

TEST REPORT
On behalf of

Savant Technologies LLC, dba GE Lighting, a Savant company

Product Name: Smart Plug

Model No.: CPLGSTDBLW1

FCC ID: PUU-CPLGSTDBLW1V

Prepared For: Savant Technologies LLC, dba GE Lighting, a Savant company
1975 Noble Road, Cleveland, OH 44112

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Report No. : ACI-F21037
Date of Test : 2021.01.18 – 27
Date of Report : 2021.02.07

The statement is based on a single evaluation of one sample of the above-mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab logo. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

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TEST REPORT

Applicant : Savant Technologies LLC, dba GE Lighting, a Savant company
 EUT Description : Smart Plug
 (A) Model No. : Refer to Sec.2.1
 (B) Power Supply : 120V AC 60Hz
 (C) Test Voltage : 120V/60Hz

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART C
 AND ANSI C63.10-2013*

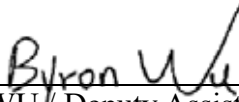
The device described above is tested by Audix Technology (Shanghai) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits.


The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. This report also shows that the EUT (M/N: Refer to Sec2.1), which was tested is technically compliance with the FCC limits.

This report applies to above tested Sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

Date of Test : 2021.01.18 – 27 Date of Report : 2021.02.07

Producer : 
 JAREY LU / Supervisor

Producer : 
 BYRON WU / Deputy Assistant Manager

 For and on behalf of
 Audix Technology (Shanghai) Co., Ltd.

Signatory : 
 Authorized Signature(s) BYRON KWO/Assistant General Manager

1 SUMMARY OF STANDARDS AND RESULTS

1.1 Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below:

| Description / Test Item | Test Standard | Results | Meets Limit |
|--|--|---------|---------------------------|
| EMISSION | | | |
| Conducted Emission | FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2013 | Pass | 15.207 |
| Radiated Emission | FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2013 | Pass | 15.209(a) 15.205(a)(c) |
| 6 dB Bandwidth Measurement | FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2013 | Pass | 15.247(a)(2) |
| Maximum Peak Output Power Measurement | FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2013 | Pass | 15.247(b)(3) |
| Emission Limitations Measurement | FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2013 | Pass | 15.247(d) |
| Band Edge Measurement | FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2013 | Pass | 15.247(d) |
| Power Spectral Density Measurement | FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2013 | Pass | 15.247(e) |
| N/A is an abbreviation for Not Applicable. | | | |

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description : Smart Plug

Type of EUT : Production Pre-product Pro-type

Model Number : CPLGSTDBLW1

Radio Tech : BLE 4.2;
IEEE 802.11 b/g/n.

Note: : 802.11n-HT20 only.

Channel Freq. : BLE: 2402MHz-2480MHz;
IEEE 802.11: 2412MHz-2462MHz;

Modulation : BLE: GFSK;
802.11b: DSSS (CCK, DQPSK, DBPSK);
802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK).

Antenna Info. : ANT:
Antenna Type: PCB Antenna
Antenna Gain: 1.61 dBi
The Antenna was a permanently attached antenna that is comply with 15.203 requirement.

Test Mode : The EUT was set at continuous TX during all the test in the report.

Applicant : Savant Technologies LLC, dba GE Lighting, a Savant company
1975 Noble Road, Cleveland, OH 44112

Manufacturer : same as Applicant

Factory #1 : Sichuan Hongrui Electric Co., Ltd
Mianyan Export Processing Zone, Mianyan, Sichuan, China

Factory #2 : VIETNAM CHANGHONG ELECTRIC COMPANY LIMITED
Workshop W4 (Leased by WWWHP), Land plot 4.2B,
Dinh Vu Industrial Zone, Dong Hai 2 Ward,
Hai An District, Haiphong City, VN.

2.2 EUT Specifications Assessed in Current Report

| Mode | Modulation | Data Rate(Mbps) |
|---------------|-----------------------------------|-----------------|
| 802.11b | DS (DQPSK, DBPSK, CCK) | Up to 11 |
| 802.11g | OFDM (64-QAM, 16-QAM, QPSK, BPSK) | Up to 54 |
| 802.11n-HT 20 | OFDM (64-QAM, 16-QAM, QPSK, BPSK) | Up to 72.2 |

| Channel List | | | |
|--------------|-----------------|-------------|-----------------|
| Channel No. | Frequency (MHz) | Channel No. | Frequency (MHz) |
| 1 | 2412 | 7 | 2442 |
| 2 | 2417 | 8 | 2447 |
| 3 | 2422 | 9 | 2452 |
| 4 | 2427 | 10 | 2457 |
| 5 | 2432 | 11 | 2462 |
| 6 | 2437 | | |

2.3 Test Information

The test software “UI_mptool.exe” was used to control EUT work in TX mode, and select test channel.

| Modulation | data rate (Mbps) | TX Power Index A | Test Channel | | Frequency (MHz) |
|------------|------------------|------------------|--------------|----|-----------------|
| 802.11b | 1 | 92 | Low: | 1 | 2412 |
| | | 102 | Middle: | 6 | 2437 |
| | | 85 | High: | 11 | 2462 |
| 802.11g | 6 | 92 | Low: | 1 | 2412 |
| | | 110 | Middle: | 6 | 2437 |
| | | 86 | High: | 11 | 2462 |
| 802.11n20 | MCS0 | 88 | Low: | 1 | 2412 |
| | | 110 | Middle: | 6 | 2437 |
| | | 88 | High: | 11 | 2462 |

2.4 Supported equipment

Brand : Acer
 Product Name: : Notebook
 Model Name : TravelMate P238 series
 Model Number : N15W8

2.5 Description of Test Facility

Name of Firm : Audix Technology (Shanghai) Co., Ltd.

Site Location : 3F and 4F, 34Bldg, 680 Guiping Rd.,
Caohejing Hi-Tech Park,
Shanghai 200233, China.

Accredited by NVLAP, Lab Code : 200371-0

FCC Designation Number : CN5027

Test Firm Registration Number : 954668

3 CONDUCTED EMISSION TEST

3.1 Test Equipment

The following test equipments are used during the conducted emission test in a shielded room:

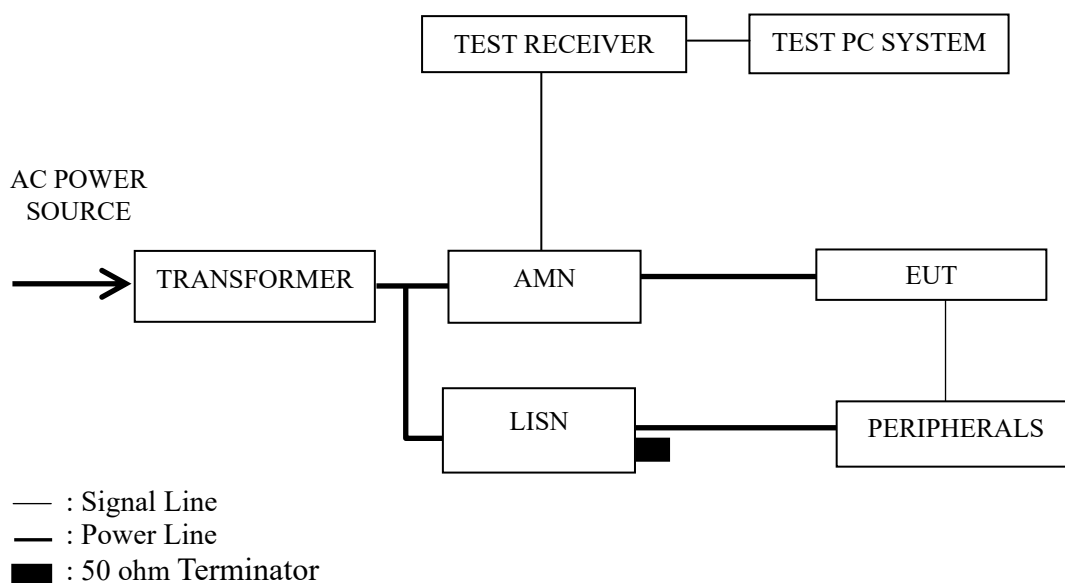
| Item | Type | Manufacturer | Model No. | Serial No. | Cal. Date | Cal. Interval |
|------|--------------------------------|--------------|-----------|-------------|------------|---------------|
| 1. | Test Receiver | R&S | ESCI | 101302 | 2020.03.26 | 1 Year |
| 2. | Artificial Mains Network (AMN) | R&S | ENV4200 | 100125 | 2020.06.24 | 1 Year |
| 3. | Software | Audix | E3 | 6.2009-1-15 | -- | -- |

3.2 Block Diagram of Test Setup

3.2.1 EUT & Peripherals



3.2.2 Conducted Disturbance Test Setup



3.3 Conducted Emission Limits (§15.207)

| Frequency Range (MHz) | Limits dB(μV) | |
|---|---------------|---------|
| | Quasi-peak | Average |
| 0.15 ~ 0.5 | 66~56 | 56~46 |
| 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~0.50 MHz | | |

3.4 Test Configuration

The EUT (listed in Sec.2.1) was installed as shown on Sec.3.2 to meet FCC requirement and operating in a manner which tends to maximize its emission level in a normal application.

3.5 Operating Condition of EUT

- 3.5.1 Setup the EUT as shown in Sec. 3.2.
- 3.5.2 Turn on the power of all equipment.
- 3.5.3 Turn the EUT on the test mode, and then test.

3.6 Test Procedures

The EUT was placed upon a non-metallic table, which is 0.8 m above the horizontal conducting ground plane and 0.4 m from a vertical reference plane. The EUT was connected to the power mains through an Artificial Mains Network (AMN) to provide a 50 Ω coupling impedance for the measuring equipment. Both sides of AC line (Line & Neutral) were checked to find out the maximum conducted emission according to FCC Part 15 Subpart C and ANSI C63.10: 2013 requirements during conducted disturbance test.

The I.F. bandwidth of Test Receiver ESCI was set at 9 kHz.

The frequency range from 150 kHz to 30 MHz was checked.

Test with a dummy load in lieu of the antenna to determine compliance with Section 15.207 limits within the transmitter's fundamental emission band. (According to KDB 174176 D01 Line Conducted FAQ)

The test modes were done on conducted disturbance test and all the test results are listed in Sec. 3.7

3.7 Test Results

< **PASS** >

The frequency and amplitude of the highest conducted emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

Worst case emission:

| No. | Operation | Modulation | Channel | Frequency (MHz) | Data Page |
|-----|--------------|-------------|---------|-----------------|-----------|
| 1. | Transmitting | 802.11b | 1 | 2412 | P12 |
| 2. | Receiving | 802.11b/g/n | 1 | 2412 | P13 |

NOTE 1 – Level = Read Level + AMN Factor + Cable Loss

NOTE 2 – “QP” means “Quasi-Peak” values

NOTE 3 – The emission levels which not reported are too low against the official limit.

Worst case emission

EUT : Smart Plug Temperature : 22

Model No. : CPLGSTDBLW1 Humidity : 51%RH

Test Mode : Transmitting Date of Test : 2021.01.18

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | AMN Factor (dB/m) | Cable Loss (dB) | Emission Level dB (μV/m) | Limits dB (μV/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------|-------------------|-----------------|--------------------------|------------------|-------------|-----------|
| Line | 0.1787 | 45.11 | 10.51 | 0.03 | 55.65 | 64.55 | 8.9 | QP |
| | 0.1787 | 29.31 | 10.51 | 0.03 | 39.85 | 54.55 | 14.7 | Average |
| | 0.3577 | 39.54 | 10.41 | 0.04 | 49.99 | 58.78 | 8.79 | QP |
| | 0.3577 | 21.26 | 10.41 | 0.04 | 31.71 | 48.78 | 17.07 | Average |
| | 0.5436 | 35.69 | 10.35 | 0.04 | 46.08 | 56 | 9.92 | QP |
| | 0.5436 | 20.57 | 10.35 | 0.04 | 30.96 | 46 | 15.04 | Average |
| | 2.055 | 26.42 | 10.35 | 0.07 | 36.84 | 56 | 19.16 | QP |
| | 2.055 | 15.64 | 10.35 | 0.07 | 26.06 | 46 | 19.94 | Average |
| | 3.328 | 25.99 | 10.35 | 0.09 | 36.43 | 56 | 19.57 | QP |
| | 3.328 | 19.8 | 10.35 | 0.09 | 30.24 | 46 | 15.76 | Average |
| | 7.213 | 24.97 | 10.34 | 0.15 | 35.46 | 60 | 24.54 | QP |
| | 7.213 | 13.5 | 10.34 | 0.15 | 23.99 | 50 | 26.01 | Average |
| Neutral | 0.1768 | 45.23 | 10.68 | 0.03 | 55.94 | 64.64 | 8.7 | QP |
| | 0.1768 | 29.12 | 10.68 | 0.03 | 39.83 | 54.64 | 14.81 | Average |
| | 0.3483 | 39.29 | 10.56 | 0.04 | 49.89 | 59 | 9.11 | QP |
| | 0.3483 | 20.23 | 10.56 | 0.04 | 30.83 | 49 | 18.17 | Average |
| | 0.5762 | 33.85 | 10.47 | 0.04 | 44.36 | 56 | 11.64 | QP |
| | 0.5762 | 18.49 | 10.47 | 0.04 | 29 | 46 | 17 | Average |
| | 1.593 | 23.26 | 10.46 | 0.06 | 33.78 | 56 | 22.22 | QP |
| | 1.593 | 14.53 | 10.46 | 0.06 | 25.05 | 46 | 20.95 | Average |
| | 3.224 | 23.05 | 10.47 | 0.09 | 33.61 | 56 | 22.39 | QP |
| | 3.224 | 15.6 | 10.47 | 0.09 | 26.16 | 46 | 19.84 | Average |
| | 8.367 | 22.85 | 10.47 | 0.16 | 33.48 | 60 | 26.52 | QP |
| | 8.367 | 13.48 | 10.47 | 0.16 | 24.11 | 50 | 25.89 | Average |

TEST ENGINEER: Jarey

EUT : Smart Plug Temperature : 22

Model No. : CPLGSTDBLW1 Humidity : 51%RH

Test Mode : Receiving Date of Test : 2021.01.18

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | AMN Factor (dB/m) | Cable Loss (dB) | Emission Level dB (μV/m) | Limits dB (μV/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------|-------------------|-----------------|--------------------------|------------------|-------------|---------|
| Line | 0.1768 | 44.89 | 10.51 | 0.03 | 55.43 | 64.64 | 9.21 | QP |
| | 0.1768 | 29.59 | 10.51 | 0.03 | 40.13 | 54.64 | 14.51 | Average |
| | 0.3217 | 39.85 | 10.43 | 0.04 | 50.32 | 59.66 | 9.34 | QP |
| | 0.3217 | 21.48 | 10.43 | 0.04 | 31.95 | 49.66 | 17.71 | Average |
| | 0.5885 | 34.73 | 10.35 | 0.04 | 45.12 | 56 | 10.88 | QP |
| | 0.5885 | 22.37 | 10.35 | 0.04 | 32.76 | 46 | 13.24 | Average |
| | 1.819 | 26.75 | 10.35 | 0.07 | 37.17 | 56 | 18.83 | QP |
| | 1.819 | 18.37 | 10.35 | 0.07 | 28.79 | 46 | 17.21 | Average |
| | 4.269 | 25.35 | 10.35 | 0.11 | 35.81 | 56 | 20.19 | QP |
| | 4.269 | 17.13 | 10.35 | 0.11 | 27.59 | 46 | 18.41 | Average |
| | 8.235 | 25.27 | 10.34 | 0.16 | 35.77 | 60 | 24.23 | QP |
| | 8.235 | 12.53 | 10.34 | 0.16 | 23.03 | 50 | 26.97 | Average |
| Neutral | 0.1806 | 45.02 | 10.68 | 0.03 | 55.73 | 64.46 | 8.73 | QP |
| | 0.1806 | 28.3 | 10.68 | 0.03 | 39.01 | 54.46 | 15.45 | Average |
| | 0.3269 | 39.61 | 10.58 | 0.04 | 50.23 | 59.53 | 9.3 | QP |
| | 0.3269 | 21.46 | 10.58 | 0.04 | 32.08 | 49.53 | 17.45 | Average |
| | 0.5101 | 35.94 | 10.48 | 0.04 | 46.46 | 56 | 9.54 | QP |
| | 0.5101 | 19.79 | 10.48 | 0.04 | 30.31 | 46 | 15.69 | Average |
| | 2.066 | 23.56 | 10.46 | 0.07 | 34.09 | 56 | 21.91 | QP |
| | 2.066 | 13.26 | 10.46 | 0.07 | 23.79 | 46 | 22.21 | Average |
| | 4.574 | 22.68 | 10.47 | 0.11 | 33.26 | 56 | 22.74 | QP |
| | 4.574 | 14.47 | 10.47 | 0.11 | 25.05 | 46 | 20.95 | Average |
| | 11.933 | 22.93 | 10.47 | 0.2 | 33.6 | 60 | 26.4 | QP |
| | 11.933 | 13.49 | 10.47 | 0.2 | 24.16 | 50 | 25.84 | Average |

TEST ENGINEER: Jarey

4 RADIATED EMISSION TEST

4.1 Test Equipment

The following test equipment are used during the radiated emission test in a semi-anechoic chamber:

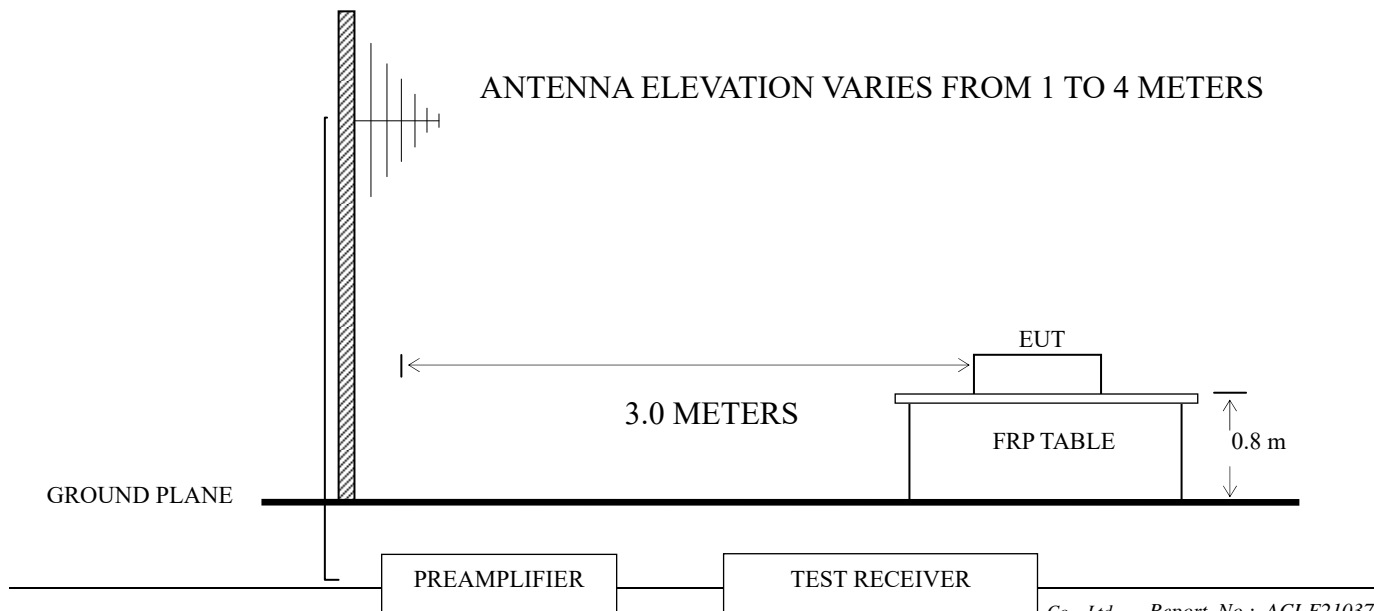
| Item | Type | Manufacturer | Model No. | Serial No. | Cal. Date | Cal. Interval |
|------|------------------------------|--------------|---------------|---------------------|------------|---------------|
| 1. | Preamplifier | Agilent | 8447D | 2944A10548 | 2020.04.26 | 1 Year |
| 2. | Preamplifier | HP | 8449B | 3008A00864 | 2021.01.05 | 1 Year |
| 3. | Spectrum Analyzer | Agilent | N9010A | MY52221182 | 2020.09.16 | 1 Year |
| 4. | Test Receiver | R&S | ESCI | 101303 | 2020.04.26 | 1 Year |
| 5. | Bi-log Antenna | Schwarz beck | VULB 9168 | 708 | 2020.05.17 | 1 Year |
| 6. | Horn Antenna | EMCO | 3115 | 9607-4878 | 2020.07.13 | 1 Year |
| 7. | Horn Antenna | EMCO | 3116 | 00062643 | 2020.09.08 | 1 Year |
| 8. | Cavity Band Rejection Filter | Microwave | WT-A3882 -R10 | WT200312-1 -1 | 2020.07.07 | 1 Year |
| 9. | Software | Audix | E3 | SET00200 9912M295-2 | -- | -- |

4.2 Block Diagram of Test Setup

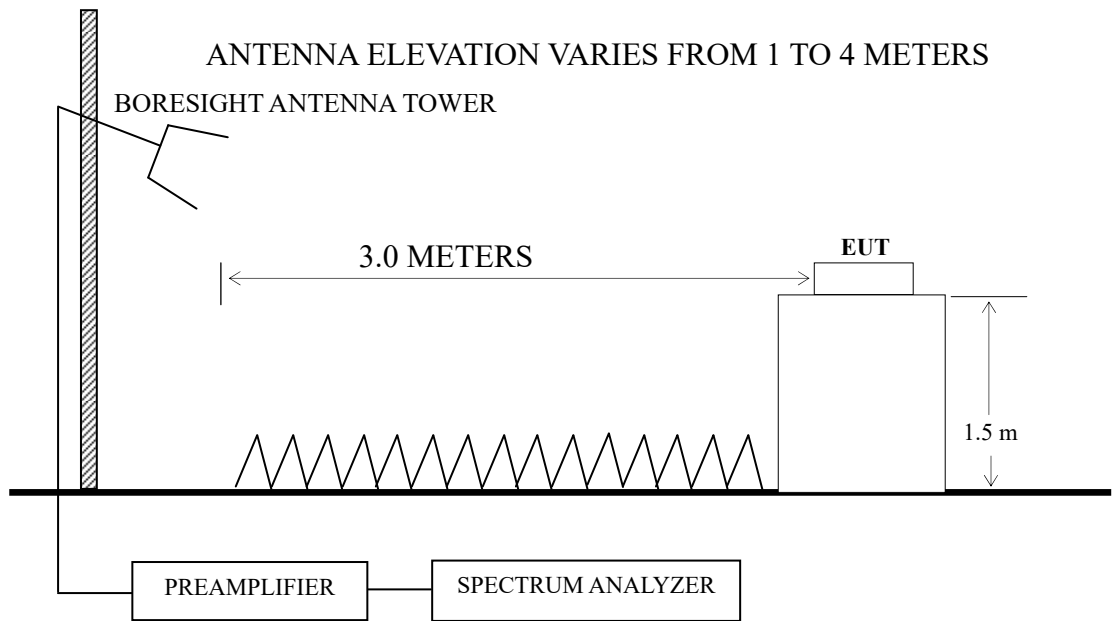
4.2.1 EUT & Peripherals



4.2.2 Below 1GHz



4.2.3 Above 1GHz



4.3 Radiated Emission Limit (§15.209)

| Frequency (MHz) | Distance (m) | Field strength limits ($\mu\text{V}/\text{m}$) | |
|-----------------|--------------|--|-----------------------------------|
| | | ($\mu\text{V}/\text{m}$) | $\text{dB}(\mu\text{V}/\text{m})$ |
| 30 ~ 88 | 3 | 100 | 40.0 |
| 88 ~ 216 | 3 | 150 | 43.5 |
| 216 ~ 960 | 3 | 200 | 46.0 |
| Above 960 | 3 | 500 | 54.0 |

NOTE 1 - Emission Level $\text{dB}(\mu\text{V}/\text{m}) = 20 \log \text{Emission Level}(\mu\text{V}/\text{m})$

NOTE 2 - The tighter limit applies at the band edges.

NOTE 3 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

NOTE 4 - The limits shown are based on Quasi-peak value detector below or equal to 1GHz and Average value detector above 1GHz.

NOTE 5 - Above 1 GHz, the limit on peak emission is 20 dB above the maximum permitted average emission limit applicable to the EUT

4.4 Test Configuration

The EUT (listed in Sec.2.1) and the simulators (listed in Sec.2.2) were installed as shown on Sec.4.2 to meet FCC requirements and operating in a manner that tends to maximize its emission level in a normal application.

4.5 Operating Condition of EUT

4.5.1 Setup the EUT as shown in Sec. 4.2.

4.5.2 Turn on the power of all equipment.

4.5.3 Turn the EUT on the test mode, and then test.

4.6 Test Procedures

Radiated emission test applies to harmonics/spurs that fall in the restricted bands listed in Section 15.205. The maximum permitted average field strength is listed in Section 15.209. A pre-amp is necessary for this measurement. For measurement above 1 GHz, set RBW = 1MHz, VBW = 10 Hz, Sweep: Auto. If the emission is pulsed, modify the unit for continuous operation; use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation.

The EUT was placed on a turntable. Below 1 GHz, the table height is 80 cm above the reference ground plane. Above 1 GHz, the table height is 1.5 m. The turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (Calibrated Bilog Antenna) or Horn antenna was used as receiving antenna. Both horizontal and vertical polarizations of the antenna were set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to ANSI C63.10: 2013 requirements during radiated emission test.

The bandwidth of Test Receiver R&S ESCI was set at 120 kHz from 30MHz to 1000MHz.

The bandwidth of Agilent N9010A was set at 1MHz for above 1GHz.

The frequency range from 30 MHz to 25 GHz (Up to 10th harmonics from fundamental frequency) was checked.

All the test results are listed in Sec.4.7.

4.7 Test Results

<PASS>

The frequency and amplitude of the highest radiated emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

Frequency range: below 1G (Worst case emission)

| No. | Operation | Modulation | Channel | Frequency | Data Page |
|-----|--------------|-------------|---------|-----------|-----------|
| 1. | Transmitting | 802.11b | 1 | 2412 MHz | P19 |
| 2. | Receiving | 802.11b/g/n | 1 | 2412 MHz | P20 |

Frequency range: above 1G

| No. | Operation | Modulation | Channel | Frequency | Data Page |
|-----|--------------|-------------|---------|-----------|-----------|
| 1. | Transmitting | 802.11b | 1 | 2412 MHz | P21 |
| 2. | | | 6 | 2437 MHz | P21 |
| 3. | | | 11 | 2462 MHz | P22 |
| 4. | Transmitting | 802.11g | 11 | 2462 MHz | P22 |
| 5. | Transmitting | 802.11n20 | 11 | 2462 MHz | P23 |
| 6. | Receiving | 802.11b/g/n | 1 | 2412 MHz | P24 |

Restricted bands:

| No. | Operation | Modulation | Channel | Frequency | Data Page |
|-----|--------------|------------|------------------|-----------|-----------|
| 1. | Transmitting | 802.11b | Cabinet Emission | | P25 |
| 2. | | 802.11g | Cabinet Emission | | P26 |
| 3. | | 802.11n20 | Cabinet Emission | | P27 |

Additional Radiated emission (Mixed worst modulation): below 1G

| No. | Operation | Modulation | Channel | Frequency | Data Page |
|-----|--------------|--------------|---------|-----------|-----------|
| 1. | Transmitting | BLE | 39 | 2480 MHz | P28 |
| | | IEEE 802.11b | 1 | 2412 MHz | |

Additional Radiated emission (Mixed worst modulation): above 1G

| No. | Operation | Modulation | Channel | Frequency | Data Page |
|-----|--------------|--------------|---------|-----------|-----------|
| 1. | Transmitting | BLE | 39 | 2480 MHz | P28 |
| | | IEEE 802.11b | 1 | 2412 MHz | |

NOTE 1 – Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor

NOTE 2 – “QP” means “Quasi-Peak” values

NOTE 3 – 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

NOTE 4 – The emission levels which not reported are too low against the official limit.

NOTE 5 – The emission levels recorded below is data of EUT configured in Lying direction, for Lying direction was the maximum emission direction during the test. The data of Side & Standing direction are too low against the official limit to be reported.

NOTE 6 – All reading are Quasi-Peak values below or equal to 1GHz, Peak and

Average values above 1GHz.

For above 1GHz test, if the peak measured value complies with the average limit, it is unnecessary to perform an average measurement.

NOTE 7 – The frequency range 2310-2390MHz & 2483.5-2500MHz were tested for Restricted bands.

Worst case emission < 1GHz

EUT : Smart Plug Temperature : 22

Model No. : CPLGSTDBLW1 Humidity : 51%RH

Test Mode : Transmitting Date of Test : 2021.01.19

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Emission Level dB (μV/m) | Limits dB (μV/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------|-----------------------|-----------------|--------------------|--------------------------|------------------|-------------|-----------|
| Horizontal | 42.6 | 23.76 | 19.57 | 0.41 | 28.36 | 15.38 | 40 | 24.62 | QP |
| | 57.594 | 25.31 | 19.14 | 0.47 | 28.31 | 16.61 | 40 | 23.39 | QP |
| | 129.92 | 24.69 | 17.52 | 0.58 | 27.86 | 14.93 | 43.5 | 28.57 | QP |
| | 170.79 | 23.86 | 18.26 | 0.59 | 27.63 | 15.08 | 43.5 | 28.42 | QP |
| | 467.24 | 24.2 | 22.94 | 1.2 | 27.18 | 21.16 | 46 | 24.84 | QP |
| | 793.4 | 24.1 | 27.94 | 1.89 | 27.47 | 26.46 | 46 | 19.54 | QP |
| Vertical | 33.917 | 43.65 | 18.22 | 0.36 | 28.35 | 33.88 | 40 | 6.12 | QP |
| | 54.643 | 34.09 | 19.52 | 0.46 | 28.33 | 25.74 | 40 | 14.26 | QP |
| | 129.02 | 40.12 | 17.45 | 0.58 | 27.87 | 30.28 | 43.5 | 13.22 | QP |
| | 174.42 | 29.48 | 18.12 | 0.59 | 27.61 | 20.58 | 43.5 | 22.92 | QP |
| | 480.53 | 25.15 | 23.06 | 1.22 | 27.17 | 22.26 | 46 | 23.74 | QP |
| | 742.26 | 24.81 | 27.35 | 1.81 | 27.43 | 26.54 | 46 | 19.46 | QP |

TEST ENGINEER: Jarey

EUT : Smart Plug Temperature : 22

Model No. : CPLGSTDBLW1 Humidity : 51%RH

Test Mode : Receiving Date of Test : 2021.01.19

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Emission Level dB (μV/m) | Limits dB (μV/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------|-----------------------|-----------------|--------------------|--------------------------|------------------|-------------|--------|
| Horizontal | 48.502 | 24.3 | 19.83 | 0.44 | 28.37 | 16.2 | 40 | 23.8 | QP |
| | 62.871 | 25.09 | 18.5 | 0.49 | 28.27 | 15.81 | 40 | 24.19 | QP |
| | 128.11 | 26.12 | 17.37 | 0.58 | 27.87 | 16.2 | 43.5 | 27.3 | QP |
| | 183.84 | 24.91 | 17.22 | 0.59 | 27.56 | 15.16 | 43.5 | 28.34 | QP |
| | 478.85 | 24.47 | 23.04 | 1.22 | 27.17 | 21.56 | 46 | 24.44 | QP |
| | 839.18 | 24.23 | 28.08 | 1.98 | 27.31 | 26.98 | 46 | 19.02 | QP |
| Vertical | 33.917 | 43.31 | 18.22 | 0.36 | 28.35 | 33.54 | 40 | 6.46 | QP |
| | 54.643 | 34.12 | 19.52 | 0.46 | 28.33 | 25.77 | 40 | 14.23 | QP |
| | 129.02 | 40.09 | 17.45 | 0.58 | 27.87 | 30.25 | 43.5 | 13.25 | QP |
| | 175.65 | 29.56 | 18.04 | 0.59 | 27.6 | 20.59 | 43.5 | 22.91 | QP |
| | 422.06 | 24.48 | 21.91 | 1.12 | 27.22 | 20.29 | 46 | 25.71 | QP |
| | 716.68 | 24.51 | 26.85 | 1.77 | 27.4 | 25.73 | 46 | 20.27 | QP |

TEST ENGINEER: Jarey

Radiated Emission > 1GHz

EUT : Smart Plug Temperature : 22
 Model No. : CPLGSTDBLW1 Humidity : 51%RH
 Test Mode : Transmitting Date of Test : 2021.01.19

802.11b CH2412MHz

| Polarization | Frequency (MHz) | Meter Reading dB (µV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Emission Level dB (µV/m) | Limits dB (µV/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------|-----------------------|-----------------|--------------------|--------------------------|------------------|-------------|--------|
| Horizontal | 1936 | 44.89 | 27.19 | 3.48 | 37.17 | 38.39 | 74 | 35.61 | Peak |
| | 3853 | 43.8 | 32.21 | 4.73 | 37.08 | 43.66 | 74 | 30.34 | Peak |
| | 5014 | 42.8 | 33.33 | 5.66 | 37.06 | 44.73 | 74 | 29.27 | Peak |
| | 5995 | 42.81 | 34.2 | 5.95 | 37.03 | 45.93 | 74 | 28.07 | Peak |
| | 7660 | 42.19 | 37.09 | 6.36 | 37 | 48.64 | 74 | 25.36 | Peak |
| | 8974 | 42.34 | 38.31 | 6.88 | 36.98 | 50.55 | 74 | 23.45 | Peak |
| Vertical | 1846 | 45.15 | 26.87 | 3.39 | 37.24 | 38.17 | 74 | 35.83 | Peak |
| | 3718 | 43.59 | 31.83 | 4.65 | 37.08 | 42.99 | 74 | 31.01 | Peak |
| | 5086 | 42.82 | 33.46 | 5.68 | 37.06 | 44.9 | 74 | 29.1 | Peak |
| | 6769 | 41.62 | 35 | 6.14 | 37.02 | 45.74 | 74 | 28.26 | Peak |
| | 7966 | 42.54 | 37.47 | 6.41 | 36.99 | 49.43 | 74 | 24.57 | Peak |
| | 8893 | 43.23 | 38.34 | 6.88 | 36.98 | 51.47 | 74 | 22.53 | Peak |

802.11b CH2437MHz

| Polarization | Frequency (MHz) | Meter Reading dB (µV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Emission Level dB (µV/m) | Limits dB (µV/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------|-----------------------|-----------------|--------------------|--------------------------|------------------|-------------|--------|
| Horizontal | 1702 | 46.76 | 26.34 | 3.25 | 37.37 | 38.98 | 74 | 35.02 | Peak |
| | 3853 | 43.96 | 32.21 | 4.73 | 37.08 | 43.82 | 74 | 30.18 | Peak |
| | 5482 | 41.94 | 34.17 | 5.8 | 37.05 | 44.86 | 74 | 29.14 | Peak |
| | 6823 | 41.78 | 35.08 | 6.17 | 37.02 | 46.01 | 74 | 27.99 | Peak |
| | 8002 | 43.18 | 37.55 | 6.43 | 36.99 | 50.17 | 74 | 23.83 | Peak |
| | 9460 | 42.87 | 38.39 | 7.13 | 36.97 | 51.42 | 74 | 22.58 | Peak |
| Vertical | 1711 | 46.6 | 26.37 | 3.25 | 37.36 | 38.86 | 74 | 35.14 | Peak |
| | 3691 | 45.47 | 31.77 | 4.65 | 37.08 | 44.81 | 74 | 29.19 | Peak |
| | 5041 | 44.24 | 33.38 | 5.68 | 37.06 | 46.24 | 74 | 27.76 | Peak |
| | 6319 | 42.63 | 34.39 | 6.05 | 37.03 | 46.04 | 74 | 27.96 | Peak |
| | 7624 | 42.74 | 37.06 | 6.33 | 37 | 49.13 | 74 | 24.87 | Peak |
| | 8803 | 42.74 | 38.37 | 6.81 | 36.98 | 50.94 | 74 | 23.06 | Peak |

802.11b CH2462MHz

| Polarization | Frequency (MHz) | Meter Reading dB (μ V) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Emission Level dB (μ V/m) | Limits dB (μ V/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------------|-----------------------|-----------------|--------------------|--------------------------------|------------------------|-------------|--------|
| Horizontal | 1900 | 45.79 | 27.06 | 3.45 | 37.2 | 39.1 | 74 | 34.9 | Peak |
| | 3700 | 43.37 | 31.8 | 4.65 | 37.08 | 42.74 | 74 | 31.26 | Peak |
| | 4645 | 43.15 | 32.67 | 5.37 | 37.06 | 44.13 | 74 | 29.87 | Peak |
| | 5860 | 42.34 | 34.2 | 5.92 | 37.04 | 45.42 | 74 | 28.58 | Peak |
| | 7723 | 41.54 | 37.17 | 6.36 | 37 | 48.07 | 74 | 25.93 | Peak |
| | 9244 | 42.77 | 38.35 | 7.01 | 36.97 | 51.16 | 74 | 22.84 | Peak |
| Vertical | 1981 | 44.94 | 27.34 | 3.53 | 37.13 | 38.68 | 74 | 35.32 | Peak |
| | 3790 | 44.23 | 32.03 | 4.67 | 37.08 | 43.85 | 74 | 30.15 | Peak |
| | 5131 | 42.62 | 33.55 | 5.71 | 37.06 | 44.82 | 74 | 29.18 | Peak |
| | 6301 | 41.8 | 34.38 | 6.05 | 37.03 | 45.2 | 74 | 28.8 | Peak |
| | 7651 | 42.13 | 37.09 | 6.36 | 37 | 48.58 | 74 | 25.42 | Peak |
| | 9334 | 42.96 | 38.37 | 7.07 | 36.97 | 51.43 | 74 | 22.57 | Peak |

802.11g CH2412MHz

| Polarization | Frequency (MHz) | Meter Reading dB (μ V) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Emission Level dB (μ V/m) | Limits dB (μ V/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------------|-----------------------|-----------------|--------------------|--------------------------------|------------------------|-------------|--------|
| Horizontal | 1567 | 46.54 | 25.78 | 3.08 | 37.49 | 37.91 | 74 | 36.09 | Peak |
| | 3457 | 43.5 | 31.12 | 4.51 | 37.08 | 42.05 | 74 | 31.95 | Peak |
| | 4672 | 44.08 | 32.72 | 5.37 | 37.06 | 45.11 | 74 | 28.89 | Peak |
| | 6463 | 41.17 | 34.48 | 6.07 | 37.02 | 44.7 | 74 | 29.3 | Peak |
| | 7678 | 42.24 | 37.12 | 6.36 | 37 | 48.72 | 74 | 25.28 | Peak |
| | 8956 | 42.44 | 38.32 | 6.88 | 36.98 | 50.66 | 74 | 23.34 | Peak |
| Vertical | 2224 | 44.2 | 27.93 | 3.75 | 37.11 | 38.77 | 74 | 35.23 | Peak |
| | 3826 | 43.74 | 32.12 | 4.7 | 37.08 | 43.48 | 74 | 30.52 | Peak |
| | 5113 | 42.36 | 33.52 | 5.71 | 37.06 | 44.53 | 74 | 29.47 | Peak |
| | 6247 | 42.25 | 34.35 | 6.02 | 37.03 | 45.59 | 74 | 28.41 | Peak |
| | 8110 | 41.57 | 37.74 | 6.49 | 36.99 | 48.81 | 74 | 25.19 | Peak |
| | 9334 | 43.25 | 38.37 | 7.07 | 36.97 | 51.72 | 74 | 22.28 | Peak |

802.11n20 CH2412MHz

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Emission Level dB (μV/m) | Limits dB (μV/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------|-----------------------|-----------------|--------------------|--------------------------|------------------|-------------|--------|
| Horizontal | 2125 | 44.67 | 27.7 | 3.67 | 37.12 | 38.92 | 74 | 35.08 | Peak |
| | 3718 | 44.46 | 31.83 | 4.65 | 37.08 | 43.86 | 74 | 30.14 | Peak |
| | 5077 | 42.83 | 33.44 | 5.68 | 37.06 | 44.89 | 74 | 29.11 | Peak |
| | 6814 | 41.41 | 35.08 | 6.17 | 37.02 | 45.64 | 74 | 28.36 | Peak |
| | 7678 | 43.23 | 37.12 | 6.36 | 37 | 49.71 | 74 | 24.29 | Peak |
| | 8893 | 42.69 | 38.34 | 6.88 | 36.98 | 50.93 | 74 | 23.07 | Peak |
| Vertical | 2071 | 44.95 | 27.57 | 3.61 | 37.12 | 39.01 | 74 | 34.99 | Peak |
| | 3799 | 44.56 | 32.06 | 4.7 | 37.08 | 44.24 | 74 | 29.76 | Peak |
| | 5464 | 41.73 | 34.15 | 5.8 | 37.05 | 44.63 | 74 | 29.37 | Peak |
| | 6877 | 41.58 | 35.18 | 6.17 | 37.01 | 45.92 | 74 | 28.08 | Peak |
| | 8119 | 43.17 | 37.79 | 6.49 | 36.99 | 50.46 | 74 | 23.54 | Peak |
| | 9604 | 42.51 | 38.4 | 7.2 | 36.97 | 51.14 | 74 | 22.86 | Peak |

TEST ENGINEER: Jarey

EUT : Smart Plug Temperature : 22

Model No. : CPLGSTDBLW1 Humidity : 51%RH

Test Mode : Receiving Date of Test : 2021.01.19

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Emission Level dB (μV/m) | Limits dB (μV/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------|-----------------------|-----------------|--------------------|--------------------------|------------------|-------------|--------|
| Horizontal | 2440 | 44.28 | 28.39 | 3.9 | 37.11 | 39.46 | 74 | 34.54 | Peak |
| | 3826 | 43.59 | 32.12 | 4.7 | 37.08 | 43.33 | 74 | 30.67 | Peak |
| | 5140 | 42.41 | 33.55 | 5.71 | 37.06 | 44.61 | 74 | 29.39 | Peak |
| | 6355 | 41.73 | 34.41 | 6.05 | 37.03 | 45.16 | 74 | 28.84 | Peak |
| | 7606 | 41.86 | 37.04 | 6.33 | 37 | 48.23 | 74 | 25.77 | Peak |
| | 8533 | 42.28 | 38.48 | 6.69 | 36.98 | 50.47 | 74 | 23.53 | Peak |
| Vertical | 2080 | 44.97 | 27.59 | 3.61 | 37.12 | 39.05 | 74 | 34.95 | Peak |
| | 3718 | 44.57 | 31.83 | 4.65 | 37.08 | 43.97 | 74 | 30.03 | Peak |
| | 5050 | 42.84 | 33.38 | 5.68 | 37.06 | 44.84 | 74 | 29.16 | Peak |
| | 6301 | 42.55 | 34.38 | 6.05 | 37.03 | 45.95 | 74 | 28.05 | Peak |
| | 7678 | 42.89 | 37.12 | 6.36 | 37 | 49.37 | 74 | 24.63 | Peak |
| | 8992 | 42.28 | 38.3 | 6.88 | 36.98 | 50.48 | 74 | 23.52 | Peak |

TEST ENGINEER: Jarey

Emissions in restricted frequency bands:

EUT : Smart Plug Temperature : 22

Model No. : CPLGSTDBLW1 Humidity : 51%RH

Test Mode : Transmitting Date of Test : 2021.01.19

802.11b

| Polarization | Frequency (MHz) | Meter Reading dB (μ V) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Emission Level dB (μ V/m) | Limits dB (μ V/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------------|-----------------------|-----------------|--------------------|--------------------------------|------------------------|-------------|---------|
| Horizontal | 2334.1 | 49.05 | 28.16 | 3.83 | 37.11 | 43.93 | 74 | 30.07 | Peak |
| | 2334.1 | 36.5 | 28.16 | 3.83 | 37.11 | 31.38 | 54 | 22.62 | Average |
| | 2369.9 | 49.04 | 28.24 | 3.85 | 37.11 | 44.02 | 74 | 29.98 | Peak |
| | 2369.9 | 38.31 | 28.24 | 3.85 | 37.11 | 33.29 | 54 | 20.71 | Average |
| | 2390 | 59.39 | 28.27 | 3.85 | 37.11 | 54.4 | 74 | 19.6 | Peak |
| | 2390 | 42.44 | 28.27 | 3.85 | 37.11 | 37.45 | 54 | 16.55 | Average |
| | 2483.8 | 47.76 | 28.47 | 3.93 | 37.11 | 43.05 | 74 | 30.95 | Peak |
| | 2483.8 | 35.48 | 28.47 | 3.93 | 37.11 | 30.77 | 54 | 23.23 | Average |
| | 2490.4 | 47.31 | 28.49 | 3.93 | 37.11 | 42.62 | 74 | 31.38 | Peak |
| | 2490.4 | 35.23 | 28.49 | 3.93 | 37.11 | 30.54 | 54 | 23.46 | Average |
| | 2496.5 | 46.89 | 28.5 | 3.93 | 37.11 | 42.21 | 74 | 31.79 | Peak |
| 2496.5 | 34.59 | 28.5 | 3.93 | 37.11 | 29.91 | 54 | 24.09 | Average | |
| Vertical | 2334 | 49.81 | 28.16 | 3.83 | 37.11 | 44.69 | 74 | 29.31 | Peak |
| | 2334 | 37.57 | 28.16 | 3.83 | 37.11 | 32.45 | 54 | 21.55 | Average |
| | 2366.8 | 48.2 | 28.23 | 3.85 | 37.11 | 43.17 | 74 | 30.83 | Peak |
| | 2366.8 | 37.32 | 28.23 | 3.85 | 37.11 | 32.29 | 54 | 21.71 | Average |
| | 2389.6 | 61.54 | 28.27 | 3.85 | 37.11 | 56.55 | 74 | 17.45 | Peak |
| | 2389.6 | 41.26 | 28.27 | 3.85 | 37.11 | 36.27 | 54 | 17.73 | Average |
| | 2483.4 | 48.72 | 28.47 | 3.93 | 37.11 | 44.01 | 74 | 29.99 | Peak |
| | 2483.4 | 37.58 | 28.47 | 3.93 | 37.11 | 32.87 | 54 | 21.13 | Average |
| | 2490.7 | 49.58 | 28.49 | 3.93 | 37.11 | 44.89 | 74 | 29.11 | Peak |
| | 2490.7 | 37.36 | 28.49 | 3.93 | 37.11 | 32.67 | 54 | 21.33 | Average |
| | 2494.6 | 48.22 | 28.49 | 3.93 | 37.11 | 43.53 | 74 | 30.47 | Peak |
| 2494.6 | 36.12 | 28.49 | 3.93 | 37.11 | 31.43 | 54 | 22.57 | Average | |

802.11g

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Emission Level dB (μV/m) | Limits dB (μV/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------|-----------------------|-----------------|--------------------|--------------------------|------------------|-------------|---------|
| Horizontal | 2342.1 | 47.59 | 28.17 | 3.83 | 37.11 | 42.48 | 74 | 31.52 | Peak |
| | 2342.1 | 35.66 | 28.17 | 3.83 | 37.11 | 30.55 | 54 | 23.45 | Average |
| | 2367.7 | 47.6 | 28.23 | 3.85 | 37.11 | 42.57 | 74 | 31.43 | Peak |
| | 2367.7 | 36.36 | 28.23 | 3.85 | 37.11 | 31.33 | 54 | 22.67 | Average |
| | 2389 | 60.54 | 28.27 | 3.85 | 37.11 | 55.55 | 74 | 18.45 | Peak |
| | 2389 | 40.26 | 28.27 | 3.85 | 37.11 | 35.27 | 54 | 18.73 | Average |
| | 2484 | 49.24 | 28.47 | 3.93 | 37.11 | 44.53 | 74 | 29.47 | Peak |
| | 2484 | 37.53 | 28.47 | 3.93 | 37.11 | 32.82 | 54 | 21.18 | Average |
| | 2491.4 | 47.76 | 28.49 | 3.93 | 37.11 | 43.07 | 74 | 30.93 | Peak |
| | 2491.4 | 35.38 | 28.49 | 3.93 | 37.11 | 30.69 | 54 | 23.31 | Average |
| | 2496.6 | 46.64 | 28.5 | 3.93 | 37.11 | 41.96 | 74 | 32.04 | Peak |
| 2496.6 | 35.27 | 28.5 | 3.93 | 37.11 | 30.59 | 54 | 23.41 | Average | |
| Vertical | 2345.5 | 49.17 | 28.19 | 3.83 | 37.11 | 44.08 | 74 | 29.92 | Peak |
| | 2345.5 | 35.51 | 28.19 | 3.83 | 37.11 | 30.42 | 54 | 23.58 | Average |
| | 2372.7 | 50 | 28.24 | 3.85 | 37.11 | 44.98 | 74 | 29.02 | Peak |
| | 2372.7 | 36.51 | 28.24 | 3.85 | 37.11 | 31.49 | 54 | 22.51 | Average |
| | 2390.6 | 62 | 28.29 | 3.88 | 37.11 | 57.06 | 74 | 16.94 | Peak |
| | 2390.6 | 41.3 | 28.29 | 3.88 | 37.11 | 36.36 | 54 | 17.64 | Average |
| | 2484.8 | 51.2 | 28.47 | 3.93 | 37.11 | 46.49 | 74 | 27.51 | Peak |
| | 2484.8 | 36.53 | 28.47 | 3.93 | 37.11 | 31.82 | 54 | 22.18 | Average |
| | 2489.7 | 49.19 | 28.49 | 3.93 | 37.11 | 44.5 | 74 | 29.5 | Peak |
| | 2489.7 | 36.32 | 28.49 | 3.93 | 37.11 | 31.63 | 54 | 22.37 | Average |
| | 2497.1 | 49.21 | 28.5 | 3.93 | 37.11 | 44.53 | 74 | 29.47 | Peak |
| 2497.1 | 35.43 | 28.5 | 3.93 | 37.11 | 30.75 | 54 | 23.25 | Average | |

802.11n20

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Emission Level dB (μV/m) | Limits dB (μV/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------|-----------------------|-----------------|--------------------|--------------------------|------------------|-------------|---------|
| Horizontal | 2344.2 | 47.25 | 28.19 | 3.83 | 37.11 | 42.16 | 74 | 31.84 | Peak |
| | 2344.2 | 35.32 | 28.19 | 3.83 | 37.11 | 30.23 | 54 | 23.77 | Average |
| | 2365.3 | 47.3 | 28.23 | 3.85 | 37.11 | 42.27 | 74 | 31.73 | Peak |
| | 2365.3 | 36.63 | 28.23 | 3.85 | 37.11 | 31.6 | 54 | 22.4 | Average |
| | 2389.9 | 60.19 | 28.27 | 3.85 | 37.11 | 55.2 | 74 | 18.8 | Peak |
| | 2389.9 | 42.52 | 28.27 | 3.85 | 37.11 | 37.53 | 54 | 16.47 | Average |
| | 2484.1 | 51.13 | 28.47 | 3.93 | 37.11 | 46.42 | 74 | 27.58 | Peak |
| | 2484.1 | 40.72 | 28.47 | 3.93 | 37.11 | 36.01 | 54 | 17.99 | Average |
| | 2489.3 | 49 | 28.49 | 3.93 | 37.11 | 44.31 | 74 | 29.69 | Peak |
| | 2489.3 | 38.6 | 28.49 | 3.93 | 37.11 | 33.91 | 54 | 20.09 | Average |
| | 2494.7 | 48.36 | 28.49 | 3.93 | 37.11 | 43.67 | 74 | 30.33 | Peak |
| | 2494.7 | 37.34 | 28.49 | 3.93 | 37.11 | 32.65 | 54 | 21.35 | Average |
| Vertical | 2344.7 | 48.77 | 28.19 | 3.83 | 37.11 | 43.68 | 74 | 30.32 | Peak |
| | 2344.7 | 35.47 | 28.19 | 3.83 | 37.11 | 30.38 | 54 | 23.62 | Average |
| | 2368.7 | 48.35 | 28.23 | 3.85 | 37.11 | 43.32 | 74 | 30.68 | Peak |
| | 2368.7 | 36.24 | 28.23 | 3.85 | 37.11 | 31.21 | 54 | 22.79 | Average |
| | 2389.9 | 62.86 | 28.27 | 3.85 | 37.11 | 57.87 | 74 | 16.13 | Peak |
| | 2389.9 | 41.49 | 28.27 | 3.85 | 37.11 | 36.5 | 54 | 17.5 | Average |
| | 2484 | 52.61 | 28.47 | 3.93 | 37.11 | 47.9 | 74 | 26.1 | Peak |
| | 2484 | 40.57 | 28.47 | 3.93 | 37.11 | 35.86 | 54 | 18.14 | Average |
| | 2490 | 52.93 | 28.49 | 3.93 | 37.11 | 48.24 | 74 | 25.76 | Peak |
| | 2490 | 39.69 | 28.49 | 3.93 | 37.11 | 35 | 54 | 19 | Average |
| | 2496.5 | 50.56 | 28.5 | 3.93 | 37.11 | 45.88 | 74 | 28.12 | Peak |
| | 2496.5 | 39.36 | 28.5 | 3.93 | 37.11 | 34.68 | 54 | 19.32 | Average |

TEST ENGINEER: Jarey

Additional Radiated emission (Mixed worst modulation):

EUT : Smart Plug Temperature : 22

Model No. : CPLGSTDBLW1 Humidity : 51%RH

Test Mode : Transmitting Date of Test : 2021.01.19

Below 1G

| Polarization | Frequency (MHz) | Meter Reading dB (μ V) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Emission Level dB (μ V/m) | Limits dB (μ V/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------------|-----------------------|-----------------|--------------------|--------------------------------|------------------------|-------------|--------|
| Horizontal | 47.826 | 27.15 | 19.84 | 0.43 | 28.37 | 19.05 | 40 | 20.95 | QP |
| | 62.651 | 28.17 | 18.53 | 0.49 | 28.27 | 18.92 | 40 | 21.08 | QP |
| | 87.112 | 38.19 | 13.71 | 0.55 | 28.14 | 24.31 | 40 | 15.69 | QP |
| | 110.96 | 36.85 | 15.82 | 0.58 | 27.99 | 25.26 | 43.5 | 18.24 | QP |
| | 190.41 | 28.5 | 16.58 | 0.59 | 27.54 | 18.13 | 43.5 | 25.37 | QP |
| | 467.24 | 26.46 | 22.94 | 1.2 | 27.18 | 23.42 | 46 | 22.58 | QP |
| Vertical | 32.634 | 43.84 | 18.12 | 0.36 | 28.35 | 33.97 | 40 | 6.03 | QP |
| | 42.154 | 40.59 | 19.51 | 0.41 | 28.36 | 32.15 | 40 | 7.85 | QP |
| | 60.069 | 38.05 | 18.8 | 0.48 | 28.29 | 29.04 | 40 | 10.96 | QP |
| | 117.36 | 35.37 | 16.42 | 0.58 | 27.94 | 24.43 | 43.5 | 19.07 | QP |
| | 131.76 | 34.87 | 17.68 | 0.58 | 27.85 | 25.28 | 43.5 | 18.22 | QP |
| | 629.48 | 23.21 | 25.79 | 1.58 | 27.31 | 23.27 | 46 | 22.73 | QP |

Above 1G

| Polarization | Frequency (MHz) | Meter Reading dB (μ V) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Emission Level dB (μ V/m) | Limits dB (μ V/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------------|-----------------------|-----------------|--------------------|--------------------------------|------------------------|-------------|--------|
| Horizontal | 1702 | 46.52 | 26.34 | 3.25 | 37.37 | 38.74 | 74 | 35.26 | Peak |
| | 3565 | 42.39 | 31.41 | 4.57 | 37.08 | 41.29 | 74 | 32.71 | Peak |
| | 5077 | 39.61 | 33.44 | 5.68 | 37.06 | 41.67 | 74 | 32.33 | Peak |
| | 6319 | 37.81 | 34.39 | 6.05 | 37.03 | 41.22 | 74 | 32.78 | Peak |
| | 7354 | 37.38 | 36.46 | 6.29 | 37 | 43.13 | 74 | 30.87 | Peak |
| | 8461 | 37.06 | 38.45 | 6.62 | 36.98 | 45.15 | 74 | 28.85 | Peak |
| Vertical | 1900 | 46.53 | 27.06 | 3.45 | 37.2 | 39.84 | 74 | 34.16 | Peak |
| | 3619 | 42.96 | 31.56 | 4.59 | 37.08 | 42.03 | 74 | 31.97 | Peak |
| | 4798 | 40.33 | 32.96 | 5.48 | 37.06 | 41.71 | 74 | 32.29 | Peak |
| | 5932 | 38.5 | 34.2 | 5.95 | 37.04 | 41.61 | 74 | 32.39 | Peak |
| | 7642 | 37.32 | 37.09 | 6.36 | 37 | 43.77 | 74 | 30.23 | Peak |
| | 8776 | 36.47 | 38.39 | 6.81 | 36.98 | 44.69 | 74 | 29.31 | Peak |

TEST ENGINEER: Jarey

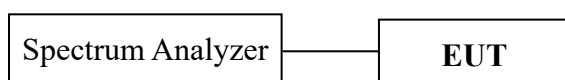
5 6 dB BANDWIDTH MEASUREMENT

5.1 Test Equipment

The following test equipment was used during the Emission Bandwidth measurement:

| Item | Type | Manufacturer | Model No. | Serial No. | Cal. Date | Cal. Interval |
|------|-------------------|---------------|--------------------|--------------------|------------|---------------|
| 1. | Spectrum Analyzer | Agilent | N9010A | MY52221182 | 2020.09.16 | 1 Year |
| 2. | Coaxial Cable | WOKEN | SFL402-10 5FLEX | F02-150819-0 45 | 2020.03.08 | 1 Year |
| 3. | 20 dB Attenuator | Mini-Circuits | VAT-20+ | 001 | 2020.08.06 | 1 Year |

5.2 Block Diagram of Test Setup



5.3 Specification Limits (§15.247(a)(2))

The minimum 6 dB bandwidth shall be at least 500 kHz.

5.4 Operating Condition of EUT

The switch ON/OFF was used to enable the EUT to change the channel one by one.

5.5 Test Procedure

The transmitter output was connected to the spectrum analyzer. The bandwidth of the fundamental frequency was measure by spectrum analyzer with settings: RBW = 100kHz, VBW $\geq 3 \times$ RBW.

The 6 dB bandwidth is defined as the total spectrum the power of which is lower than peak power minus 6 dB .

The test procedure is defined in ANSI C63.10-2013 (the 11.8.2 Measurement Procedure “Option 2” was used).

5.6 Test Results

PASSED.

All the test results are attached in next pages.

(Test Date: 2021.01.27 Temperature: 23 Humidity: 51 %)

| Modulation | Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | Limit |
|------------|---------|-----------------|---------------------|---------|
| 802.11b | 1 | 2412 | 9.129 | 500 kHz |
| | 6 | 2437 | 9.586 | 500 kHz |
| | 11 | 2462 | 9.129 | 500 kHz |
| 802.11g | 1 | 2412 | 16.57 | 500 kHz |
| | 6 | 2437 | 16.56 | 500 kHz |
| | 11 | 2462 | 16.57 | 500 kHz |
| 802.11n20 | 1 | 2412 | 17.76 | 500 kHz |
| | 6 | 2437 | 17.84 | 500 kHz |
| | 11 | 2462 | 17.76 | 500 kHz |

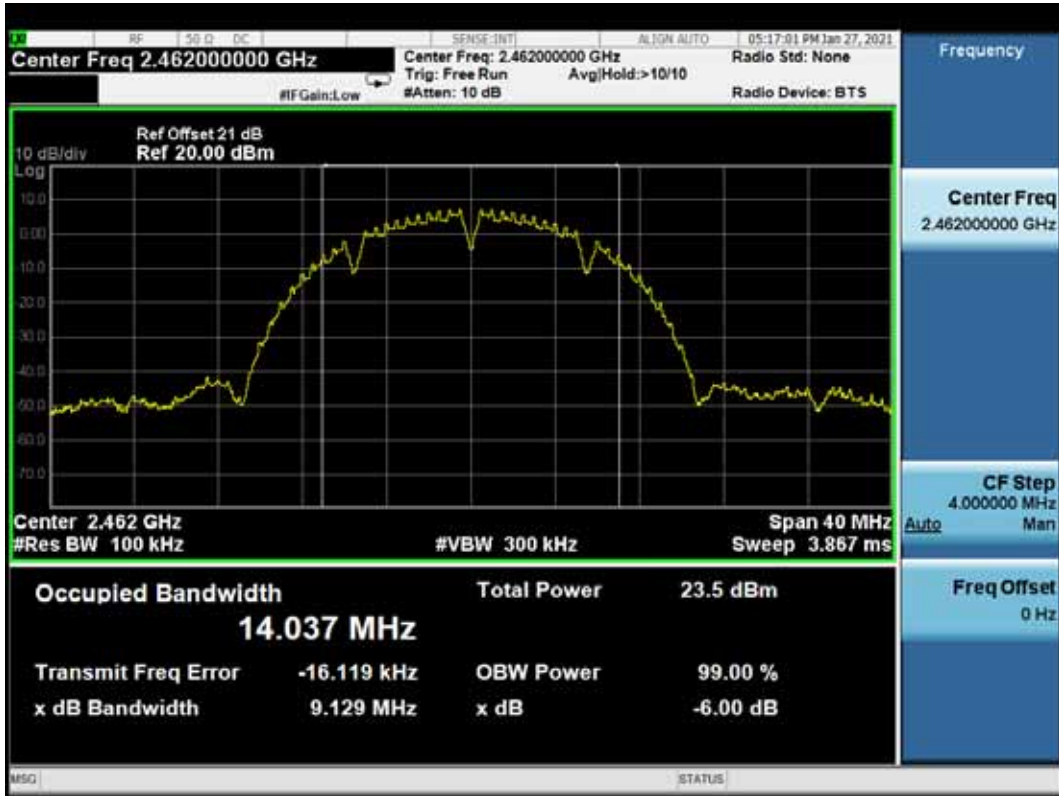
802.11b CH2412MHz



802.11b CH2437MHz



802.11b CH2462MHz



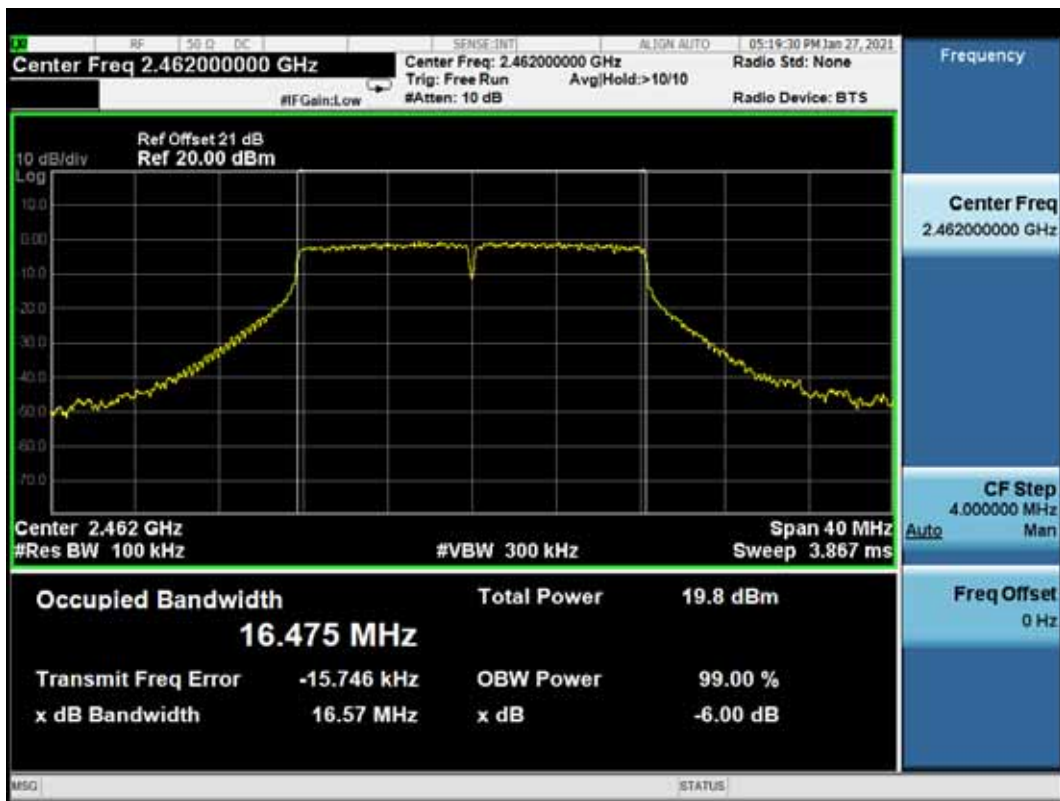
802.11g CH2412MHz



802.11g CH2437MHz



802.11g CH2462MHz



802.11n20 CH2412MHz



802.11n20 CH2437MHz



802.11n20 CH2462MHz



6 MAXIMUM PEAK OUTPUT POWER MEASUREMENT

6.1 Test Equipment

The following test equipment was used during the maximum peak output power measurement:

| Item | Type | Manufacturer | Model No. | Serial No. | Cal. Date | Cal. Interval |
|------|-------------------|---------------|--------------------|--------------------|------------|---------------|
| 1. | Spectrum Analyzer | Agilent | N9010A | MY52221182 | 2020.09.16 | 1 Year |
| 2. | Coaxial Cable | WOKEN | SFL402-10 5FLEX | F02-150819-0 45 | 2020.03.08 | 1 Year |
| 3. | 20 dB Attenuator | Mini-Circuits | VAT-20+ | 001 | 2020.08.06 | 1 Year |

6.2 Block Diagram of Test Setup

The Same as Section. 5.2.

6.3 Specification Limits ((§15.247(b)(3))

The Limits of maximum Peak Output Power for digital modulation in 2400-2483.5 MHz is: 1 Watt. (30 dBm)

6.4 Operating Condition of EUT

The switch ON/OFF was used to enable the EUT to change the channel one by one.

6.5 Test Procedure

The transmitter output was connected to the spectrum analyzer.

The following procedure can be used when the maximum available RBW of the instrument is less than the DTS bandwidth:

- a) Set the RBW = 1 MHz.
- b) Set the VBW \geq [3 RBW].
- c) Set the span \geq [1.5 DTS bandwidth].
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges (for some instruments, this may require a manual override to select the peak detector). If the instrument does not have a band power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the DTS channel bandwidth

The test procedure is defined in ANSI C63.10-2013 (11.9.1.2 Measurement Procedure “ Integrated band power method” was used).

6.6 Test Results

PASSED.

All the test results are listed below.

(Test Date: 2021.01.27 Temperature: 23 Humidity: 51 %)

| Modulation | Channel | Frequency (MHz) | Peak Output Power (dBm) | Limit |
|------------|---------|-----------------|-------------------------|--------|
| 802.11b | 1 | 2412 | 20.29 | 30 dBm |
| | 6 | 2437 | 22.19 | 30 dBm |
| | 11 | 2462 | 18.99 | 30 dBm |
| 802.11g | 1 | 2412 | 21.88 | 30 dBm |
| | 6 | 2437 | 25.8 | 30 dBm |
| | 11 | 2462 | 21.55 | 30 dBm |
| 802.11n20 | 1 | 2412 | 21.24 | 30 dBm |
| | 6 | 2437 | 25.96 | 30 dBm |
| | 11 | 2462 | 21.57 | 30 dBm |

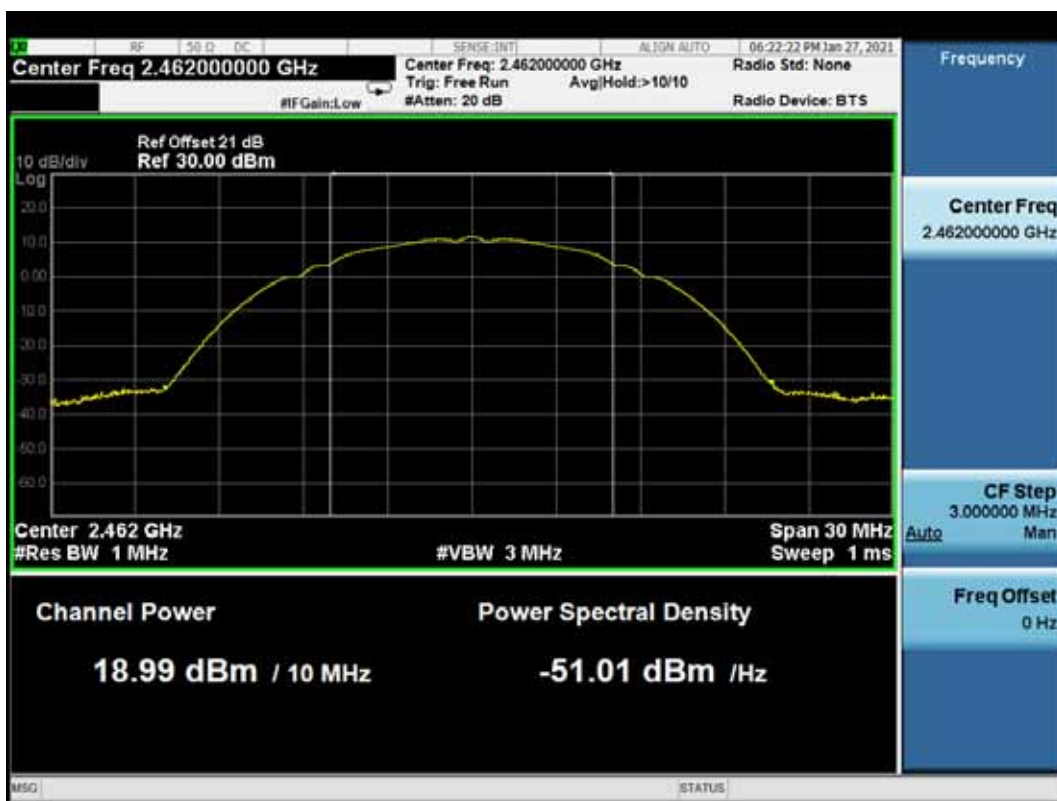
802.11b CH2412MHz



802.11b CH2437MHz



802.11b CH2462MHz



802.11g CH2412MHz



802.11g CH2437MHz



802.11g CH2462MHz



802.11n20 CH2412MHz



802.11n20 CH2437MHz



802.11n20 CH2462MHz



7 EMISSION LIMITATIONS MEASUREMENT

7.1 Test Equipment

The following test equipment was used during the emission limitations test :

| Item | Type | Manufacturer | Model No. | Serial No. | Cal. Date | Cal. Interval |
|------|-------------------|---------------|--------------------|--------------------|------------|---------------|
| 1. | Spectrum Analyzer | Agilent | N9010A | MY52221182 | 2020.09.16 | 1 Year |
| 2. | Coaxial Cable | WOKEN | SFL402-10 5FLEX | F02-150819-0 45 | 2020.03.08 | 1 Year |
| 3. | 20 dB Attenuator | Mini-Circuits | VAT-20+ | 001 | 2020.08.06 | 1 Year |

7.2 Block Diagram of Test Setup

The Same as Section. 5.2.

7.3 Specification Limits (§15.247(d))

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)). (This test result attaching to Section. 3.7)

7.4 Operating Condition of EUT

The switch ON/OFF was used to enable the EUT to change the channel one by one.

7.5 Test Procedure

The transmitter output was connected to the spectrum analyzer.

Establish a reference level by using the following procedure:

- a) Set instrument center frequency to DTS channel center frequency.
- b) Set the span to ≥ 1.5 times the DTS bandwidth.
- c) Set the RBW = 100 kHz.
- d) Set the VBW $\geq [3 \times \text{RBW}]$.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum PSD level.

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

Establish an emission level by using the following procedure:

- a) Set the center frequency and span to encompass frequency range to be measured.
- b) Set the RBW = 100 kHz.
- c) Set the VBW $\geq [3 \times \text{RBW}]$.
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

Scan up through 10th harmonic.

The test procedure is defined in ANSI C63.10-2013 (11.11.2 Reference level measurement and 11.11.3 Emission level measurement was used).

7.6 Test Results

PASSED.

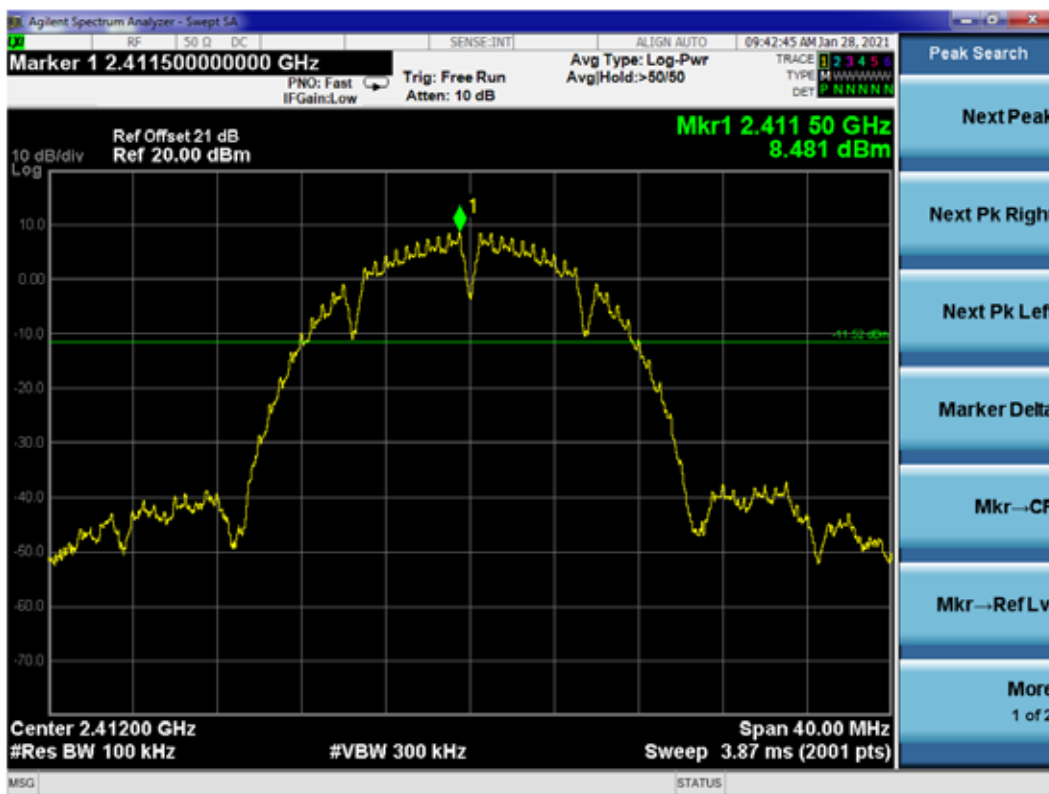
The test data was attached in the next pages.

(Test Date: 2021.01.28 Temperature: 23 Humidity: 51 %)

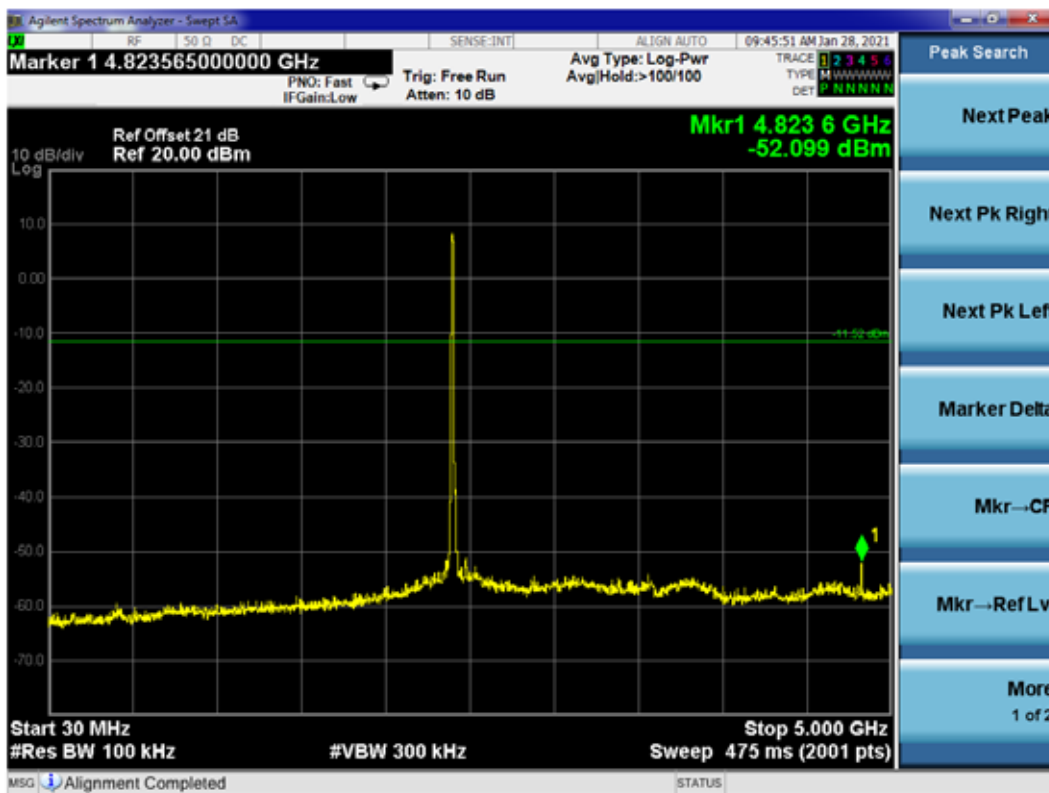
| Modulation | Channel | Frequency (MHz) | Data Page |
|------------|---------|-----------------|-----------|
| 802.11b | 1 | 2412 MHz | P46-47 |
| | 6 | 2437 MHz | P48-49 |
| | 11 | 2462 MHz | P50-51 |
| 802.11g | 1 | 2412 MHz | P52-53 |
| | 6 | 2437 MHz | P54-55 |
| | 11 | 2462 MHz | P56-57 |
| 802.11n20 | 1 | 2412 MHz | P58-59 |
| | 6 | 2437 MHz | P60-61 |
| | 11 | 2462 MHz | P62-63 |

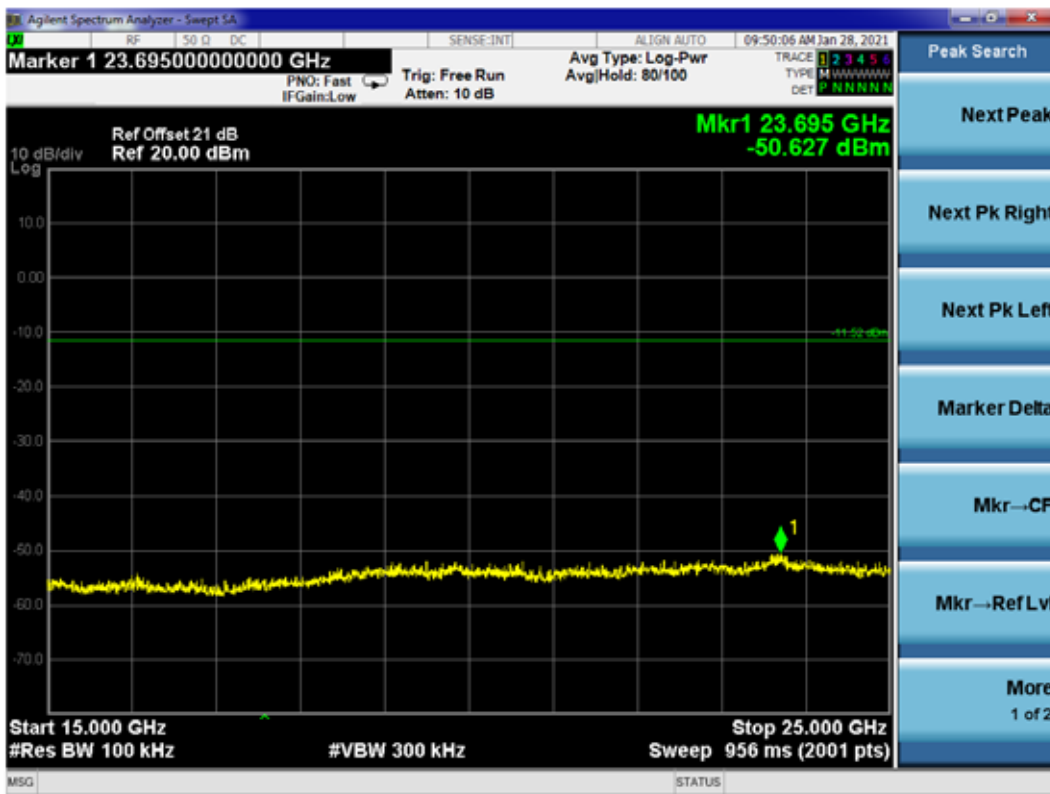
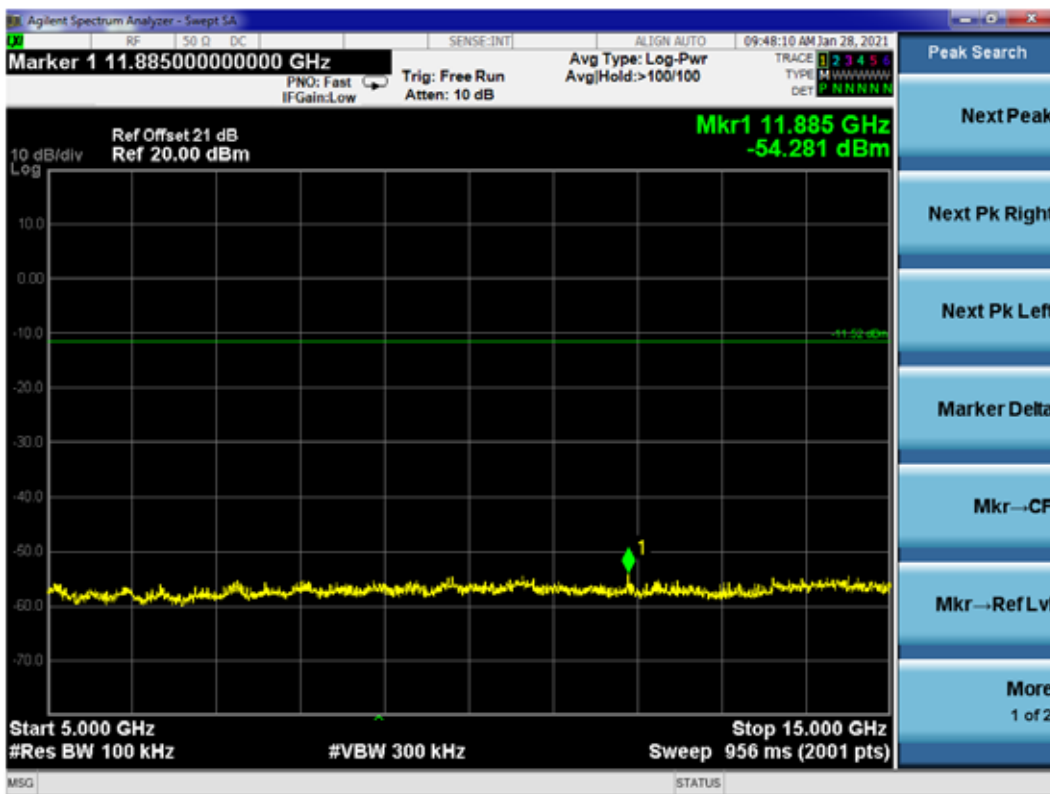
802.11b CH2412MHz

Reference level



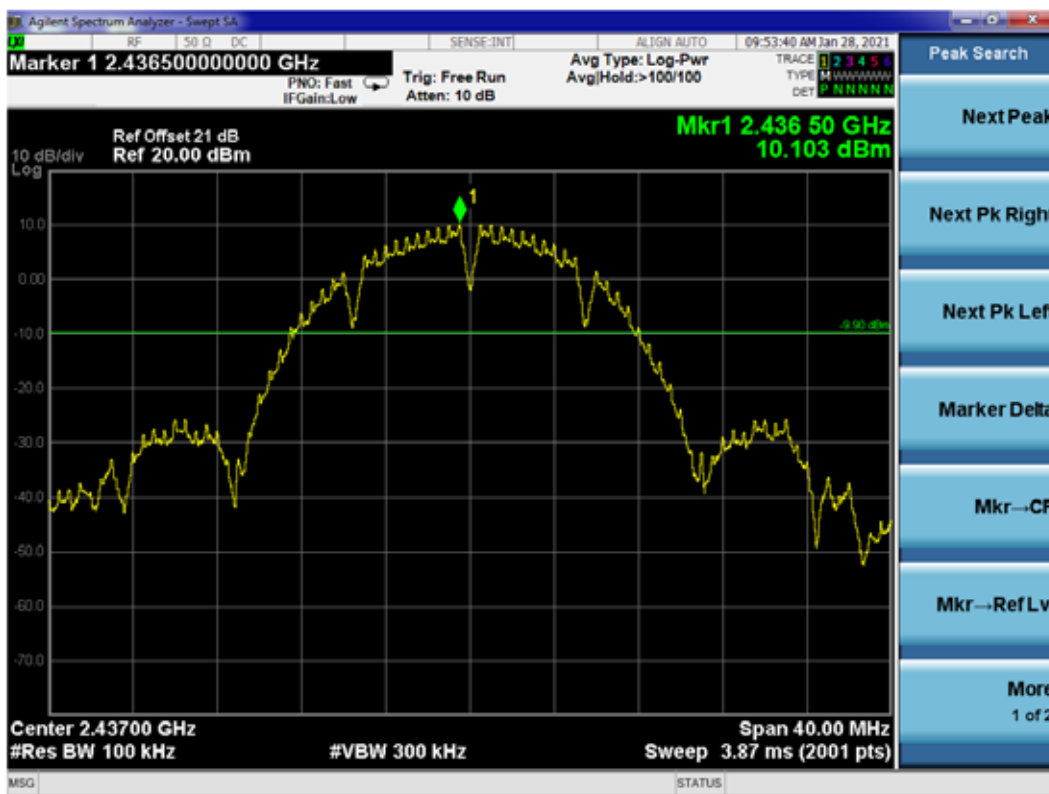
Emission level



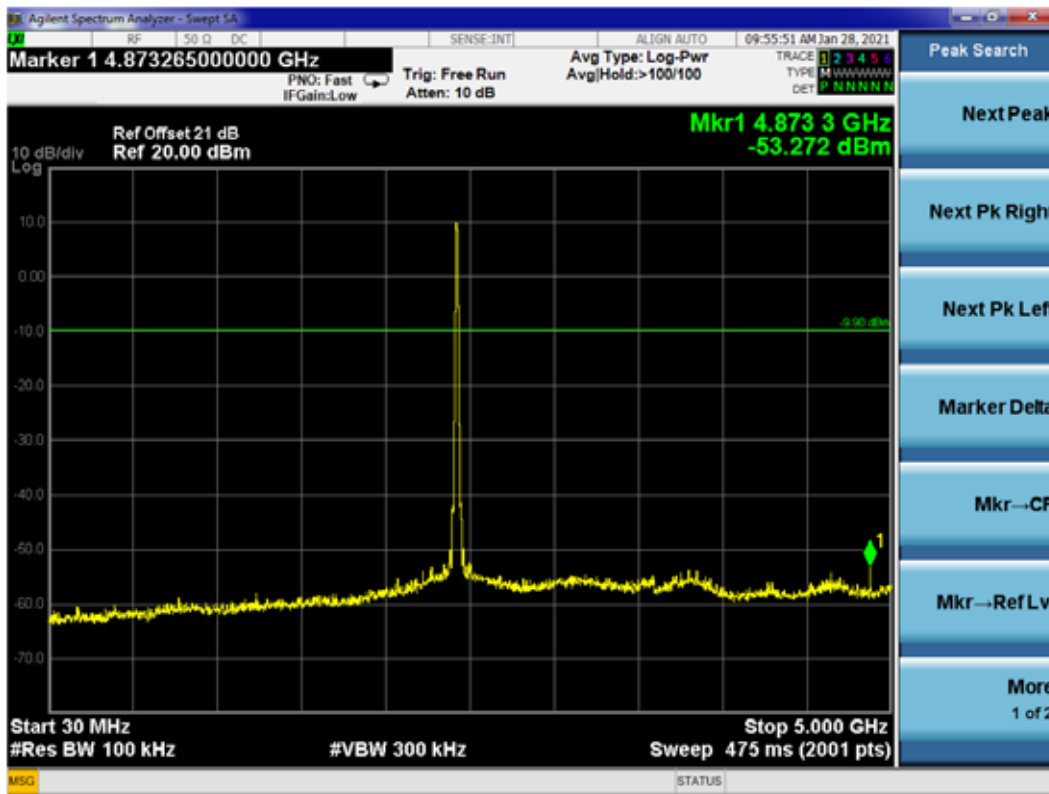


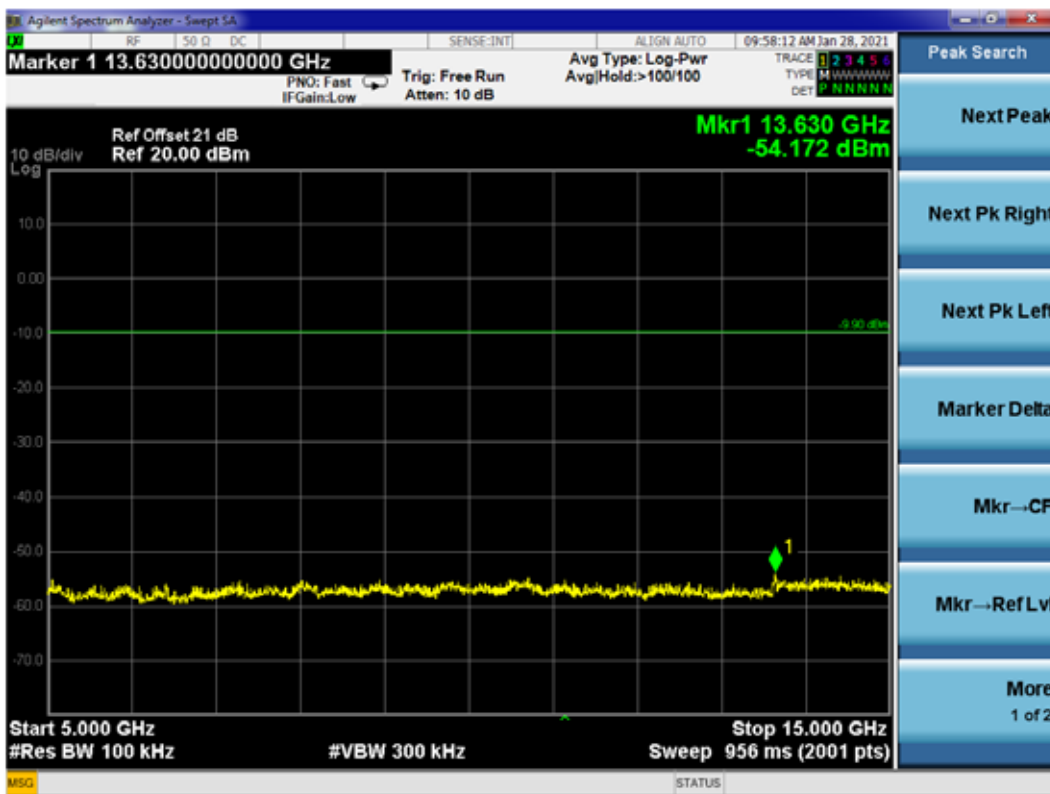
802.11b CH2437MHz

Reference level



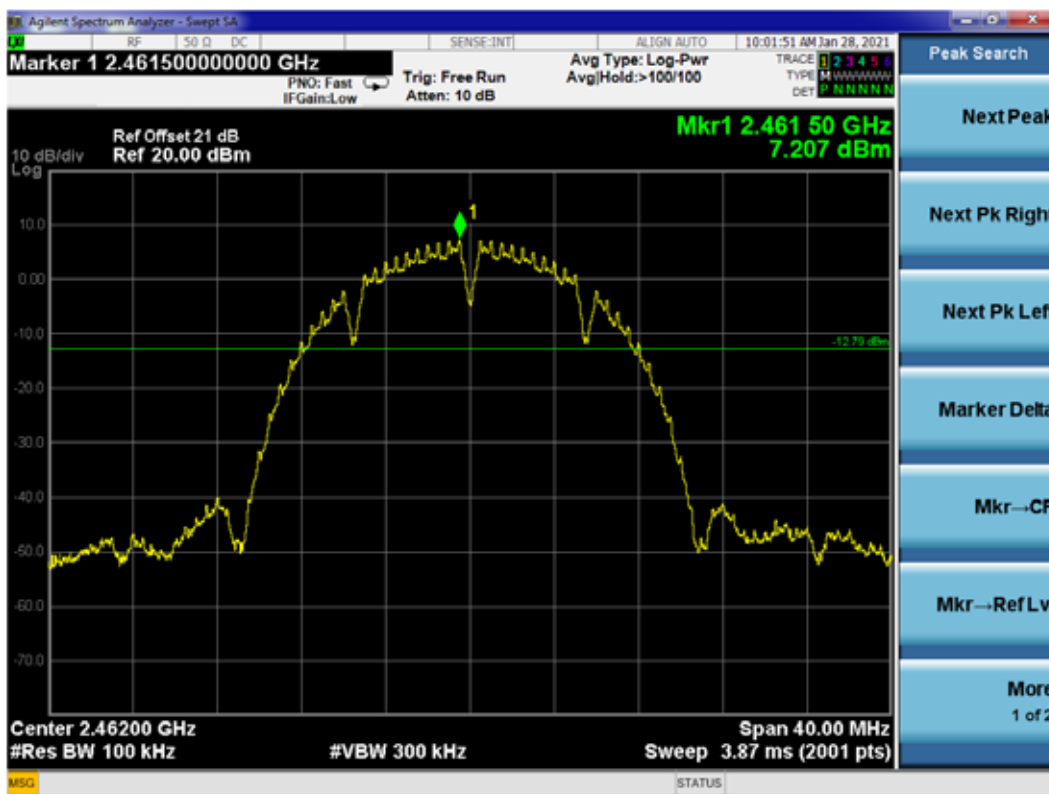
Emission level



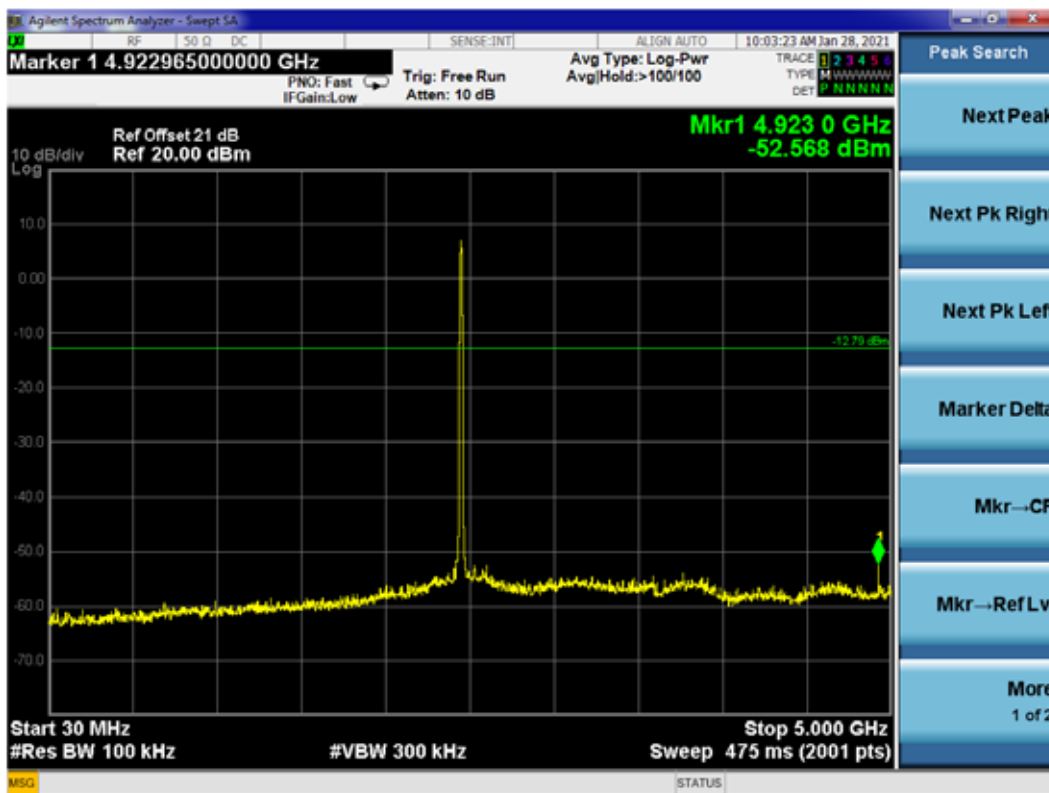


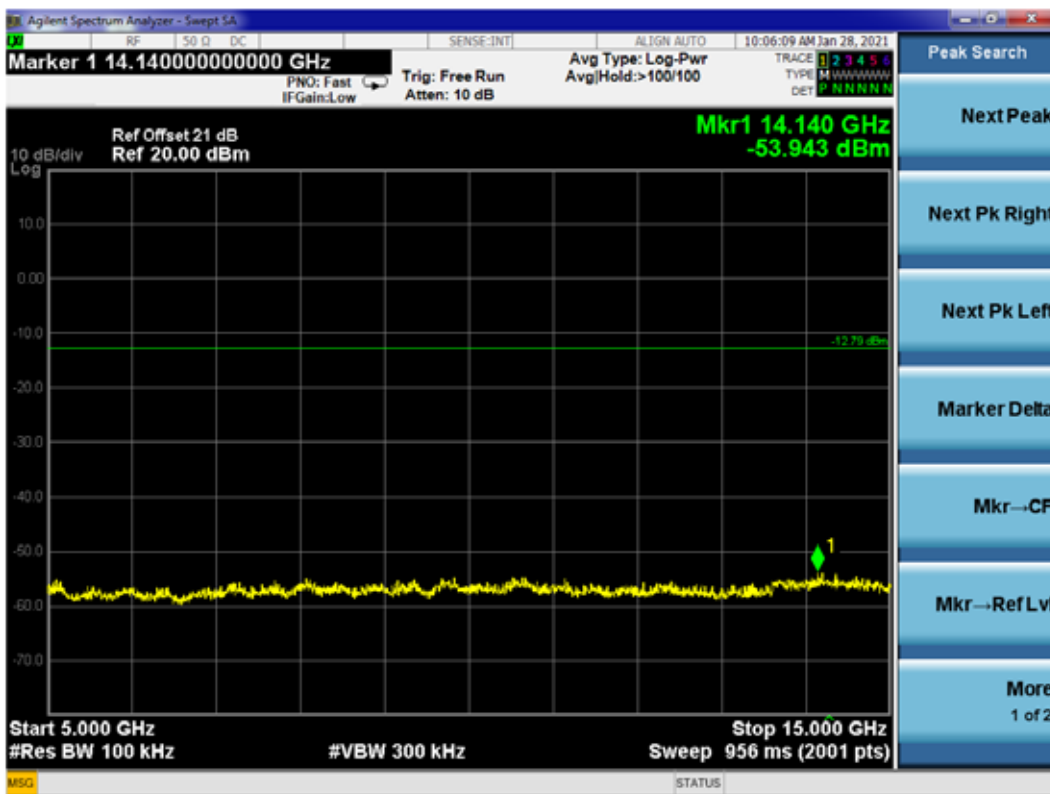
802.11b CH2462MHz

Reference level



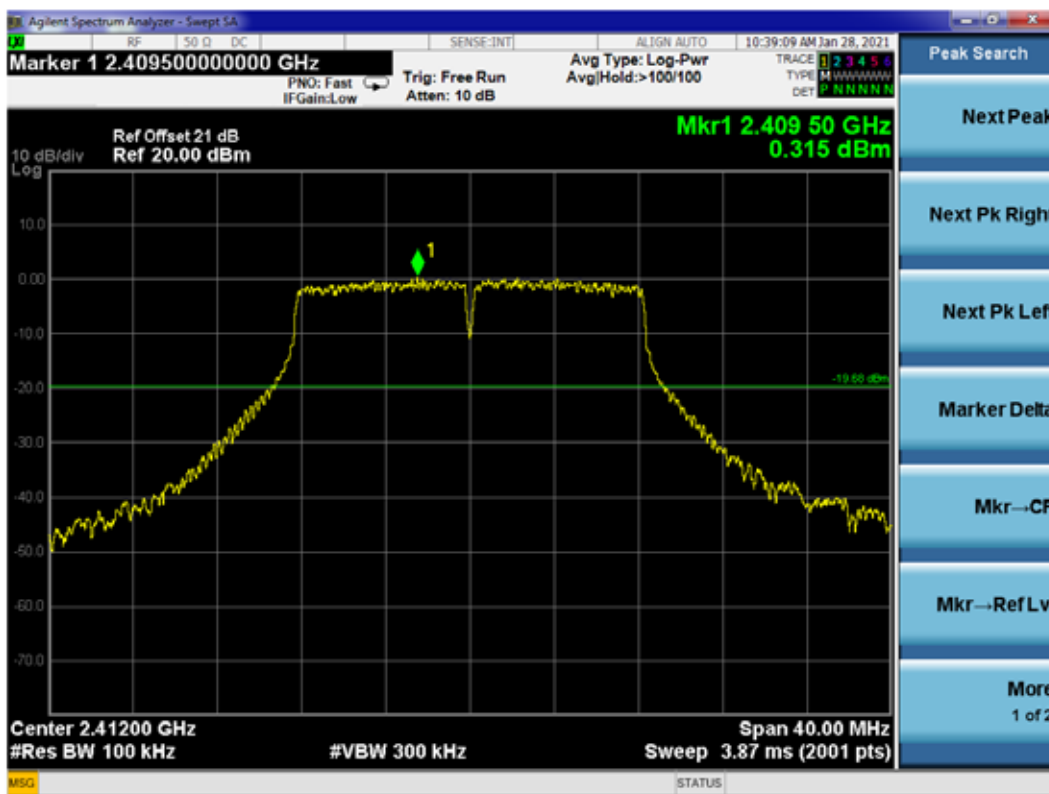
Emission level



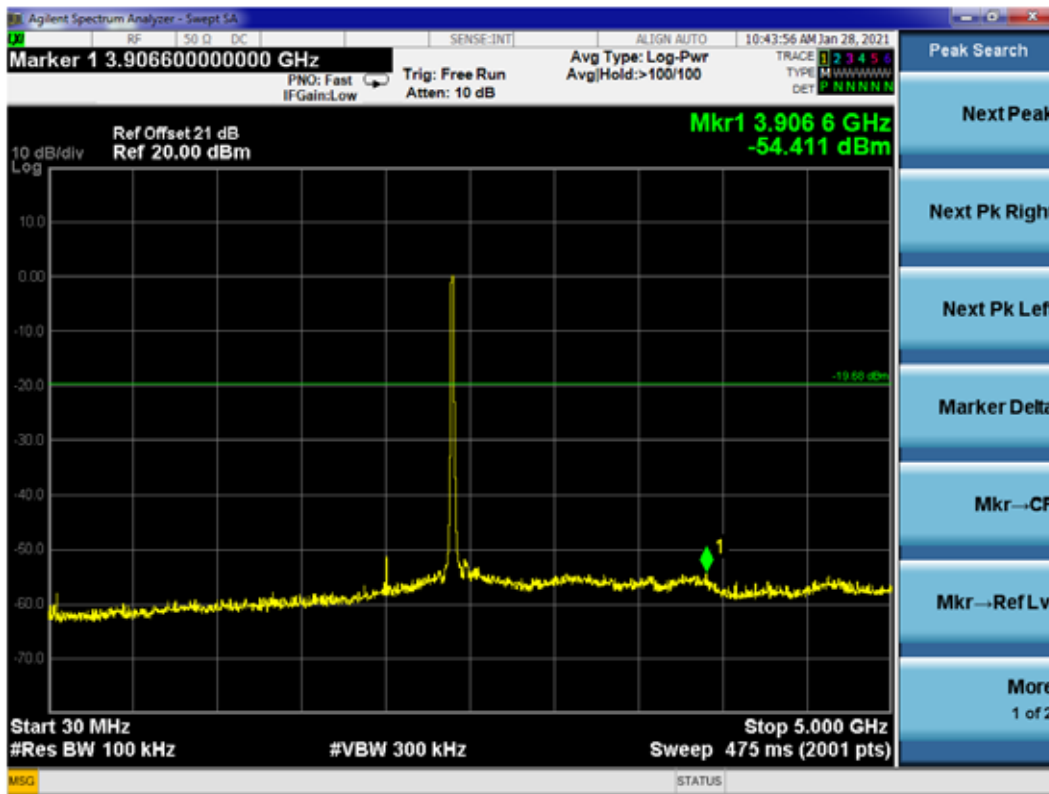


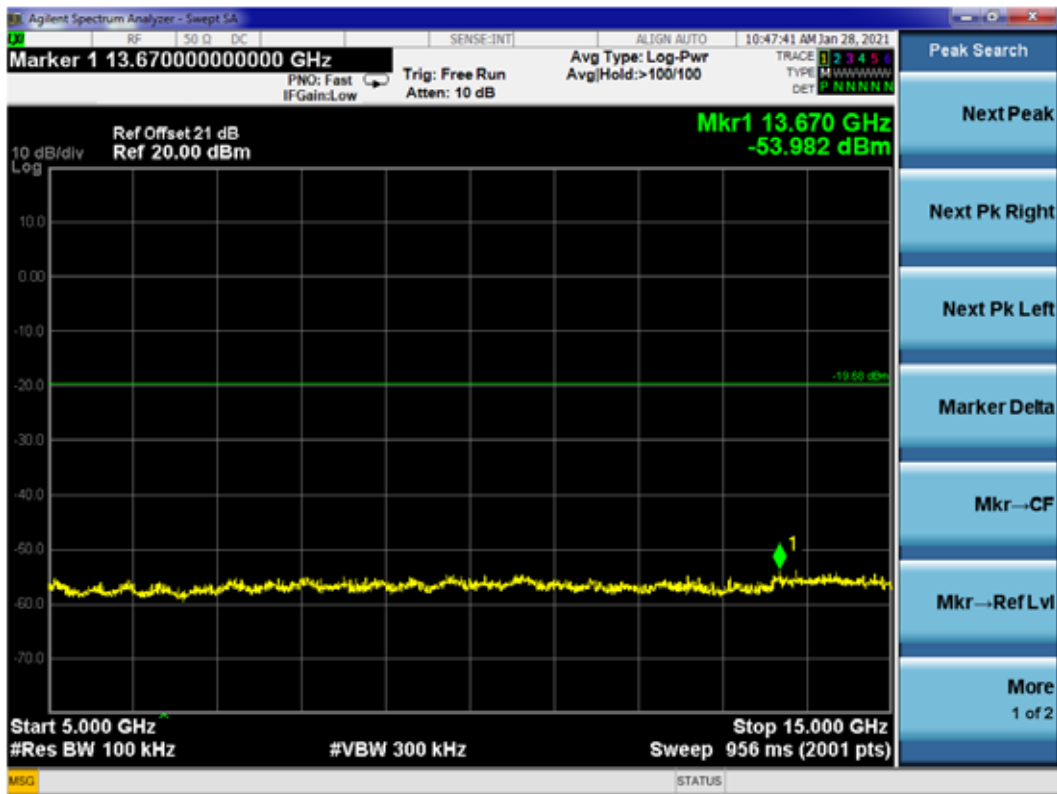
802.11g CH2412MHz

Reference level



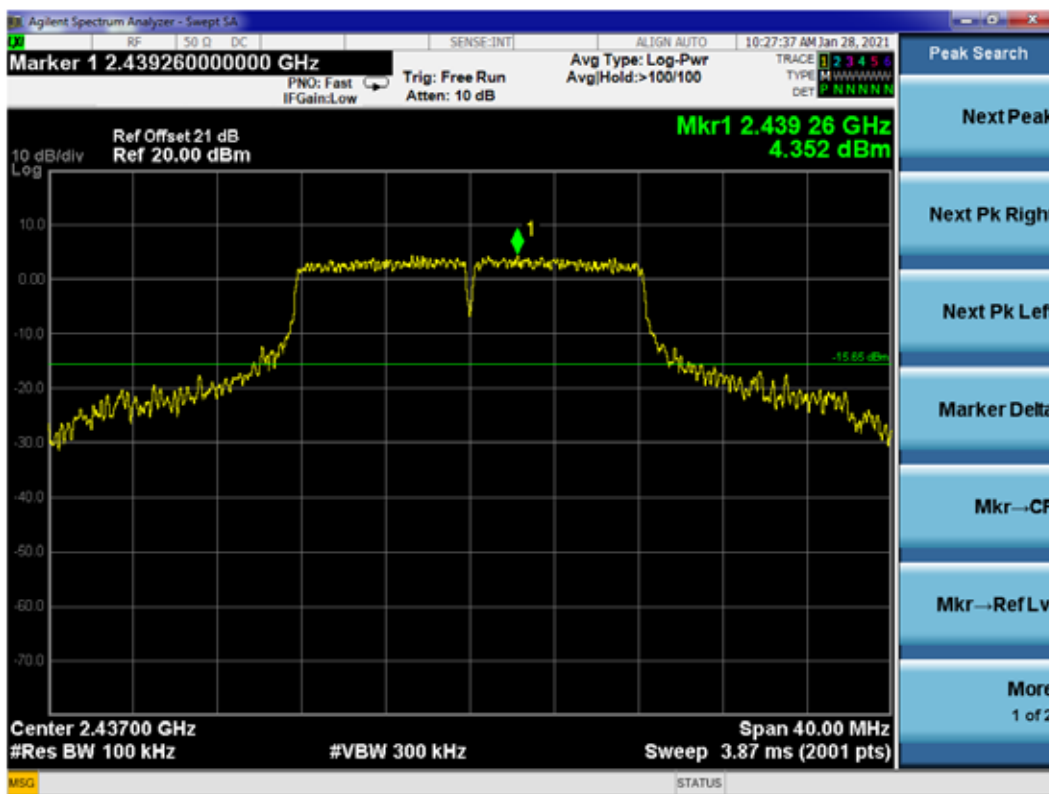
Emission level



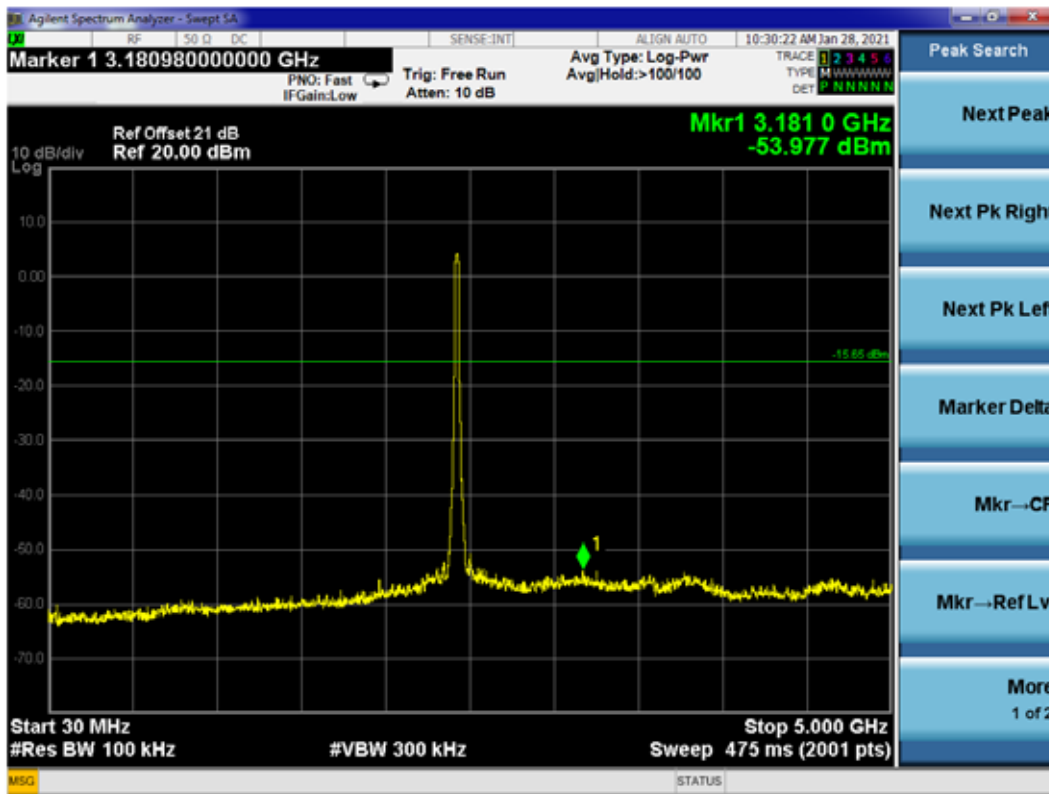


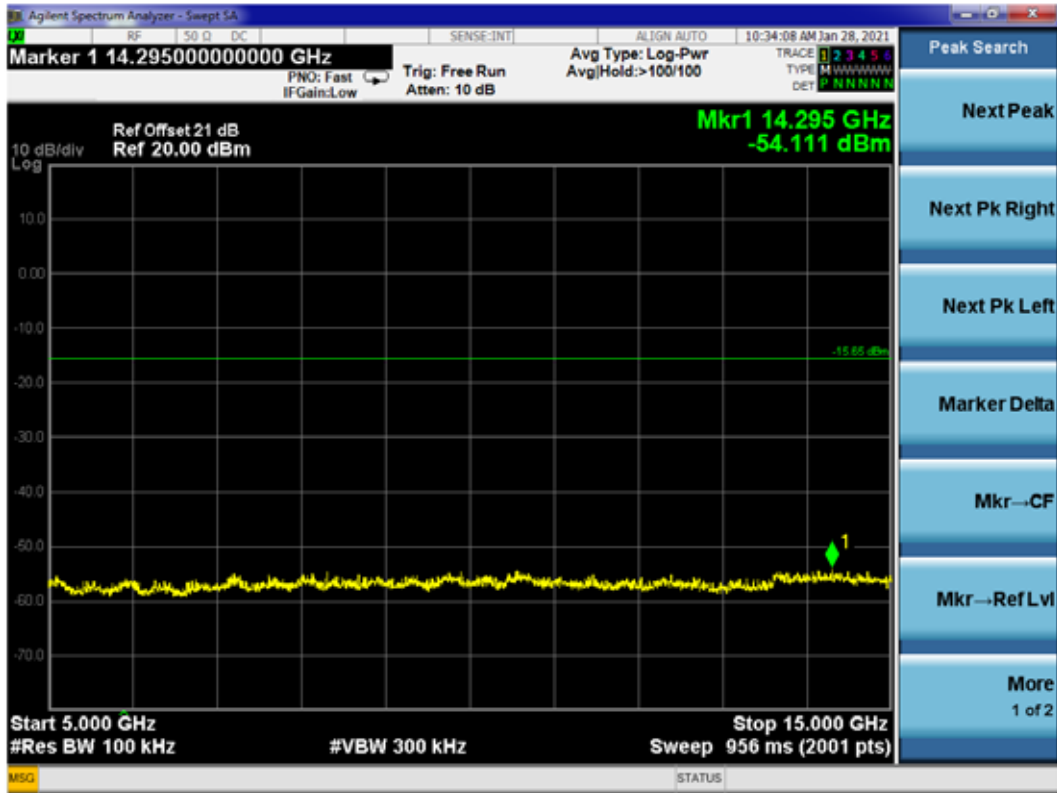
802.11g CH2437MHz

Reference level



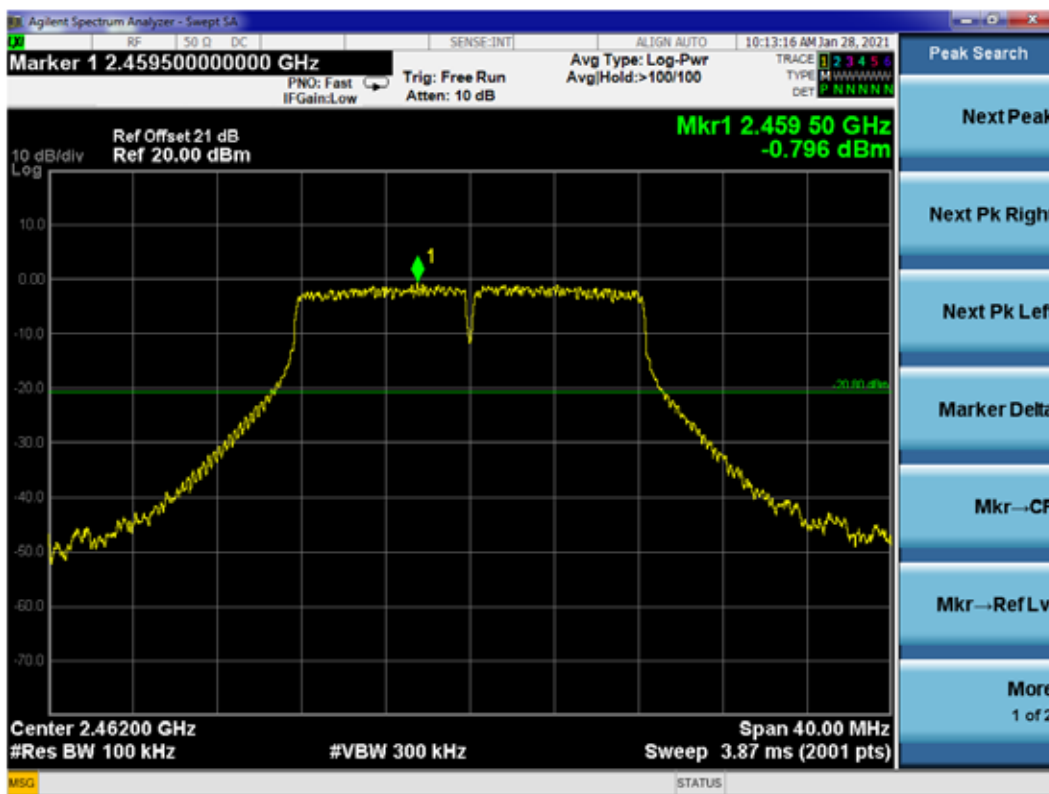
Emission level



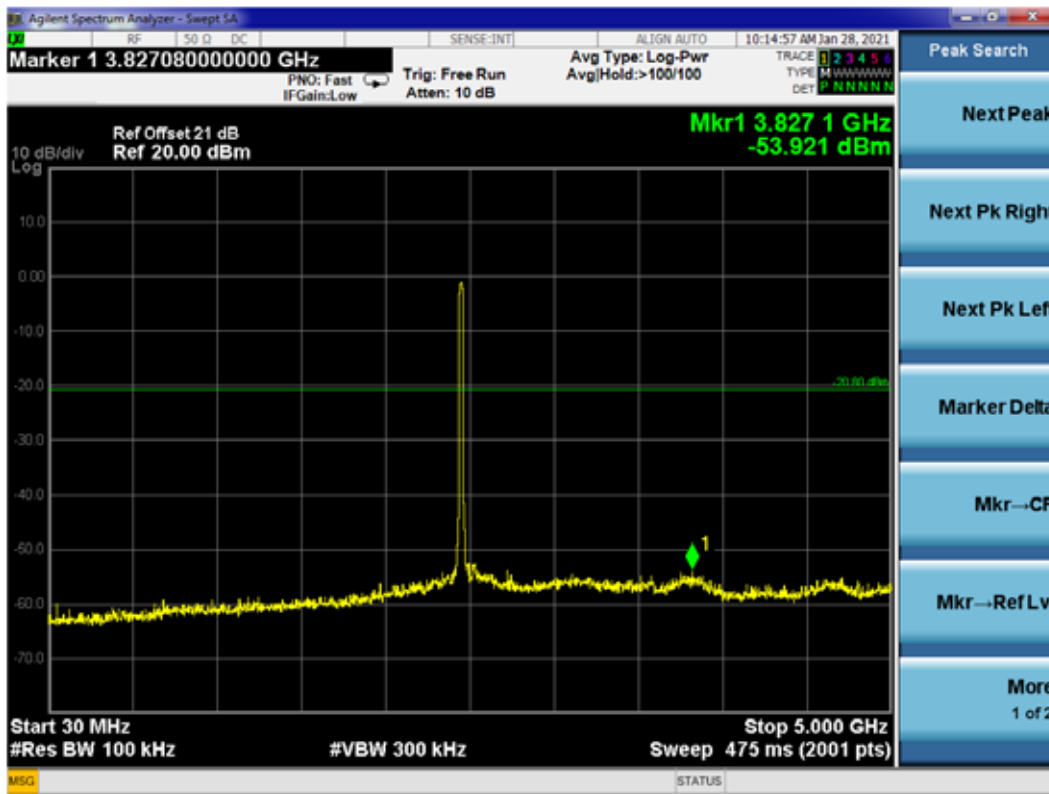


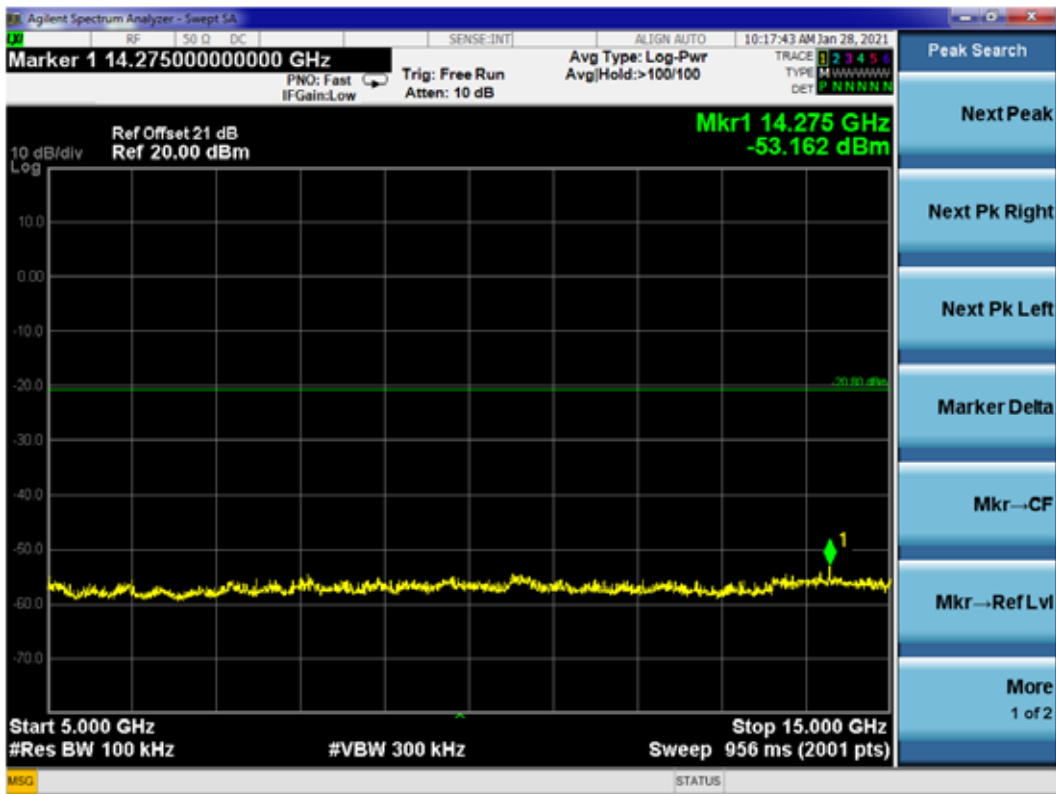
802.11g CH2462MHz

Reference level



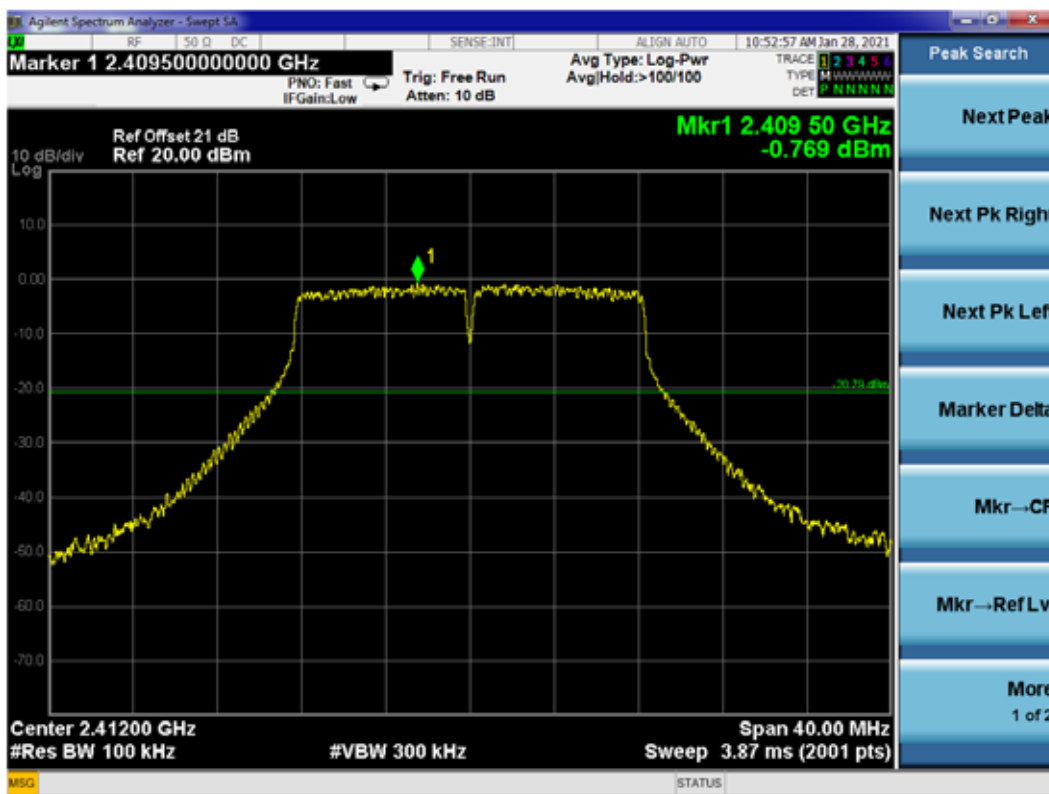
Emission level



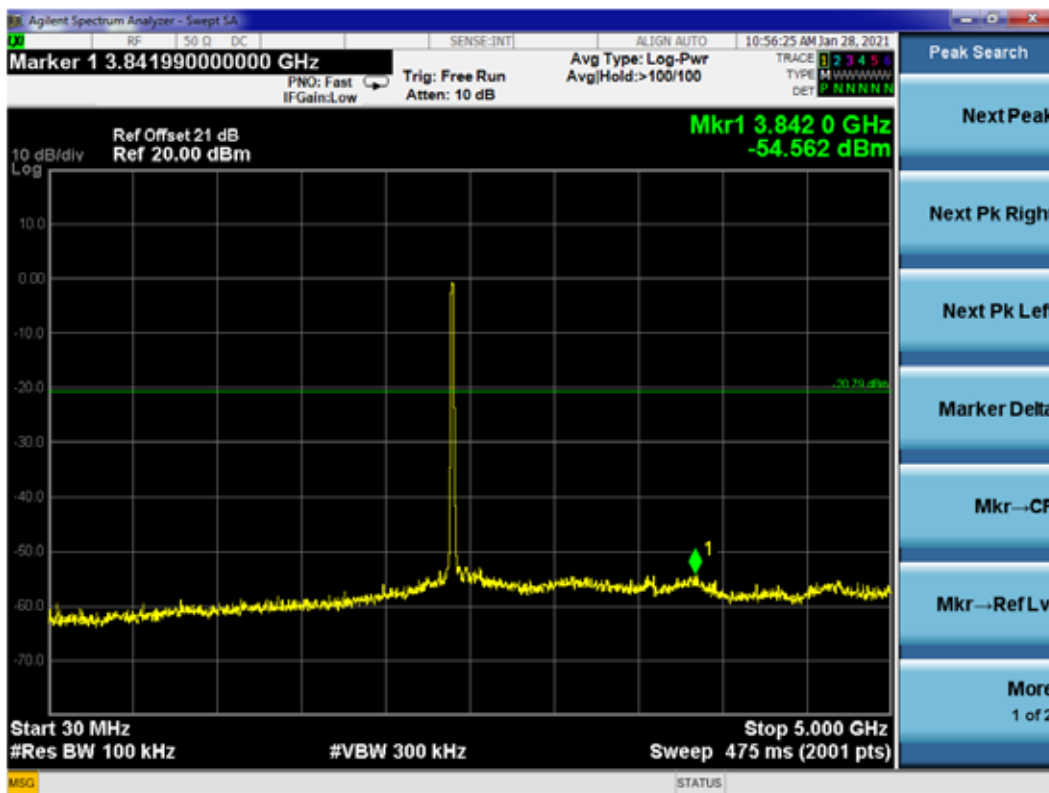


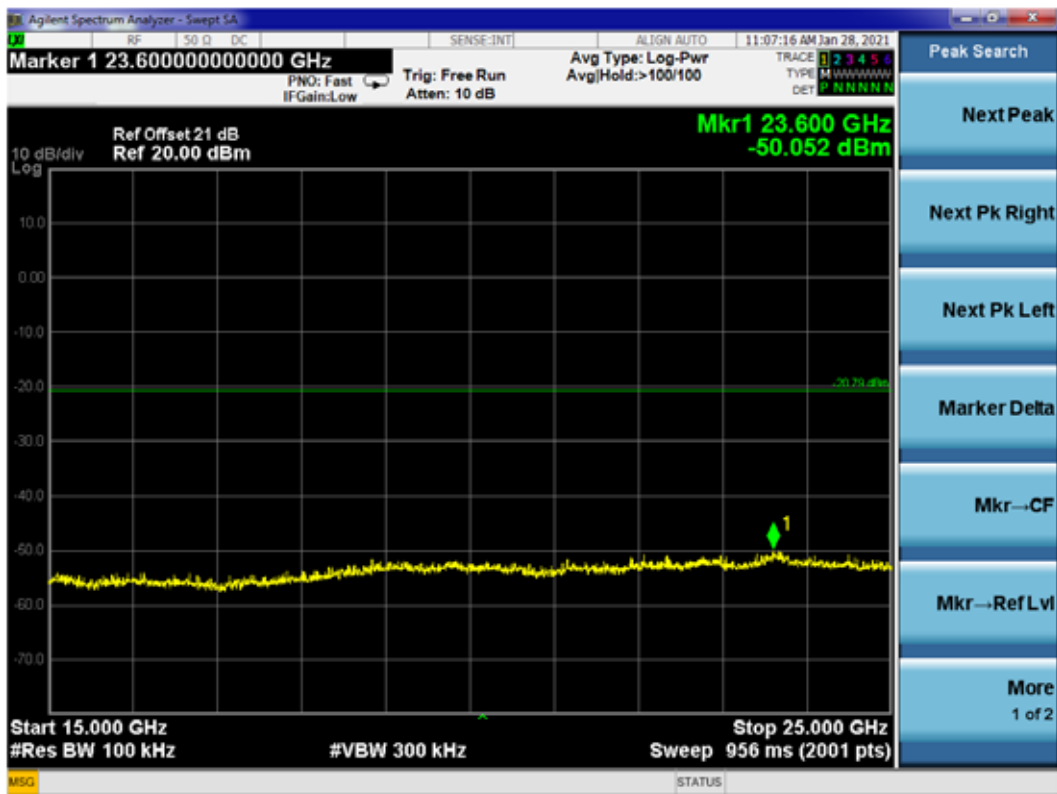
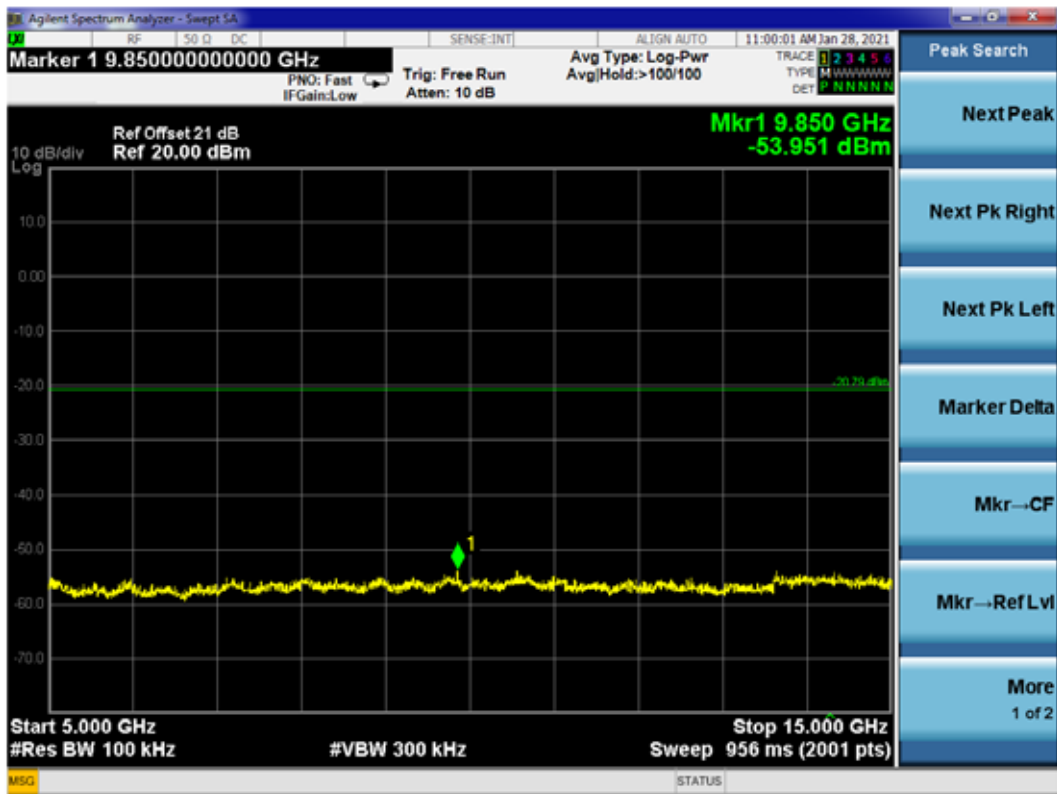
802.11n20 CH2412MHz

Reference level



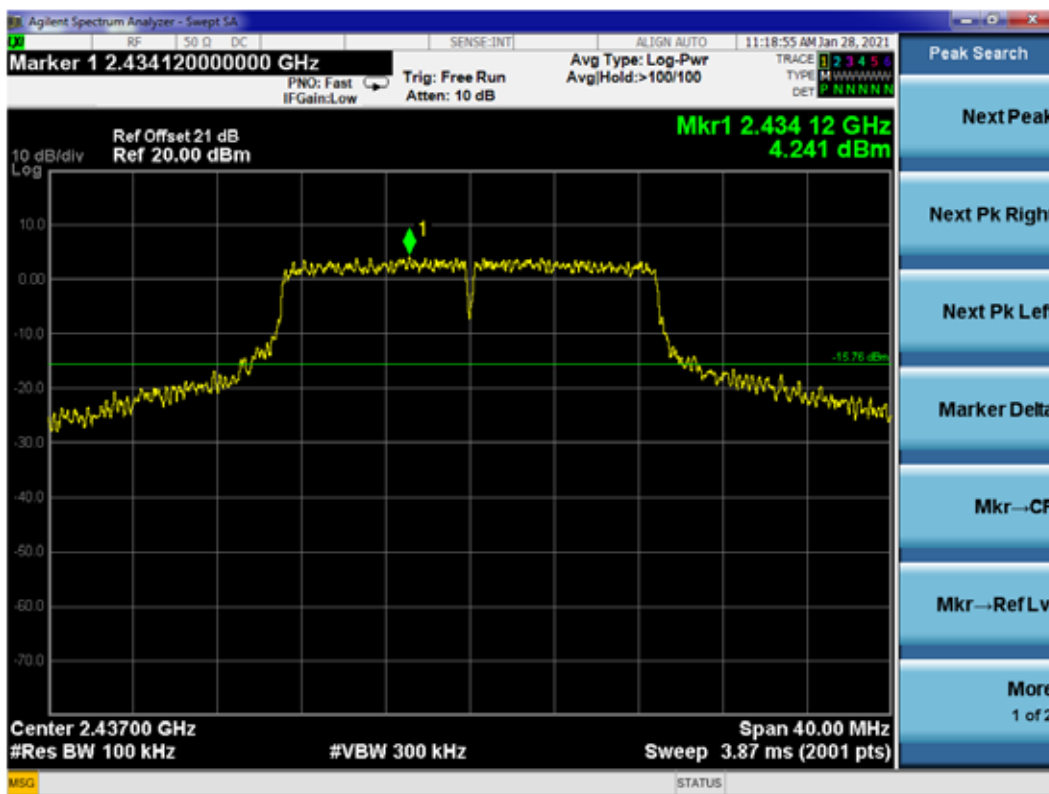
Emission level



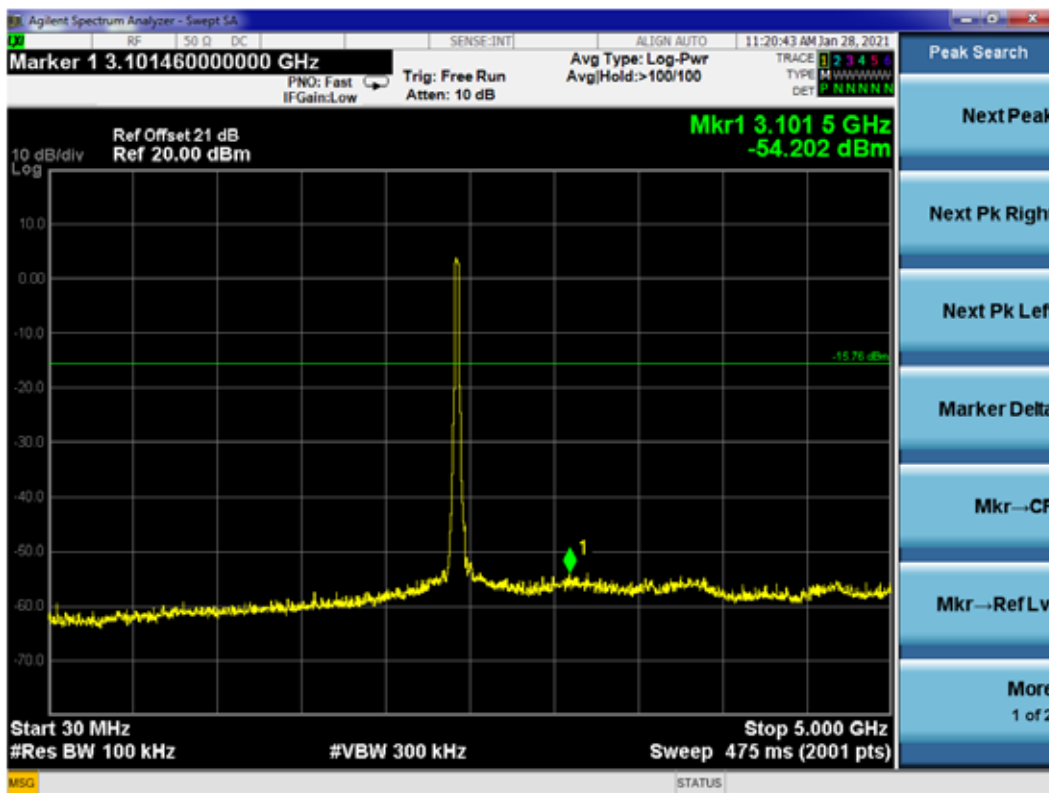


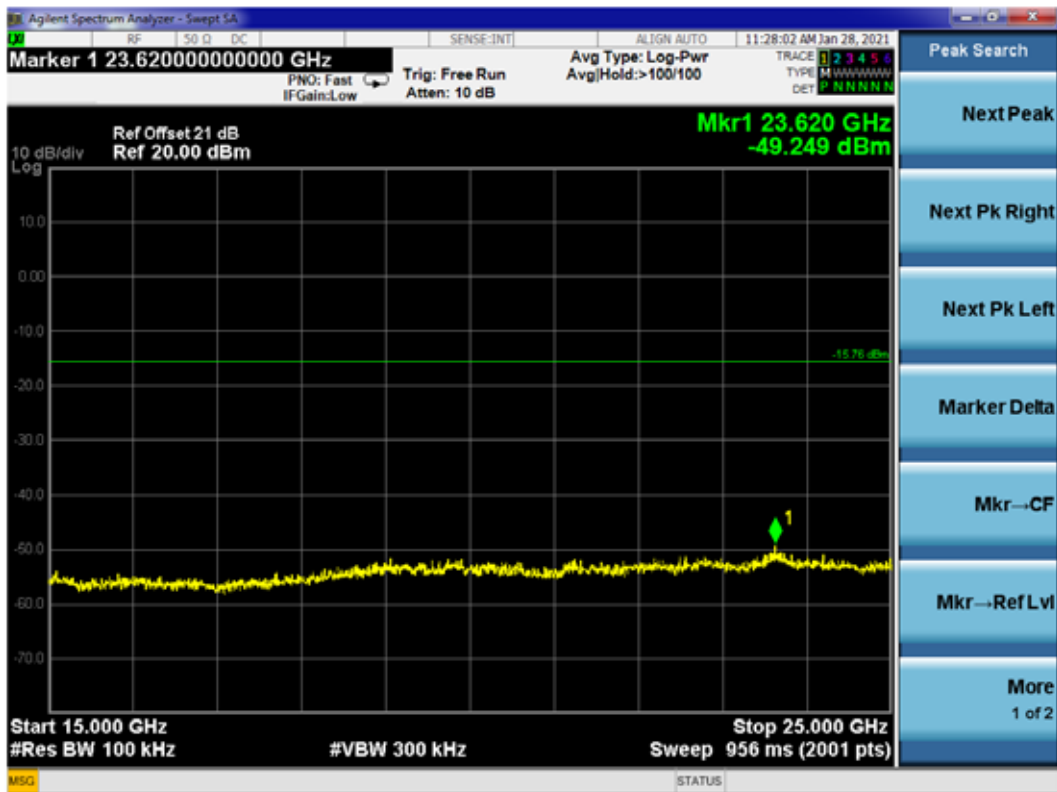
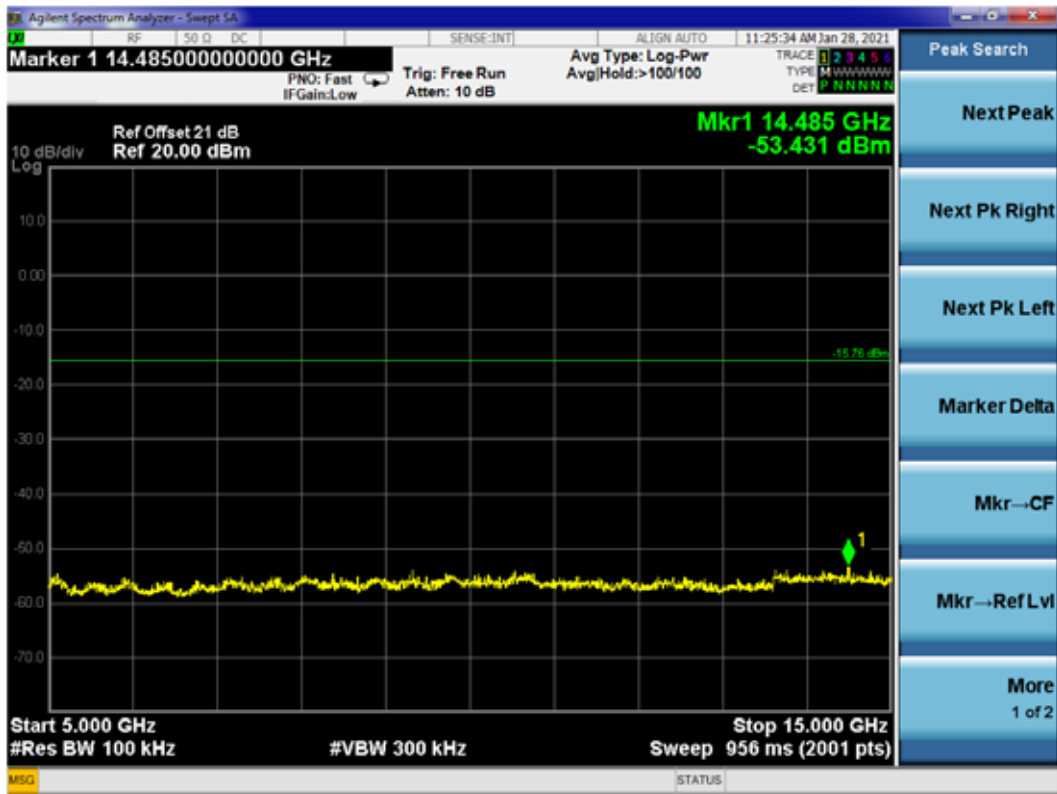
802.11n20 CH2437MHz

Reference level



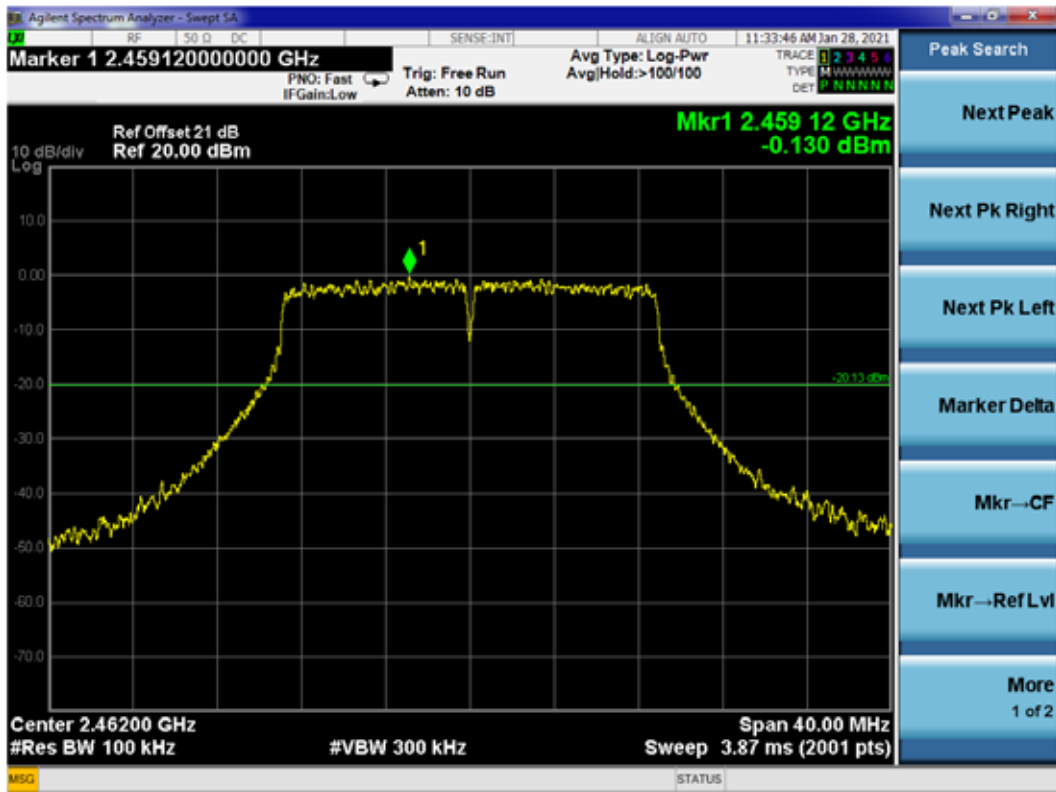
Emission level



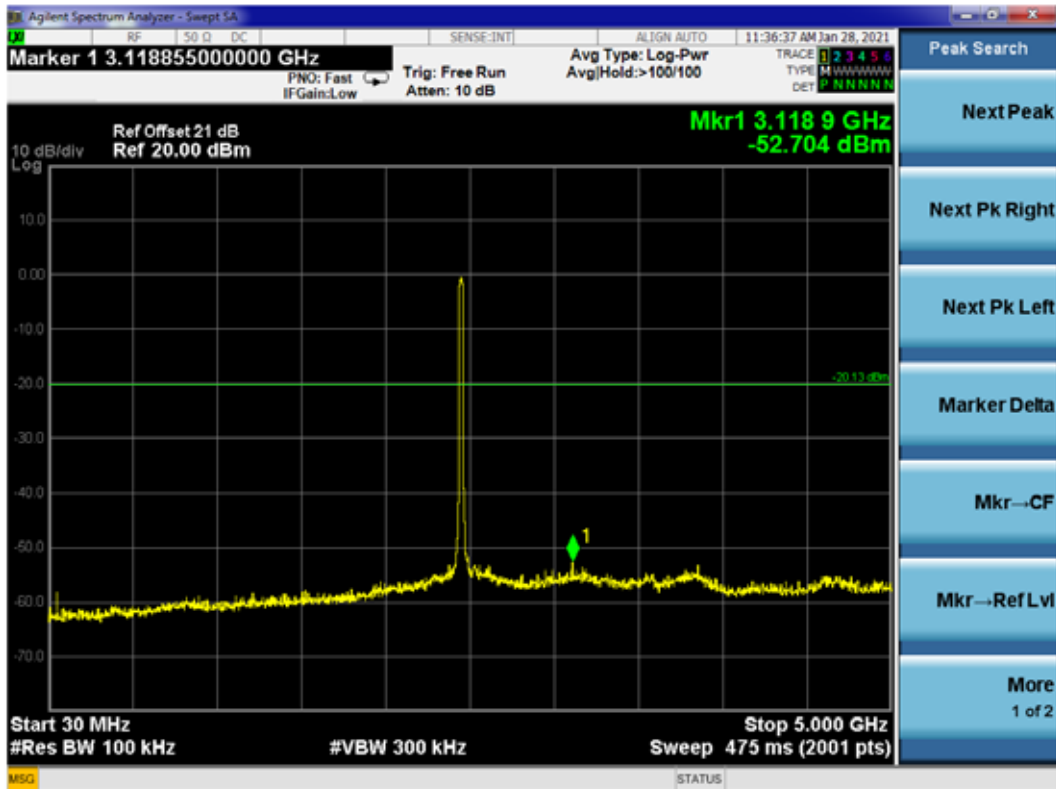


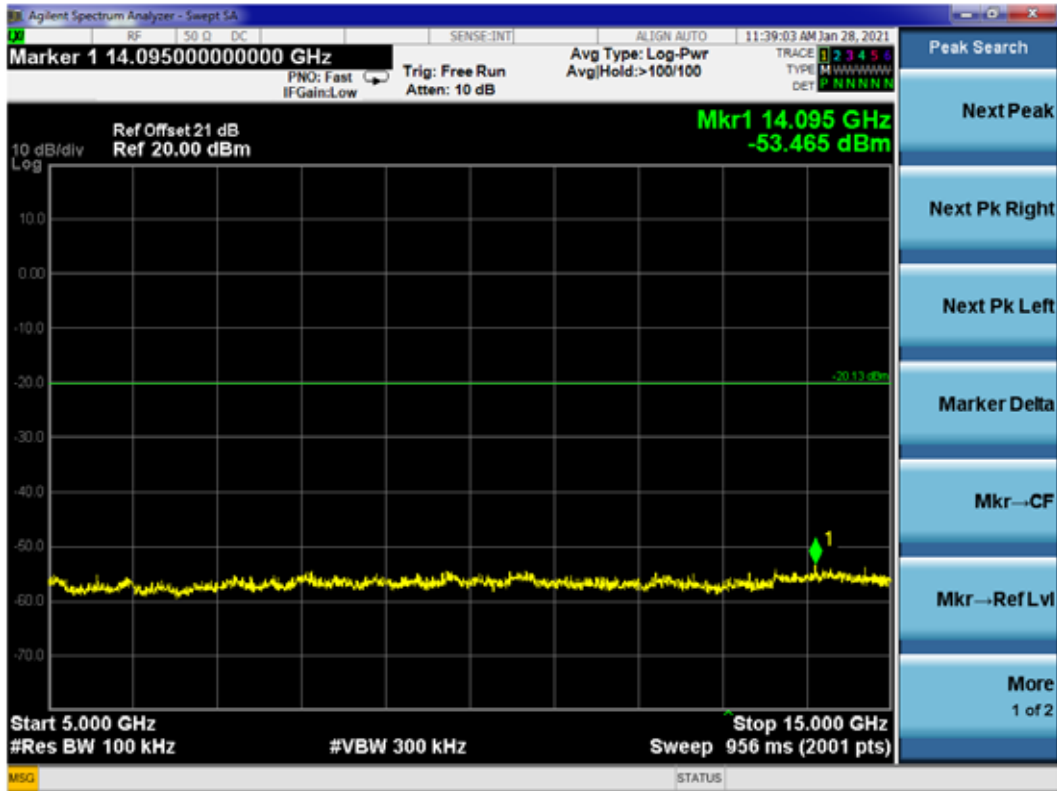
802.11n20 CH2462MHz

Reference level



Emission level





8 BAND EDGES MEASUREMENT

8.1 Test Equipment

The following test equipment was used during the band edges measurement:

| Item | Type | Manufacturer | Model No. | Serial No. | Cal. Date | Cal. Interval |
|------|-------------------|---------------|--------------------|--------------------|------------|---------------|
| 1. | Spectrum Analyzer | Agilent | N9010A | MY52221182 | 2020.09.16 | 1 Year |
| 2. | Coaxial Cable | WOKEN | SFL402-10 5FLEX | F02-150819-0 45 | 2020.03.08 | 1 Year |
| 3. | 20 dB Attenuator | Mini-Circuits | VAT-20+ | 001 | 2020.08.06 | 1 Year |

8.2 Block Diagram of Test Setup

The Same as section. 5.2.

8.3 Specification Limits (§15.247(d))

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

8.4 Operating Condition of EUT

The switch ON/OFF was used to enable the EUT to change the channel one by one.

8.5 Test Procedure

The transmitter output was connected to the spectrum analyzer. Set RBW of Test Receiver to 100kHz and VBW to 300kHz with suitable frequency span including 100kHz bandwidth from band edge.

The test procedure is defined in ANSI C63.10-2013 (11.11.3 Emission level measurement was used).

8.6 Test Results

PASSED.

All the test results are attached in next pages.

(Test Date: 2021.01.27 Temperature: 23 Humidity: 51 %)

| Modulation | Location | Channel | Frequency (MHz) | Delta Marker (dB) | Result |
|------------|-----------------|---------|-----------------|-------------------|---|
| 802.11b | Below Band Edge | 1 | 2412 | 58.995 | More than 20 dB below the highest level of the desired power |
| | Upper Band Edge | 11 | 2462 | 57.827 | |
| 802.11g | Below Band Edge | 1 | 2412 | 48.494 | More than 20 dB below the highest level of the desired power |
| | Upper Band Edge | 11 | 2462 | 47.476 | |
| 802.11n20 | Below Band Edge | 1 | 2412 | 50.873 | More than 20 dB below the highest level of the desired power |
| | Upper Band Edge | 11 | 2462 | 46.324 | |

802.11b CH2412MHz (Below Edge 2390 MHz)



802.11b CH2462MHz (Upper Edge 2483.5 MHz)



802.11g CH2412MHz (Below Edge 2390 MHz)



802.11g CH2462MHz (Upper Edge 2483.5 MHz)



802.11n20 CH2412MHz (Below Edge 2390 MHz)



802.11n20 CH2462MHz (Upper Edge 2483.5 MHz)



9 POWER SPECTRAL DENSITY MEASUREMENT

9.1 Test Equipment

The following test equipment was used during the power spectral density measurement:

| Item | Type | Manufacturer | Model No. | Serial No. | Cal. Date | Cal. Interval |
|------|-------------------|---------------|--------------------|--------------------|------------|---------------|
| 1. | Spectrum Analyzer | Agilent | N9010A | MY52221182 | 2020.09.16 | 1 Year |
| 2. | Coaxial Cable | WOKEN | SFL402-10 5FLEX | F02-150819-0 45 | 2020.03.08 | 1 Year |
| 3. | 20 dB Attenuator | Mini-Circuits | VAT-20+ | 001 | 2020.08.06 | 1 Year |

9.2 Block Diagram of Test Setup

The Same as section 5.2.

9.3 Specification Limits (§15.247(e))

The peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band.

9.4 Operating Condition of EUT

The switch ON/OFF was used to enable the EUT to change the channel one by one.

9.5 Test Procedure

The transmitter output was connected to the spectrum analyzer.

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5 times the DTS bandwidth.
- c) Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW $\geq [3 \times \text{RBW}]$.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.

The test procedure is defined in ANSI C63.10-2013 (11.10.2 Measurement Procedure “Method PKPSD (peak PSD)” was used).

9.6 Test Results

PASSED.

All the test results are attached in next pages.

(Test Date: 2021.01.27 Temperature: 23 Humidity: 51 %)

| Modulation | Channel | Frequency (MHz) | Power Spectral Density (dBm) | Limit |
|------------|---------|-----------------|------------------------------|-------|
| 802.11b | 1 | 2412 | -12.041 | 8 dBm |
| | 6 | 2437 | -9.919 | 8 dBm |
| | 11 | 2462 | -13.073 | 8 dBm |
| 802.11g | 1 | 2412 | -14.014 | 8 dBm |
| | 6 | 2437 | -10.031 | 8 dBm |
| | 11 | 2462 | -14.89 | 8 dBm |
| 802.11n20 | 1 | 2412 | -14.774 | 8 dBm |
| | 6 | 2437 | -9.873 | 8 dBm |
| | 11 | 2462 | -14.406 | 8 dBm |

802.11b CH2412 MHz



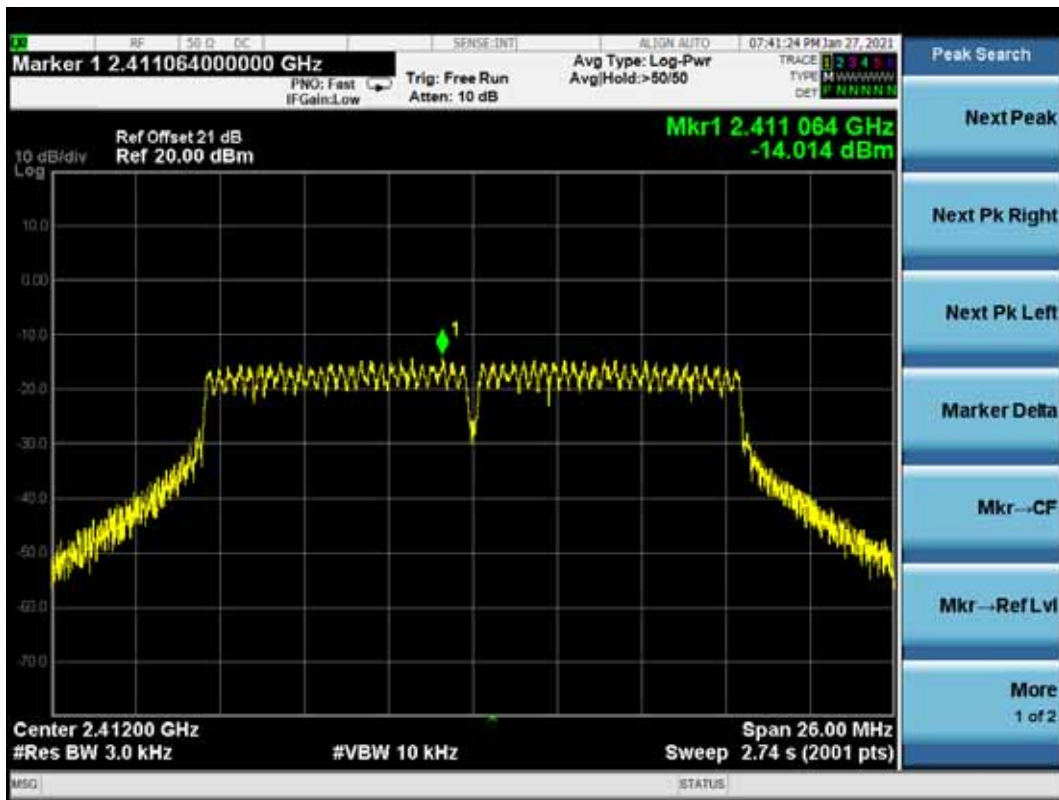
802.11b CH2437 MHz



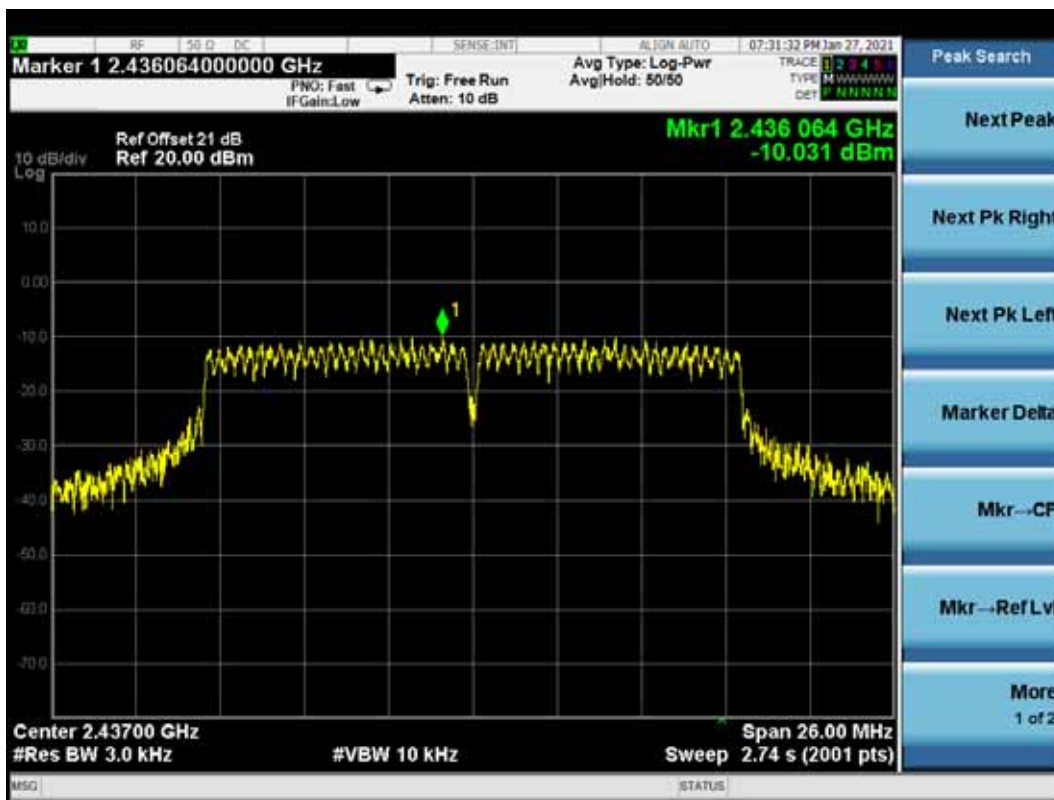
802.11b CH2462 MHz



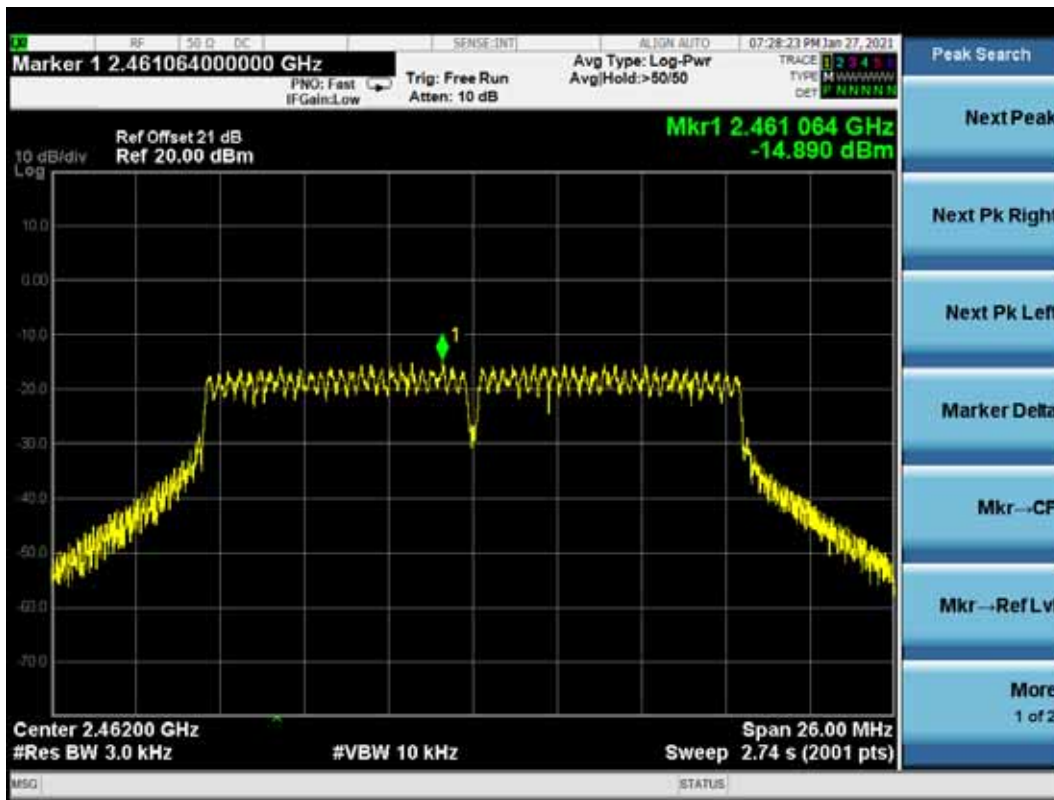
802.11g CH2412 MHz



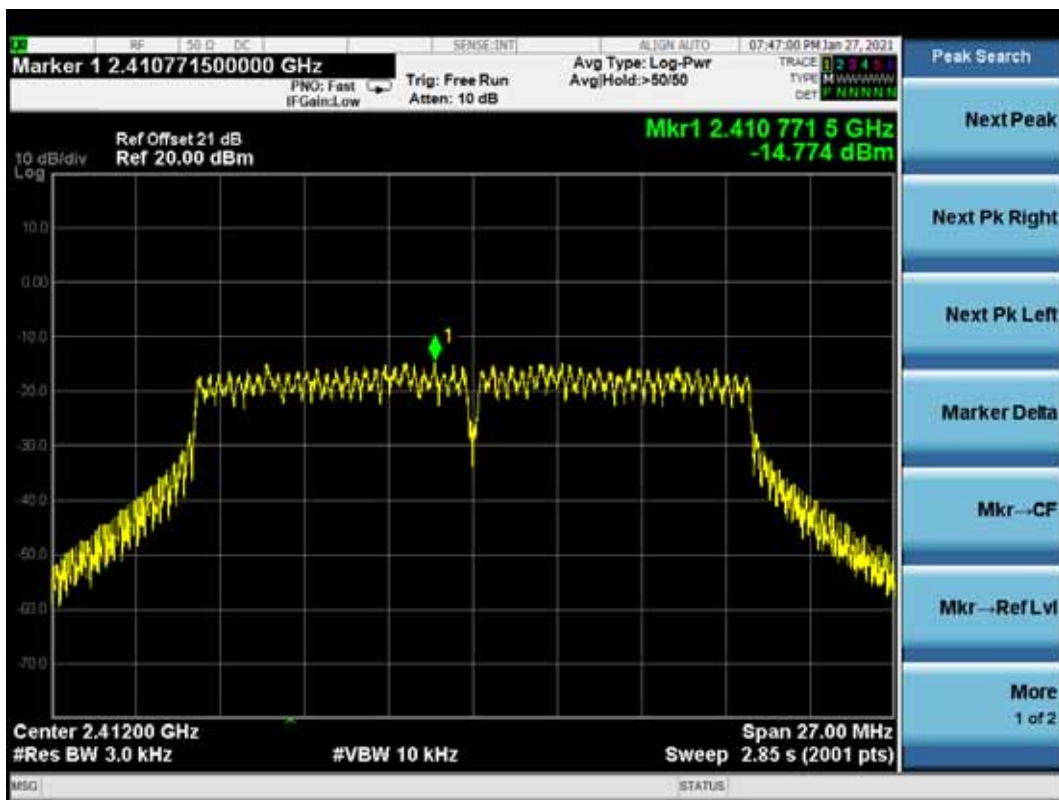
802.11g CH2437 MHz



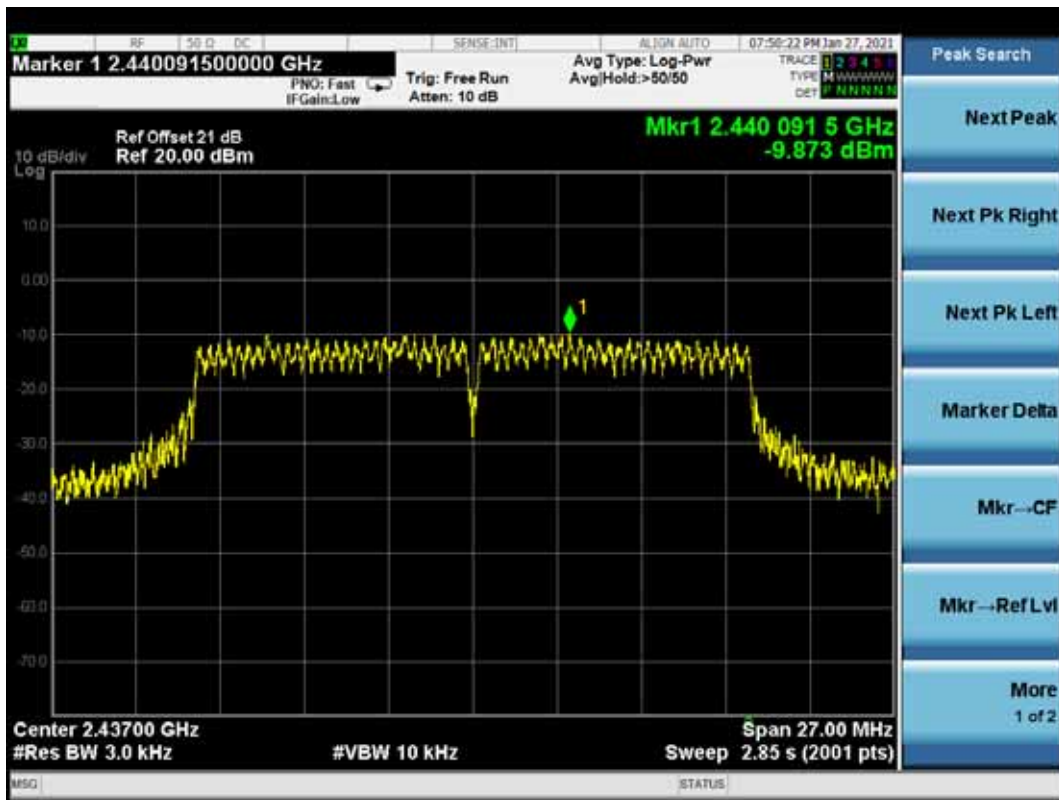
802.11g CH2462 MHz



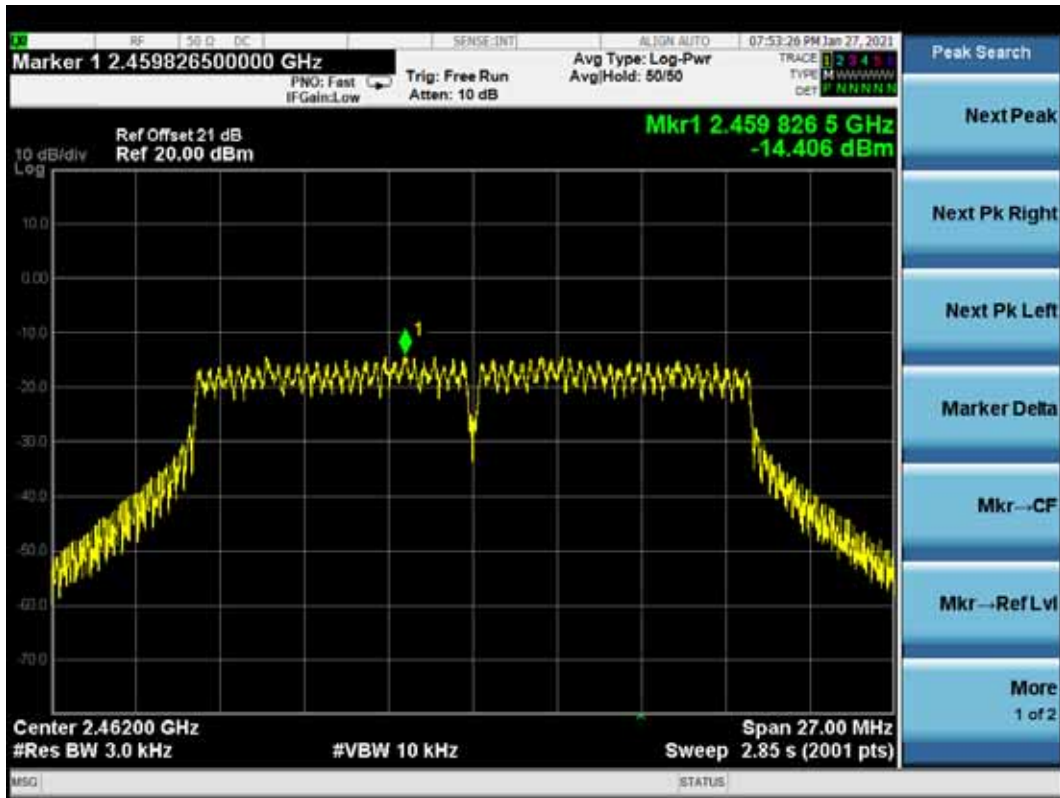
802.11n20 CH2412 MHz



802.11n20 CH2437 MHz



802.11n20 CH2462 MHz



10 DEVIATION TO TEST SPECIFICATIONS

None.

11 MEASUREMENT UNCERTAINTY LIST

The measurement uncertainty was estimated for test on the EUT according to CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage of K=2. The uncertainties value is not used in determining the PASS/FAIL results.

| Test Items/Facilities | Frequency/Equipment/Unit | Uncertainty |
|--|----------------------------|----------------------|
| Conducted Emission No.1 Shielded Room | 9kHz~150kHz | ±3.2 dB |
| | 150kHz~30MHz | ±3.1 dB |
| Conducted Emission No.3 Shielded Room | 150kHz~30MHz | ±3.1 dB |
| Radiated Emission | 30MHz~200MHz, Horizontal | ±3.4 dB |
| | 30MHz~200MHz, Vertical | ±4.0 dB |
| | 200MHz~1000MHz, Horizontal | ±3.7 dB |
| | 200MHz~1000MHz, Vertical | ±5.1 dB |
| | 1GHz~6GHz | ±5.7 dB |
| | 6GHz~18GHz | ±4.7 dB |
| Output Power Test | 50MHz~18GHz | 0.77 dB |
| Power Density Test | 9kHz~6GHz | 1.08 dB |
| RF Frequency Test | 9kHz~40GHz | 6×10^{-4} |
| Bandwidth Test | 9kHz~6GHz | 1.5×10^{-3} |
| RF Radiated Power Test | 30MHz~1000MHz | 3.06 dB |
| Conducted Output Power Test | 50MHz~18GHz | 0.83 dB |
| AC Voltage(<10kHz) Test | 120V~230V | 0.04 % |
| DC Power Test | 0V~30V | 0.4 % |
| Temperature | -40°C~+100°C | 0.52 °C |
| Humidity | 30%~95% | 2.6 % |

APPENDIX I

PHOTOGRAPHS OF TEST

Test Set-Up Photos

1. Conducted Test



2. Radiated Test

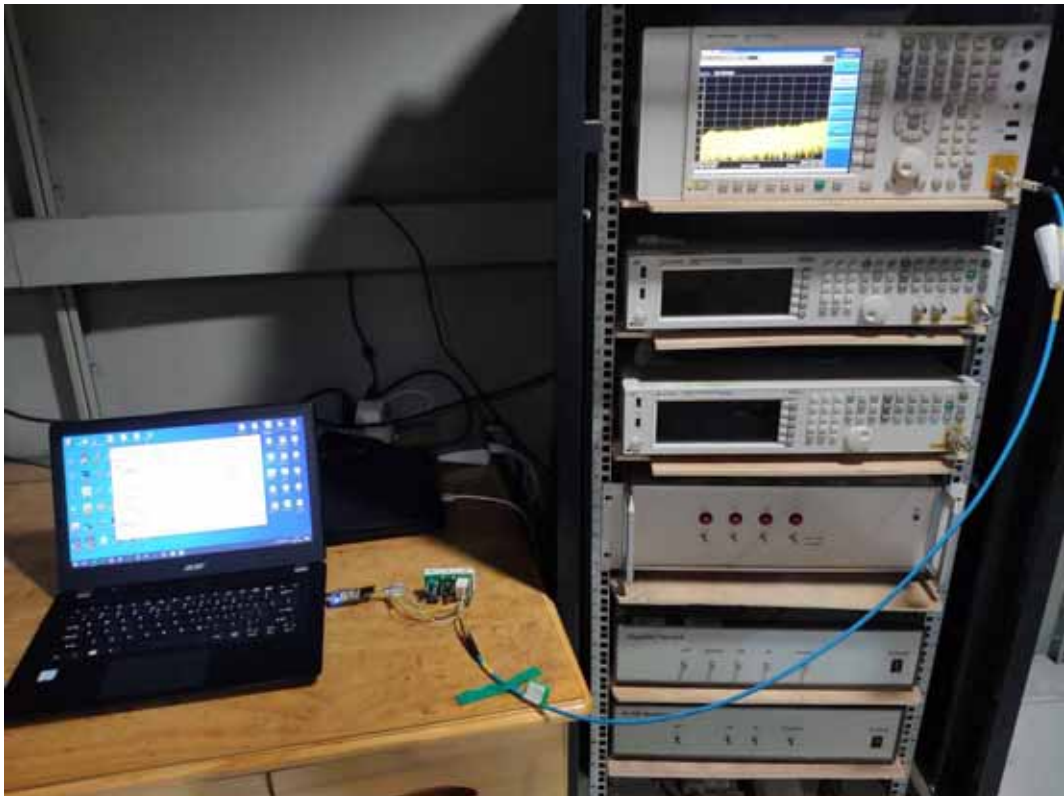


(BELOW 1GHz)



(ABOVE 1GHZ)

3. Antenna-port Conducted Test



APPENDIX II

PHOTOGRAPHS OF EUT

FIGURE 1
 SMART PLUG (M/N: CPLGSTDBLW1)
 GENERAL APPEARANCE (GENERAL VIEW)

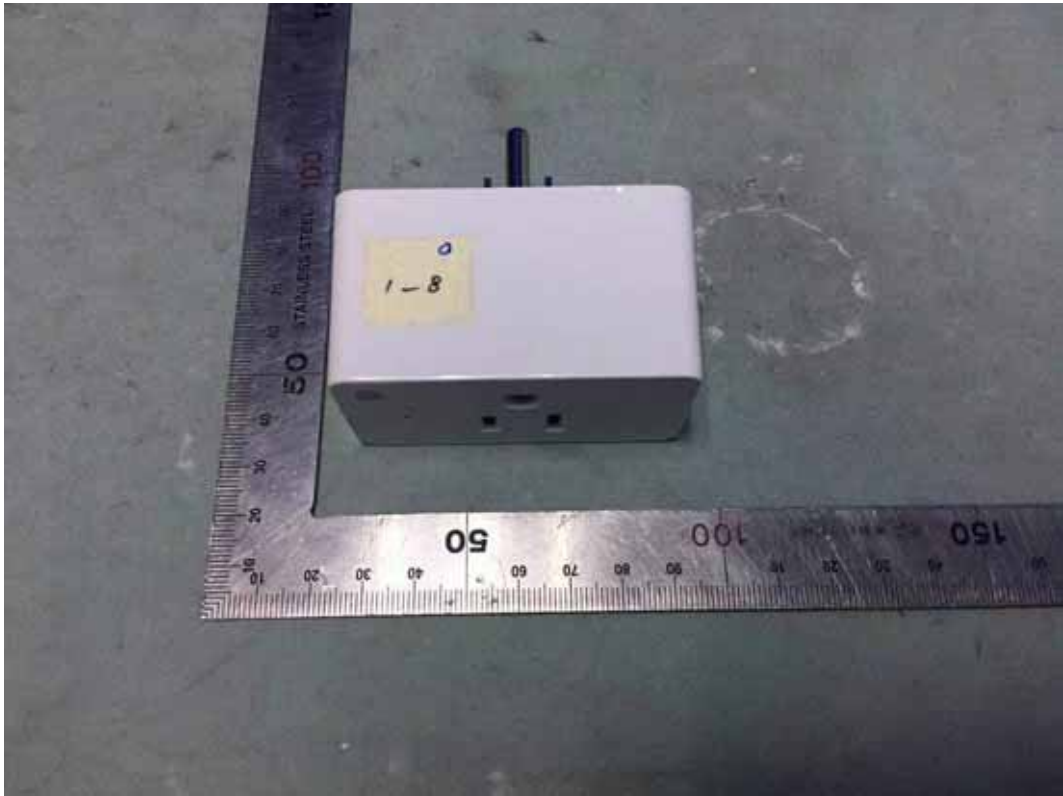
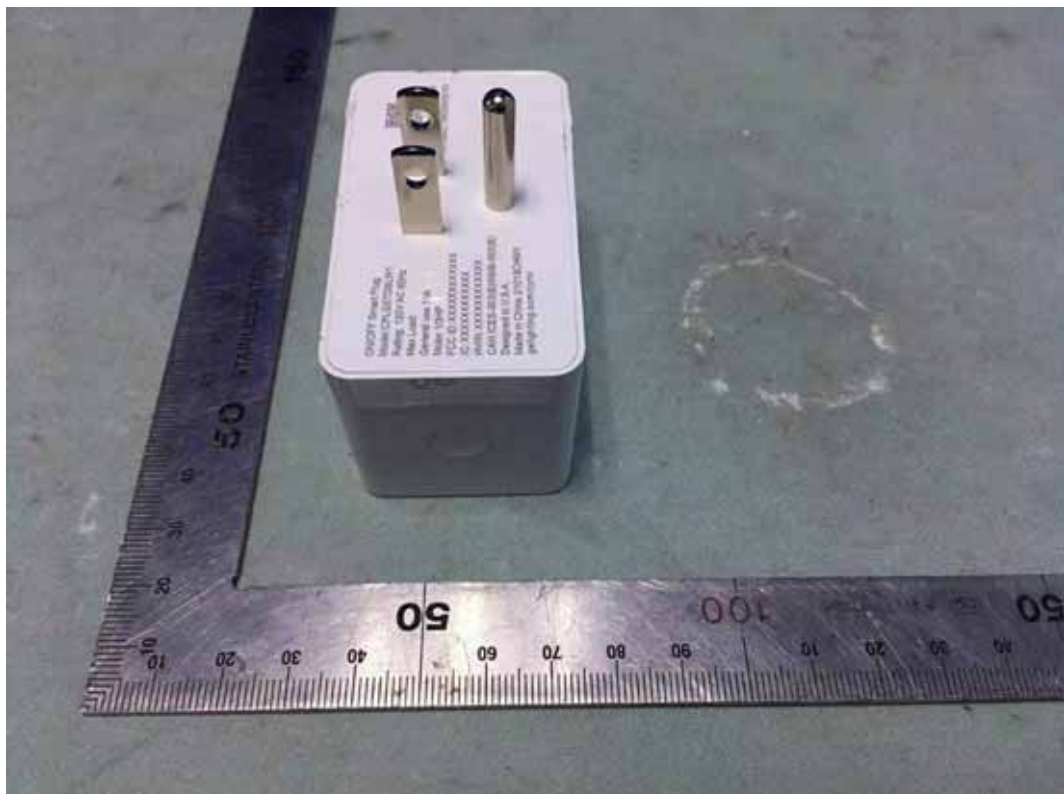
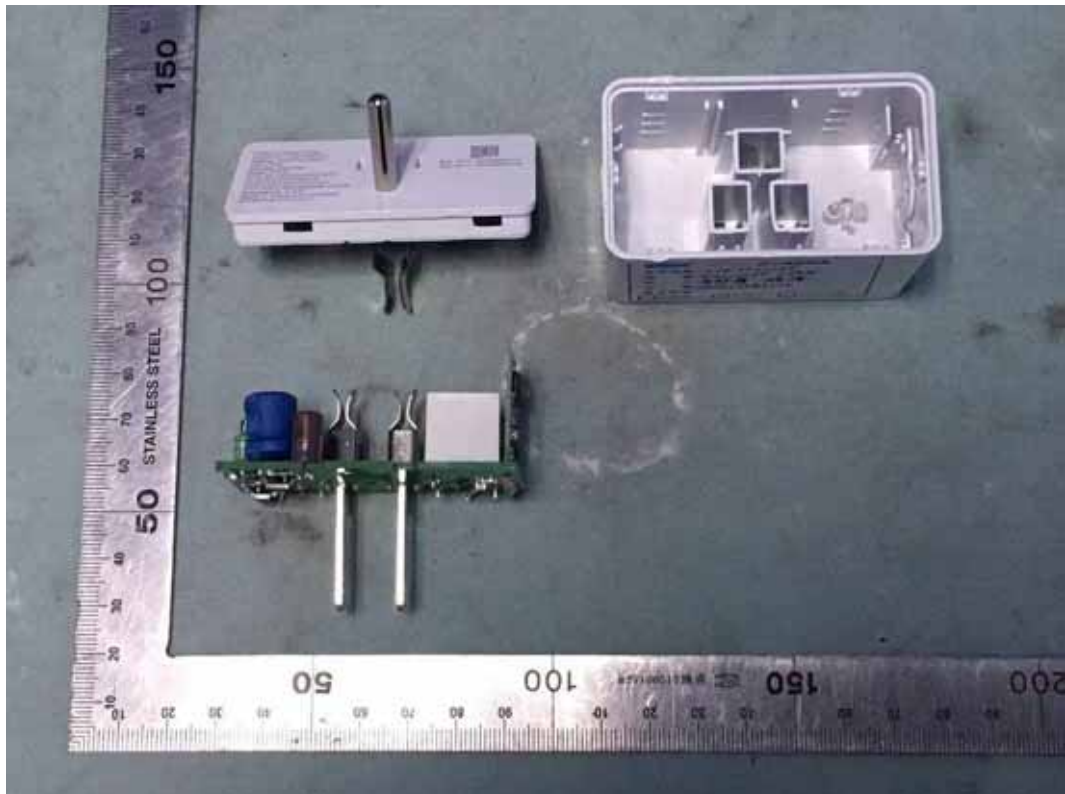


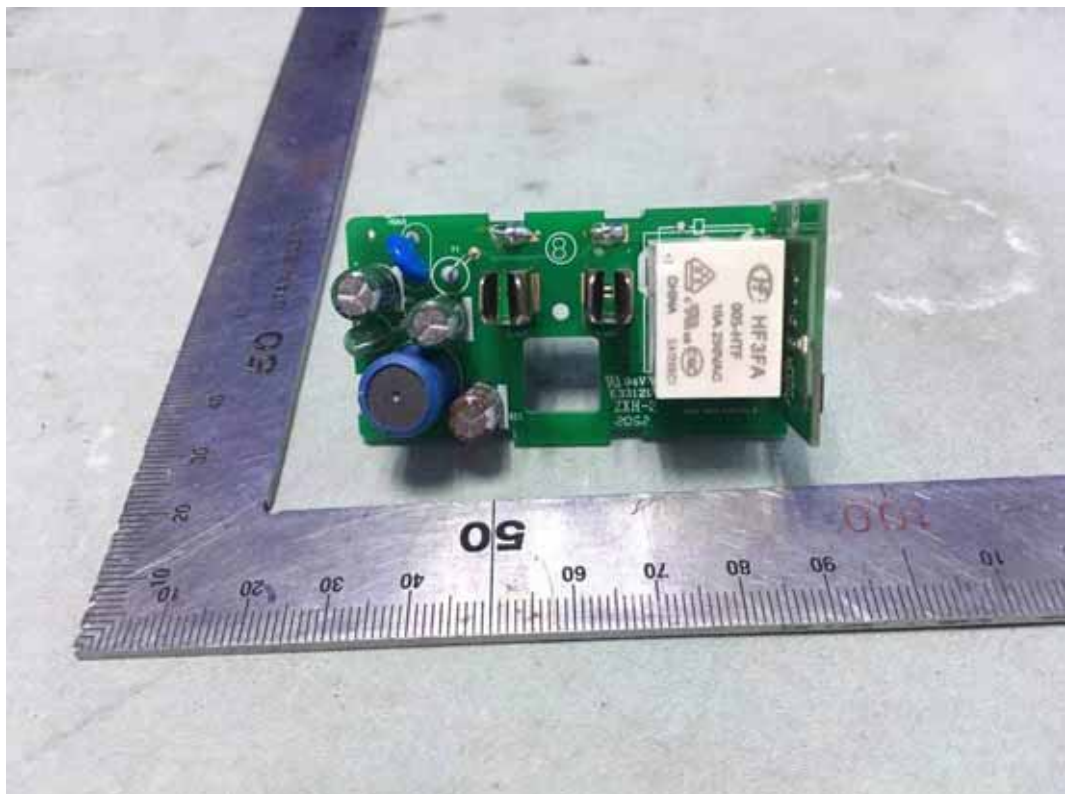
FIGURE 2
 SMART PLUG (M/N: CPLGSTDBLW1)
 GENERAL APPEARANCE (BACK VIEW)



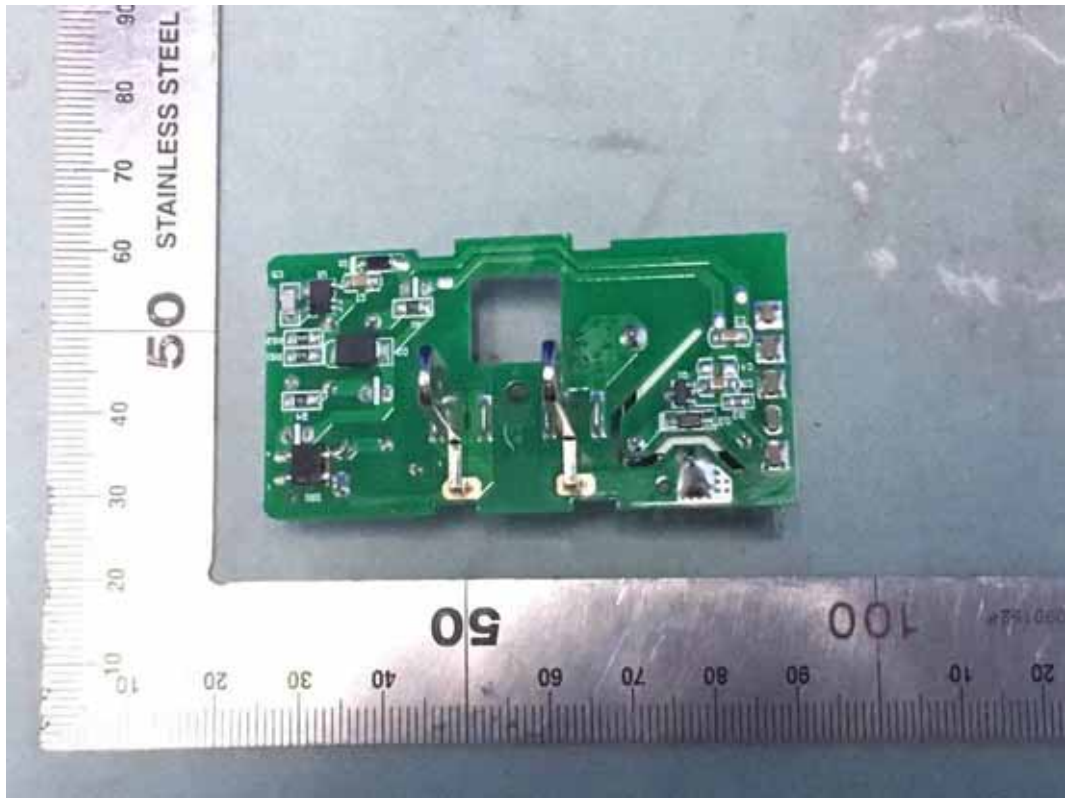
*FIGURE 3
SMART PLUG (M/N: CPLGSTDBLW1)
GENERAL APPEARANCE (COVER REMOVED)*



*FIGURE 4
SMART PLUG (M/N: CPLGSTDBLW1)
MAIN BOARD (COMPONENT SIDE)*



*FIGURE 5
SMART PLUG (M/N: CPLGSTDBLW1)
MAIN BOARD (SOLDERED SIDE)*



*FIGURE 6
SMART PLUG (M/N: CPLGSTDBLW1)
MAIN BOARD (COMPONENT SIDE)*

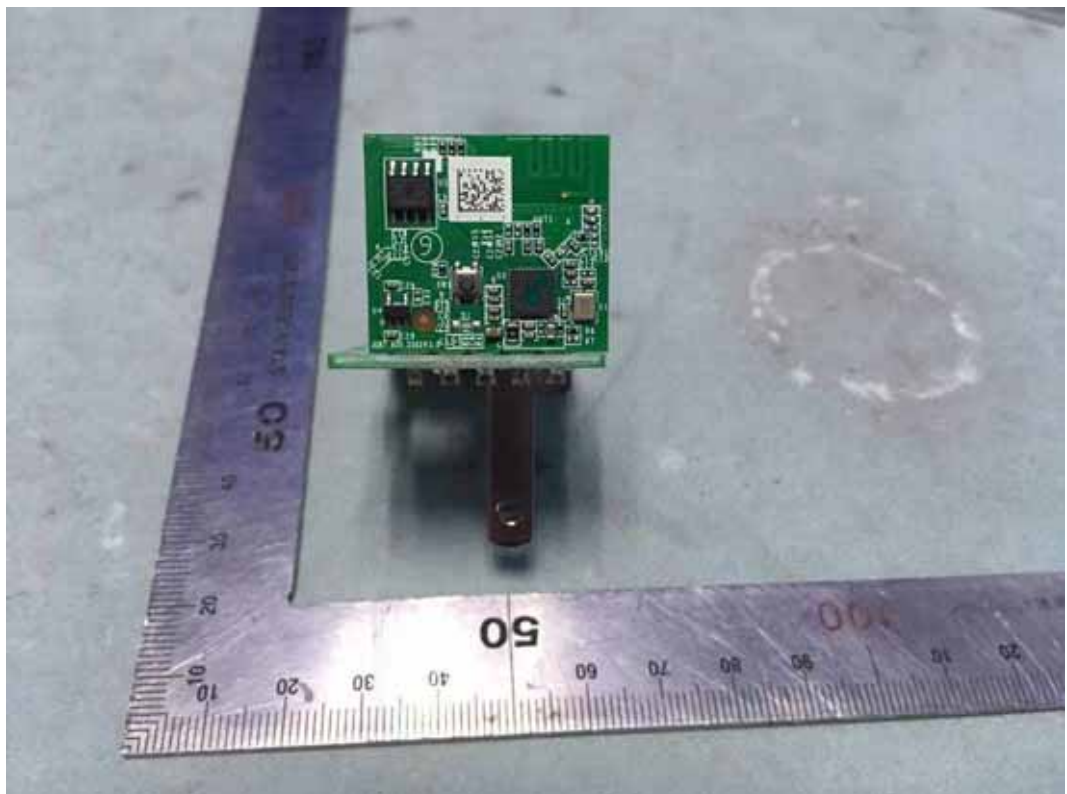


FIGURE 7
SMART PLUG (M/N: CPLGSTDBLW1)
CHIP & CRYSTAL ON RF BOARD (GENERAL VIEW)



FIGURE 8
SMART PLUG (M/N: CPLGSTDBLW1)
ANTENNA (GENERAL VIEW)

