



Test Report

FCC Part15 Subpart C

Product Name : WIFI LED BULB
L3A19MC08E26XX,L3A19MTW08E26XX,
Model No. : L3A19MW08E26XX
(X can be blank, 0-9 or A-Z, for commercial
use only)
FCC ID : 2AA53-MINI

Applicant : LiFi Labs Inc.
Address : 524 Union Street #309 San Francisco, CA 94133 USA

Date of Receipt : Sep. 13th, 2017
Test Date : Sep. 13th, 2017~ Sep. 29th, 2017
Issued Date : Sep. 29th, 2017
Report No. : 1792057R-RF-US-P06V02
Report Version : V1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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Test Report Certification

Issued Date : Sep. 29th, 2017

Report No. : 1792057R-RF-US-P06V02



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Applicant : LiFi Labs Inc.
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Manufacturer : LiFi Labs Inc.
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L3A19MW08E26XX
(X can be blank, 0-9 or A-Z, for commercial use only)
FCC ID : 2AA53-MINI
EUT Voltage : AC 100V-240V 50/60Hz
Test Voltage : AC 120V/60Hz
Brand Name :



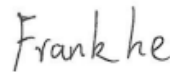
Applicable Standard : FCC CFR Title 47 Part 15 Subpart C
ANSI C63.4:2014; ANSI C63.10:2013;
KDB 558074 D01v04
Test Result : Complied
Performed Location : DEKRA Testing and Certification (Suzhou) Co., Ltd.
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History of This Test Report

| REPORT NO. | VERSION | DESCRIPTION | ISSUED DATE |
|-----------------------|---------|-----------------------|-----------------|
| 1792057R-RF-US-P06V02 | V1.0 | Initial Issued Report | Sep. 29th, 2017 |
| | | | |
| | | | |
| | | | |

1. General Information

1.1. EUT Description

| | |
|--------------------|--|
| Product Name | WIFI LED BULB |
| Brand Name |  |
| Model No. | L3A19MC08E26XX, L3A19MTW08E26XX, L3A19MW08E26XX (X can be blank, 0-9 or A-Z, for commercial use only) |
| EUT Voltage | AC 100V-240V 50/60Hz |
| Test Voltage | AC 120V/60Hz |
| Frequency Range | For 2.4GHz Band 802.11b/g/n(20MHz): 2412~2462MHz 802.11n(40MHz): 2422~2452MHz |
| Channel Number | For 2.4GHz Band 802.11b/g/n(20MHz): 11 802.11n(40MHz): 7 |
| Type of Modulation | 802.11b: DSSS 802.11g: OFDM |
| Data Rate | 802.11g: 6/9/12/18/24/36/48/54 Mbps 802.11b: 1/2/5.5/11 Mbps 802.11n: up to 150 Mbps |
| Channel Control | Auto |

Note: The above models have same electrical rating, circuit diagram, PCB Layout and construction, except the CCT, and the kind of LED type. L3A19MC08E26XX was selected as the test model, and its test data was recorded in this report.

1.2. Channel List:

| 802.11b/g/n(20MHz) Working Frequency of Each Channel: | | | | | | | |
|---|-----------|---------|-----------|---------|-----------|---------|-----------|
| Channel | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 01 | 2412 MHz | 02 | 2417 MHz | 03 | 2422 MHz | 04 | 2427 MHz |
| 05 | 2432 MHz | 06 | 2437 MHz | 07 | 2442 MHz | 08 | 2447 MHz |
| 09 | 2452 MHz | 10 | 2457 MHz | 11 | 2462 MHz | N/A | N/A |
| 802.11n(40MHz) Working Frequency of Each Channel: | | | | | | | |
| Channel | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 03 | 2422 MHz | 04 | 2427 MHz | 05 | 2432 MHz | 06 | 2437 MHz |
| 07 | 2442 MHz | 08 | 2447 MHz | 09 | 2452 MHz | N/A | N/A |

1.3. Test Channel:

| 802.11b/g/n(20MHz) Working Frequency of Each Channel: | | | | | | | |
|---|-----------|---------|-----------|---------|-----------|---------|-----------|
| Channel | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 01 | 2412 MHz | 06 | 2437MHz | 11 | 2462 MHz | N/A | N/A |
| 802.11n(40MHz) Working Frequency of Each Channel: | | | | | | | |
| Channel | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 03 | 2422 MHz | 06 | 2437 MHz | 09 | 2452 MHz | N/A | N/A |

1.4. Antenna information

| | | | | | | |
|----------------------|-------------------------------------|-----------|-------------------------------------|---|--------------------------|-----------|
| Antenna manufacturer | Shenzhen Well-Wisdom PCB Co Ltd. | | | | | |
| Antenna Delivery | <input checked="" type="checkbox"/> | 1*TX+1*RX | <input type="checkbox"/> | 2*TX+2*RX | <input type="checkbox"/> | 3*TX+3*RX |
| Antenna technology | <input checked="" type="checkbox"/> | SISO | | | | |
| | <input type="checkbox"/> | MIMO | <input type="checkbox"/> | Basic | | |
| | | | <input type="checkbox"/> | Sectorized antenna systems | | |
| | | | <input type="checkbox"/> | Cross-polarized antennas | | |
| | | | <input type="checkbox"/> | Unequal antenna gains, with equal transmit powers | | |
| | | | <input type="checkbox"/> | Spatial Multiplexing | | |
| | | | <input type="checkbox"/> | CDD | | |
| | | | <input type="checkbox"/> | Beam-forming | | |
| Antenna Type | <input type="checkbox"/> | External | <input type="checkbox"/> | Dipole | | |
| | <input checked="" type="checkbox"/> | Internal | <input checked="" type="checkbox"/> | PIFA | | |
| | | | <input type="checkbox"/> | PCB | | |
| | | | <input type="checkbox"/> | Ceramic Chip Antenna | | |
| | | | <input type="checkbox"/> | Metal plate type F antenna | | |
| | | | <input type="checkbox"/> | Cross-polarize Antenna | | |
| Antenna Gain #0 | 1.9dBi | | | | | |

1.5. Mode of Operation

| Test Modes List |
|------------------------------------|
| Mode 1: Transmit by 802.11b |
| Mode 2: Transmit by 802.11g |
| Mode 3: Transmit by 802.11n(20MHz) |
| Mode 4: Transmit by 802.11n(40MHz) |

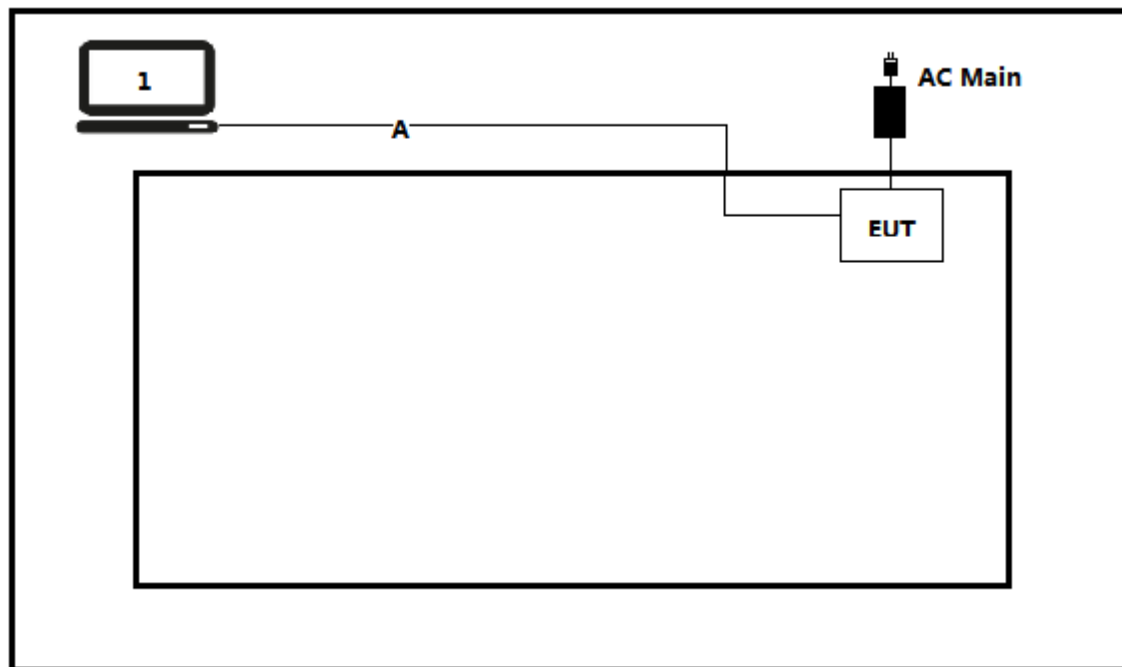
1.6. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

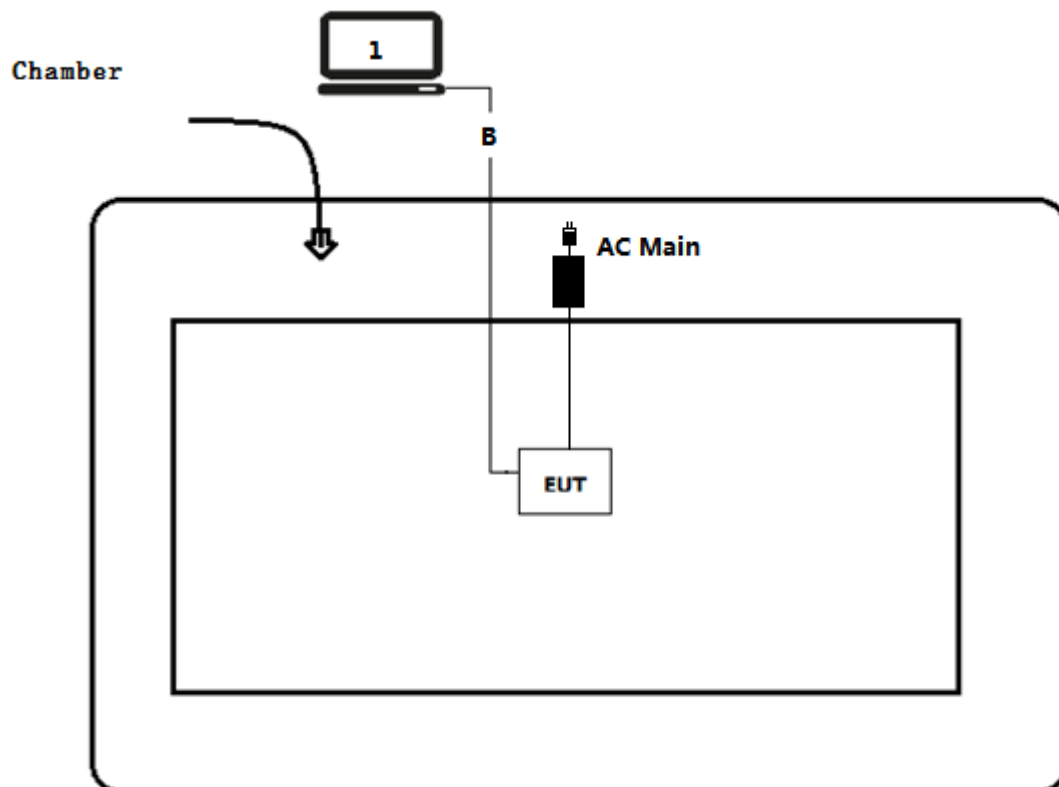
| Product | | Manufacturer | Model No. | Serial No. | Power Cord |
|---------|------------------|--------------|-----------|------------|------------------|
| 1 | Notebook | Think Pad | 2526 | LV-A3285 | Power by adapter |
| A | USB-Serial Cable | N/A | N/A | N/A | Shield, 1m |
| B | USB-Serial Cable | N/A | N/A | N/A | Shield, 10m |

1.7. Configuration of Tested System

Test setup Diagram- AC Line Conducted Emission Test



Test setup Diagram- Radiated Emission



2. Technical Test

2.1. Summary of Test Result

| Performed Test Item | Normative References | Worst case mode | Limit | Result |
|---|---|-----------------|--------------------------------|--------|
| AC Power Line Conducted Emission | FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.207 | Mode 1 | FCC 15.207 | N/A |
| Emissions in restricted frequency bands | FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.209 | Mode 1 | FCC 15.209 | PASS |
| Emissions in non-restricted frequency bands | FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.247(d) | Mode 1 | $\geq 30\text{dBc}$ | PASS |
| Radiated Emission Band Edge | FCC CFR Title 47 Part 15 Subpart C: 2015 15.247(d) | Mode 1 | FCC 15.209 | PASS |
| Occupied Bandwidth | FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.247(a)(2) | Mode 1 | $\geq 500\text{kHz}$ | PASS |
| Fundamental emission output power | FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.247(b)(3) | Mode 1 | $\leq 30\text{dBm}$ | PASS |
| Power Spectral Density | FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.247(e) | Mode 1 | $\leq 8\text{dBm}/3\text{kHz}$ | PASS |
| Antenna Requirement | FCC CFR Title 47 Part 15 Subpart C: 2015 Section 15.203 | N/A | FCC 15.203 | PASS |

2.2. Power setting parameter

| Test Software | SecureCRT_5.50 | |
|-----------------|----------------|-------|
| Modulation Mode | Test Frequency | Ant 0 |
| 802.11b | 2412 | Auto |
| | 2437 | Auto |
| | 2462 | Auto |
| 802.11g | 2412 | Auto |
| | 2437 | Auto |
| | 2462 | Auto |
| 802.11n(20MHz) | 2412 | Auto |
| | 2437 | Auto |
| | 2462 | Auto |
| 802.11n(40MHz) | 2422 | Auto |
| | 2437 | Auto |
| | 2452 | Auto |

2.3. Power vs Data Rate

| MCS Index for 802.11n | Spatial Streams | Data Rate (Mbps) | | | | | | |
|--------------------------|--------------------|------------------|---------|-----|-----------------|----------|-----------------|----------|
| | | 802.11b | 802.11g | | 20MHz Bandwidth | | 40MHz Bandwidth | |
| | | | | | 800ns GI | 400ns GI | 800ns GI | 400ns GI |
| 0 | 1 | 1 | 6 | --- | 6.5 | 7.2 | 13.5 | 15.0 |
| 1 | 1 | 2 | 9 | --- | 13.0 | 14.4 | 27.0 | 30.0 |
| 2 | 1 | 5.5 | 12 | --- | 19.5 | 21.7 | 40.5 | 45.0 |
| 3 | 1 | 11 | 18 | --- | 26.0 | 28.9 | 54.0 | 60.0 |
| 4 | 1 | --- | 24 | --- | 39.0 | 43.3 | 81.0 | 90.0 |
| 5 | 1 | --- | 36 | --- | 52.0 | 57.8 | 108.0 | 120.0 |
| 6 | 1 | --- | 48 | --- | 58.5 | 65.0 | 121.5 | 135.0 |
| 7 | 1 | --- | 54 | --- | 65.0 | 72.2 | 135.0 | 150.0 |

Note 1 : The blue form is the maximum power data rate

2.4. Test Environment

| Items | Required (IEC 68-1) | Actual |
|----------------------------|---------------------|----------|
| Temperature (°C) | 15-35 | 21 |
| Humidity (%RH) | 25-75 | 50 |
| Barometric pressure (mbar) | 860-1060 | 950-1000 |

2.5. Measurement Uncertainty

| Test Items | Uncertainty |
|------------------------------------|--------------------------------|
| AC Power Line Conducted Emission | $\pm 2.02\text{dB}$ |
| Radiated Emission | Below 1GHz $\pm 3.8\text{ dB}$ |
| | Above 1GHz $\pm 3.9\text{ dB}$ |
| RF Antenna Port Conducted Emission | $\pm 1.27\text{dB}$ |
| Radiated Emission Band Edge | $\pm 3.9\text{dB}$ |
| Occupied Bandwidth | $\pm 1\text{kHz}$ |
| Power Spectral Density | $\pm 1.27\text{dB}$ |

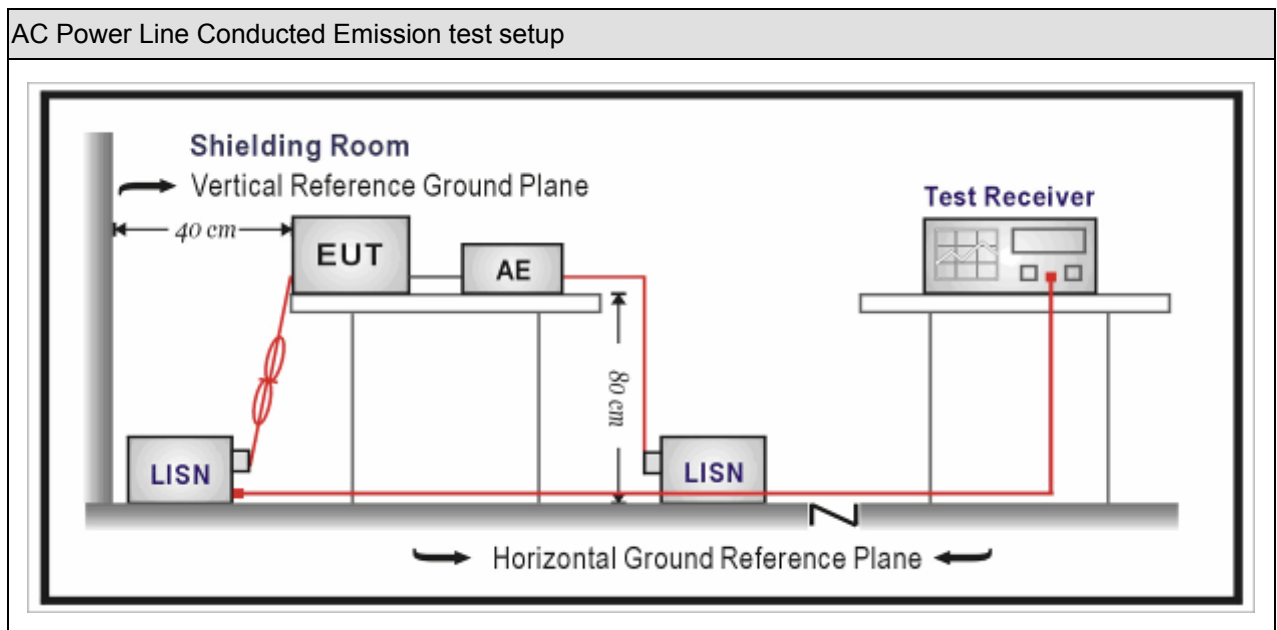
3. AC Power Line Conducted Emission

3.1. Test Equipment

| AC Power Line Conducted Emission / TR-1 | | | | | |
|---|--------------|----------|------------|------------|---------------|
| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date | Cal. Due Date |
| EMI Test Receiver | R&S | ESCI | 100906 | 2017.03.05 | 2018.03.04 |
| Two-Line V-Network | R&S | ENV 216 | 101189 | 2017.07.16 | 2018.07.15 |
| Two-Line V-Network | R&S | ENV 216 | 101044 | 2017.09.16 | 2018.09.15 |
| 50ohm Coaxial Switch | Anritsu | MP59B | 6200464462 | N/A | N/A |
| 50ohm Termination | SHX | TF2 | 07081402 | 2017.09.16 | 2018.09.15 |
| Temperature/Humidity Meter | Zhichen | ZC1-2 | TR1-TH | 2017.01.04 | 2018.01.03 |

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

3.2. Test Setup



3.3. Limit

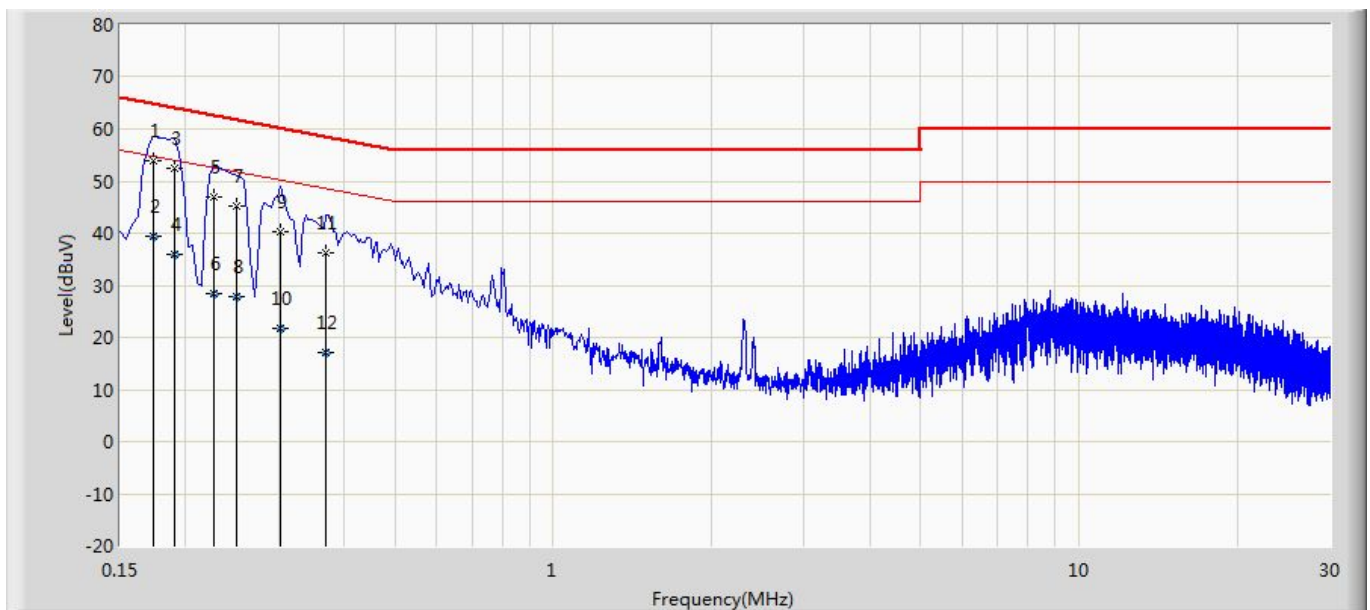
| Frequency of Emission (MHz) | Conducted Limit | |
|--|-------------------------|---------------------|
| | Quasi-peak (dB μ V) | Average(dB μ V) |
| 0.15-0.5 | 66 to 56 | 56 to 46 |
| 0.5-5 | 56 | 46 |
| 5-30 | 60 | 50 |
| Note 1: The lower limit shall apply at the transition frequencies. | | |
| Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz. | | |

3.4. Test Procedure

| Test Method | | | |
|-------------------------------------|------------------|---------|---|
| | References Rule | Chapter | Item |
| <input checked="" type="checkbox"/> | ANSI C63.10-2013 | 6.2 | Standard test method for ac power-line conducted emissions from unlicensed wireless devices |
| <input checked="" type="checkbox"/> | ANSI C63.4-2014 | 7 | AC power-line conducted emission measurements |

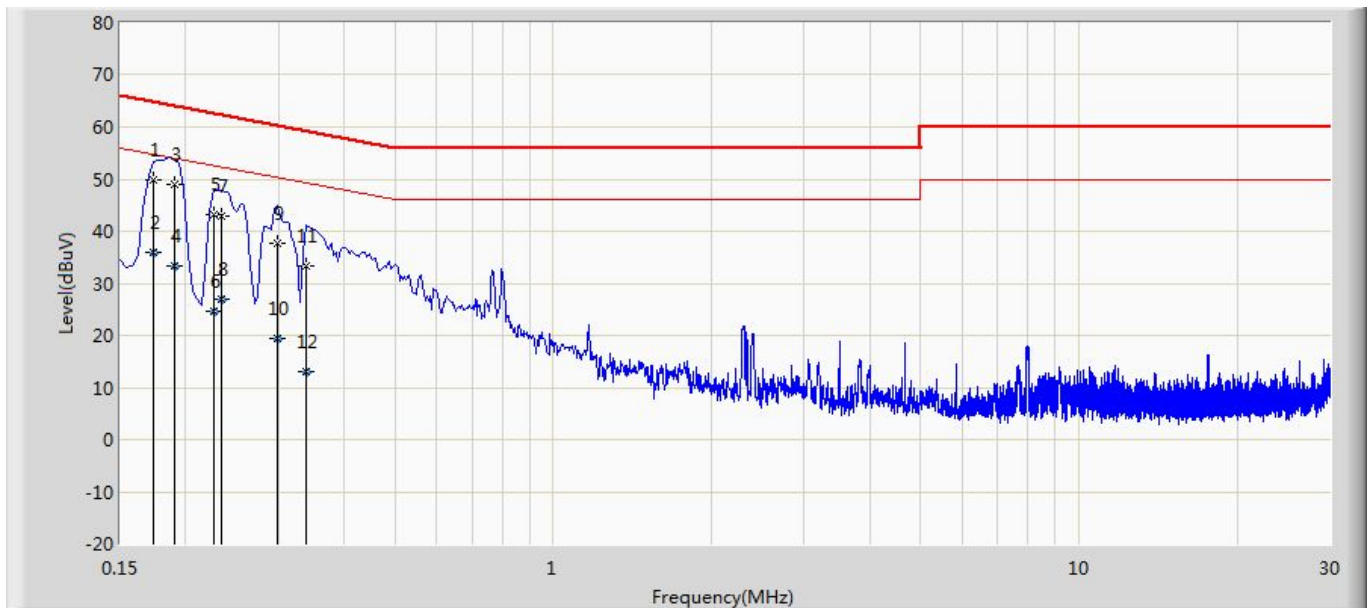
3.5. Test Result

| | |
|--|--------------------------|
| Engineer: Damon | |
| Site: TR1 | Time: 2017/09/29 - 14:42 |
| Limit: FCC_Part15.207_CE_AC Power | Margin: 0 |
| Probe: ENV216_101190(0.009-30MHz) | Polarity: Line |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 1: Transmit at 2412MHz by 802.11b | |



| No | Mark | Frequency (MHz) | Measure Level (dBuV) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV) | Probe (dB) | Cable (dB) | Amp (dB) | Type |
|----|------|-----------------|----------------------|----------------------|-----------------|--------------|------------|------------|----------|------|
| 1 | * | 0.174 | 53.865 | 44.233 | -10.902 | 64.767 | 9.605 | 0.027 | 0.000 | QP |
| 2 | | 0.174 | 39.452 | 29.819 | -15.316 | 54.767 | 9.605 | 0.027 | 0.000 | AV |
| 3 | | 0.190 | 52.458 | 42.828 | -11.579 | 64.037 | 9.602 | 0.028 | 0.000 | QP |
| 4 | | 0.190 | 35.923 | 26.293 | -18.113 | 54.037 | 9.602 | 0.028 | 0.000 | AV |
| 5 | | 0.226 | 47.079 | 37.449 | -15.517 | 62.595 | 9.600 | 0.030 | 0.000 | QP |
| 6 | | 0.226 | 28.400 | 18.770 | -24.196 | 52.595 | 9.600 | 0.030 | 0.000 | AV |
| 7 | | 0.250 | 45.091 | 35.460 | -16.666 | 61.757 | 9.600 | 0.031 | 0.000 | QP |
| 8 | | 0.250 | 27.818 | 18.187 | -23.939 | 51.757 | 9.600 | 0.031 | 0.000 | AV |
| 9 | | 0.302 | 40.322 | 30.688 | -19.866 | 60.188 | 9.600 | 0.034 | 0.000 | QP |
| 10 | | 0.302 | 21.850 | 12.216 | -28.338 | 50.188 | 9.600 | 0.034 | 0.000 | AV |
| 11 | | 0.370 | 36.270 | 26.633 | -22.231 | 58.501 | 9.600 | 0.037 | 0.000 | QP |
| 12 | | 0.370 | 17.163 | 7.526 | -31.338 | 48.501 | 9.600 | 0.037 | 0.000 | AV |

| | |
|--|--------------------------|
| Engineer: Damon | |
| Site: TR1 | Time: 2017/09/29 - 15:00 |
| Limit: FCC_Part15.207_CE_AC Power | Margin: 0 |
| Probe: ENV216_101190(0.009-30MHz) | Polarity: Neutral |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 1: Transmit at 2412MHz by 802.11b | |



| No | Mark | Frequency (MHz) | Measure Level (dBuV) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV) | Probe (dB) | Cable (dB) | Amp (dB) | Type |
|----|------|-----------------|----------------------|----------------------|-----------------|--------------|------------|------------|----------|------|
| 1 | * | 0.174 | 49.863 | 40.241 | -14.904 | 64.767 | 9.595 | 0.027 | 0.000 | QP |
| 2 | | 0.174 | 35.852 | 26.230 | -18.915 | 54.767 | 9.595 | 0.027 | 0.000 | AV |
| 3 | | 0.190 | 48.946 | 39.320 | -15.091 | 64.037 | 9.598 | 0.028 | 0.000 | QP |
| 4 | | 0.190 | 33.395 | 23.769 | -20.641 | 54.037 | 9.598 | 0.028 | 0.000 | AV |
| 5 | | 0.226 | 43.253 | 33.625 | -19.342 | 62.595 | 9.599 | 0.030 | 0.000 | QP |
| 6 | | 0.226 | 24.638 | 15.009 | -27.958 | 52.595 | 9.599 | 0.030 | 0.000 | AV |
| 7 | | 0.234 | 42.870 | 33.242 | -19.437 | 62.307 | 9.598 | 0.030 | 0.000 | QP |
| 8 | | 0.234 | 27.065 | 17.436 | -25.242 | 52.307 | 9.598 | 0.030 | 0.000 | AV |
| 9 | | 0.298 | 37.545 | 27.915 | -22.753 | 60.298 | 9.596 | 0.034 | 0.000 | QP |
| 10 | | 0.298 | 19.512 | 9.881 | -30.787 | 50.298 | 9.596 | 0.034 | 0.000 | AV |
| 11 | | 0.338 | 33.253 | 23.622 | -26.000 | 59.252 | 9.595 | 0.035 | 0.000 | QP |
| 12 | | 0.338 | 12.952 | 3.321 | -36.300 | 49.252 | 9.595 | 0.035 | 0.000 | AV |

4. Emissions in restricted frequency bands

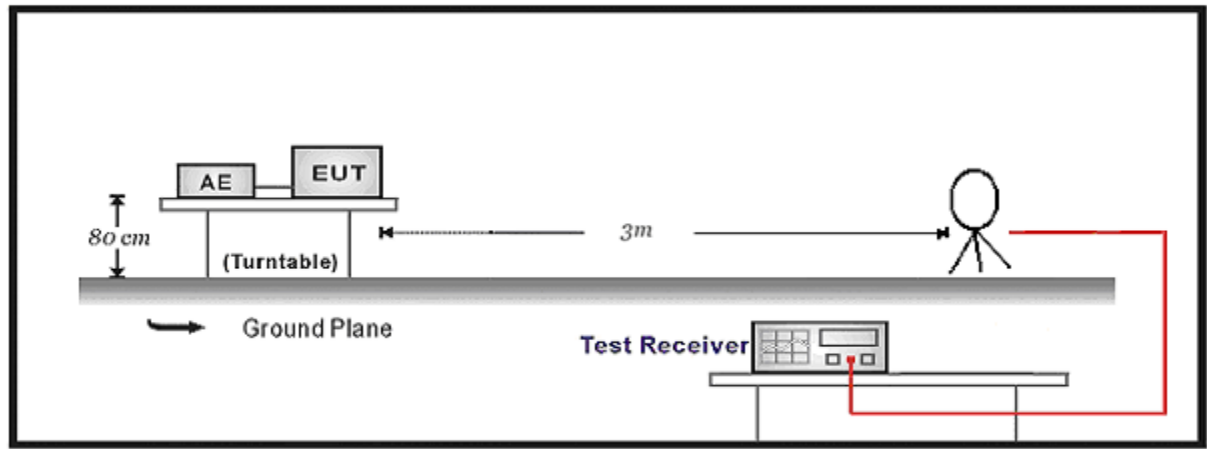
4.1. Test Equipment

| Radiated Emission(Below 1GHz) / AC-2 | | | | | |
|--|--------------|--------------|------------|------------|---------------|
| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date | Cal. Due Date |
| EMI Test Receiver | R&S | ESCI | 100573 | 2017.03.29 | 2018.03.28 |
| Loop Antenna | R&S | HFH2-Z2 | 833799/003 | 2016.11.16 | 2017.11.15 |
| Bilog Antenna | Teseq GmbH | CBL6112D | 27611 | 2016.10.16 | 2017.10.15 |
| Coaxial Cable | Huber+Suhner | SUCOFLEX 106 | AC2-C | 2017.03.02 | 2018.03.01 |
| Temperature/Humidity Meter | Zhichen | ZC1-2 | AC2-TH | 2017.01.04 | 2018.01.03 |
| Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards. | | | | | |

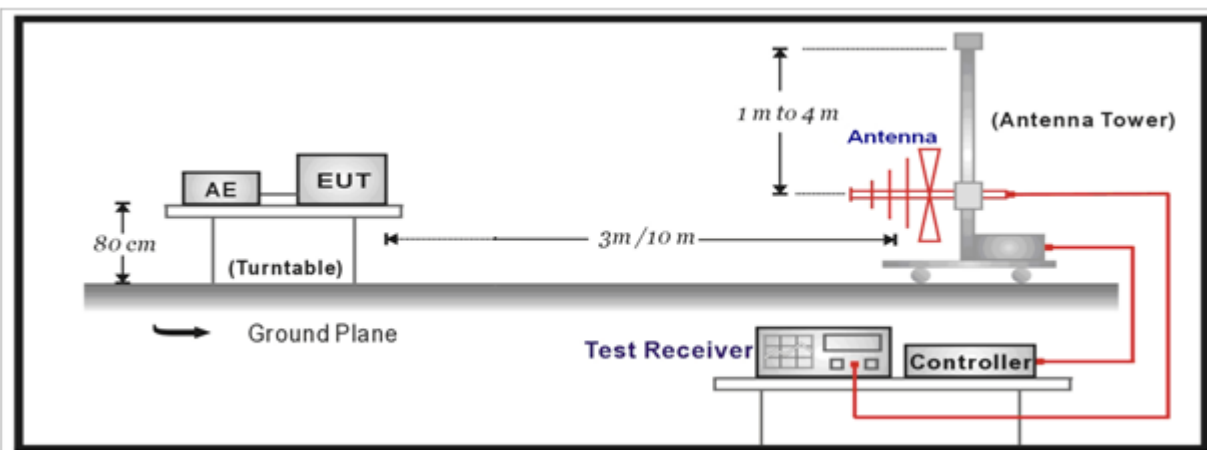
| Radiated Emission(Above 1GHz) / AC-5 | | | | | |
|---|--------------|--------------|-------------|------------|---------------|
| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date | Cal. Due Date |
| Spectrum Analyzer | Agilent | E4446A | MY45300103 | 2017.01.03 | 2018.01.02 |
| Preamplifier | Miteq | NSP1800-25 | 1364185 | 2017.05.06 | 2018.05.05 |
| Preamplifier | Quietek | AP-040G | CHM-0906001 | 2017.05.06 | 2018.05.05 |
| DRG Horn | ETS-Lindgren | 3117 | 00123988 | 2017.01.22 | 2018.01.21 |
| Broad-Band Horn Antenna | Schwarzbeck | BBHA9170 | 294 | 2016.11.25 | 2017.11.24 |
| Coaxial Cable | Huber+Suhner | SUCOFLEX 106 | AC5-C1 | 2017.03.02 | 2018.03.01 |
| Coaxial Cable | Huber+Suhner | SUCOFLEX 106 | AC5-C2 | 2017.03.02 | 2018.03.01 |
| Coaxial Cable | Huber+Suhner | SUCOFLEX 102 | AC5-C3 | 2017.03.02 | 2018.03.01 |
| EMI Receiver | Agilent | N9038A | MY51210196 | 2017.06.10 | 2018.06.09 |
| Temperature/Humidity Meter | Zhichen | ZC1-2 | AC5-TH | 2017.01.04 | 2018.01.03 |
| Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards. | | | | | |

4.2. Test Setup

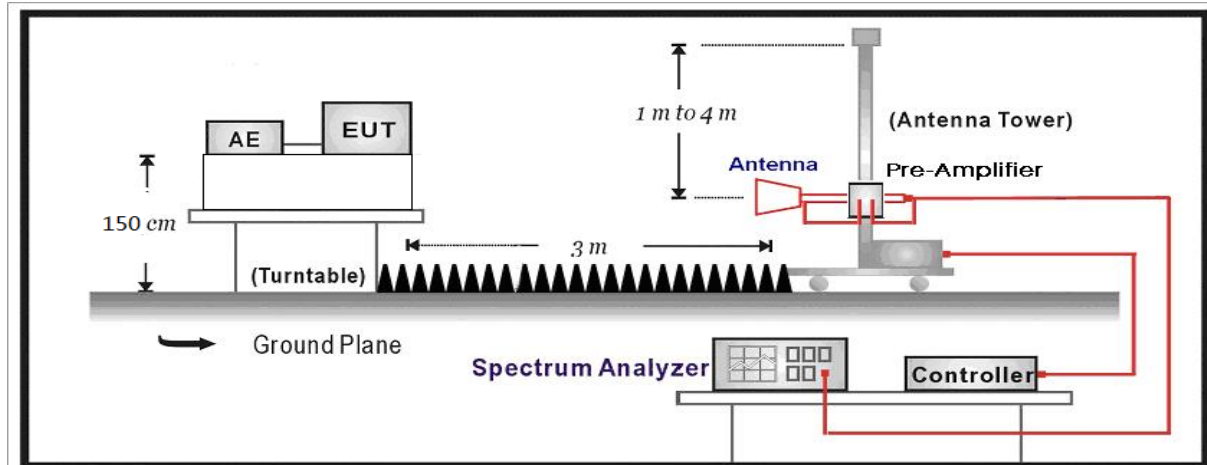
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limit

For FCC:

| Restricted Bands of operation | | | |
|-------------------------------|-----------------------|-----------------|-----------------|
| Frequency (MHz) | Frequency (MHz) | Frequency (MHz) | Frequency (GHz) |
| 0.090 – 0.110 | 16.42 – 16.423 | 399.9 – 410 | 4.5 – 5.15 |
| 0.495 – 0.505 | 16.69475 – 16.69525 | 608 – 614 | 5.35 – 5.46 |
| 2.1735 – 2.1905 | 16.80425 – 16.80475 | 960 – 1240 | 7.25 – 7.75 |
| 4.125 – 4.128 | 25.5 – 25.67 | 1300 – 1427 | 8.025 – 8.5 |
| 4.17725 – 4.17775 | 37.5 – 38.25 | 1435 – 1626.5 | 9.0 – 9.2 |
| 4.20725 – 4.20775 | 73 – 74.6 | 1645.5 – 1646.5 | 9.3 – 9.5 |
| 6.215 – 6.218 | 74.8 – 75.2 | 1660 – 1710 | 10.6 – 12.7 |
| 6.26775 – 6.26825 | 108 – 121.94 | 1718.8 – 1722.2 | 13.25 – 13.4 |
| 6.31175 – 6.31225 | 123 – 138 | 2200 – 2300 | 14.47 – 14.5 |
| 8.291 – 8.294 | 149.9 – 150.05 | 2310 – 2390 | 15.35 – 16.2 |
| 8.362 – 8.366 | 156.52475 – 156.52525 | 2483.5 – 2500 | 17.7 – 21.4 |
| 8.37625 – 8.38675 | 156.7 – 156.9 | 2690 – 2900 | 22.01 – 23.12 |
| 8.81425 – 8.81475 | 162.0125 – 167.17 | 3260 – 3267 | 23.6 – 24.0 |
| 12.29 – 12.293 | 167.72 – 173.2 | 3332 – 3339 | 31.2 – 31.8 |
| 12.51975 – 12.52025 | 240 – 285 | 3345.8 – 3358 | 36.43 – 36.5 |
| 12.57675 – 12.57725 | 322 – 335.4 | 3600 – 4400 | |
| 13.36 – 13.41 | | | |

| Restricted Band Emissions Limit | | | |
|---------------------------------|-----------------------------|-------------------------------|--------------------------|
| Frequency (MHz) | Field strength (μ V/m) | Field strength (dB μ V/m) | Measurement distance (m) |
| 0.009 - 0.49 | 2400/F(kHz) | 48.5 – 13.8 | 300 _(Note 1) |
| 0.49 - 1.705 | 24000/F(kHz) | 33.8 - 23 | 30 _(Note 1) |
| 1.705 - 30 | 30 | 29.5 | 30 _(Note 1) |
| 30 - 88 | 100 | 40 | 3 _(Note 2) |
| 88 - 216 | 150 | 43.5 | 3 _(Note 2) |
| 216 - 960 | 200 | 46 | 3 _(Note 2) |
| Above 960 | 500 | 54 | 3 _(Note 2) |

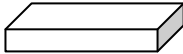
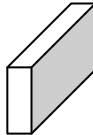
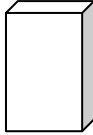


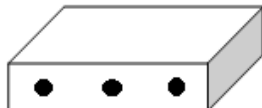
Note 1: At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade).

Note 2: At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

4.4. Test Procedure

| Test Method | | | | | | |
|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---|--|--|
| | References Rule | | Chapter | Description | | |
| <input type="checkbox"/> | ANSI C63.10 | | 11.11 | Emissions in non-restricted frequency bands | | |
| | <input type="checkbox"/> | ANSI C63.10 | 11.11.2 | Reference level measurement | | |
| | <input type="checkbox"/> | ANSI C63.10 | 11.11.3 | Emission level measurement | | |
| <input checked="" type="checkbox"/> | ANSI C63.10 | | 11.12 | Emissions in restricted frequency bands | | |
| | <input checked="" type="checkbox"/> | ANSI C63.10 | 11.12.1 | Radiated emission measurements | | |
| | <input checked="" type="checkbox"/> | ANSI C63.10 | 11.12.2.7 | Radiated spurious emission test | | |
| | | <input checked="" type="checkbox"/> | ANSI C63.10 | 6.4 | Radiated emissions from unlicensed wireless devices below 30 MHz | |
| | | <input checked="" type="checkbox"/> | ANSI C63.10 | 6.5 | Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz | |
| | | <input checked="" type="checkbox"/> | ANSI C63.10 | 6.6 | Radiated emissions from unlicensed wireless devices above 1 GHz | |
| | | <input type="checkbox"/> | ANSI C63.10 | 11.12.2.3 | Quasi-peak measurement procedure | |
| | | <input checked="" type="checkbox"/> | ANSI C63.10 | 11.12.2.4 | Peak power measurement procedure | |
| | | <input checked="" type="checkbox"/> | ANSI C63.10 | 11.12.2.5 | Average power measurement procedures | |
| | | | <input type="checkbox"/> | ANSI C63.10 | 11.12.2.5.1 | Trace averaging with continuous EUT transmission at full power |
| | | | <input type="checkbox"/> | ANSI C63.10 | 11.12.2.5.2 | Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction |
| | | | <input checked="" type="checkbox"/> | ANSI C63.10 | 11.12.2.5.3 | Reduced VBW averaging across ON and OFF times of the EUT transmissions with max hold |

4.5. EUT test Axis definition

| Item | Emissions in restricted frequency bands | | | |
|-----------------|--|--|---|---|
| Device Category | <input checked="" type="checkbox"/> | Fixed position use | | |
| | <input type="checkbox"/> | Mobile position use | | |
| Test mode | Mode 1~4 | | | |
| Test method | <input checked="" type="checkbox"/> | Radiated | | |
| | | X Axis | Y Axis | Z Axis |
| | |  |  |  |
| | | Worst Axis <input type="checkbox"/> | Worst Axis <input type="checkbox"/> | Worst Axis <input checked="" type="checkbox"/> |
| | <input type="checkbox"/> | Conducted | | |
| | <input type="checkbox"/> | Chain 1 | | |
| | |  | | |
| | <input type="checkbox"/> | Chain 1 | Chain 2 | |
| | |  | | |
| | <input type="checkbox"/> | Chain 1 | Chain 2 | Chain 3 |
| |  | | | |

4.6. Test Result

| | | | | | |
|--------------|---|---------------|-----------|---|--------------|
| Product Name | : | WIFI LED BULB | Power | : | AC 120V/60Hz |
| Test Mode | : | Mode1~4 | Test Site | : | TR8 |
| Test Date | : | 2017.09.29 | | | |

| Mode | CH | Antenna Polarity | Frequency (MHz) | Reading Level (dB μ V) | Factor (dB) | Measured Level (dB μ V/m) | Limit (dB μ V/m) | Over limit (dB) | Detector |
|------|----|------------------|-----------------|----------------------------|-------------|-------------------------------|----------------------|-----------------|----------|
| 1 | 1 | H | 4823.0 | 61.6 | -13.0 | 48.6 | 54.0 | -5.4 | PK |
| | | H | 4824.6 | 70.1 | -13.0 | 57.1 | 74.0 | -16.9 | AV |
| | | H | 7233.4 | 62.2 | -7.7 | 54.4 | 74.0 | -19.6 | PK |
| | | H | 7235.5 | 53.8 | -7.7 | 46.1 | 54.0 | -7.9 | AV |
| | | H | 9648.0 | 54.4 | -1.6 | 52.8 | 54(Note 3) | -1.2 | PK |
| | | V | 4824.6 | 61.5 | -13.0 | 48.4 | 54.0 | -5.6 | AV |
| | | V | 4824.6 | 69.8 | -13.0 | 56.8 | 74.0 | -17.2 | PK |
| | | V | 7233.4 | 61.4 | -7.7 | 53.7 | 54(Note 3) | -0.3 | PK |
| | | V | 9648.0 | 52.7 | -1.6 | 51.1 | 54(Note 3) | -2.9 | PK |
| | 6 | H | 4871.6 | 70.3 | -13.0 | 57.3 | 74.0 | -16.7 | PK |
| | | H | 4873.2 | 61.5 | -13.0 | 48.5 | 54.0 | -5.5 | AV |
| | | H | 7309.8 | 59.3 | -7.7 | 51.6 | 54(Note 3) | -2.4 | PK |
| | | H | 9747.9 | 54.8 | -1.6 | 53.2 | 54(Note 3) | -0.8 | AV |
| | | V | 4871.6 | 73.1 | -13.0 | 60.1 | 74.0 | -13.9 | PK |
| | | V | 4873.5 | 64.9 | -13.0 | 51.8 | 54.0 | -2.2 | PK |
| | | V | 7309.8 | 60.0 | -7.7 | 52.3 | 54(Note 3) | -1.7 | PK |
| | | V | 9747.9 | 55.8 | -1.6 | 54.2 | 74.0 | -19.8 | PK |
| | | V | 9748.2 | 47.3 | -1.6 | 45.7 | 54.0 | -8.3 | AV |
| | 11 | H | 4924.1 | 60.5 | -13.0 | 47.4 | 54.0 | -6.6 | PK |
| | | H | 4924.5 | 69.3 | -13.0 | 56.3 | 74.0 | -17.7 | AV |
| | | H | 7386.1 | 57.5 | -7.7 | 49.8 | 54(Note 3) | -4.2 | PK |
| | | H | 9847.8 | 53.4 | -1.6 | 51.8 | 54(Note 3) | -2.2 | AV |
| | | V | 4924.5 | 72.1 | -13.0 | 59.0 | 74.0 | -15.0 | PK |
| | | V | 4924.7 | 63.5 | -13.0 | 50.4 | 54.0 | -3.6 | PK |
| | | V | 7386.0 | 51.4 | -7.7 | 43.7 | 54(Note 3) | -10.3 | PK |
| | | V | 9847.8 | 54.2 | -1.6 | 52.6 | 54(Note 3) | -1.4 | PK |

Note: 1. Measure Level = Reading Level + Factor.

Note: 2. The test frequency range, 9kHz~30MHz, 18GHz~25GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.

Note: 3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Note: 4. The RBW set up, see Clause 6.6.

| Mode | CH | Antenna Polarity | Frequency (MHz) | Reading Level (dB μ V) | Factor (dB) | Measured Level (dB μ V/m) | Limit (dB μ V/m) | Over limit (dB) | Detector |
|------|----|------------------|-----------------|----------------------------|-------------|-------------------------------|----------------------|-----------------|----------|
| 2 | 1 | H | 4823.6 | 59.1 | -13.0 | 46.0 | 54.0 | -8.0 | PK |
| | | H | 4824.0 | 67.5 | -13.0 | 54.5 | 74.0 | -19.5 | AV |
| | | H | 7236.0 | 57.7 | -7.7 | 50.0 | 54(Note 3) | -4.0 | PK |
| | | H | 9648.0 | 48.0 | -1.6 | 46.4 | 54(Note 3) | -7.6 | AV |
| | | V | 4824.0 | 69.8 | -13.0 | 56.8 | 74.0 | -17.2 | PK |
| | | V | 4824.6 | 61.6 | -13.0 | 48.6 | 54.0 | -5.4 | PK |
| | | V | 7236.0 | 57.8 | -7.7 | 50.1 | 54(Note 3) | -3.9 | PK |
| | | V | 9648.0 | 50.6 | -1.6 | 49.0 | 54(Note 3) | -5.0 | PK |
| | 6 | H | 4871.6 | 69.2 | -13.0 | 56.2 | 74.0 | -17.8 | PK |
| | | H | 4872.2 | 60.5 | -13.0 | 47.4 | 54.0 | -6.6 | AV |
| | | H | 7309.8 | 56.9 | -7.7 | 49.2 | 54(Note 3) | -4.8 | PK |
| | | H | 9748.0 | 47.1 | -1.6 | 45.5 | 54(Note 3) | -8.5 | AV |
| | | V | 4874.0 | 68.8 | -13.0 | 55.8 | 74.0 | -18.2 | PK |
| | | V | 4875.2 | 60.5 | -13.0 | 47.5 | 54.0 | -6.5 | PK |
| | | V | 7311.0 | 55.3 | -7.7 | 47.6 | 54(Note 3) | -6.4 | PK |
| | | V | 9748.0 | 50.3 | -1.6 | 48.7 | 54(Note 3) | -5.3 | PK |
| | 11 | H | 4924.0 | 66.6 | -13.0 | 53.6 | 54(Note 3) | -0.4 | PK |
| | | H | 7386.0 | 54.2 | -7.7 | 46.4 | 54(Note 3) | -7.6 | AV |
| | | H | 9848.0 | 47.8 | -1.6 | 46.2 | 54(Note 3) | -7.8 | PK |
| | | V | 4924.0 | 67.6 | -13.0 | 54.6 | 74.0 | -19.4 | PK |
| | | V | 4925.1 | 59.5 | -13.0 | 46.5 | 54.0 | -7.5 | PK |
| | | V | 7386.0 | 52.6 | -7.7 | 44.9 | 54(Note 3) | -9.1 | PK |
| | | V | 9848.0 | 47.4 | -1.6 | 45.8 | 54(Note 3) | -8.2 | PK |

Note: 1. Measure Level = Reading Level + Factor.

Note: 2. The test frequency range, 9kHz~30MHz, 18GHz~25GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.

Note: 3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Note: 4. The RBW set up, see Clause 6.6.

| Mode | CH | Antenna Polarity | Frequency (MHz) | Reading Level (dB μ V) | Factor (dB) | Measured Level (dB μ V/m) | Limit (dB μ V/m) | Over limit (dB) | Detector |
|------|----|---------------------|--------------------|----------------------------------|----------------|-------------------------------------|-------------------------|--------------------|----------|
| 3 | 1 | H | 4818.8 | 67.8 | -13.0 | 54.8 | 74.0 | -19.2 | PK |
| | | H | 4823.4 | 59.6 | -13.0 | 46.6 | 54.0 | -7.4 | AV |
| | | H | 7239.3 | 59.0 | -7.7 | 51.3 | 54(Note 3) | -2.7 | PK |
| | | H | 9648.0 | 47.6 | -1.6 | 46.0 | 54(Note 3) | -8.0 | AV |
| | | V | 4824.6 | 69.3 | -13.0 | 56.3 | 74.0 | -17.7 | PK |
| | | V | 4825.2 | 60.9 | -13.0 | 47.8 | 54.0 | -6.2 | PK |
| | | V | 7233.4 | 60.8 | -7.7 | 53.1 | 54(Note 3) | -0.9 | PK |
| | | V | 9648.0 | 51.2 | -1.6 | 49.6 | 54(Note 3) | -4.4 | PK |
| | 6 | H | 4871.6 | 66.6 | -13.0 | 53.6 | 54(Note 3) | -0.4 | PK |
| | | H | 7311.0 | 55.0 | -7.7 | 47.3 | 54(Note 3) | -6.7 | AV |
| | | H | 9748.0 | 50.6 | -1.6 | 49.0 | 54(Note 3) | -5.0 | PK |
| | | V | 4871.6 | 57.8 | -13.0 | 44.8 | 54.0 | -9.2 | PK |
| | | V | 4877.5 | 69.3 | -13.0 | 56.3 | 74.0 | -17.7 | PK |
| | | V | 7315.6 | 58.8 | -7.7 | 51.1 | 54(Note 3) | -2.9 | PK |
| | | V | 9748.0 | 50.3 | -1.6 | 48.7 | 54(Note 3) | -5.3 | PK |
| | 11 | H | 4924.0 | 66.1 | -13.0 | 53.0 | 54(Note 3) | -1.0 | PK |
| | | H | 7386.0 | 54.5 | -7.7 | 46.8 | 54(Note 3) | -7.2 | AV |
| | | H | 9848.0 | 48.1 | -1.6 | 46.5 | 54(Note 3) | -7.5 | PK |
| | | V | 4918.6 | 69.8 | -13.0 | 56.8 | 74.0 | -17.2 | PK |
| | | V | 4924.6 | 61.2 | -13.0 | 48.2 | 54.0 | -5.8 | PK |
| | | V | 7386.0 | 55.1 | -7.7 | 47.4 | 54(Note 3) | -6.6 | PK |
| | | V | 9848.0 | 51.0 | -1.6 | 49.4 | 54(Note 3) | -4.6 | PK |

Note: 1. Measure Level = Reading Level + Factor.

Note: 2. The test frequency range, 9kHz~30MHz, 18GHz~25GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.

Note: 3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Note: 4. The RBW set up, see Clause 6.6.

| Mode | CH | Antenna Polarity | Frequency (MHz) | Reading Level (dB μ V) | Factor (dB) | Measured Level (dB μ V/m) | Limit (dB μ V/m) | Over limit (dB) | Detector |
|------|----|------------------|-----------------|----------------------------|-------------|-------------------------------|----------------------|-----------------|----------|
| 4 | 3 | H | 4842.3 | 65.4 | -13.0 | 52.3 | 54(Note 3) | -1.7 | PK |
| | | H | 7266.0 | 56.3 | -7.7 | 48.6 | 54(Note 3) | -5.4 | PK |
| | | H | 9688.0 | 48.2 | -1.6 | 46.7 | 54(Note 3) | -7.3 | AV |
| | | V | 4842.3 | 67.5 | -13.0 | 54.5 | 74.0 | -19.5 | PK |
| | | V | 4843.2 | 59.3 | -13.0 | 46.2 | 54.0 | -7.8 | PK |
| | | V | 7266.0 | 57.4 | -7.7 | 49.7 | 54(Note 3) | -4.3 | PK |
| | | V | 9688.0 | 51.2 | -1.6 | 49.6 | 54(Note 3) | -4.4 | PK |
| | 6 | H | 4871.6 | 66.9 | -13.0 | 53.9 | 54(Note 3) | -0.1 | PK |
| | | H | 7311.0 | 54.7 | -7.7 | 47.0 | 54(Note 3) | -7.0 | AV |
| | | H | 9748.0 | 47.1 | -1.6 | 45.5 | 54(Note 3) | -8.5 | PK |
| | | V | 4871.6 | 67.7 | -13.0 | 54.7 | 74.0 | -19.3 | PK |
| | | V | 4873.1 | 59.4 | -13.0 | 46.3 | 54.0 | -7.7 | PK |
| | | V | 7311.0 | 55.6 | -7.7 | 47.9 | 54(Note 3) | -6.1 | PK |
| | | V | 9748.0 | 49.3 | -1.6 | 47.7 | 54(Note 3) | -6.3 | PK |
| | 9 | H | 4906.9 | 64.7 | -13.0 | 51.7 | 54(Note 3) | -2.3 | PK |
| | | H | 7356.0 | 52.3 | -7.7 | 44.6 | 54(Note 3) | -9.4 | AV |
| | | H | 9808.0 | 47.5 | -1.6 | 45.9 | 54(Note 3) | -8.1 | PK |
| | | V | 4904.0 | 66.9 | -13.0 | 53.9 | 54(Note 3) | -0.1 | PK |
| | | V | 7356.0 | 54.3 | -7.7 | 46.6 | 54(Note 3) | -7.4 | PK |
| | | V | 9808.0 | 49.9 | -1.6 | 48.4 | 54(Note 3) | -5.6 | PK |

Note: 1. Measure Level = Reading Level + Factor.

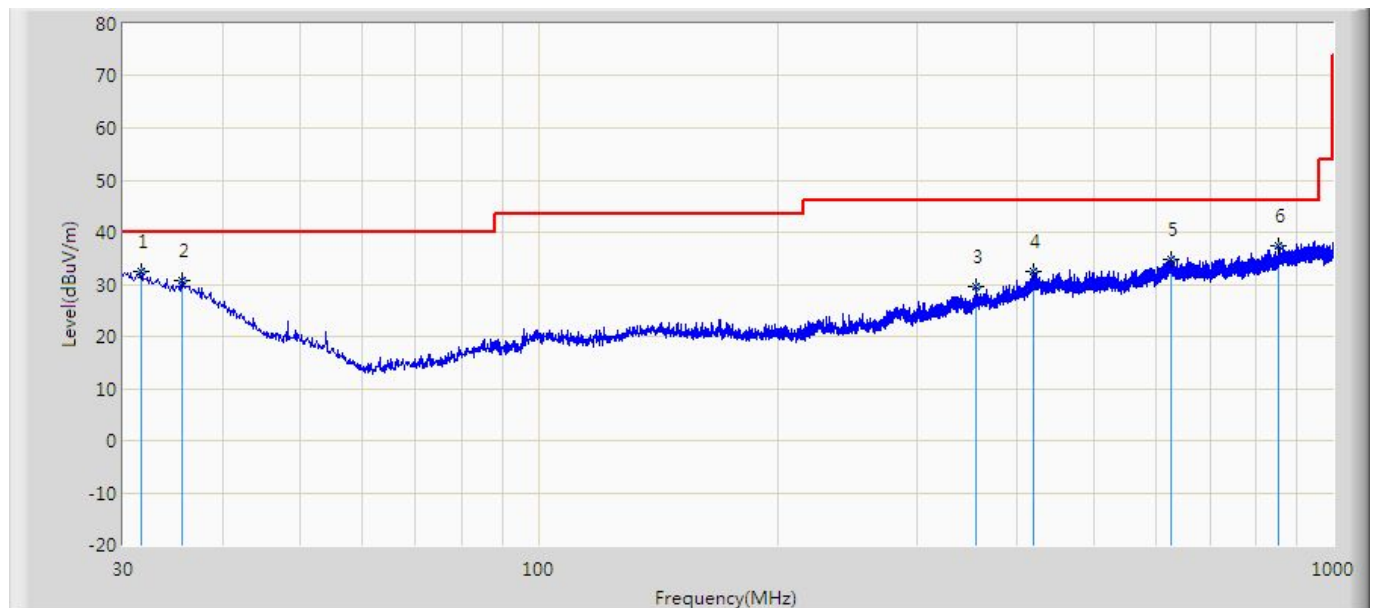
Note: 2. The test frequency range, 9kHz~30MHz, 18GHz~25GHz, both of the worst case are at least 6dB below the limits, therefore no data appear in the report.

Note: 3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Note: 4. The RBW set up, see Clause 6.6.

The worst case of Radiated Emission below 1GHz:

| | |
|--|----------------------|
| Engineer: Damon | |
| Site: AC3 | Time: 2017/09/15 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: AC3_3m (30-1000MHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 1: Transmit at 2412MHz by 802.11b | |

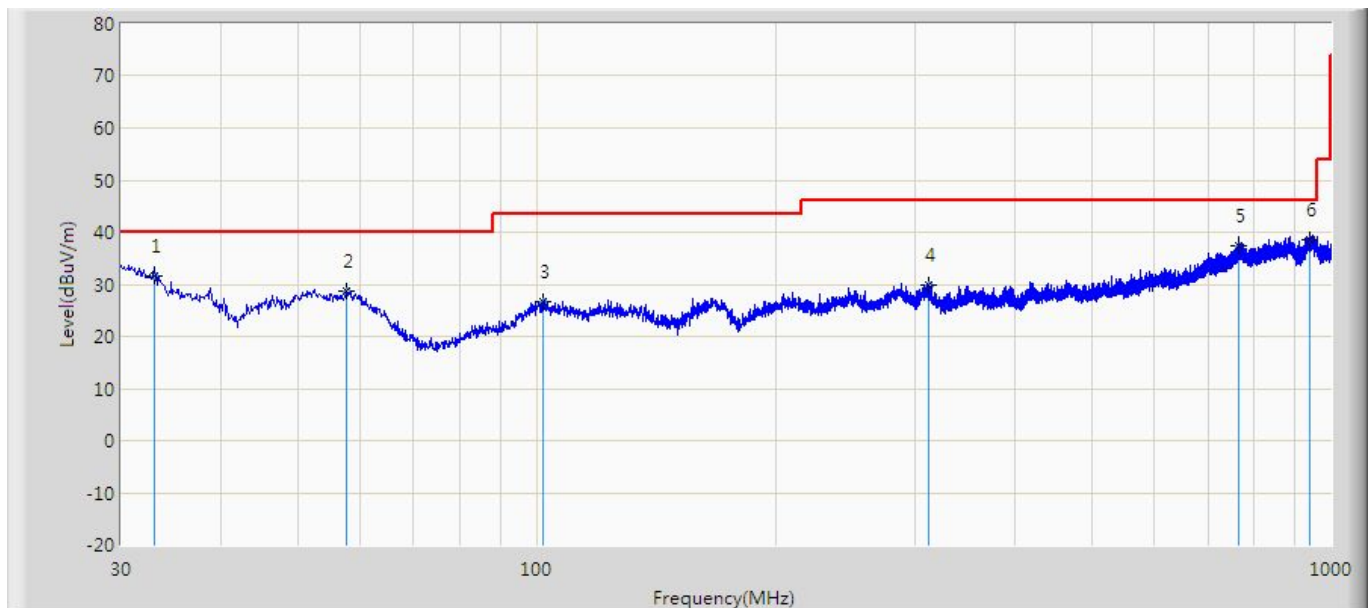


| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Probe (dB/m) | Cable (dB) | Amp (dB) | Ant Pos (cm) | Table Pos (deg) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|--------------|------------|----------|--------------|-----------------|------|
| 1 | * | 31.576 | 32.438 | 5.400 | -7.562 | 40.000 | 20.575 | 6.463 | 0.000 | 100 | 134 | QP |
| 2 | | 35.577 | 30.806 | 5.100 | -9.194 | 40.000 | 19.211 | 6.495 | 0.000 | 100 | 135 | QP |
| 3 | | 355.556 | 29.609 | 5.900 | -16.391 | 46.000 | 15.927 | 7.782 | 0.000 | 200 | 241 | QP |
| 4 | | 419.940 | 32.493 | 5.400 | -13.507 | 46.000 | 19.133 | 7.960 | 0.000 | 100 | 192 | QP |
| 5 | | 626.186 | 34.740 | 4.900 | -11.260 | 46.000 | 21.345 | 8.495 | 0.000 | 100 | 94 | QP |
| 6 | | 854.136 | 37.275 | 6.000 | -8.725 | 46.000 | 22.272 | 9.003 | 0.000 | 100 | 264 | QP |

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

| | |
|--|---------------------|
| Engineer: Damon | |
| Site: AC3 | Time: 2017/09/15 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: AC3_3m (30-1000MHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 1: Transmit at 2412MHz by 802.11b | |



| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Probe (dB/m) | Cable (dB) | Amp (dB) | Ant Pos (cm) | Table Pos (deg) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|--------------|------------|----------|--------------|-----------------|------|
| 1 | | 33.031 | 31.525 | 8.400 | -8.475 | 40.000 | 16.653 | 6.472 | 0.000 | 100 | 113 | QP |
| 2 | | 57.766 | 28.656 | 12.200 | -11.344 | 40.000 | 9.819 | 6.637 | 0.000 | 100 | 167 | QP |
| 3 | | 101.901 | 26.799 | 4.700 | -16.701 | 43.500 | 15.233 | 6.867 | 0.000 | 100 | 243 | QP |
| 4 | | 311.300 | 29.829 | 4.600 | -16.171 | 46.000 | 17.579 | 7.650 | 0.000 | 100 | 164 | QP |
| 5 | | 765.018 | 37.265 | 5.100 | -8.735 | 46.000 | 23.361 | 8.804 | 0.000 | 200 | 116 | QP |
| 6 | * | 941.800 | 38.581 | 4.300 | -7.419 | 46.000 | 25.097 | 9.184 | 0.000 | 100 | 327 | QP |

Note:

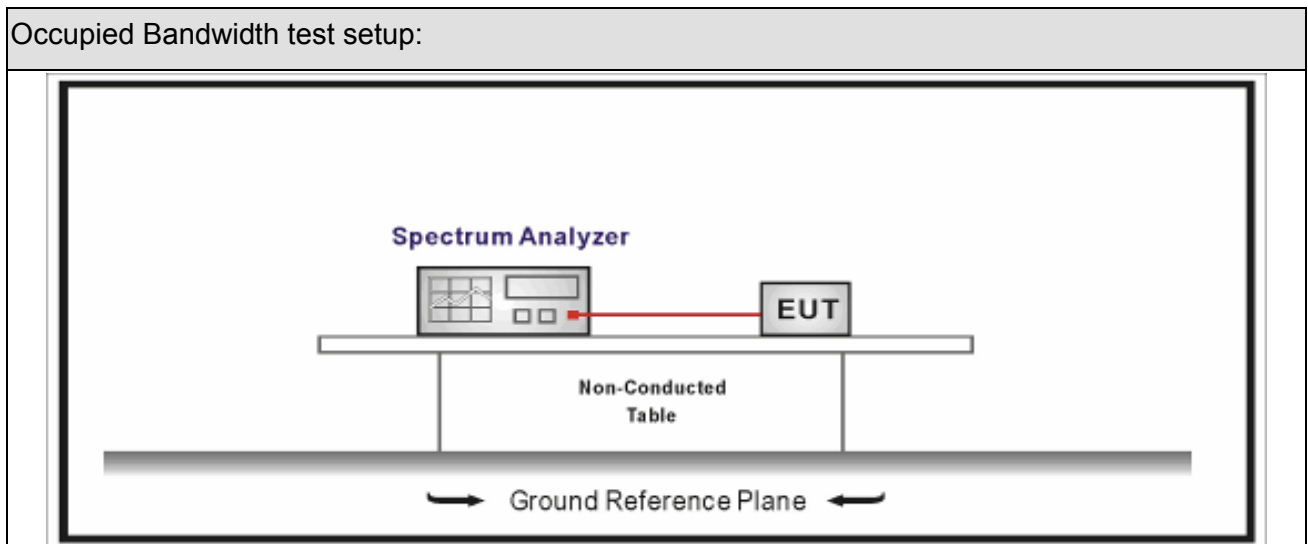
1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

5. Emissions in non-restricted frequency bands

5.1. Test Equipment

| Occupied Bandwidth / TR-8 | | | | | |
|--|--------------|----------|------------|------------|---------------|
| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date | Cal. Due Date |
| Spectrum Analyzer | Agilent | N9010A | MY48030494 | 2017.02.04 | 2018.02.03 |
| EXA Spectrum Analyzer | Keysight | N9010A | MY55370495 | 2017.04.09 | 2018.04.08 |
| MXA Signal Analyzer | Keysight | N9020A | MY56060147 | 2017.04.09 | 2018.04.08 |
| Temperature/Humidity Meter | zhichen | ZC1-2 | TR8-TH | 2017.04.10 | 2018.04.09 |
| Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards. | | | | | |

5.2. Test Setup



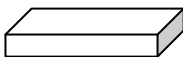
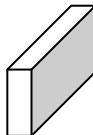
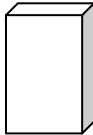
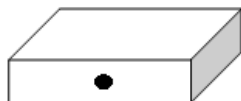
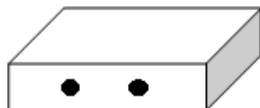

5.3. Limit

| Un-Restricted Band Emissions Limit | |
|--|------------|
| RF Output power (Detection methods) | Limit(dB) |
| RF Output power(Average detector) | 30c(Note1) |
| RF Output power(PK detector) | 20c(Note2) |
| <p>Note 1: If maximum conducted (average) output power was used to demonstrate compliance as described in 9.2, then the peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 30 dBc).</p> <p>Note 2: If the maximum peak conducted output power procedure was used, then the peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 20 dBc).</p> | |

5.4. Test Procedure

| Test Method | | | | |
|-------------------------------------|-------------------------------------|-------------------------------------|-------------|--|
| | References Rule | | Chapter | Description |
| <input checked="" type="checkbox"/> | ANSI C63.10 | | 11.11 | Emissions in non-restricted frequency bands |
| | <input checked="" type="checkbox"/> | ANSI C63.10 | 11.11.2 | Reference level measurement |
| | <input checked="" type="checkbox"/> | ANSI C63.10 | 11.11.3 | Emission level measurement |
| <input type="checkbox"/> | ANSI C63.10 | | 11.12 | Emissions in restricted frequency bands |
| | <input type="checkbox"/> | ANSI C63.10 | 11.12.1 | Radiated emission measurements |
| | <input type="checkbox"/> | ANSI C63.10 | 11.12.2.7 | Radiated spurious emission test |
| <input type="checkbox"/> | ANSI C63.10 | | 6.4 | Radiated emissions from unlicensed wireless devices below 30 MHz |
| <input type="checkbox"/> | ANSI C63.10 | | 6.5 | Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz |
| <input checked="" type="checkbox"/> | ANSI C63.10 | | 6.6 | Radiated emissions from unlicensed wireless devices above 1 GHz |
| | <input checked="" type="checkbox"/> | ANSI C63.10 | 11.12.2 | Antenna-port conducted measurements |
| | <input type="checkbox"/> | ANSI C63.10 | 11.12.2.3 | Quasi-peak measurement procedure |
| | | <input checked="" type="checkbox"/> | ANSI C63.10 | Peak power measurement procedure |
| | | <input type="checkbox"/> | ANSI C63.10 | Average power measurement procedures |
| | | <input type="checkbox"/> | ANSI C63.10 | 11.12.2.5.1 Trace averaging with continuous EUT transmission at full power |
| | | <input type="checkbox"/> | ANSI C63.10 | 11.12.2.5.2 Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction |
| | | <input type="checkbox"/> | ANSI C63.10 | 11.12.2.5.3 Reduced VBW averaging across ON and OFF times of the EUT transmissions with max hold |

5.5. EUT test Axis definition

| Item | Emissions in non-restricted frequency bands | | | |
|-----------------|--|--|---|---|
| Device Category | <input checked="" type="checkbox"/> | Fixed position use | | |
| | <input type="checkbox"/> | Mobile position use | | |
| Test mode | Mode 1 ~ Mode 4 | | | |
| Test method | <input type="checkbox"/> | Radiated | | |
| | | X Axis | Y Axis | Z Axis |
| | |  |  |  |
| | | Worst Axis <input type="checkbox"/> | Worst Axis <input type="checkbox"/> | Worst Axis <input type="checkbox"/> |
| | <input checked="" type="checkbox"/> | Conducted | | |
| | <input checked="" type="checkbox"/> | Chain 1 | | |
| | |  | | |
| | <input type="checkbox"/> | Chain 1 | Chain 2 | |
| | |  | | |
| | <input type="checkbox"/> | Chain 1 | Chain 2 | Chain 3 |
| |  | | | |

5.6. Test Result

| | | | | | |
|--------------|---|---------------|-----------|---|--------------|
| Product Name | : | WIFI LED BULB | Power | : | AC 120V/60Hz |
| Test Mode | : | Mode1~4 | Test Site | : | TR8 |
| Test Date | : | 2017.09.15 | | | |

| Mode | Channel | Test Frequency (MHz) | In-Band PSD[a] (dBm/100kHz) | Frequency (MHz) | Out-Band PSD[b] (dBm/100kHz) | [a]-[b] (dB) | Limit (dB) | Result |
|------|---------|----------------------|-----------------------------|-----------------|------------------------------|--------------|------------|--------|
| 1 | 01 | 2412 | -2.032 | 2400 | -58.998 | 56.966 | >20 | Pass |
| 1 | 11 | 2462 | -3.230 | 2500 | -64.136 | 60.906 | >20 | Pass |
| 2 | 01 | 2412 | -4.375 | 2400 | -50.099 | 45.724 | >20 | Pass |
| 2 | 11 | 2462 | -5.366 | 2500 | -63.087 | 57.721 | >20 | Pass |
| 3 | 01 | 2412 | -4.232 | 2400 | -51.065 | 46.833 | >20 | Pass |
| 3 | 11 | 2462 | -5.371 | 2500 | -64.996 | 59.625 | >20 | Pass |
| 4 | 03 | 2422 | -7.973 | 2400 | -41.389 | 33.416 | >20 | Pass |
| 4 | 09 | 2452 | -8.034 | 2503.2 | -55.834 | 47.8 | >20 | Pass |

Note 1: The worst case of Emissions in non-restricted frequency bands as below:

2: As the radiated emission was performed, so conducted emission was only tested for the nearest emission of fundamental frequency.

Mode 4 CH03(2422MHz)



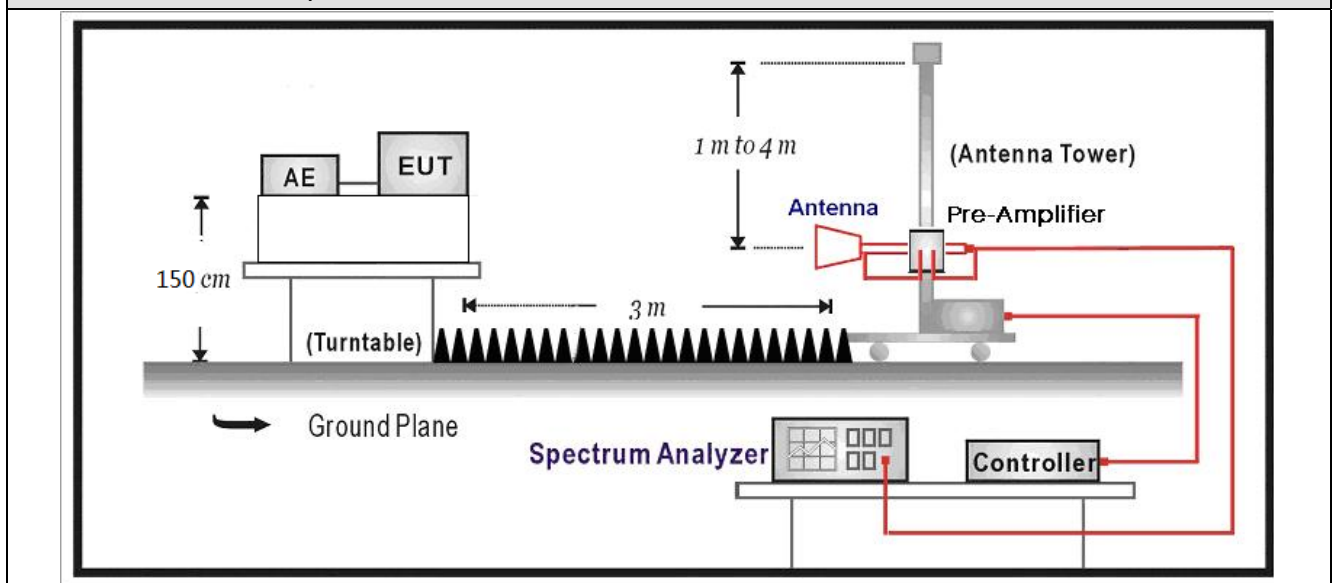
6. Radiated Emission Band Edge

6.1. Test Equipment

| Radiated Emission(Above 1GHz) / AC-5 | | | | | |
|--|--------------|--------------|------------|------------|---------------|
| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date | Cal. Due Date |
| EMI Receiver | Agilent | N9038A | MY51210196 | 2017.07.16 | 2018.07.16 |
| Pre-Amplifier | Miteq | NSP1800-25 | 1364185 | 2017.05.03 | 2018.05.02 |
| DRG Horn Antenna | ETS-Lindgren | 3117 | 00167055 | 2017.07.20 | 2018.07.20 |
| Broad-Band Horn Antenna | Schwarzbeck | BBHA9170 | 294 | 2017.09.18 | 2018.09.17 |
| Coaxial Cable | Huber+Suhner | SUCOFLEX 106 | AC5-C1 | 2017.02.28 | 2018.02.27 |
| Coaxial Cable | Huber+Suhner | SUCOFLEX 106 | AC5-C2 | 2017.02.28 | 2018.02.27 |
| Temperature/Humidity Meter | Zhichen | ZC1-2 | AC5-TH | 2017.01.05 | 2018.01.04 |
| Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards. | | | | | |

6.2. Test Setup

Above 1GHz Test Setup:



6.3. Limit

Band edge Limit

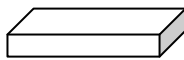
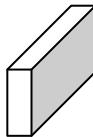
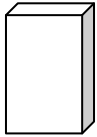

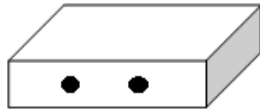

| Frequency bands (MHz) | Detector | Limit (dB μ V/m) | RBW (MHz) | Distance (m) |
|-----------------------|----------|----------------------|-----------|--------------|
| 2310-2390 | PK | 74 | 1 | 3 |
| 2483.5-2500 | AV | 54 | 1 | 3 |

Note: The field strength of emissions appearing within these frequency bands shall not exceed the limits.

6.4. Test Procedure

| Test Method | | | | | | |
|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------|--|--|
| | References Rule | | | Chapter | Description | |
| <input checked="" type="checkbox"/> | ANSI C63.10 | | | 6.10 | Band-edge testing | |
| | <input checked="" type="checkbox"/> | ANSI C63.10 | | 6.10.5 | Restricted-band band-edge measurements | |
| | <input type="checkbox"/> | ANSI C63.10 | | 6.10.6 | Marker-delta method | |
| <input checked="" type="checkbox"/> | ANSI C63.10 | | | 11.12 | Emissions in restricted frequency bands | |
| | <input checked="" type="checkbox"/> | ANSI C63.10 | | 11.12.1 | Radiated emission measurements | |
| | <input checked="" type="checkbox"/> | ANSI C63.10 | | 11.12.2.7 | Radiated spurious emission test | |
| <input type="checkbox"/> | ANSI C63.10 | | | 6.4 | Radiated emissions from unlicensed wireless devices below 30 MHz | |
| <input type="checkbox"/> | ANSI C63.10 | | | 6.5 | Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz | |
| <input checked="" type="checkbox"/> | ANSI C63.10 | | | 6.6 | Radiated emissions from unlicensed wireless devices above 1 GHz | |
| | | <input type="checkbox"/> | ANSI C63.10 | 11.12.2.3 | Quasi-peak measurement procedure | |
| | | <input checked="" type="checkbox"/> | ANSI C63.10 | 11.12.2.4 | Peak power measurement procedure | |
| | | <input checked="" type="checkbox"/> | ANSI C63.10 | 11.12.2.5 | Average power measurement procedures | |
| | | | <input type="checkbox"/> | ANSI C63.10 | 11.12.2.5.1 | Trace averaging with continuous EUT transmission at full power |
| | | | <input type="checkbox"/> | ANSI C63.10 | 11.12.2.5.2 | Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction |
| | | | <input checked="" type="checkbox"/> | ANSI C63.10 | 11.12.2.5.3 | Reduced VBW averaging across ON and OFF times of the EUT transmissions with max hold |

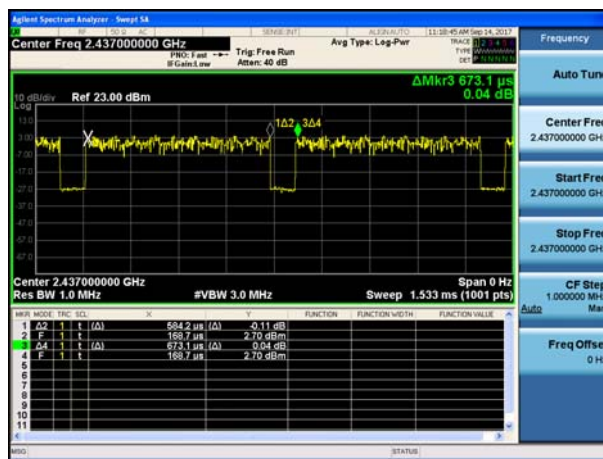
6.5. EUT test definition

| Item | Emissions in non-restricted frequency bands | | | |
|-----------------|--|--|---|---|
| Device Category | <input checked="" type="checkbox"/> | Fixed position use | | |
| | <input type="checkbox"/> | Mobile position use | | |
| Test mode | Mode 1~4 | | | |
| Test method | <input checked="" type="checkbox"/> | Radiated | | |
| | | X Axis | Y Axis | Z Axis |
| | |  |  |  |
| | | Worst Axis <input type="checkbox"/> | Worst Axis <input type="checkbox"/> | Worst Axis <input checked="" type="checkbox"/> |
| | <input type="checkbox"/> | Conducted | | |
| | <input type="checkbox"/> | Chain 1 | | |
| | |  | | |
| | <input type="checkbox"/> | Chain 1 | Chain 2 | |
| | |  | | |
| | <input type="checkbox"/> | Chain 1 | Chain 2 | Chain 3 |
| |  | | | |

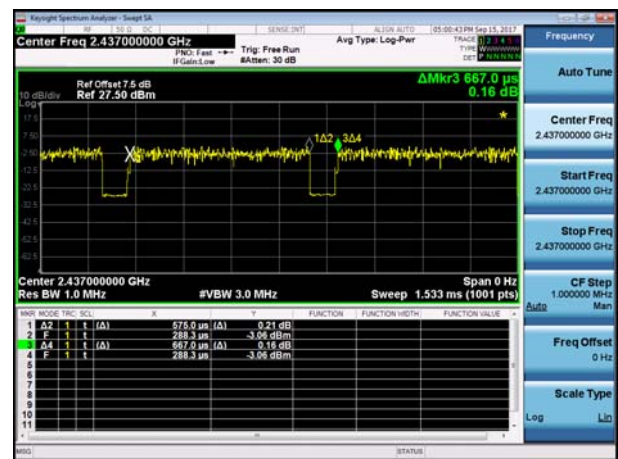
6.6. Duty Cycle

| Test Mode | Tx On (ms) | Tx Off (ms) | VBW | Tx On + Tx Off (ms) | Duty Cycle |
|----------------|------------|-------------|--------|---------------------|------------|
| 802.11b | 0.584 | 0.089 | 1.8KHz | 0.673 | 86.78% |
| 802.11g | 0.575 | 0.092 | 1.8KHz | 0.667 | 86.2% |
| 802.11n(20MHz) | 0.546 | 0.096 | 1.8KHz | 0.642 | 85.01% |
| 802.11n(40MHz) | 0.542 | 0.120 | 1.8KHz | 0.662 | 84.42% |

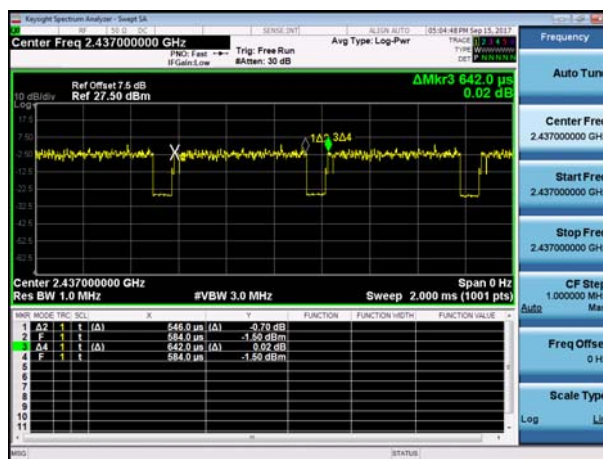
802.11b



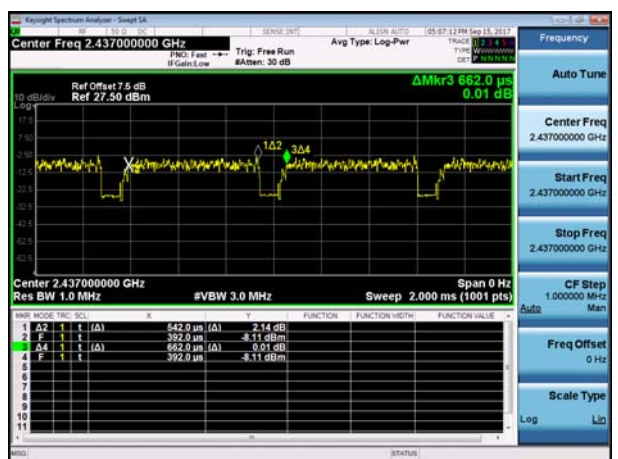
802.11g



802.11n(20MHz)

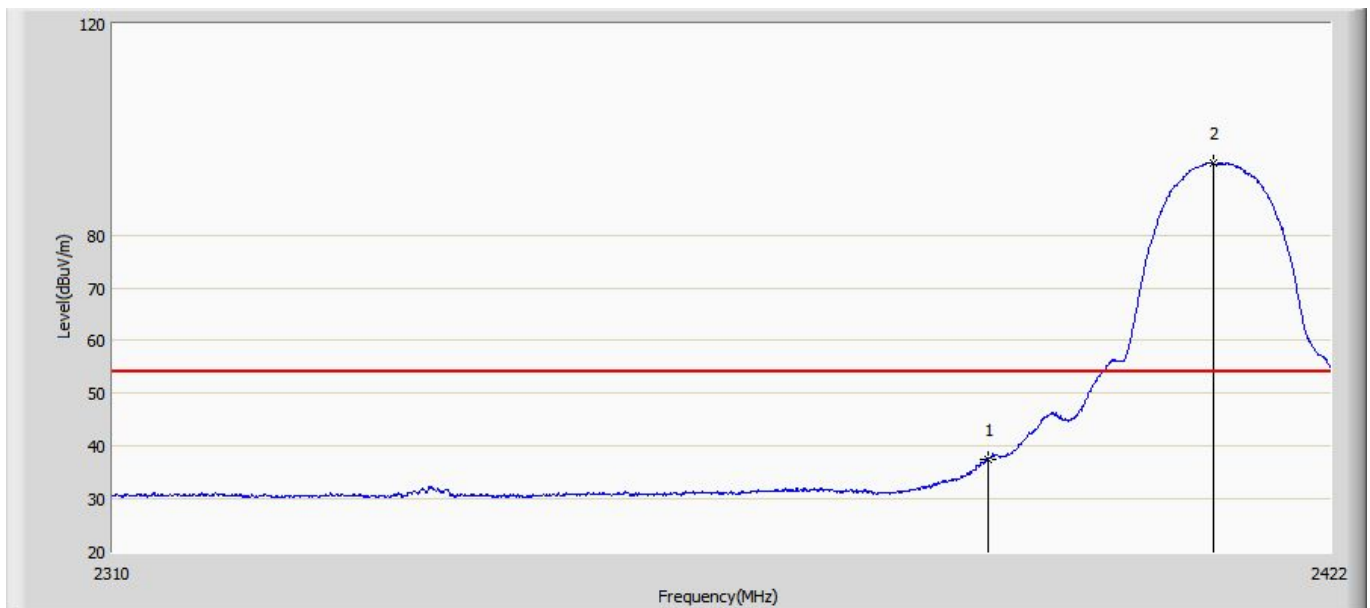


802.11n(40MHz)



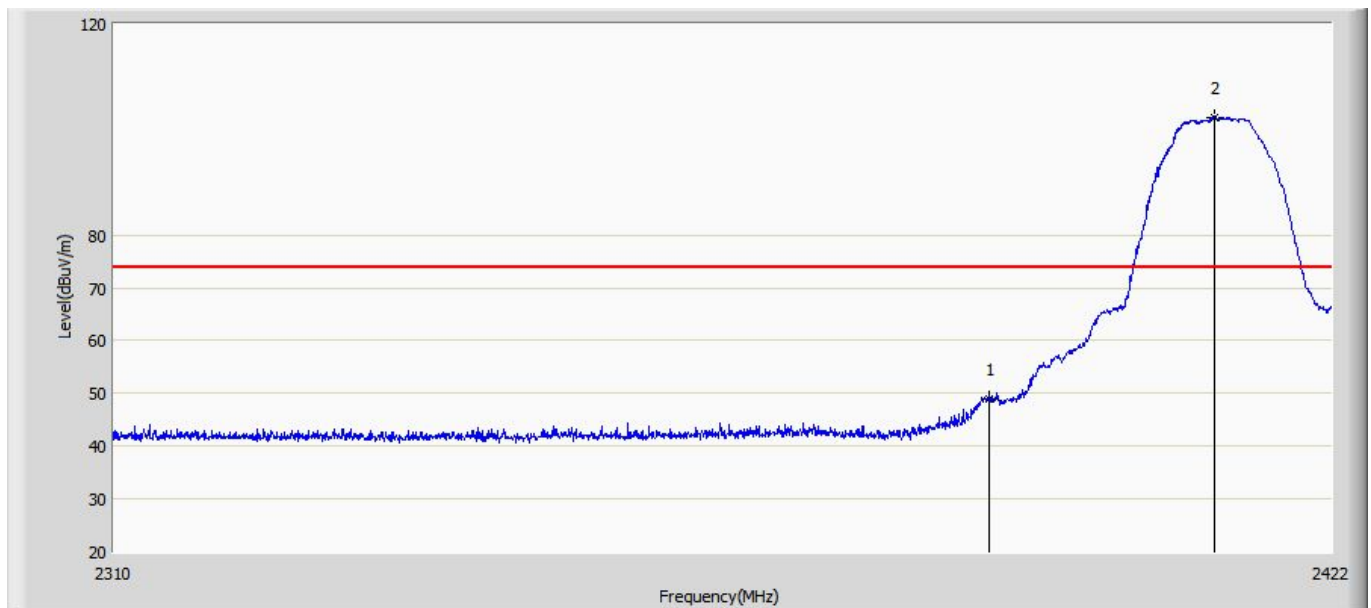
6.7. Test Result

| | |
|--|--------------------------|
| Engineer: Karl | |
| Site: AC5AC5 | Time: 2017/09/28 - 16:09 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 1;Transmit at2412MHz by 802.11b | |



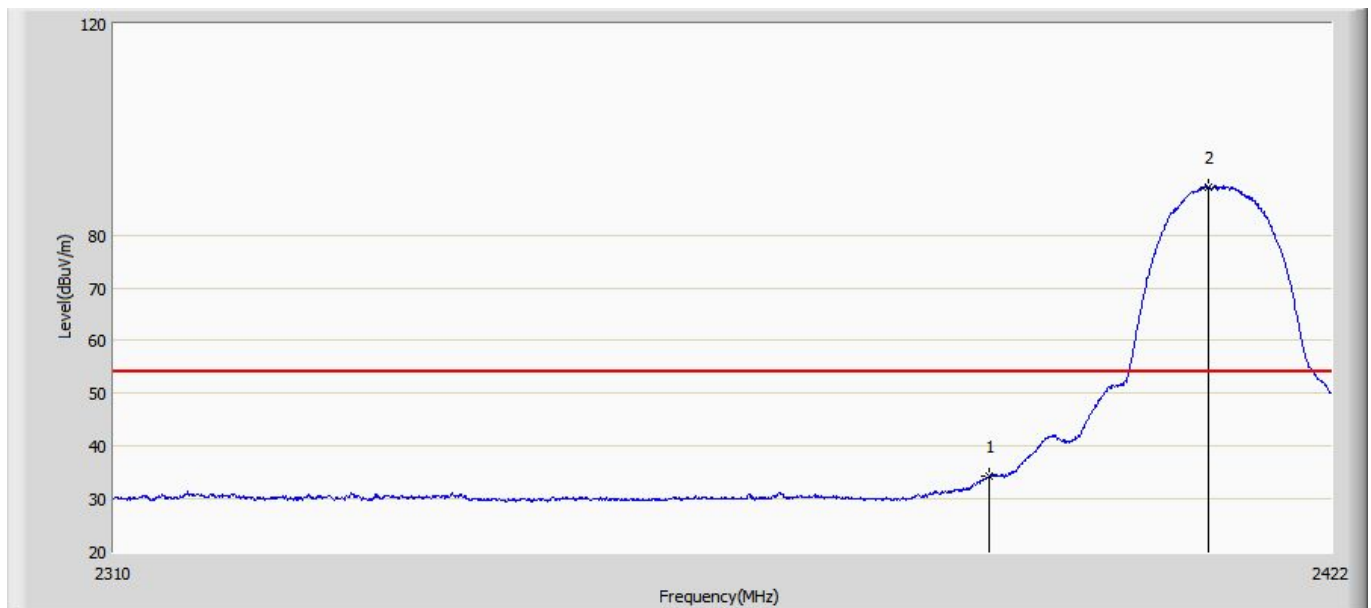
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 37.520 | 8.472 | -16.480 | 54.000 | 29.048 | AV |
| 2 | * | 2411.024 | 93.565 | 64.702 | 39.565 | 54.000 | 28.863 | AV |

| | |
|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 16:31 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 1;Transmit at2412MHz by 802.11b | |



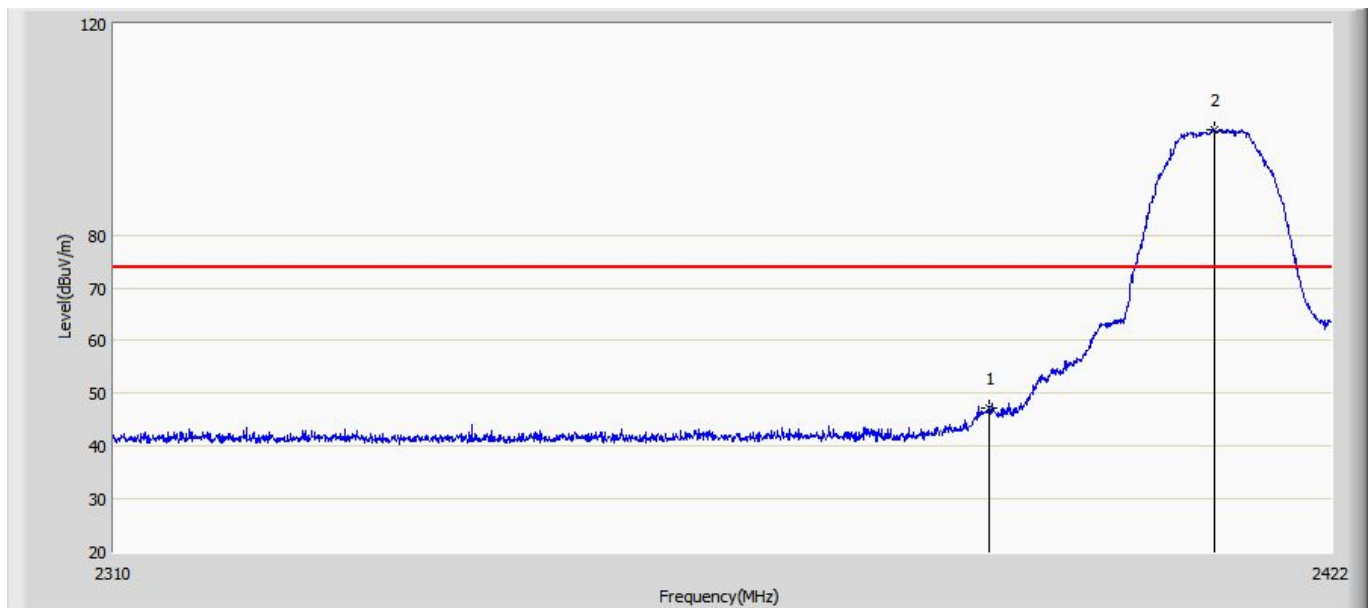
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 48.934 | 19.886 | -25.066 | 74.000 | 29.048 | PK |
| 2 | * | 2411.024 | 102.252 | 73.389 | 28.252 | 74.000 | 28.863 | PK |

| | |
|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 16:32 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 1;Transmit at2412MHz by 802.11b | |



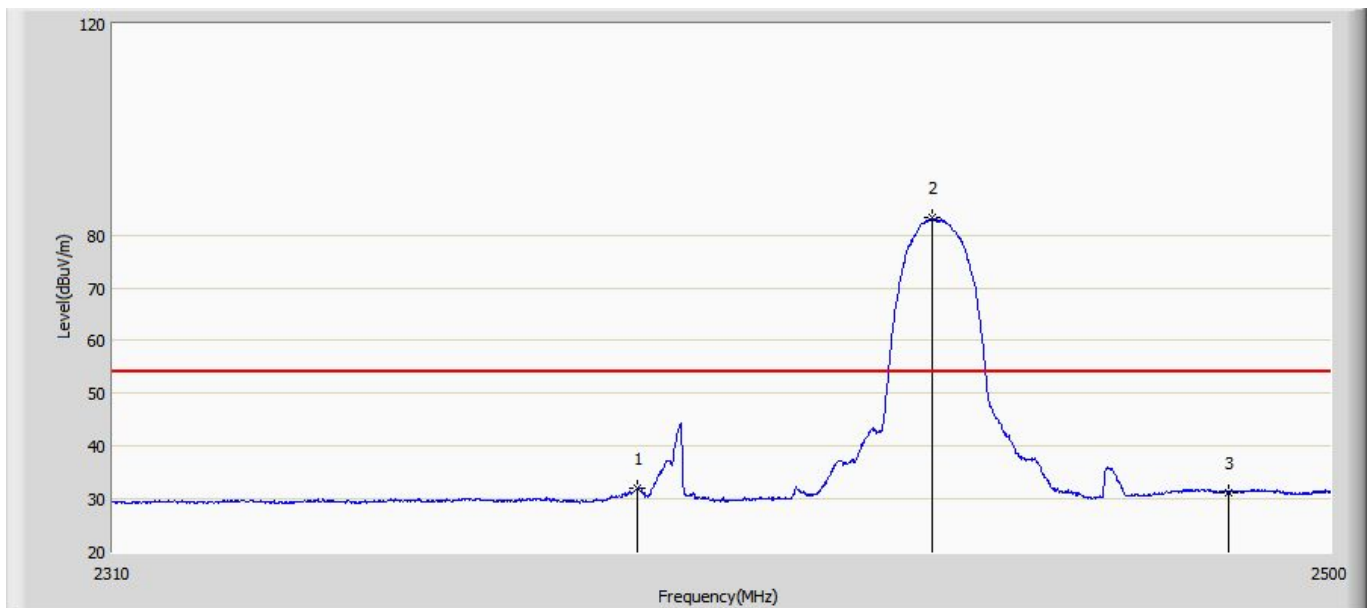
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 34.358 | 5.310 | -19.642 | 54.000 | 29.048 | AV |
| 2 | * | 2410.464 | 89.137 | 60.268 | 35.137 | 54.000 | 28.869 | AV |

| | |
|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 16:36 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 1;Transmit at2412MHz by 802.11b | |



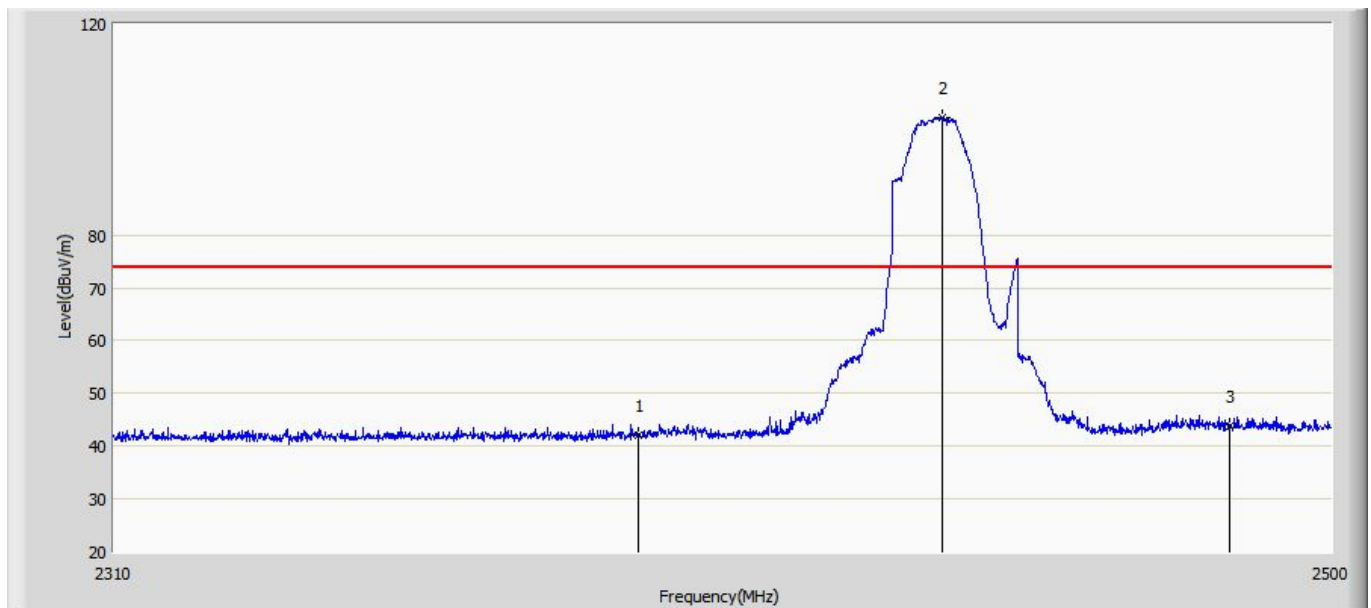
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 47.081 | 18.033 | -26.919 | 74.000 | 29.048 | PK |
| 2 | * | 2411.024 | 100.080 | 71.217 | 26.080 | 74.000 | 28.863 | PK |

| | |
|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 16:38 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 1;Transmit at2437MHz by 802.11b | |



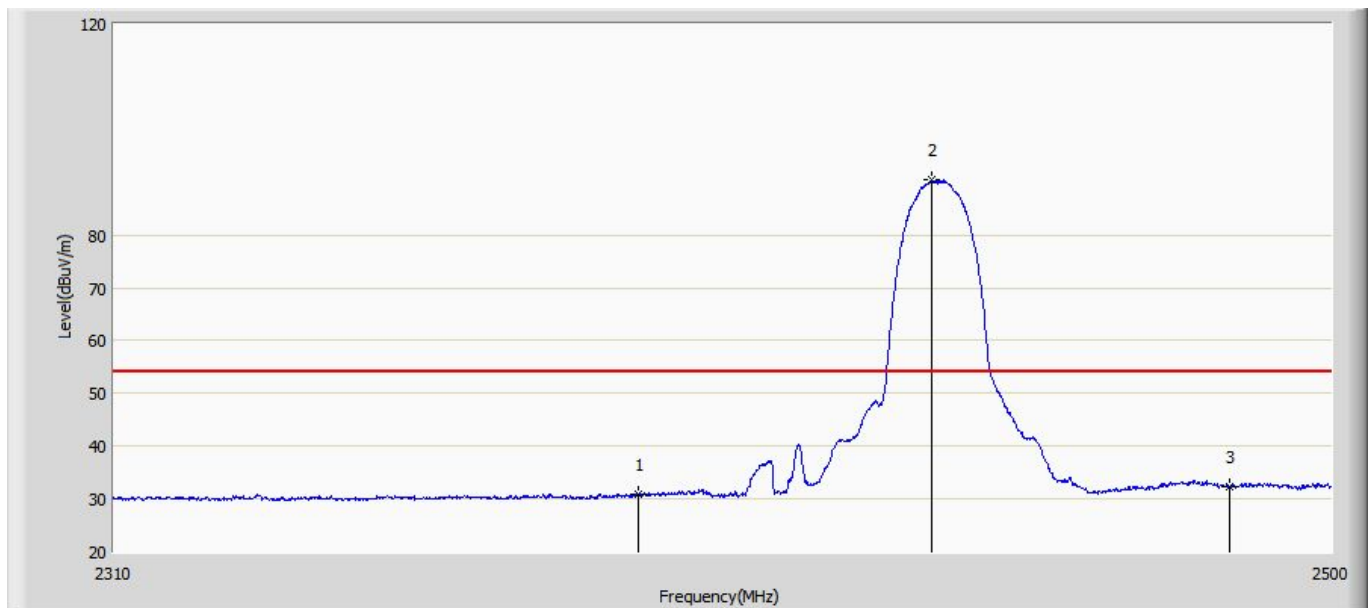
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 32.041 | 2.993 | -21.959 | 54.000 | 29.048 | AV |
| 2 | * | 2436.255 | 83.226 | 54.284 | 29.226 | 54.000 | 28.942 | AV |
| 3 | | 2483.500 | 31.213 | 0.729 | -22.787 | 54.000 | 30.484 | AV |

| | |
|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 16:46 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 1;Transmit at2437MHz by 802.11b | |



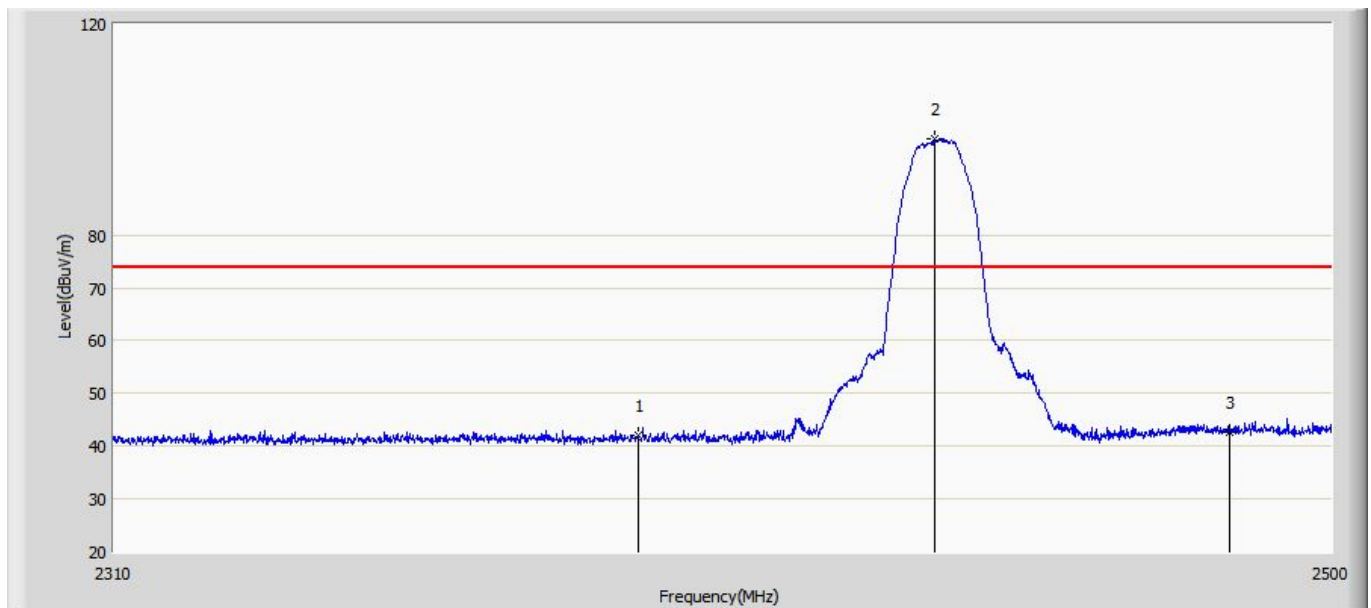
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 41.993 | 12.945 | -32.007 | 74.000 | 29.048 | PK |
| 2 | * | 2437.775 | 102.164 | 73.225 | 28.164 | 74.000 | 28.939 | PK |
| 3 | | 2483.500 | 43.889 | 13.405 | -30.111 | 74.000 | 30.484 | PK |

| | |
|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 16:48 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 1;Transmit at2437MHz by 802.11b | |



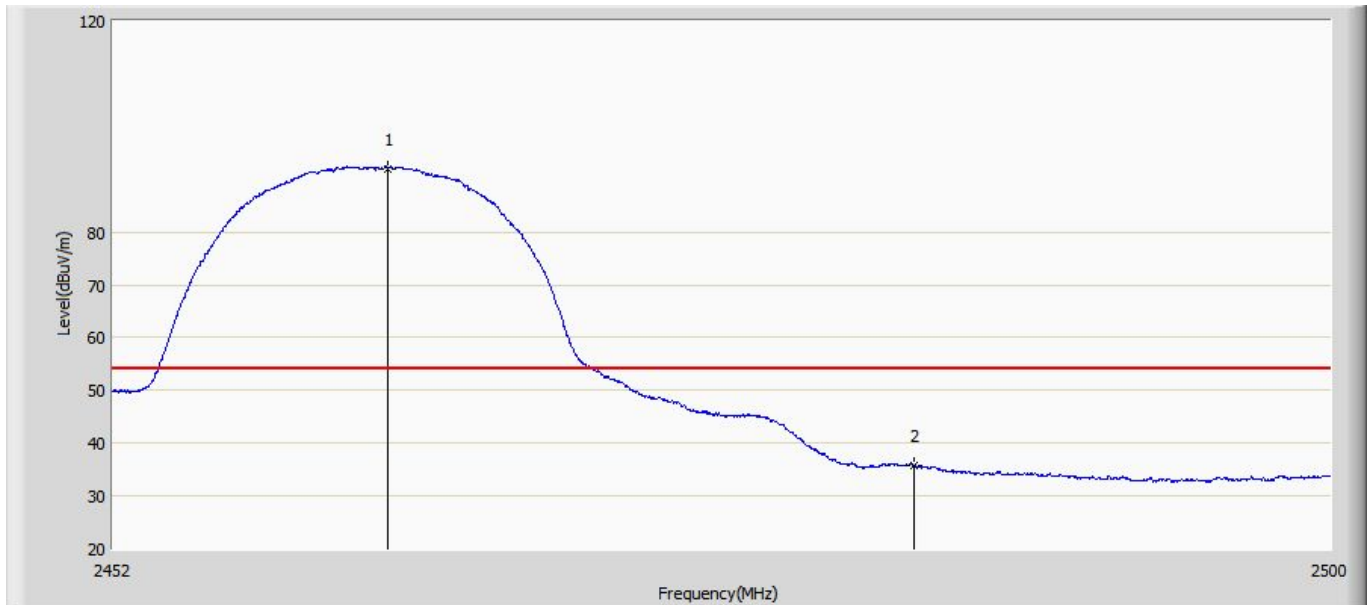
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 30.882 | 1.834 | -23.118 | 54.000 | 29.048 | AV |
| 2 | * | 2435.970 | 90.434 | 61.491 | 36.434 | 54.000 | 28.943 | AV |
| 3 | | 2483.500 | 32.261 | 1.777 | -21.739 | 54.000 | 30.484 | AV |

| | |
|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 16:56 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 1;Transmit at2437MHz by 802.11b | |



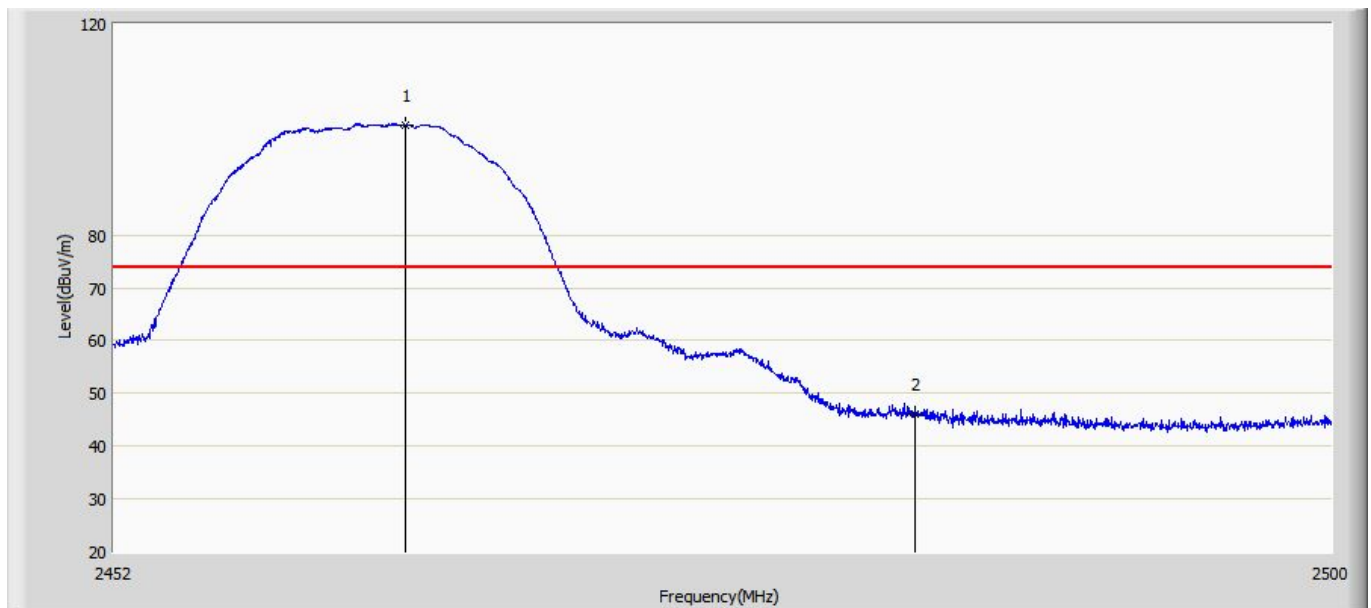
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 41.934 | 12.886 | -32.066 | 74.000 | 29.048 | PK |
| 2 | * | 2436.540 | 98.138 | 69.197 | 24.138 | 74.000 | 28.941 | PK |
| 3 | | 2483.500 | 42.739 | 12.255 | -31.261 | 74.000 | 30.484 | PK |

| | |
|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 16:58 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 1;Transmit at2462MHz by 802.11b | |



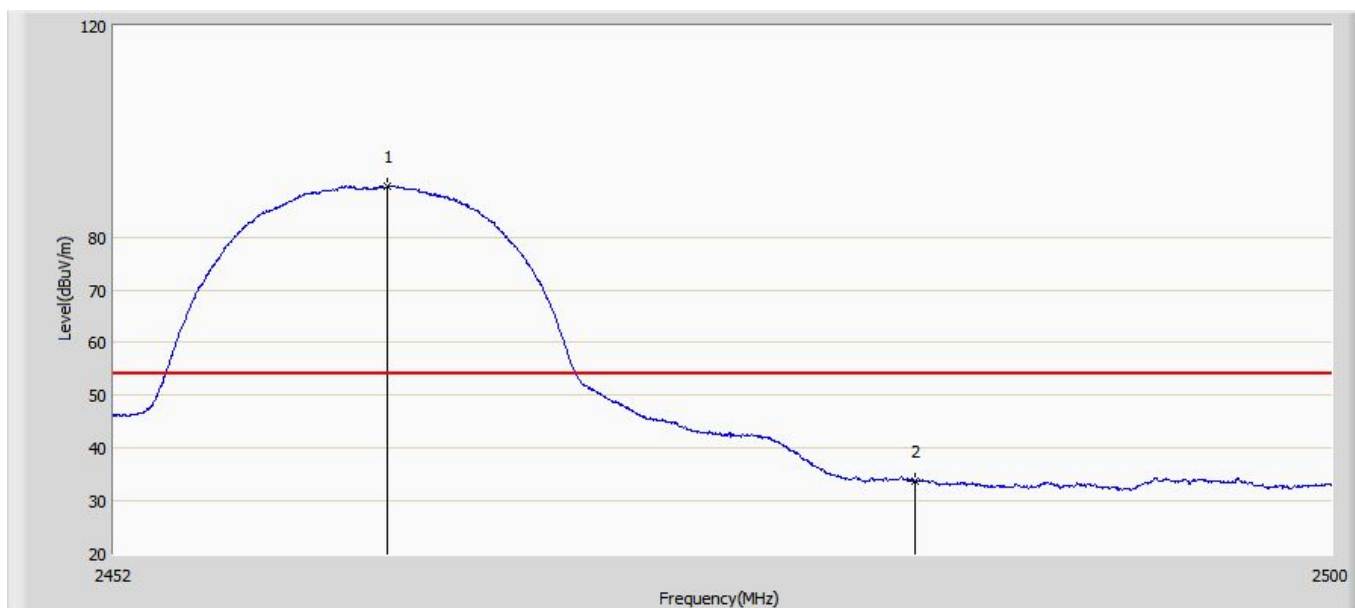
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | * | 2462.776 | 92.039 | 62.927 | 38.039 | 54.000 | 29.112 | AV |
| 2 | | 2483.500 | 35.803 | 5.319 | -18.197 | 54.000 | 30.484 | AV |

| | |
|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 17:02 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 1;Transmit at2462MHz by 802.11b | |



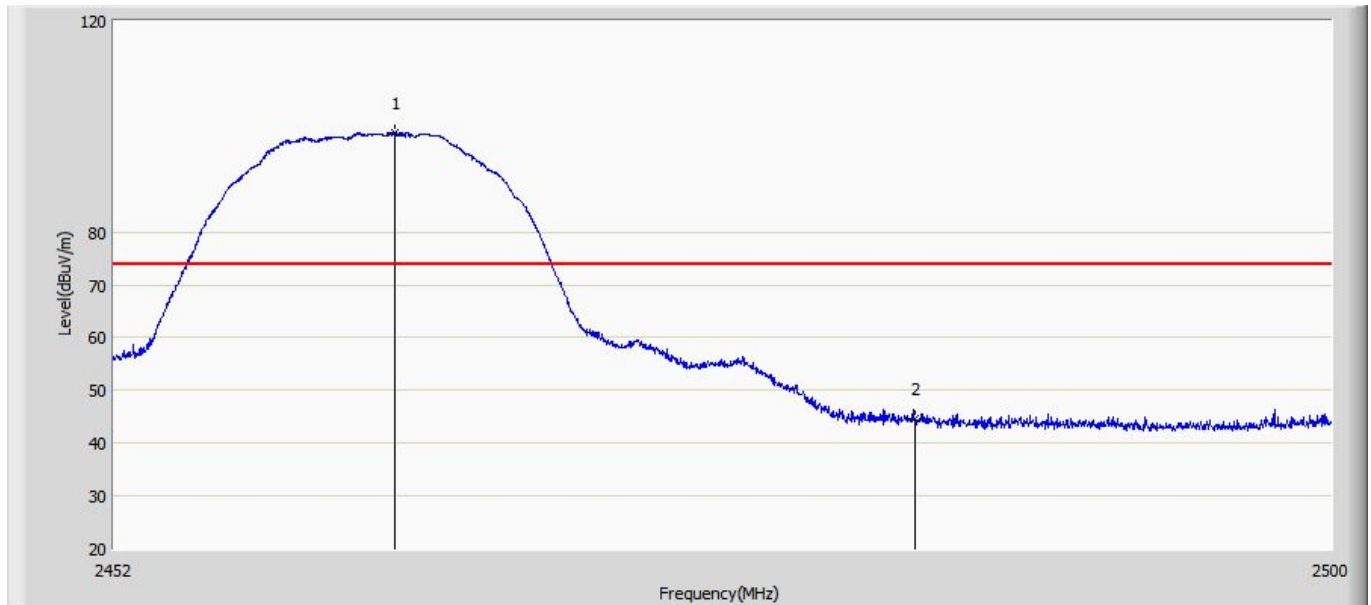
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | * | 2463.400 | 100.912 | 71.746 | 26.912 | 74.000 | 29.166 | PK |
| 2 | | 2483.500 | 46.161 | 15.677 | -27.839 | 74.000 | 30.484 | PK |

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| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 17:04 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 1;Transmit at2462MHz by 802.11b | |



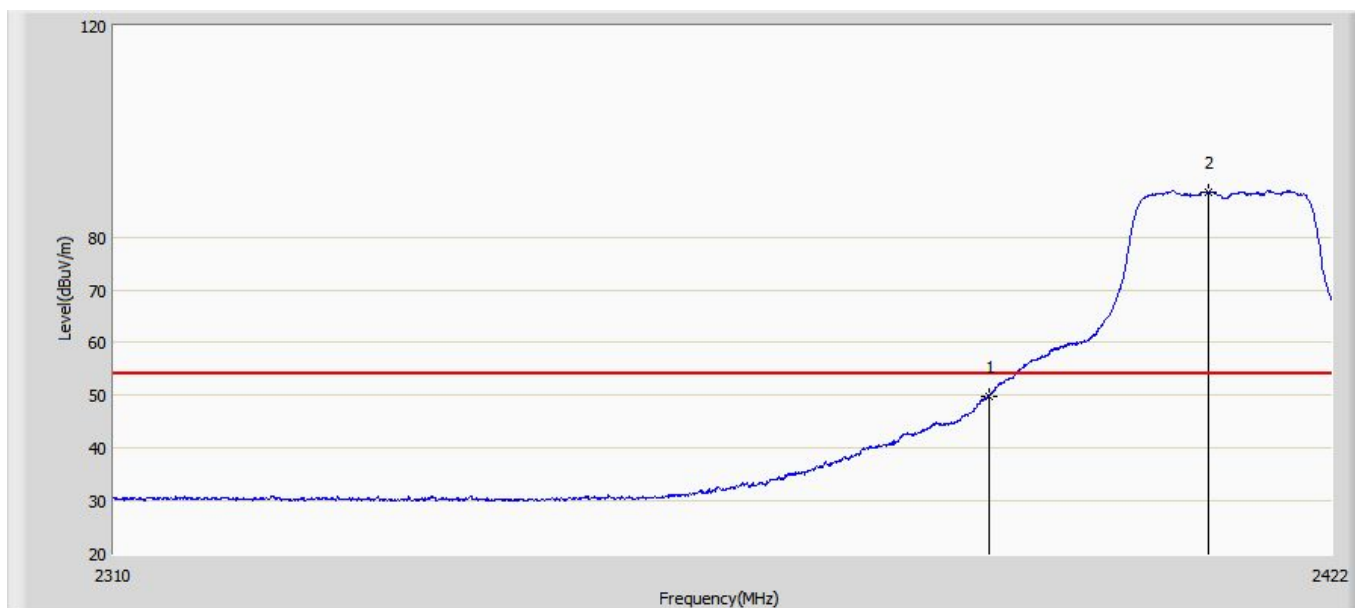
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | * | 2462.704 | 89.569 | 60.464 | 35.569 | 54.000 | 29.105 | AV |
| 2 | | 2483.500 | 33.851 | 3.367 | -20.149 | 54.000 | 30.484 | AV |

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| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 17:06 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 1;Transmit at2462MHz by 802.11b | |



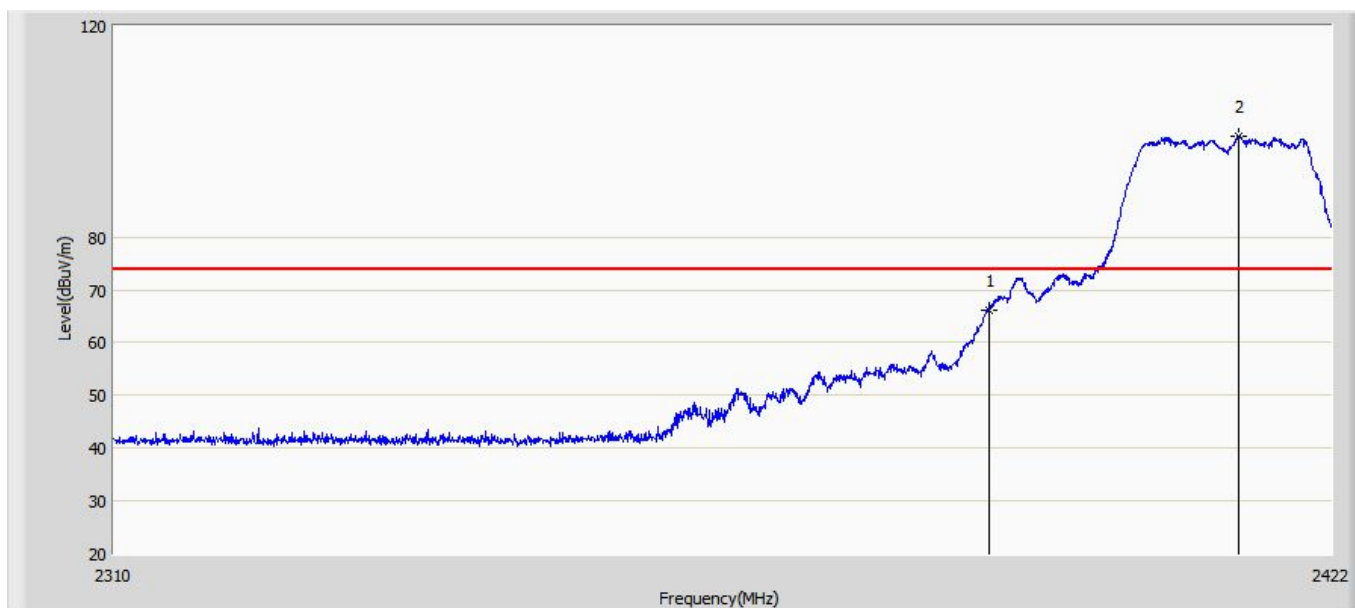
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | * | 2463.016 | 98.755 | 69.622 | 24.755 | 74.000 | 29.133 | PK |
| 2 | | 2483.500 | 44.593 | 14.108 | -29.407 | 74.000 | 30.484 | PK |

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| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 17:14 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 2;Transmit at2412MHz by 802.11g | |



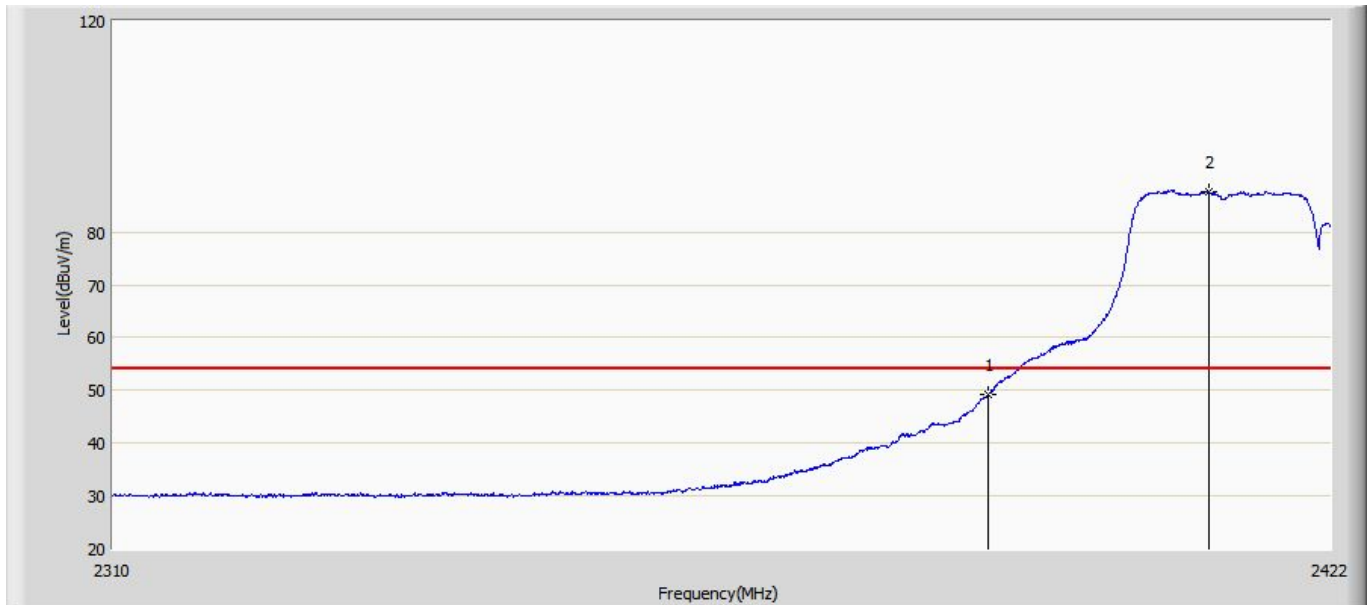
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 49.711 | 20.663 | -4.289 | 54.000 | 29.048 | AV |
| 2 | * | 2410.464 | 88.591 | 59.722 | 34.591 | 54.000 | 28.869 | AV |

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| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 19:26 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 2;Transmit at2412MHz by 802.11g | |



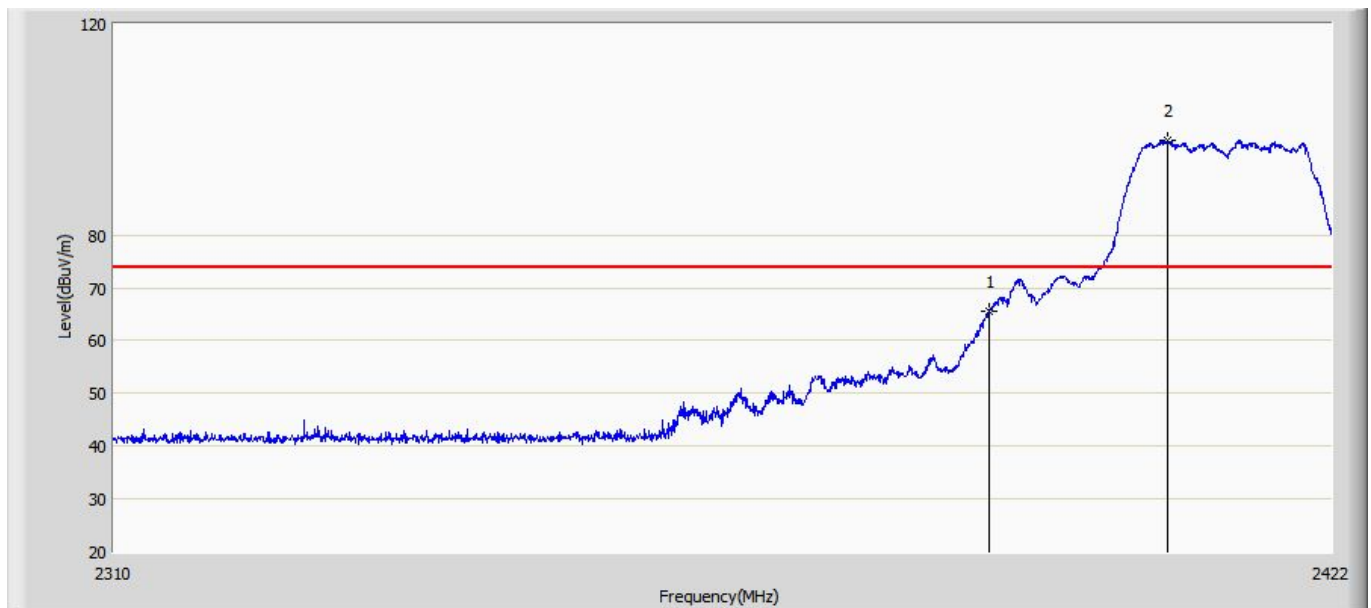
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 66.270 | 37.222 | -7.730 | 74.000 | 29.048 | PK |
| 2 | * | 2413.376 | 99.109 | 70.232 | 25.109 | 74.000 | 28.877 | PK |

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|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 19:27 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 2;Transmit at2412MHz by 802.11g | |



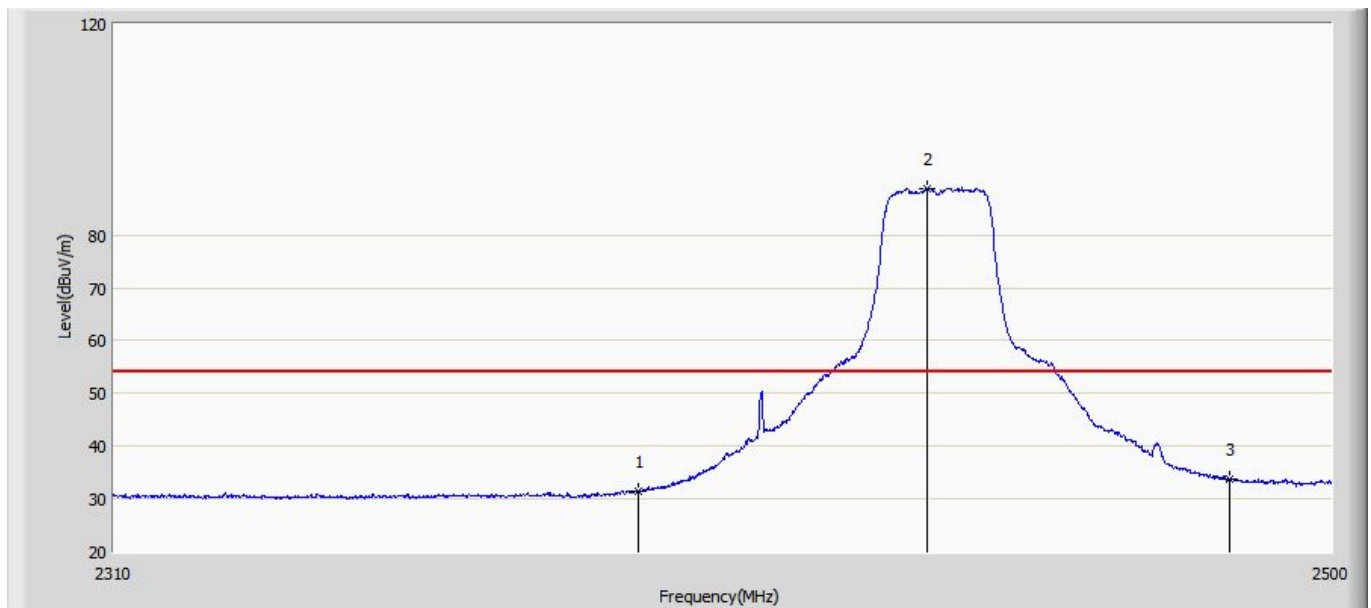
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 49.089 | 20.041 | -4.911 | 54.000 | 29.048 | AV |
| 2 | * | 2410.632 | 87.589 | 58.722 | 33.589 | 54.000 | 28.867 | AV |

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|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 19:29 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 2;Transmit at2412MHz by 802.11g | |



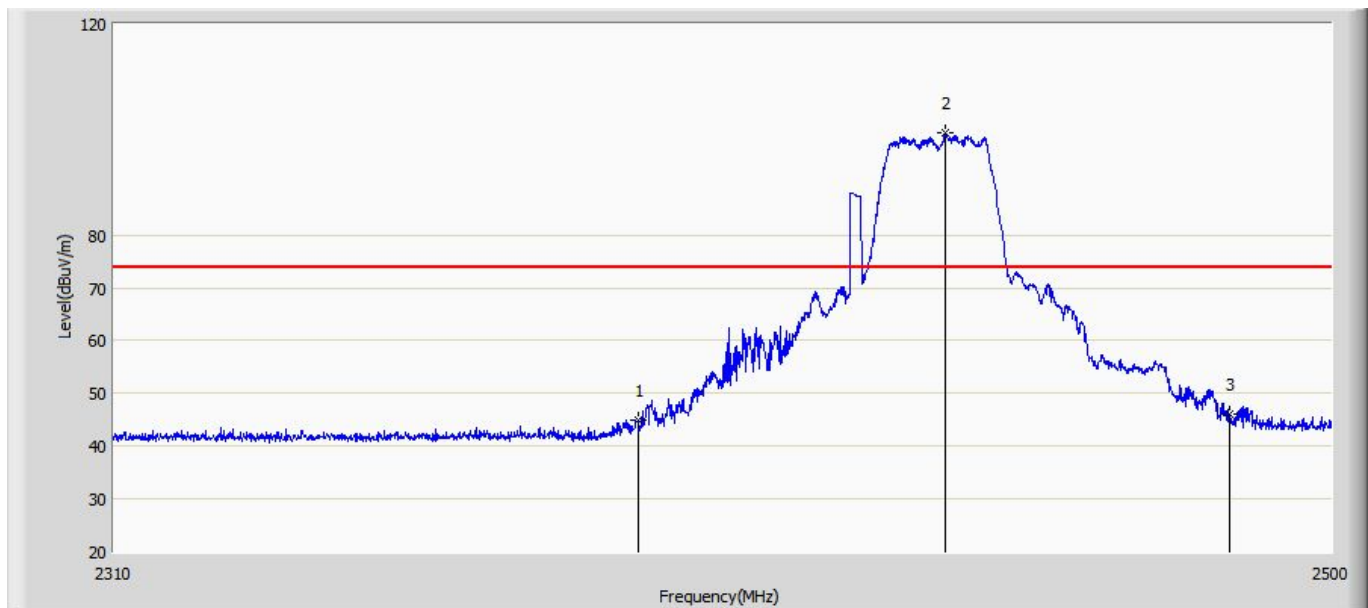
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 65.641 | 36.593 | -8.359 | 74.000 | 29.048 | PK |
| 2 | * | 2406.712 | 97.912 | 69.003 | 23.912 | 74.000 | 28.909 | PK |

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|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 19:31 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 2;Transmit at2437MHz by 802.11g | |



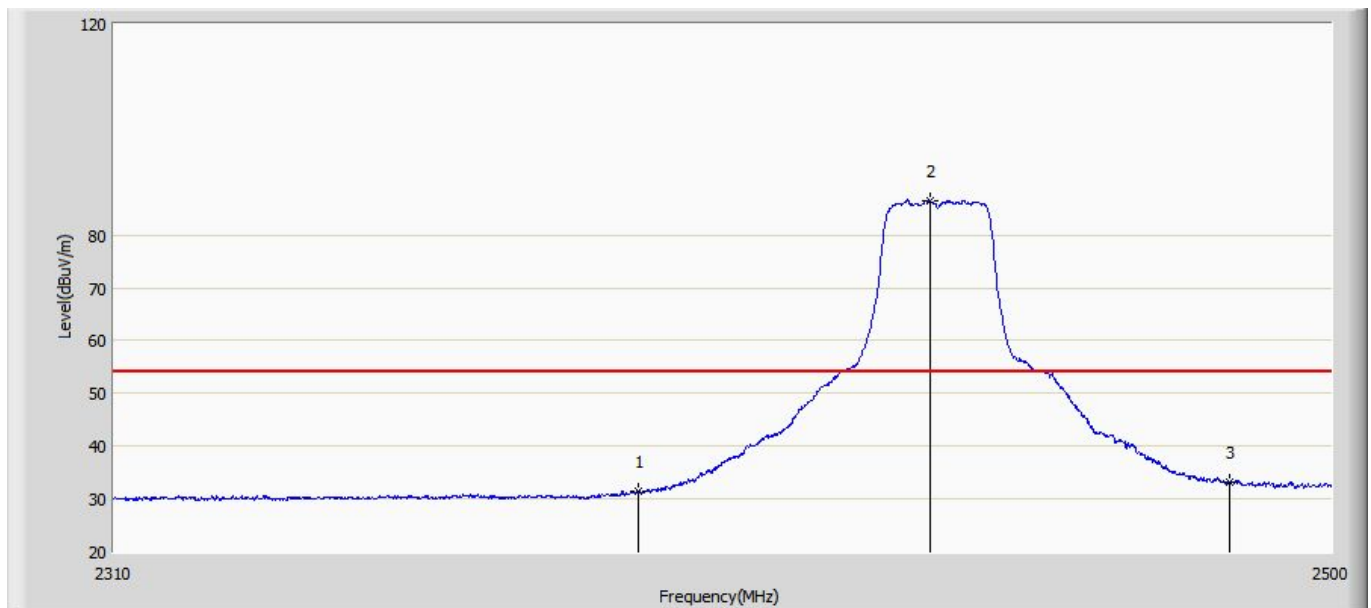
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 31.578 | 2.530 | -22.422 | 54.000 | 29.048 | AV |
| 2 | * | 2435.210 | 88.832 | 59.888 | 34.832 | 54.000 | 28.944 | AV |
| 3 | | 2483.500 | 33.888 | 3.404 | -20.112 | 54.000 | 30.484 | AV |

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|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 19:37 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 2;Transmit at2437MHz by 802.11g | |



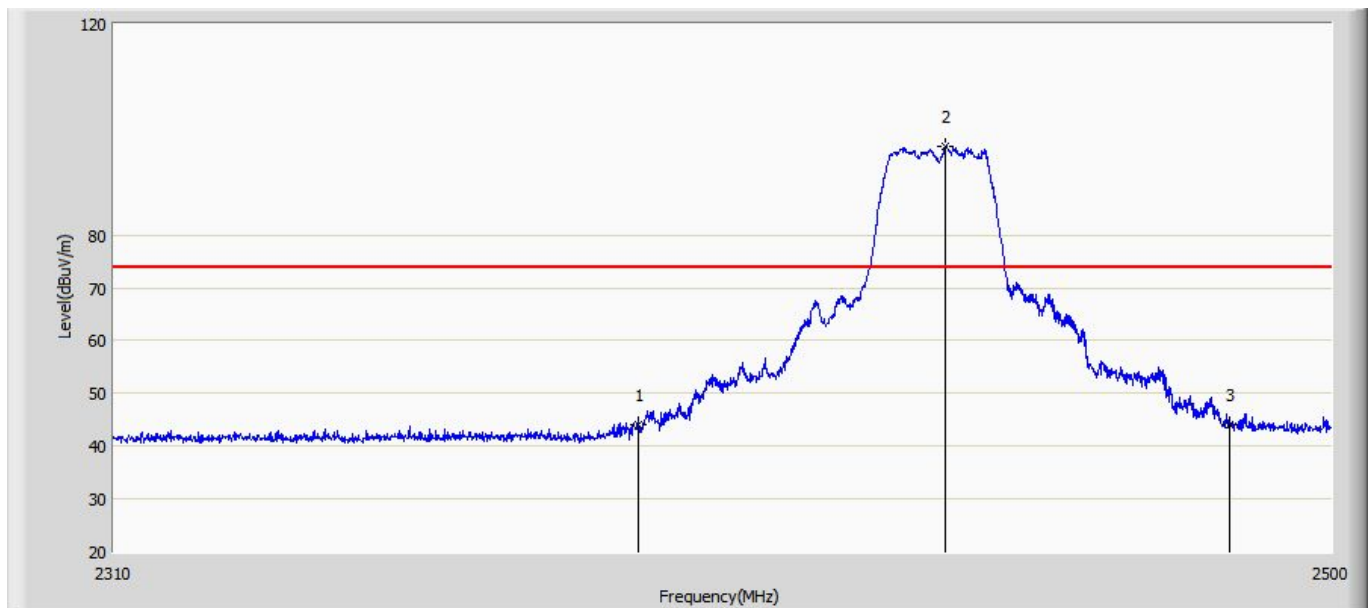
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 44.868 | 15.820 | -29.132 | 74.000 | 29.048 | PK |
| 2 | * | 2438.250 | 99.281 | 70.343 | 25.281 | 74.000 | 28.938 | PK |
| 3 | | 2483.500 | 46.198 | 15.714 | -27.802 | 74.000 | 30.484 | PK |

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|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 19:39 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 2;Transmit at2437MHz by 802.11g | |



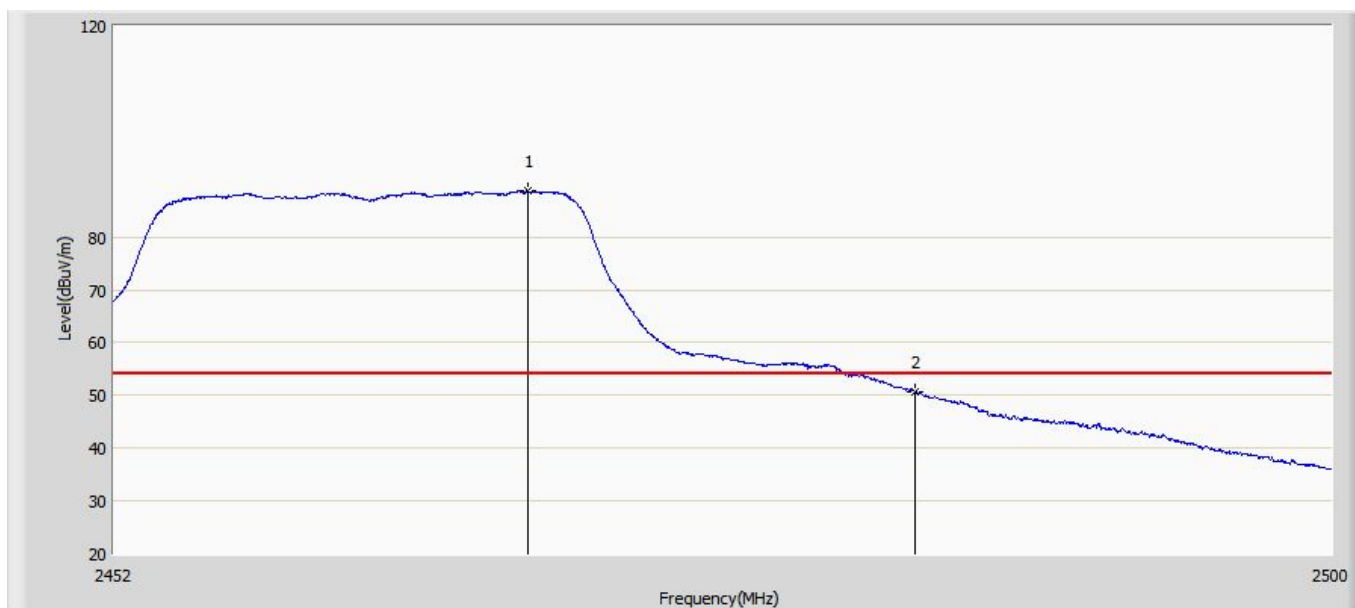
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 31.447 | 2.399 | -22.553 | 54.000 | 29.048 | AV |
| 2 | * | 2435.780 | 86.459 | 57.516 | 32.459 | 54.000 | 28.943 | AV |
| 3 | | 2483.500 | 33.275 | 2.791 | -20.725 | 54.000 | 30.484 | AV |

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|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 19:42 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 2;Transmit at2437MHz by 802.11g | |



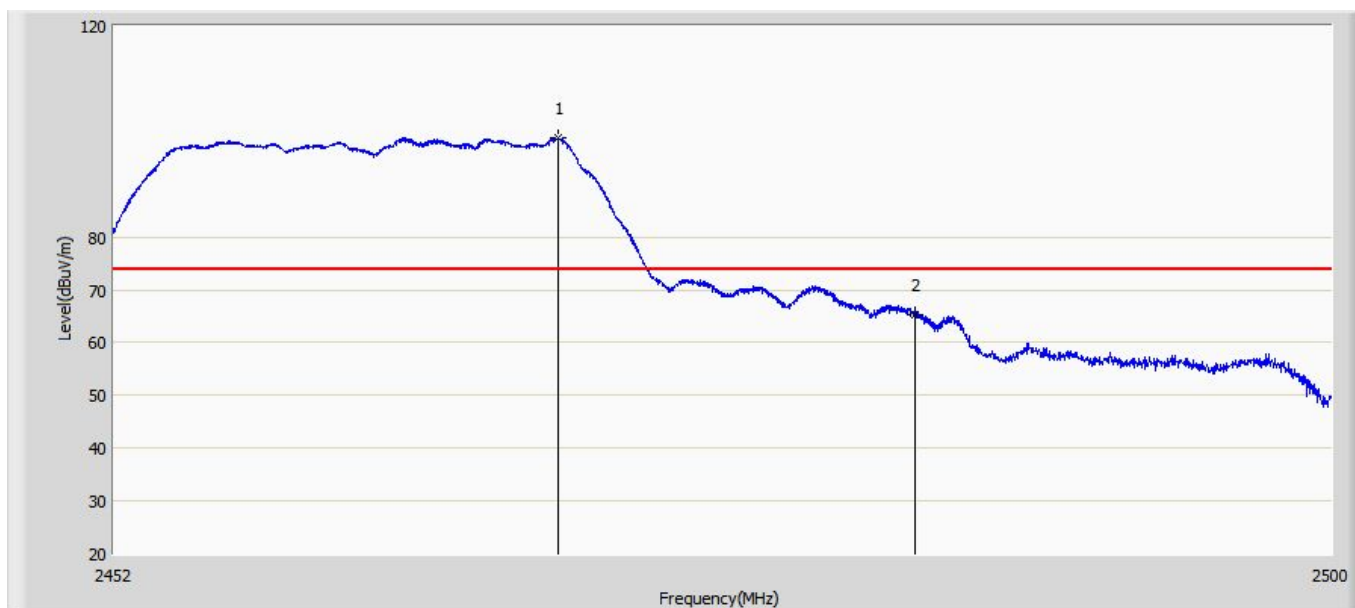
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 44.113 | 15.065 | -29.887 | 74.000 | 29.048 | PK |
| 2 | * | 2438.250 | 96.896 | 67.958 | 22.896 | 74.000 | 28.938 | PK |
| 3 | | 2483.500 | 44.003 | 13.519 | -29.997 | 74.000 | 30.484 | PK |

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|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 19:44 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 2;Transmit at2462MHz by 802.11g | |



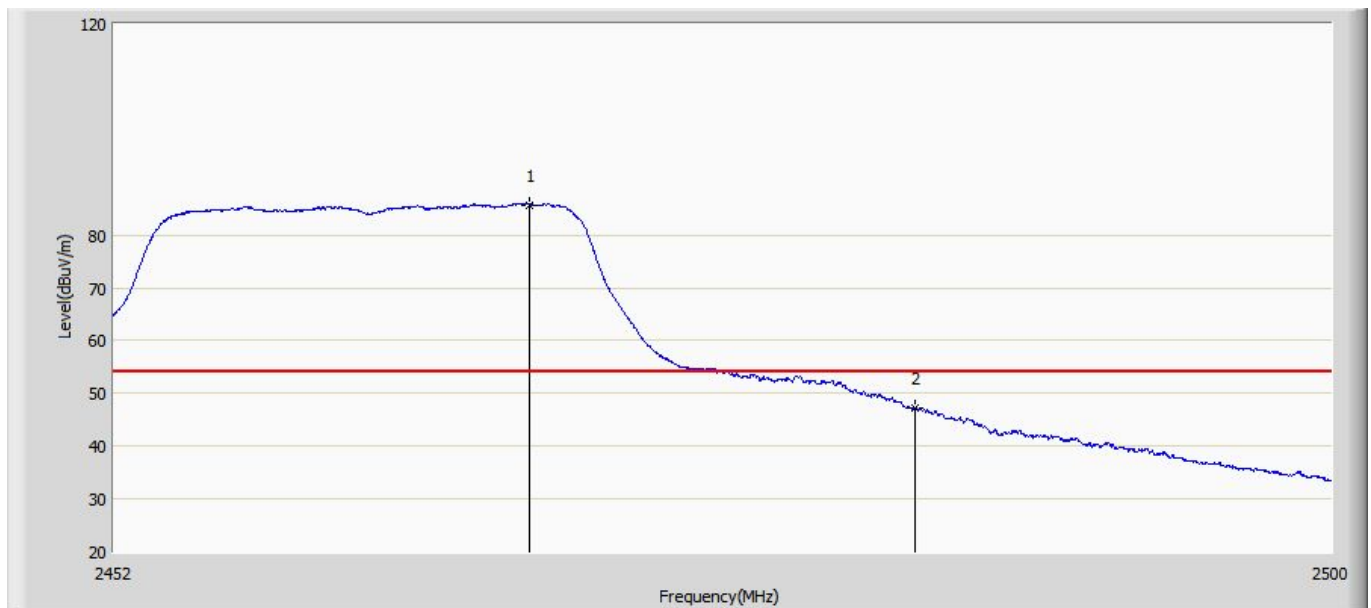
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | * | 2468.248 | 88.660 | 59.072 | 34.660 | 54.000 | 29.588 | AV |
| 2 | | 2483.500 | 50.635 | 20.151 | -3.365 | 54.000 | 30.484 | AV |

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|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 19:51 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 2;Transmit at2462MHz by 802.11g | |



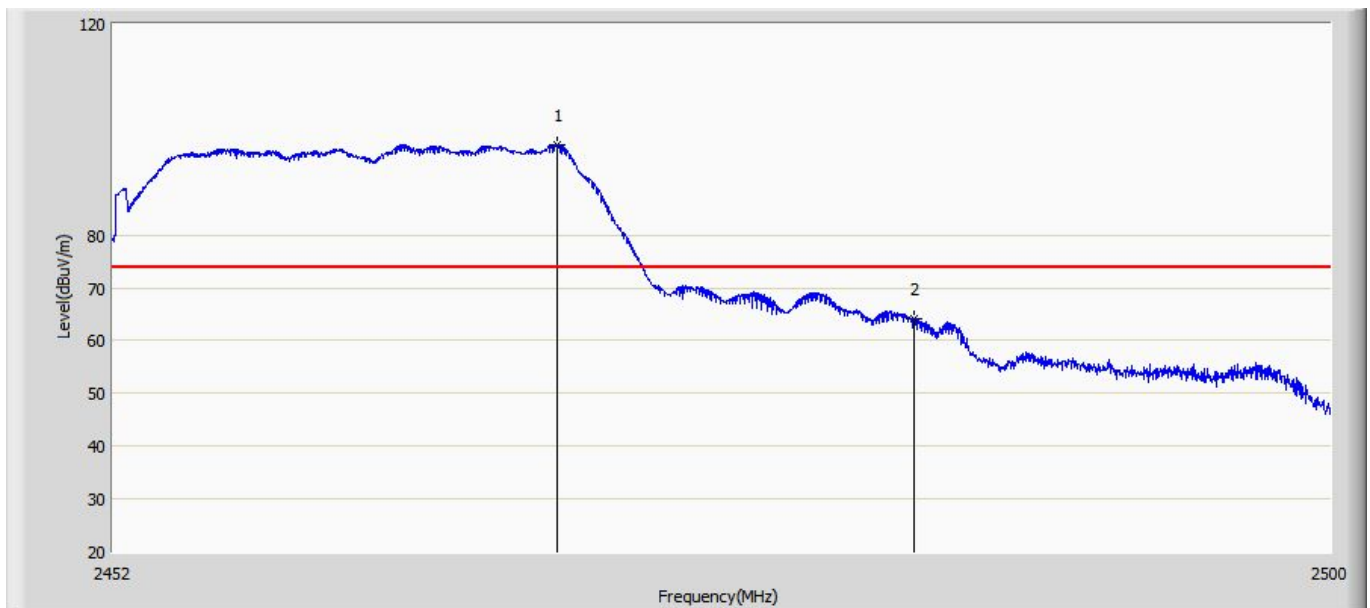
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | * | 2469.448 | 98.732 | 69.039 | 24.732 | 74.000 | 29.693 | PK |
| 2 | | 2483.500 | 65.401 | 34.917 | -8.599 | 74.000 | 30.484 | PK |

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| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 19:52 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 2;Transmit at2462MHz by 802.11g | |



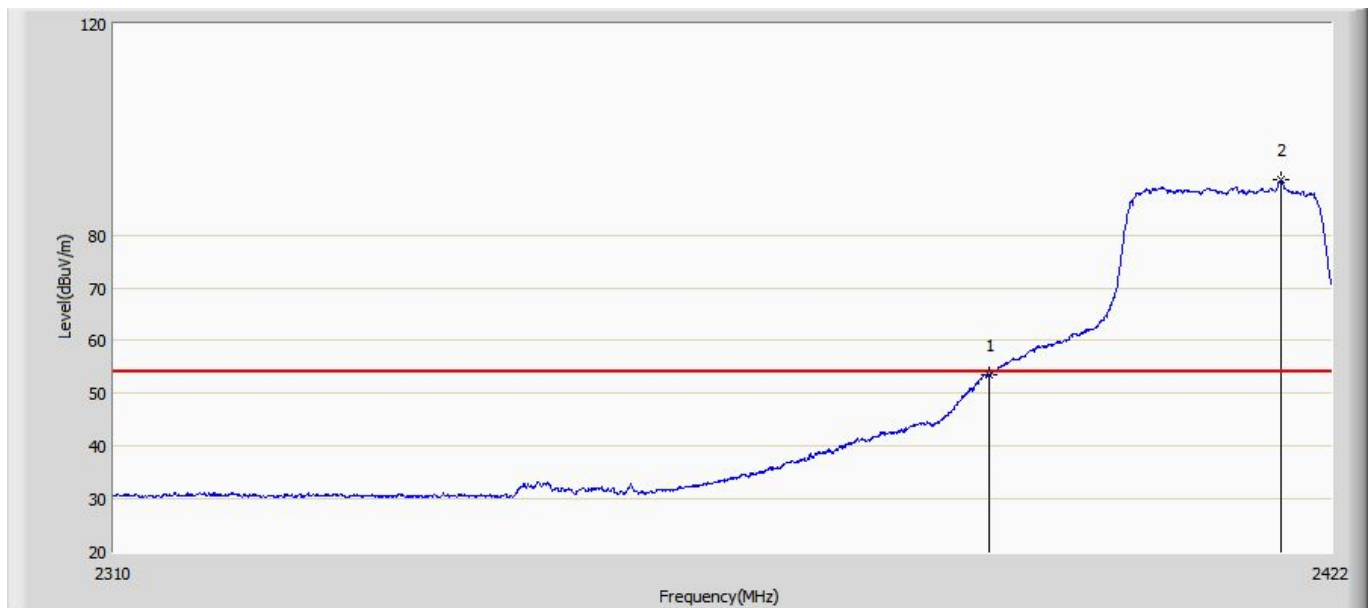
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | * | 2468.320 | 85.756 | 56.161 | 31.756 | 54.000 | 29.595 | AV |
| 2 | | 2483.500 | 47.185 | 16.701 | -6.815 | 54.000 | 30.484 | AV |

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|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 19:54 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 2;Transmit at2462MHz by 802.11g | |



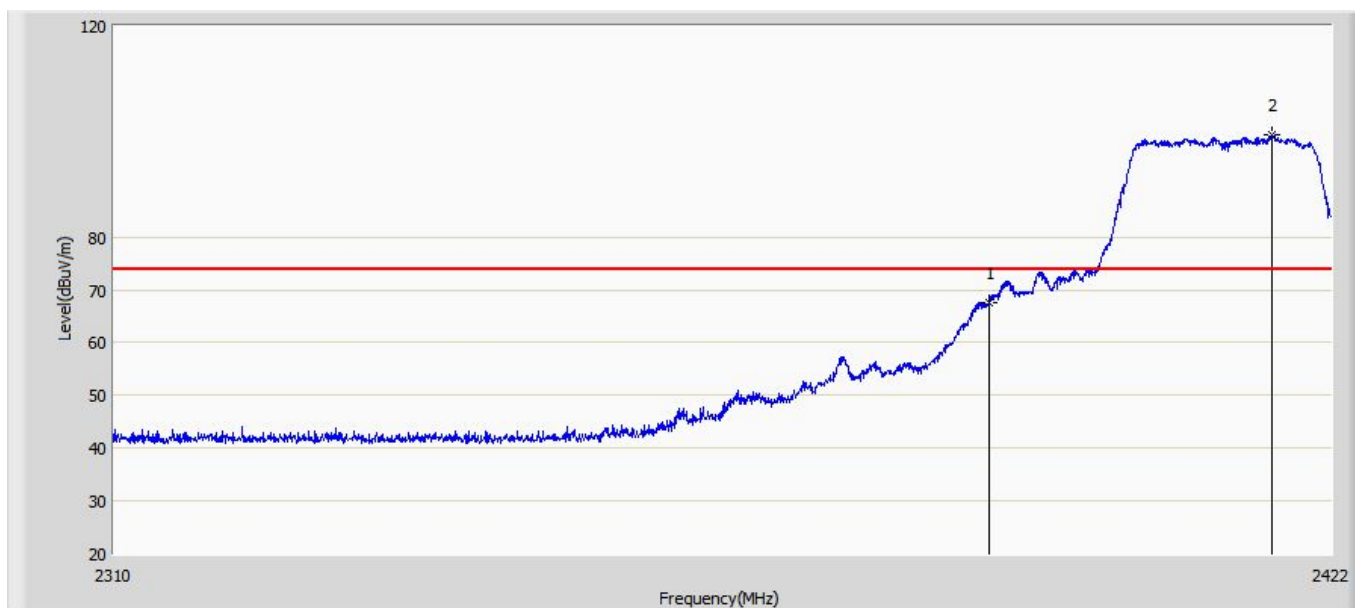
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | * | 2469.400 | 97.200 | 67.511 | 23.200 | 74.000 | 29.689 | PK |
| 2 | | 2483.500 | 64.049 | 33.565 | -9.951 | 74.000 | 30.484 | PK |

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|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 19:56 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 3;Transmit at2412MHz by 802.11N20 | |



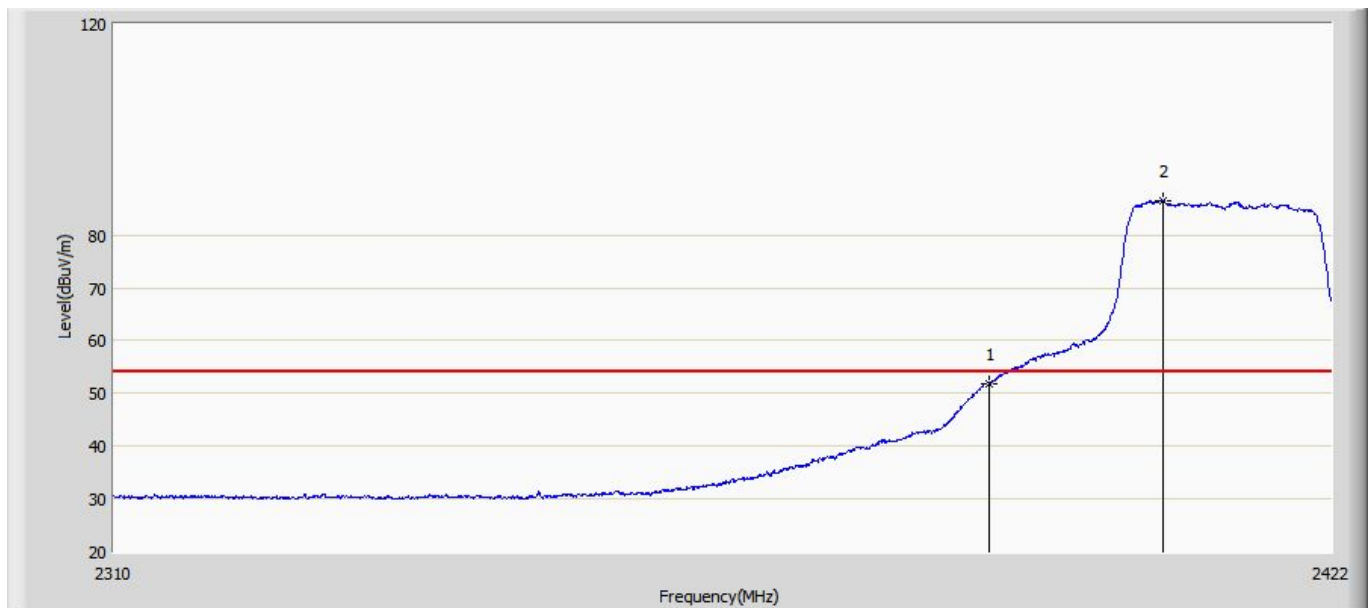
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 53.430 | 24.382 | -0.570 | 54.000 | 29.048 | AV |
| 2 | * | 2417.352 | 90.432 | 61.533 | 36.432 | 54.000 | 28.899 | AV |

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| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 20:02 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 3;Transmit at2412MHz by 802.11N20 | |



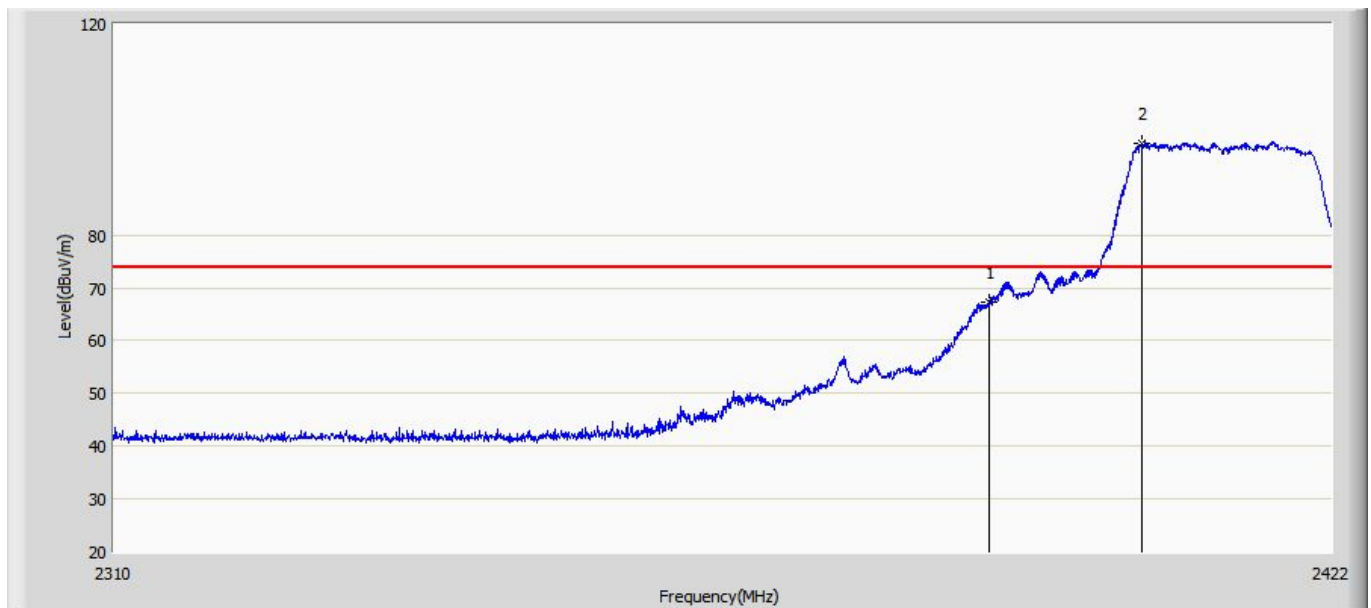
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 67.627 | 38.579 | -6.373 | 74.000 | 29.048 | PK |
| 2 | * | 2416.400 | 99.264 | 70.370 | 25.264 | 74.000 | 28.894 | PK |

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| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 20:03 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 3;Transmit at2412MHz by 802.11N20 | |



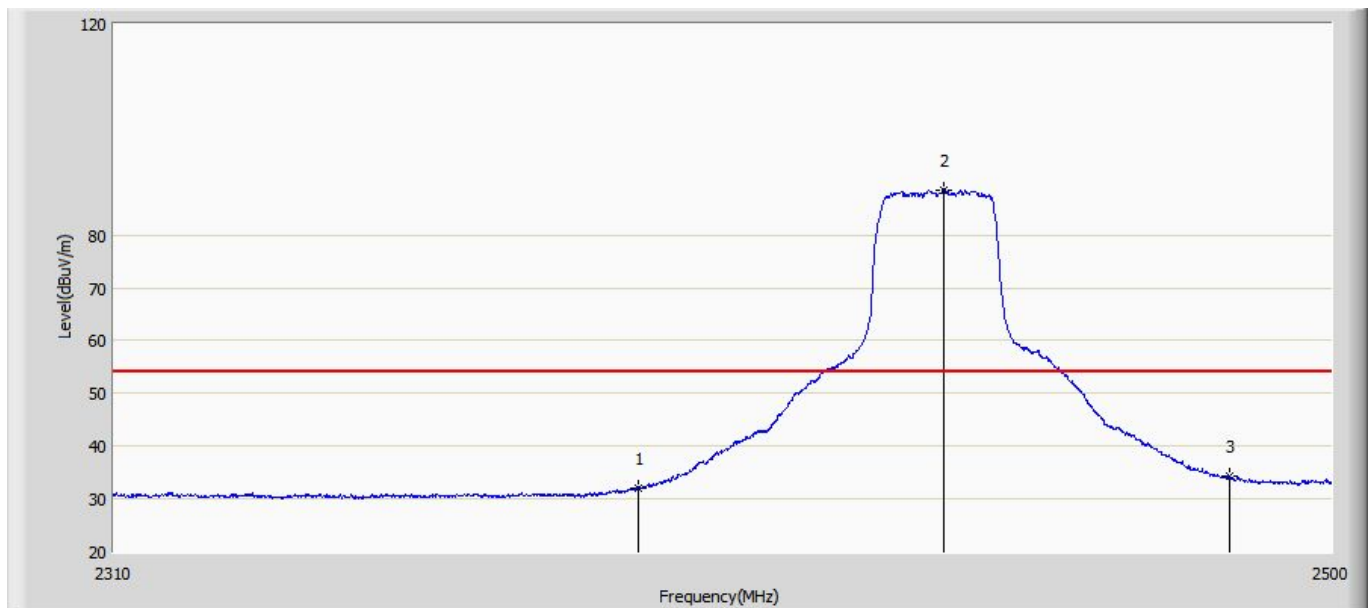
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 51.840 | 22.792 | -2.160 | 54.000 | 29.048 | AV |
| 2 | * | 2406.208 | 86.339 | 57.424 | 32.339 | 54.000 | 28.915 | AV |

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|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 20:06 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 3;Transmit at2412MHz by 802.11N20 | |



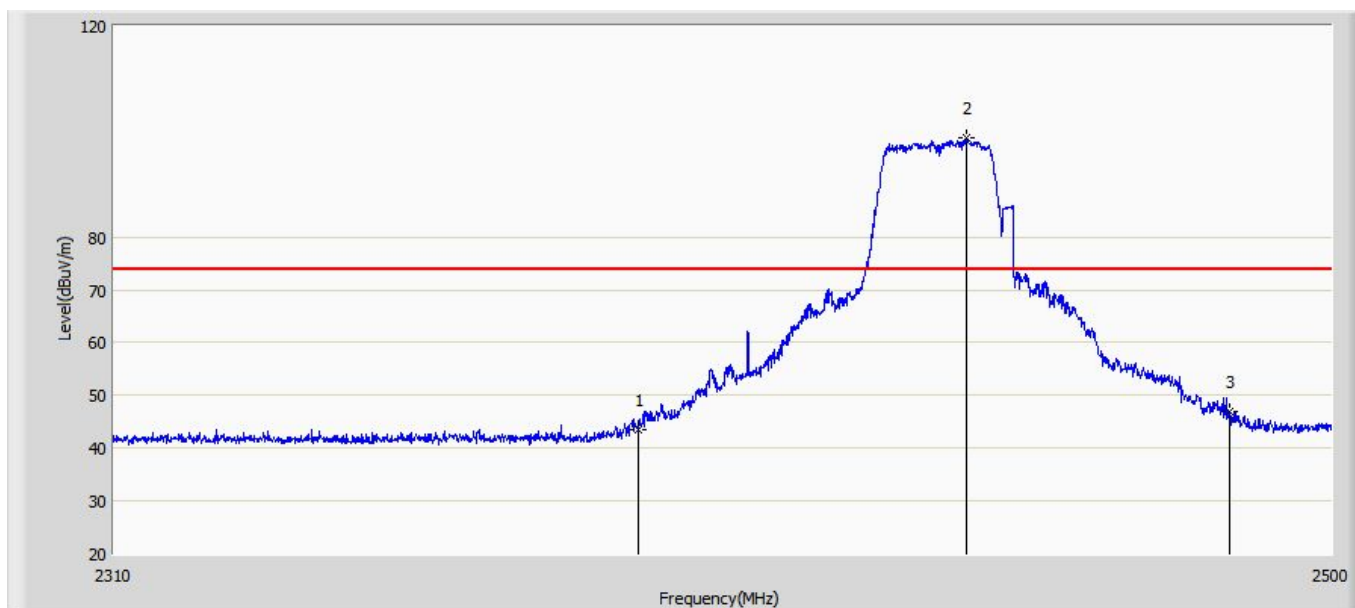
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 67.297 | 38.249 | -6.703 | 74.000 | 29.048 | PK |
| 2 | * | 2404.304 | 97.493 | 68.558 | 23.493 | 74.000 | 28.935 | PK |

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| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 20:08 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 3;Transmit at2437MHz by 802.11N20 | |



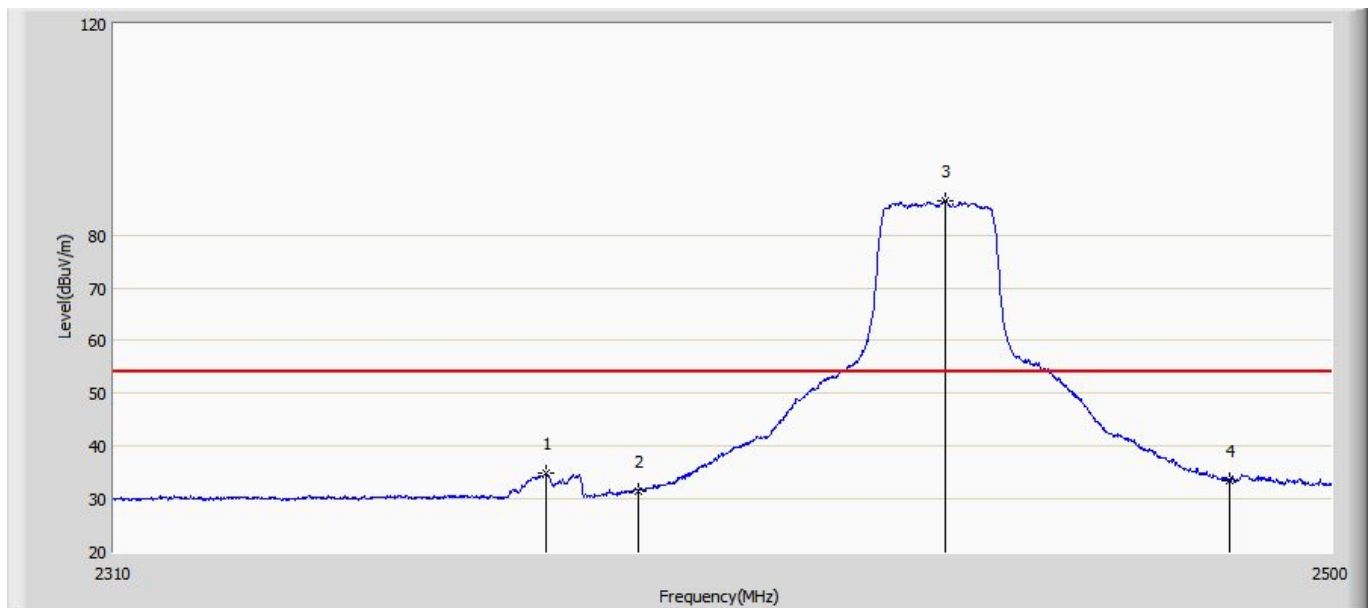
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 31.911 | 2.863 | -22.089 | 54.000 | 29.048 | AV |
| 2 | * | 2437.870 | 88.530 | 59.591 | 34.530 | 54.000 | 28.939 | AV |
| 3 | | 2483.500 | 34.216 | 3.732 | -19.784 | 54.000 | 30.484 | AV |

| | |
|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 20:12 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 3;Transmit at2437MHz by 802.11N20 | |



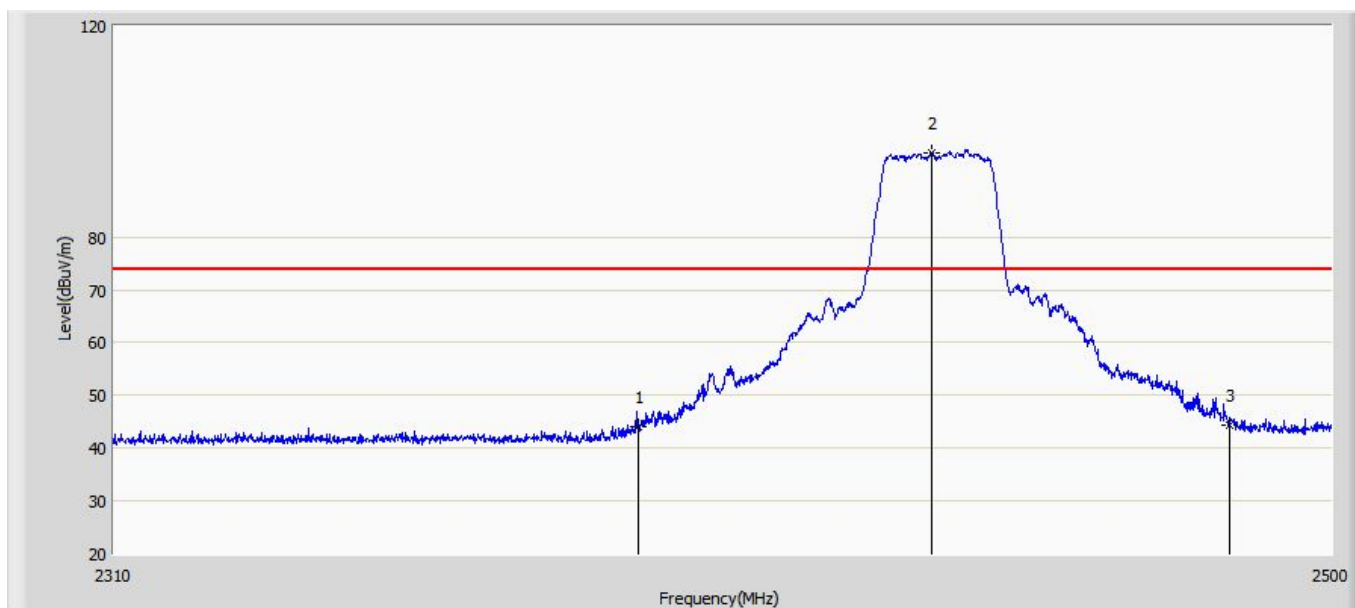
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 43.523 | 14.475 | -30.477 | 74.000 | 29.048 | PK |
| 2 | * | 2441.575 | 98.728 | 69.798 | 24.728 | 74.000 | 28.930 | PK |
| 3 | | 2483.500 | 47.063 | 16.579 | -26.937 | 74.000 | 30.484 | PK |

| | |
|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 20:13 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 3;Transmit at2437MHz by 802.11N20 | |



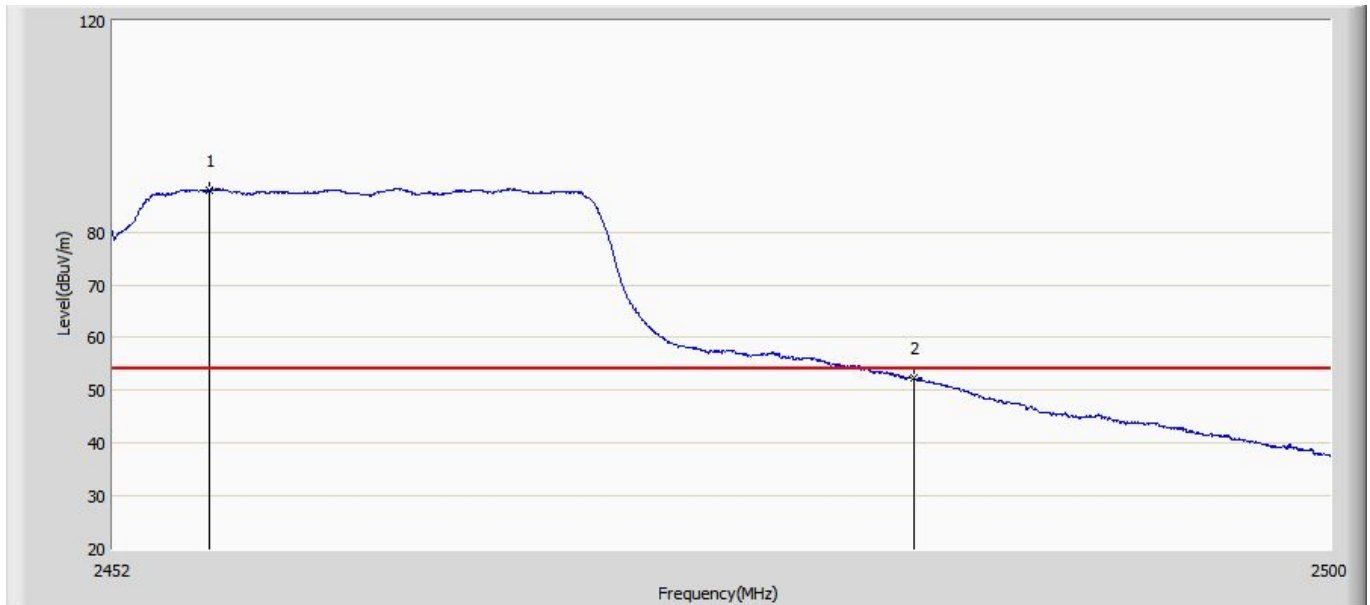
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2375.740 | 34.764 | 5.714 | -19.236 | 54.000 | 29.050 | AV |
| 2 | | 2390.000 | 31.583 | 2.535 | -22.417 | 54.000 | 29.048 | AV |
| 3 | * | 2438.250 | 86.558 | 57.620 | 32.558 | 54.000 | 28.938 | AV |
| 4 | | 2483.500 | 33.537 | 3.053 | -20.463 | 54.000 | 30.484 | AV |

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|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 20:15 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 3;Transmit at2437MHz by 802.11N20 | |



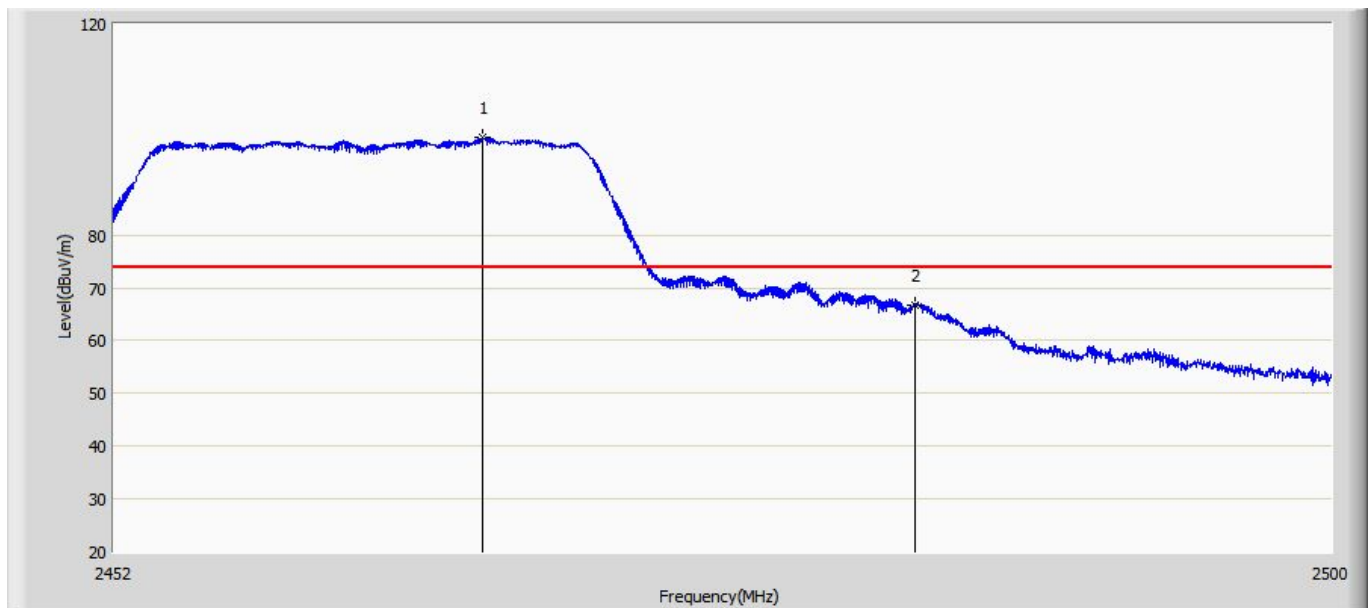
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 44.174 | 15.126 | -29.826 | 74.000 | 29.048 | PK |
| 2 | * | 2436.065 | 96.051 | 67.109 | 22.051 | 74.000 | 28.942 | PK |
| 3 | | 2483.500 | 44.494 | 14.010 | -29.506 | 74.000 | 30.484 | PK |

| | |
|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 20:18 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 3;Transmit at2462MHz by 802.11N20 | |



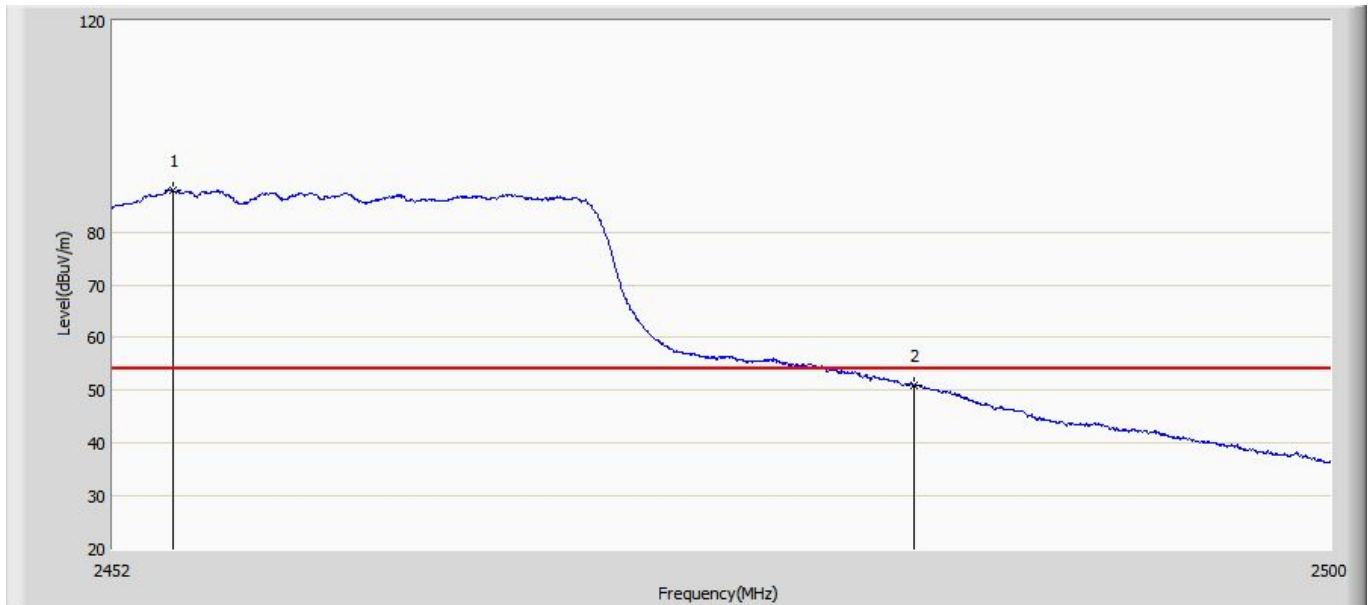
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | * | 2455.768 | 87.969 | 58.969 | 33.969 | 54.000 | 29.000 | AV |
| 2 | | 2483.500 | 52.331 | 21.847 | -1.669 | 54.000 | 30.484 | AV |

| | |
|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 20:21 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 3;Transmit at2462MHz by 802.11N20 | |



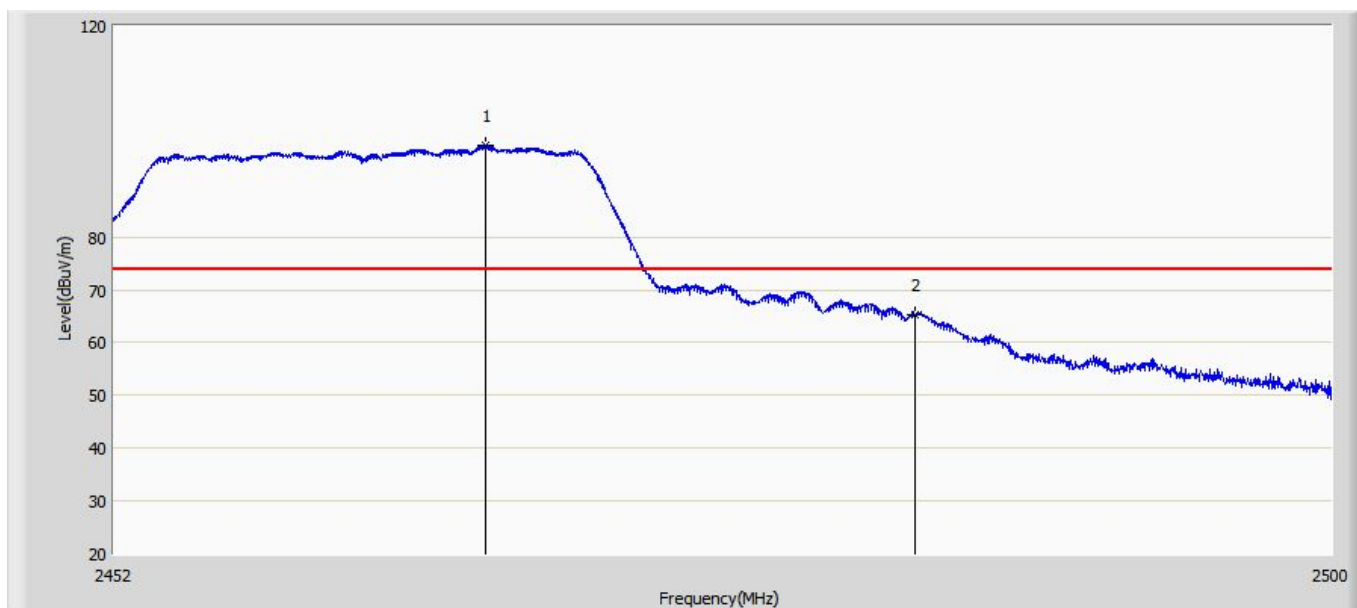
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | * | 2466.472 | 98.440 | 69.006 | 24.440 | 74.000 | 29.434 | PK |
| 2 | | 2483.500 | 66.814 | 36.329 | -7.186 | 74.000 | 30.484 | PK |

| | |
|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 20:22 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 3;Transmit at2462MHz by 802.11N20 | |



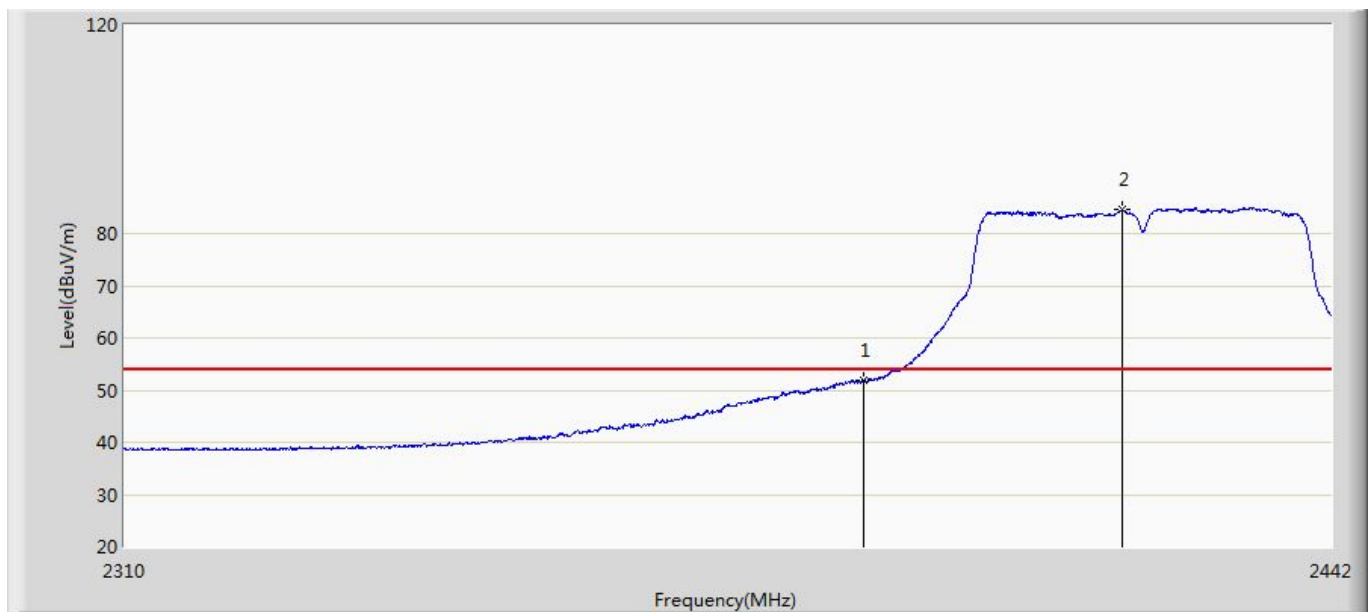
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | * | 2454.352 | 87.963 | 58.973 | 33.963 | 54.000 | 28.990 | AV |
| 2 | | 2483.500 | 50.864 | 20.379 | -3.136 | 54.000 | 30.484 | AV |

| | |
|--|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/28 - 20:24 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode 3;Transmit at2462MHz by 802.11N20 | |



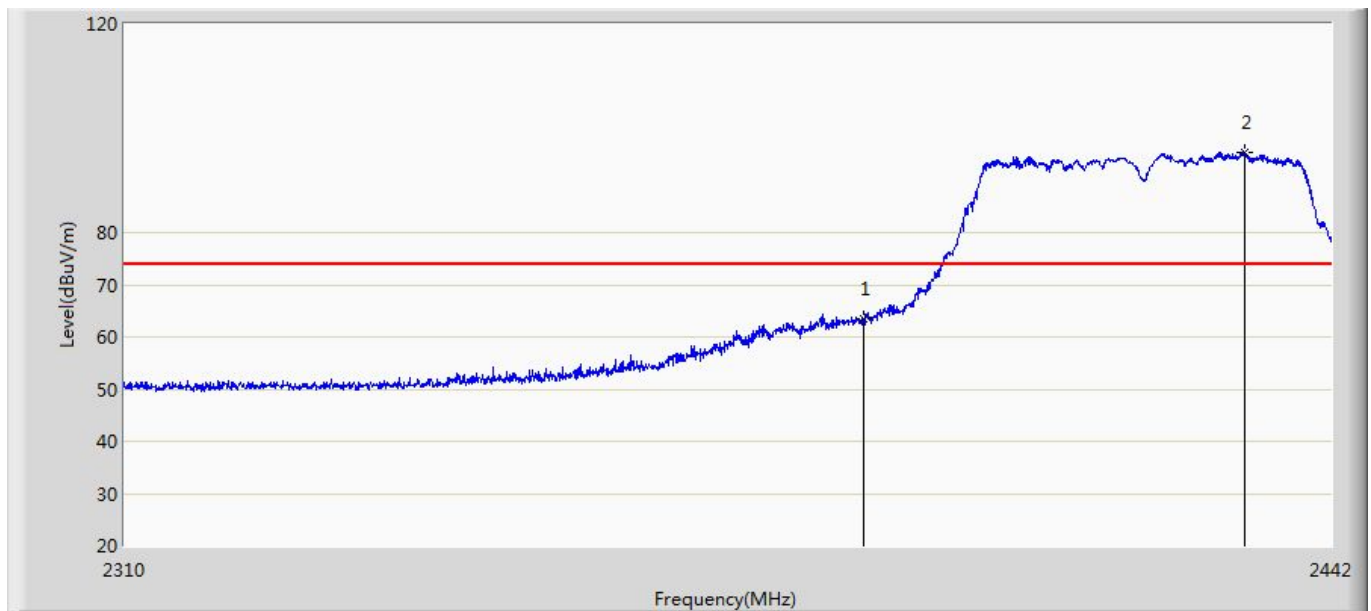
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | * | 2466.568 | 97.315 | 67.873 | 23.315 | 74.000 | 29.442 | PK |
| 2 | | 2483.500 | 65.216 | 34.732 | -8.784 | 74.000 | 30.484 | PK |

| | |
|---|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/29 - 12:38 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode4: Transmit at2422 by 802.11n40 | |



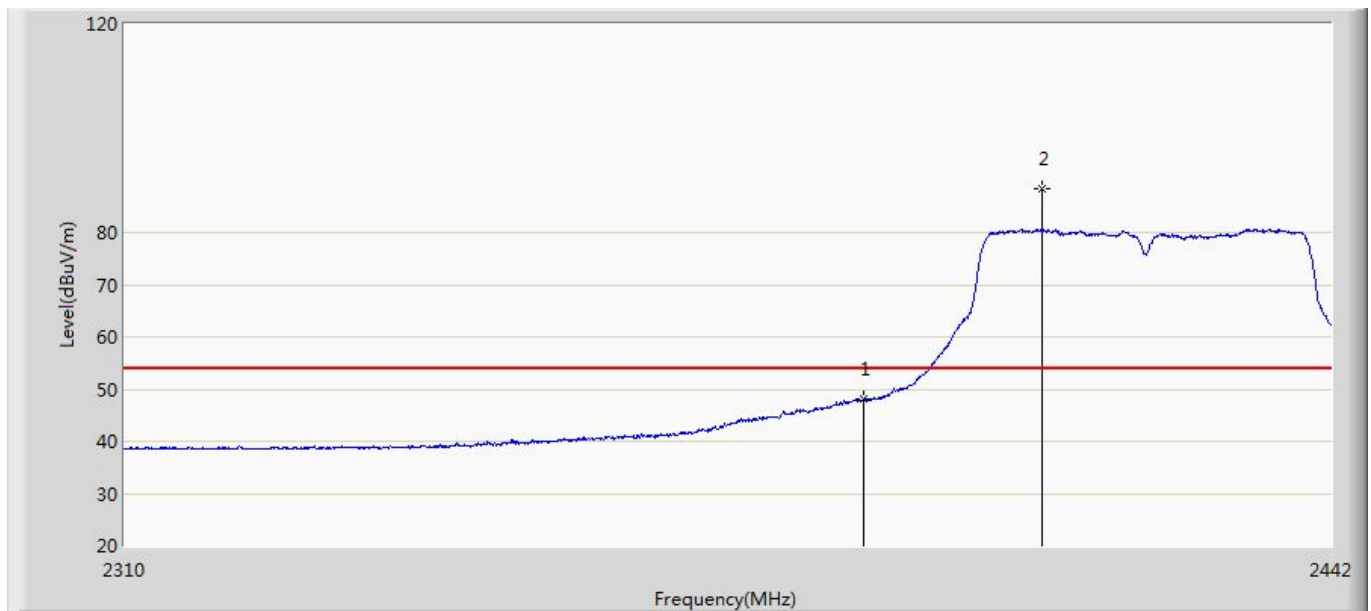
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 51.846 | 16.164 | -2.154 | 54.000 | 35.682 | AV |
| 2 | * | 2418.702 | 84.548 | 48.778 | 30.548 | 54.000 | 35.770 | AV |

| | |
|---|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/29 - 12:56 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode4: Transmit at2422 by 802.11n40 | |



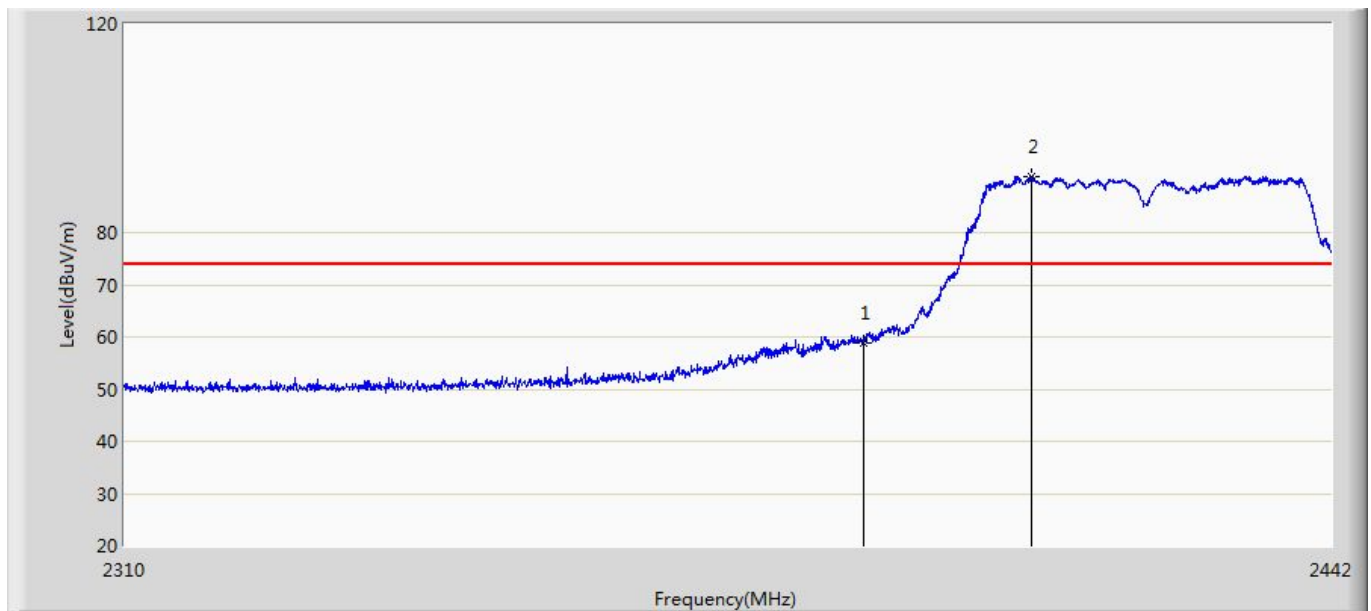
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 63.585 | 27.903 | -10.415 | 74.000 | 35.682 | PK |
| 2 | * | 2432.364 | 95.311 | 59.504 | 21.311 | 74.000 | 35.807 | PK |

| | |
|---|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/29 - 12:58 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode4: Transmit at2422 by 802.11n40 | |



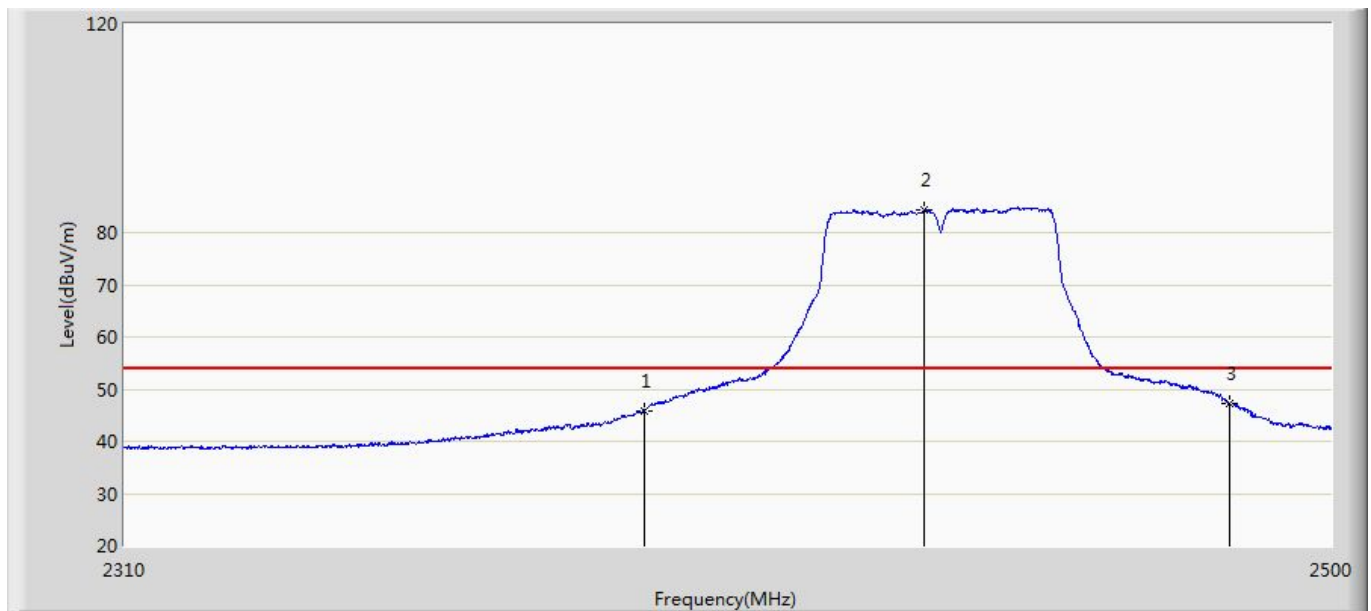
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 48.013 | 12.331 | -5.987 | 54.000 | 35.682 | AV |
| 2 | * | 2409.660 | 88.323 | 52.589 | 34.323 | 54.000 | 35.733 | AV |

| | |
|---|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/29 - 13:07 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode4: Transmit at2422 by 802.11n40 | |



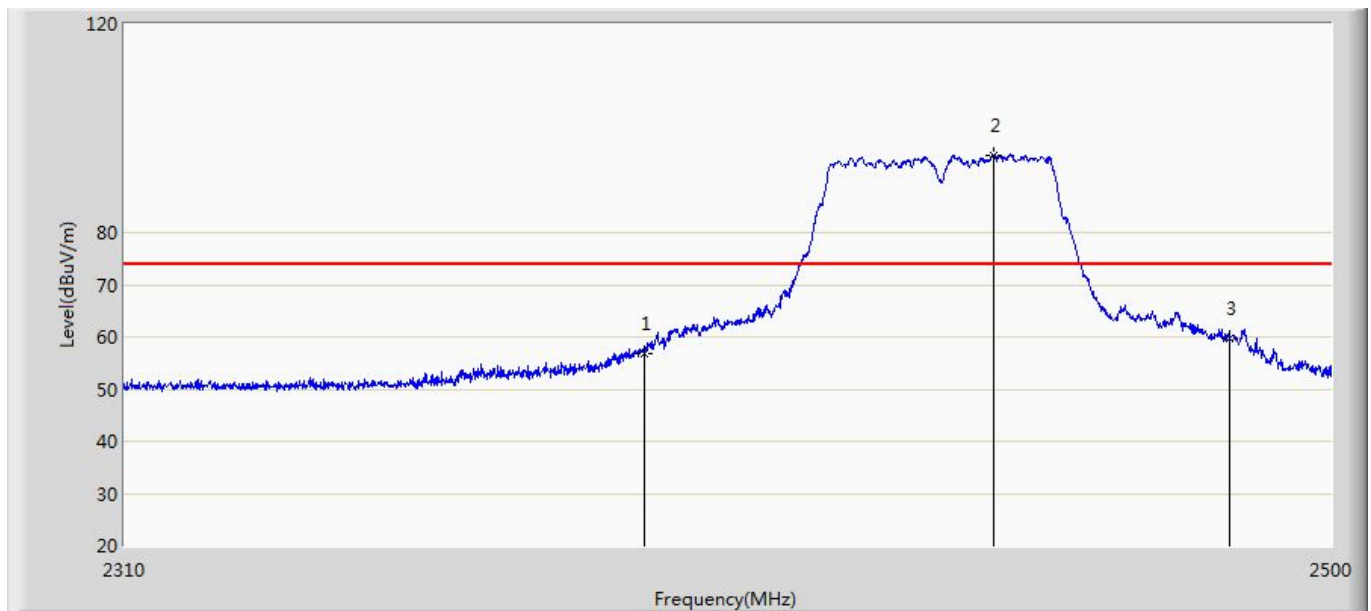
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 58.832 | 23.150 | -15.168 | 74.000 | 35.682 | PK |
| 2 | * | 2408.604 | 90.785 | 55.054 | 16.785 | 74.000 | 35.731 | PK |

| | |
|---|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/29 - 13:08 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode4: Transmit at2437 by 802.11n40 | |



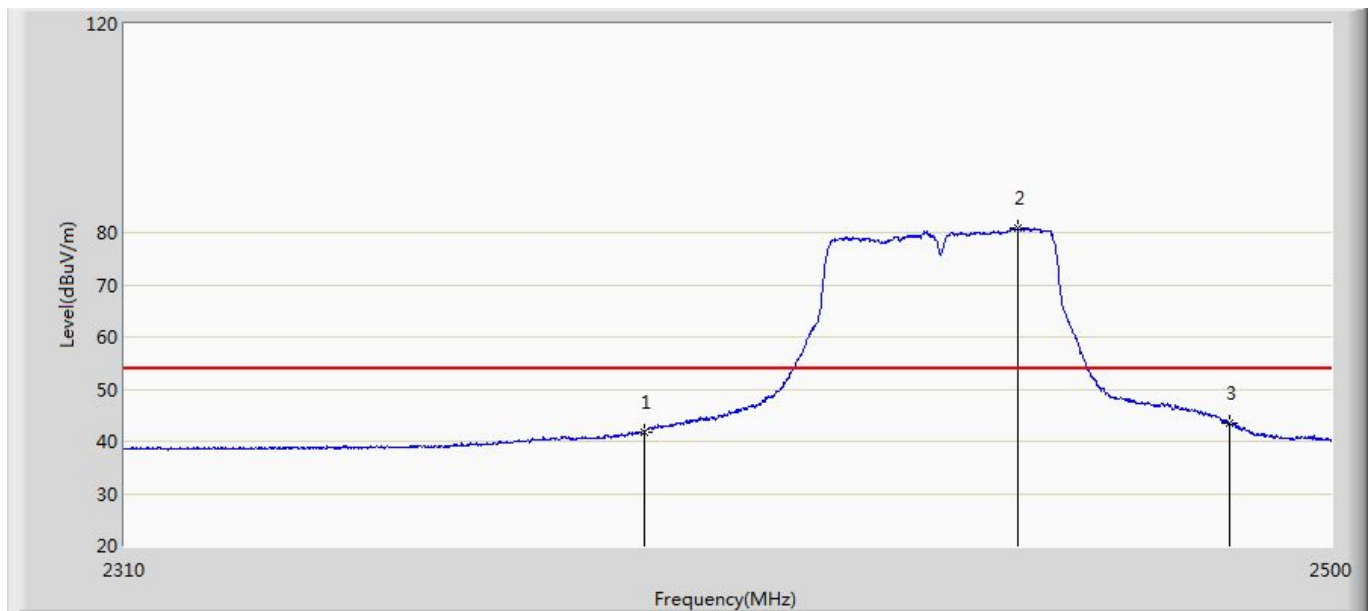
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 45.800 | 10.118 | -8.200 | 54.000 | 35.682 | AV |
| 2 | * | 2434.260 | 84.464 | 48.657 | 30.464 | 54.000 | 35.806 | AV |
| 3 | | 2483.500 | 47.311 | 11.419 | -6.689 | 54.000 | 35.891 | AV |

| | |
|---|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/29 - 13:17 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode4: Transmit at2437 by 802.11n40 | |



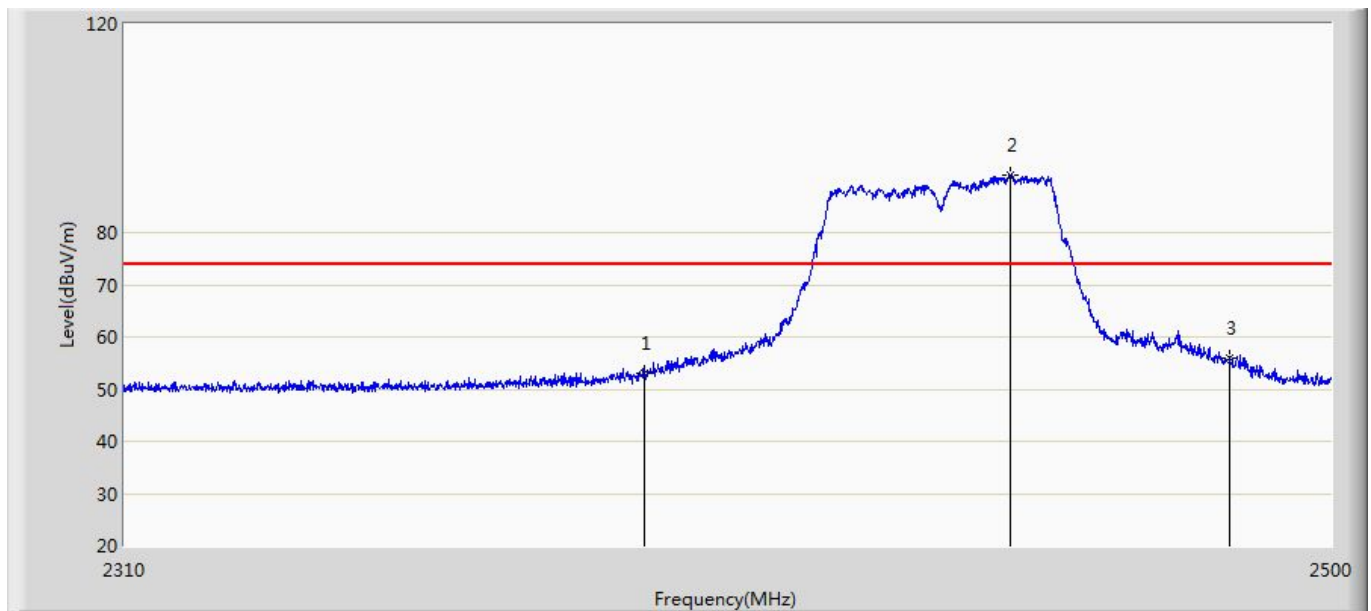
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 56.885 | 21.203 | -17.115 | 74.000 | 35.682 | PK |
| 2 | * | 2445.280 | 94.761 | 58.956 | 20.761 | 74.000 | 35.805 | PK |
| 3 | | 2483.500 | 59.585 | 23.693 | -14.415 | 74.000 | 35.891 | PK |

| | |
|---|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/29 - 13:21 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode4: Transmit at2437 by 802.11n40 | |



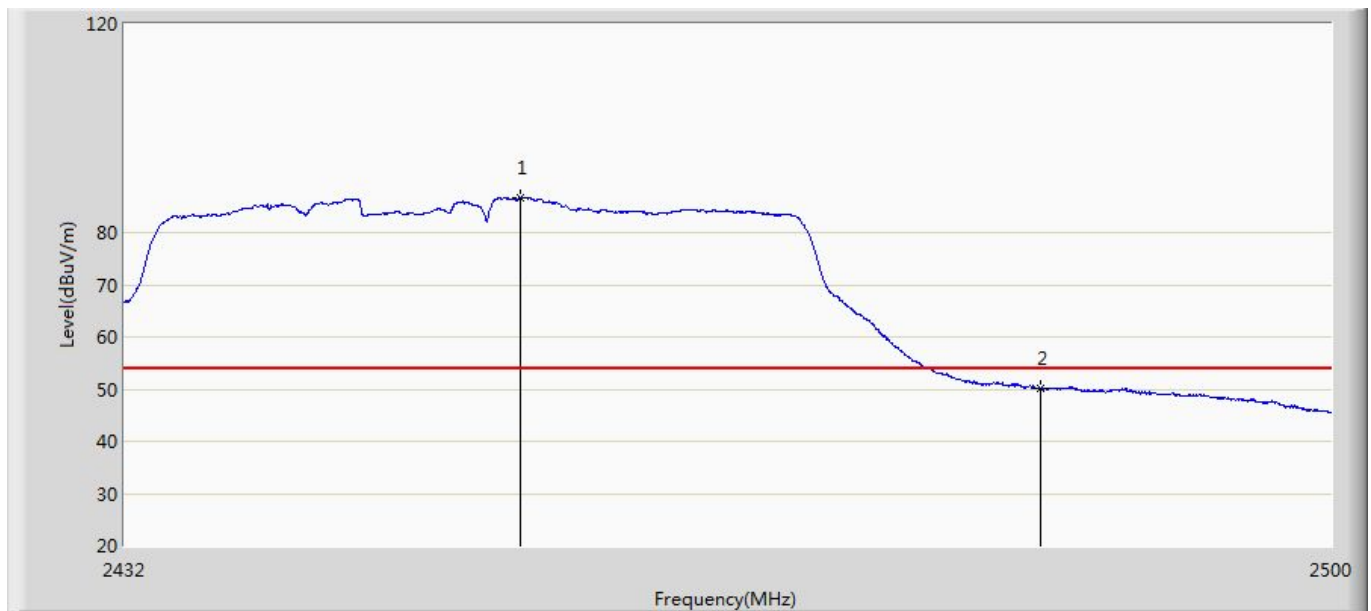
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 41.856 | 6.174 | -12.144 | 54.000 | 35.682 | AV |
| 2 | * | 2449.175 | 80.988 | 45.166 | 26.988 | 54.000 | 35.822 | AV |
| 3 | | 2483.500 | 43.373 | 7.481 | -10.627 | 54.000 | 35.891 | AV |

| | |
|---|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/29 - 13:27 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode4: Transmit at2437 by 802.11n40 | |



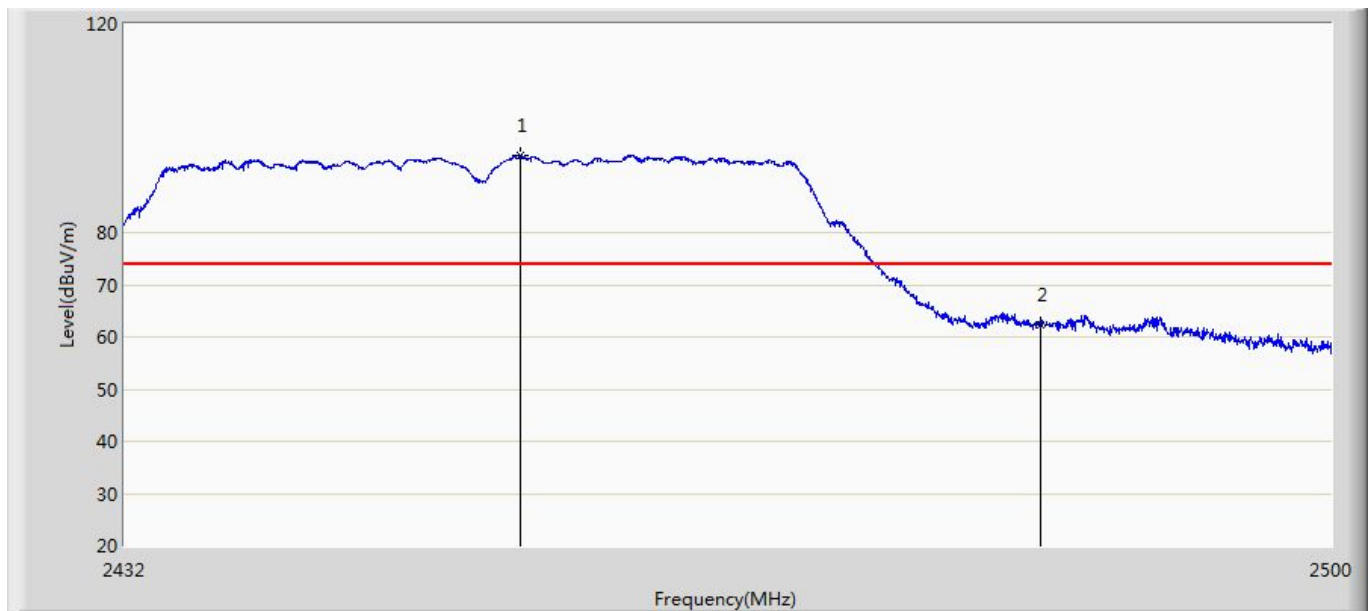
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | | 2390.000 | 52.904 | 17.222 | -21.096 | 74.000 | 35.682 | PK |
| 2 | * | 2448.130 | 90.999 | 55.181 | 16.999 | 74.000 | 35.818 | PK |
| 3 | | 2483.500 | 55.978 | 20.086 | -18.022 | 74.000 | 35.891 | PK |

| | |
|---|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/29 - 13:29 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode4: Transmit at2452 by 802.11n40 | |



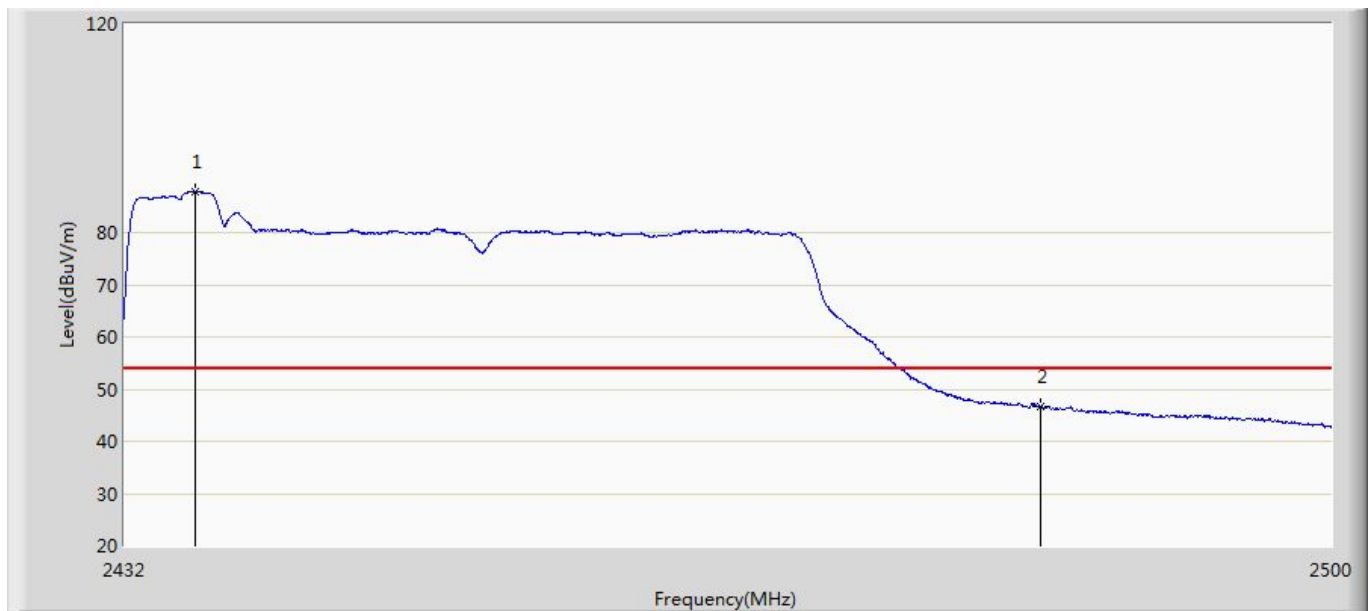
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | * | 2454.100 | 86.689 | 50.845 | 32.689 | 54.000 | 35.844 | AV |
| 2 | | 2483.500 | 50.110 | 14.218 | -3.890 | 54.000 | 35.891 | AV |

| | |
|---|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/29 - 13:33 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Horizontal |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode4: Transmit at2452 by 802.11n40 | |



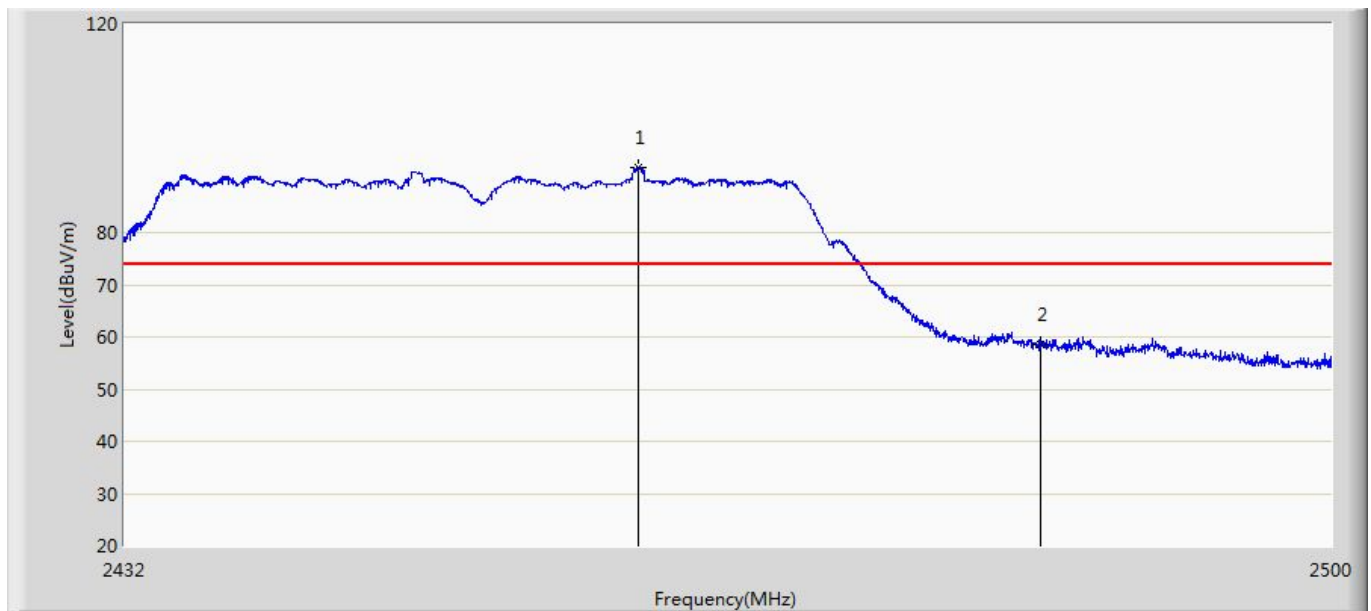
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | * | 2454.100 | 94.777 | 58.933 | 20.777 | 74.000 | 35.844 | PK |
| 2 | | 2483.500 | 62.449 | 26.557 | -11.551 | 74.000 | 35.891 | PK |

| | |
|---|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/29 - 13:35 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode4: Transmit at2452 by 802.11n40 | |



| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | * | 2435.944 | 87.925 | 52.119 | 33.925 | 54.000 | 35.806 | AV |
| 2 | | 2483.500 | 46.554 | 10.662 | -7.446 | 54.000 | 35.891 | AV |

| | |
|---|--------------------------|
| Engineer: Karl | |
| Site: AC5 | Time: 2017/09/29 - 13:37 |
| Limit: FCC_Part15.209_RE(3m) | Margin: 0 |
| Probe: Horn_3117_00167055(1-18GHz) | Polarity: Vertical |
| EUT: WIFI LED BULB | Power: AC 120V/60Hz |
| Note: Mode4: Transmit at2452 by 802.11n40 | |



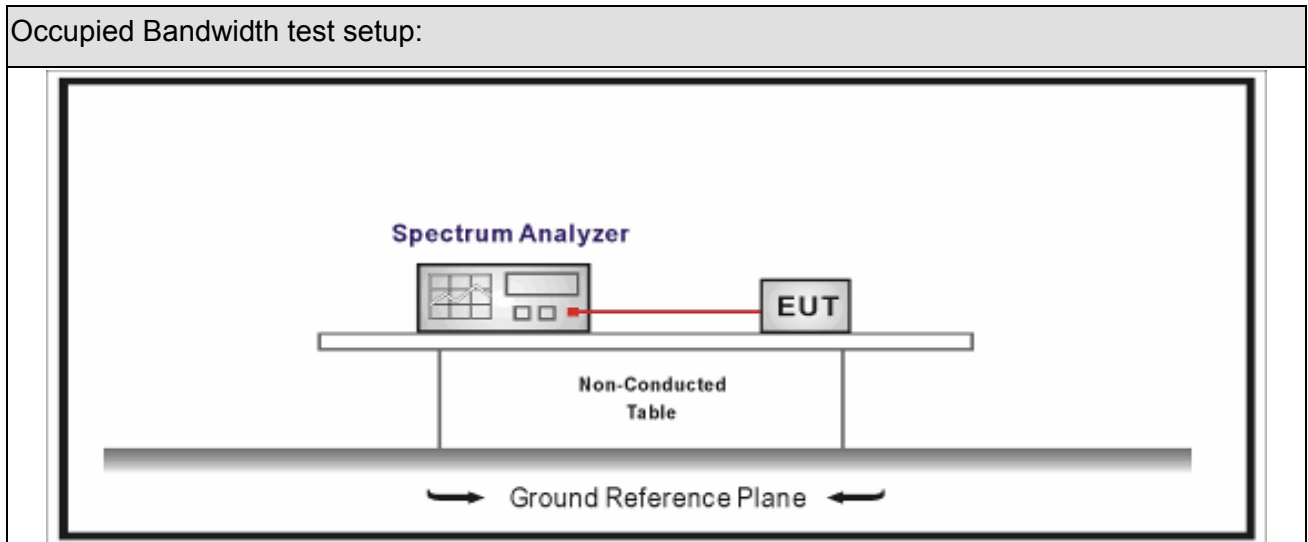
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1 | * | 2460.764 | 92.534 | 56.661 | 18.534 | 74.000 | 35.873 | PK |
| 2 | | 2483.500 | 58.471 | 22.579 | -15.529 | 74.000 | 35.891 | PK |

7. Occupied Bandwidth

7.1. Test Equipment

| Occupied Bandwidth / TR-8 | | | | | |
|--|--------------|----------|------------|------------|---------------|
| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date | Cal. Due Date |
| Spectrum Analyzer | Agilent | N9010A | MY48030494 | 2017.02.04 | 2018.02.03 |
| EXA Spectrum Analyzer | Keysight | N9010A | MY55370495 | 2017.04.09 | 2018.04.08 |
| MXA Signal Analyzer | Keysight | N9020A | MY56060147 | 2017.04.09 | 2018.04.08 |
| Temperature/Humidity Meter | zhichen | ZC1-2 | TR8-TH | 2017.04.10 | 2018.04.09 |
| Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards. | | | | | |

7.2. Test Setup



7.3. Limit

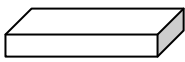
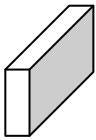
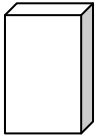

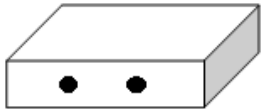

Occupied Bandwidth

Systems using digital modulation techniques operate in the 2400-2483.5 MHz. The minimum 6 dB bandwidth shall be at least 500 kHz

7.4. Test Procedure

| Test Method | | | | |
|-------------------------------------|-------------------------------------|-------------|---------|---------------|
| | Reference Rule | | Chapter | Description |
| <input checked="" type="checkbox"/> | ANSI C63.10 | | 11.8 | DTS bandwidth |
| | <input type="checkbox"/> | ANSI C63.10 | 11.8.1 | Option 1 |
| | <input checked="" type="checkbox"/> | ANSI C63.10 | 11.8.2 | Option 2 |

7.5. EUT test definition

| Item | Occupied Bandwidth | | | |
|-----------------|--|--|---|---|
| Device Category | <input checked="" type="checkbox"/> | Fixed position use | | |
| | <input type="checkbox"/> | Mobile position use | | |
| Test mode | Mode 1~4 | | | |
| Test method | <input type="checkbox"/> | Radiated | | |
| | | X Axis | Y Axis | Z Axis |
| | |  |  |  |
| | | Worst Axis <input type="checkbox"/> | Worst Axis <input type="checkbox"/> | Worst Axis <input type="checkbox"/> |
| | <input checked="" type="checkbox"/> | Conducted | | |
| | <input checked="" type="checkbox"/> | Chain 1 | | |
| | |  | | |
| | <input type="checkbox"/> | Chain 1 | Chain 2 | |
| | |  | | |
| | <input type="checkbox"/> | Chain 1 | Chain 2 | Chain 3 |
| |  | | | |

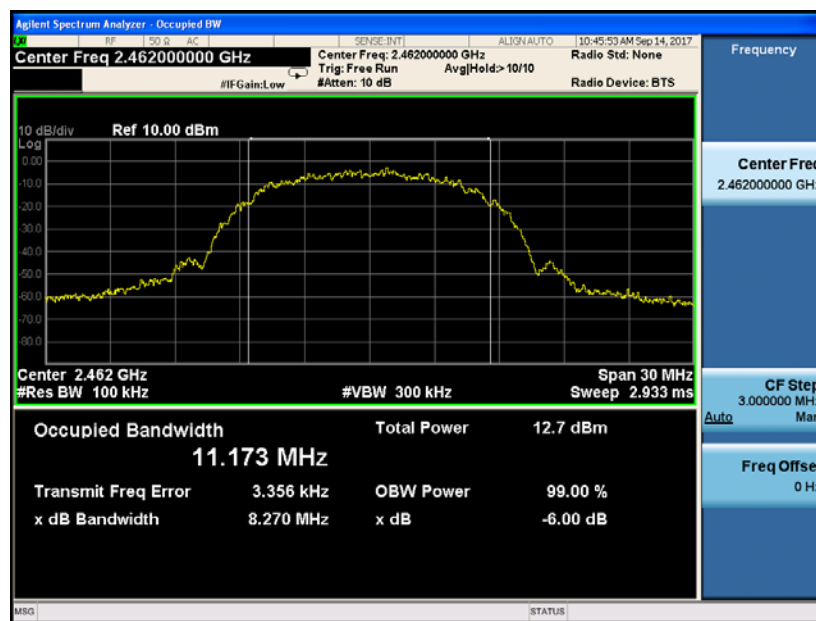
7.6. Test Result

| | | | |
|--------------|-----------------|-----------|----------------|
| Product Name | : WIFI LED BULB | Power | : AC 120V/60Hz |
| Test Mode | : Mode1~4 | Test Site | : TR8 |
| Test Date | : 2017.09.16 | | |

| Mode | CH. | Test Freq. (MHz) | 99% Occupied Bandwidth (MHz) | 6dB Occupied Bandwidth (MHz) | Limit (kHz) | Result |
|------|-----|------------------|------------------------------|------------------------------|-------------|--------|
| 1 | 01 | 2412 | 11.159 | 8.764 | >500 | Pass |
| 1 | 06 | 2437 | 11.128 | 8.789 | >500 | Pass |
| 1 | 11 | 2462 | 11.173 | 8.270 | >500 | Pass |
| 2 | 01 | 2412 | 16.339 | 15.50 | >500 | Pass |
| 2 | 06 | 2437 | 16.346 | 15.81 | >500 | Pass |
| 2 | 11 | 2462 | 16.347 | 15.83 | >500 | Pass |
| 3 | 01 | 2412 | 17.194 | 15.17 | >500 | Pass |
| 3 | 06 | 2437 | 17.183 | 15.69 | >500 | Pass |
| 3 | 11 | 2462 | 17.187 | 15.75 | >500 | Pass |
| 4 | 03 | 2422 | 35.908 | 35.18 | >500 | Pass |
| 4 | 06 | 2437 | 35.935 | 35.16 | >500 | Pass |
| 4 | 09 | 2452 | 36.039 | 35.09 | >500 | Pass |

Note : The worst case of Occupied Bandwidth as below:

Mode 1 CH11 (2462MHz) Ant0



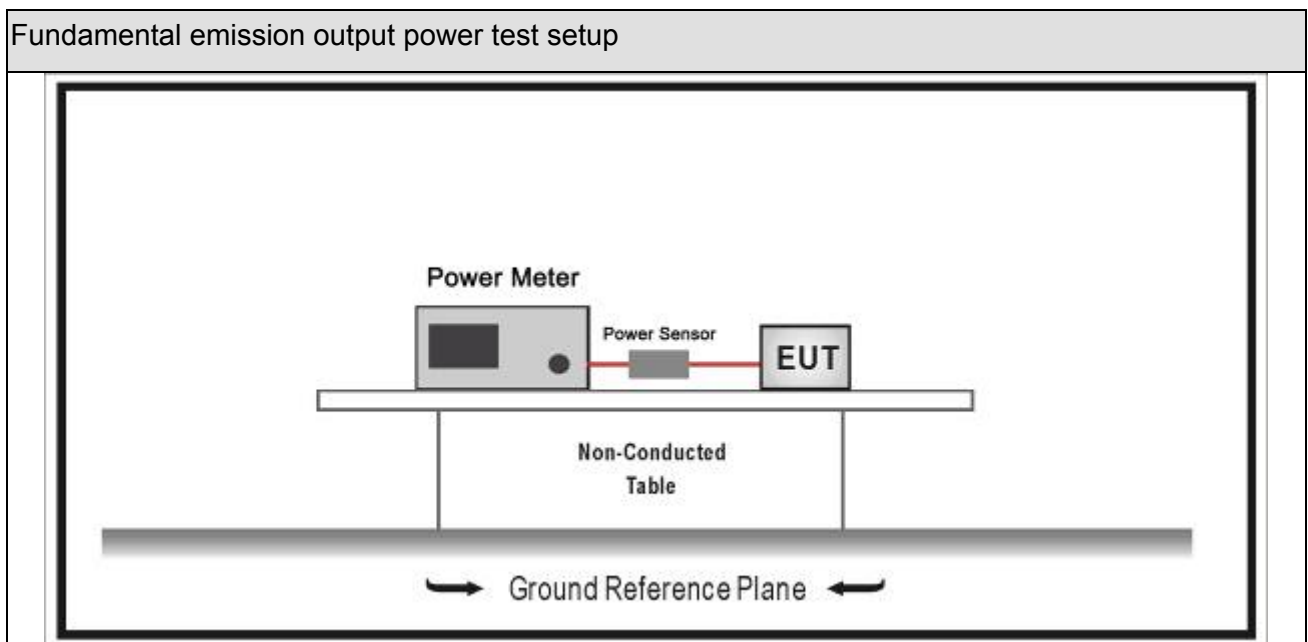
8. Fundamental emission output power

8.1. Test Equipment

| Fundamental emission output power/ TR-8 | | | | | |
|---|--------------|----------|------------|------------|---------------|
| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date | Cal. Due Date |
| Spectrum Analyzer | Agilent | E4446A | MY45300103 | 2017.01.03 | 2018.01.02 |
| Spectrum Analyzer | Agilent | N9010A | MY48030494 | 2017.02.04 | 2018.02.03 |
| Wideband Peak Power Meter | Anritsu | ML2495A | 0905006 | 2016.10.14 | 2017.10.13 |
| Power Sensor | Anritsu | MA2411B | 0846014 | 2016.10.14 | 2017.10.13 |
| Temperature/Humidity Meter | zhicheng | ZC1-2 | TR8-TH | 2017.04.10 | 2018.04.09 |

Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

8.2. Test Setup



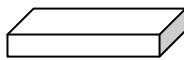
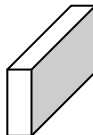
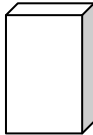
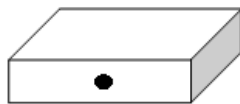
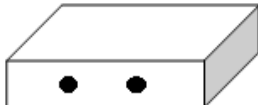

8.3. Limit

| Fundamental emission output power Limit | | |
|--|--|---|
| <input checked="" type="checkbox"/> | $G_{TX} < 6\text{dBi}$ | $P_{out} \leq 30\text{dBm}$ |
| <input type="checkbox"/> | $G_{TX} > 6\text{dBi}$ | |
| <input checked="" type="checkbox"/> | Non-Fix point-point | $P_{out} \leq 30 - (G_{TX} - 6)$ |
| <input type="checkbox"/> | Fix point-point | $P_{out} \leq 30 - [(G_{TX} - 6)]/3$ |
| <input type="checkbox"/> | emits multiple directional beams but does not do emit multiple directional beams simultaneously | $P_{out} \leq 30 - [(G_{TX} - 6)]/3$ |
| <input type="checkbox"/> | operates simultaneously on multiple directional beams using the same or different frequency channels | $P_{out} \leq 30 - [(G_{TX} - 6)]/3 + 8\text{dB}$ |
| <input type="checkbox"/> | single directional beam | $P_{out} \leq 30 - [(G_{TX} - 6)]/3$ |
| <p>Note 1 : G_{TX} directional gain of transmitting antennas.</p> <p>Note 2 : P_{out} is maximum peak conducted output power .</p> | | |

8.4. Test Procedure

| Fundamental emission output power Test Method | | | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------|--|--|
| | References Rule | | | Chapter | Description | |
| <input checked="" type="checkbox"/> | ANSI C63.10 | | | 11.9 | Fundamental emission output power | |
| | <input type="checkbox"/> | ANSI C63.10 | | 11.9.1 | Maximum peak conducted output power | |
| | | <input type="checkbox"/> | ANSI C63.10 | 11.9.1.1 | RBW ≥ DTS bandwidth | |
| | | <input type="checkbox"/> | ANSI C63.10 | 11.9.1.2 | Integrated band power method | |
| | | <input type="checkbox"/> | ANSI C63.10 | 11.9.1.3 | PKPM1 Peak power meter method | |
| | <input checked="" type="checkbox"/> | ANSI C63.10 | | 11.9.2 | Maximum conducted (average) output power | |
| | | <input type="checkbox"/> | ANSI C63.10 | | 11.9.2.2 | Measurement using a spectrum analyzer (SA) |
| | | | <input type="checkbox"/> | ANSI C63.10 | 11.9.2.2.2 | Method AVGSA-1(Duty cycle ≥ 98%) |
| | | | <input type="checkbox"/> | ANSI C63.10 | 11.9.2.2.3 | Method AVGSA-1A(Duty cycle ≥ 98%) |
| | | | <input type="checkbox"/> | ANSI C63.10 | 11.9.2.2.4 | Method AVGSA-2(Duty cycle ≤ 98%) |
| | | | <input type="checkbox"/> | ANSI C63.10 | 11.9.2.2.5 | Method AVGSA-2A(Duty cycle ≤ 98%) |
| | | | <input type="checkbox"/> | ANSI C63.10 | 11.9.2.2.4 | Method AVGSA-3 |
| | | | <input type="checkbox"/> | ANSI C63.10 | 11.9.2.2.5 | Method AVGSA-3A |
| | | <input checked="" type="checkbox"/> | ANSI C63.10 | | 11.9.2.3 | Measurement using a power meter (PM) |
| | | | <input type="checkbox"/> | ANSI C63.10 | 11.9.2.3.1 | Method AVGPM |
| | | | <input checked="" type="checkbox"/> | ANSI C63.10 | 11.9.2.3.2 | Method AVGPM-G |

8.5. EUT test definition

| Item | Fundamental emission output power | | | |
|-----------------|--|--|---|---|
| Device Category | <input checked="" type="checkbox"/> | Fixed position use | | |
| | <input type="checkbox"/> | Mobile position use | | |
| Test mode | Mode 1~4 | | | |
| Test method | <input type="checkbox"/> | Radiated | | |
| | | X Axis | Y Axis | Z Axis |
| | |  |  |  |
| | | Worst Axis <input type="checkbox"/> | Worst Axis <input type="checkbox"/> | Worst Axis <input type="checkbox"/> |
| | <input checked="" type="checkbox"/> | Conducted | | |
| | <input checked="" type="checkbox"/> | Chain 1 | | |
| | |  | | |
| | <input type="checkbox"/> | Chain 1 | Chain 2 | |
| | |  | | |
| | <input type="checkbox"/> | Chain 1 | Chain 2 | Chain 3 |
| |  | | | |

8.6. Test Result

| | | | | | |
|--------------|---|---------------|-----------|---|--------------|
| Product Name | : | WIFI LED BULB | Power | : | AC 120V/60Hz |
| Test Mode | : | Mode1~4 | Test Site | : | TR8 |
| Test Date | : | 2017.09.29 | | | |

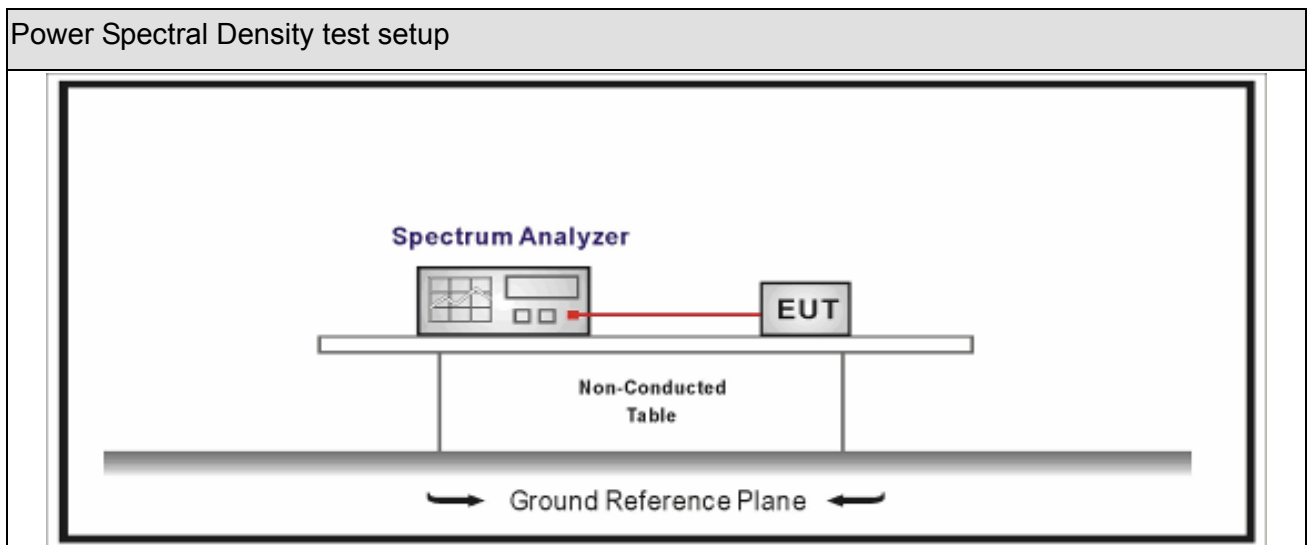
| Mode | Channel | Test Frequency (MHz) | Peak Power Output (dBm) | Antenna Gain (dBi) | Limit (dBm) | Result |
|------|---------|----------------------|-------------------------|--------------------|-------------|--------|
| 1 | 01 | 2412 | 10.16 | 1.9 | 30 | Pass |
| 1 | 06 | 2437 | 10.10 | 1.9 | 30 | Pass |
| 1 | 11 | 2462 | 9.91 | 1.9 | 30 | Pass |
| 2 | 01 | 2412 | 11.74 | 1.9 | 30 | Pass |
| 2 | 06 | 2437 | 12.33 | 1.9 | 30 | Pass |
| 2 | 11 | 2462 | 11.83 | 1.9 | 30 | Pass |
| 3 | 01 | 2412 | 11.19 | 1.9 | 30 | Pass |
| 3 | 06 | 2437 | 11.44 | 1.9 | 30 | Pass |
| 3 | 11 | 2462 | 12.17 | 1.9 | 30 | Pass |
| 4 | 03 | 2422 | 11.19 | 1.9 | 30 | Pass |
| 4 | 06 | 2437 | 12.04 | 1.9 | 30 | Pass |
| 4 | 09 | 2452 | 12.13 | 1.9 | 30 | Pass |

9. Power Spectral Density

9.1. Test Equipment

| Power Spectral Density / TR-8 | | | | | |
|--|--------------|----------|------------|------------|---------------|
| Instrument | Manufacturer | Type No. | Serial No. | Cal. Date | Cal. Due Date |
| Spectrum Analyzer | Agilent | N9010A | MY48030494 | 2017.02.04 | 2018.02.03 |
| EXA Spectrum Analyzer | Keysight | N9010A | MY55370495 | 2017.04.09 | 2018.04.08 |
| MXA Signal Analyzer | Keysight | N9020A | MY56060147 | 2017.04.09 | 2018.04.08 |
| Temperature/Humidity Meter | zhichen | ZC1-2 | TR8-TH | 2017.04.10 | 2018.04.09 |
| Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards. | | | | | |

9.2. Test Setup



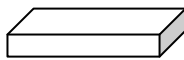
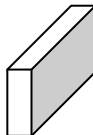
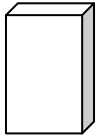
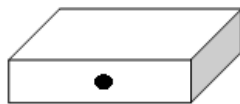
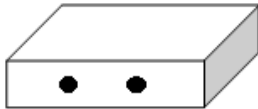
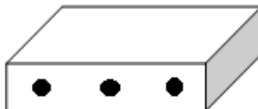
9.3. Limit

| Power Spectral Density Limit |
|---|
| Power Spectral Density $\leq 8\text{dBm}/3\text{kHz}$ |

9.4. Test Procedure

| Power Spectral Density Test Method | | | | |
|-------------------------------------|-------------------------------------|-------------|---------|--|
| | References Rule | | Chapter | Description |
| <input checked="" type="checkbox"/> | ANSI C63.10 | | 11.10 | Maximum power spectral density level in the fundamental emission |
| | <input checked="" type="checkbox"/> | ANSI C63.10 | 11.10.2 | Method PKPSD (peak PSD) |
| | <input type="checkbox"/> | ANSI C63.10 | 11.10.3 | Method AVGPSD-1(Duty cycle \geq 98%) |
| | <input type="checkbox"/> | ANSI C63.10 | 11.10.4 | Method AVGPSD-1A(Duty cycle \geq 98%) |
| | <input type="checkbox"/> | ANSI C63.10 | 11.10.5 | Method AVGPSD-2(Duty cycle $<$ 98%) |
| | <input type="checkbox"/> | ANSI C63.10 | 11.10.6 | Method AVGPSD-2A(Duty cycle $<$ 98%) |
| | <input type="checkbox"/> | ANSI C63.10 | 11.10.7 | Method AVGPSD-3 |
| | <input type="checkbox"/> | ANSI C63.10 | 11.10.8 | Method AVGPSD-3A |

9.5. EUT test definition

| Item | Power Spectral Density Test Method | | | |
|-----------------|--|--|---|---|
| Device Category | <input checked="" type="checkbox"/> | Fixed position use | | |
| | <input type="checkbox"/> | Mobile position use | | |
| Test mode | Mode 1~4 | | | |
| Test method | <input type="checkbox"/> | Radiated | | |
| | | X Axis | Y Axis | Z Axis |
| | |  |  |  |
| | | Worst Axis <input type="checkbox"/> | Worst Axis <input type="checkbox"/> | Worst Axis <input type="checkbox"/> |
| | <input checked="" type="checkbox"/> | Conducted | | |
| | <input checked="" type="checkbox"/> | Chain 1 | | |
| | |  | | |
| | <input type="checkbox"/> | Chain 1 | Chain 2 | |
| | |  | | |
| | <input type="checkbox"/> | Chain 1 | Chain 2 | Chain 3 |
| |  | | | |

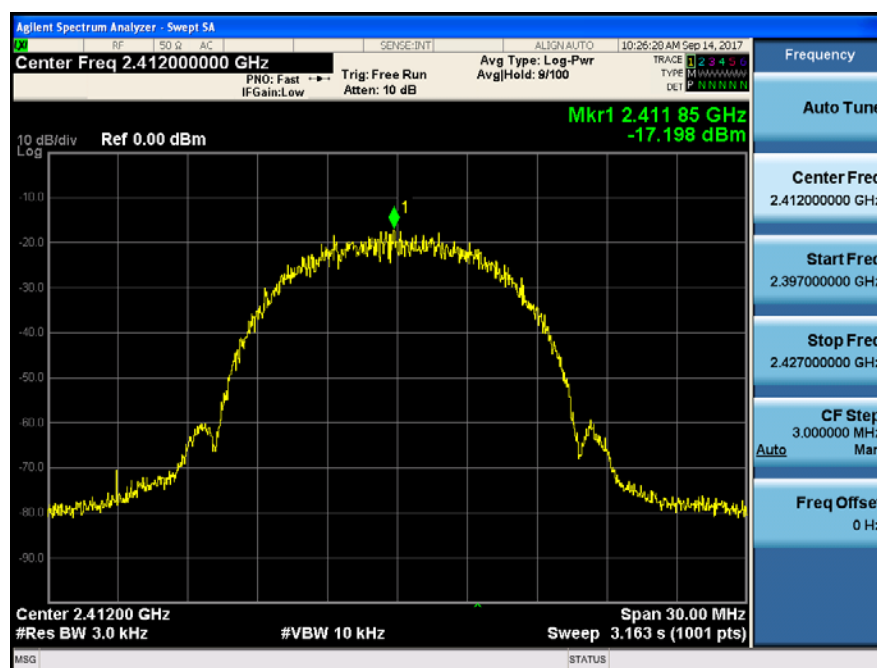
9.6. Test Result

| | | | | | |
|--------------|---|---------------|-----------|---|--------------|
| Product Name | : | WIFI LED BULB | Power | : | AC 120V/60Hz |
| Test Mode | : | Mode1~4 | Test Site | : | TR8 |
| Test Date | : | 2017.06.30 | | | |

| Mode | Channel | Test Frequency (MHz) | Measurement PSD (dBm/3kHz) | Total PSD (dBm/3kHz) | Limit (dBm/3kHz) | Result |
|------|---------|----------------------|----------------------------|----------------------|------------------|--------|
| 1 | 01 | 2412 | -17.198 | -17.198 | 8.0 | Pass |
| 1 | 06 | 2437 | -17.537 | -17.537 | 8.0 | Pass |
| 1 | 11 | 2462 | -19.408 | -19.408 | 8.0 | Pass |
| 2 | 01 | 2412 | -20.263 | -20.263 | 8.0 | Pass |
| 2 | 06 | 2437 | -21.239 | -21.239 | 8.0 | Pass |
| 2 | 11 | 2462 | -22.040 | -22.040 | 8.0 | Pass |
| 3 | 01 | 2412 | -20.705 | -20.705 | 8.0 | Pass |
| 3 | 06 | 2437 | -21.010 | -21.010 | 8.0 | Pass |
| 3 | 11 | 2462 | -22.180 | -22.180 | 8.0 | Pass |
| 4 | 03 | 2422 | -22.613 | -22.613 | 8.0 | Pass |
| 4 | 06 | 2437 | -22.619 | -22.619 | 8.0 | Pass |
| 4 | 09 | 2452 | -24.366 | -24.366 | 8.0 | Pass |

Note : The worst case of Occupied Bandwidth as below:

Mode 1 CH01 (2412MHz)



10. Antenna Requirement

10.1. Limit

| Antenna Requirement Limit |
|---|
| <p>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. 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 manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.</p> |

10.2. Antenna Connector Construction

The EUT use permanently attached antennas and comply with FCC 15.203.

_____ The End _____