   | 300     | 288   |
| 10                     | 996.106 | 25.3    | 22.6   | 14.6 | 31.0 | 31.5     | 54.0     | 22.5   | 400     | 99    |

Tested by: Tae-Ho, Kim / Project Engineer

### 12.7.3.1.2 Test Data for Below 30 MHz

- . Test Date : January 14, 2015
- . Resolution bandwidth : 200 Hz (from 9 kHz to 0.15 MHz), 9 kHz (from 0.15 MHz to 30 MHz)
- . Frequency range : 9 kHz ~ 30 MHz
- . Measurement distance : 3 m
- . Operating Condition : Highest Output Power Transmitting Mode
- . Result : PASSED

| Frequency<br>(MHz)                              | Reading<br>(dB $\mu$ V) | Ant. Pol.<br>(H/V) | Ant. Factor<br>(dB/m) | Cable<br>Loss | Amp<br>Gain | Emission<br>Level(dB $\mu$ V/m) | Limits<br>(dB $\mu$ V/m) | Margin<br>(dB) |
|-------------------------------------------------|-------------------------|--------------------|-----------------------|---------------|-------------|---------------------------------|--------------------------|----------------|
| It was not observed any emissions from the EUT. |                         |                    |                       |               |             |                                 |                          |                |



Tested by: Tae-Ho, Kim / Project Engineer

### 12.7.3.2 Test Data for 2 Mbps

#### 12.7.3.2.1 Test Data for 30 MHz ~ 1 000 MHz

Humidity Level : (45 ~ 46) % R.H.

Temperature: (24 ~ 25) °C

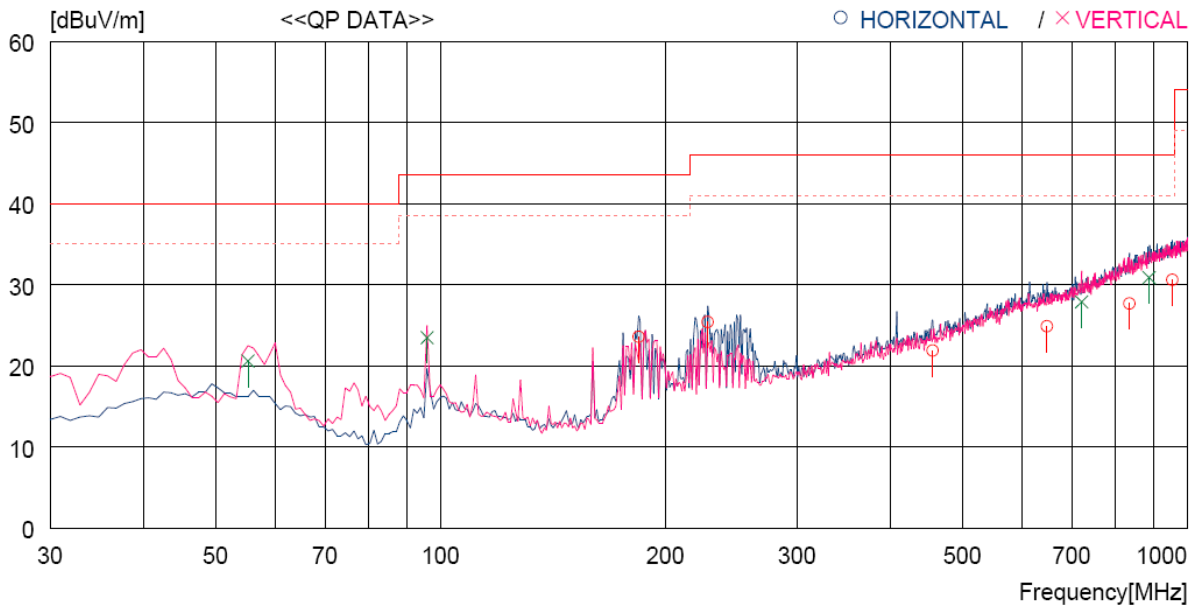
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

Result : PASSED

EUT : Pocket Photo

Date: January 14, 2015

Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)



| No.                    | FREQ    | READING | ANT    | LOSS | GAIN | RESULT   | LIMIT    | MARGIN | ANTENNA | TABLE |
|------------------------|---------|---------|--------|------|------|----------|----------|--------|---------|-------|
|                        | [MHz]   | [dBuV]  | FACTOR | [dB] | [dB] | [dBuV/m] | [dBuV/m] | [dB]   | [cm]    | [DEG] |
| ----- Horizontal ----- |         |         |        |      |      |          |          |        |         |       |
| 1                      | 184.230 | 37.4    | 9.8    | 9.3  | 32.9 | 23.6     | 43.5     | 19.9   | 400     | 81    |
| 2                      | 227.880 | 36.6    | 11.9   | 9.8  | 32.9 | 25.4     | 46.0     | 20.6   | 400     | 0     |
| 3                      | 455.831 | 27.1    | 16.4   | 11.5 | 33.1 | 21.9     | 46.0     | 24.1   | 100     | 359   |
| 4                      | 648.856 | 26.4    | 19.2   | 12.6 | 33.3 | 24.9     | 46.0     | 21.1   | 200     | 0     |
| 5                      | 836.061 | 25.9    | 20.9   | 13.7 | 32.8 | 27.7     | 46.0     | 18.3   | 400     | 221   |
| 6                      | 954.397 | 26.2    | 22.1   | 14.3 | 32.0 | 30.6     | 46.0     | 15.4   | 100     | 107   |
| ----- Vertical -----   |         |         |        |      |      |          |          |        |         |       |
| 7                      | 55.220  | 31.8    | 13.5   | 7.9  | 32.6 | 20.6     | 40.0     | 19.4   | 100     | 323   |
| 8                      | 95.960  | 36.5    | 11.2   | 8.5  | 32.7 | 23.5     | 43.5     | 20.0   | 100     | 0     |
| 9                      | 721.604 | 27.4    | 19.9   | 13.2 | 32.6 | 27.9     | 46.0     | 18.1   | 400     | 359   |
| 10                     | 888.439 | 26.7    | 22.1   | 14.0 | 31.9 | 30.9     | 46.0     | 15.1   | 300     | 2     |

Tested by: Tae-Ho, Kim / Project Engineer

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EMC-002 (Rev.3)

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### 12.7.3.2.2 Test Data for Below 30 MHz

- . Test Date : January 14, 2015
- . Resolution bandwidth : 200 Hz (from 9 kHz to 0.15 MHz), 9 kHz (from 0.15 MHz to 30 MHz)
- . Frequency range : 9 kHz ~ 30 MHz
- . Measurement distance : 3 m
- . Operating Condition : Highest Output Power Transmitting Mode
- . Result : PASSED

| Frequency<br>(MHz)                              | Reading<br>(dBμV) | Ant. Pol.<br>(H/V) | Ant. Factor<br>(dB/m) | Cable<br>Loss | Amp<br>Gain | Emission<br>Level(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|-------------------------------------------------|-------------------|--------------------|-----------------------|---------------|-------------|---------------------------|--------------------|----------------|
| It was not observed any emissions from the EUT. |                   |                    |                       |               |             |                           |                    |                |



Tested by: Tae-Ho, Kim / Project Engineer

### 12.7.3.3 Test Data for 3 Mbps

#### 12.7.3.3.1 Test Data for 30 MHz ~ 1 000 MHz

Humidity Level : (45 ~ 46) % R.H.

Temperature: (24 ~ 25) °C

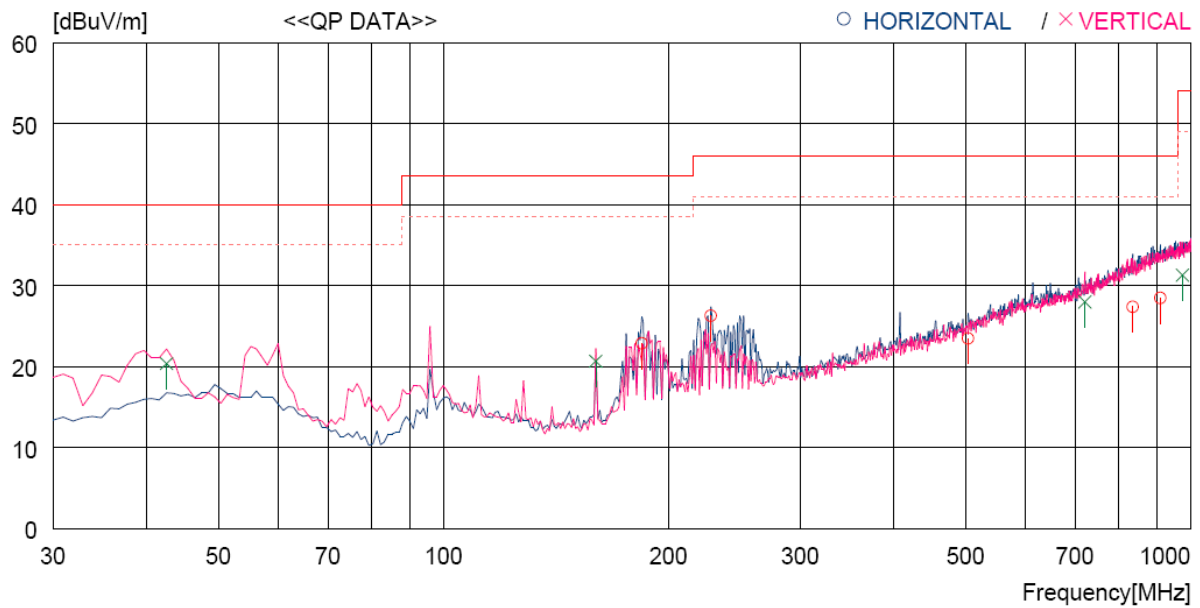
Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

Result : PASSED

EUT : Pocket Photo

Date: January 14, 2015

Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)



| No.                    | FREQ    | READING | ANT    | LOSS | GAIN | RESULT   | LIMIT    | MARGIN | ANTENNA | TABLE |
|------------------------|---------|---------|--------|------|------|----------|----------|--------|---------|-------|
|                        | [MHz]   | QP      | FACTOR |      |      |          |          |        |         |       |
|                        | [MHz]   | [dBuV]  | [dB]   | [dB] | [dB] | [dBuV/m] | [dBuV/m] | [dB]   | [cm]    | [DEG] |
| ----- Horizontal ----- |         |         |        |      |      |          |          |        |         |       |
| 1                      | 184.230 | 36.7    | 9.8    | 9.3  | 32.9 | 22.9     | 43.5     | 20.6   | 400     | 81    |
| 2                      | 227.880 | 37.5    | 11.9   | 9.8  | 32.9 | 26.3     | 46.0     | 19.7   | 400     | 0     |
| 3                      | 503.361 | 27.8    | 17.1   | 11.8 | 33.2 | 23.5     | 46.0     | 22.5   | 300     | 359   |
| 4                      | 836.061 | 25.6    | 20.9   | 13.7 | 32.8 | 27.4     | 46.0     | 18.6   | 400     | 221   |
| 5                      | 910.749 | 24.9    | 21.8   | 14.1 | 32.3 | 28.5     | 46.0     | 17.5   | 300     | 359   |
| ----- Vertical -----   |         |         |        |      |      |          |          |        |         |       |
| 6                      | 42.610  | 31.7    | 13.6   | 7.7  | 32.6 | 20.4     | 40.0     | 19.6   | 100     | 0     |
| 7                      | 159.980 | 35.4    | 8.6    | 9.3  | 32.6 | 20.7     | 43.5     | 22.8   | 100     | 357   |
| 8                      | 721.604 | 27.5    | 19.9   | 13.2 | 32.6 | 28.0     | 46.0     | 18.0   | 400     | 359   |
| 9                      | 974.767 | 25.4    | 22.6   | 14.5 | 31.2 | 31.3     | 54.0     | 22.7   | 300     | 0     |

Tested by: Tae-Ho, Kim / Project Engineer

### 12.7.3.3.2 Test Data for Below 30 MHz

- . Test Date : January 14, 2015
- . Resolution bandwidth : 200 Hz (from 9 kHz to 0.15 MHz), 9 kHz (from 0.15 MHz to 30 MHz)
- . Frequency range : 9 kHz ~ 30 MHz
- . Measurement distance : 3 m
- . Operating Condition : Highest Output Power Transmitting Mode
- . Result : PASSED

| Frequency<br>(MHz)                              | Reading<br>(dB $\mu$ V) | Ant. Pol.<br>(H/V) | Ant. Factor<br>(dB/m) | Cable<br>Loss | Amp<br>Gain | Emission<br>Level(dB $\mu$ V/m) | Limits<br>(dB $\mu$ V/m) | Margin<br>(dB) |
|-------------------------------------------------|-------------------------|--------------------|-----------------------|---------------|-------------|---------------------------------|--------------------------|----------------|
| It was not observed any emissions from the EUT. |                         |                    |                       |               |             |                                 |                          |                |



Tested by: Tae-Ho, Kim / Project Engineer

## 13. CONDUCTED EMISSION TEST

### 13.1 Operating environment

Temperature : (24 ~ 25) °C  
Relative humidity : (45 ~ 46) % R.H.

### 13.2 Test set-up

The EUT was placed on a wooden table, 0.8 m height above the floor. Power was fed to the EUT through a 50  $\Omega$  / 50  $\mu$ H + 5  $\Omega$  Artificial Mains Network (AMN). The ground plane was electrically bonded to the reference ground system and all power lines were filtered from ambient.

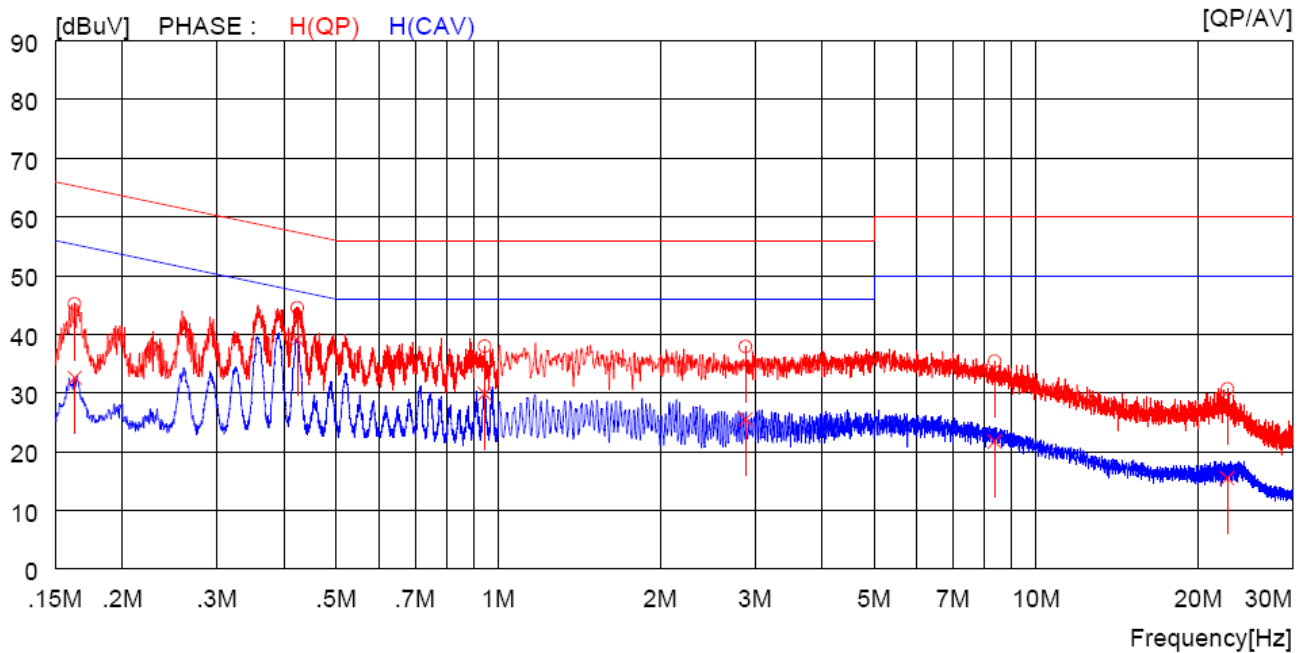
### 13.3 Test equipment used

|      | Model Number | Manufacturer    | Description       | Serial Number | Last Cal. (Interval) |
|------|--------------|-----------------|-------------------|---------------|----------------------|
| ■ -  | ESPI         | Rohde & Schwarz | EMI Test Receiver | 101278        | Nov. 03, 2014 (1Y)   |
| □ -  | ESHS10       | Rohde & Schwarz | EMI Test Receiver | 834467/007    | Jul. 15, 2014 (1Y)   |
| □    | NSLK8128     | Schwarzbeck     | AMN               | 8128-216      | Apr. 11, 2014 (1Y)   |
| ■ -  | NSLK8126     | Schwarzbeck     | AMN               | 8126-404      | Jul. 11, 2014 (1Y)   |
| □ -  | 3825/2       | EMCO            | AMN               | 9109-1869     | Apr. 29, 2014 (1Y)   |
| ■ -- | 3825/2       | EMCO            | AMN               | 9109-1867     | Apr. 29, 2014 (1Y)   |

All test equipment used is calibrated on a regular basis.

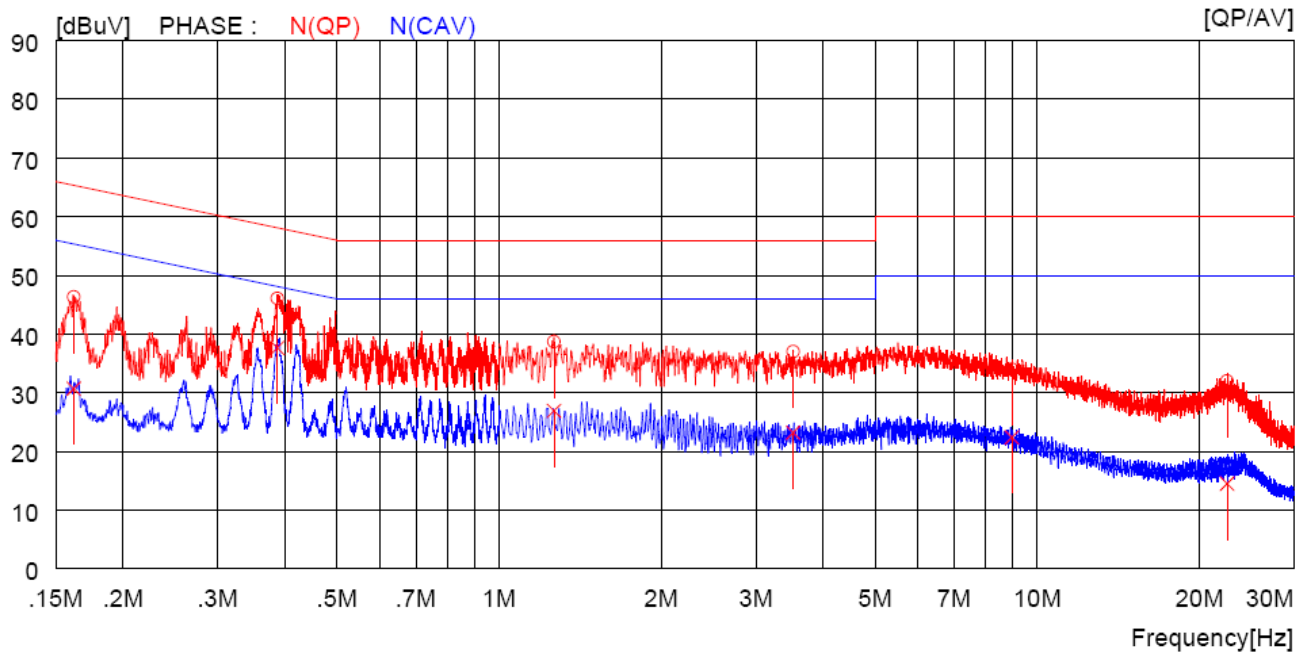
### 13.4 Test data for Charging & Transmitting Mode\_1 Mbps

- Test Date : January 14, 2015
- Resolution bandwidth : 9 kHz
- Frequency range : 0.15 MHz ~ 30 MHz
- Tested Line : HOT LINE



| NO | FREQ<br>[MHz] | READING      |              | C. FACTOR<br>[dB] | RESULT       |              | LIMIT        |              | MARGIN       |              | PHASE   |
|----|---------------|--------------|--------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------|
|    |               | QP<br>[dBuV] | AV<br>[dBuV] |                   | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] |         |
| 1  | 0.16300       | 35.2         | ----         | 10.0              | 45.2         | ----         | 65.3         | ----         | 20.1         | ----         | H (QP)  |
| 2  | 0.42300       | 34.5         | ----         | 10.0              | 44.5         | ----         | 57.4         | ----         | 12.9         | ----         | H (QP)  |
| 3  | 0.94300       | 28.0         | ----         | 10.0              | 38.0         | ----         | 56.0         | ----         | 18.0         | ----         | H (QP)  |
| 4  | 2.88400       | 27.9         | ----         | 10.0              | 37.9         | ----         | 56.0         | ----         | 18.1         | ----         | H (QP)  |
| 5  | 8.36500       | 25.2         | ----         | 10.2              | 35.4         | ----         | 60.0         | ----         | 24.6         | ----         | H (QP)  |
| 6  | 22.67000      | 20.4         | ----         | 10.3              | 30.7         | ----         | 60.0         | ----         | 29.3         | ----         | H (QP)  |
| 7  | 0.16300       | ----         | 22.6         | 10.0              | ----         | 32.6         | ----         | 55.3         | ----         | 22.7         | H (CAV) |
| 8  | 0.42300       | ----         | 29.1         | 10.0              | ----         | 39.1         | ----         | 47.4         | ----         | 8.3          | H (CAV) |
| 9  | 0.94300       | ----         | 19.9         | 10.0              | ----         | 29.9         | ----         | 46.0         | ----         | 16.1         | H (CAV) |
| 10 | 2.88400       | ----         | 15.5         | 10.0              | ----         | 25.5         | ----         | 46.0         | ----         | 20.5         | H (CAV) |
| 11 | 8.36500       | ----         | 11.5         | 10.2              | ----         | 21.7         | ----         | 50.0         | ----         | 28.3         | H (CAV) |
| 12 | 22.67000      | ----         | 5.2          | 10.3              | ----         | 15.5         | ----         | 50.0         | ----         | 34.5         | H (CAV) |

-. Tested Line : NEUTRAL LINE



| NO | FREQ<br>[MHz] | READING      |              | C. FACTOR<br>[dB] | RESULT       |              | LIMIT        |              | MARGIN       |              | PHASE   |
|----|---------------|--------------|--------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------|
|    |               | QP<br>[dBuV] | AV<br>[dBuV] |                   | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] |         |
| 1  | 0.16200       | 36.3         | ----         | 10.0              | 46.3         | ----         | 65.4         | ----         | 19.1         | ----         | N (QP)  |
| 2  | 0.38700       | 36.1         | ----         | 10.0              | 46.1         | ----         | 58.1         | ----         | 12.0         | ----         | N (QP)  |
| 3  | 1.26400       | 28.7         | ----         | 10.0              | 38.7         | ----         | 56.0         | ----         | 17.3         | ----         | N (QP)  |
| 4  | 3.51600       | 27.0         | ----         | 10.0              | 37.0         | ----         | 56.0         | ----         | 19.0         | ----         | N (QP)  |
| 5  | 8.96500       | 23.9         | ----         | 10.1              | 34.0         | ----         | 60.0         | ----         | 26.0         | ----         | N (QP)  |
| 6  | 22.52000      | 21.7         | ----         | 10.3              | 32.0         | ----         | 60.0         | ----         | 28.0         | ----         | N (QP)  |
| 7  | 0.16200       | ----         | 20.7         | 10.0              | ----         | 30.7         | ----         | 55.4         | ----         | 24.7         | N (CAV) |
| 8  | 0.38700       | ----         | 27.6         | 10.0              | ----         | 37.6         | ----         | 48.1         | ----         | 10.5         | N (CAV) |
| 9  | 1.26400       | ----         | 16.9         | 10.0              | ----         | 26.9         | ----         | 46.0         | ----         | 19.1         | N (CAV) |
| 10 | 3.51600       | ----         | 13.1         | 10.1              | ----         | 23.2         | ----         | 46.0         | ----         | 22.8         | N (CAV) |
| 11 | 8.96500       | ----         | 12.2         | 10.2              | ----         | 22.4         | ----         | 50.0         | ----         | 27.6         | N (CAV) |
| 12 | 22.52000      | ----         | 3.8          | 10.7              | ----         | 14.5         | ----         | 50.0         | ----         | 35.5         | N (CAV) |

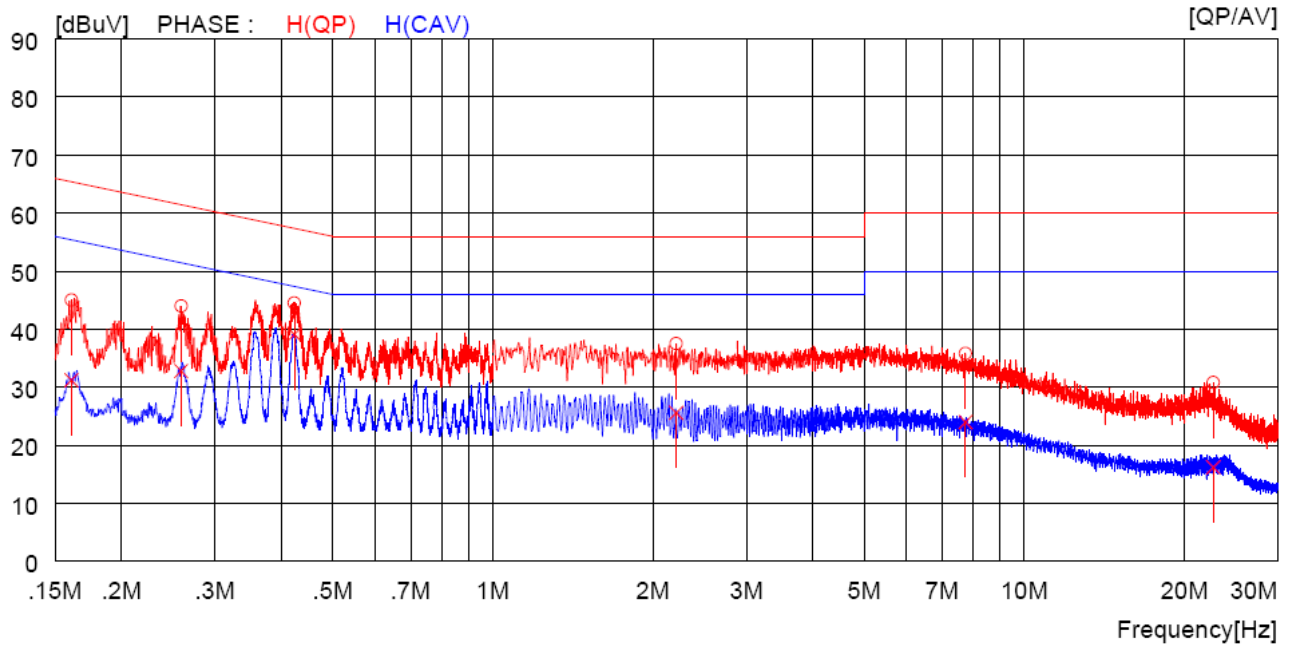
Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

Tested by: Tae-Ho, Kim / Project Engineer

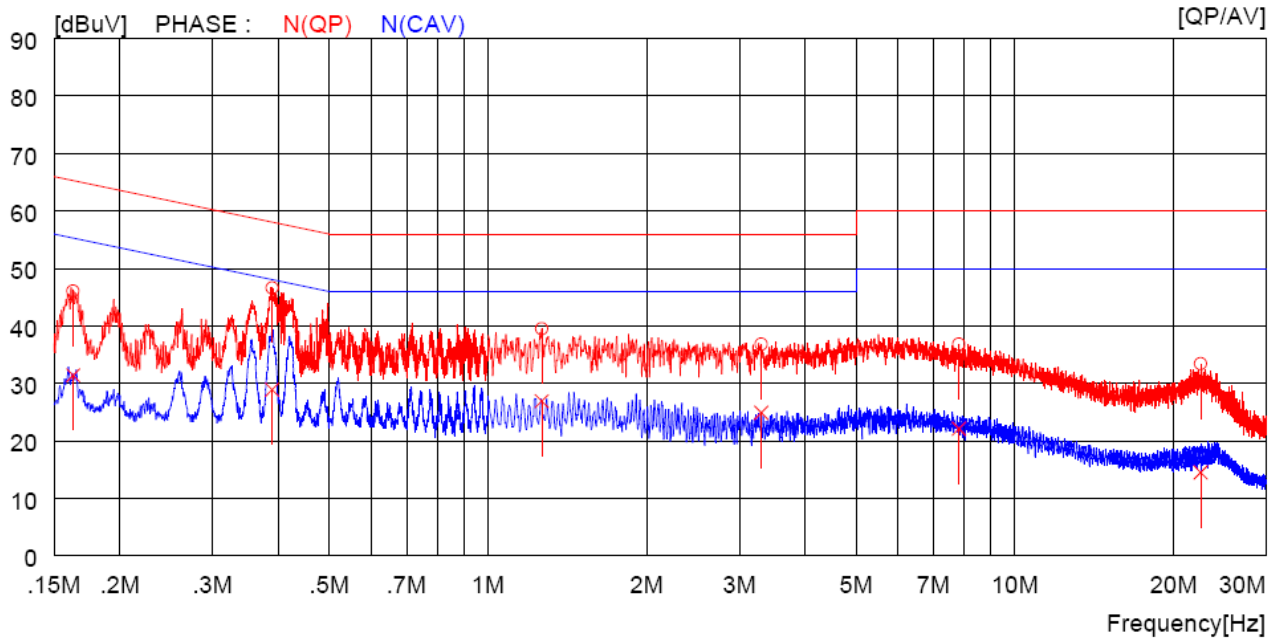
### 13.5 Test data for Charging & Transmitting Mode\_2 Mbps

- Test Date : January 14, 2015
- Resolution bandwidth : 9 kHz
- Frequency range : 0.15 MHz ~ 30 MHz
- Tested Line : HOT LINE



| NO | FREQ<br>[MHz] | READING      |              | C. FACTOR<br>[dB] | RESULT       |              | LIMIT        |              | MARGIN       |              | PHASE   |
|----|---------------|--------------|--------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------|
|    |               | QP<br>[dBuV] | AV<br>[dBuV] |                   | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] |         |
| 1  | 0.16100       | 35.0         | ----         | 10.0              | 45.0         | ----         | 65.4         | ----         | 20.4         | ----         | H (QP)  |
| 2  | 0.25900       | 34.0         | ----         | 10.0              | 44.0         | ----         | 61.5         | ----         | 17.5         | ----         | H (QP)  |
| 3  | 0.42300       | 34.5         | ----         | 10.0              | 44.5         | ----         | 57.4         | ----         | 12.9         | ----         | H (QP)  |
| 4  | 2.21200       | 27.5         | ----         | 10.0              | 37.5         | ----         | 56.0         | ----         | 18.5         | ----         | H (QP)  |
| 5  | 7.75500       | 25.6         | ----         | 10.2              | 35.8         | ----         | 60.0         | ----         | 24.2         | ----         | H (QP)  |
| 6  | 22.68000      | 20.5         | ----         | 10.3              | 30.8         | ----         | 60.0         | ----         | 29.2         | ----         | H (QP)  |
| 7  | 0.16100       | ----         | 21.2         | 10.0              | ----         | 31.2         | ----         | 55.4         | ----         | 24.2         | H (CAV) |
| 8  | 0.25900       | ----         | 22.8         | 10.0              | ----         | 32.8         | ----         | 51.5         | ----         | 18.7         | H (CAV) |
| 9  | 0.42300       | ----         | 29.1         | 10.0              | ----         | 39.1         | ----         | 47.4         | ----         | 8.3          | H (CAV) |
| 10 | 2.21200       | ----         | 15.6         | 10.0              | ----         | 25.6         | ----         | 46.0         | ----         | 20.4         | H (CAV) |
| 11 | 7.75500       | ----         | 13.8         | 10.2              | ----         | 24.0         | ----         | 50.0         | ----         | 26.0         | H (CAV) |
| 12 | 22.68000      | ----         | 5.9          | 10.3              | ----         | 16.2         | ----         | 50.0         | ----         | 33.8         | H (CAV) |

-. Tested Line : NEUTRAL LINE



| NO | FREQ<br>[MHz] | READING      |              | C. FACTOR<br>[dB] | RESULT       |              | LIMIT        |              | MARGIN       |              | PHASE   |
|----|---------------|--------------|--------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------|
|    |               | QP<br>[dBuV] | AV<br>[dBuV] |                   | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] |         |
| 1  | 0.16300       | 36.1         | ----         | 10.0              | 46.1         | ----         | 65.3         | ----         | 19.2         | ----         | N (QP)  |
| 2  | 0.38900       | 36.6         | ----         | 10.0              | 46.6         | ----         | 58.1         | ----         | 11.5         | ----         | N (QP)  |
| 3  | 1.26400       | 29.5         | ----         | 10.0              | 39.5         | ----         | 56.0         | ----         | 16.5         | ----         | N (QP)  |
| 4  | 3.30000       | 26.8         | ----         | 10.0              | 36.8         | ----         | 56.0         | ----         | 19.2         | ----         | N (QP)  |
| 5  | 7.83000       | 26.6         | ----         | 10.2              | 36.8         | ----         | 60.0         | ----         | 23.2         | ----         | N (QP)  |
| 6  | 22.52000      | 23.1         | ----         | 10.3              | 33.4         | ----         | 60.0         | ----         | 26.6         | ----         | N (QP)  |
| 7  | 0.16300       | ----         | 21.4         | 10.0              | ----         | 31.4         | ----         | 55.3         | ----         | 23.9         | N (CAV) |
| 8  | 0.38900       | ----         | 18.9         | 10.0              | ----         | 28.9         | ----         | 48.1         | ----         | 19.2         | N (CAV) |
| 9  | 1.26400       | ----         | 16.9         | 10.0              | ----         | 26.9         | ----         | 46.0         | ----         | 19.1         | N (CAV) |
| 10 | 3.30000       | ----         | 14.9         | 10.0              | ----         | 24.9         | ----         | 46.0         | ----         | 21.1         | N (CAV) |
| 11 | 7.83000       | ----         | 11.9         | 10.2              | ----         | 22.1         | ----         | 50.0         | ----         | 27.9         | N (CAV) |
| 12 | 22.52000      | ----         | 4.2          | 10.3              | ----         | 14.5         | ----         | 50.0         | ----         | 35.5         | N (CAV) |

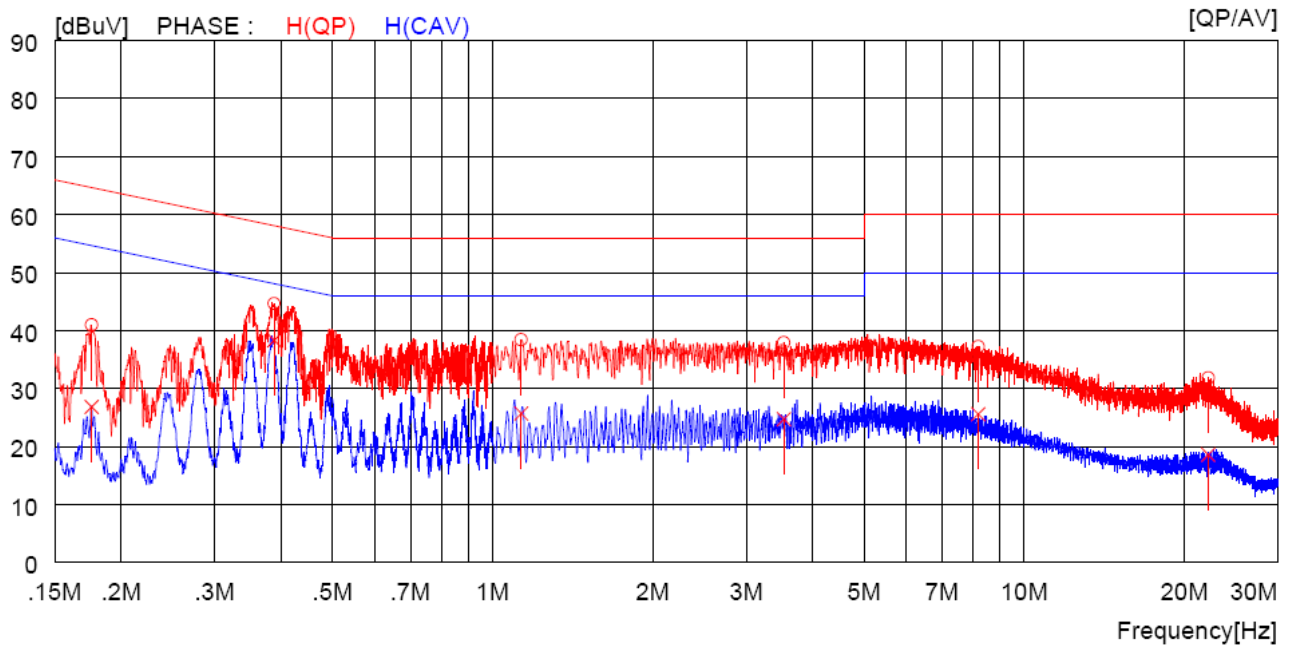
Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

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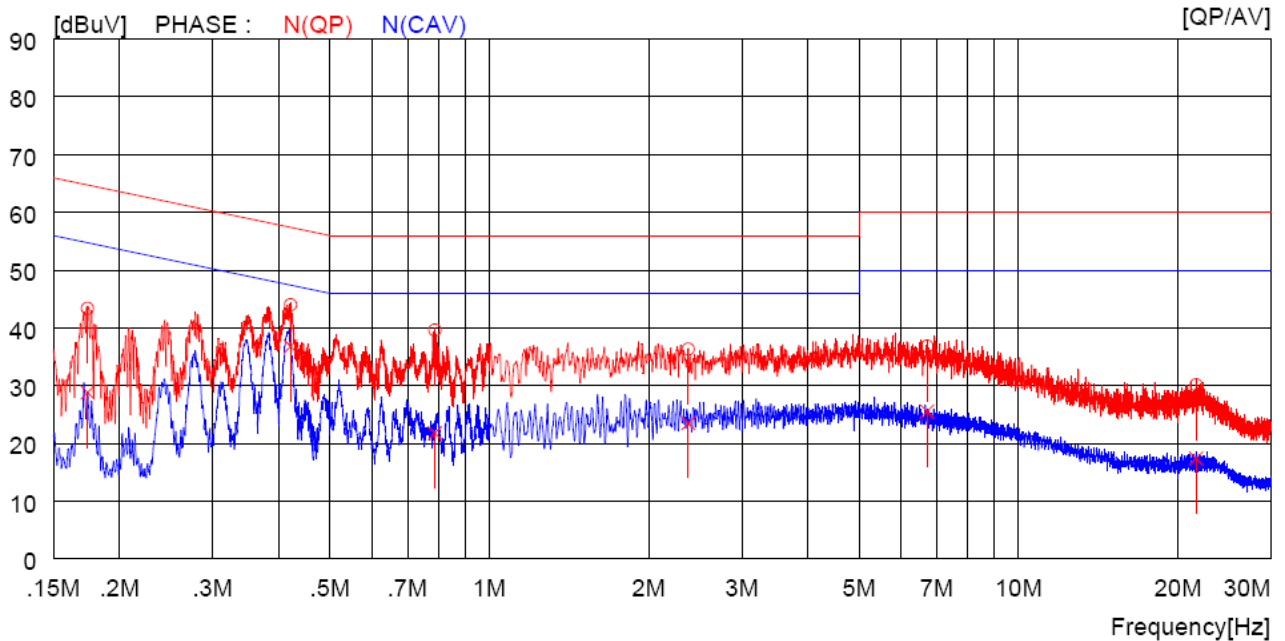
### 13.6 Test data for Charging & Transmitting Mode\_3 Mbps

- Test Date : January 14, 2015
- Resolution bandwidth : 9 kHz
- Frequency range : 0.15 MHz ~ 30 MHz
- Tested Line : HOT LINE



| NO | FREQ<br>[MHz] | READING      |              | C. FACTOR<br>[dB] | RESULT       |              | LIMIT        |              | MARGIN       |              | PHASE   |
|----|---------------|--------------|--------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------|
|    |               | QP<br>[dBuV] | AV<br>[dBuV] |                   | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] |         |
| 1  | 0.17600       | 31.0         | ----         | 10.0              | 41.0         | ----         | 64.7         | ----         | 23.7         | ----         | H (QP)  |
| 2  | 0.38800       | 34.7         | ----         | 10.0              | 44.7         | ----         | 58.1         | ----         | 13.4         | ----         | H (QP)  |
| 3  | 1.13200       | 28.4         | ----         | 10.0              | 38.4         | ----         | 56.0         | ----         | 17.6         | ----         | H (QP)  |
| 4  | 3.52800       | 27.9         | ----         | 10.0              | 37.9         | ----         | 56.0         | ----         | 18.1         | ----         | H (QP)  |
| 5  | 8.19500       | 27.1         | ----         | 10.1              | 37.2         | ----         | 60.0         | ----         | 22.8         | ----         | H (QP)  |
| 6  | 22.18000      | 21.5         | ----         | 10.3              | 31.8         | ----         | 60.0         | ----         | 28.2         | ----         | H (QP)  |
| 7  | 0.17600       | ----         | 16.8         | 10.0              | ----         | 26.8         | ----         | 54.7         | ----         | 27.9         | H (CAV) |
| 8  | 0.38800       | ----         | 28.3         | 10.0              | ----         | 38.3         | ----         | 48.1         | ----         | 9.8          | H (CAV) |
| 9  | 1.13200       | ----         | 15.7         | 10.0              | ----         | 25.7         | ----         | 46.0         | ----         | 20.3         | H (CAV) |
| 10 | 3.52800       | ----         | 14.7         | 10.0              | ----         | 24.7         | ----         | 46.0         | ----         | 21.3         | H (CAV) |
| 11 | 8.19500       | ----         | 15.5         | 10.1              | ----         | 25.6         | ----         | 50.0         | ----         | 24.4         | H (CAV) |
| 12 | 22.18000      | ----         | 8.3          | 10.3              | ----         | 18.6         | ----         | 50.0         | ----         | 31.4         | H (CAV) |

-. Tested Line : NEUTRAL LINE



| NO | FREQ<br>[MHz] | READING      |              | C. FACTOR<br>[dB] | RESULT       |              | LIMIT        |              | MARGIN       |              | PHASE   |
|----|---------------|--------------|--------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------|
|    |               | QP<br>[dBuV] | AV<br>[dBuV] |                   | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] |         |
| 1  | 0.17400       | 33.4         | ----         | 10.0              | 43.4         | ----         | 64.8         | ----         | 21.4         | ----         | N (QP)  |
| 2  | 0.42100       | 34.0         | ----         | 10.0              | 44.0         | ----         | 57.4         | ----         | 13.4         | ----         | N (QP)  |
| 3  | 0.78900       | 29.6         | ----         | 10.0              | 39.6         | ----         | 56.0         | ----         | 16.4         | ----         | N (QP)  |
| 4  | 2.37600       | 26.3         | ----         | 10.0              | 36.3         | ----         | 56.0         | ----         | 19.7         | ----         | N (QP)  |
| 5  | 6.72000       | 26.7         | ----         | 10.1              | 36.8         | ----         | 60.0         | ----         | 23.2         | ----         | N (QP)  |
| 6  | 21.65000      | 19.8         | ----         | 10.3              | 30.1         | ----         | 60.0         | ----         | 29.9         | ----         | N (QP)  |
| 7  | 0.17400       | ----         | 18.8         | 10.0              | ----         | 28.8         | ----         | 54.8         | ----         | 26.0         | N (CAV) |
| 8  | 0.42100       | ----         | 26.8         | 10.0              | ----         | 36.8         | ----         | 47.4         | ----         | 10.6         | N (CAV) |
| 9  | 0.78900       | ----         | 11.8         | 10.0              | ----         | 21.8         | ----         | 46.0         | ----         | 24.2         | N (CAV) |
| 10 | 2.37600       | ----         | 13.5         | 10.0              | ----         | 23.5         | ----         | 46.0         | ----         | 22.5         | N (CAV) |
| 11 | 6.72000       | ----         | 15.4         | 10.1              | ----         | 25.5         | ----         | 50.0         | ----         | 24.5         | N (CAV) |
| 12 | 21.65000      | ----         | 7.1          | 10.3              | ----         | 17.4         | ----         | 50.0         | ----         | 32.6         | N (CAV) |

Remark: Margin (dB) = Limit – Level (Result)

The emission level in above table is included the transducer factor that means insertion loss (LISN), cable loss and attenuator.

Tested by: Tae-Ho, Kim / Project Engineer