

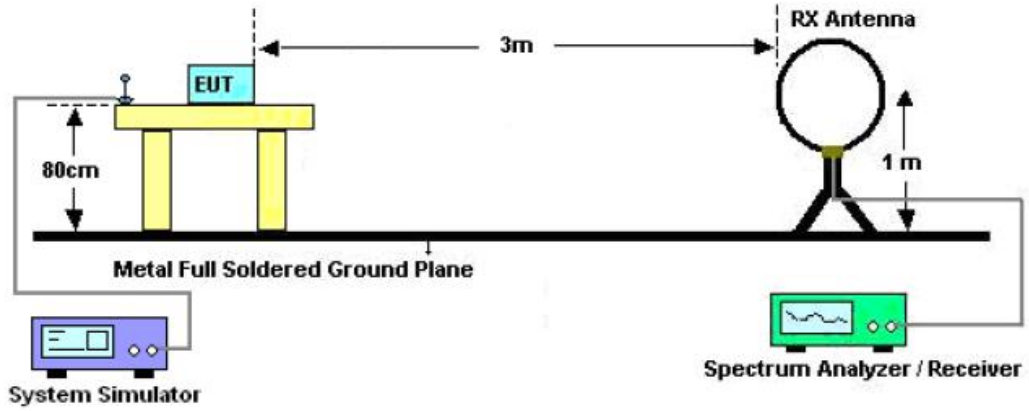
## 11. RADIATED EMISSION

### 11.1. MEASUREMENT PROCEDURE

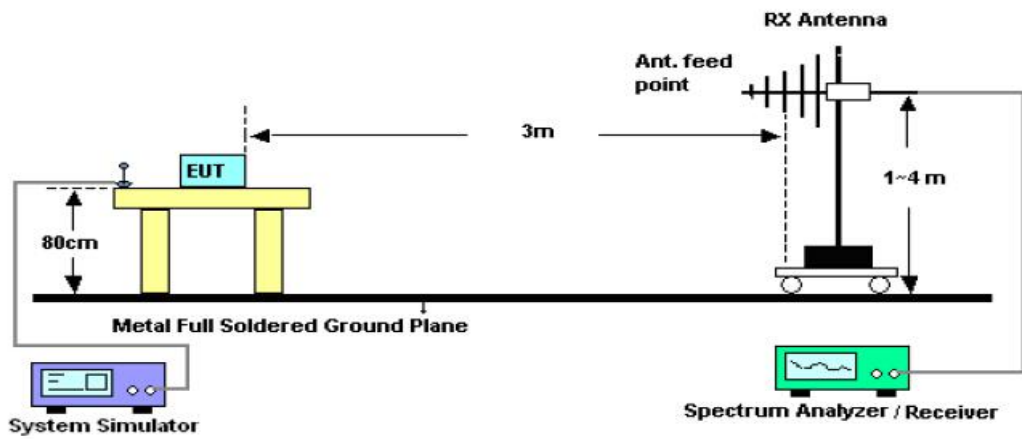
1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz RBW and 3MHz VBW for peak reading. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.

11.2. TEST SETUP

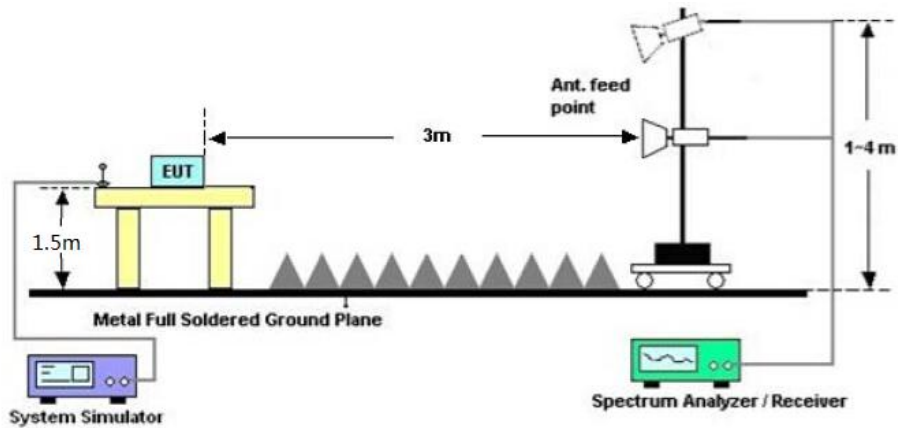
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



**11.3. LIMITS AND MEASUREMENT RESULT**

15.209(a) Limit in the below table has to be followed

| <b>Frequencies<br/>(MHz)</b> | <b>Field Strength<br/>(micorvolts/meter)</b> | <b>Measurement Distance<br/>(meters)</b> |
|------------------------------|--|--|
| 0.009~0.490                  | 2400/F(KHz)                                  | 300                                      |
| 0.490~1.705                  | 24000/F(KHz)                                 | 30                                       |
| 1.705~30.0                   | 30   | 30                                       |
| 30~88                        | 100  | 3  |
| 88~216                       | 150  | 3  |
| 216~960                      | 200  | 3  |
| Above 960                    | 500  | 3  |

Note:

- (1).All modes were tested For restricted band radiated emission, the test records reported below are the worst result compared to other modes.
- (2). The amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported. (9KHz~30MHz)

**11.4. TEST RESULT**

**RADIATED EMISSION BELOW 30MHZ**

No emission found between lowest internal used/generated frequencies to 30MHz.

**RADIATED EMISSION BELOW 1GHZ**

|                    |                                     |                          |                |
|--------------------|-------------------------------------|--------------------------|----------------|
| <b>EUT</b>         | Mia Baby sound machine              | <b>Model Name</b>        | KT-W01A        |
| <b>Temperature</b> | 25°C                                | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                              | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | 802.11b with date rate 1<br>2412MHZ | <b>Antenna</b>           | Horizontal     |



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Over<br>dB | Detector | Antenna<br>Height<br>cm | Table<br>Degree<br>degree | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|-------------------------|---------------------------|---------|
| 1   | *   | 31.2482      | 52.24                    | -20.54                  | 31.70                      | 40.00           | -8.30      | QP       |                         |                           |         |
| 2   |     | 36.0481      | 54.27                    | -23.55                  | 30.72                      | 40.00           | -9.28      | QP       |                         |                           |         |
| 3   |     | 133.8533     | 54.61                    | -25.24                  | 29.37                      | 43.50           | -14.13     | QP       |                         |                           |         |
| 4   |     | 175.4207     | 43.88                    | -27.13                  | 16.75                      | 43.50           | -26.75     | QP       |                         |                           |         |
| 5   |     | 195.6504     | 45.30                    | -27.19                  | 18.11                      | 43.50           | -25.39     | QP       |                         |                           |         |
| 6   |     | 290.1444     | 40.96                    | -23.72                  | 17.24                      | 46.00           | -28.76     | QP       |                         |                           |         |

**RESULT: PASS**

|                    |                                     |                          |                |
|--------------------|-------------------------------------|--------------------------|----------------|
| <b>EUT</b>         | Mia Baby sound machine              | <b>Model Name</b>        | KT-W01A        |
| <b>Temperature</b> | 25°C                                | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                              | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | 802.11b with data rate 1<br>2412MHZ | <b>Antenna</b>           | Vertical       |



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB/m | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Over<br>dB | Detector | Antenna<br>Height<br>cm | Table<br>Degree | Comment |
|-----|-----|--------------|--------------------------|---------------------------|----------------------------|-----------------|------------|----------|-------------------------|-----------------|---------|
| 1   | *   | 30.5574      | 53.44                    | -20.66                    | 32.78                      | 40.00           | -7.22      | QP       |                         |                 |         |
| 2   |     | 44.1783      | 57.00                    | -26.34                    | 30.66                      | 40.00           | -9.34      | QP       |                         |                 |         |
| 3   |     | 65.3146      | 55.56                    | -32.02                    | 23.54                      | 40.00           | -16.46     | QP       |                         |                 |         |
| 4   |     | 139.9735     | 51.38                    | -24.59                    | 26.79                      | 43.50           | -16.71     | QP       |                         |                 |         |
| 5   |     | 175.6516     | 51.95                    | -26.09                    | 25.86                      | 43.50           | -17.64     | QP       |                         |                 |         |
| 6   |     | 221.9751     | 51.51                    | -26.02                    | 25.49                      | 46.00           | -20.51     | QP       |                         |                 |         |

**RESULT: PASS**

**Note:** 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.

2. The "Factor" value can be calculated automatically by software of measurement system.

3. All test modes had been pre-tested. The 802.11b at low channel is the worst case and recorded in the report.

**RADIATED EMISSION ABOVE 1GHZ**

|                    |                                     |                          |                |
|--------------------|-------------------------------------|--------------------------|----------------|
| <b>EUT</b>         | Mia Baby sound machine              | <b>Model Name</b>        | KT-W01A        |
| <b>Temperature</b> | 25°C                                | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                              | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | 802.11b with date rate 1<br>2412MHZ | <b>Antenna</b>           | Horizontal     |

| Frequency<br>(MHz) | Meter Reading<br>(dB $\mu$ V) | Factor<br>(dB) | Emission Level<br>(dB $\mu$ V/m) | Limits<br>(dB $\mu$ V/m) | Margin<br>(dB) | Value Type |
|--------------------|-------------------------------|----------------|----------------------------------|--------------------------|----------------|------------|
| 4824.031           | 43.05                         | 3.72           | 46.77                            | 74                       | -27.23         | peak       |
| 4824.065           | 36.57                         | 3.72           | 40.29                            | 54                       | -13.71         | AVG        |
| 7236.095           | 41.22                         | 8.15           | 49.37                            | 74                       | -24.63         | peak       |
| 7236.034           | 37.32                         | 8.15           | 45.47                            | 54                       | -8.53          | AVG        |
|                    |                               |                |                                  |                          |                |            |
|                    |                               |                |                                  |                          |                |            |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

|                    |                                     |                          |                |
|--------------------|-------------------------------------|--------------------------|----------------|
| <b>EUT</b>         | Mia Baby sound machine              | <b>Model Name</b>        | KT-W01A        |
| <b>Temperature</b> | 25°C                                | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                              | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | 802.11b with date rate 1<br>2412MHZ | <b>Antenna</b>           | Vertical       |

| Frequency<br>(MHz) | Meter Reading<br>(dB $\mu$ V) | Factor<br>(dB) | Emission Level<br>(dB $\mu$ V/m) | Limits<br>(dB $\mu$ V/m) | Margin<br>(dB) | Value Type |
|--------------------|-------------------------------|----------------|----------------------------------|--------------------------|----------------|------------|
| 4824.030           | 44.12                         | 3.72           | 47.84                            | 74                       | -26.16         | peak       |
| 4824.079           | 38.06                         | 3.72           | 41.78                            | 54                       | -12.22         | AVG        |
| 7236.078           | 41.91                         | 8.15           | 50.06                            | 74                       | -23.94         | peak       |
| 7236.096           | 36.66                         | 8.15           | 44.81                            | 54                       | -9.19          | AVG        |
|                    |                               |                |                                  |                          |                |            |
|                    |                               |                |                                  |                          |                |            |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

|                    |                                     |                          |                |
|--------------------|-------------------------------------|--------------------------|----------------|
| <b>EUT</b>         | Mia Baby sound machine              | <b>Model Name</b>        | KT-W01A        |
| <b>Temperature</b> | 25°C                                | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                              | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | 802.11b with data rate 1<br>2437MHZ | <b>Antenna</b>           | Horizontal     |

| Frequency<br>(MHz) | Meter Reading<br>(dBμV) | Factor<br>(dB) | Emission Level<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) | Value Type |
|--------------------|-------------------------|----------------|----------------------------|--------------------|----------------|------------|
| 4874.029           | 46.21                   | 3.75           | 49.96                      | 74                 | -24.04         | peak       |
| 4874.038           | 41.26                   | 3.75           | 45.01                      | 54                 | -8.99          | AVG        |
| 7311.096           | 40.21                   | 8.16           | 48.37                      | 74                 | -25.63         | peak       |
| 7311.044           | 36.11                   | 8.16           | 44.27                      | 54                 | -9.73          | AVG        |
|                    |                         |                |                            |                    |                |            |
|                    |                         |                |                            |                    |                |            |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

|                    |                                     |                          |                |
|--------------------|-------------------------------------|--------------------------|----------------|
| <b>EUT</b>         | Mia Baby sound machine              | <b>Model Name</b>        | KT-W01A        |
| <b>Temperature</b> | 25°C                                | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                              | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | 802.11b with data rate 1<br>2437MHZ | <b>Antenna</b>           | Vertical       |

| Frequency<br>(MHz) | Meter Reading<br>(dBμV) | Factor<br>(dB) | Emission Level<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) | Value Type |
|--------------------|-------------------------|----------------|----------------------------|--------------------|----------------|------------|
| 4874.083           | 45.87                   | 3.75           | 49.62                      | 74                 | -24.38         | peak       |
| 4874.110           | 41.12                   | 3.75           | 44.87                      | 54                 | -9.13          | AVG        |
| 7311.115           | 40.28                   | 8.16           | 48.44                      | 74                 | -25.56         | peak       |
| 7311.101           | 35.16                   | 8.16           | 43.32                      | 54                 | -10.68         | AVG        |
|                    |                         |                |                            |                    |                |            |
|                    |                         |                |                            |                    |                |            |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

|                    |                                     |                          |                |
|--------------------|-------------------------------------|--------------------------|----------------|
| <b>EUT</b>         | Mia Baby sound machine              | <b>Model Name</b>        | KT-W01A        |
| <b>Temperature</b> | 25°C                                | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                              | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | 802.11b with date rate 1<br>2462MHZ | <b>Antenna</b>           | Horizontal     |

| Frequency<br>(MHz) | Meter Reading<br>(dBμV) | Factor<br>(dB) | Emission Level<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) | Value Type |
|--------------------|-------------------------|----------------|----------------------------|--------------------|----------------|------------|
| 4924.092           | 42.33                   | 3.81           | 46.14                      | 74                 | -27.86         | peak       |
| 4924.078           | 39.88                   | 3.81           | 43.69                      | 54                 | -10.31         | AVG        |
| 7386.096           | 41.02                   | 8.19           | 49.21                      | 74                 | -24.79         | peak       |
| 7386.114           | 34.58                   | 8.19           | 42.77                      | 54                 | -11.23         | AVG        |
|                    |                         |                |                            |                    |                |            |
|                    |                         |                |                            |                    |                |            |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

|                    |                                     |                          |                |
|--------------------|-------------------------------------|--------------------------|----------------|
| <b>EUT</b>         | Mia Baby sound machine              | <b>Model Name</b>        | KT-W01A        |
| <b>Temperature</b> | 25°C                                | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                              | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | 802.11b with date rate 1<br>2462MHZ | <b>Antenna</b>           | Vertical       |

| Frequency<br>(MHz) | Meter Reading<br>(dBμV) | Factor<br>(dB) | Emission Level<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) | Value Type |
|--------------------|-------------------------|----------------|----------------------------|--------------------|----------------|------------|
| 4924.065           | 43.07                   | 3.81           | 46.88                      | 74                 | -27.12         | peak       |
| 4924.040           | 38.51                   | 3.81           | 42.32                      | 54                 | -11.68         | AVG        |
| 7386.032           | 37.42                   | 8.19           | 45.61                      | 74                 | -28.39         | peak       |
| 7386.103           | 35.56                   | 8.19           | 43.75                      | 54                 | -10.25         | AVG        |
|                    |                         |                |                            |                    |                |            |
|                    |                         |                |                            |                    |                |            |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

**RESULT: PASS**

**Note:**

Other emissions from 1G to 25 GHz are considered as ambient noise. No recording in the test report.

Factor = Antenna Factor + Cable loss - Amplifier gain, Over=Measure-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

All test modes had been pre-tested. The 802.11b mode is the worst case and recorded in the report.



## 12. BAND EDGE EMISSION

### 12.1. MEASUREMENT PROCEDURE

Radiated restricted band edge measurements

The radiated restricted band edge measurements are measured with an EMI test receiver connected to the receive antenna while the EUT is transmitting

### 12.2. TEST SET-UP

same as 11.2

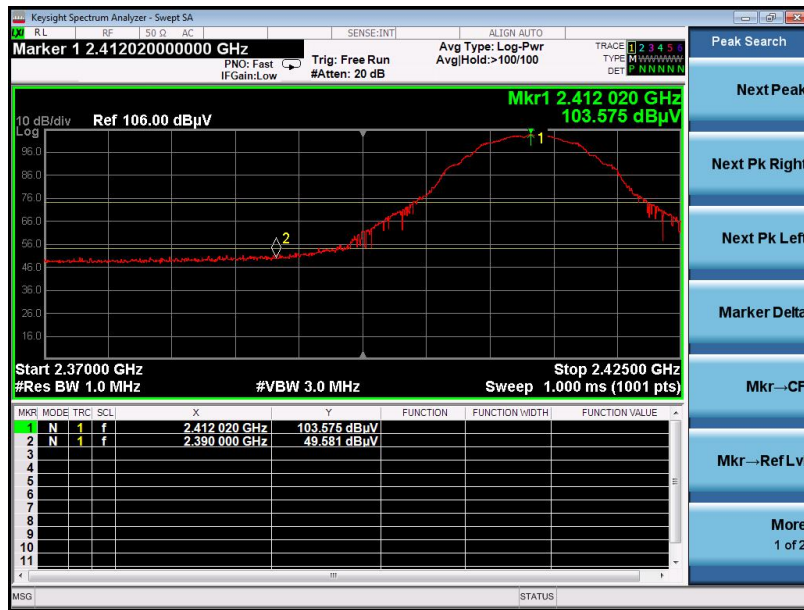
**Note:**

1. Factor=Antenna Factor + Cable loss - Amplifier gain. Field Strength=Factor + Reading level
2. The factor had been edited in the "Input Correction" of the Spectrum Analyzer. So the Amplitude of test plots is equal to Reading level plus the Factor in dB. Use the A dB( $\mu$ V) to represent the Amplitude. Use the F dB( $\mu$ V/m) to represent the Field Strength. So A=F.

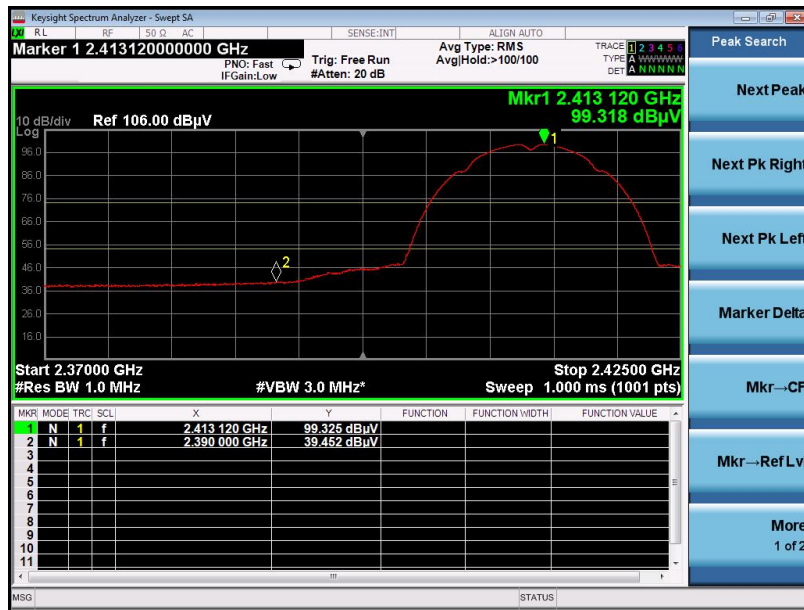
12.3. TEST RESULT

|             |                                     |                   |                |
|-------------|-------------------------------------|-------------------|----------------|
| EUT         | Mia Baby sound machine              | Model Name        | KT-W01A        |
| Temperature | 25°C                                | Relative Humidity | 55.4%          |
| Pressure    | 960hPa                              | Test Voltage      | Normal Voltage |
| Test Mode   | 802.11b with data rate 1<br>2412MHZ | Antenna           | Horizontal     |

PK



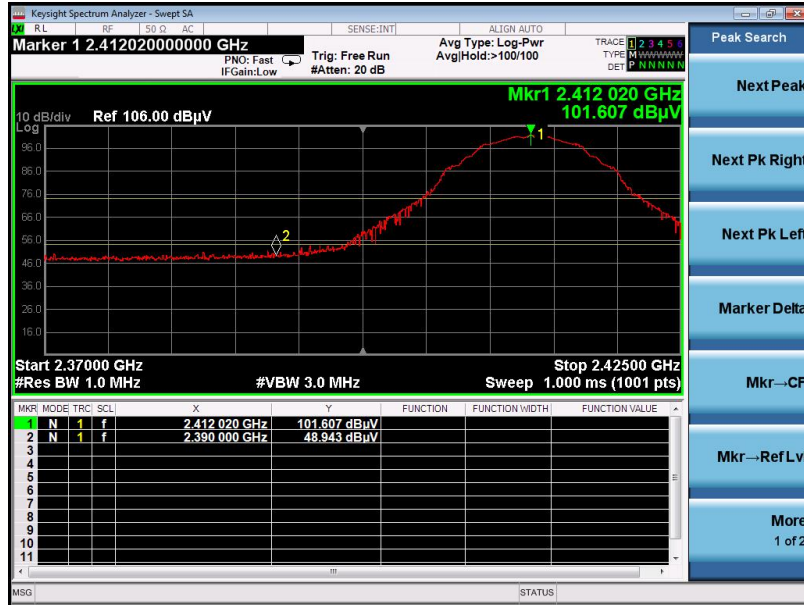
AV



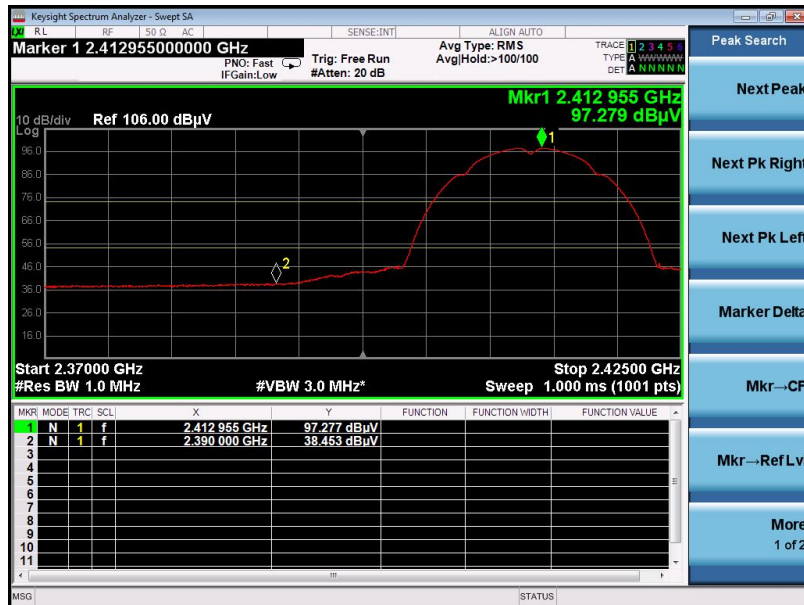
RESULT: PASS

|             |                                     |                   |                |
|-------------|-------------------------------------|-------------------|----------------|
| EUT         | Mia Baby sound machine              | Model Name        | KT-W01A        |
| Temperature | 25°C                                | Relative Humidity | 55.4%          |
| Pressure    | 960hPa                              | Test Voltage      | Normal Voltage |
| Test Mode   | 802.11b with data rate 1<br>2412MHZ | Antenna           | Vertical       |

PK



AV



RESULT: PASS

|             |                                     |                   |                |
|-------------|-------------------------------------|-------------------|----------------|
| EUT         | Mia Baby sound machine              | Model Name        | KT-W01A        |
| Temperature | 25°C                                | Relative Humidity | 55.4%          |
| Pressure    | 960hPa                              | Test Voltage      | Normal Voltage |
| Test Mode   | 802.11b with data rate 1<br>2462MHZ | Antenna           | Horizontal     |

PK



AV



RESULT: PASS

|             |                                     |                   |                |
|-------------|-------------------------------------|-------------------|----------------|
| EUT         | Mia Baby sound machine              | Model Name        | KT-W01A        |
| Temperature | 25°C                                | Relative Humidity | 55.4%          |
| Pressure    | 960hPa                              | Test Voltage      | Normal Voltage |
| Test Mode   | 802.11b with data rate 1<br>2462MHZ | Antenna           | Vertical       |

PK



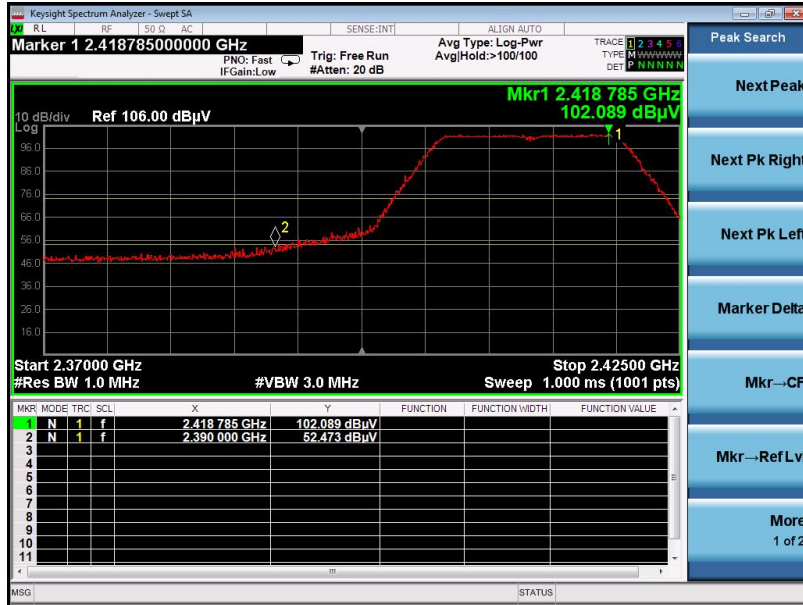
AV



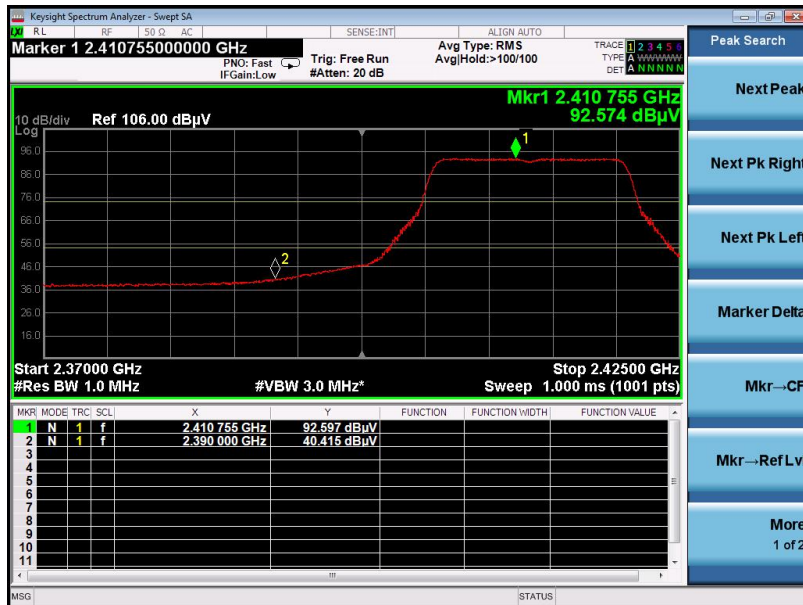
RESULT: PASS

|                    |                                     |                          |                |
|--------------------|-------------------------------------|--------------------------|----------------|
| <b>EUT</b>         | Mia Baby sound machine              | <b>Model Name</b>        | KT-W01A        |
| <b>Temperature</b> | 25°C                                | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                              | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | 802.11g with data rate 6<br>2412MHZ | <b>Antenna</b>           | Horizontal     |

PK



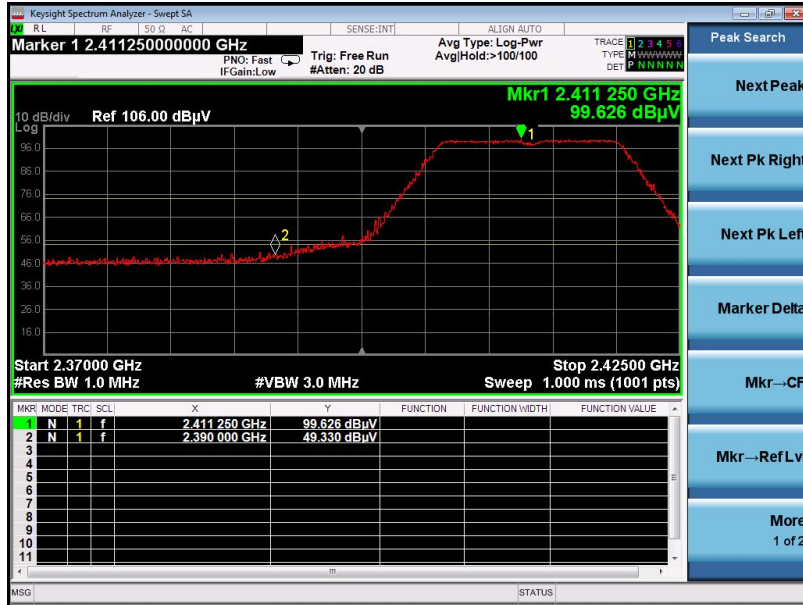
AV



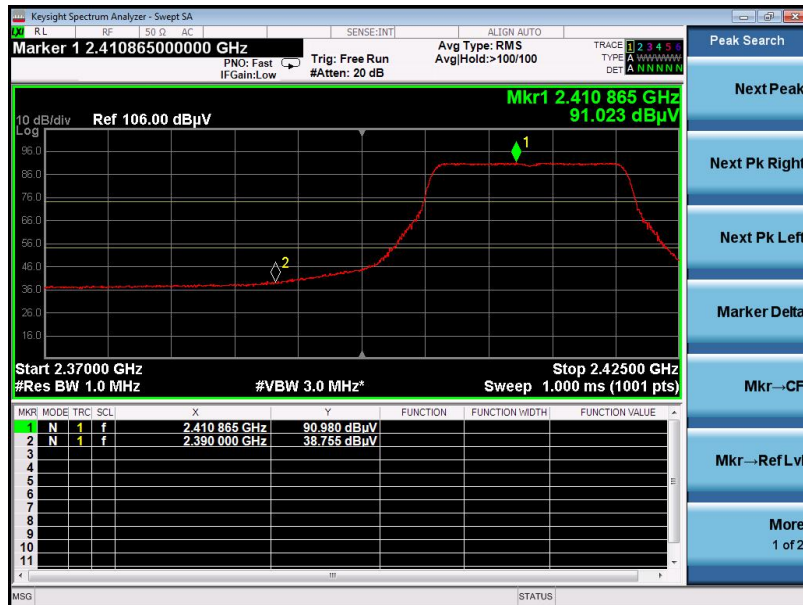
**RESULT: PASS**

|                    |                                     |                          |                |
|--------------------|-------------------------------------|--------------------------|----------------|
| <b>EUT</b>         | Mia Baby sound machine              | <b>Model Name</b>        | KT-W01A        |
| <b>Temperature</b> | 25°C                                | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                              | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | 802.11g with data rate 6<br>2412MHZ | <b>Antenna</b>           | Vertical       |

PK



AV

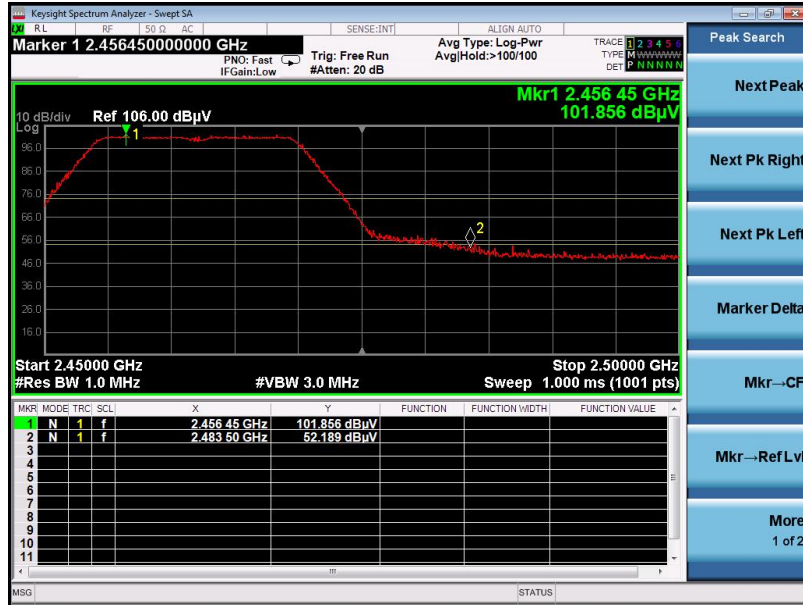


**RESULT: PASS**



|             |                                     |                   |                |
|-------------|-------------------------------------|-------------------|----------------|
| EUT         | Mia Baby sound machine              | Model Name        | KT-W01A        |
| Temperature | 25°C                                | Relative Humidity | 55.4%          |
| Pressure    | 960hPa                              | Test Voltage      | Normal Voltage |
| Test Mode   | 802.11g with data rate 6<br>2462MHZ | Antenna           | Horizontal     |

PK



AV



RESULT: PASS

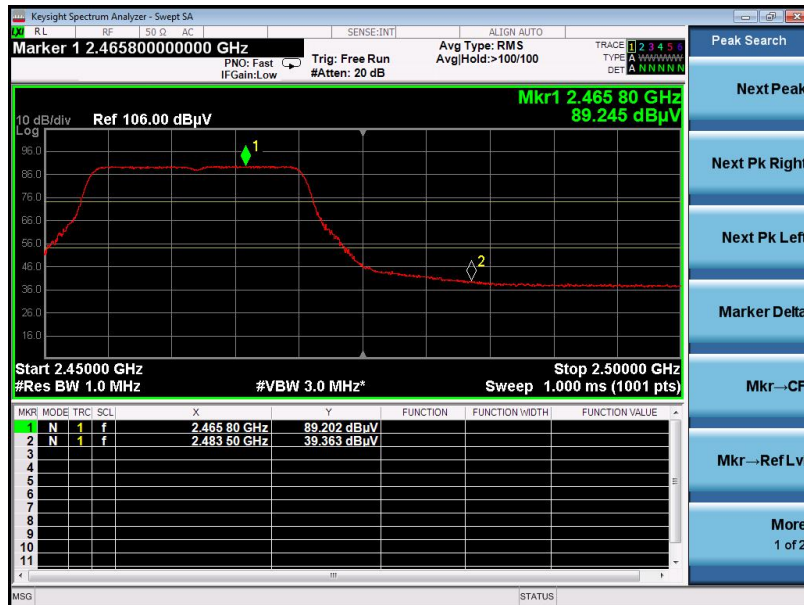


|             |                                     |                   |                |
|-------------|-------------------------------------|-------------------|----------------|
| EUT         | Mia Baby sound machine              | Model Name        | KT-W01A        |
| Temperature | 25°C                                | Relative Humidity | 55.4%          |
| Pressure    | 960hPa                              | Test Voltage      | Normal Voltage |
| Test Mode   | 802.11g with data rate 6<br>2462MHZ | Antenna           | Vertical       |

PK



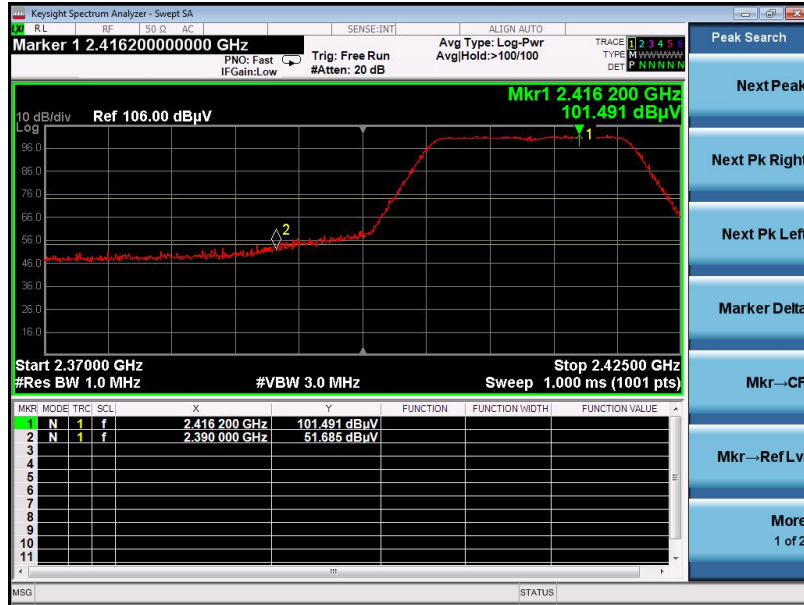
AV



RESULT: PASS

|             |  |                   |                |
|-------------|--|-------------------|----------------|
| EUT         | Mia Baby sound machine                   | Model Name        | KT-W01A        |
| Temperature | 25°C                                     | Relative Humidity | 55.4%          |
| Pressure    | 960hPa                                   | Test Voltage      | Normal Voltage |
| Test Mode   | 802.11n 20 with data rate 6.5<br>2412MHZ | Antenna           | Horizontal     |

PK



AV



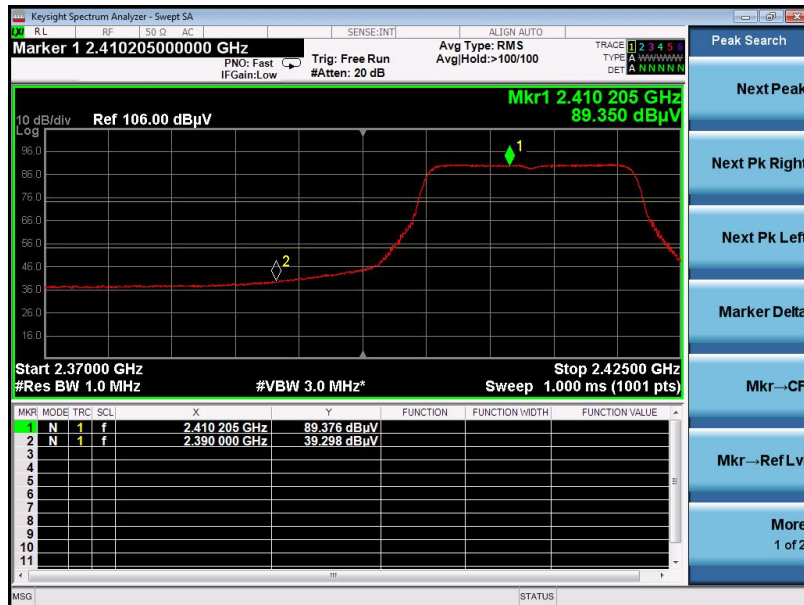
RESULT: PASS

|             |  |                   |                |
|-------------|--|-------------------|----------------|
| EUT         | Mia Baby sound machine                   | Model Name        | KT-W01A        |
| Temperature | 25°C                                     | Relative Humidity | 55.4%          |
| Pressure    | 960hPa                                   | Test Voltage      | Normal Voltage |
| Test Mode   | 802.11n 20 with data rate 6.5<br>2412MHZ | Antenna           | Vertical       |

PK



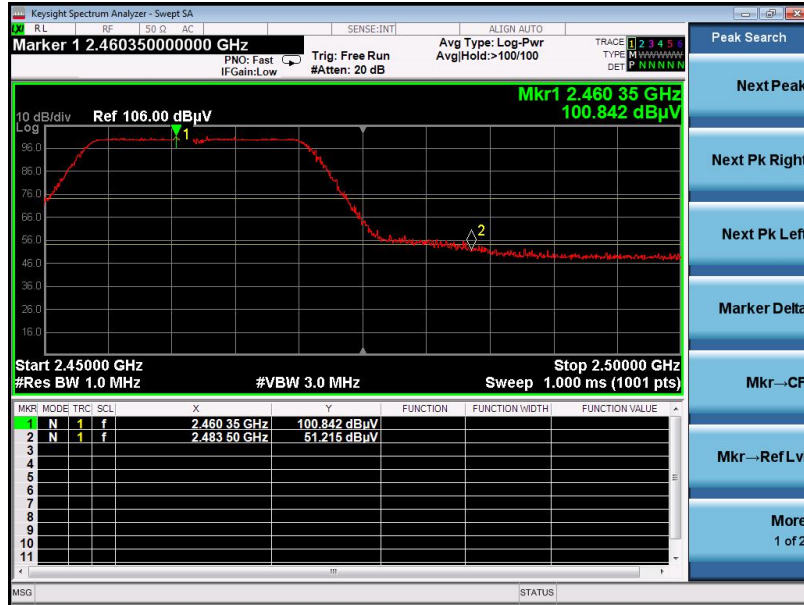
AV



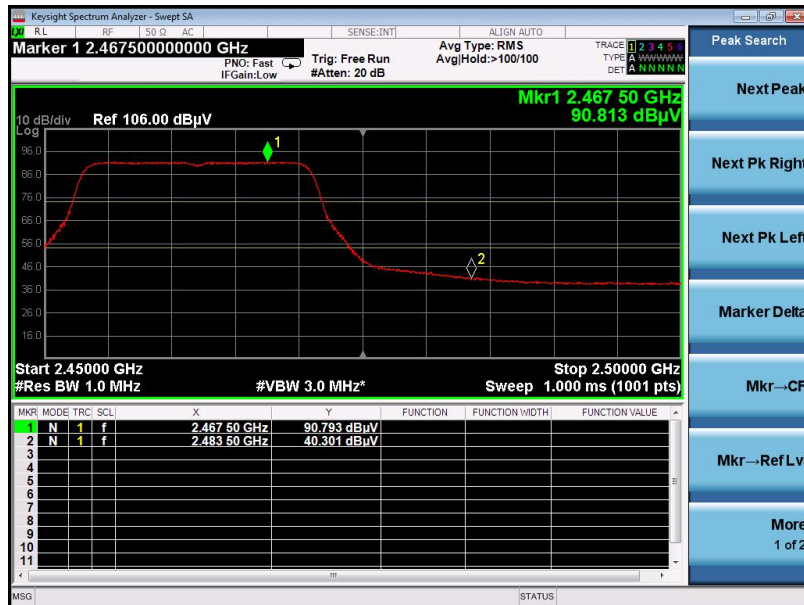
RESULT: PASS

|                    |  |                          |                |
|--------------------|--|--------------------------|----------------|
| <b>EUT</b>         | Mia Baby sound machine                   | <b>Model Name</b>        | KT-W01A        |
| <b>Temperature</b> | 25°C                                     | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                                   | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | 802.11n 20 with data rate 6.5<br>2462MHZ | <b>Antenna</b>           | Horizontal     |

PK



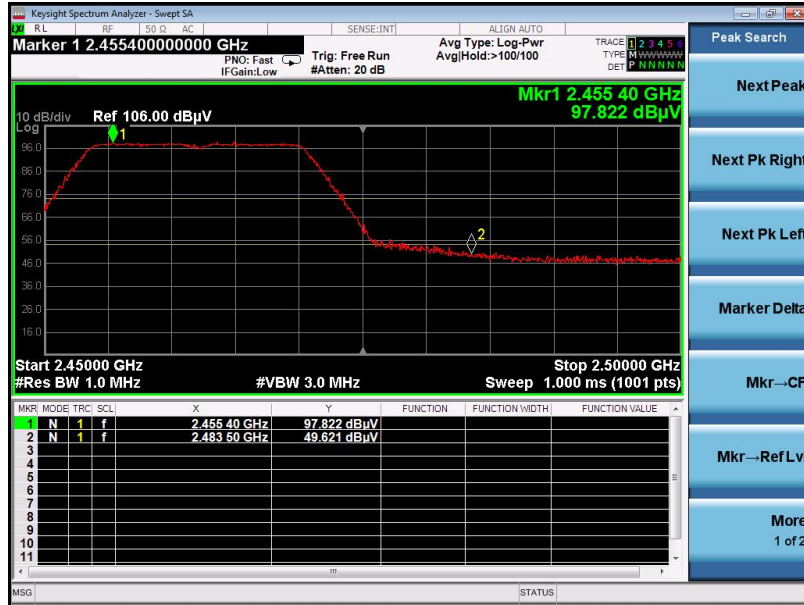
AV



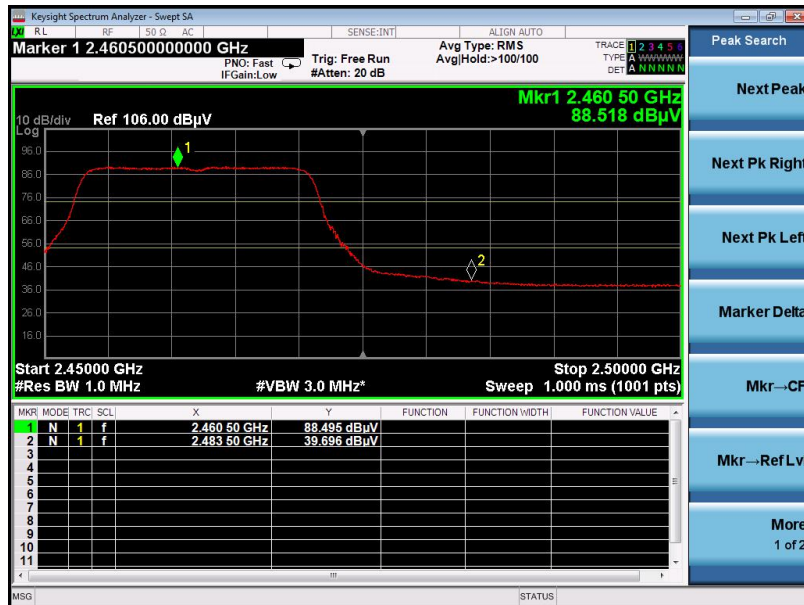
**RESULT: PASS**

|                    |  |                          |                |
|--------------------|--|--------------------------|----------------|
| <b>EUT</b>         | Mia Baby sound machine                   | <b>Model Name</b>        | KT-W01A        |
| <b>Temperature</b> | 25°C                                     | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                                   | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | 802.11n 20 with data rate 6.5<br>2462MHZ | <b>Antenna</b>           | Vertical       |

PK



AV



**RESULT: PASS**

|             |   |                   |                |
|-------------|---|-------------------|----------------|
| EUT         | Mia Baby sound machine                    | Model Name        | KT-W01A        |
| Temperature | 25°C                                      | Relative Humidity | 55.4%          |
| Pressure    | 960hPa                                    | Test Voltage      | Normal Voltage |
| Test Mode   | 802.11n 40 with data rate 13.5<br>2422MHZ | Antenna           | Horizontal     |

PK



AV

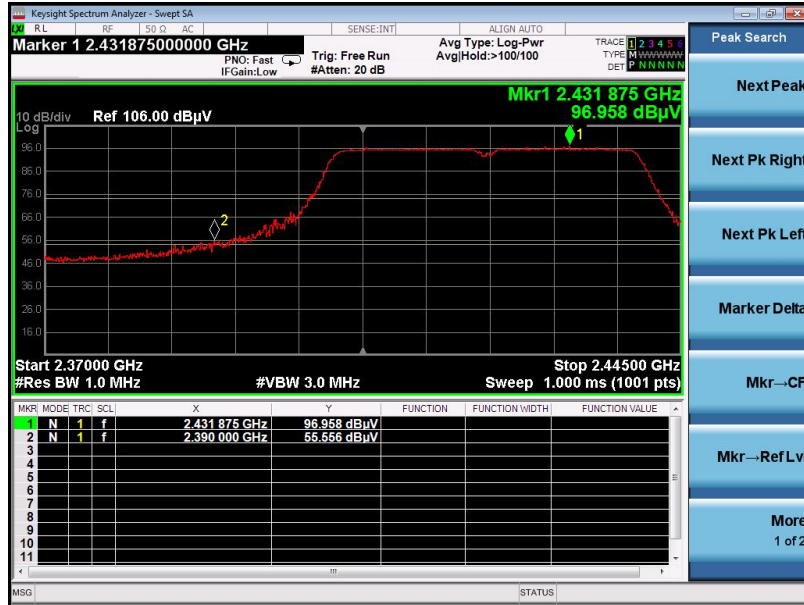


RESULT: PASS



|                    |   |                          |                |
|--------------------|---|--------------------------|----------------|
| <b>EUT</b>         | Mia Baby sound machine                    | <b>Model Name</b>        | KT-W01A        |
| <b>Temperature</b> | 25°C                                      | <b>Relative Humidity</b> | 55.4%          |
| <b>Pressure</b>    | 960hPa                                    | <b>Test Voltage</b>      | Normal Voltage |
| <b>Test Mode</b>   | 802.11n 40 with data rate 13.5<br>2422MHZ | <b>Antenna</b>           | Vertical       |

PK



AV



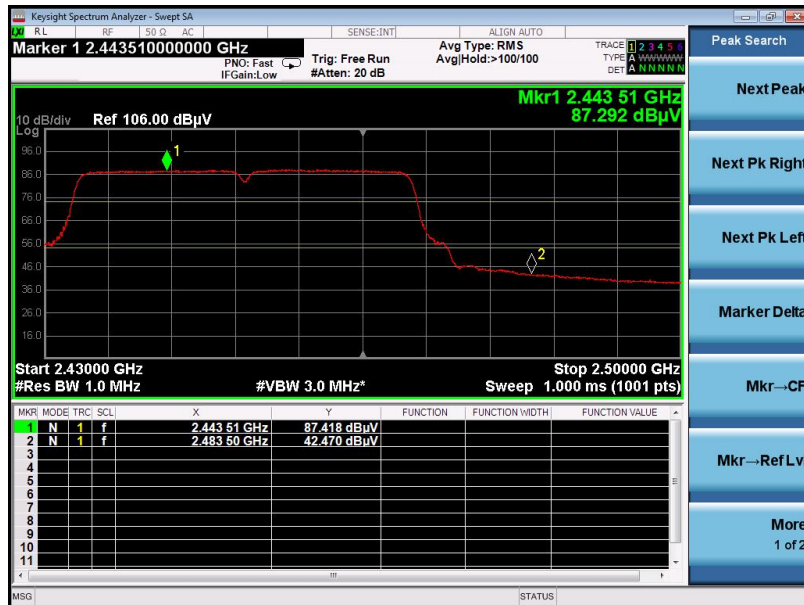
**RESULT: PASS**

|             |  |                   |                |
|-------------|--|-------------------|----------------|
| EUT         | Mia Baby sound machine                   | Model Name        | KT-W01A        |
| Temperature | 25°C                                     | Relative Humidity | 55.4%          |
| Pressure    | 960hPa                                   | Test Voltage      | Normal Voltage |
| Test Mode   | 802.11n 40with data rate 13.5<br>2452MHZ | Antenna           | Horizontal     |

PK



AV



RESULT: PASS

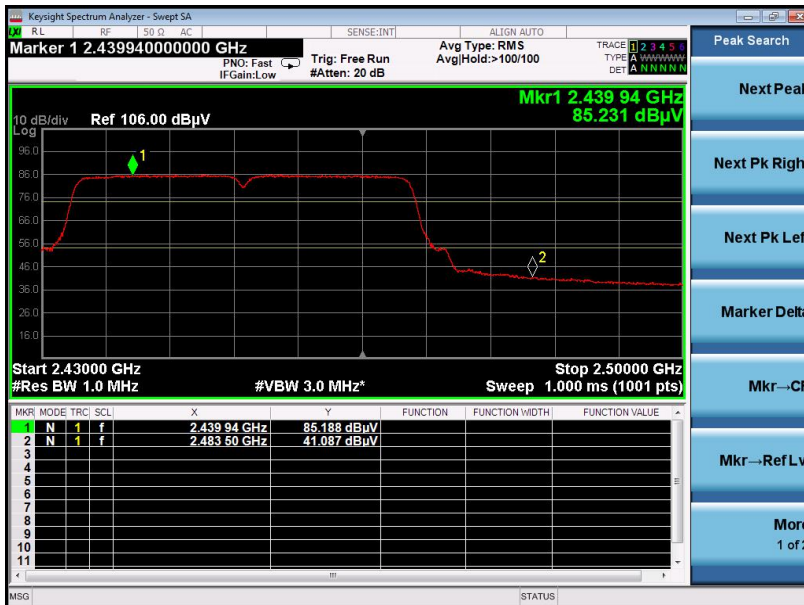


|             |   |                   |                |
|-------------|---|-------------------|----------------|
| EUT         | Mia Baby sound machine                    | Model Name        | KT-W01A        |
| Temperature | 25°C                                      | Relative Humidity | 55.4%          |
| Pressure    | 960hPa                                    | Test Voltage      | Normal Voltage |
| Test Mode   | 802.11n 40 with data rate 13.5<br>2452MHZ | Antenna           | Vertical       |

PK



AV



RESULT: PASS

**13. FCC LINE CONDUCTED EMISSION TEST**

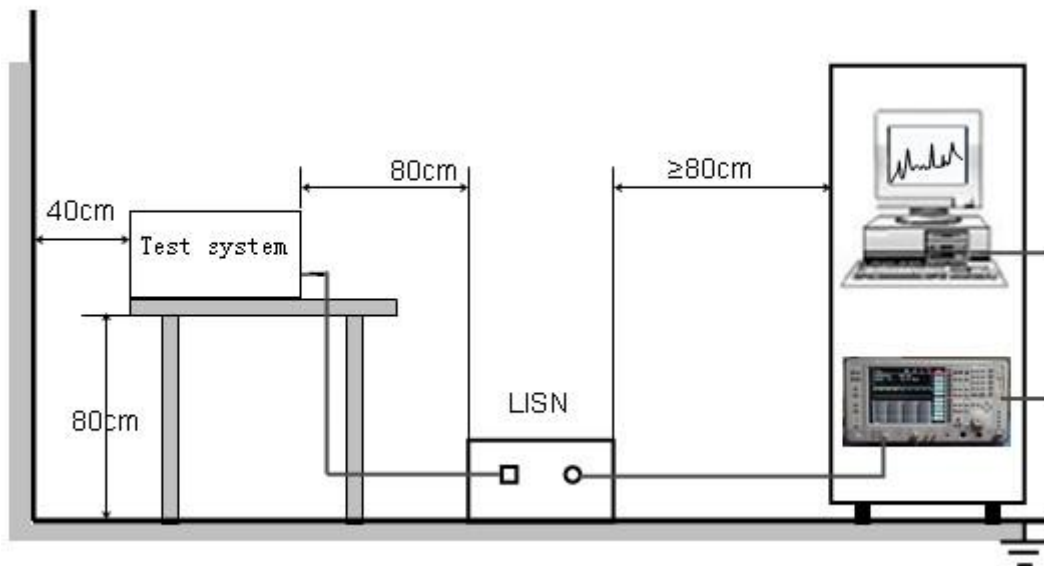
**13.1. LIMITS OF LINE CONDUCTED EMISSION TEST**

| Frequency     | Maximum RF Line Voltage |                |
|---------------|-------------------------|----------------|
|               | Q.P.( dBuV)             | Average( dBuV) |
| 150kHz-500kHz | 66-56                   | 56-46          |
| 500kHz-5MHz   | 56                      | 46             |
| 5MHz-30MHz    | 60                      | 50             |

**Note:**

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

**13.2. BLOCK DIAGRAM OF TEST SETUP**

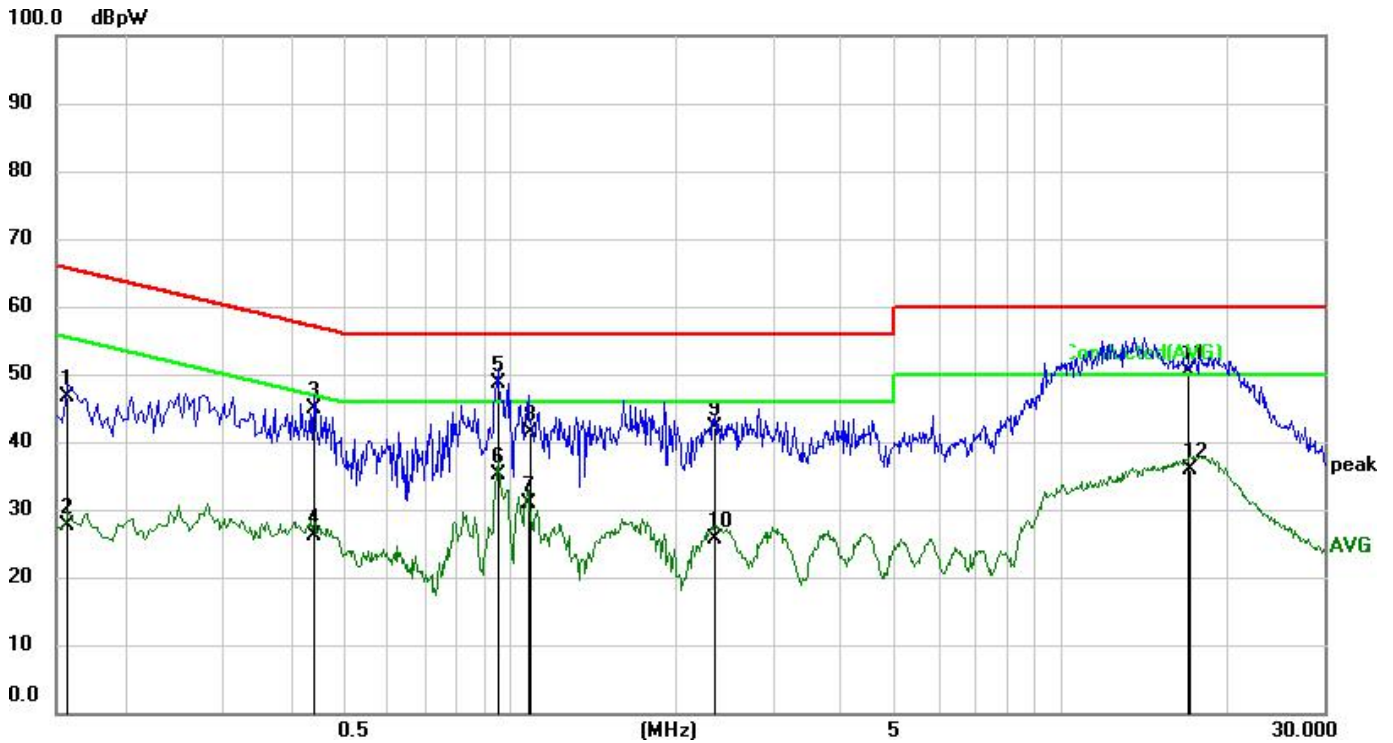


### 13.3. PROCEDURE OF LINE CONDUCTED EMISSION TEST

- (1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- (2) Support equipment, if needed, was placed as per ANSI C63.4.
- (3) All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
- (4) The EUT received DC 5V power from pc which received AC120V/60Hz power from a LISN.
- (5) The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- (6) Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
- (7) During the above scans, the emissions were maximized by cable manipulation.
- (8) A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions.
- (9) Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less -2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.

13.4. TEST RESULT OF LINE CONDUCTED EMISSION TEST

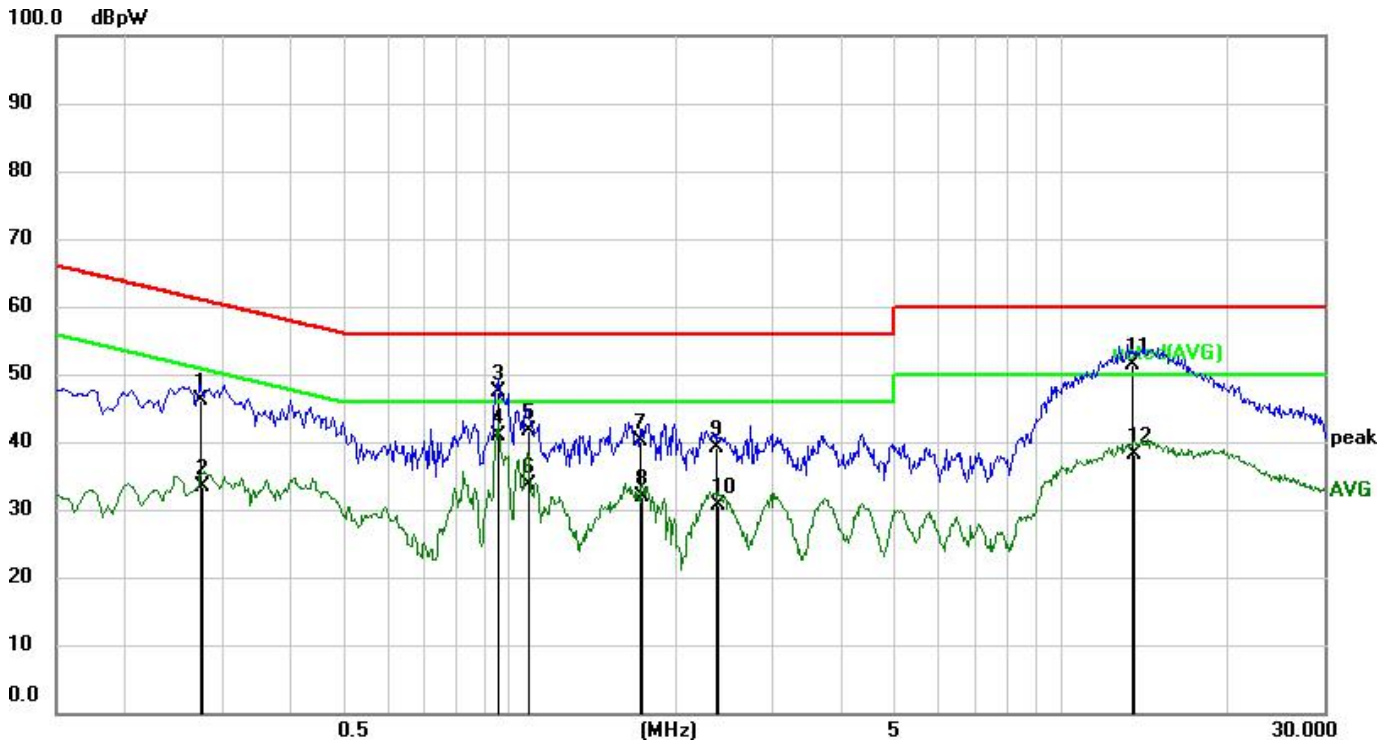
LINE CONDUCTED EMISSION TEST-L1



| No. Mk. | Freq. MHz | Reading Level dBuV | Correct Factor dB | Measurement dBuV | Limit dBuV | Over dB | Detector | Comment |
|---------|-----------|--------------------|-------------------|------------------|------------|---------|----------|---------|
| 1       | 0.1580    | 36.71              | 9.94              | 46.65            | 65.57      | -18.92  | QP       |         |
| 2       | 0.1580    | 17.58              | 9.94              | 27.52            | 55.57      | -28.05  | AVG      |         |
| 3       | 0.4420    | 34.91              | 9.92              | 44.83            | 57.02      | -12.19  | QP       |         |
| 4       | 0.4420    | 16.31              | 9.92              | 26.23            | 47.02      | -20.79  | AVG      |         |
| 5 *     | 0.9500    | 38.78              | 9.97              | 48.75            | 56.00      | -7.25   | QP       |         |
| 6       | 0.9540    | 25.09              | 9.97              | 35.06            | 46.00      | -10.94  | AVG      |         |
| 7       | 1.0780    | 20.96              | 9.97              | 30.93            | 46.00      | -15.07  | AVG      |         |
| 8       | 1.0900    | 31.29              | 9.97              | 41.26            | 56.00      | -14.74  | QP       |         |
| 9       | 2.3500    | 32.00              | 10.05             | 42.05            | 56.00      | -13.95  | QP       |         |
| 10      | 2.3500    | 15.60              | 10.05             | 25.65            | 46.00      | -20.35  | AVG      |         |
| 11      | 17.0620   | 38.02              | 12.46             | 50.48            | 60.00      | -9.52   | QP       |         |
| 12      | 17.1500   | 23.44              | 12.48             | 35.92            | 50.00      | -14.08  | AVG      |         |

RESULT: PASS

LINE CONDUCTED EMISSION TEST-N



| No. Mk. | Freq. MHz | Reading Level dBuV | Correct Factor dB | Measurement dBuV | Limit dBuV | Over dB | Detector | Comment |
|---------|-----------|--------------------|-------------------|------------------|------------|---------|----------|---------|
| 1       | 0.2744    | 36.14              | 9.91              | 46.05            | 60.98      | -14.93  | QP       |         |
| 2       | 0.2759    | 23.40              | 9.92              | 33.32            | 50.94      | -17.62  | AVG      |         |
| 3       | 0.9540    | 37.32              | 9.97              | 47.29            | 56.00      | -8.71   | QP       |         |
| 4 *     | 0.9540    | 30.83              | 9.97              | 40.80            | 46.00      | -5.20   | AVG      |         |
| 5       | 1.0859    | 31.66              | 9.97              | 41.63            | 56.00      | -14.37  | QP       |         |
| 6       | 1.0859    | 23.56              | 9.97              | 33.53            | 46.00      | -12.47  | AVG      |         |
| 7       | 1.7340    | 30.04              | 10.01             | 40.05            | 56.00      | -15.95  | QP       |         |
| 8       | 1.7420    | 21.78              | 10.01             | 31.79            | 46.00      | -14.21  | AVG      |         |
| 9       | 2.3740    | 29.10              | 10.05             | 39.15            | 56.00      | -16.85  | QP       |         |
| 10      | 2.3900    | 20.66              | 10.06             | 30.72            | 46.00      | -15.28  | AVG      |         |
| 11      | 13.5420   | 39.65              | 11.66             | 51.31            | 60.00      | -8.69   | QP       |         |
| 12      | 13.5700   | 26.43              | 11.67             | 38.10            | 50.00      | -11.90  | AVG      |         |

RESULT: PASS

**14.DUTY CYCLE**

**14.1.Applicable Standard**

According to KDB 558074)6)b), issued 06/09/2015

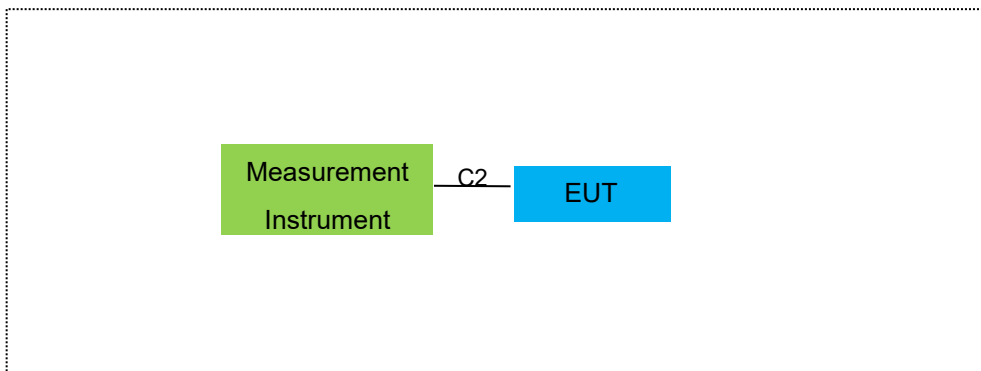
**14.2.Conformance Limit**

No limit requirement.

**14.3.Measuring Instruments**

The Measuring equipment is listed in the section 6.3 of this test report.

**14.4.Test Setup**



**14.5.Test Procedure**

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal. Set the center frequency of the instrument to the center frequency of the transmission. Set  $RBW \geq OBW$  if possible; otherwise, set RBW to the largest available value. Set  $VBW \geq RBW$ . Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are  $> 50/T$  and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if  $T \leq 16.7$  microseconds.)

The transmitter output is connected to the Spectrum Analyzer. We tested according to the zero-span measurement method, 6.0)b) in KDB 558074(issued 06/09/2015)

The largest available value of RBW is 8 MHz and VBW is 50 MHz. The zero-span method of measuring duty cycle shall not be used if  $T \leq 6.25$  microseconds. ( $50/6.25 = 8$ )

The zero-span method was used because all measured T data are  $> 6.25$  microseconds and both RBW and VBW are  $> 50/T$ .

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

Use the following spectrum analyzer settings:

Span = Zero Span

RBW = 8MHz(the largest available value)

VBW = 8MHz ( $\geq$  RBW)

Number of points in Sweep  $>100$

Detector function = peak

Trace = Clear write

Measure  $T_{total}$  and  $T_{on}$

Calculate Duty Cycle =  $T_{on} / T_{total}$

#### 14.6.Test Results

All Mode Duty Cycle  $\geq 98\%$



## 15.ANTENNA APPLICATION

### 15.1 Antenna Requirement

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

### 15.2 Result

The EUT antenna is permanent attached PCB antenna (Gain:2.0 dBi). It comply with the standard requirement.

PCB antenna



----END OF REPORT----