# TEST REPORT


Dt&C

**DT&C Co., Ltd.**

42, Yurim-ro, 154Beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea, 17042
Tel : 031-321-2664, Fax : 031-321-1664


1. Report No : DRTFCC1707-0129
2. Customer
   - Name : LG Electronics USA
   - Address : 1000 Sylvan Avenue Englewood Cliffs New Jersey United States 07632
3. Use of Report : FCC & IC Original Grant
4. Product Name / Model Name : Magic remote / AN-MR18BA
   FCC ID / IC : BEJMR18BA / 2703H-MR18BA
5. Test Method Used : ANSI C63.10-2013
   Test Specification : FCC Part 15 Subpart C.249
   RSS-210 Issue 9
6. Date of Test : 2017.07.02 ~ 2017.07.19
7. Testing Environment : See appended test report.
8. Test Result : Refer to the attached test result.

| | | |
|---|---|---|
| Affirmation | Tested by<br>Name : JaeHyeok Bang (Signature) | Technical Manager<br>Name : GeunKi Son (Signature) |


The test results presented in this test report are limited only to the sample supplied by applicant and the use of this test report is inhibited other than its purpose. This test report shall not be reproduced except in full, without the written approval of DT&C Co., Ltd.


**2017 . 07. 20 .**

**DT&C Co., Ltd.**

**If this report is required to confirmation of authenticity, please contact to report@dtnc.net**

# Test Report Version

| Test Report No. | Date | Description |
|---|---|---|
| DRTFCC1707-0129 | Jul. 20, 2017 | Initial issue |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

# Table of Contents

**1. General Information ..... 3**
1.1 Testing Laboratory ..... 4
1.2 Test Environment ..... 4
1.3 Measurement Uncertainty ..... 4
1.4 Details of Applicant ..... 5
1.5 Description of EUT ..... 5
1.6 Test Mode ..... 6
1.7 Tested Frequency ..... 6
1.8 EMI Suppression Device(s)/Modifications ..... 6
1.9 Test Equipment List ..... 7
**3. Transmitter requirements ..... 9**
3.1 AC Conducted Emissions ..... 9
3.1.1 Test Requirements and limit, §15.207 ..... 9
3.1.2 Test Configuration ..... 9
3.1.3 Test Procedure ..... 9
3.1.4 Test Result ..... 9
3.2 Radiated Emission ..... 10
3.2.1 Test Configuration ..... 12
3.2.2 Test Procedures for Radiated Spurious Emissions ..... 12
3.2.3 Test Result ..... 13
3.3 Occupied Bandwidth ..... 14
3.4 Antenna Requirements ..... 17
**APPENDIX I ..... 18**

## 1. General Information

## 1.1 Testing Laboratory

| **DT&C Co., Ltd.** | | | |
|---|---|---|---|
| **Standard** | | **Site number** | **Address** |
| **FCC** | ☒ | **165783** | 42, Yurim-ro 154 beon-gil, Cheoin -gu, Yongin-si, Gyeonggi -do, South Korea 449-935 |
| | ☐ | **804488** | 42, Yurim-ro 154 beon-gil, Cheoin -gu, Yongin-si, Gyeonggi -do, South Korea 449-935 |
| | ☐ | **596748** | 42, Yurim-ro 154 beon-gil, Cheoin -gu, Yongin-si, Gyeonggi -do, South Korea 449-935 |
| | ☐ | **678747** | 683-3, Yubang-dong, Cheoin-gu, Yongin-si, Kyeonggi-do, Korea, 449-080 |
| **IC** | ☒ | **5740A-3** | 42, Yurim-ro 154 beon-gil, Cheoin -gu, Yongin-si, Gyeonggi -do, South Korea 449-935 |
| | ☐ | **5740A-2** | 683-3, Yubang-dong, Cheoin-gu, Yongin-si, Kyeonggi-do, Korea, 449-080 |
| www.dtnc.net | | | |
| Telephone | : | + 82-31-321-2664 | |
| FAX | : | + 82-31-321-1664 | |

## 1.2 Test Environment

| **Ambient Condition** | |
|---|---|
| ▪ Temperature | +23 ℃ ~ +24 ℃ |
| ▪ Relative Humidity | 41 % ~ 43 % |

## 1.3 Measurement Uncertainty

| Test items | Measurement uncertainty |
|---|---|
| Radiated spurious emission (1 GHz Below) | 5.1 dB (The confidence level is about 95 %, k = 2) |
| Radiated spurious emission (1 GHz ~ 18 GHz) | 5.4 dB (The confidence level is about 95 %, k = 2) |
| Radiated spurious emission (18 GHz Above) | 5.3 dB (The confidence level is about 95 %, k = 2) |

## 1.4 Details of Applicant

| | | |
|---|---|---|
| Applicant | : | LG Electronics USA |
| Address | : | 1000 Sylvan Avenue Englewood Cliffs New Jersey United States 07632 |
| Contact person | : | Kyung-Su Han |

## 1.5 Description of EUT

| | |
|---|---|
| **EUT** | Magic remote |
| **Model Name** | AN-MR18BA |
| **Add Model Name** | **-** |
| **Power Supply** | DC 3.0 V |
| **Hardware version** | 1.2 |
| **Software version** | 1.2 |
| **Frequency Range** | 2402 MHz ~ 2480 MHz/ |
| **Max. field strength (average)** | 89.59 dBuV/m |
| **Modulation Type** | GFSK |
| **Antenna Specification** | Pattern Antenna antenna<br>▪ Max. peak gain : 2.12 dBi |

## 1.6 Test Mode

| | Test Mode |
|---|---|
| **TM 1** | LE |
| **TM 2** | - |

## 1.7 Tested Frequency

| | TX Frequency (MHz) |
|---|---|
| **Lowest Channel** | 2402 |
| **Middle Channel** | 2440 |
| **Highest Channel** | 2480 |

## 1.8 EMI Suppression Device(s)/Modifications

EMI suppression device(s) added and/or modifications made during testing
→ None


Prohibits the copying and re-issue of this report without DT&C approval.

## 1.9 Test Equipment List

| Type | Manufacturer | Model | Cal.Date (yy/mm/dd) | Next.Cal.Date (yy/mm/dd) | S/N |
|---|---|---|---|---|---|
| Spectrum Analyzer | Agilent Technologies | N9020A | 17/01/11 | 18/01/11 | MY50200828 |
| Spectrum Analyzer | Agilent Technologies | N9020A | 16/10/11 | 17/10/11 | MY46471251 |
| DC Power Supply | SM techno | SDP30-5D | 16/09/08 | 17/09/08 | 305DMG291 |
| Thermohygrometer | HCT | HCT-1 | 16/09/09 | 17/09/09 | NONE |
| Signal Generator | Rohde Schwarz | SMF100A | 17/04/21 | 18/04/21 | 102341 |
| Signal Generator | Rohde Schwarz | SMBV100A | 17/01/04 | 18/01/04 | 255571 |
| Multimeter | FLUKE | 17B | 17/04/12 | 18/04/12 | 26030065WS |
| Loop Antenna | Schwarzbeck | FMZB1513 | 16/04/22 | 18/04/22 | 1513-128 |
| BILOG ANTENNA | Schwarzbeck | VULB 9160 | 16/05/13 | 18/05/13 | 3358 |
| Horn Antenna | ETS-LINDGREN | 3117 | 16/05/03 | 18/05/03 | 00140394 |
| Horn Antenna | A.H.Systems Inc. | SAS-574 | 17/04/25 | 18/04/25 | 154 |
| Highpass Filter | Wainwright Instruments | WHKX12-2580-3000-18000-80SS | 16/09/09 | 17/09/09 | 3 |
| Highpass Filter | Wainwright Instruments | WHNX6-6320-8000-26500-40CC | 16/09/13 | 17/09/13 | 1 |
| PreAmplifier | Agilent | 8449B | 16/10/19 | 17/10/19 | 3008A02108 |
| PreAmplifier | TSJ | MLA-010K01-B01-27 | 17/03/06 | 18/03/06 | 1844539 |
| EMI Test Receiver | Rohde Schwarz | ESR7 | 17/02/16 | 18/02/16 | 101061 |


Prohibits the copying and re-issue of this report without DT&C approval.

## 2. SUMMARY OF TESTS

| FCC Part | RSS Std. | Parameter | Limit | Test Condition | Status Note 1 |
|---|---|---|---|---|---|
| 15.249 (a) | RSS-210 [B.10(a)] | Field Strength Limits | FCC 15.249(a) | Radiated | C |
| 15.205<br>15.209<br>15.249 | RSS-GEN[8.9]<br>RSS-GEN [8.10]<br>RSS-210[B.10] | General Field Strength Limits (Restricted Bands and Radiated Emission Limits) | FCC 15.209, 249 limits | Radiated | C |
| 15.207 | RSS-Gen [8.8] | AC Conducted Emissions | FCC 15.207 limits | AC Line Conducted | NA Note2 |
| - | RSS-Gen [6.6] | Occupied Bandwidth (99 %) | RSS-Gen(6.6) | Conducted | C |
| 15.203 | - | Antenna Requirements | FCC 15.203 | - | C |

Note 1: **C**=Comply **NC**=Not Comply **NT**=Not Tested **NA**=Not Applicable

Note 2: This device is used battery for power supplying.
Therefore this test item was not performed.

The sample was tested according to the following specification:
ANSI C63.10-2013


Prohibits the copying and re-issue of this report without DT&C approval.

# 3. Transmitter requirements

## 3.1 AC Conducted Emissions

### 3.1.1 Test Requirements and limit, §15.207

According to §15.207(a) for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 uH/50 ohm line impedance stabilization network (LISN).

Compliance with the provision of this paragraph shall on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower applies at the boundary between the frequency ranges.

| Frequency Range (MHz) | Conducted Limit (dBuV) | |
|---|---|---|
| | Quasi-Peak | Average |
| 0.15 ~ 0.5 | 66 to 56 * | 56 to 46 * |
| 0.5 ~ 5 | 56 | 46 |
| 5 ~ 30 | 60 | 50 |

* Decreases with the logarithm of the frequency

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

### 3.1.2 Test Configuration

-NA

### 3.1.3 Test Procedure

Conducted emissions from the EUT were measured according to the ANSI C63.10.

1. The test procedure is performed in a 6.5 m × 3.5 m × 3.5 m (L × W × H) shielded room. The EUT along with its peripherals were placed on a 1.0 m (W) × 1.5 m (L) and 0.8 m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane.
2. The EUT was connected to power mains through a line impedance stabilization network (LISN) which provides 50 ohm coupling impedance for measuring instrument and the chassis ground was bounded to the horizontal ground plane of shielded room.
3. All peripherals were connected to the second LISN and the chassis ground also bounded to the horizontal ground plane of shielded room.
4. The excess power cable between the EUT and the LISN was bundled. The power cables of peripherals were unbundled. All connecting cables of EUT and peripherals were moved to find the maximum emission.

### 3.1.4 Test Result

-NA

## 3.2 Radiated Emission

**Test Requirements and limit, §15.249, §15.205, §15.209**

▪ **FCC Part 15.249**

(a) Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

| Frequency (MHz) | Limit @ 3m | |
|---|---|---|
| | Field strength of fundamental (mV/m) | Field strength of harmonics (uV/m) |
| 902 ~ 908 | 50 | 500 |
| 2400 ~ 2483.5 | 50 | 500 |
| 5725 ~ 5825 | 50 | 500 |
| 24,000 ~ 24,250 | 250 | 2500 |

**(**d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

(e) As shown in §15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a) and (b) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b) of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.

▪ **FCC Part 15.209(a) and (b)**

| Frequency (MHz) | Limit (uV/m) | Measurement Distance (meter) |
|---|---|---|
| 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 |

** Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88MHz, 174-216MHz or 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g. 15.231 and 15.241.

▪ **FCC Part 15.205 (a):** Only spurious emissions are permitted in any of the frequency bands listed below:

| MHz | MHz | MHz | MHz | GHz | GHz |
|---|---|---|---|---|---|
| 0.009 ~ 0.110 | 12.29 ~ 12.293 | 149.9 ~ 150.05 | 1645.5 ~ 1646.5 | 4.5 ~ 5.15 | 14.47 ~ 14.5 |
| 0.495 ~ 0.505 | 12.51975 ~ | 156.52475 ~ | 1660 ~ 1710 | 5.35 ~ 5.46 | 15.35 ~ 16.2 |
| 2.1735 ~ 2.1905 | 12.52025 | 156.52525 | 1718.8 ~ 1722.2 | 7.25 ~ 7.75 | 17.7 ~ 21.4 |
| 4.125 ~ 4.128 | 12.57675 ~ | 156.7 ~ 156.9 | 2200 ~ 2300 | 8.025 ~ 8.5 | 22.01 ~ 23.12 |
| 4.17725 ~ 4.17775 | 12.57725 | 162.0125 ~ 167.17 | 2310 ~ 2390 | 9.0 ~ 9.2 | 23.6 ~ 24.0 |
| 4.20725 ~ 4.20775 | 13.36 ~ 13.41 | 167.72 ~ 173.2 | 2483.5 ~ 2500 | 9.3 ~ 9.5 | 31.2 ~ 31.8 |
| 6.215 ~ 6.218 | 16.42 ~ 16.423 | 240 ~ 285 | 2655 ~ 2900 | 10.6 ~ 12.7 | 36.43 ~ 36.5 |
| 6.26775 ~ 6.26825 | 16.69475 ~ | 322 ~ 335.4 | 3260 ~ 3267 | 13.25 ~ 13.4 | Above 38.6 |
| 6.31175 ~ 6.31225 | 16.69525 | 399.90 ~ 410 | 3332 ~ 3339 | | |
| 8.291 ~ 8.294 | 16.80425 ~ | 608 ~ 614 | 3345.8 ~ 3358 | | |
| 8.362 ~ 8.366 | 16.80475 | 960 ~ 1240 | 3600 ~ 4400 | | |
| 8.37625 ~ 8.38675 | 25.5 ~ 25.67 | 1300 ~ 1427 | | | |
| 8.41425 ~ 8.41475 | 37.5 ~ 38.25 | 1435 ~ 1626.5 | | | |
| | 73 ~ 74.6 | | | | |
| | 74.8 ~ 75.2 | | | | |
| | 108 ~ 121.94 | | | | |
| | 123 ~ 138 | | | | |

▪ **FCC Part 15.205(b):** The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.


Prohibits the copying and re-issue of this report without DT&C approval.

### 3.2.1 Test Configuration

Refer to the APPENDIX I.

### 3.2.2 Test Procedures for Radiated Spurious Emissions

1. The EUT is placed on a non-conductive table. For emission measurements at or below 1 GHz, the table height is 80 cm. For emission measurements above 1 GHz, the table height is 1.5 m.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. During performing radiated emission below 1 GHz, the EUT was set 3 meters away from the interference receiving antenna, which was mounted on the top of a variable-height antenna tower. During performing radiated emission above 1 GHz, the EUT was set 3 meter away from the interference-receiving antenna.
4. For measurements above 1 GHz absorbers are placed on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed.
5. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
6. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.
7. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
8. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.

NOTE 2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection and frequency above 1 GHz.

NOTE 3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1 GHz.

### 3.2.3 Test Result

## Frequency Range : 9 kHz ~ 25 GHz

### ▪ Lowest Channel

| Frequency (MHz) | ANT Pol | The worst case EUT Position (Axis) | Detector Mode | Reading (dBuV) | T.F (dB/m) | D.C.F (dB) | Distance Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| *2401.93 | H | Z | PK | 96.32 | 0.73 | N/A | N/A | 97.05 | 113.98 | 17.97 |
| *2401.92 | H | Z | AV | 88.86 | 0.73 | N/A | N/A | 89.59 | 93.98 | 4.39 |
| 2361.87 | H | Z | PK | 49.71 | 0.59 | N/A | N/A | 50.30 | 74.00 | 23.70 |
| 2361.96 | H | Z | AV | 37.77 | 0.59 | N/A | N/A | 38.36 | 54.00 | 15.64 |
| 2388.97 | H | Z | PK | 52.91 | 0.70 | N/A | N/A | 53.61 | 74.00 | 20.39 |
| 2388.99 | H | Z | AV | 36.85 | 0.70 | N/A | N/A | 37.55 | 54.00 | 16.45 |
| 4804.65 | H | Z | PK | 51.44 | 4.77 | N/A | N/A | 56.21 | 74.00 | 17.79 |
| 4803.85 | H | Z | AV | 41.07 | 4.77 | N/A | N/A | 45.84 | 54.00 | 8.16 |
| 7206.29 | H | Z | PK | 50.85 | 7.71 | N/A | N/A | 58.56 | 74.00 | 15.44 |
| 7205.41 | H | Z | AV | 39.17 | 7.71 | N/A | N/A | 46.88 | 54.00 | 7.12 |

### ▪ Middle Channel

| Frequency (MHz) | ANT Pol | The worst case EUT Position (Axis) | Detector Mode | Reading (dBuV) | T.F (dB/m) | D.C.F (dB) | Distance Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| *2439.74 | H | X | PK | 94.04 | 0.83 | N/A | N/A | 94.87 | 113.98 | 19.11 |
| *2439.76 | H | X | AV | 86.98 | 0.83 | N/A | N/A | 87.81 | 93.98 | 6.17 |
| 4879.71 | H | X | PK | 54.76 | 5.10 | N/A | N/A | 59.86 | 74.00 | 14.14 |
| 4879.79 | H | X | AV | 44.61 | 5.10 | N/A | N/A | 49.71 | 54.00 | 4.29 |
| 7320.55 | H | X | PK | 50.22 | 7.60 | N/A | N/A | 57.82 | 74.00 | 16.18 |
| 7319.40 | H | X | AV | 38.42 | 7.60 | N/A | N/A | 46.02 | 54.00 | 7.98 |

### ▪ Highest Channel

| Frequency (MHz) | ANT Pol | The worst case EUT Position (Axis) | Detector Mode | Reading (dBuV) | T.F (dB/m) | D.C.F (dB) | Distance Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| *2480.52 | H | X | PK | 95.22 | 0.93 | N/A | N/A | 96.15 | 113.98 | 17.83 |
| *2480.49 | H | X | AV | 88.65 | 0.93 | N/A | N/A | 89.58 | 93.98 | 4.40 |
| 2483.50 | H | X | PK | 60.87 | 0.94 | N/A | N/A | 61.81 | 74.00 | 12.19 |
| 2483.52 | H | X | AV | 39.53 | 0.94 | N/A | N/A | 40.47 | 54.00 | 13.53 |
| 4959.79 | H | X | PK | 54.13 | 5.34 | N/A | N/A | 59.47 | 74.00 | 14.53 |
| 4959.79 | H | X | AV | 43.47 | 5.34 | N/A | N/A | 59.47 | 54.00 | 5.19 |
| 7440.87 | H | X | PK | 51.65 | 7.57 | N/A | N/A | 59.22 | 74.00 | 14.78 |
| 7439.37 | H | X | AV | 39.88 | 7.57 | N/A | N/A | 47.45 | 54.00 | 6.55 |

▪ **Note.**

1. No other spurious and harmonic emissions were found greater than listed emissions on above table.
2. Sample Calculation.

   Margin = Limit – Result / Result = Reading + T.F + D.C.F / T.F = AF + CL – AG

   Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain,

   DCF = Duty Cycle Reduction Factor.
3. * is fundamental frequency.

## 3.3 Occupied Bandwidth

### Test Requirements, RSS-Gen [6.6]

When an occupied bandwidth value is not specified in the applicable RSS, the transmitted signal bandwidth to be reported is to be its 99 % emission bandwidth, as calculated or measured.

### ▣ TEST CONFIGURATION

Refer to the APPENDIX I.

### ▣ TEST PROCEDURE

- The transmitter shall be operated at its maximum carrier power measured under normal test conditions.
- The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.
- The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the occupied bandwidth (OBW) and video bandwidth (VBW) shall be approximately 3x RBW.

### ▣ TEST RESULTS: Comply

| Test Mode | Frequency | Test Results [MHz] |
|---|---|---|
| TM 1 | Lowest | 1.110 |
| | Middle | 1.055 |
| | Highest | 1.070 |


Prohibits the copying and re-issue of this report without DT&C approval.

## ▣ RESULT PLOTS

### Occupied Bandwidth TM 1 & Lowest

### Occupied Bandwidth TM 1 & Middle

## Occupied Bandwidth TM 1 & Highest

## 3.4 Antenna Requirements

- **According to FCC 47 CFR §15.203:**

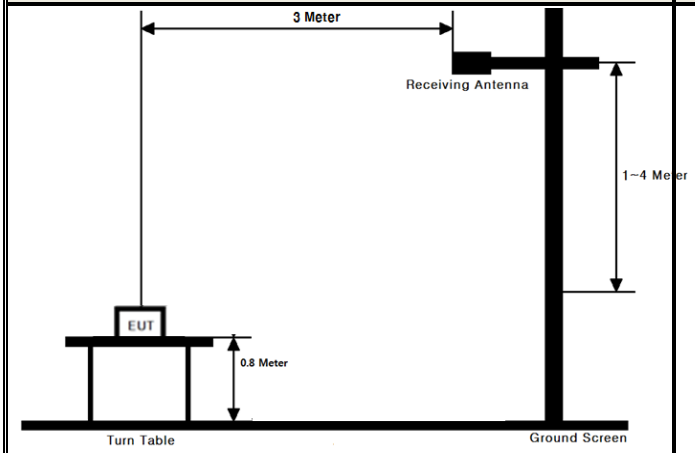
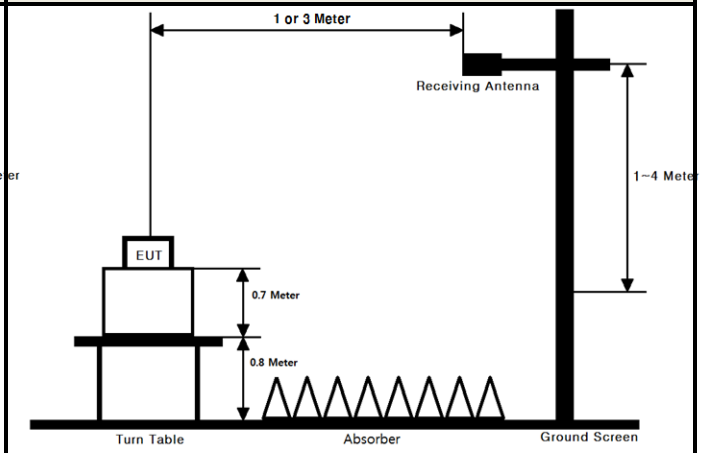
An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

**The antenna is permanently attached on PCB. (Refer to Internal photo file.)**
**Therefore this E.U.T Complies with the requirement of §15.203.**

# APPENDIX I

## Test set up diagrams

- **Radiated Measurement**

| Below 1GHz | Above 1GHz |
|---|---|
|  |  |

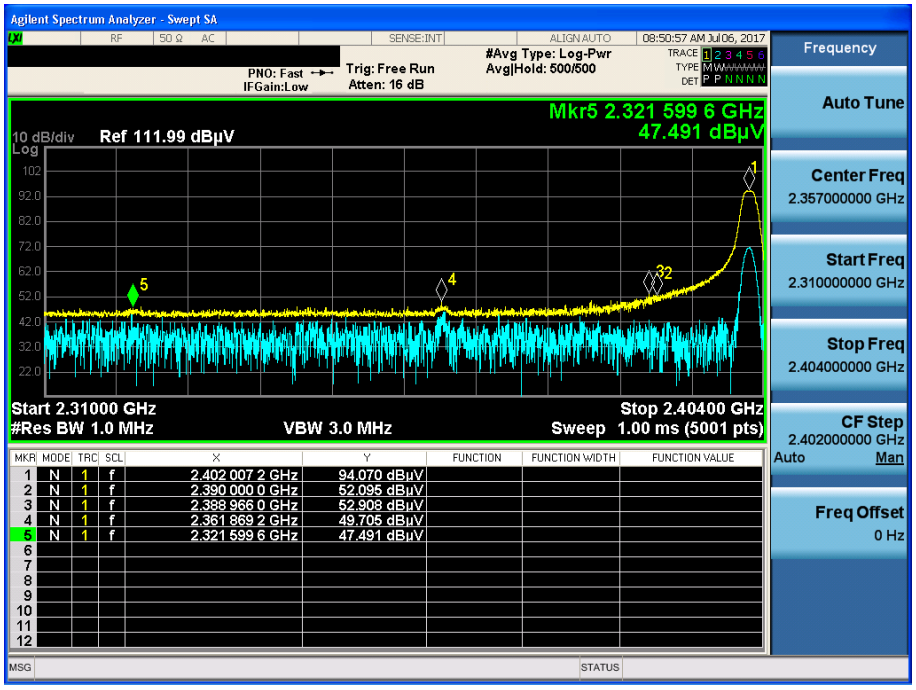
# APPENDIX II

## Worst data plot of radiated test

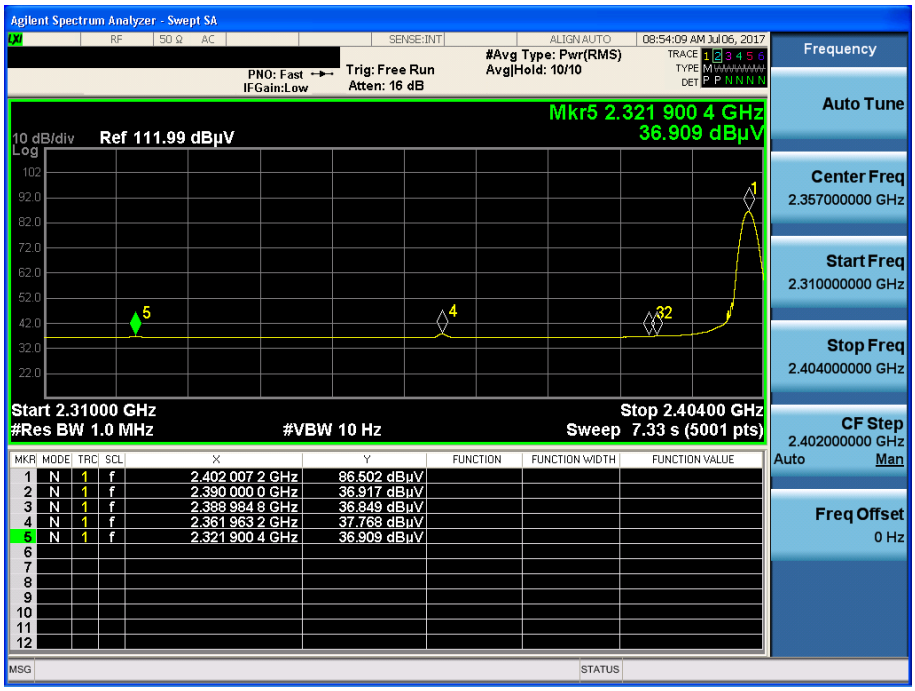
Note: The offset was not include in test plot(Reading value). The results refer to the section 3.2.3.

## Restricted band edge

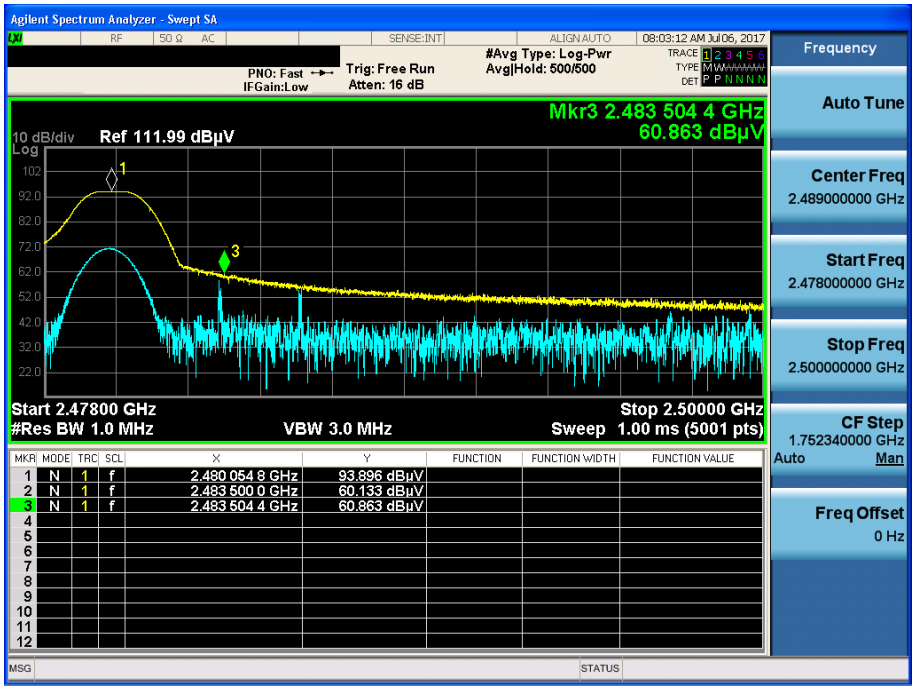
**Lowest & Z & Hor** **Detector Mode : PK**



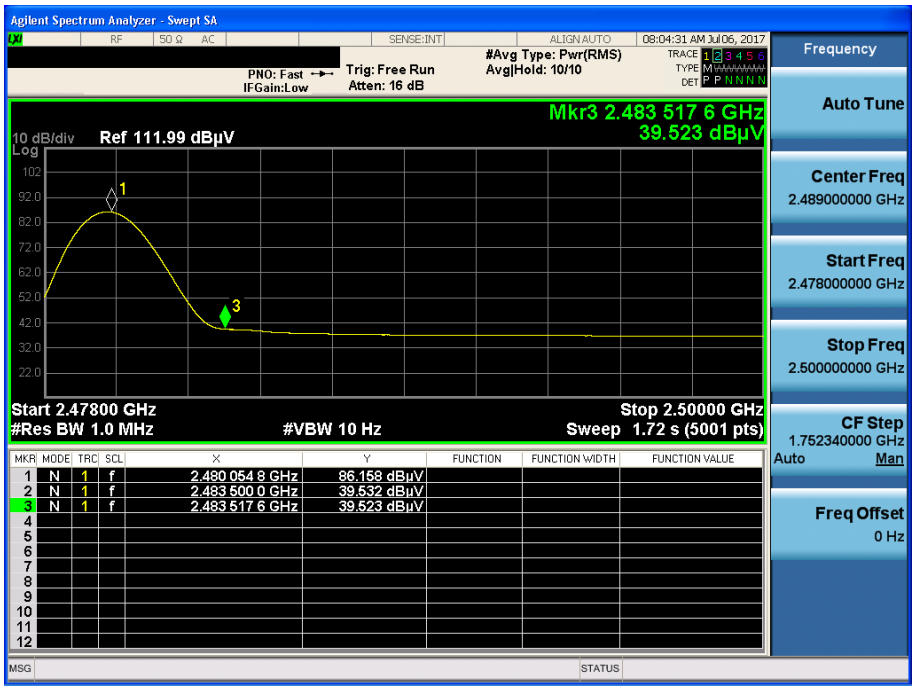

**Lowest & Z & Hor** **Detector Mode : AV**



**Highest & X & Hor** **Detector Mode : AV**




**BE & Highest & X & Hor** **Detector Mode : AV**



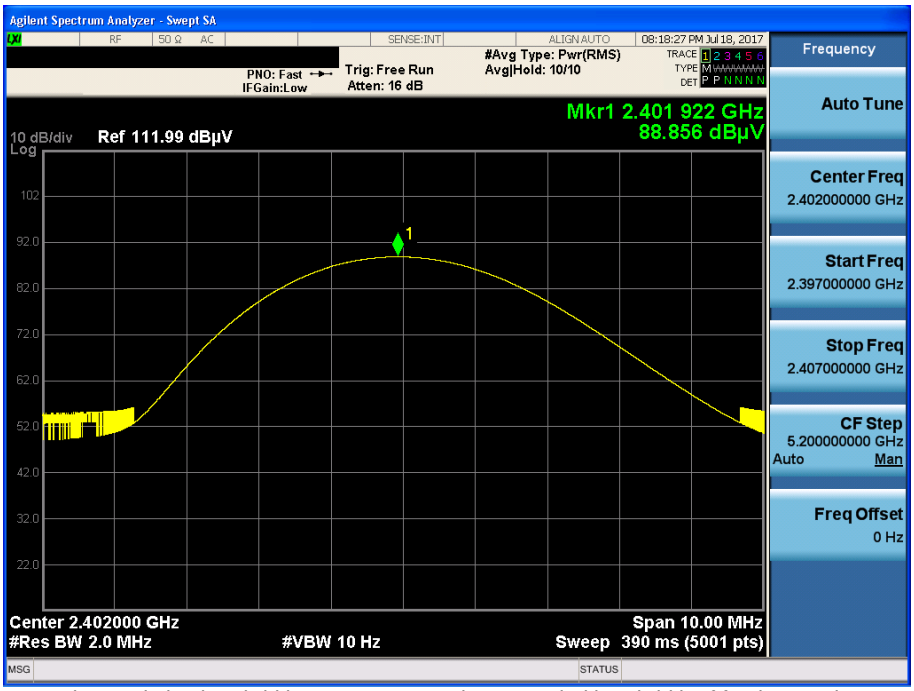


Prohibits the copying and re-issue of this report without DT&C approval.

## Field strength of fundamental

### Lowest & Z & Hor

### Detector Mode : AV

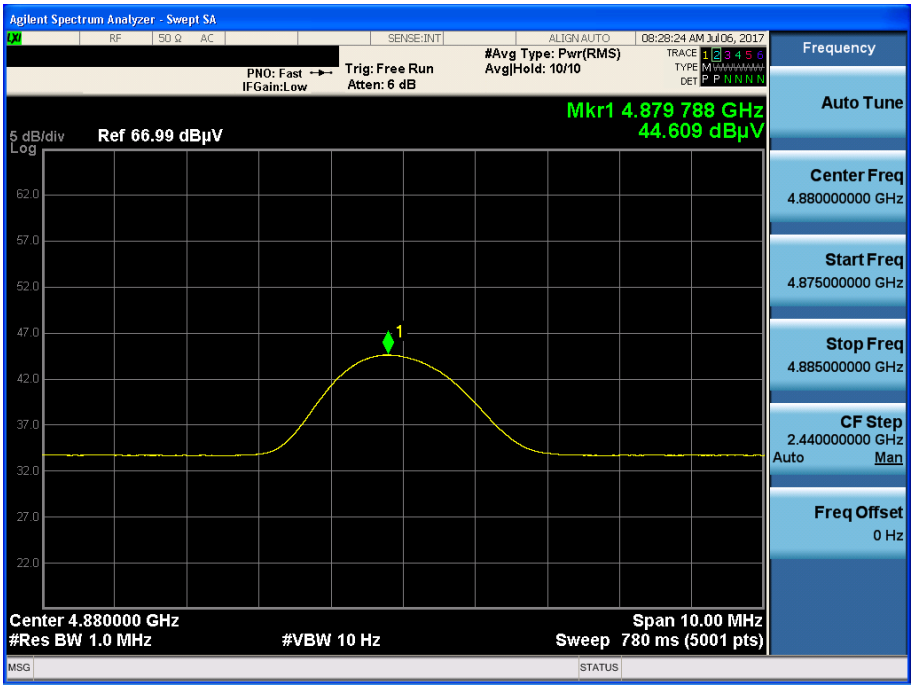



Note: The resolution bandwidth was set greater than occupied bandwidth of fundamental.

## Spurious emission

### Middle & X & Hor

### Detector Mode : AV





Prohibits the copying and re-issue of this report without DT&C approval.