# FCC 47 CFR PART 15 SUBPART C AND ANSI C63.10: 2013

# TEST REPORT

## For

## Portable Prime DJ System with Battery

## Model: PRIME GO

## Data Applies to: N/A

**Brand:** DENON DJ

Issued for

**inMusic Brands, Inc.**

**200 Scenic View Drive, Cumberland, RI 02864, U.S.A.**

Issued by
**Compliance Certification Services Inc.**
**Tainan Lab.**
**No.8,Jiucengling, Xinhua Dist., Tainan City 712, Taiwan (R.O.C.)**
**TEL: 886-6-580-2201**
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**Date of Issue: March 12, 2020**

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# REVISION HISTORY

| Rev. | Issue Date | Revisions | Effect Page | Revised By |
|---|---|---|---|---|
| 00 | March 12, 2020 | Initial Issue | ALL | Gina Lin |
| | | | | |
| | | | | |

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# 1. TEST REPORT CERTIFICATION

| | | |
|---|---|---|
| **Applicant** | : | **inMusic Brands, Inc.**<br>200 Scenic View Drive, Cumberland, RI 02864, U.S.A. |
| **Manufacturer** | : | **inMusic Brands, Inc.**<br>200 Scenic View Drive, Cumberland, RI 02864, U.S.A. |
| **Equipment Under Test** | : | Portable Prime DJ System with Battery |
| **Model** | : | PRIME GO |
| **Data Applies To** | : | N/A |
| **Brand** | : | DENON DJ |
| **Date of Test** | : | September 12, 2019 ~ October 01, 2019 |

| **APPLICABLE STANDARD** | |
|---|---|
| **STANDARD** | **TEST RESULT** |
| FCC Part 15 Subpart C AND<br>ANSI C63.10: 2013 | No non-compliance noted |

| **Statements of Conformity** |
|---|
| Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty. |

***Approved by:***

**Jeter Wu**
Manager

***Reviewed by:***

**Eric Huang**
Section Manager

# 2. EUT DESCRIPTION

| | |
|---|---|
| **Product Name** | Portable Prime DJ System with Battery |
| **Model** | PRIME GO |
| **Data Applies To** | N/A |
| **Brand** | DENON DJ |
| **Received Date** | September 17, 2019 |
| **Frequency Range** | IEEE 802.11b/g, 802.11n HT20: 2412MHz~2462MHz<br>Bluetooth 4.0: 2402MHz~2480MHz |
| **Transmit Power** | IEEE 802.11b Mode: 15.40dBm (34.674mW)<br>IEEE 802.11g Mode: 18.52dBm (71.121mW)<br>IEEE 802.11n HT20 Mode: 17.68dBm (58.614mW)<br>Bluetooth 4.0 Mode: 5.46dBm (3.51641mW) |
| **Channel Spacing** | IEEE 802.11b/g, 802.11n HT20: 5MHz<br>Bluetooth 4.0: 2MHz |
| **Channel Number** | IEEE 802.11b/g, 802.11n HT20: 11 Channels<br>Bluetooth 4.0 : 40 Channels |
| **Transmit Data Rate** | IEEE 802.11b : 11, 5.5, 2, 1 Mbps<br>IEEE 802.11g : 54, 48 ,36, 24, 18, 12, 9, 6 Mbps<br>IEEE 802.11n HT20 : 130, 117 ,104, 78, 65, 58.5, 52, 39, 26, 19.5,13, 6.5 Mbps<br>Bluetooth 4.0: 1 Mbps |
| **Type of Modulation** | IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK)<br>IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK)<br>IEEE 802.11n HT20: OFDM (64QAM, 16QAM, QPSK, BPSK)<br>Bluetooth 4.0: GFSK |
| **Antenna Type** | Type: PCB Antenna<br>Model: WLA-EM-1508-0008-B<br>Manufacturer: BRITO<br>Gain: 4.6 dBi |
| **Power Rating** | AC 100V-240V, 50/60Hz, 1.5A |
| **Hardware Version** | AZ01: AZ01CRE01BJ |
| **Firmware Version** | jp11-2019-12-16-20-21-kostas_lambda-Planck-kostas_master_AIRDJ-11848-d16078e |
| **Temperature Range** | 0°C ~ +40°C |
| **Reported Date** | December 09, 2019 |

**Power Adapter :**

| No. | Manufacturer | Model No. | Power Input | Power Output |
|---|---|---|---|---|
| 1 | FSP | FSP065-RBBN3 | AC 100V-240V, 50/60Hz, 1.5A | DC 19V, 3.42A |

**REMARK:**

1. The sample **(PRIME GO)** selected for test was engineering sample that approximated to production product and was provided by manufacturer.
2. This submittal(s) (test report) is intended for FCC ID: **Y4O-JP11** filing to comply with Section 15.207, 15.209 and 15.247 of the FCC Part 15, Subpart C Rules.
3. For more details, please refer to the User's manual of the EUT.

# 3. DESCRIPTION OF TEST MODES

The EUT is a Portable Prime DJ System with Battery. It has one transmitter chains and one receive chains (1x1 configurations) and BT4.0. The 1x1 configuration is implemented with one outside chains (Chain 0).

The RF chipset is manufactured by SMSC.

The antenna peak gain 4.6dBi (highest gain) were chosen for full testing.

**IEEE 802.11 b ,802.11g ,802.11n HT20 mode (DTS Band)**

The EUT had been tested under operating condition.

There are three channels have been tested as following:

| Channel | Frequency (MHz) |
|---|---|
| Low | 2412 |
| Middle | 2437 |
| High | 2462 |

IEEE 802.11b mode: 1Mbps long data rate (worst case) were chosen for full testing.

IEEE 802.11g mode: 6Mbps data rate (worst case) were chosen for full testing.

IEEE 802.11n HT20 mode: 6.5Mbps data rate (worst case) were chosen for full testing.

**GFSK mode**

The EUT had been tested under operating condition.

There are three channels have been tested as following:

| Channel | Frequency (MHz) |
|---|---|
| Low | 2402 |
| Middle | 2442 |
| High | 2480 |

Bluetooth 4.0 (GFSK) mode: 1Mbps data rate (worst case) were chosen for full testing.

# 4. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10 and FCC CFR 47 15.207, 15.209 and 15.247.

# 5. FACILITIES AND ACCREDITATIONS

## 5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

No.8,Jiucengling, Xinhua Dist., Tainan City 712, Taiwan (R.O.C.)

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 22.

## 5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, “Radio Interference Measuring Apparatus and Measurement Methods.”

## 5.3 LABORATORY ACCREDITATIONS LISTINGS

The test facilities used to perform radiated and conducted emissions tests are accredited by Taiwan Accreditation Foundation for the specific scope of accreditation under Lab Code: 1109 to perform Electromagnetic Interference tests according to FCC PART 15 AND CISPR 22 requirements. No part of this report may be used to claim or imply product endorsement by TAF or any agency of the Government. In addition, the test facilities are listed with Federal Communications Commission (registration no: TW1109).

## 5.4 TABLE OF ACCREDITATIONS AND LISTINGS

Our laboratories are accredited and approved by the following accreditation body according to ISO/IEC 17025.

| | |
|---|---|
| **Taiwan** | TAF |

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

| | |
|---|---|
| **Canada** | Industry Canada |
| **Germany** | TUV NORD |
| **Taiwan** | BSMI |
| **USA** | FCC |
| **Japan** | VCCI |

Copies of granted accreditation certificates are available for downloading from our web site, http://www.ccsrf.com

# 6. CALIBRATION AND UNCERTAINTY

## 6.1 MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

## 6.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

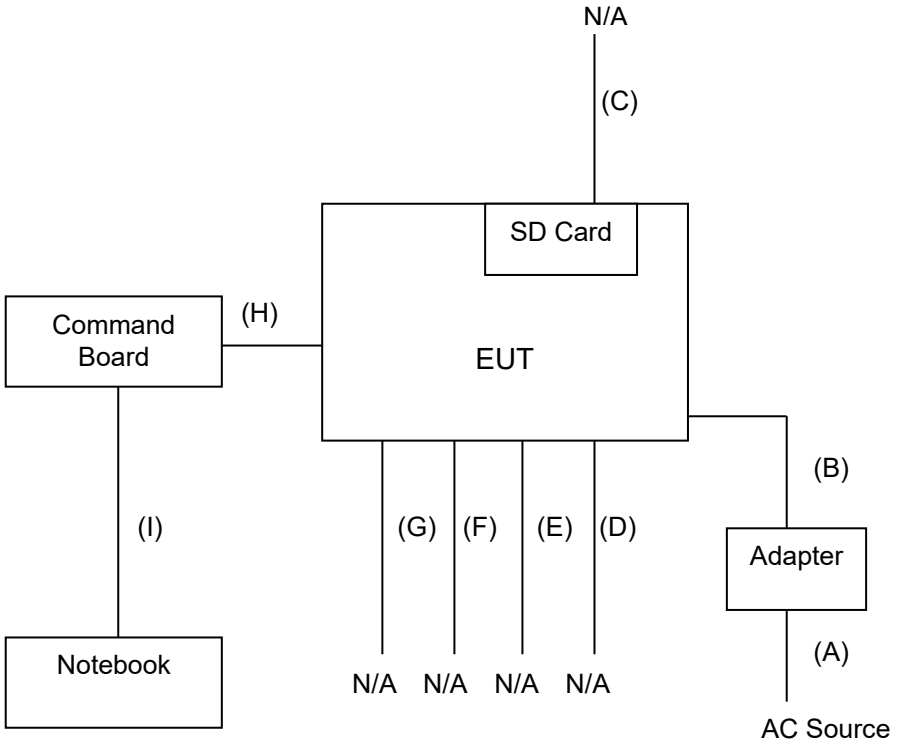
| PARAMETER | UNCERTAINTY |
|---|---|
| Radiated Emission, 30 to 200 MHz<br>Test Site : CB966 | ±3.1dB |
| Radiated Emission, 200 to 1000 MHz<br>Test Site : CB966 | ±2.7dB |
| Radiated Emission, 1 to 6 GHz | ± 2.7dB |
| Radiated Emission, 6 to 18 GHz | ± 2.7dB |
| Radiated Emission, 18 to 26.5 GHz | ± 2.7dB |
| Radiated Emission, 26 to 40 GHz | ± 3.7dB |
| Power Line Conducted Emission | ± 2.0dB |

Uncertainty figures are valid to a confidence level of 95%, K=2

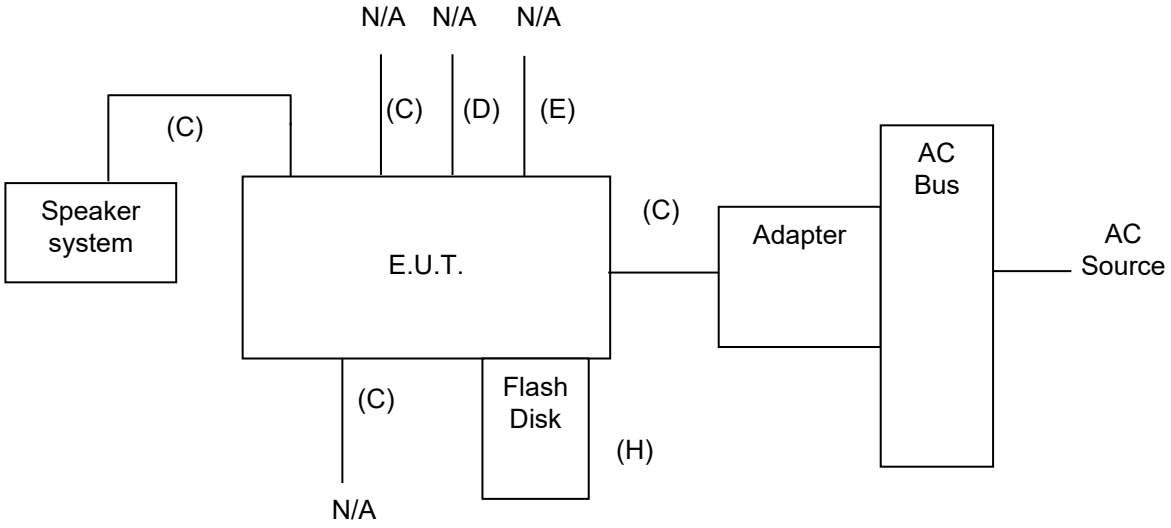
# 7. SETUP OF EQUIPMENT UNDER TEST

## 7.1 SETUP CONFIGURATION OF EUT

### FOR RF TEST




### FOR EMI TEST



## 7.2 SUPPORT EQUIPMENT

**RF test**

| No. | Product | Manufacturer | Model No. | Certify No. | Signal cable |
|---|---|---|---|---|---|
| 1 | Notebook | Acer | AS 3830TG | DOC | Power cable, unshd, 1.6m |
| 2 | SD CARD | TOSHIBA | 2GB | DOC | N/A |

| No. | Signal cable description | |
|---|---|---|
| A | Power | Unshielded, 1.0m, 1pcs |
| B | Power | Unshielded, 1.5m, 1pcs. with one core |
| C | Audio | Unshielded, 0.7m, 2pcs. |
| D | Audio | Unshielded, 0.7m, 6pcs |
| E | Audio | Unshielded, 1.2m, 2pcs |
| F | USB | Shielded, 1.8m, 1pcs. with one core |
| G | LAN | Unshielded, 1.0m, 1pcs. |
| H | Command | Unshielded, 0.4m, 1pcs |
| I | USB | Shielded, 1.7m, 1pcs. with one core |

**EMI test**

| No. | Product | Manufacturer | Model No. | Certify No. | Signal cable |
|---|---|---|---|---|---|
| 1 | Speaker System | T.C.SATR | TCS2285 | DOC | Power cable, unshd, 1.4m |
| 2 | Flash Disk | Transcend | Jet Flash700 | DOC | N/A |

| No. | Signal cable description | |
|---|---|---|
| A | AC Power | Unshielded, 1.0m, 1pcs. |
| B | DC Power | Unshielded, 1.4m, 1pcs. with one core |
| C | Audio | Shielded, 1.0m, 10pcs. |
| D | USB | Shielded, 2.0m, 1pcs. |
| E | RJ45 | Unshielded, 1.0m, 1pcs. |
| H | USB | Unshielded, 1.0m, 1pcs. |

**REMARK:**

1. All the above equipment/cables were placed in worse case positions to maximize emission signals during emission test.
2. Grounding was established in accordance with the manufacturer’s requirements and conditions for the intended use.

## 7.3 EUT OPERATING CONDITION

**RF Setup**

**WIFI:**

1. Set up a whole system as the setup diagram.
2. The “Tera Term” software was used for testing
3. Key in “root”，”connmanctl enable wifi”.

## TX Mode **Key in:**

**B Mode :**
wl down
wl mpc 0
wl country ALL
wl band b
wl up
wl 2g_rate –r 01 –b 20
wl channel 01(01,06,11)
wl phy_watchdog 0
wl scansuppress 1
wl phy_forcecal 1
wl phy_txpwrctrl 1
wl txpwr1 -1
wl pkteng_start 00:90:4c:14:43:19 tx 100 1000 0

**G Mode :**
wl down
wl mpc 0
wl country ALL
wl band b
wl up
wl 2g_rate –r 06 –b 20
wl channel 01 (01,06,11)
wl phy_watchdog 0
wl scansuppress 1
wl phy_forcecal 1
wl phy_txpwrctrl 1
wl txpwr1 -o –d 11(12)

wl pkteng_start 00:90:4c:14:43:19 tx 100 1000 0

**HT20 Mode :** wl down
wl mpc 0
wl country ALL
wl band b
wl up
wl 2g_rate –h 0 –b 20
wl channel 01/20 (01,06,11)
wl phy_watchdog 0
wl scansuppress 1
wl phy_forcecal 1
wl phy_txpwrctrl 1
wl txpwr1 -o –d 10(11)
wl pkteng_start 00:90:4c:14:43:19 tx 100 1000 0

## RX Mode **Key in:**

wl down
wl band auto
wl mpc 0
wl country ALL
wl channel 01 (01,06,11)
wl bi 65535
wl up
wl phy_watchdog 0
wl scansuppress 1
wl phy_forcecal 1

4. All of the function are under run.
5. Start test.

**Bluetooth:**

1. Set up a whole system as the setup diagram.
2. The “Tera Term” software was used for testing
3. Key in “root”.

## TX Mode **Key in:**

hciconfig hci0 up
hcitool cmd 0x03 0x0003
hcitool cmd 0x08 0X0001e 00(00,14,27) 25 00

## RX Mode **Key in:**

hciconfig hci0 up
hcitool cmd 0x03 0x0003
hcitool cmd 0x3f 0x0052 EE FF C0 88 00 00 E8 03 00(00,27,4E) 04 00 01 FF FF

4. All of the function are under run.
5. Start test.

# 8. APPLICABLE LIMITS AND TEST RESULTS

## 8.1 6DB BANDWIDTH

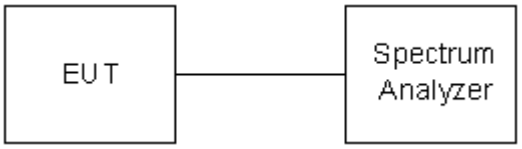
### LIMIT

§ 15.247(a) (2) For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz

### TEST EQUIPMENTS

| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Date | Calibration Due |
|---|---|---|---|---|---|
| EXA Spectrum Analyzer | KEYSIGHT | N9010A | MY54430216 | 07/18/2019 | 07/17/2020 |
| SMA Cable + 10dB Attenuator | CCS | SMA+10dB ATT | SMA/10dB | 01/25/2019 | 01/24/2020 |
| Software | Excel(ccs-o6-2019 v1.2) | | | | |

### TEST SETUP




### TEST PROCEDURE

1. Set resolution bandwidth (RBW) = 1-5 % of the emission bandwidth (EBW).
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission. Compare the resultant bandwidth with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is 1-5 %.

## TEST RESULTS

No non-compliance noted.

| Model Name | PRIME GO | Test By | Ted Huang |
|---|---|---|---|
| Temp & Humidity | 25.8℃, 52% | Test Date | 2019/09/12 |

**IEEE 802.11b mode**

| Channel | Channel Frequency (MHz) | 6dB Bandwidth (MHz) | Minimum Limit (kHz) | Pass / Fail |
|---|---|---|---|---|
| Low | 2412 | 9.05 | 500 | PASS |
| Middle | 2437 | 9.05 | 500 | PASS |
| High | 2462 | 9.04 | 500 | PASS |

**NOTE :** 1. At finial test to get the worst-case emission at 1Mbps long.
2. The cable assembly insertion loss of 11.1dB (including 10 dB pad and 1.1 dB cable) was entered as an offset in the spectrum analyzer to allow for direct reading of power.

**IEEE 802.11g mode**

| Channel | Channel Frequency (MHz) | 6dB Bandwidth (MHz) | Minimum Limit (kHz) | Pass / Fail |
|---|---|---|---|---|
| Low | 2412 | 16.42 | 500 | PASS |
| Middle | 2437 | 16.38 | 500 | PASS |
| High | 2462 | 16.39 | 500 | PASS |

**NOTE :** 1. At finial test to get the worst-case emission at 6Mbps.
2. The cable assembly insertion loss of 11.1dB (including 10 dB pad and 1.1 dB cable) was entered as an offset in the spectrum analyzer to allow for direct reading of power.

**IEEE 802.11n HT20 mode**

| Channel | Channel Frequency (MHz) | 6dB Bandwidth (MHz) | Minimum Limit (kHz) | Pass / Fail |
|---|---|---|---|---|
| Low | 2412 | 17.62 | 500 | PASS |
| Middle | 2437 | 17.62 | 500 | PASS |
| High | 2462 | 17.62 | 500 | PASS |

**NOTE :** 1. At finial test to get the worst-case emission at 6.5Mbps.
2. The cable assembly insertion loss of 11.1dB (including 10 dB pad and 1.1 dB cable) was entered as an offset in the spectrum analyzer to allow for direct reading of power.

| Model Name | PRIME GO | Test By | Ted Huang |
|---|---|---|---|
| Temp & Humidity | 25.8°C, 52% | Test Date | 2019/9/12 |

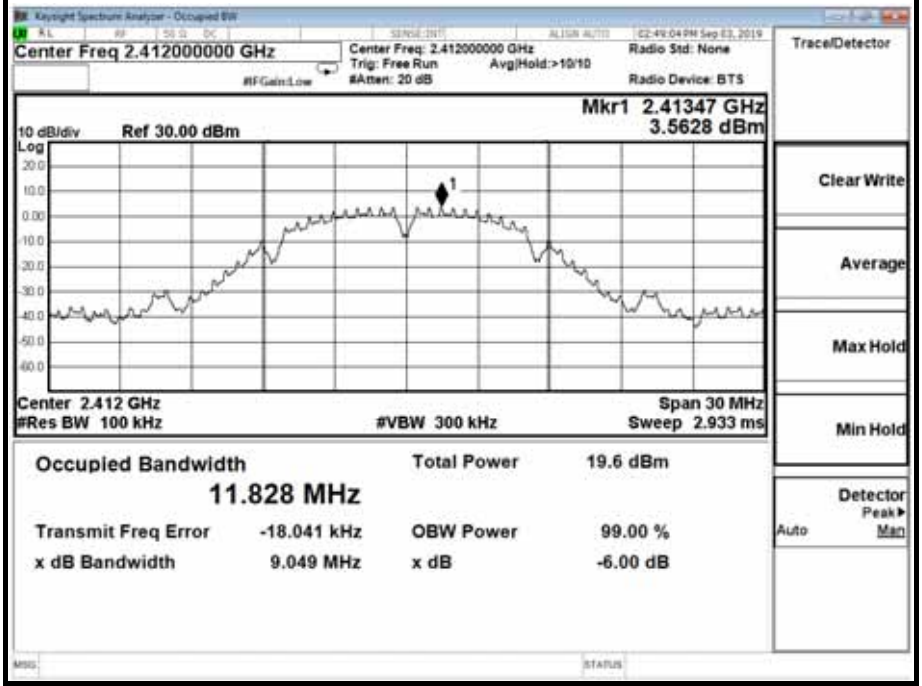
**Bluetooth 4.0 (GFSK) mode**

| Channel | Channel Frequency (MHz) | 6dB Bandwidth (kHz) | Minimum Limit (kHz) | Pass / Fail |
|---|---|---|---|---|
| Low | 2402 | 714 | 500 | PASS |
| Middle | 2442 | 715 | 500 | PASS |
| High | 2480 | 714 | 500 | PASS |

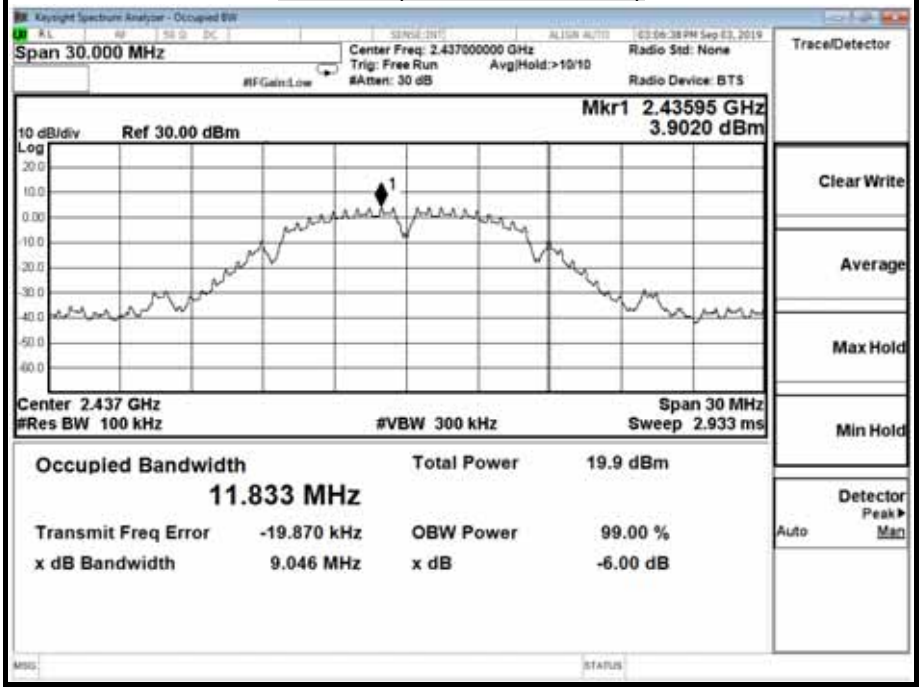
**NOTE :** 1. At finial test to get the worst-case emission at 1Mbps.
2. The cable assembly insertion loss of 11.1dB (including 10 dB pad and 1.1 dB cable) was entered as an offset in the spectrum analyzer to allow for direct reading of power.

## 6dB BANDWIDTH ( 802.11b MODE)

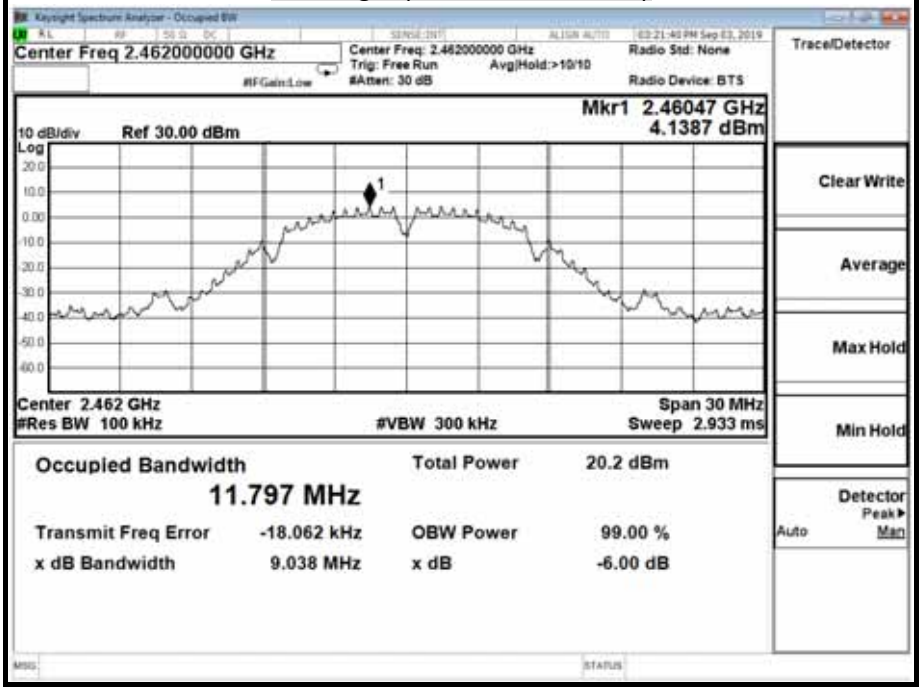
CH Low ( 802.11b MODE)




CH Mid ( 802.11b MODE)

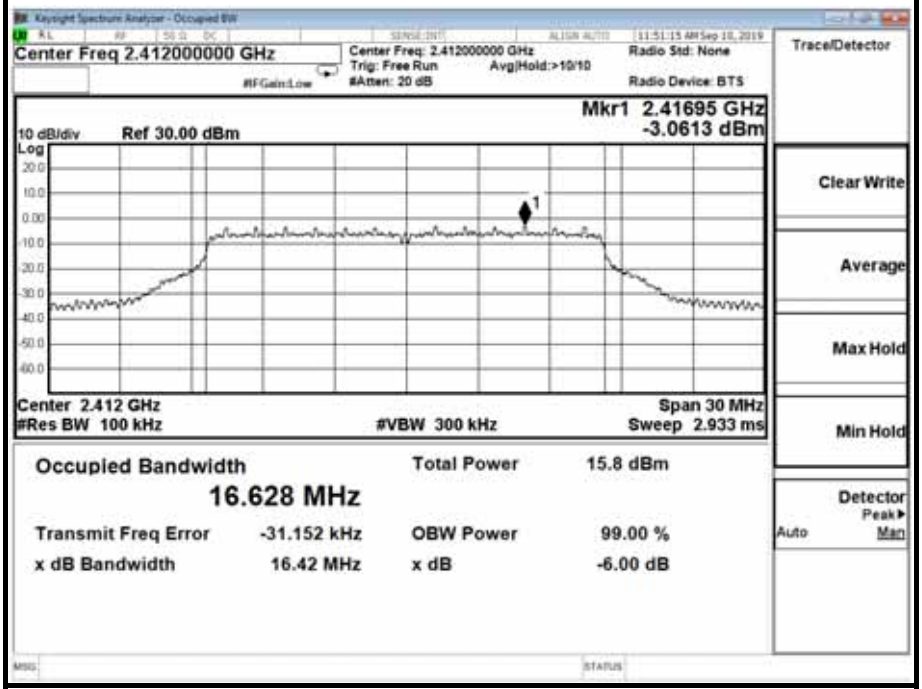


CH High ( 802.11b MODE)

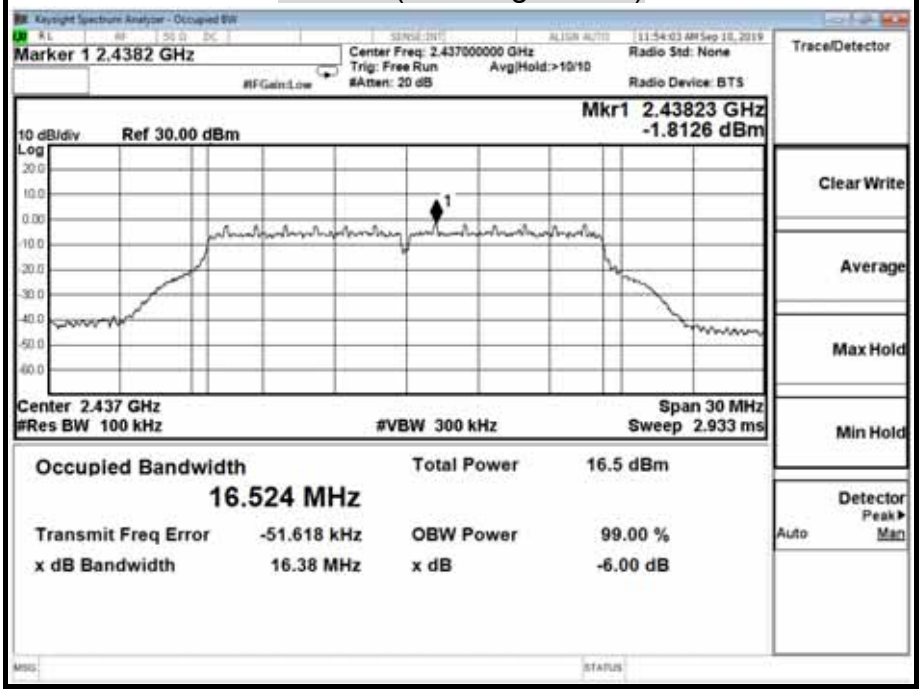


## 6dB BANDWIDTH ( 802.11g MODE)

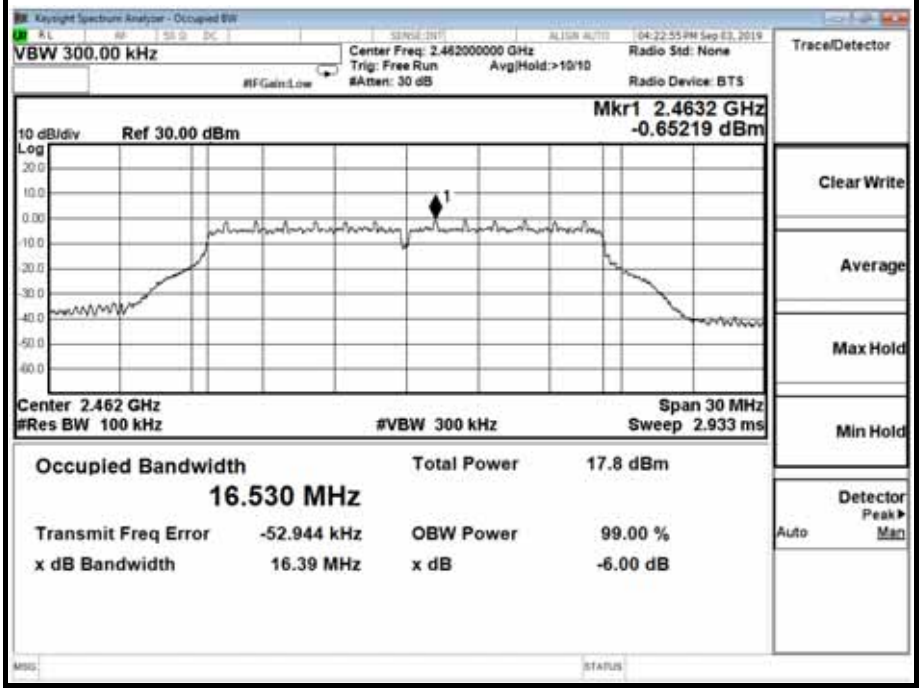
CH Low ( 802.11g MODE)




CH Mid ( 802.11g MODE)

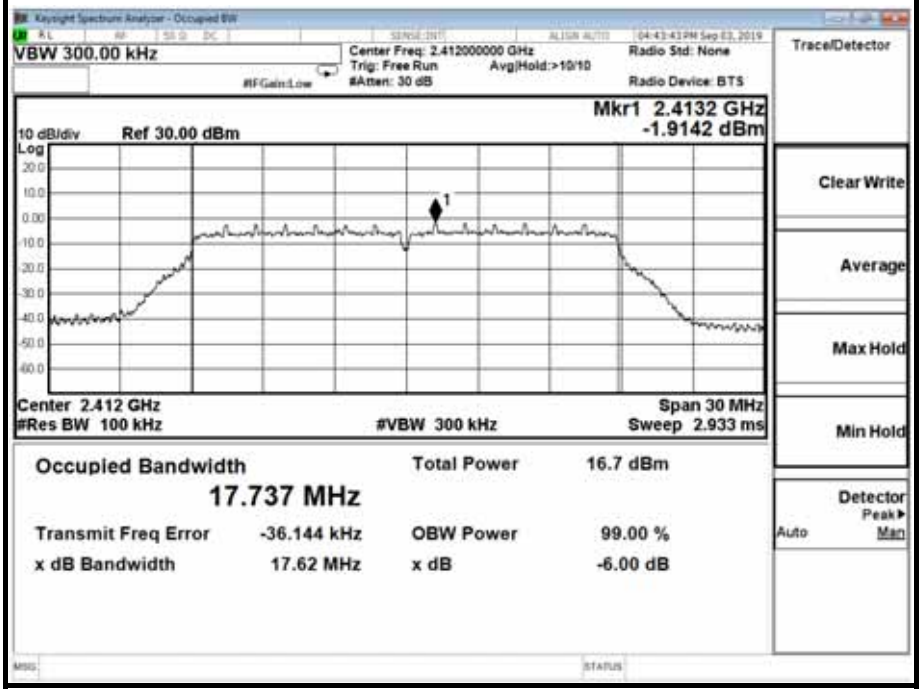


CH High ( 802.11g MODE)

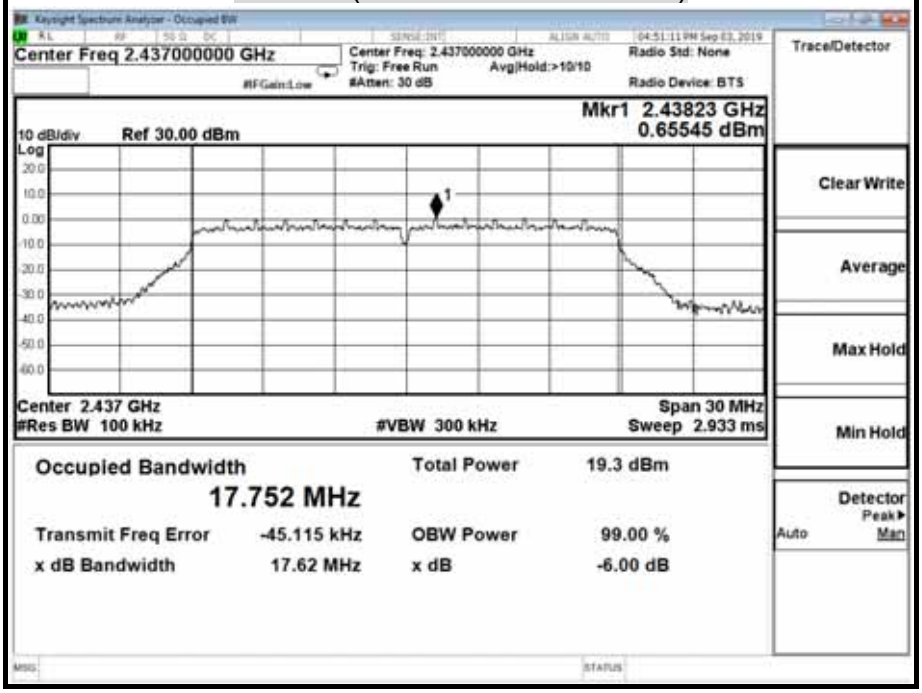


## 6dB BANDWIDTH ( 802.11n HT20 MODE)

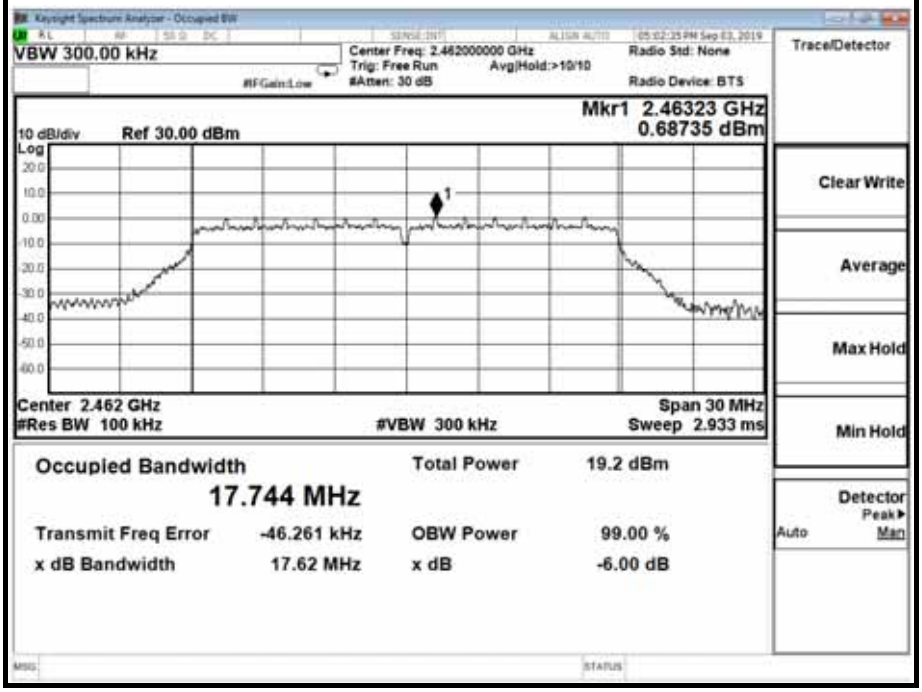
CH Low ( 802.11n HT20 MODE)




CH Mid ( 802.11n HT20 MODE)

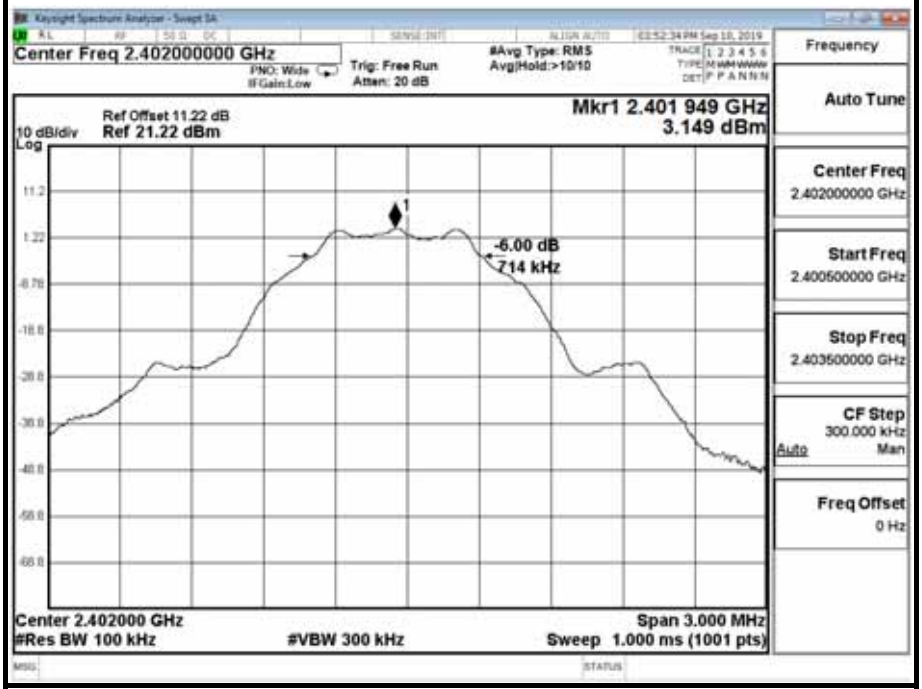


CH High ( 802.11n HT20 MODE)



## 6dB BANDWIDTH ( GFSK MODE)

CH Low ( GFSK MODE )




CH Mid ( GFSK MODE )

CH High ( GFSK MODE )

## 8.2 MAXIMUM PEAK OUTPUT POWER

**LIMIT**

§ 15.247(b) The maximum peak output power of the intentional radiator shall not exceed the following :

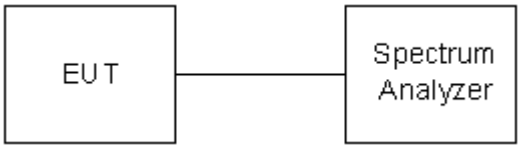
§ 15.247(b) (3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands : 1 watt.

§ 15.247(b) (4) Except as shown in paragraphs (c) of this section , if transmitting antennas of directional gain greater than 6 dBi are used the peak output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1) or (b)(2), and (b)(3) of this section , as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

**TEST EQUIPMENTS**

| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Date | Calibration Due |
|---|---|---|---|---|---|
| EXA Spectrum Analyzer | KEYSIGHT | N9010A | MY54430216 | 07/18/2019 | 07/17/2020 |
| SMA Cable + 10dB Attenuator | CCS | SMA+10dB ATT | SMA/10dB | 01/25/2019 | 01/24/2020 |
| Software | Excel(ccs-o6-2019 v1.2) | | | | |

**TEST SETUP**



## TEST PROCEDURE

The tests were performed in accordance with KDB 558074 5.2.1.2 and 5.2.2.1.

### 5.2.1.2 Measurement Procedure PK2:

1. Set the RBW = 1 MHz.
2. Set the VBW ≥ 3 RBW
3. Set the span ≥ 1.5 x DTS bandwidth.
4. Detector = peak.
5. Sweep time = auto couple.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. 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 peak detector). If the instrument does not have a band power function,
9. Sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the DTS bandwidth.

## TEST RESULTS

No non-compliance noted

| Model Name | PRIME GO | Test By | Ted Huang |
|---|---|---|---|
| Temp & Humidity | 25.8℃, 52% | Test Date | 2019/09/12 |

**IEEE 802.11b mode**

| Channel | Channel Frequency (MHz) | Peak Power (dBm) | Peak Power Limit (dBm) | Pass / Fail |
|---|---|---|---|---|
| Low | 2412 | 14.93 | 30.00 | PASS |
| Middle | 2437 | 15.34 | 30.00 | PASS |
| High | 2462 | 15.40 | 30.00 | PASS |

**NOTE** : 1. At finial test to get the worst-case emission at 1Mbps long.
2. The cable assembly insertion loss of 11.1dB (including 10 dB pad and 1.1 dB cable) was entered as an offset in the spectrum analyzer to allow for direct reading of power.

**IEEE 802.11g mode**

| Channel | Channel Frequency (MHz) | Peak Power (dBm) | Peak Power Limit (dBm) | Pass / Fail |
|---|---|---|---|---|
| Low | 2412 | 17.14 | 30.00 | PASS |
| Middle | 2437 | 18.52 | 30.00 | PASS |
| High | 2462 | 18.41 | 30.00 | PASS |

**NOTE** : 1.At finial test to get the worst-case emission at 6Mbps.
2. The cable assembly insertion loss of 11.1dB (including 10 dB pad and 1.1 dB cable) was entered as an offset in the spectrum analyzer to allow for direct reading of power.

**IEEE 802.11n HT20 mode**

| Channel | Channel Frequency (MHz) | Peak Power (dBm) | Peak Power Limit (dBm) | Pass / Fail |
|---|---|---|---|---|
| Low | 2412 | 17.68 | 30.00 | PASS |
| Middle | 2437 | 17.66 | 30.00 | PASS |
| High | 2462 | 17.16 | 30.00 | PASS |

**NOTE** : 1. At finial test to get the worst-case emission at 6.5Mbps.
2. The cable assembly insertion loss of 11.1dB (including 10 dB pad and 1.1 dB cable) was entered as an offset in the spectrum analyzer to allow for direct reading of power.

| Model Name | PRIME GO | Test By | Ted Huang |
|---|---|---|---|
| Temp & Humidity | 25.8°C, 52% | Test Date | 2019/9/12 |

**Bluetooth 4.0 (GFSK) mode**

| Channel | Channel Frequency (MHz) | Peak Power (dBm) | Peak Power Limit (dBm) | Pass / Fail |
|---|---|---|---|---|
| Low | 2402 | 3.78 | 30.00 | PASS |
| Middle | 2442 | 4.87 | 30.00 | PASS |
| High | 2480 | 5.46 | 30.00 | PASS |

**NOTE** : 1. At finial test to get the worst-case emission at 1Mbps.
2. The cable assembly insertion loss of 11.1dB (including 10 dB pad and 1.1 dB cable) was entered as an offset in the spectrum analyzer to allow for direct reading of power.

## Average Power Data

### IEEE 802.11b mode

| Channel | Channel Frequency (MHz) | Average Power (dBm) |
|---|---|---|
| Low | 2412 | 11.92 |
| Middle | 2437 | 12.17 |
| High | 2462 | 12.41 |

### IEEE 802.11g mode

| Channel | Channel Frequency (MHz) | Average Power (dBm) |
|---|---|---|
| Low | 2412 | 8.84 |
| Middle | 2437 | 10.13 |
| High | 2462 | 10.28 |

### IEEE 802.11n HT20 mode

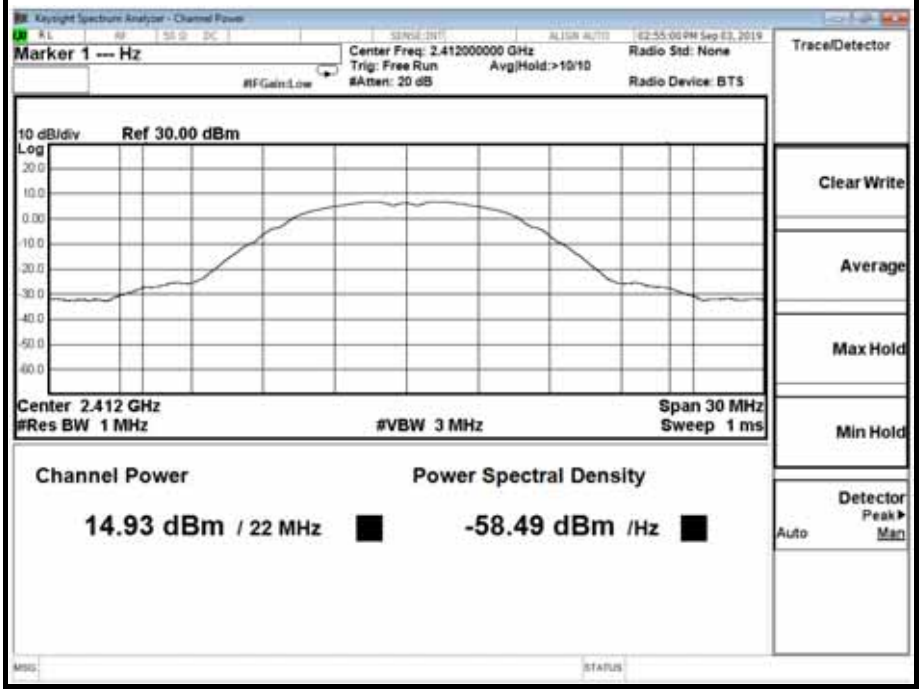
| Channel | Channel Frequency (MHz) | Average Power (dBm) |
|---|---|---|
| | | Chain 0 |
| Low | 2412 | 9.04 |
| Middle | 2437 | 8.98 |
| High | 2462 | 9.00 |

### Bluetooth 4.0 (GFSK) mode

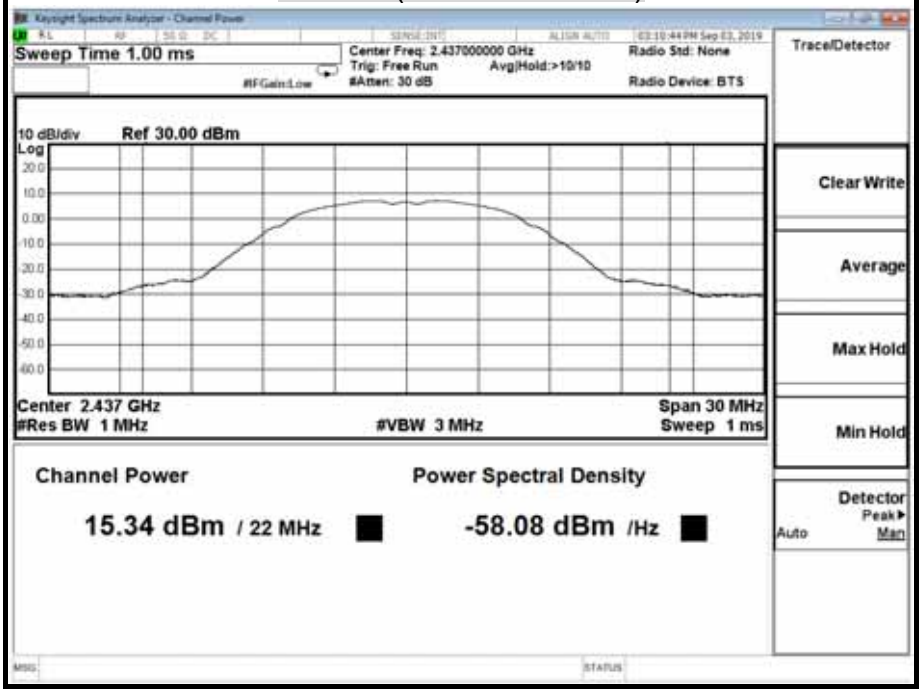
| Channel | Channel Frequency (MHz) | Average Power (dBm) |
|---|---|---|
| Low | 2402 | 1.36 |
| Middle | 2442 | 2.51 |
| High | 2480 | 3.09 |

## MAXIMUM PEAK OUTPUT POWER ( 802.11b MODE)

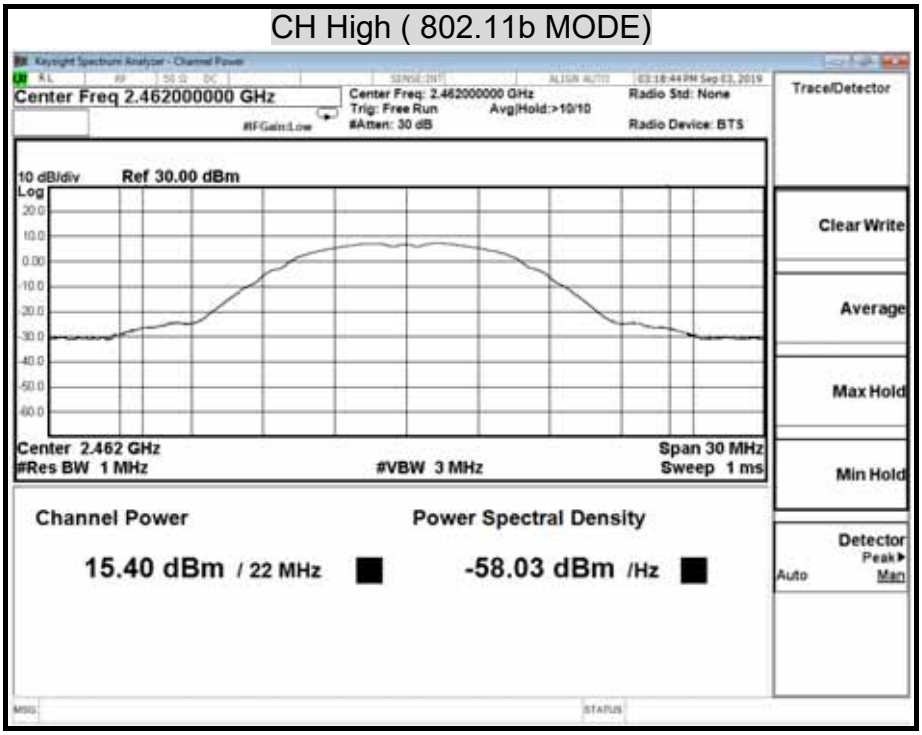
CH Low ( 802.11b MODE)




CH Mid ( 802.11b MODE)

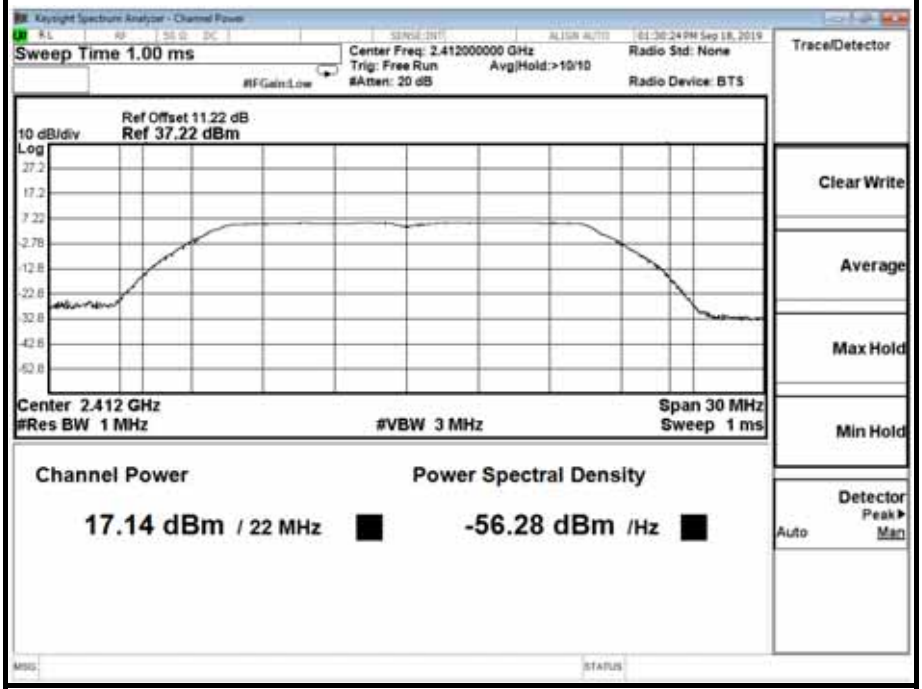


CH High ( 802.11b MODE)

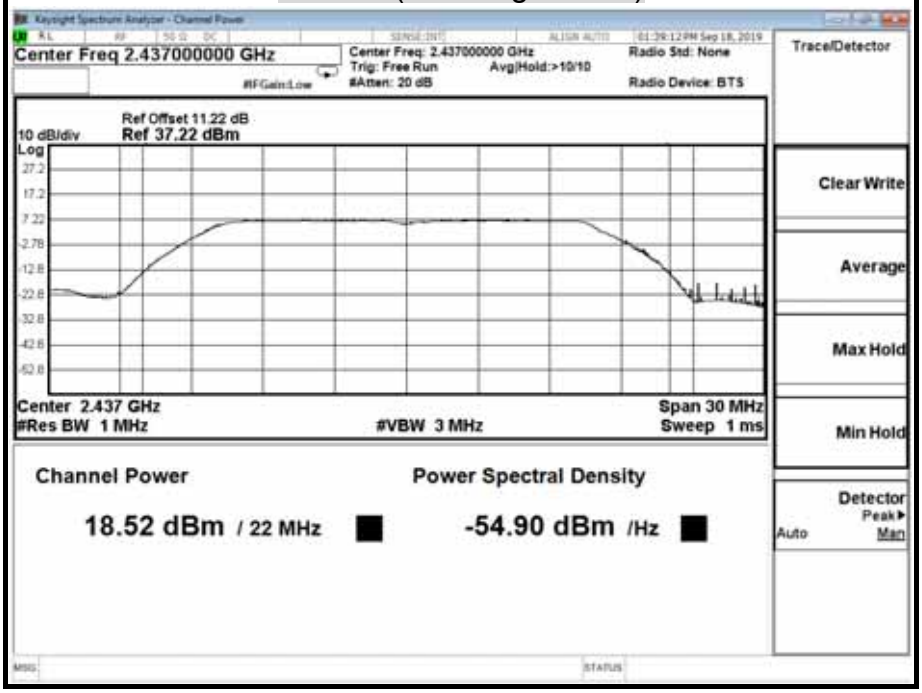


## MAXIMUM PEAK OUTPUT POWER ( 802.11g MODE)

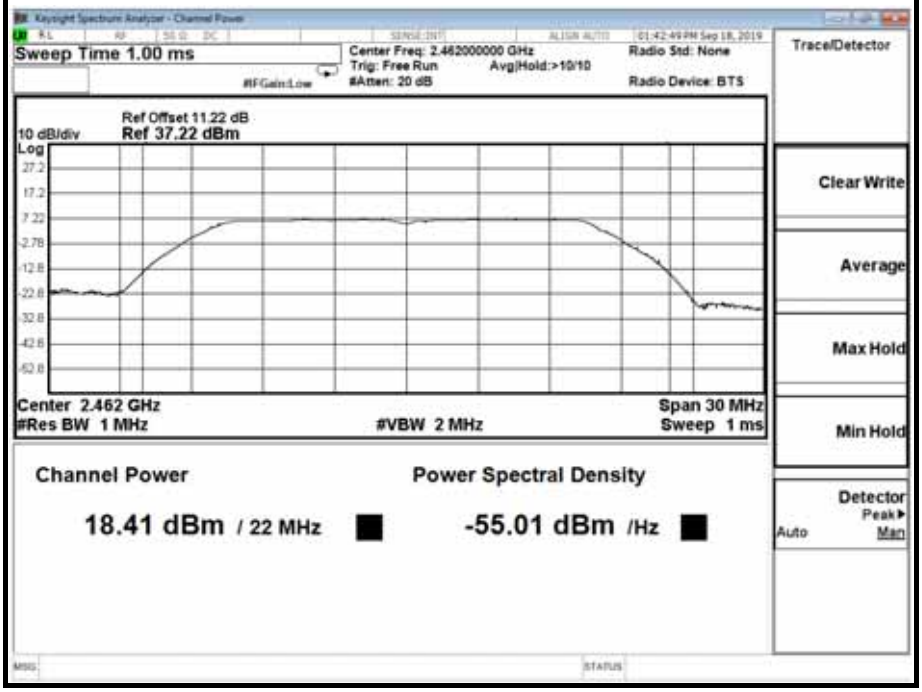
CH Low ( 802.11g MODE)




CH Mid ( 802.11g MODE)

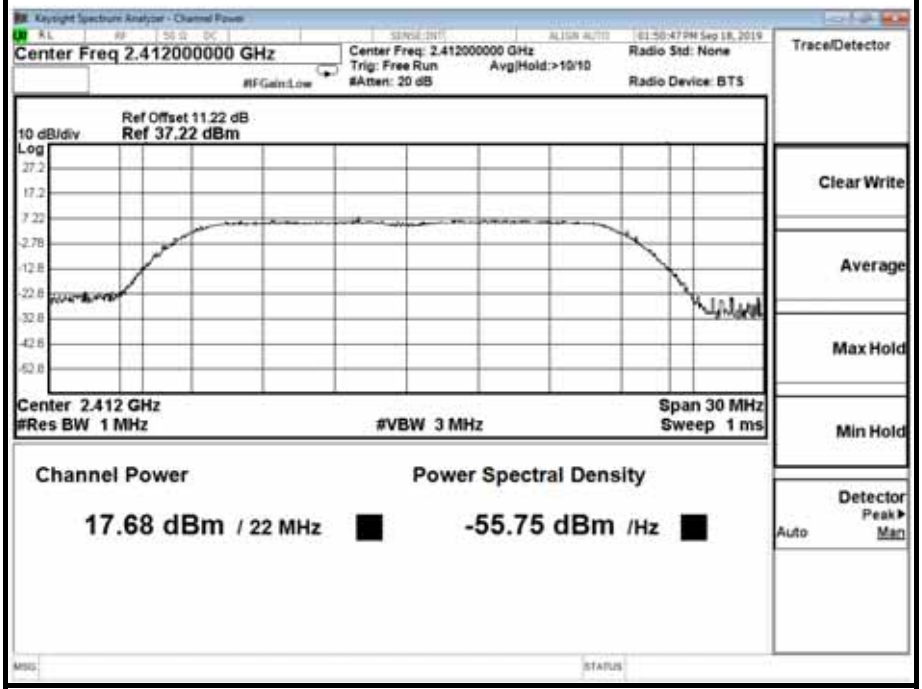


CH High ( 802.11g MODE)

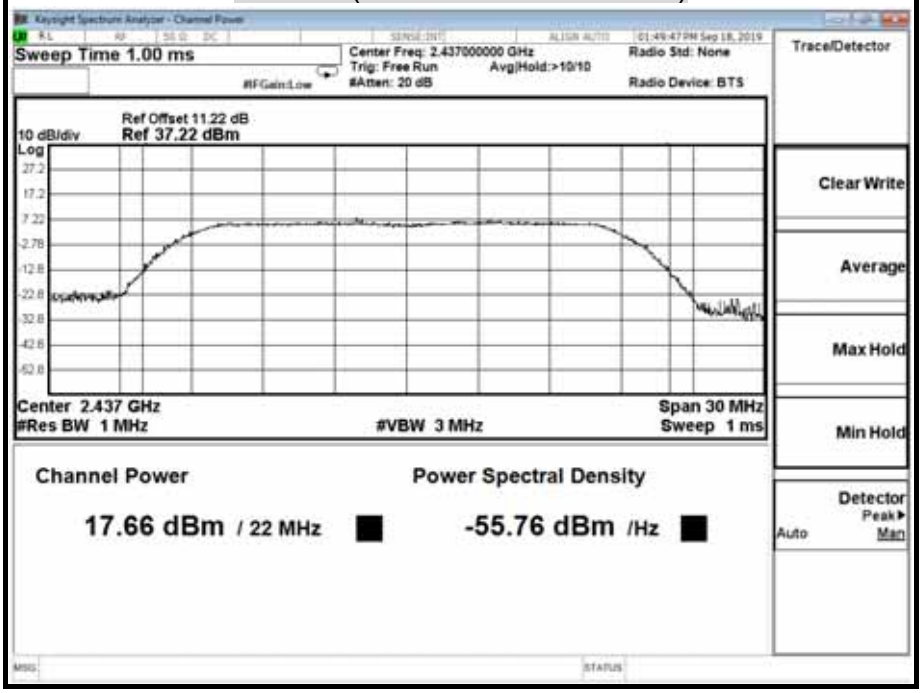


## MAXIMUM PEAK OUTPUT POWER ( 802.11n HT20 MODE)

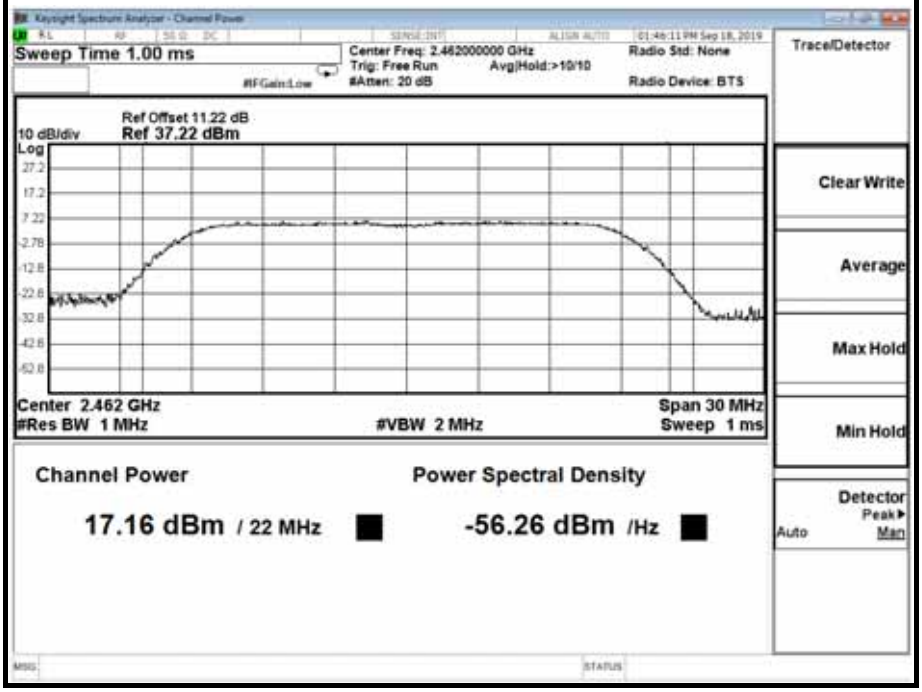
CH Low ( 802.11n HT20 MODE)




CH Mid ( 802.11n HT20 MODE)

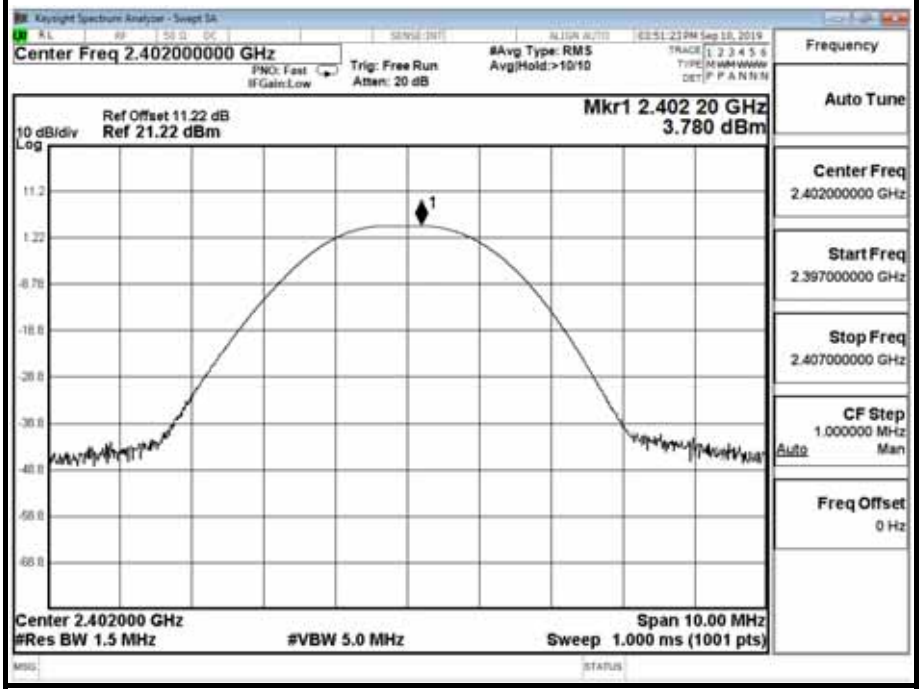


CH High ( 802.11n HT20 MODE)

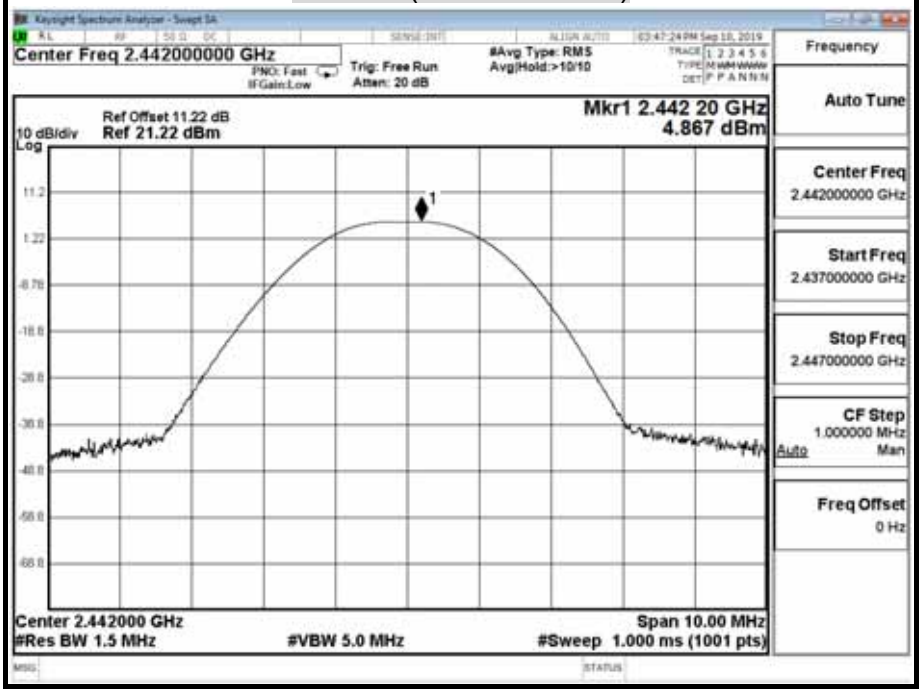


## MAXIMUM PEAK OUTPUT POWER ( GFSK MODE)

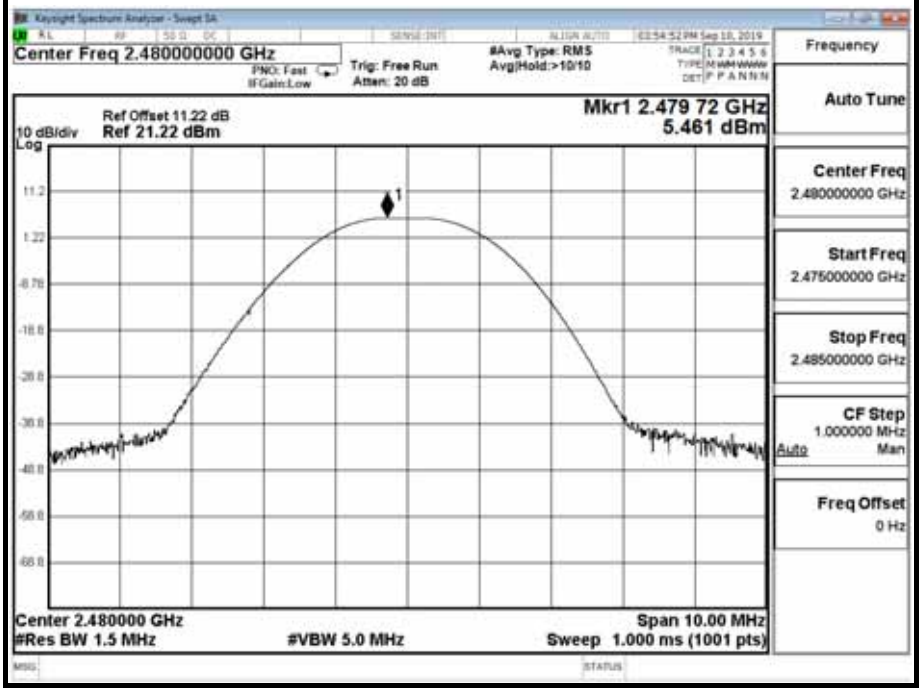
CH Low ( GFSK MODE)




CH Mid ( GFSK MODE)



CH High ( GFSK MODE)



## 8.3 DUTY CYCLE

**LIMIT**

Nil (No dedicated limit specified in the Rules)

**TEST EQUIPMENTS**

| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Date | Calibration Due |
|---|---|---|---|---|---|
| EXA Spectrum Analyzer | KEYSIGHT | N9010A | MY54430216 | 07/18/2019 | 07/17/2020 |
| SMA Cable + 10dB Attenuator | CCS | SMA+10dB ATT | SMA/10dB | 01/25/2019 | 01/24/2020 |
| Software | Excel(ccs-o6-2019 v1.2) | | | | |

***Remark:*** *Each piece of equipment is scheduled for calibration once a year.*

**TEST SETUP**


**TEST PROCEDURE**

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal. Set the center frequency of the instrument to the center frequency of the transmission. Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value. Set VBW ≥ RBW. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if T ≤ 16.7 microseconds.)

## TEST RESULTS

No non-compliance noted.

## TEST DATA

### WIFI

| Model Name | PRIME GO | Test By | Ted Huang |
|---|---|---|---|
| Temp & Humidity | 25.8°C, 52% | Test Date | 2019/09/12 |

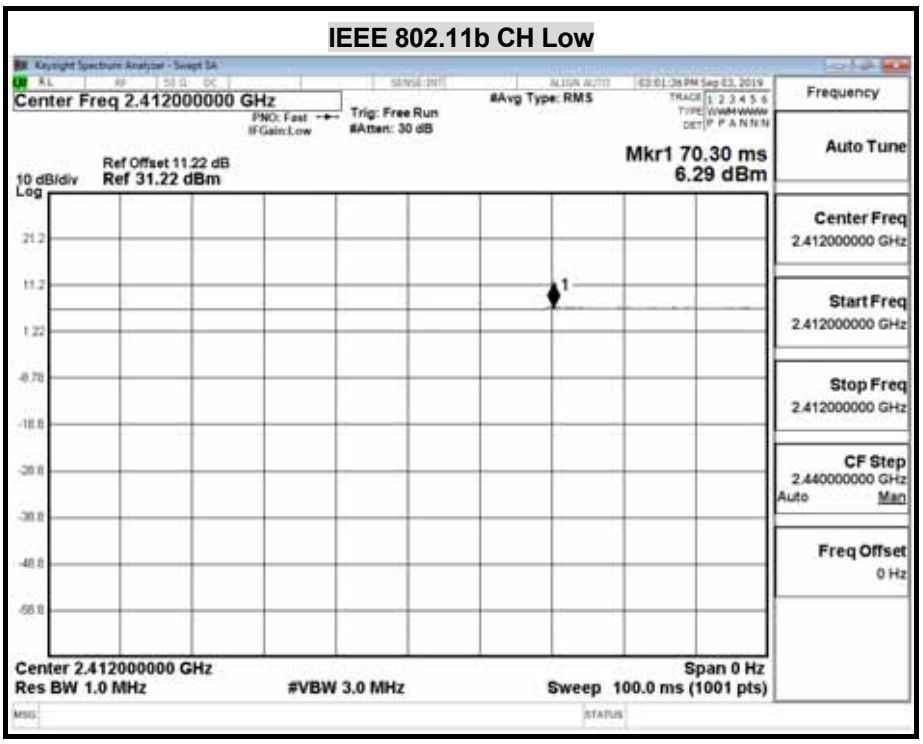
| | us | Times | Ton | Total Ton time(ms) |
|---|---|---|---|---|
| Ton1 | 100000.000 | 1 | 100000 | |
| Ton2 | | 0 | 0 | |
| Ton3 | | | 0 | 100 |
| Tp | | | | 100 |

| | |
|---|---|
| Ton | 100 |
| Tp(Ton+Toff) | 100 |
| Duty Cycle | 1 |
| 10 * log (1/x) = | 0 |

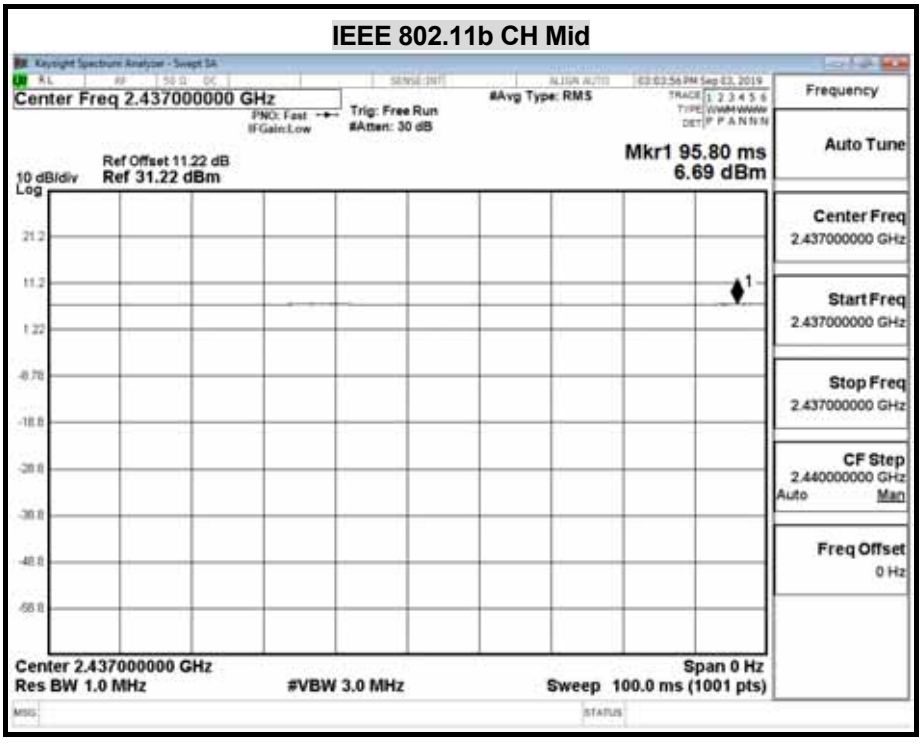
## TEST PLOT

## Plot

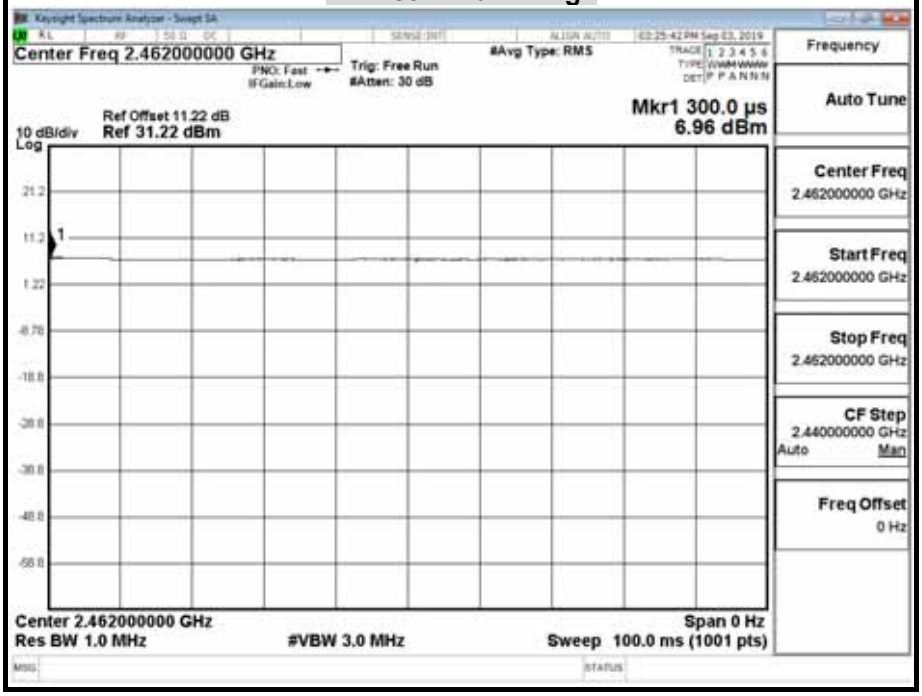
**IEEE 802.11b CH Low**



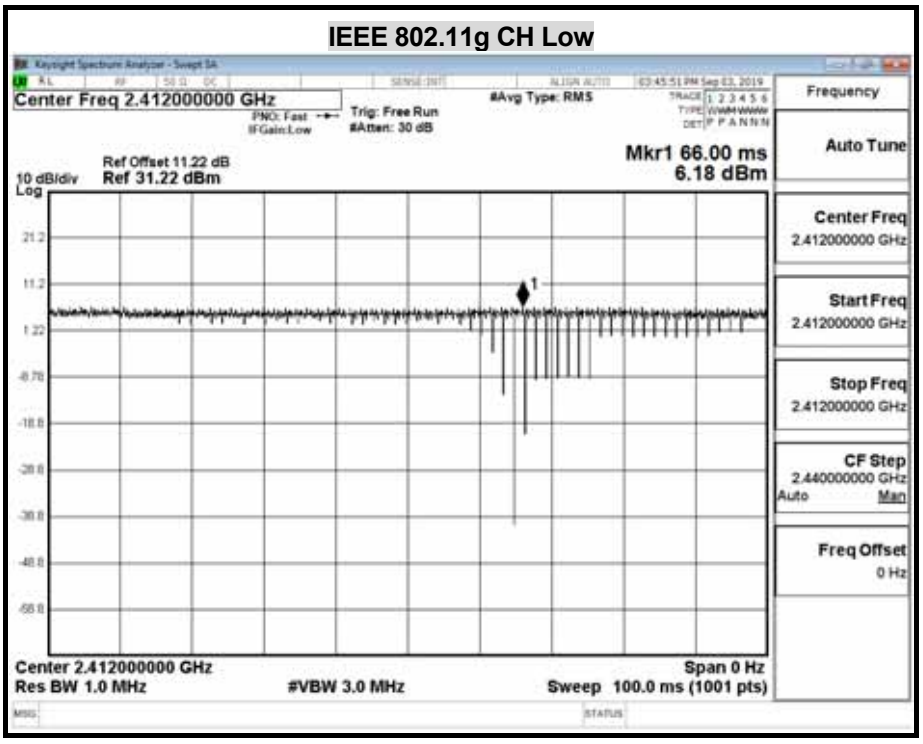

**IEEE 802.11b CH Mid**



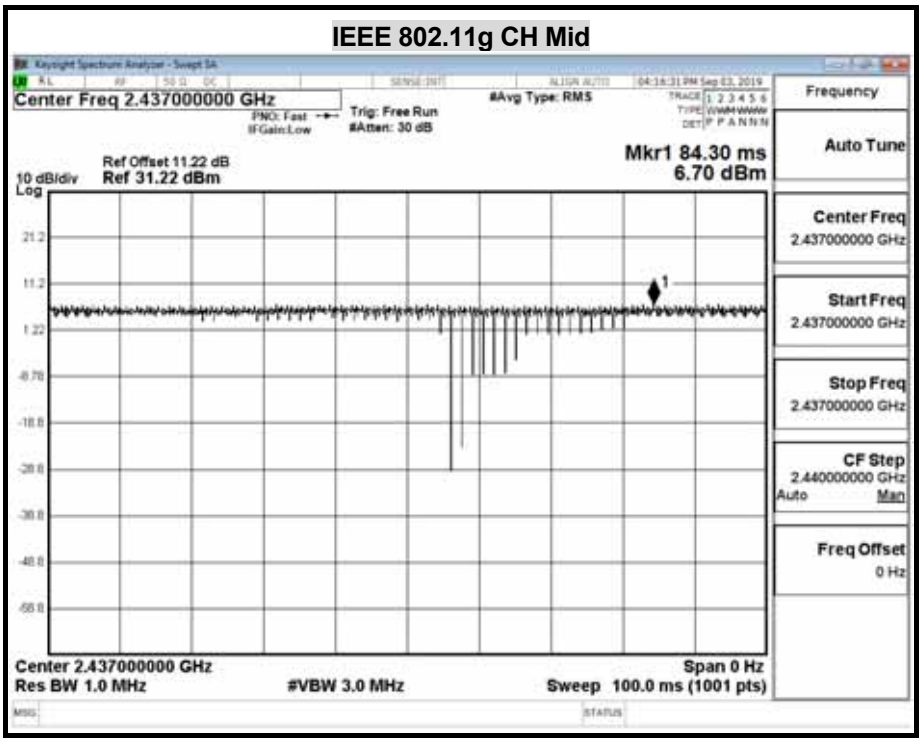
**IEEE 802.11b CH High**



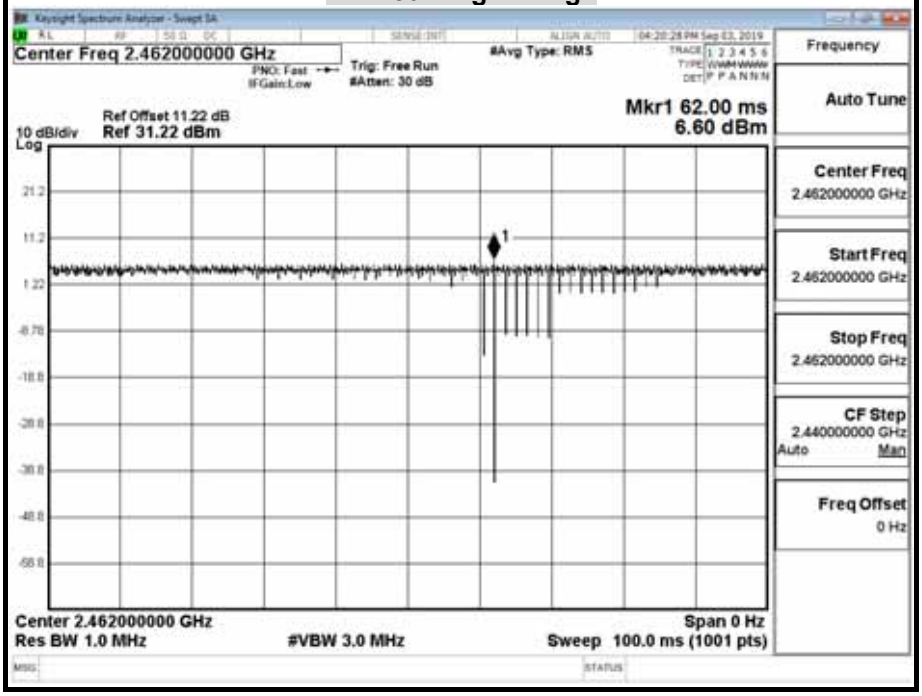
**IEEE 802.11g CH Low**



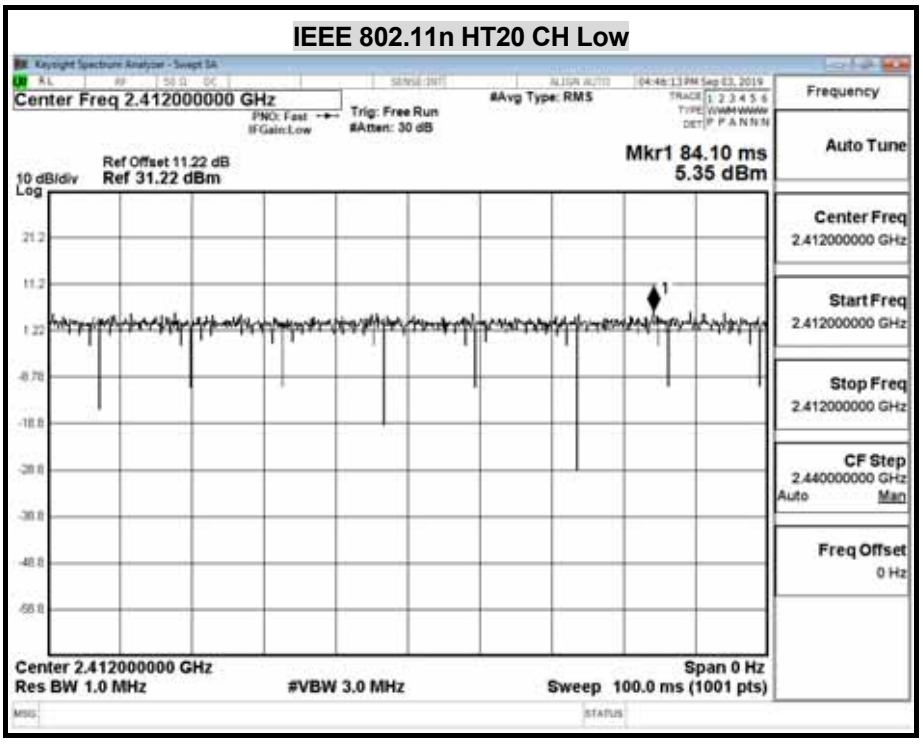

**IEEE 802.11g CH Mid**



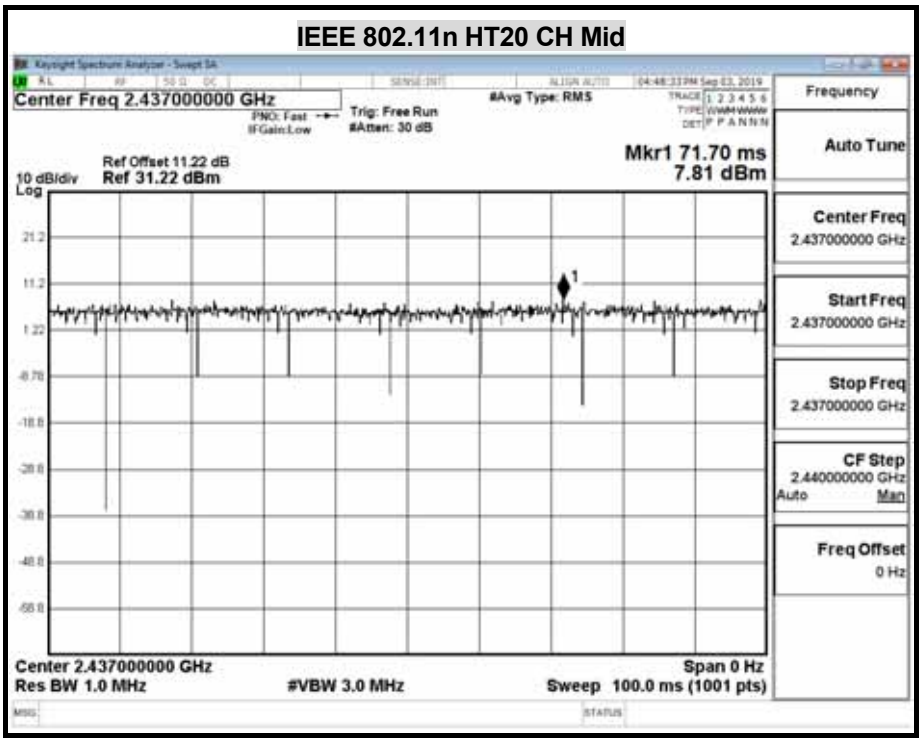
**IEEE 802.11g CH High**



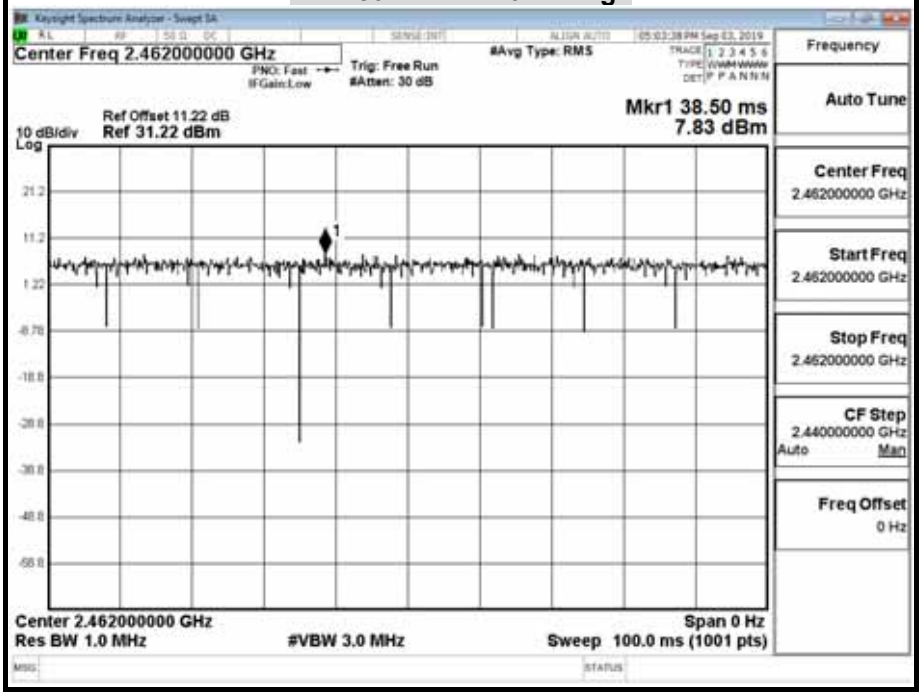
**IEEE 802.11n HT20 CH Low**




**IEEE 802.11n HT20 CH Mid**



**IEEE 802.11n HT20 CH High**



**Bluetooth 4.0:**

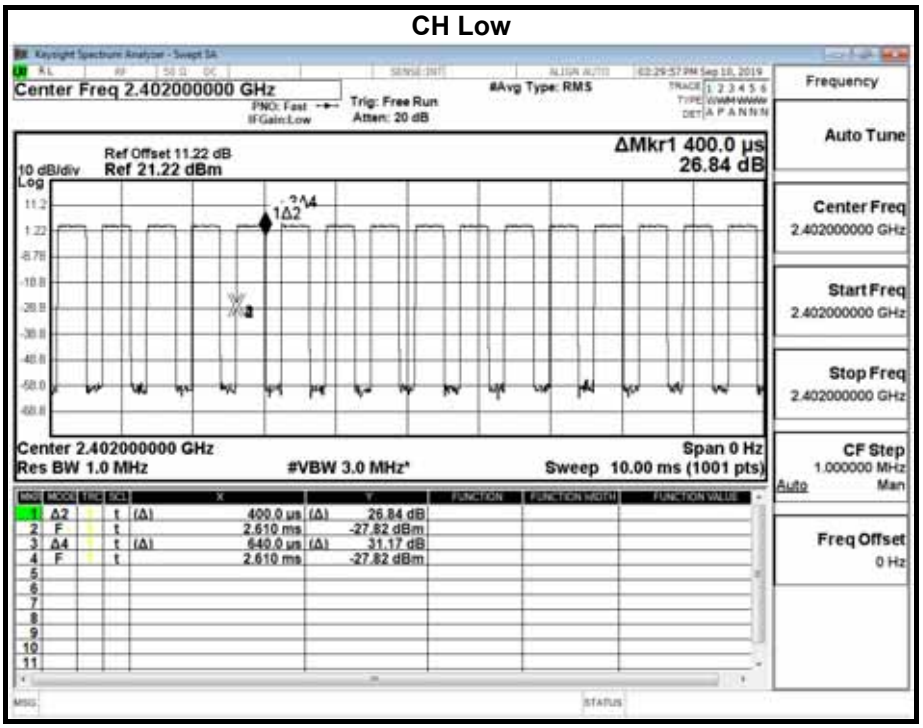
| Model Name | PRIME GO | Test By | Ted Huang |
|---|---|---|---|
| Temp & Humidity | 25.8°C, 52% | Test Date | 2019/9/12 |

| | us | Times | Ton | Total Ton time(ms) |
|---|---|---|---|---|
| Ton1 | 400.000 | 1 | 400 | |
| Ton2 | | 0 | 0 | |
| Ton3 | | | 0 | 0.4 |
| Tp | | | | 0.64 |

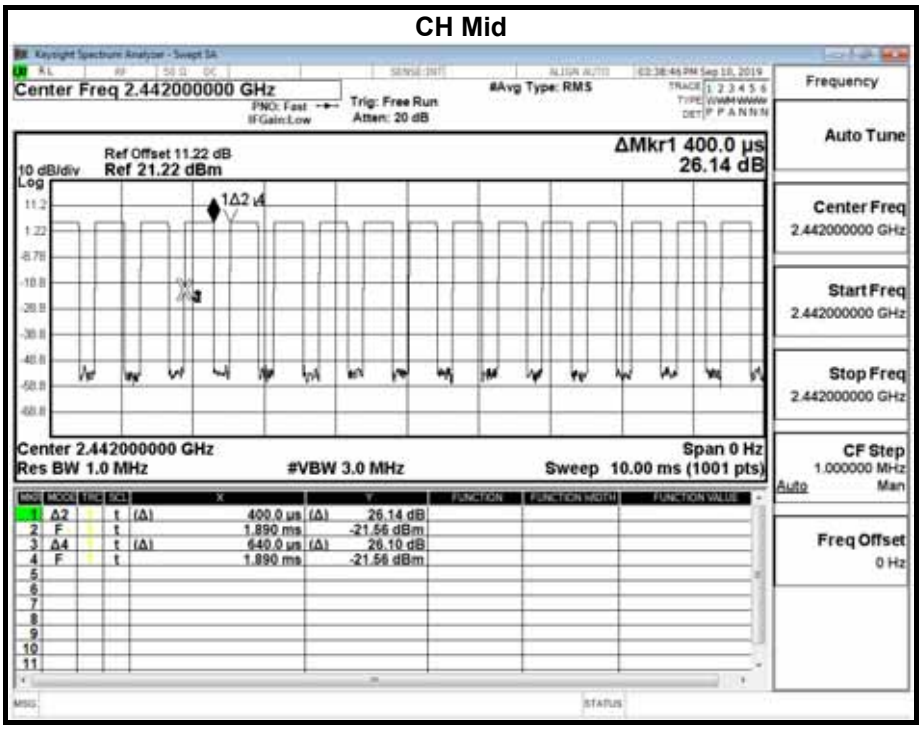
| | |
|---|---|
| Ton | 0.4 |
| Tp(Ton+Toff) | 0.64 |
| Duty Cycle | 0.625 |
| 10 * log (1/x) = | 2.041199827 |

## Plot

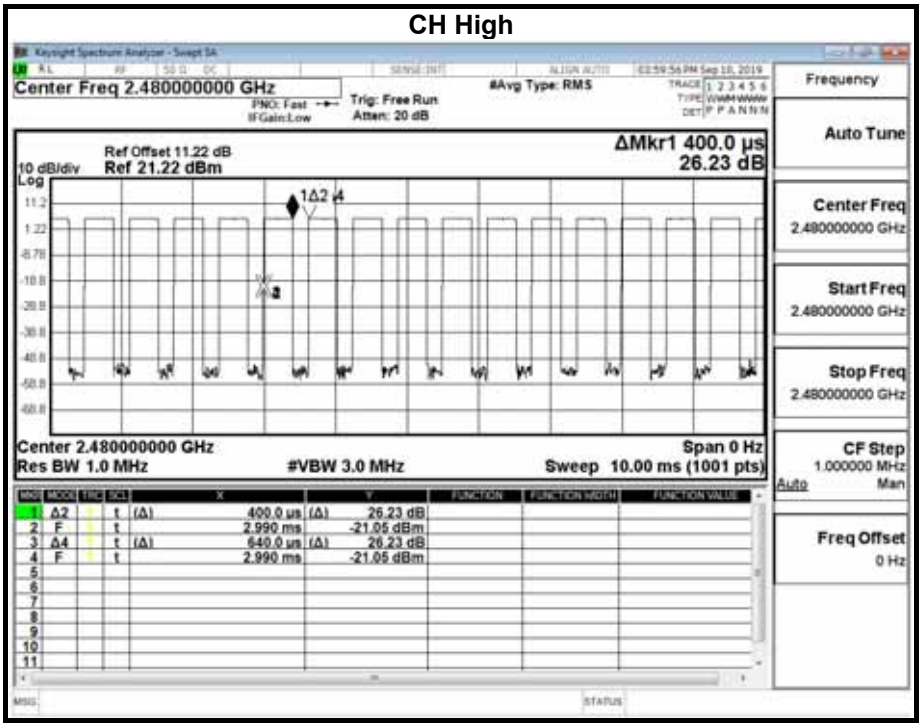
**CH Low**




**CH Mid**



**CH High**



## 8.4 POWER SPECTRAL DENSITY

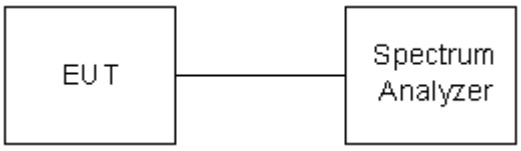
### LIMIT

§ 15.247(e) For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

### TEST EQUIPMENTS

| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Date | Calibration Due |
|---|---|---|---|---|---|
| EXA Spectrum Analyzer | KEYSIGHT | N9010A | MY54430216 | 07/18/2019 | 07/17/2020 |
| SMA Cable + 10dB Attenuator | CCS | SMA+10dB ATT | SMA/10dB | 01/25/2019 | 01/24/2020 |
| Software | Excel(ccs-o6-2019 v1.2) | | | | |

### TEST SETUP




### TEST PROCEDURE

The tests were performed in accordance with KDB 558074 5.3.1.

**5.3.1 Measurement Procedure PKPSD:**

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the *DTS bandwidth*.
3. Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
4. Set the VBW ≥ 3 RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

## TEST RESULTS

| Model Name | PRIME GO | Test By | Ted Huang |
|---|---|---|---|
| Temp & Humidity | 25.8℃, 52% | Test Date | 2019/09/12 |

**IEEE 802.11b mode**

| Channel | Frequency (MHz) | PPSD/100kHz (dBm) | PPSD/3kHz (dBm) | Limit (dBm) | Margin (dB) | Pass / Fail |
|---|---|---|---|---|---|---|
| Low | 2412 | 3.56 | -11.67 | 8.00 | -19.67 | PASS |
| Middle | 2437 | 3.90 | -11.33 | 8.00 | -19.33 | PASS |
| High | 2462 | 4.14 | -11.09 | 8.00 | -19.09 | PASS |

**NOTE** : 1. At finial test to get the worst-case emission at 1long Mbps long.
2. The cable assembly insertion loss of 11.1dB (including 10 dB pad and 1.1 dB cable) was Entered as an offset in the spectrum analyzer to allow for direct reading of power.

**IEEE 802.11g mode**

| Channel | Frequency (MHz) | PPSD/100kHz (dBm) | PPSD/3kHz (dBm) | Limit (dBm) | Margin (dB) | Pass / Fail |
|---|---|---|---|---|---|---|
| Low | 2412 | -3.06 | -18.29 | 8.00 | -26.29 | PASS |
| Middle | 2437 | -1.81 | -17.04 | 8.00 | -25.04 | PASS |
| High | 2462 | -0.65 | -15.88 | 8.00 | -23.88 | PASS |

**NOTE** : 1. At finial test to get the worst-case emission at 6long Mbps long.
2. The cable assembly insertion loss of 11.1dB (including 10 dB pad and 1.1 dB cable) was Entered as an offset in the spectrum analyzer to allow for direct reading of power.

**IEEE 802.11n HT20 mode**

| Channel | Frequency (MHz) | PPSD/100kHz (dBm) | PPSD/3kHz (dBm) | Limit (dBm) | Margin (dB) | Pass / Fail |
|---|---|---|---|---|---|---|
| Low | 2412 | -1.91 | -17.14 | 8.00 | -25.14 | PASS |
| Middle | 2437 | 0.66 | -14.57 | 8.00 | -22.57 | PASS |
| High | 2462 | 0.69 | -14.54 | 8.00 | -22.54 | PASS |

**NOTE** : 1. At finial test to get the worst-case emission at 6.5long Mbps long.
2. The cable assembly insertion loss of 11.1dB (including 10 dB pad and 1.1 dB cable) was Entered as an offset in the spectrum analyzer to allow for direct reading of power.

| Model Name | PRIME GO | Test By | Ted Huang |
|---|---|---|---|
| Temp & Humidity | 25.8°C, 52% | Test Date | 2019/9/12 |

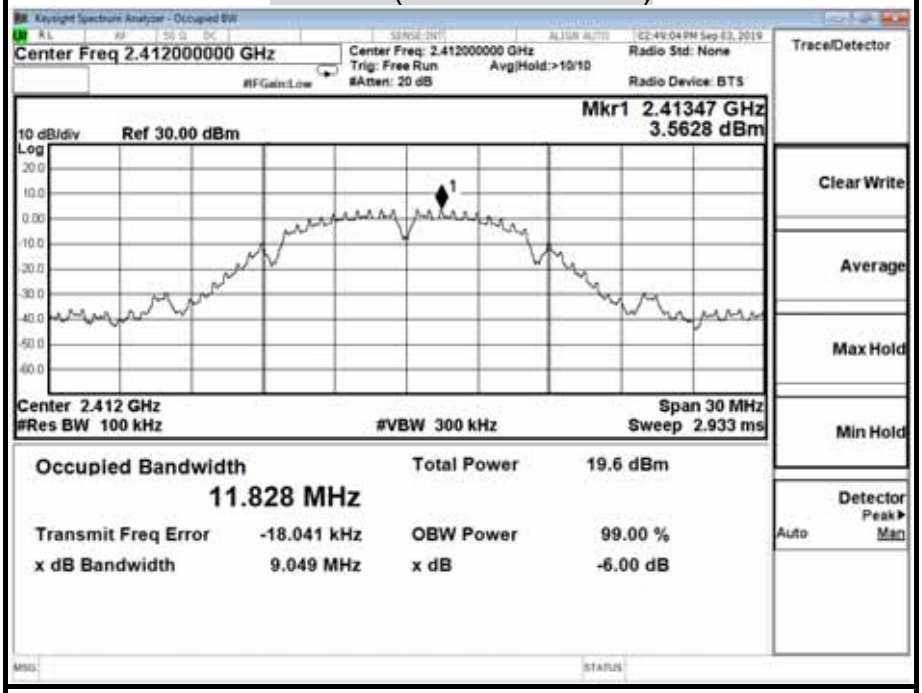
**Bluetooth 4.0 (GFSK) mode**

| Channel | Frequency (MHz) | PPSD/100kHz (dBm) | PPSD/3kHz (dBm) | Limit (dBm) | Margin (dB) | Pass / Fail |
|---|---|---|---|---|---|---|
| Low | 2402 | 3.15 | -12.08 | 8.00 | -20.08 | PASS |
| Middle | 2442 | 4.16 | -11.07 | 8.00 | -19.07 | PASS |
| High | 2480 | 4.86 | -10.37 | 8.00 | -18.37 | PASS |

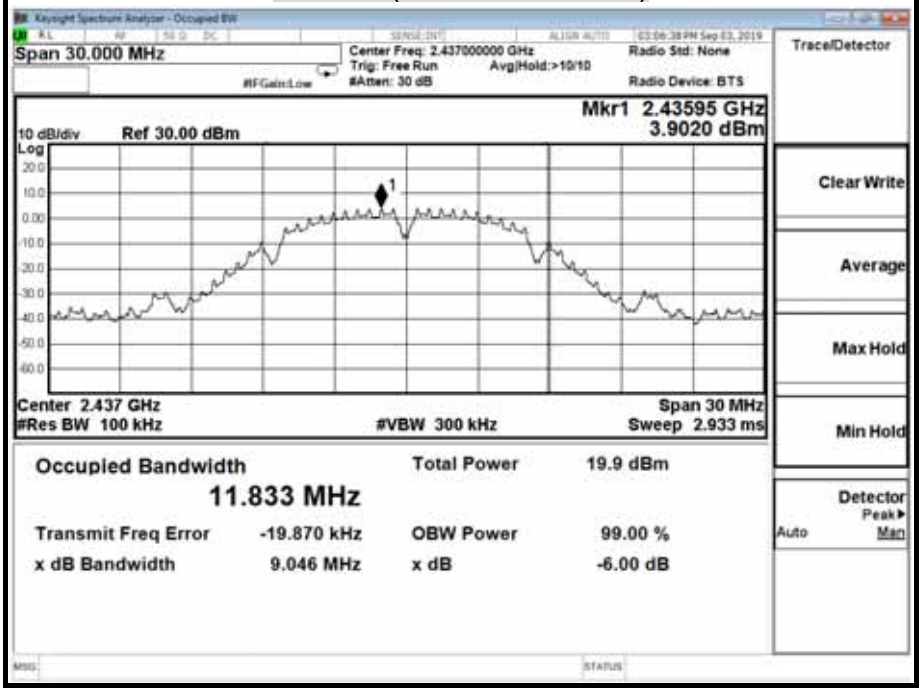
**NOTE** : 1. At finial test to get the worst-case emission at 1long Mbps long.
2. The cable assembly insertion loss of 11.1dB (including 10 dB pad and 1.1 dB cable) was Entered as an offset in the spectrum analyzer to allow for direct reading of power.

## POWER SPECTRAL DENSITY ( IEEE 802.11b MODE)

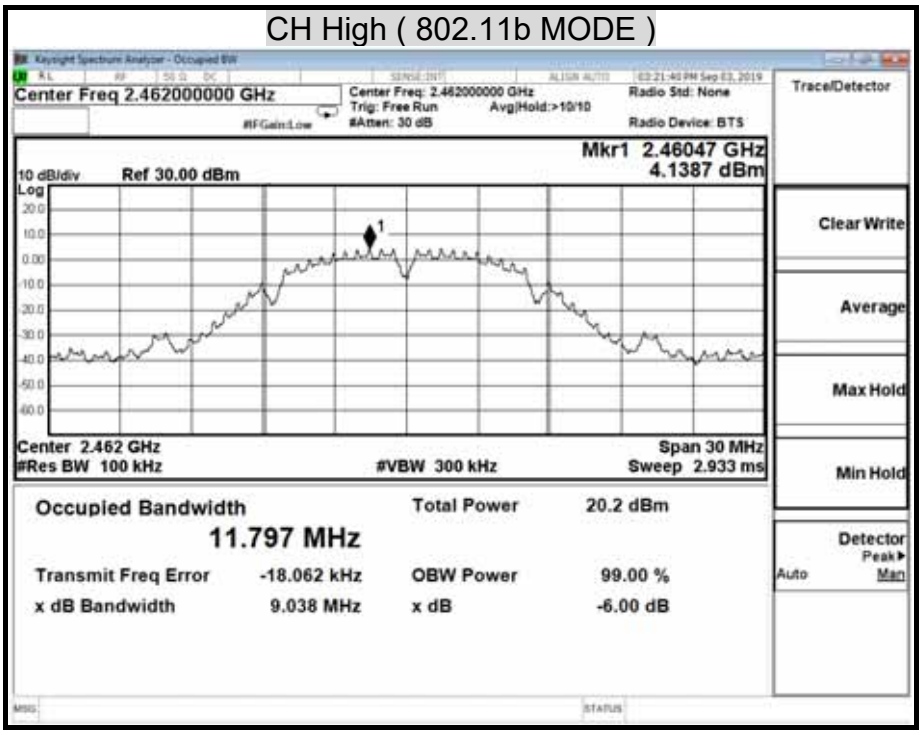
CH Low ( 802.11b MODE )




CH Mid ( 802.11b MODE )

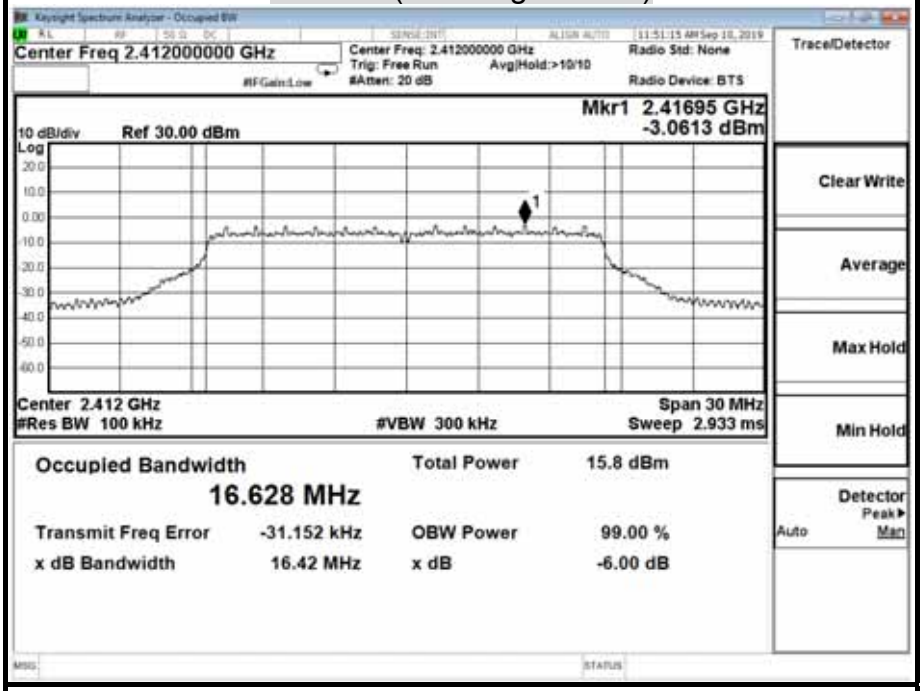


CH High ( 802.11b MODE )

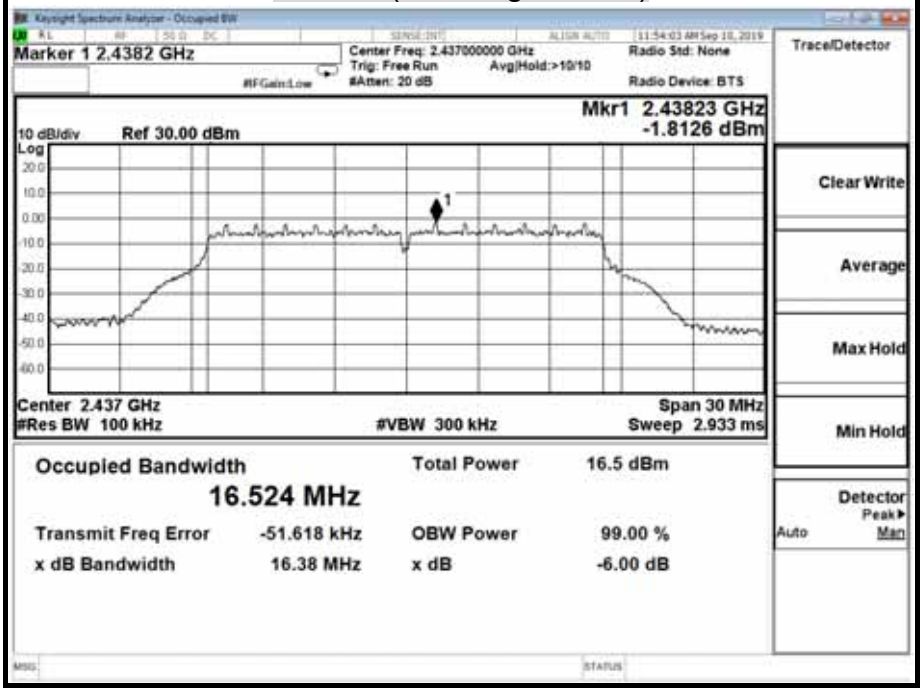


## POWER SPECTRAL DENSITY ( IEEE 802.11g MODE )

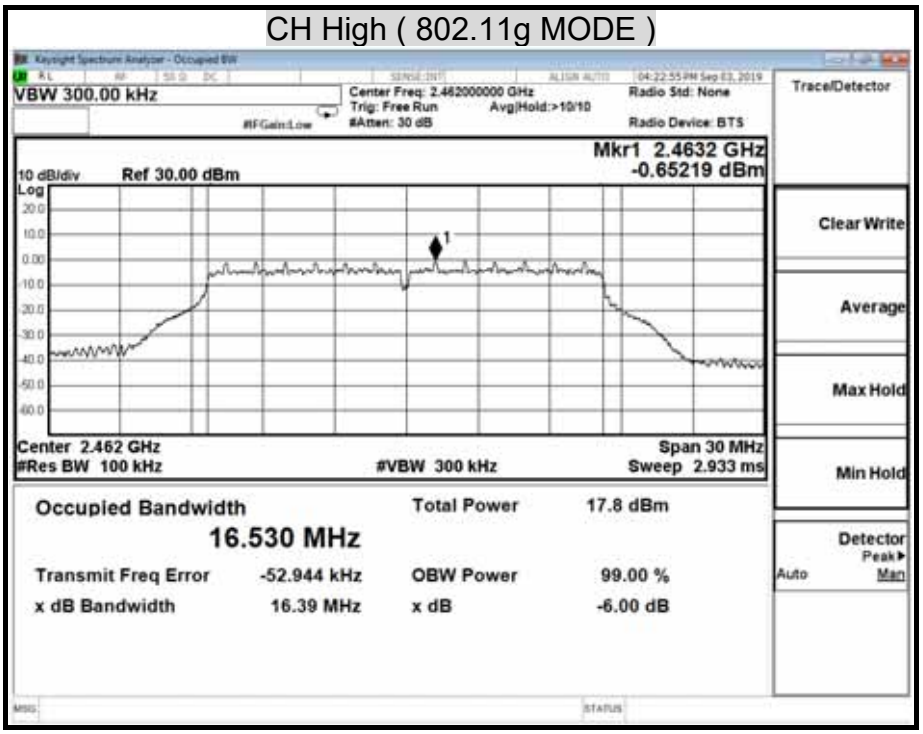
CH Low ( 802.11g MODE )




CH Mid ( 802.11g MODE )

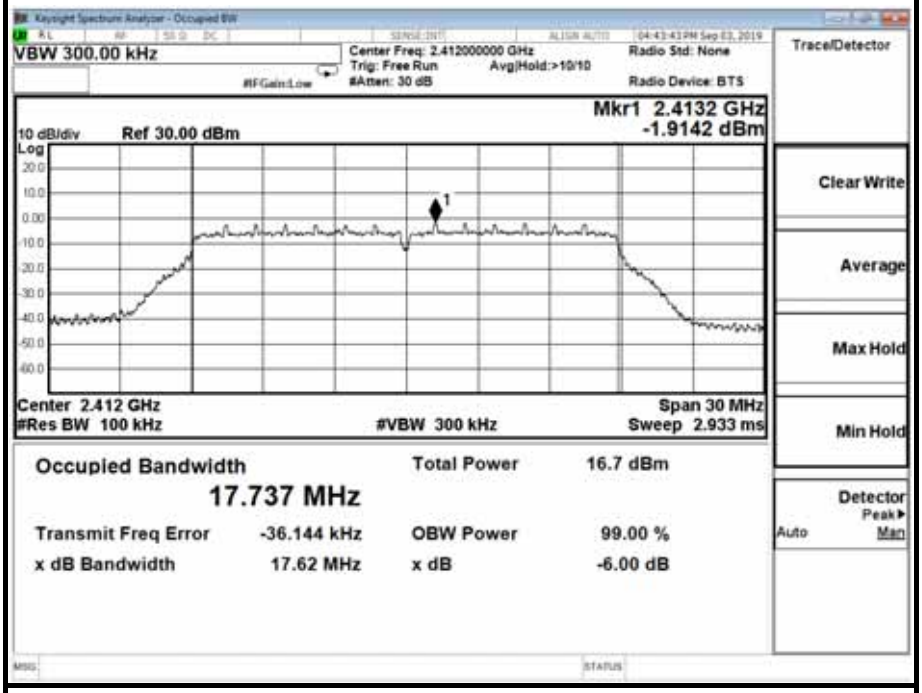


CH High ( 802.11g MODE )

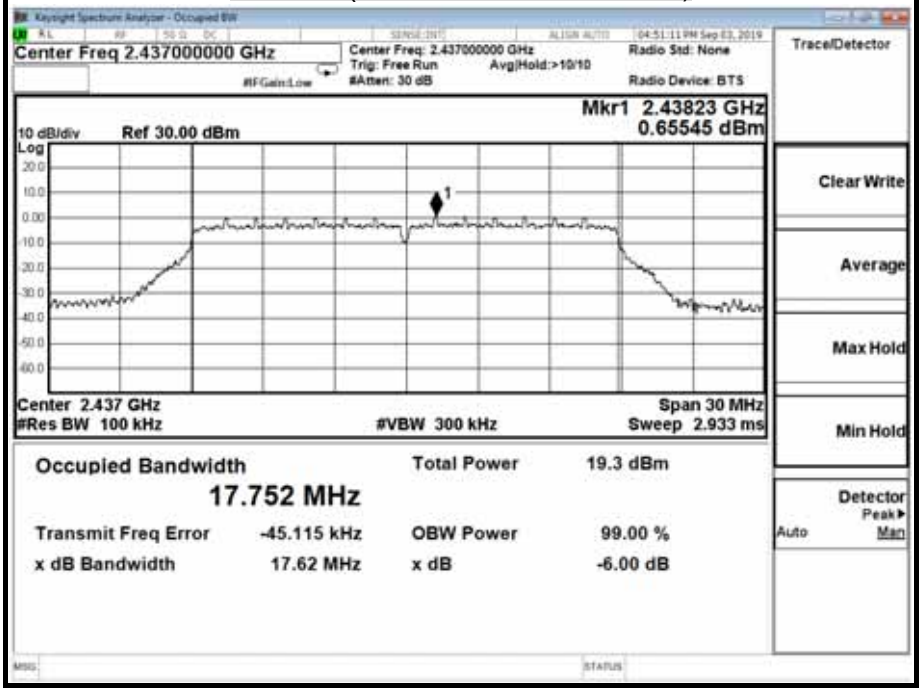


## POWER SPECTRAL DENSITY ( 802.11n HT20 MODE )

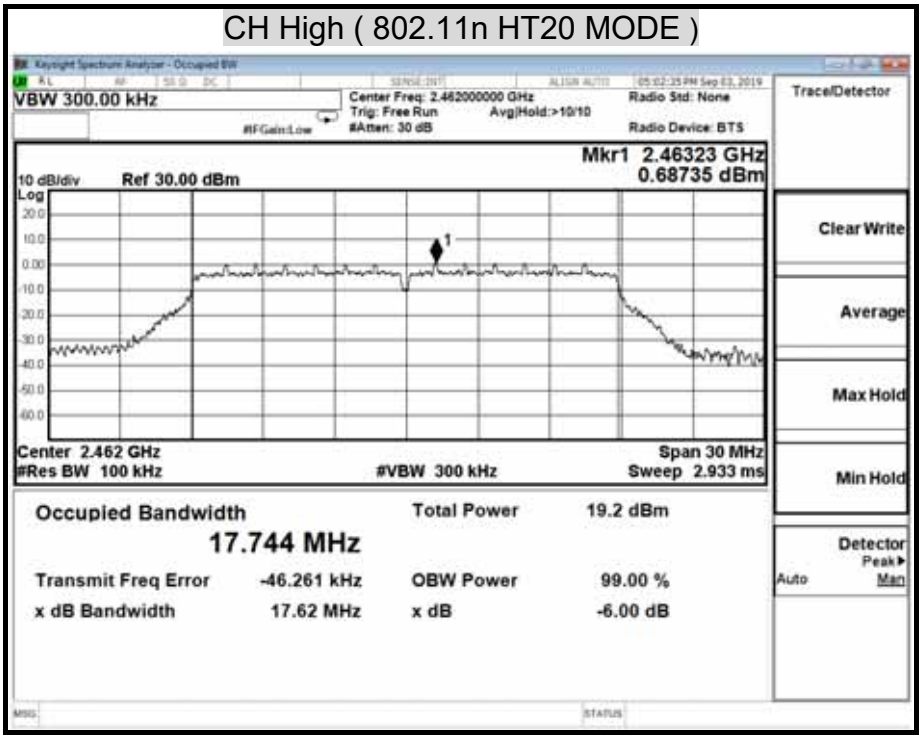
CH Low ( 802.11n HT20 MODE )




CH Mid ( 802.11n HT20 MODE )

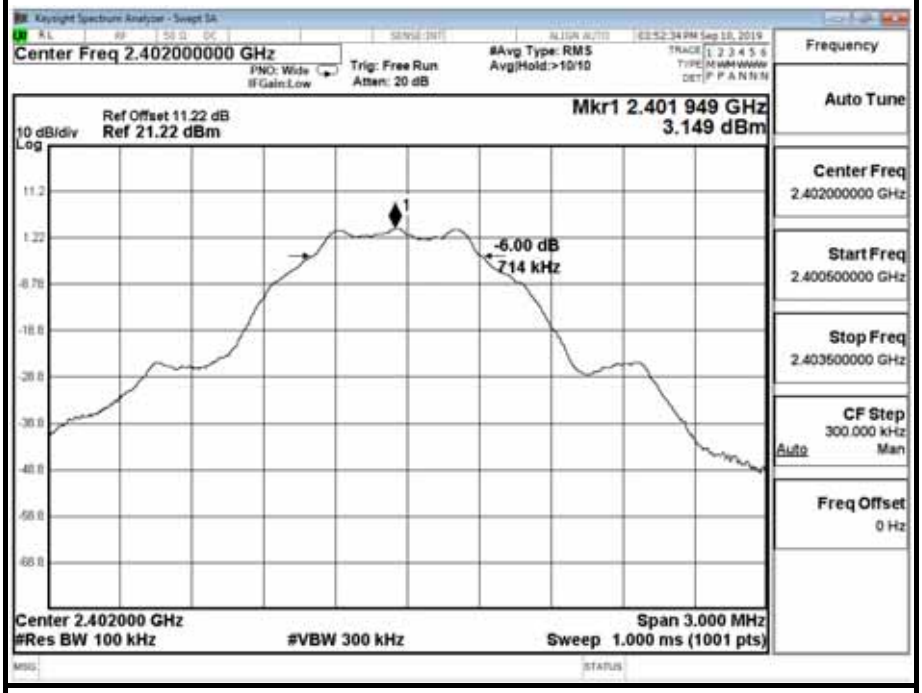


CH High ( 802.11n HT20 MODE )

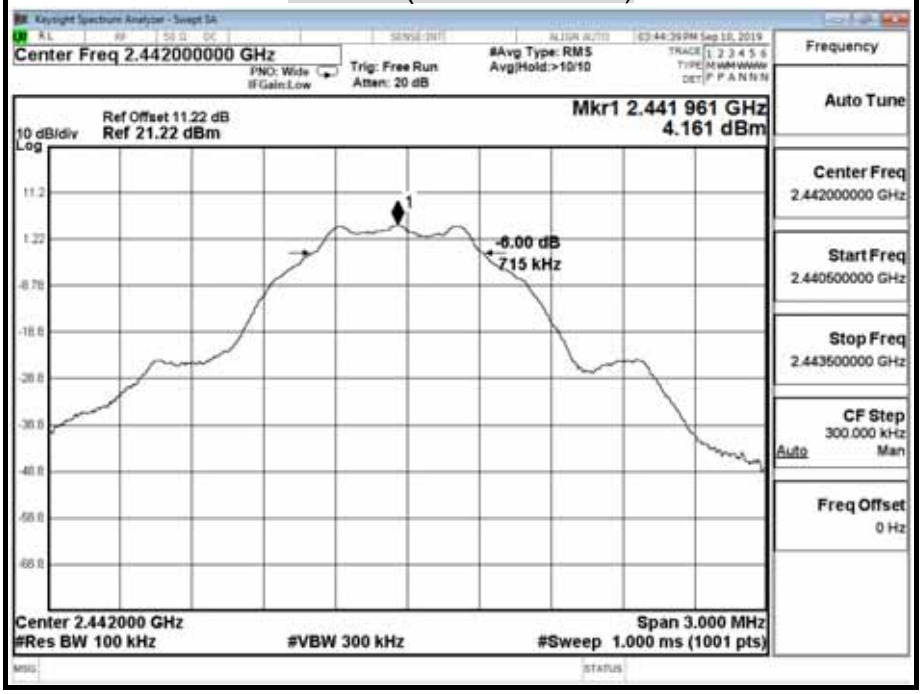


## POWER SPECTRAL DENSITY ( Bluetooth 4.0 (GFSK) MODE )

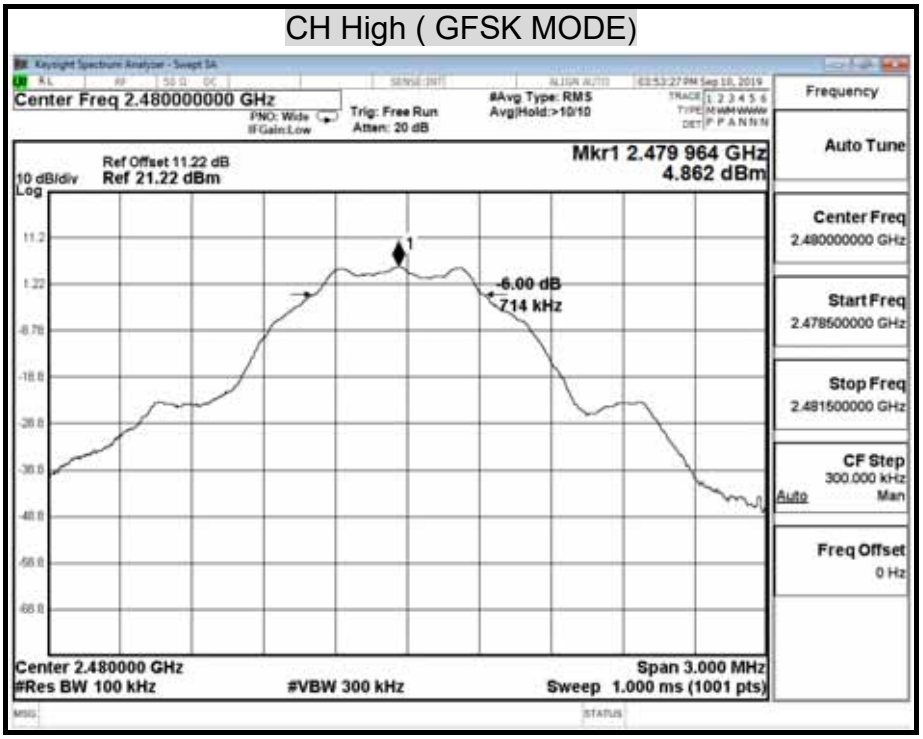
CH Low ( GFSK MODE )




CH Mid ( GFSK MODE )



CH High ( GFSK MODE)



## 8.5 CONDUCTED SPURIOUS EMISSION

**LIMITS**

§ 15.247(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum 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 and that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. 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)).

**TEST EQUIPMENTS**

| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Date | Calibration Due |
|---|---|---|---|---|---|
| EXA Spectrum Analyzer | KEYSIGHT | N9010A | MY54430216 | 07/18/2019 | 07/17/2020 |
| SMA Cable + 10dB Attenuator | CCS | SMA+10dB ATT | SMA/10dB | 01/25/2019 | 01/24/2020 |
| Software | Excel(ccs-o6-2019 v1.2) | | | | |

***Remark:*** *Each piece of equipment is scheduled for calibration once a year.*

**TEST SETUP**


**TEST PROCEDURE**

The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

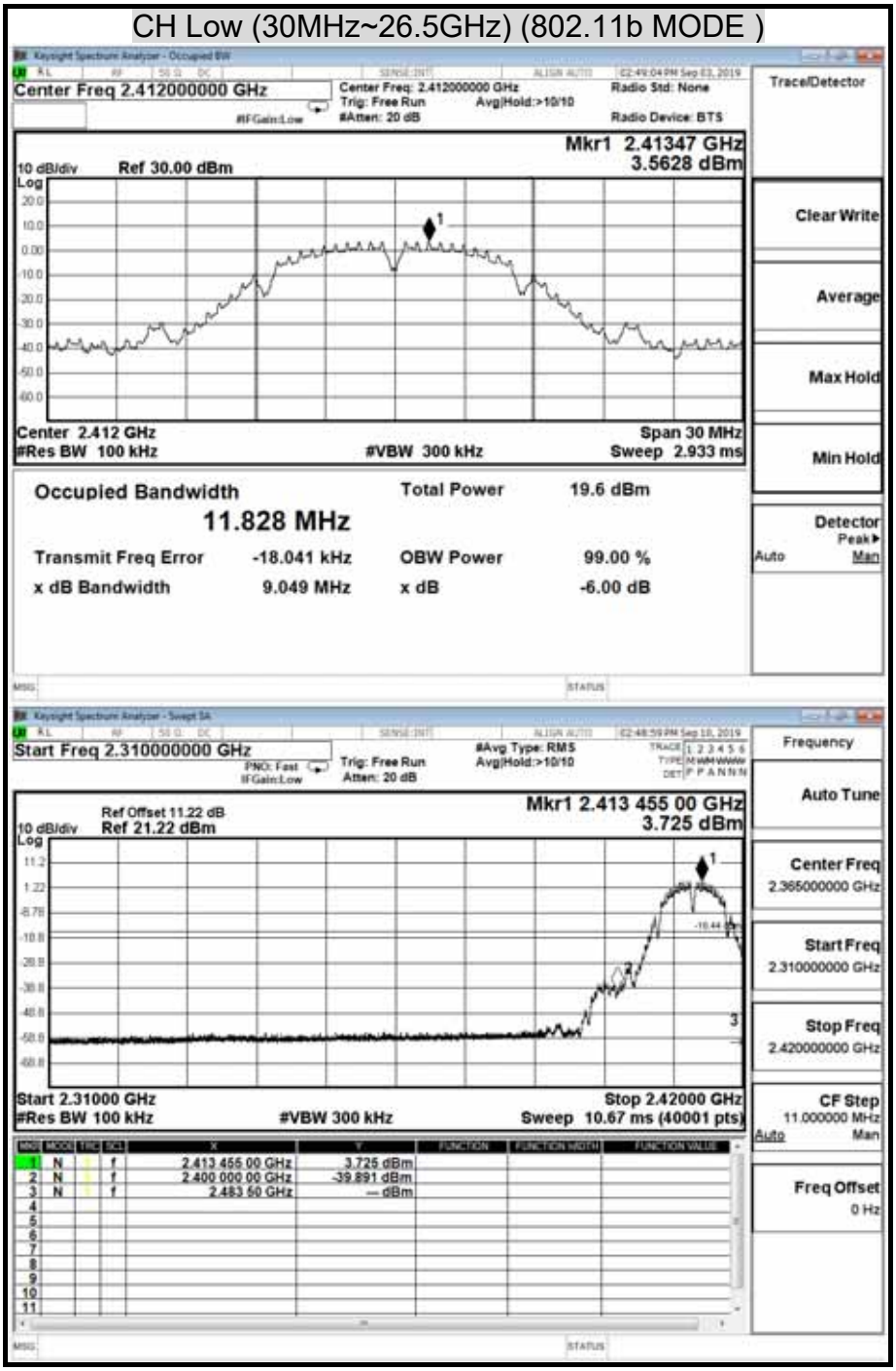
## TEST RESULTS

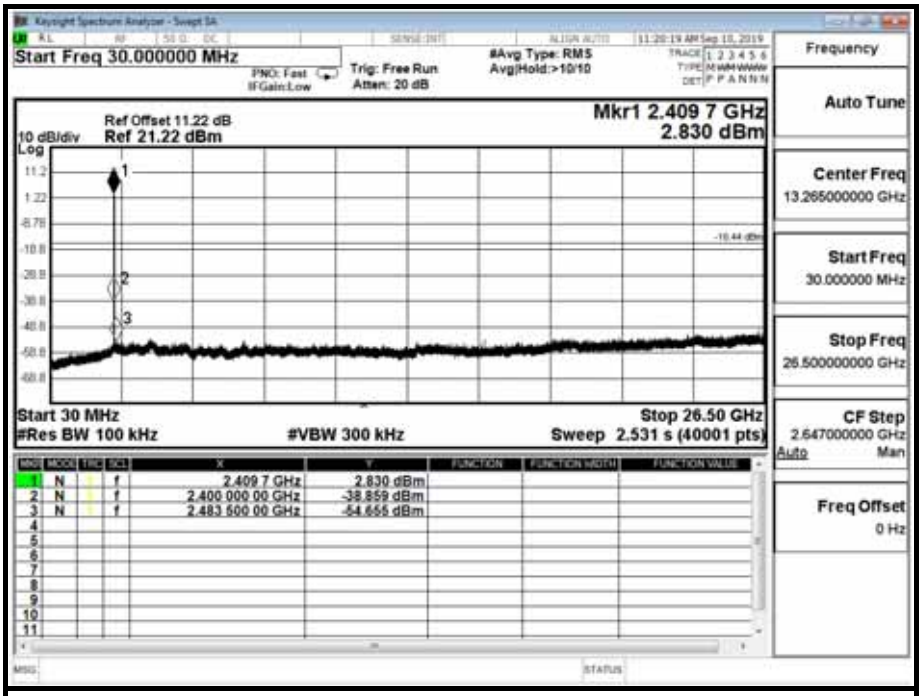
### OUT-OF-BAND SPURIOUS EMISSIONS-CONDUCTED MEASUREMENT

| Model Name | PRIME GO | Test By | Ted Huang |
|---|---|---|---|
| Temp & Humidity | 25.8°C, 52% | Test Date | 2019/09/12 |

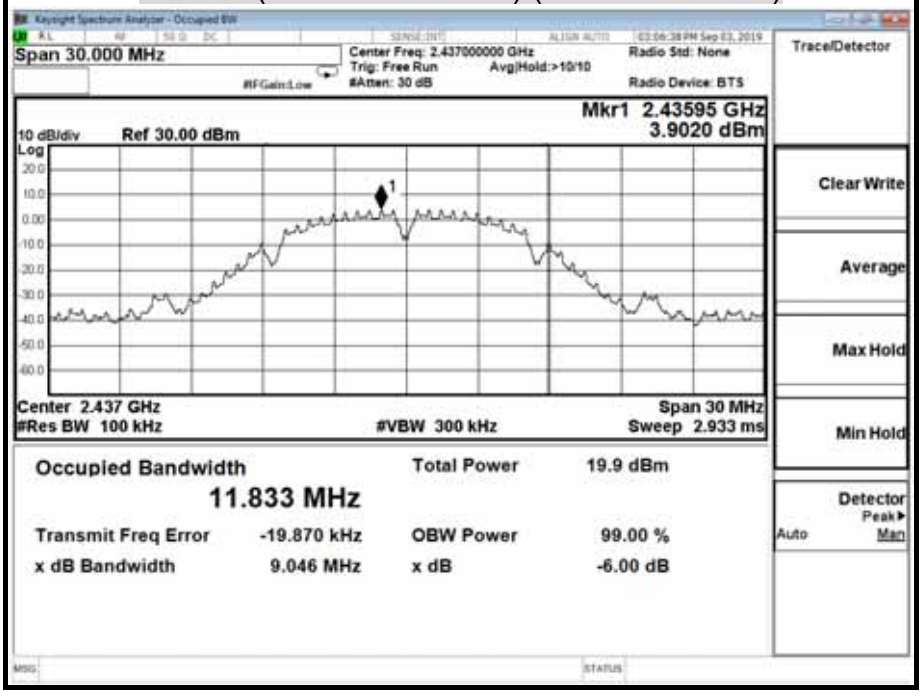
**( IEEE 802.11b MODE )**

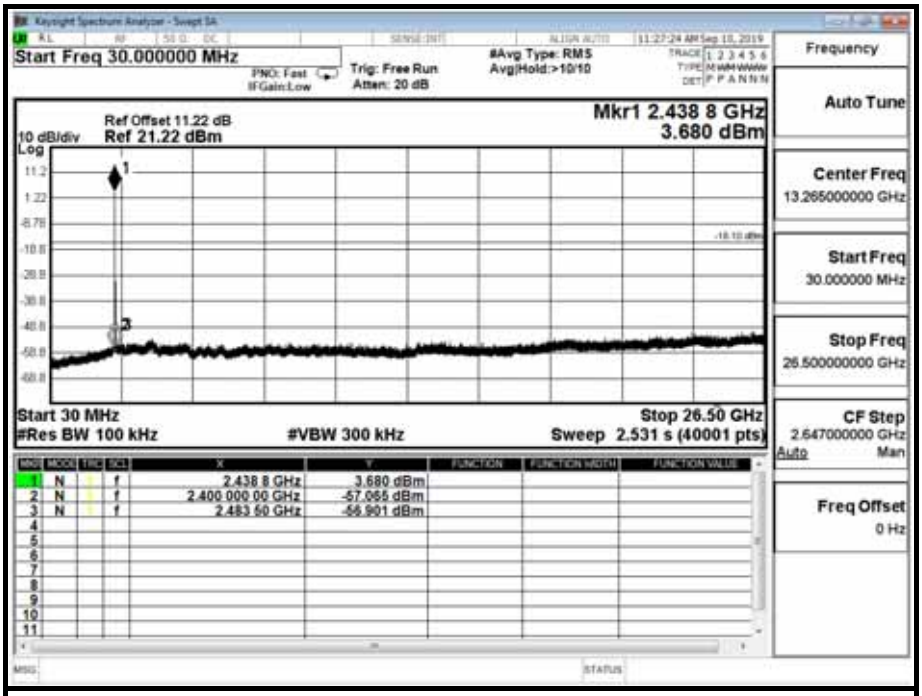
CH Low (30MHz~26.5GHz) (802.11b MODE )



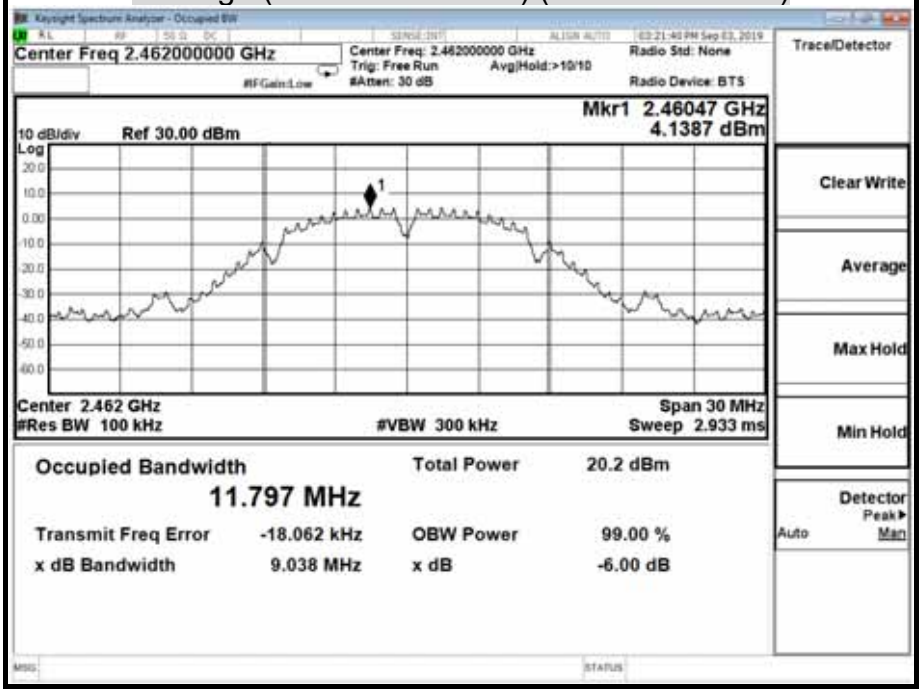


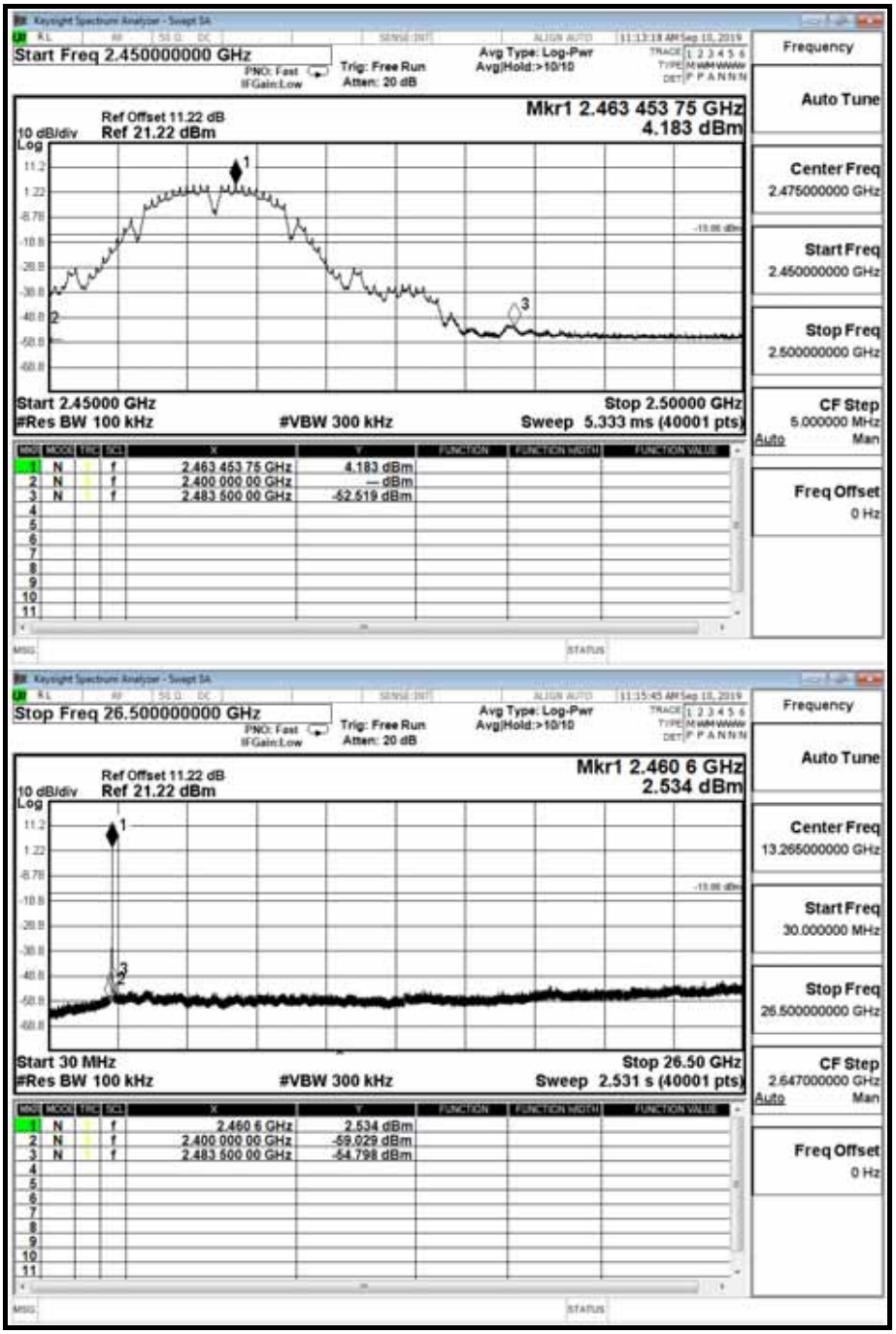

CH Mid (30MHz~26.5GHz) (802.11b MODE )






CH High (30MHz~26.5GHz) (802.11b MODE )

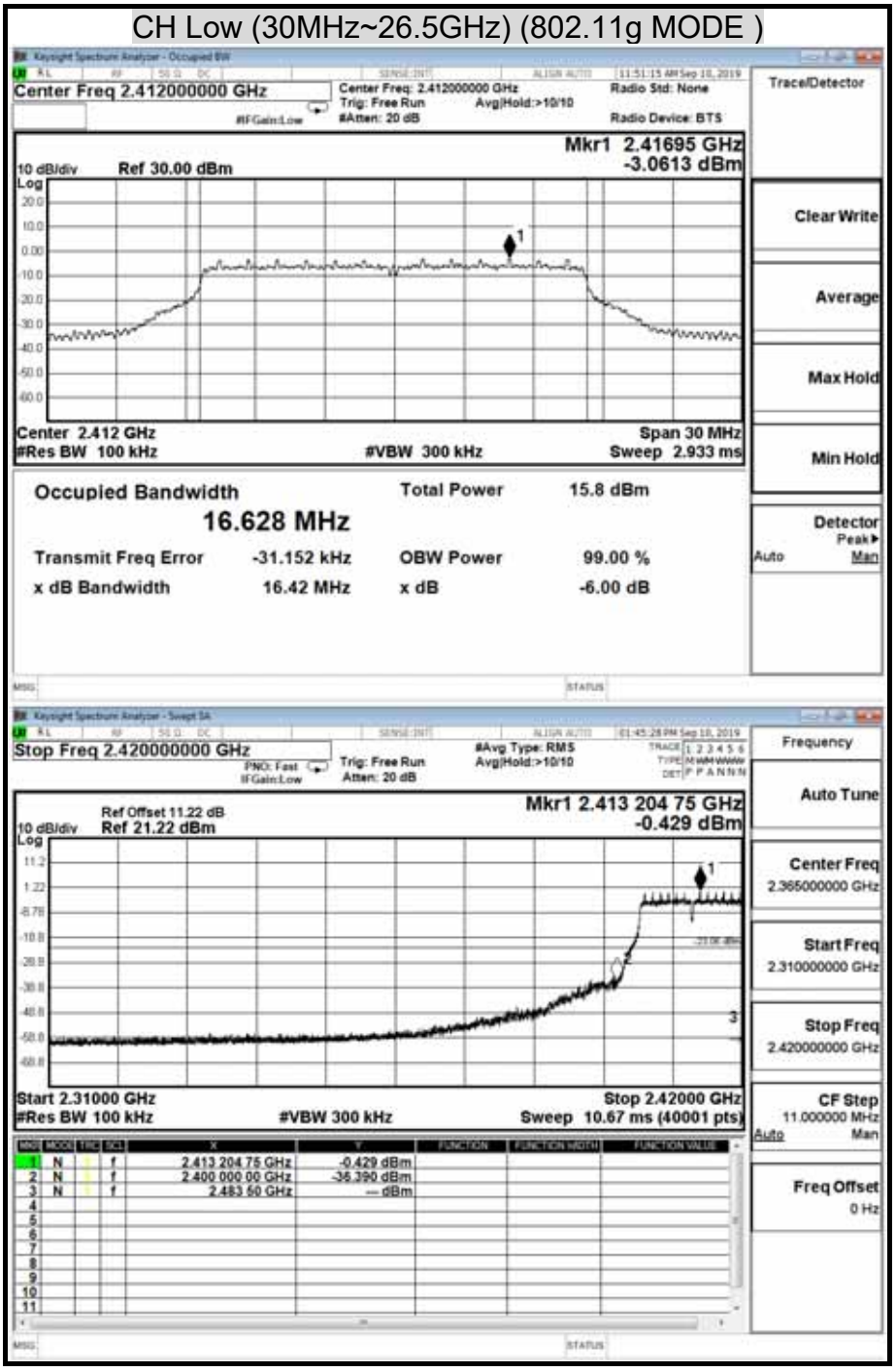


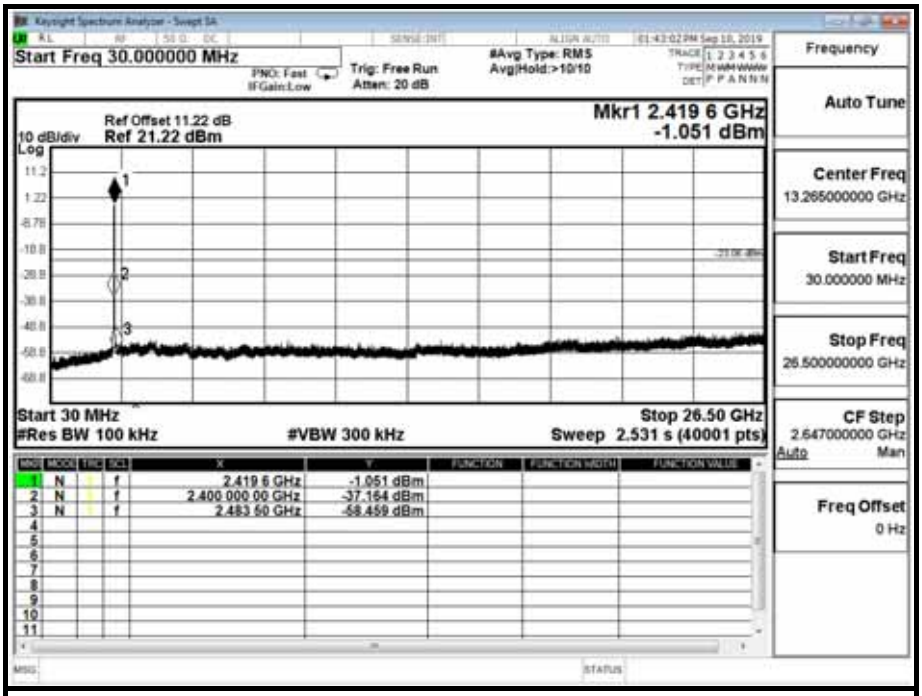


## OUT-OF-BAND SPURIOUS EMISSIONS-CONDUCTED MEASUREMENT

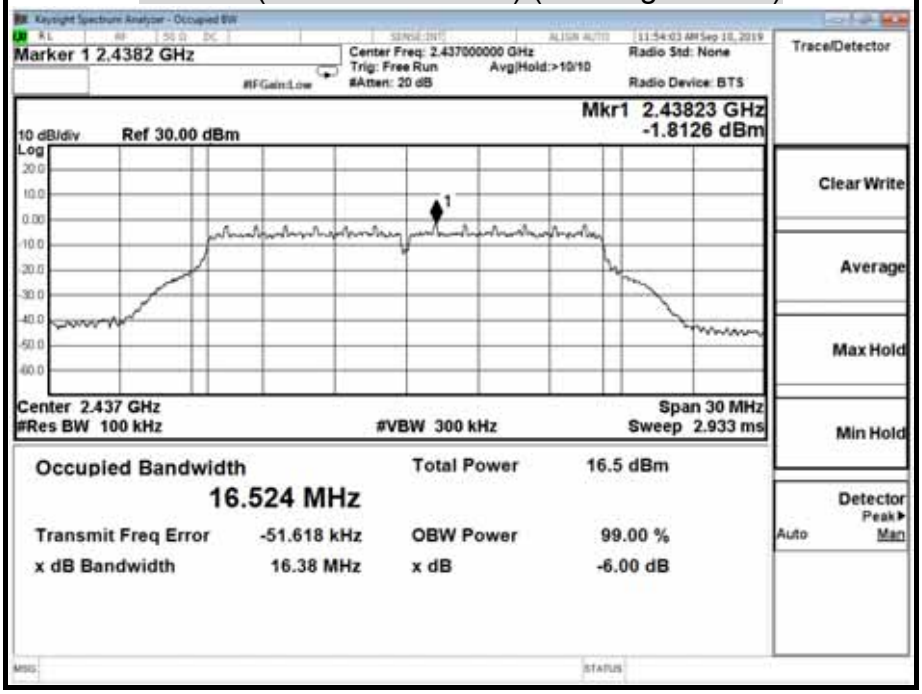
## ( 802.11g MODE )

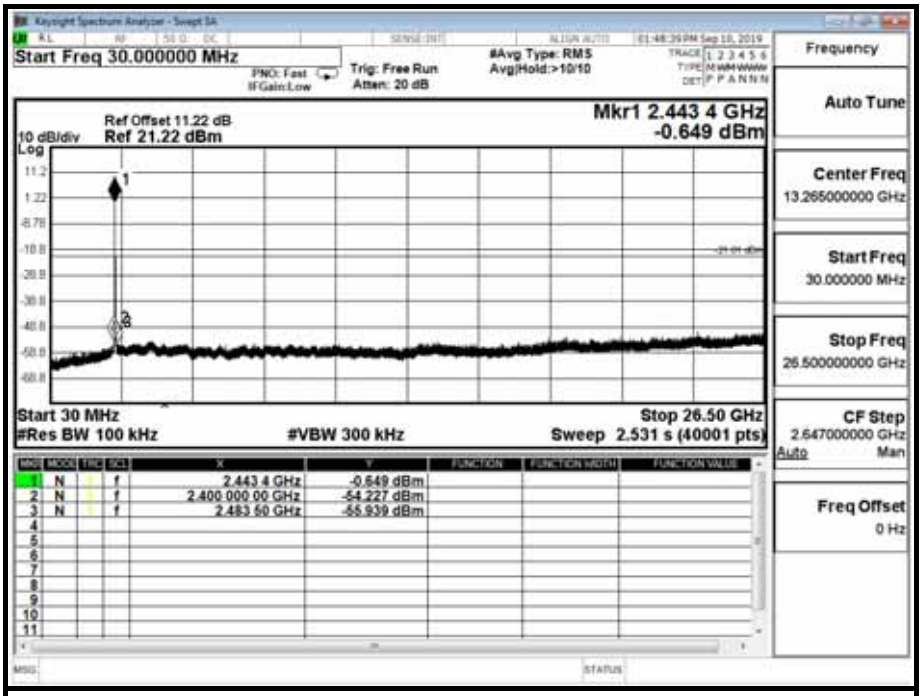
CH Low (30MHz~26.5GHz) (802.11g MODE )



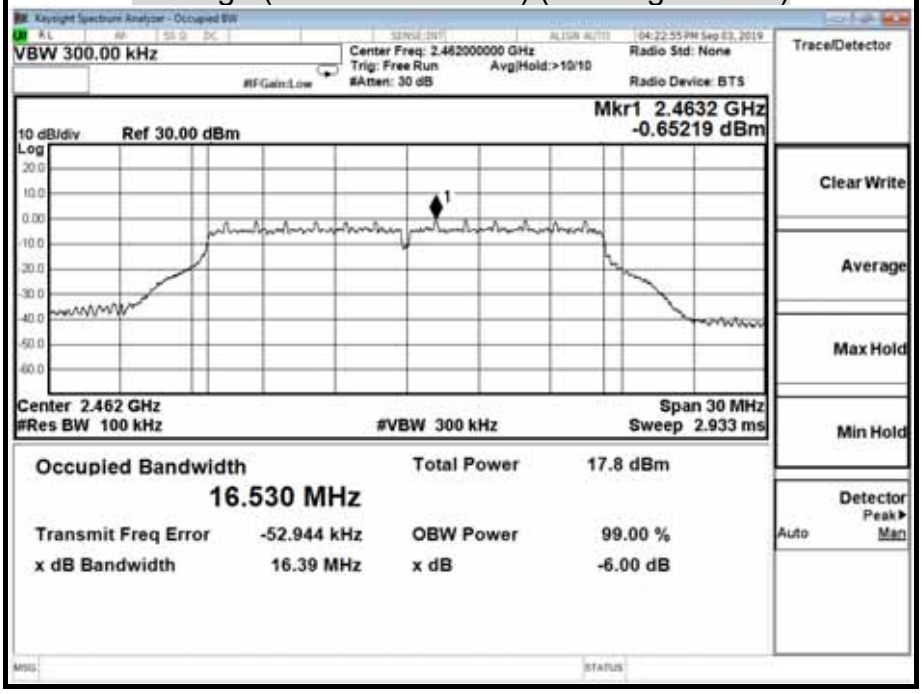


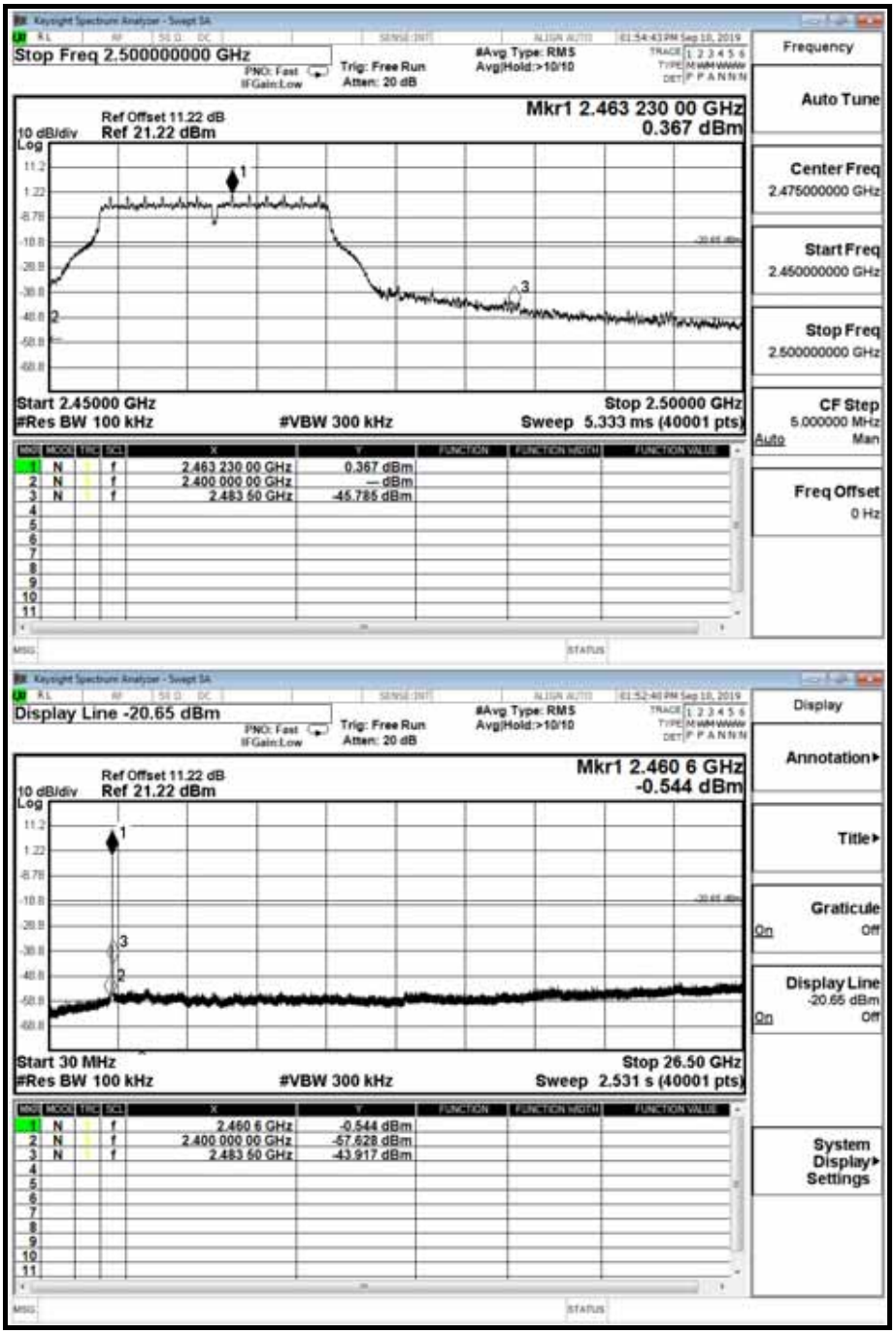

CH Mid (30MHz~26.5GHz) (802.11g MODE )






CH High (30MHz~26.5GHz) (802.11g MODE )

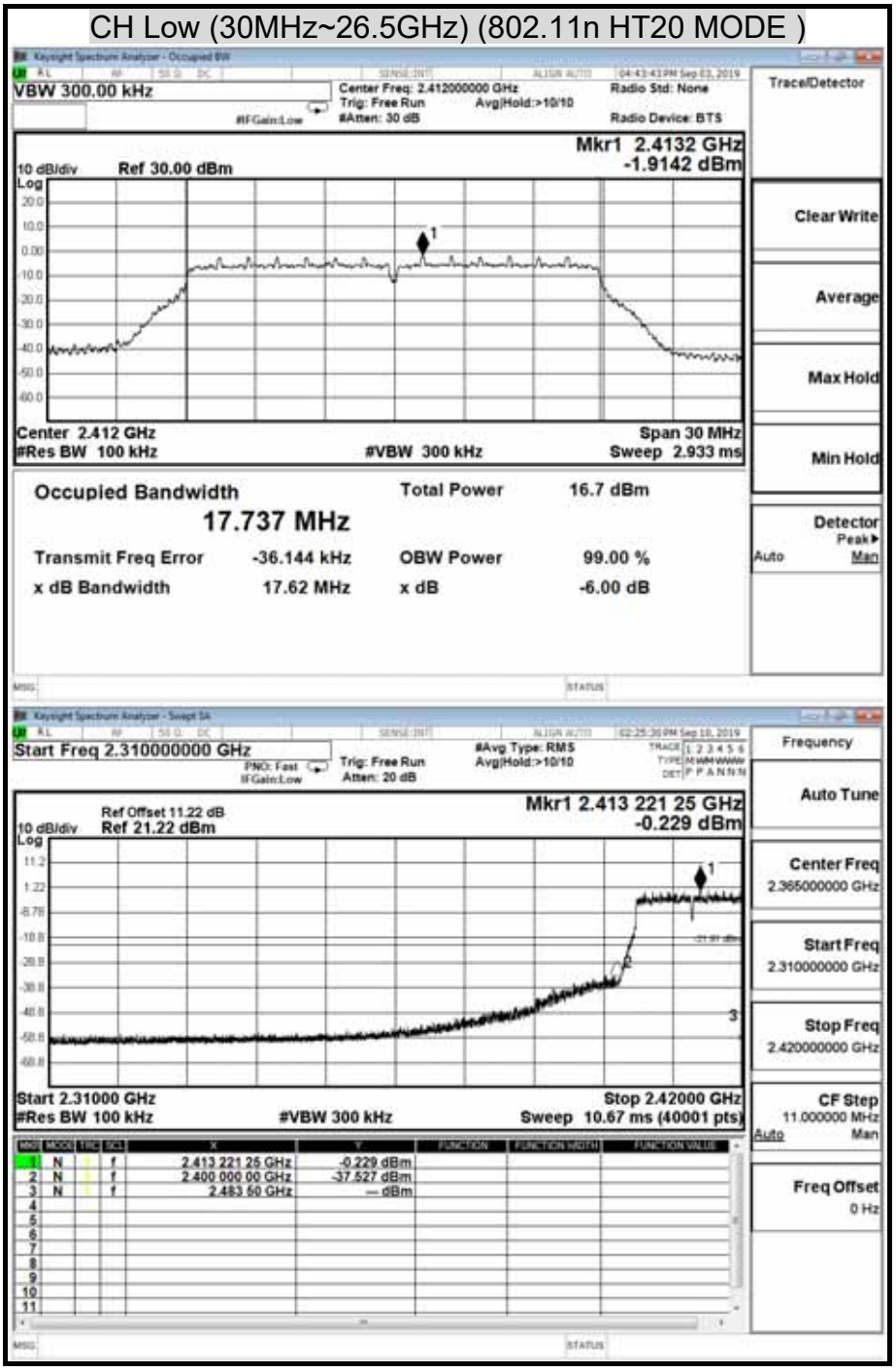


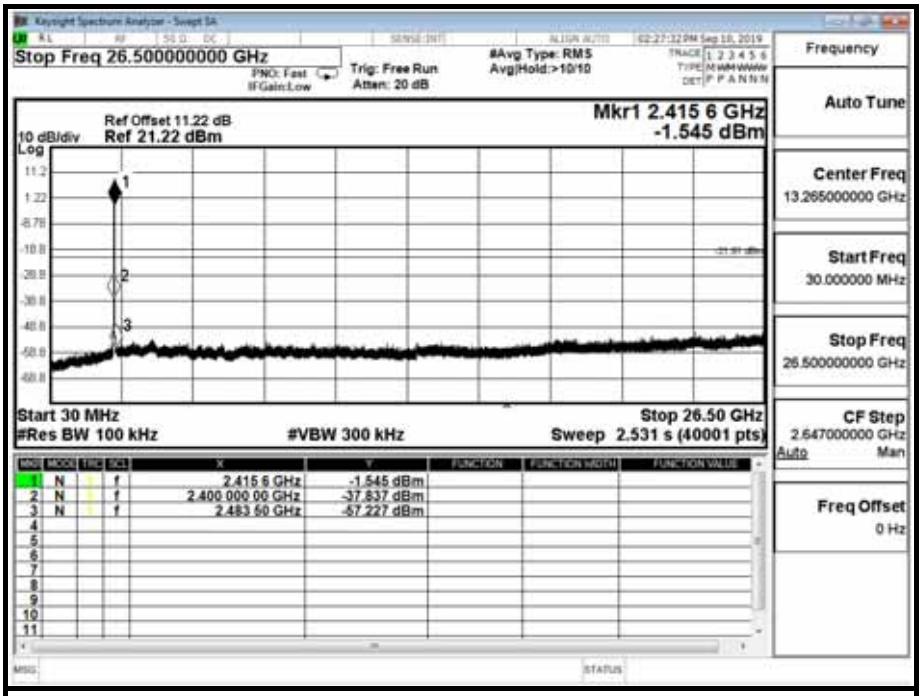


## OUT-OF-BAND SPURIOUS EMISSIONS-CONDUCTED MEASUREMENT

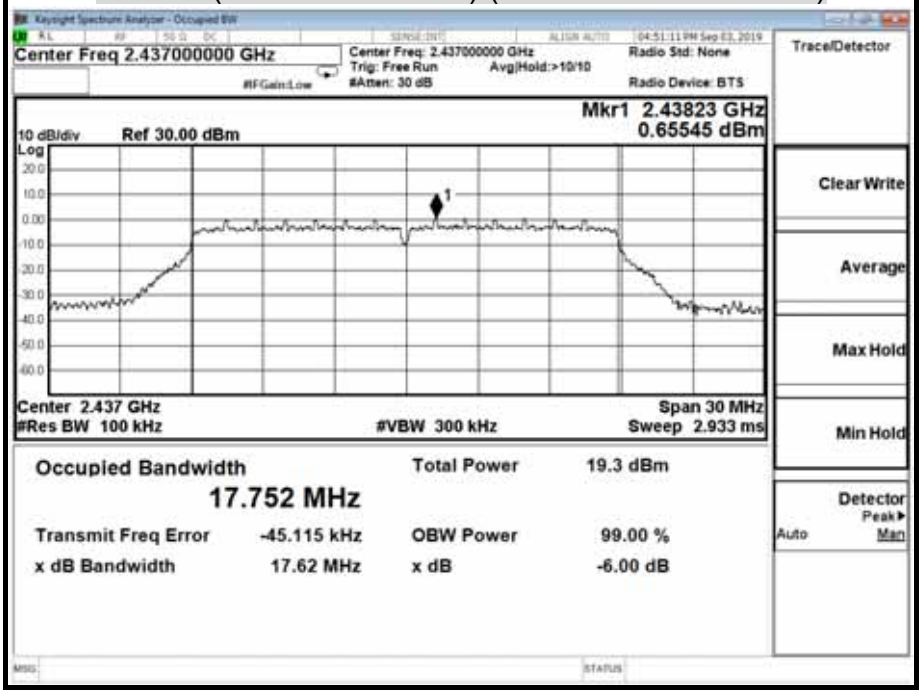
## ( 802.11n HT20 MODE )

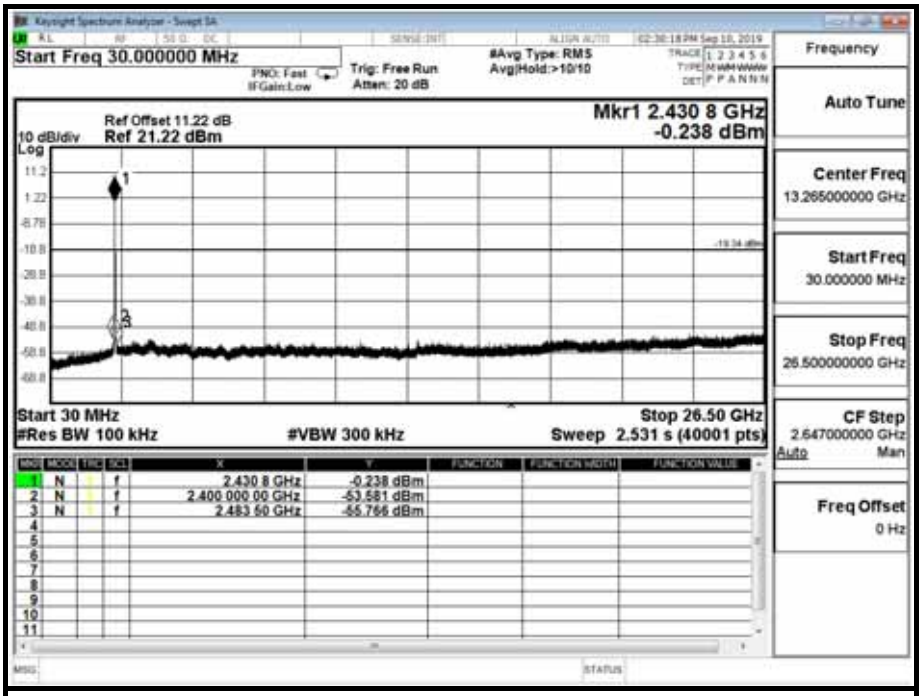
CH Low (30MHz~26.5GHz) (802.11n HT20 MODE )



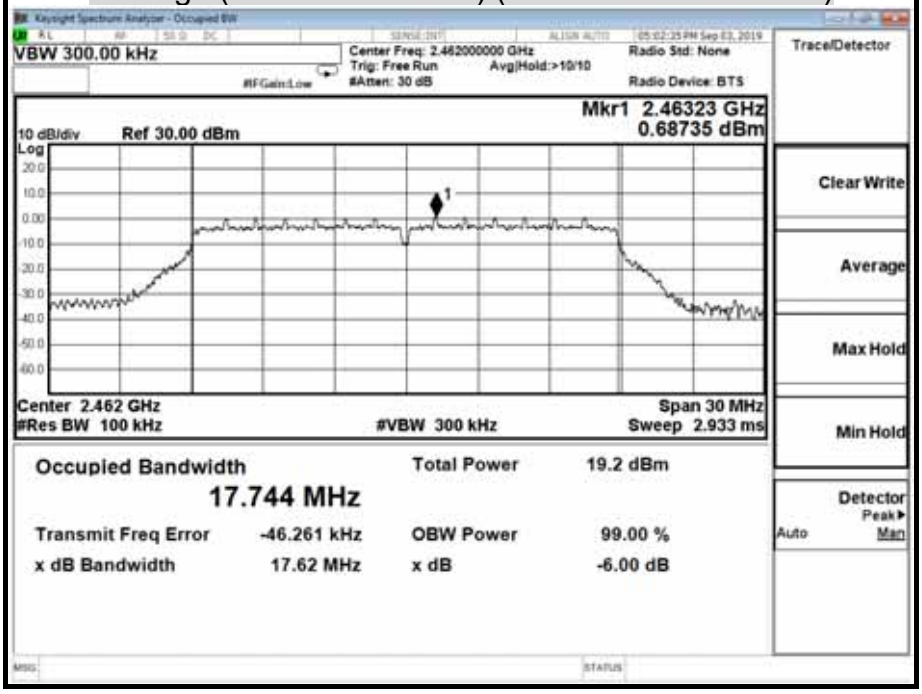


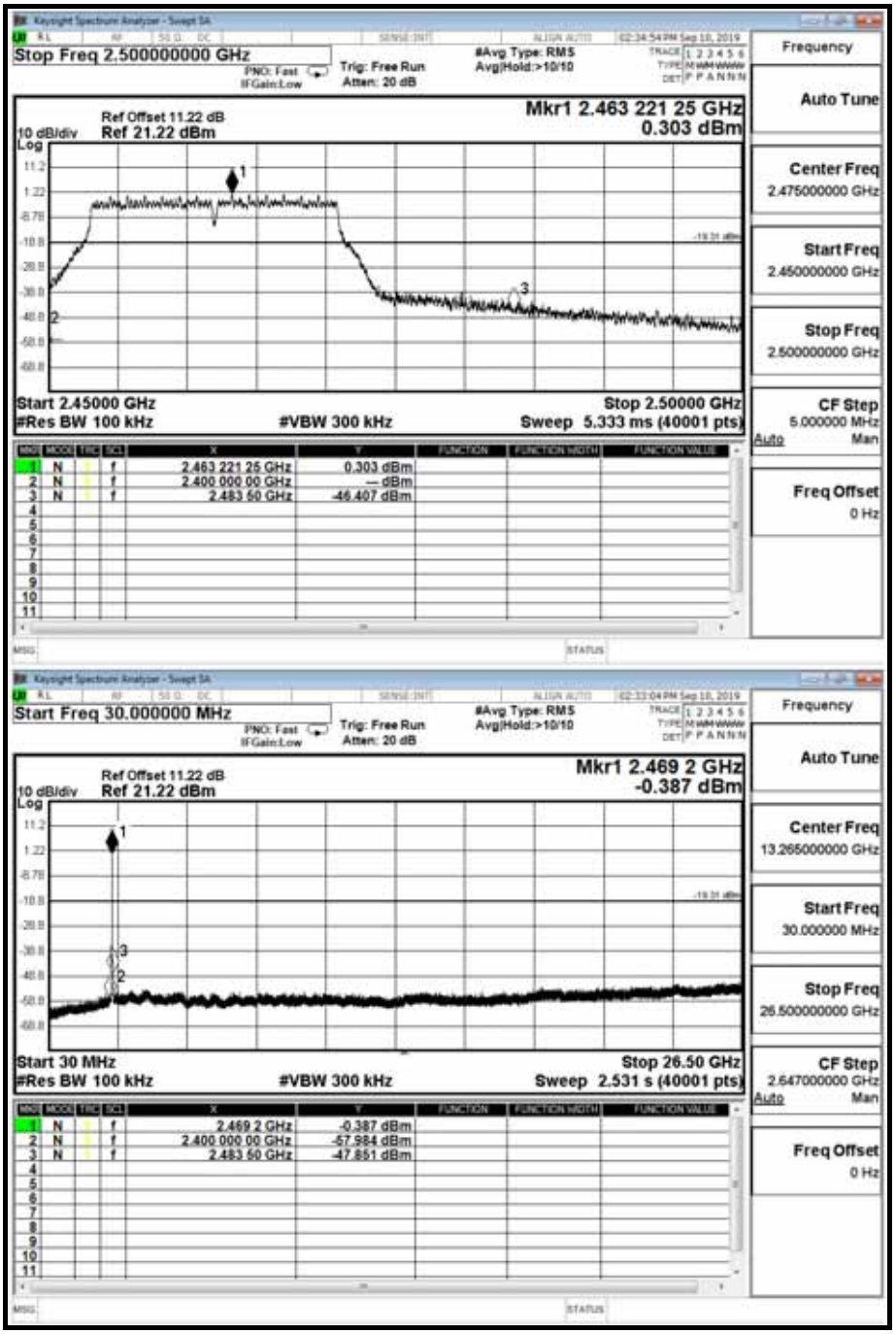

CH Mid (30MHz~26.5GHz) (802.11n HT20 MODE )






CH High (30MHz~26.5GHz) (802.11n HT20 MODE )



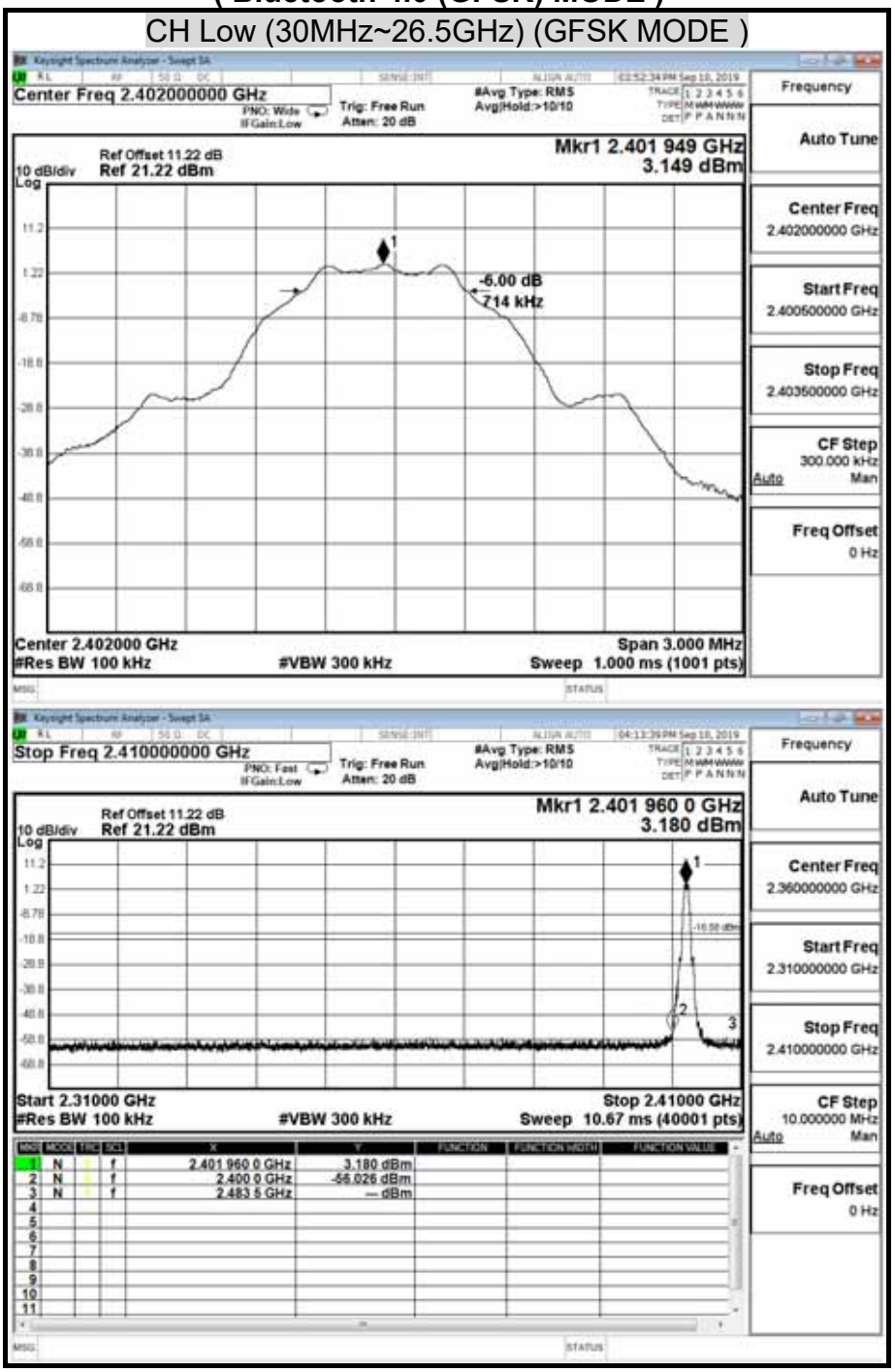


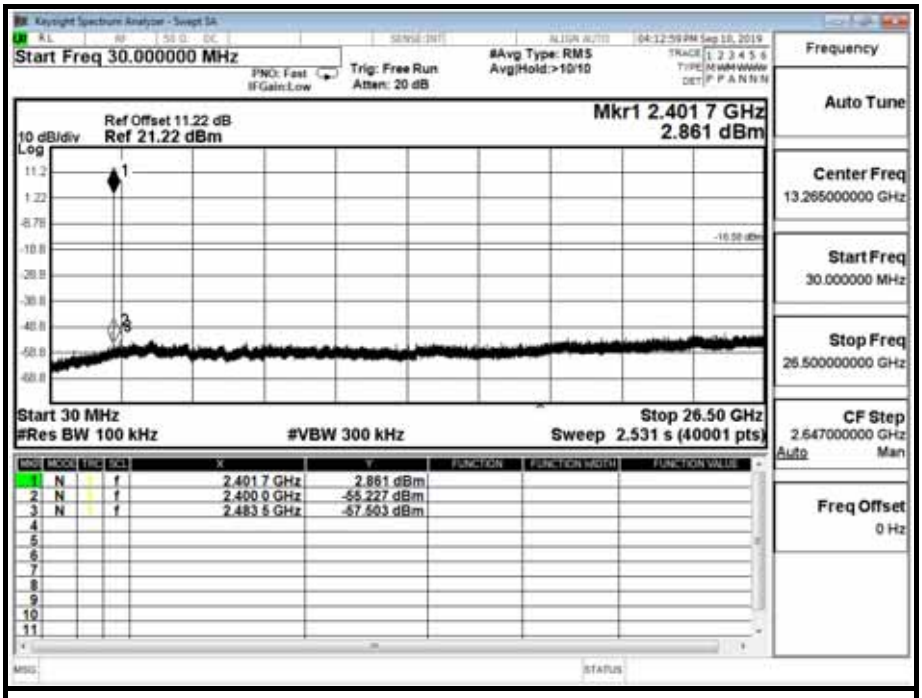
## OUT-OF-BAND SPURIOUS EMISSIONS-CONDUCTED MEASUREMENT

| Model Name | PRIME GO | Test By | Ted Huang |
|---|---|---|---|
| Temp & Humidity | 25.8°C, 52% | Test Date | 2019/9/12 |

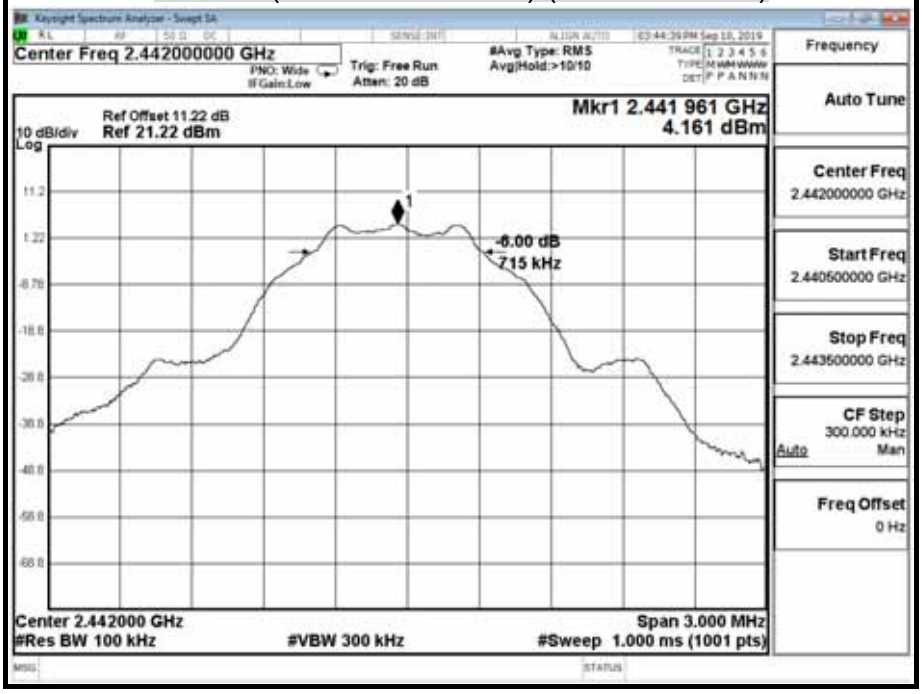
### ( Bluetooth 4.0 (GFSK) MODE )

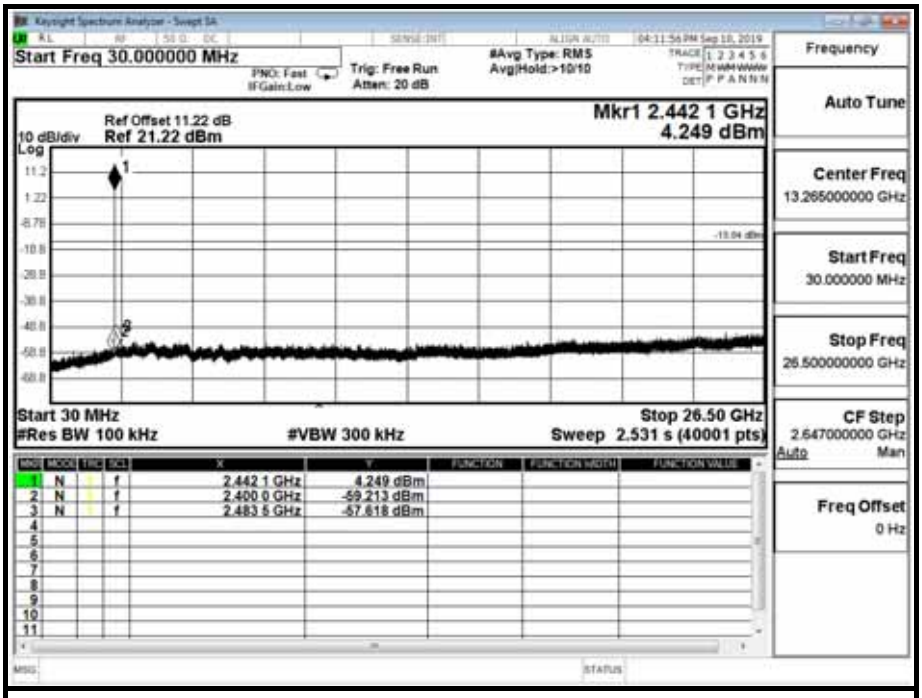
CH Low (30MHz~26.5GHz) (GFSK MODE )



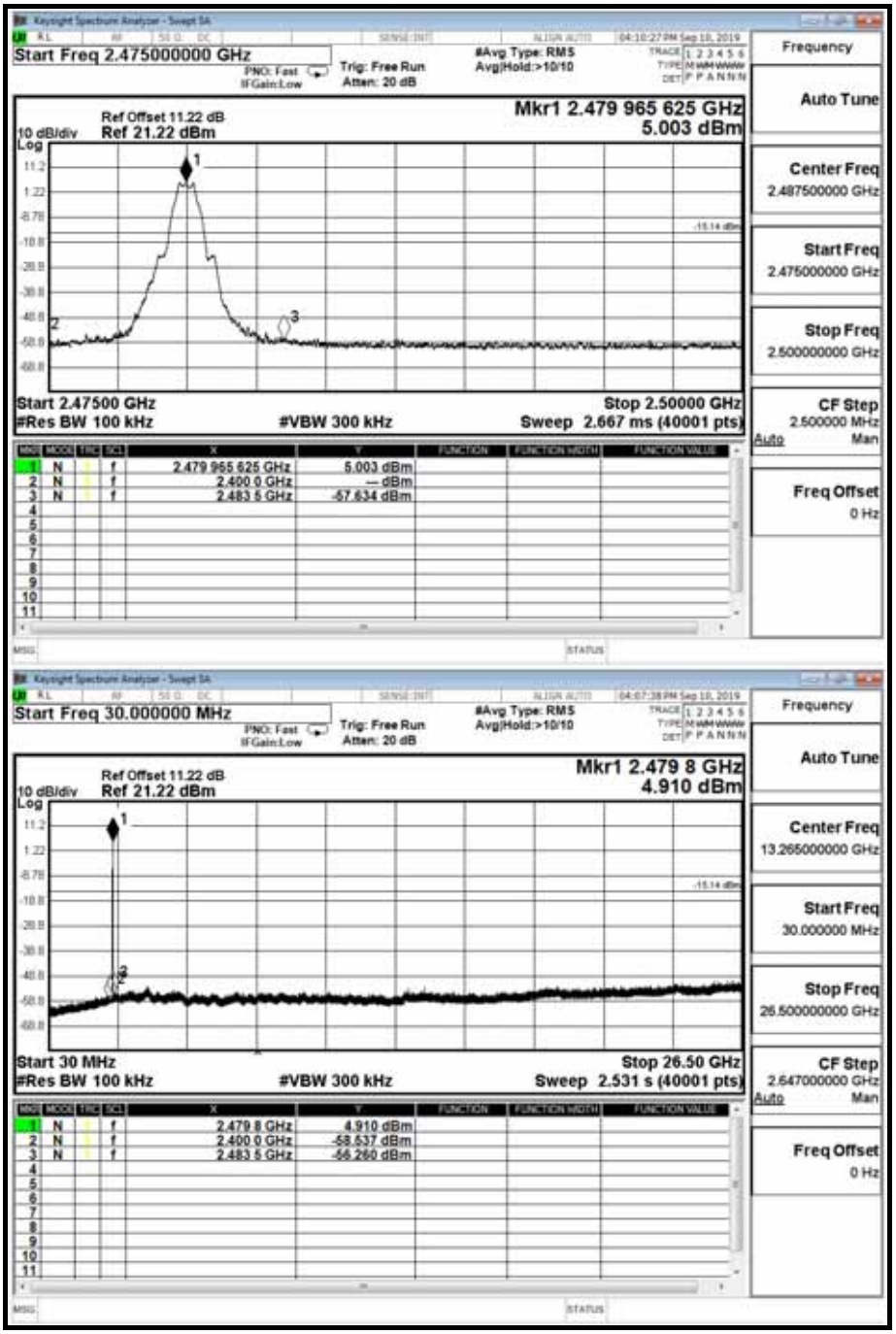



CH Mid (30MHz~26.5GHz) (GFSK MODE )






CH High (30MHz~26.5GHz) (GFSK MODE )



# 8.6 RADIATED EMISSIONS

## 8.6.1 TRANSMITTER RADIATED SUPURIOUS EMSSIONS

**LIMITS**

§ 15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

| MHz | MHz | MHz | GHz |
|---|---|---|---|
| 0.090 - 0.110 | 16.42 - 16.423 | 399.9 - 410 | 4.5 - 5.15 |
| [1]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 | 2655 - 2900 | 22.01 - 23.12 |
| 8.41425 - 8.41475 | 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 - 3338 | 36.43 - 36.5 |
| 12.57675 - 12.57725 | 322 -335.4 | 3600 - 4400 | ([2]) |
| 13.36 - 13.41 | | | |

[1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2] Above 38.6

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

§ 15.209 (a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table :

| Frequency (MHz) | Field Strength (microvolts/meter) | Measurement Distance (meters) |
|---|---|---|
| 30 - 88 | 100 ** | 3 |
| 88 - 216 | 150 ** | 3 |
| 216 - 960 | 200 ** | 3 |
| Above 960 | 500 | 3 |

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

§ 15.209 (b) In the emission table above, the tighter limit applies at the band edges.

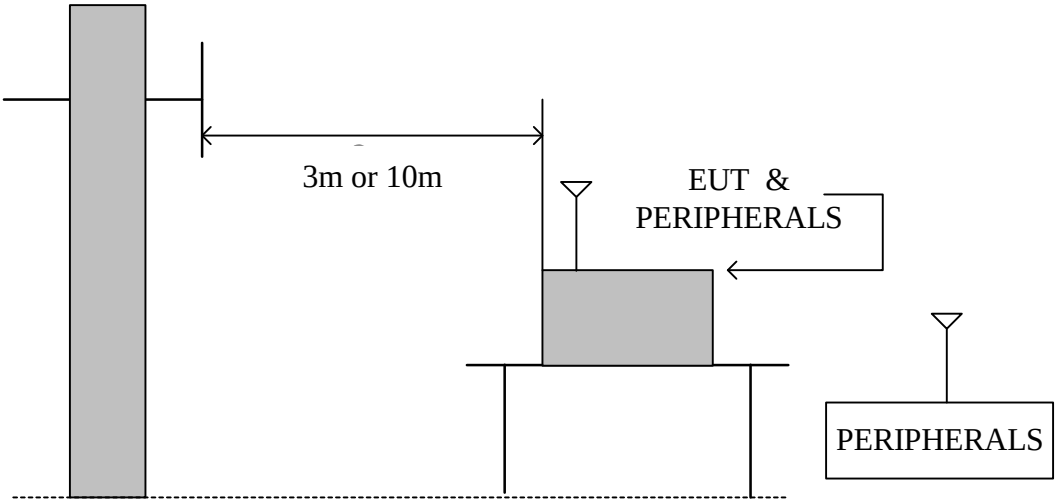
## TEST EQUIPMENTS

The following test equipments are utilized in making the measurements contained in this report.

| Chamber Room #966 | | | | | |
|---|---|---|---|---|---|
| **Name of Equipment** | **Manufacturer** | **Model** | **Serial Number** | **Calibration Date** | **Calibration Due** |
| Active Loop Antenna | ETS-LINDREN | 6502 | 8905-2356 | 08/02/2019 | 08/01/2021 |
| Amplifier | HP | 8447F | 2443A01671 | 01/25/2019 | 01/24/2020 |
| Bi-Log Antenna | Sunol | JB1 | A070506-2 | 08/26/2019 | 08/25/2020 |
| Cable | Rosnol+Suhner | SUCOFLEX 104PEA | SN25737 /4PEA | 05/28/2019 | 05/27/2020 |
| Double Ridged Guide Horn Antenna | ETS-LINDGREN | 3116 | 00078900 | 03/29/2019 | 03/28/2021 |
| EMI Test Receiver | R&S | ESCI | 100221 | 05/06/2019 | 05/05/2020 |
| EXA Spectrum Analyzer | KEYSIGHT | N9010A | MY54430216 | 07/18/2019 | 07/17/2020 |
| Horn Antenna | Com-Power | AH-118 | 071032 | 04/30/2019 | 04/29/2020 |
| Pre-Amplifier | EMCI | EMC012645 | 980098 | 01/25/2019 | 01/24/2020 |
| Pre-Amplifier | MITEQ | AMF-6F-18004000-37-8P | 985646 | 06/18/2019 | 06/17/2020 |
| Hi-Pass Filter | MICRO-TRONICS | BRM50702-01 | 018 | N.C.R | N.C.R |
| Software | Excel(ccs-o6-2019 v1.2) | | | | |

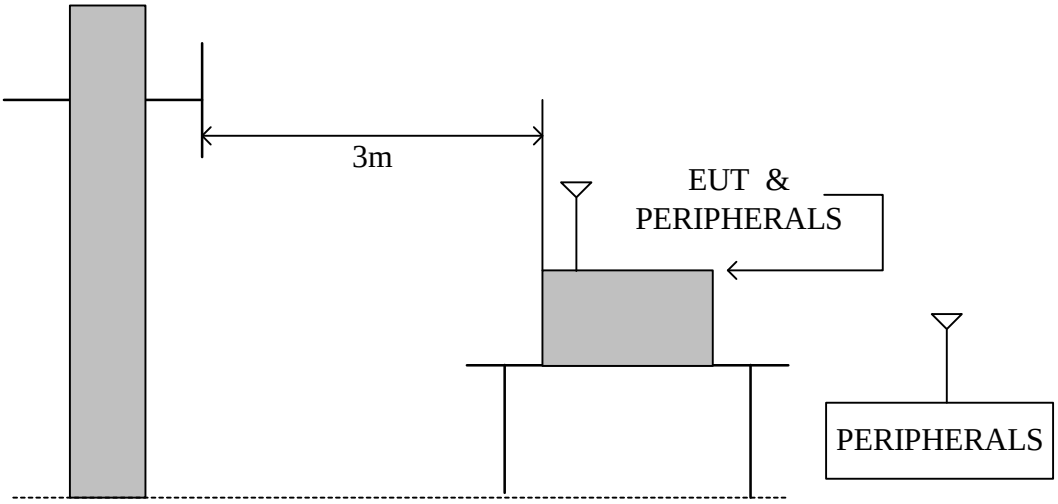
**TEST SETUP**

The diagram below shows the test setup that is utilized to make the measurements for emission from 30 to 1GHz.




Antenna Elevation Variable

The diagram below shows the test setup that is utilized to make the measurements for emission above 1GHz.




Antenna Elevation Variable

## TEST PROCEDURE

a. The EUT was placed on the top of a rotating table 0.8/1.5 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.

b. White measuring the radiated emission below 1GHz, the EUT was set 3/10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. White measuring the radiated emission above 1GHz, the EUT was set 3 meters away from the interference-receiving antenna

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarization of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

g. The tests were performed in accordance with 558074 D01 DTS Meas Guidance v03r03.

**NOTE：**

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

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

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

4. No emission is found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz)

## TEST RESULTS

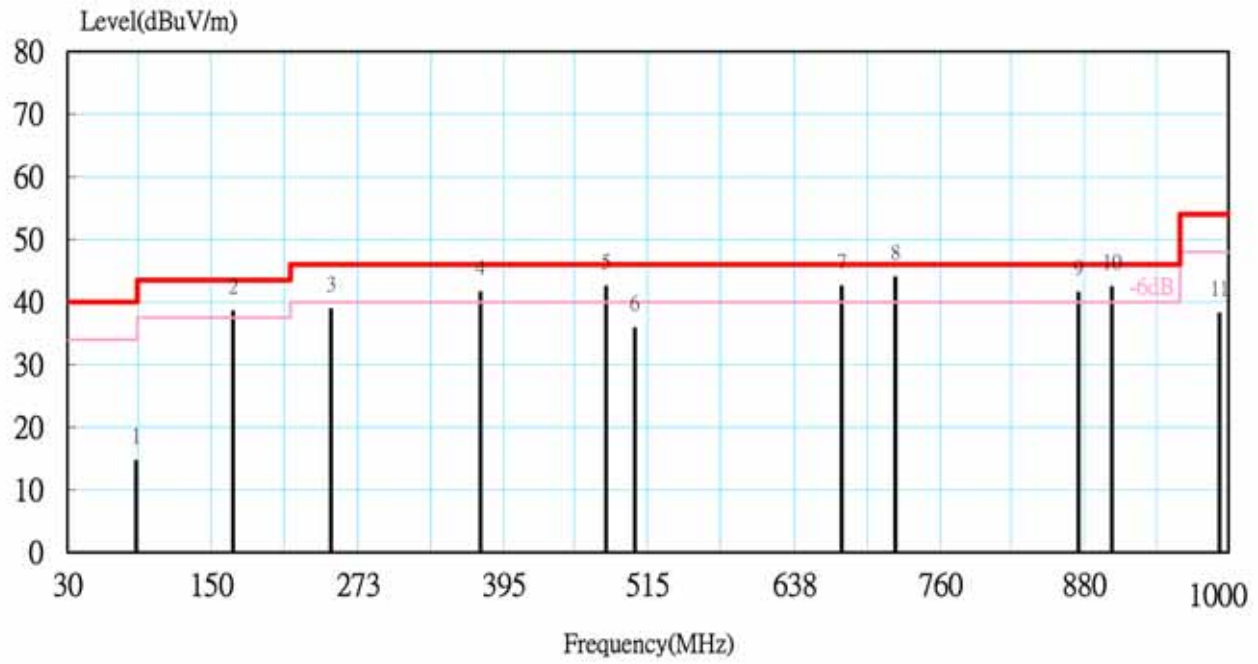
No non-compliance noted.

## 8.6.2 WORST-CASE RADIATED EMISSION BELOW 1 GHz

| Product Name | Portable Prime DJ System with Battery | Test Date | 2019/09/16 |
|---|---|---|---|
| Model | PRIME GO | Test By | Ted Huang |
| Test Mode | TX | TEMP& Humidity | 26.5°C/54% |

**Horizontal**

(The chart below shows the highest readings taken from the final data.)



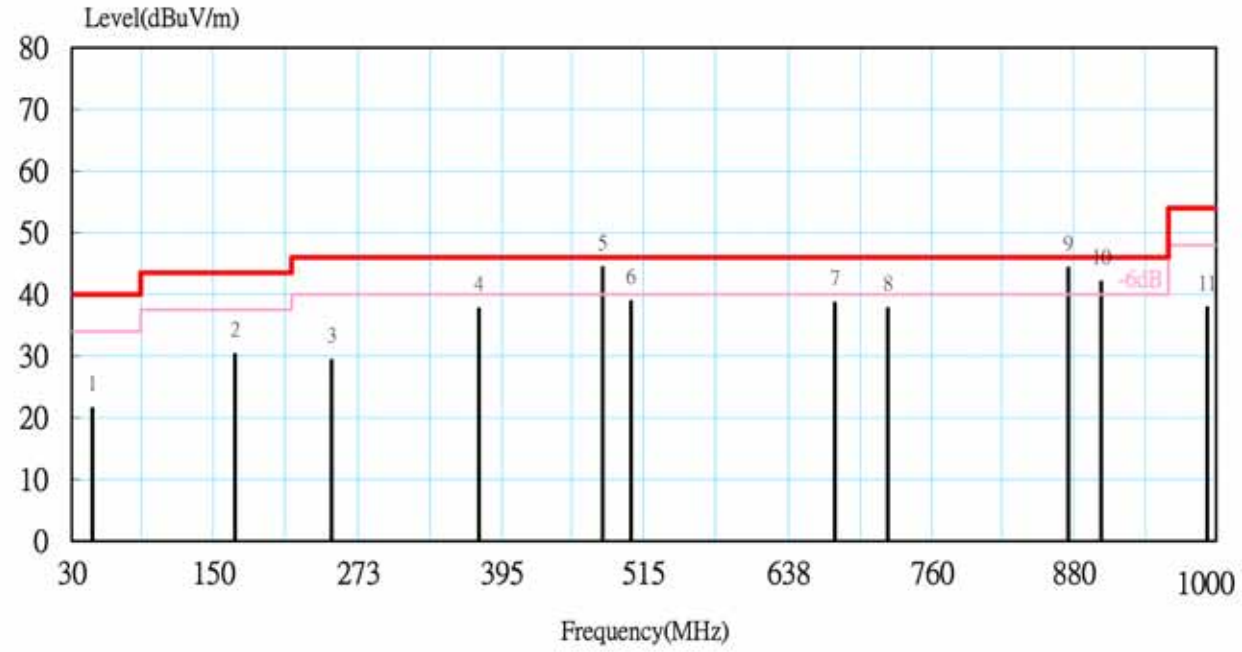

| No. | Freq-Uency (MHz) | Meter Reading at 3 m Level (dBµV) | Antenna Factor (dB/m) | Cable Loss (dB) | Emission at 3 m Level (dBµV/m) | Limits (dBµV/m) | Margin (dB) | Detector Mode PK/QP |
|---|---|---|---|---|---|---|---|---|
| 1 | 87.07 | 5.48 | 7.85 | 1.26 | 14.59 | 40.00 | **-25.41** | QP |
| 2 | 168.02 | 24.42 | 12.12 | 1.92 | 38.46 | 43.50 | **-5.04** | QP |
| 3 | 250.00 | 23.68 | 12.50 | 2.62 | 38.80 | 46.00 | **-7.20** | QP |
| 4 | 375.00 | 22.30 | 15.58 | 3.65 | 41.52 | 46.00 | **-4.48** | QP |
| 5 | 480.02 | 20.45 | 17.62 | 4.37 | 42.44 | 46.00 | **-3.56** | QP |
| 6 | 504.03 | 13.20 | 18.05 | 4.53 | 35.78 | 46.00 | **-10.22** | QP |
| 7 | 677.37 | 16.63 | 20.23 | 5.61 | 42.47 | 46.00 | **-3.53** | QP |
| 8 | 722.53 | 17.53 | 20.59 | 5.82 | 43.94 | 46.00 | **-2.06** | QP |
| 9 | 875.00 | 12.95 | 21.95 | 6.57 | 41.47 | 46.00 | **-4.53** | QP |
| 10 | 903.16 | 13.30 | 22.34 | 6.72 | 42.36 | 46.00 | **-3.64** | QP |
| 11 | 993.48 | 7.55 | 23.52 | 7.09 | 38.16 | 54.00 | **-15.84** | QP |

Note: 1. QP= Quasi-peak Reading.
2. The other emission levels were very low against the limit

| Product Name | Portable Prime DJ System with Battery | Test Date | 2019/09/16 |
|---|---|---|---|
| Model | PRIME GO | Test By | Ted Huang |
| Test Mode | TX | TEMP& Humidity | 26.5°C/54% |

**Vertical**

(The chart below shows the highest readings taken from the final data.)




| No. | Freq-Uency (MHz) | Meter Reading at 3 m Level (dBµV) | Antenna Factor (dB/m) | Cable Loss (dB) | Emission at 3 m Level (dBµV/m) | Limits (dBµV/m) | Margin (dB) | Detector Mode PK/QP |
|---|---|---|---|---|---|---|---|---|
| 1 | 47.11 | 10.32 | 10.31 | 0.90 | 21.53 | 40.00 | -18.47 | QP |
| 2 | 168.01 | 16.24 | 12.12 | 1.92 | 30.28 | 43.50 | -13.22 | QP |
| 3 | 250.00 | 14.22 | 12.50 | 2.62 | 29.34 | 46.00 | -16.66 | QP |
| 4 | 375.00 | 18.47 | 15.58 | 3.65 | 37.69 | 46.00 | -8.31 | QP |
| 5 | 480.02 | 22.38 | 17.62 | 4.37 | 44.37 | 46.00 | -1.63 | QP |
| 6 | 504.02 | 16.30 | 18.05 | 4.53 | 38.88 | 46.00 | -7.12 | QP |
| 7 | 677.37 | 12.80 | 20.23 | 5.61 | 38.64 | 46.00 | -7.36 | QP |
| 8 | 722.53 | 11.33 | 20.59 | 5.82 | 37.74 | 46.00 | -8.26 | QP |
| 9 | 875.00 | 15.77 | 21.95 | 6.57 | 44.29 | 46.00 | -1.71 | QP |
| 10 | 903.16 | 12.98 | 22.34 | 6.72 | 42.04 | 46.00 | -3.96 | QP |
| 11 | 993.48 | 7.26 | 23.52 | 7.09 | 37.87 | 54.00 | -16.13 | QP |

Note: 1. QP= Quasi-peak Reading.
2. The other emission levels were very low against the limit

## 8.6.3 TRANSMITTER RADIATED EMISSION ABOVE 1 GHz

| **Product Name** | Portable Prime DJ System with Battery | **Test Date** | 2019/09/12 |
|---|---|---|---|
| **Model** | PRIME GO | **Test By** | Ted Huang |
| **Test Mode** | IEEE 802.11b TX (CH Low) | **TEMP& Humidity** | 25.8℃, 52% |

| | **TX / IEEE 802.11b mode / CH Low** | | | | **Measurement Distance at 3m** | | | | **Horizontal polarity** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Freq.** | **Reading** | **AF** | **Cable Loss** | **Pre-amp** | **Filter** | **Level** | **Limit** | **Margin** | **Mark** |
| | **(MHz)** | **(dBμV)** | **(dB/m)** | **(dB)** | **(dB)** | **(dB)** | **(dBμV/m)** | **(dBμV/m)** | **(dB)** | **(P/Q/A)** |
| | 1626.52 | 64.68 | 27.49 | 2.41 | 44.94 | 0.59 | 50.23 | 74.00 | -23.77 | P |
| | 1626.52 | 60.72 | 27.49 | 2.41 | 44.94 | 0.59 | 46.27 | 54.00 | -7.73 | A |
| * | 4825.28 | 56.45 | 32.98 | 4.39 | 44.32 | 0.22 | 49.71 | 74.00 | -24.29 | P |
| * | 4825.28 | 46.62 | 32.98 | 4.39 | 44.32 | 0.22 | 39.88 | 54.00 | -14.12 | A |
| | 7235.12 | 55.82 | 38.80 | 5.51 | 44.01 | 0.27 | 56.39 | 74.00 | -17.61 | P |
| | 7235.12 | 45.23 | 38.80 | 5.51 | 44.01 | 0.27 | 45.80 | 54.00 | -8.20 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

| | **TX / IEEE 802.11b mode / CH Low** | | | | **Measurement Distance at 3m** | | | | **Vertical polarity** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Freq.** | **Reading** | **AF** | **Cable Loss** | **Pre-amp** | **Filter** | **Level** | **Limit** | **Margin** | **Mark** |
| | **(MHz)** | **(dBμV)** | **(dB/m)** | **(dB)** | **(dB)** | **(dB)** | **(dBμV/m)** | **(dBμV/m)** | **(dB)** | **(P/Q/A)** |
| * | 1151.52 | 66.82 | 25.04 | 2.00 | 45.31 | 0.42 | 48.97 | 74.00 | -25.03 | P |
| * | 1151.52 | 64.60 | 25.04 | 2.00 | 45.31 | 0.42 | 46.75 | 54.00 | -7.25 | A |
| * | 4822.96 | 56.35 | 32.97 | 4.38 | 44.32 | 0.22 | 49.61 | 74.00 | -24.39 | P |
| * | 4822.96 | 46.27 | 32.97 | 4.38 | 44.32 | 0.22 | 39.53 | 54.00 | -14.47 | A |
| | 7236.42 | 55.30 | 38.80 | 5.51 | 44.01 | 0.27 | 55.87 | 74.00 | -18.13 | P |
| | 7236.42 | 45.45 | 38.80 | 5.51 | 44.01 | 0.27 | 46.02 | 54.00 | -7.98 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

*REMARK:*

1. *AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: 2.4GHz~2.5GHz Filter Insertion Loss*
2. *Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz*
3. *The result basic equation calculation is as follow:*
   *Level = Reading + AF + Cable – Preamp + Filter , Margin = Level-Limit*
4. *The other emission levels were 20dB below the limit*
5. *The test limit distance is 3M limit.*
6 **=Restricted bands of operation*

| **Product Name** | Portable Prime DJ System with Battery | **Test Date** | 2019/09/12 |
|---|---|---|---|
| **Model** | PRIME GO | **Test By** | Ted Huang |
| **Test Mode** | IEEE 802.11b TX (CH Middle) | **TEMP& Humidity** | 25.8℃, 52% |

| | **TX / IEEE 802.11b mode / CH Middle** | | | | **Measurement Distance at 3m** | | | | **Horizontal polarity** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Freq.** | **Reading** | **AF** | **Cable Loss** | **Pre-amp** | **Filter** | **Level** | **Limit** | **Margin** | **Mark** |
| | **(MHz)** | **(dBμV)** | **(dB/m)** | **(dB)** | **(dB)** | **(dB)** | **(dBμV/m)** | **(dBμV/m)** | **(dB)** | **(P/Q/A)** |
| | 1626.62 | 64.52 | 27.49 | 2.41 | 44.94 | 0.59 | 50.07 | 74.00 | -23.93 | P |
| | 1626.62 | 60.65 | 27.49 | 2.41 | 44.94 | 0.59 | 46.20 | 54.00 | -7.80 | A |
| * | 4874.22 | 57.28 | 33.12 | 4.41 | 44.33 | 0.23 | 50.71 | 74.00 | -23.29 | P |
| * | 4874.22 | 46.72 | 33.12 | 4.41 | 44.33 | 0.23 | 40.15 | 54.00 | -13.85 | A |
| * | 7313.25 | 55.45 | 39.07 | 5.53 | 43.94 | 0.27 | 56.37 | 74.00 | -17.63 | P |
| * | 7313.25 | 45.65 | 39.07 | 5.53 | 43.94 | 0.27 | 46.57 | 54.00 | -7.43 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

I

| | **TX / IEEE 802.11b mode / CH Middle** | | | | **Measurement Distance at 3m** | | | | **Vertical polarity** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Freq.** | **Reading** | **AF** | **Cable Loss** | **Pre-amp** | **Filter** | **Level** | **Limit** | **Margin** | **Mark** |
| | **(MHz)** | **(dBμV)** | **(dB/m)** | **(dB)** | **(dB)** | **(dB)** | **(dBμV/m)** | **(dBμV/m)** | **(dB)** | **(P/Q/A)** |
| * | 1151.36 | 66.75 | 25.04 | 2.00 | 45.31 | 0.42 | 48.90 | 74.00 | -25.10 | P |
| * | 1151.36 | 64.54 | 25.04 | 2.00 | 45.31 | 0.42 | 46.69 | 54.00 | -7.31 | A |
| * | 4822.56 | 56.50 | 32.97 | 4.38 | 44.32 | 0.22 | 49.75 | 74.00 | -24.25 | P |
| * | 4822.56 | 46.66 | 32.97 | 4.38 | 44.32 | 0.22 | 39.91 | 54.00 | -14.09 | A |
| * | 7311.43 | 55.86 | 39.06 | 5.53 | 43.95 | 0.27 | 56.77 | 74.00 | -17.23 | P |
| * | 7311.43 | 45.35 | 39.06 | 5.53 | 43.95 | 0.27 | 46.26 | 54.00 | -7.74 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

*REMARK:*

1. *AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: 2.4GHz~2.5GHz Filter Insertion Loss*
2. *Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz*
3. *The result basic equation calculation is as follow:*
   *Level = Reading + AF + Cable – Preamp + Filter , Margin = Level-Limit*
4. *The other emission levels were 20dB below the limit*
5. *The test limit distance is 3M limit.*
6 **=Restricted bands of operation*

| **Product Name** | Portable Prime DJ System with Battery | **Test Date** | 2019/09/12 |
|---|---|---|---|
| **Model** | PRIME GO | **Test By** | Ted Huang |
| **Test Mode** | IEEE 802.11b TX (CH High) | **TEMP& Humidity** | 25.8°C, 52% |

| | **TX / IEEE 802.11b mode / CH High** | | | | **Measurement Distance at 3m** | | | | **Horizontal polarity** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Freq.** | **Reading** | **AF** | **Cable Loss** | **Pre-amp** | **Filter** | **Level** | **Limit** | **Margin** | **Mark** |
| | **(MHz)** | **(dBμV)** | **(dB/m)** | **(dB)** | **(dB)** | **(dB)** | **(dBμV/m)** | **(dBμV/m)** | **(dB)** | **(P/Q/A)** |
| * | 1626.46 | 64.76 | 27.49 | 2.41 | 44.94 | 0.59 | 50.31 | 74.00 | -23.69 | P |
| * | 1626.46 | 60.92 | 27.49 | 2.41 | 44.94 | 0.59 | 46.47 | 54.00 | -7.53 | A |
| * | 4923.82 | 56.82 | 33.27 | 4.44 | 44.35 | 0.23 | 50.41 | 74.00 | -23.59 | P |
| * | 4923.82 | 46.65 | 33.27 | 4.44 | 44.35 | 0.23 | 40.24 | 54.00 | -13.76 | A |
| * | 7383.46 | 56.38 | 39.30 | 5.55 | 43.88 | 0.27 | 57.62 | 74.00 | -16.38 | P |
| * | 7383.46 | 46.75 | 39.30 | 5.55 | 43.88 | 0.27 | 47.99 | 54.00 | -6.01 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

| | **TX / IEEE 802.11b mode / CH High** | | | | **Measurement Distance at 3m** | | | | **Vertical polarity** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Freq.** | **Reading** | **AF** | **Cable Loss** | **Pre-amp** | **Filter** | **Level** | **Limit** | **Margin** | **Mark** |
| | **(MHz)** | **(dBμV)** | **(dB/m)** | **(dB)** | **(dB)** | **(dB)** | **(dBμV/m)** | **(dBμV/m)** | **(dB)** | **(P/Q/A)** |
| * | 1151.60 | 67.12 | 25.04 | 2.00 | 45.31 | 0.42 | 49.27 | 74.00 | -24.73 | P |
| * | 1151.60 | 64.45 | 25.04 | 2.00 | 45.31 | 0.42 | 46.60 | 54.00 | -7.40 | A |
| * | 4924.52 | 55.86 | 33.27 | 4.44 | 44.35 | 0.23 | 49.46 | 74.00 | -24.54 | P |
| * | 4924.52 | 46.54 | 33.27 | 4.44 | 44.35 | 0.23 | 40.14 | 54.00 | -13.86 | A |
| * | 7386.36 | 55.36 | 39.31 | 5.55 | 43.88 | 0.27 | 56.61 | 74.00 | -17.39 | P |
| * | 7386.36 | 45.18 | 39.31 | 5.55 | 43.88 | 0.27 | 46.43 | 54.00 | -7.57 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

*REMARK:*

1. *AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: 2.4GHz~2.5GHz Filter Insertion Loss*
2. *Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz*
3. *The result basic equation calculation is as follow:*
   *Level = Reading + AF + Cable – Preamp + Filter , Margin = Level-Limit*
4. *The other emission levels were 20dB below the limit*
5. *The test limit distance is 3M limit.*
6 **=Restricted bands of operation*

| **Product Name** | Portable Prime DJ System with Battery | **Test Date** | 2019/09/12 |
|---|---|---|---|
| **Model** | PRIME GO | **Test By** | Ted Huang |
| **Test Mode** | IEEE 802.11g TX (CH Low) | **TEMP& Humidity** | 25.8°C, 52% |

| | **TX / IEEE 802.11g mode / CH Low** | | | | **Measurement Distance at 3m** | | | | **Horizontal polarity** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Freq.** | **Reading** | **AF** | **Cable Loss** | **Pre-amp** | **Filter** | **Level** | **Limit** | **Margin** | **Mark** |
| | **(MHz)** | **(dBμV)** | **(dB/m)** | **(dB)** | **(dB)** | **(dB)** | **(dBμV/m)** | **(dBμV/m)** | **(dB)** | **(P/Q/A)** |
| * | 1626.46 | 64.77 | 27.49 | 2.41 | 44.94 | 0.59 | 50.32 | 74.00 | -23.68 | P |
| * | 1626.46 | 60.86 | 27.49 | 2.41 | 44.94 | 0.59 | 46.41 | 54.00 | -7.59 | A |
| * | 4829.52 | 56.78 | 32.99 | 4.39 | 44.32 | 0.22 | 50.06 | 74.00 | -23.94 | P |
| * | 4829.52 | 46.33 | 32.99 | 4.39 | 44.32 | 0.22 | 39.61 | 54.00 | -14.39 | A |
| | 7237.42 | 55.78 | 38.81 | 5.51 | 44.01 | 0.27 | 56.36 | 74.00 | -17.64 | P |
| | 7237.42 | 45.52 | 38.81 | 5.51 | 44.01 | 0.27 | 46.10 | 54.00 | -7.90 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

| | **TX / IEEE 802.11g mode / CH Low** | | | | **Measurement Distance at 3m** | | | | **Vertical polarity** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Freq.** | **Reading** | **AF** | **Cable Loss** | **Pre-amp** | **Filter** | **Level** | **Limit** | **Margin** | **Mark** |
| | **(MHz)** | **(dBμV)** | **(dB/m)** | **(dB)** | **(dB)** | **(dB)** | **(dBμV/m)** | **(dBμV/m)** | **(dB)** | **(P/Q/A)** |
| * | 1151.62 | 66.80 | 25.04 | 2.00 | 45.31 | 0.42 | 48.95 | 74.00 | -25.05 | P |
| * | 1151.62 | 64.48 | 25.04 | 2.00 | 45.31 | 0.42 | 46.63 | 54.00 | -7.37 | A |
| * | 4818.60 | 57.12 | 32.96 | 4.38 | 44.32 | 0.22 | 50.36 | 74.00 | -23.64 | P |
| * | 4818.60 | 45.55 | 32.96 | 4.38 | 44.32 | 0.22 | 38.79 | 54.00 | -15.21 | A |
| | 7230.43 | 55.63 | 38.78 | 5.51 | 44.02 | 0.27 | 56.18 | 74.00 | -17.82 | P |
| | 7230.43 | 45.48 | 38.78 | 5.51 | 44.02 | 0.27 | 46.03 | 54.00 | -7.97 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

*REMARK:*

1. *AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: 2.4GHz~2.5GHz Filter Insertion Loss*
2. *Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz*
3. *The result basic equation calculation is as follow:*
   *Level = Reading + AF + Cable – Preamp + Filter , Margin = Level-Limit*
4. *The other emission levels were 20dB below the limit*
5. *The test limit distance is 3M limit.*
6 **=Restricted bands of operation*

| **Product Name** | Portable Prime DJ System with Battery | **Test Date** | 2019/09/12 |
|---|---|---|---|
| **Model** | PRIME GO | **Test By** | Ted Huang |
| **Test Mode** | IEEE 802.11g TX (CH Middle) | **TEMP& Humidity** | 25.8℃, 52% |

| | **TX / IEEE 802.11g mode / CH Middle** | | | | **Measurement Distance at 3m** | | | | **Horizontal polarity** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Freq.** | **Reading** | **AF** | **Cable Loss** | **Pre-amp** | **Filter** | **Level** | **Limit** | **Margin** | **Mark** |
| | **(MHz)** | **(dBμV)** | **(dB/m)** | **(dB)** | **(dB)** | **(dB)** | **(dBμV/m)** | **(dBμV/m)** | **(dB)** | **(P/Q/A)** |
| | 1626.52 | 64.68 | 27.49 | 2.41 | 44.94 | 0.59 | 50.23 | 74.00 | -23.77 | P |
| | 1626.52 | 60.85 | 27.49 | 2.41 | 44.94 | 0.59 | 46.40 | 54.00 | -7.60 | A |
| * | 4880.26 | 56.42 | 33.14 | 4.42 | 44.34 | 0.23 | 49.87 | 74.00 | -24.13 | P |
| * | 4880.26 | 46.66 | 33.14 | 4.42 | 44.34 | 0.23 | 40.11 | 54.00 | -13.89 | A |
| * | 7308.74 | 55.98 | 39.05 | 5.53 | 43.95 | 0.27 | 56.88 | 74.00 | -17.12 | P |
| * | 7308.74 | 45.45 | 39.05 | 5.53 | 43.95 | 0.27 | 46.35 | 54.00 | -7.65 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

| | **TX / IEEE 802.11g mode / CH Middle** | | | | **Measurement Distance at 3m** | | | | **Vertical polarity** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Freq.** | **Reading** | **AF** | **Cable Loss** | **Pre-amp** | **Filter** | **Level** | **Limit** | **Margin** | **Mark** |
| | **(MHz)** | **(dBμV)** | **(dB/m)** | **(dB)** | **(dB)** | **(dB)** | **(dBμV/m)** | **(dBμV/m)** | **(dB)** | **(P/Q/A)** |
| * | 1151.35 | 66.80 | 25.04 | 2.00 | 45.31 | 0.42 | 48.95 | 74.00 | -25.05 | P |
| * | 1151.35 | 64.65 | 25.04 | 2.00 | 45.31 | 0.42 | 46.80 | 54.00 | -7.20 | A |
| * | 4864.85 | 56.55 | 33.09 | 4.41 | 44.33 | 0.23 | 49.95 | 74.00 | -24.05 | P |
| * | 4864.85 | 45.68 | 33.09 | 4.41 | 44.33 | 0.23 | 39.08 | 54.00 | -14.92 | A |
| * | 7313.68 | 55.64 | 39.07 | 5.53 | 43.94 | 0.27 | 56.56 | 74.00 | -17.44 | P |
| * | 7313.68 | 45.48 | 39.07 | 5.53 | 43.94 | 0.27 | 46.40 | 54.00 | -7.60 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

*REMARK:*

1. *AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: 2.4GHz~2.5GHz Filter Insertion Loss*
2. *Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz*
3. *The result basic equation calculation is as follow:*
   *Level = Reading + AF + Cable – Preamp + Filter , Margin = Level-Limit*
4. *The other emission levels were 20dB below the limit*
5. *The test limit distance is 3M limit.*
6 **=Restricted bands of operation*

| **Product Name** | Portable Prime DJ System with Battery | **Test Date** | 2019/09/12 |
|---|---|---|---|
| **Model** | PRIME GO | **Test By** | Ted Huang |
| **Test Mode** | IEEE 802.11g TX (CH High) | **TEMP& Humidity** | 25.8°C, 52% |

| | **TX / IEEE 802.11g mode / CH High** | | | | **Measurement Distance at 3m** | | | | **Horizontal polarity** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Freq.** | **Reading** | **AF** | **Cable Loss** | **Pre-amp** | **Filter** | **Level** | **Limit** | **Margin** | **Mark** |
| | **(MHz)** | **(dBμV)** | **(dB/m)** | **(dB)** | **(dB)** | **(dB)** | **(dBμV/m)** | **(dBμV/m)** | **(dB)** | **(P/Q/A)** |
| | 1626.64 | 64.52 | 27.49 | 2.41 | 44.94 | 0.59 | 50.07 | 74.00 | -23.93 | P |
| | 1626.64 | 60.60 | 27.49 | 2.41 | 44.94 | 0.59 | 46.15 | 54.00 | -7.85 | A |
| * | 4929.65 | 56.55 | 33.29 | 4.44 | 44.35 | 0.23 | 50.16 | 74.00 | -23.84 | P |
| * | 4929.65 | 46.75 | 33.29 | 4.44 | 44.35 | 0.23 | 40.36 | 54.00 | -13.64 | A |
| * | 7393.14 | 55.68 | 39.34 | 5.55 | 43.87 | 0.27 | 56.96 | 74.00 | -17.04 | P |
| * | 7393.14 | 45.45 | 39.34 | 5.55 | 43.87 | 0.27 | 46.73 | 54.00 | -7.27 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

| | **TX / IEEE 802.11g mode / CH High** | | | | **Measurement Distance at 3m** | | | | **Vertical polarity** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Freq.** | **Reading** | **AF** | **Cable Loss** | **Pre-amp** | **Filter** | **Level** | **Limit** | **Margin** | **Mark** |
| | **(MHz)** | **(dBμV)** | **(dB/m)** | **(dB)** | **(dB)** | **(dB)** | **(dBμV/m)** | **(dBμV/m)** | **(dB)** | **(P/Q/A)** |
| * | 1151.50 | 66.82 | 25.04 | 2.00 | 45.31 | 0.42 | 48.97 | 74.00 | -25.03 | P |
| * | 1151.50 | 64.64 | 25.04 | 2.00 | 45.31 | 0.42 | 46.79 | 54.00 | -7.21 | A |
| * | 4914.45 | 56.18 | 33.24 | 4.43 | 44.35 | 0.23 | 49.74 | 74.00 | -24.26 | P |
| * | 4914.45 | 46.68 | 33.24 | 4.43 | 44.35 | 0.23 | 40.24 | 54.00 | -13.76 | A |
| * | 7385.75 | 55.68 | 39.31 | 5.55 | 43.88 | 0.27 | 56.93 | 74.00 | -17.07 | P |
| * | 7385.75 | 45.08 | 39.31 | 5.55 | 43.88 | 0.27 | 46.33 | 54.00 | -7.67 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

*REMARK:*

1. *AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: 2.4GHz~2.5GHz Filter Insertion Loss*
2. *Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz*
3. *The result basic equation calculation is as follow:*
   *Level = Reading + AF + Cable – Preamp + Filter , Margin = Level-Limit*
4. *The other emission levels were 20dB below the limit*
5. *The test limit distance is 3M limit.*
6 **=Restricted bands of operation*

| **Product Name** | Portable Prime DJ System with Battery | **Test Date** | 2019/09/12 |
|---|---|---|---|
| **Model** | PRIME GO | **Test By** | Ted Huang |
| **Test Mode** | IEEE 802.11n HT20 TX (CH Low) | **TEMP& Humidity** | 25.8℃, 52% |

| | **TX / IEEE 802.11n HT20 mode / CH Low** | | | | **Measurement Distance at 3m** | | | | **Horizontal polarity** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Freq.** | **Reading** | **AF** | **Cable Loss** | **Pre-amp** | **Filter** | **Level** | **Limit** | **Margin** | **Mark** |
| | **(MHz)** | **(dBμV)** | **(dB/m)** | **(dB)** | **(dB)** | **(dB)** | **(dBμV/m)** | **(dBμV/m)** | **(dB)** | **(P/Q/A)** |
| | 1626.64 | 64.72 | 27.49 | 2.41 | 44.94 | 0.59 | 50.27 | 74.00 | -23.73 | P |
| | 1626.64 | 60.63 | 27.49 | 2.41 | 44.94 | 0.59 | 46.18 | 54.00 | -7.82 | A |
| * | 4828.32 | 56.85 | 32.98 | 4.39 | 44.32 | 0.22 | 50.12 | 74.00 | -23.88 | P |
| * | 4828.32 | 46.67 | 32.98 | 4.39 | 44.32 | 0.22 | 39.94 | 54.00 | -14.06 | A |
| | 7242.64 | 56.27 | 38.82 | 5.51 | 44.01 | 0.27 | 56.87 | 74.00 | -17.13 | P |
| | 7242.64 | 45.40 | 38.82 | 5.51 | 44.01 | 0.27 | 46.00 | 54.00 | -8.00 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

| | **TX / IEEE 802.11n HT20 mode / CH Low** | | | | **Measurement Distance at 3m** | | | | **Vertical polarity** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Freq.** | **Reading** | **AF** | **Cable Loss** | **Pre-amp** | **Filter** | **Level** | **Limit** | **Margin** | **Mark** |
| | **(MHz)** | **(dBμV)** | **(dB/m)** | **(dB)** | **(dB)** | **(dB)** | **(dBμV/m)** | **(dBμV/m)** | **(dB)** | **(P/Q/A)** |
| * | 1151.42 | 66.92 | 25.04 | 2.00 | 45.31 | 0.42 | 49.07 | 74.00 | -24.93 | P |
| * | 1151.42 | 64.55 | 25.04 | 2.00 | 45.31 | 0.42 | 46.70 | 54.00 | -7.30 | A |
| * | 4821.42 | 56.75 | 32.96 | 4.38 | 44.32 | 0.22 | 50.00 | 74.00 | -24.00 | P |
| * | 4821.42 | 45.58 | 32.96 | 4.38 | 44.32 | 0.22 | 38.83 | 54.00 | -15.17 | A |
| | 7233.45 | 55.82 | 38.79 | 5.51 | 44.01 | 0.27 | 56.38 | 74.00 | -17.62 | P |
| | 7233.45 | 45.74 | 38.79 | 5.51 | 44.01 | 0.27 | 46.30 | 54.00 | -7.70 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

*REMARK:*

1. *AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: 2.4GHz~2.5GHz Filter Insertion Loss*
2. *Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz*
3. *The result basic equation calculation is as follow:*
   *Level = Reading + AF + Cable – Preamp + Filter , Margin = Level-Limit*
4. *The other emission levels were 20dB below the limit*
5. *The test limit distance is 3M limit.*
6 **=Restricted bands of operation*

| Product Name | Portable Prime DJ System with Battery | Test Date | 2019/09/12 |
|---|---|---|---|
| Model | PRIME GO | Test By | Ted Huang |
| Test Mode | IEEE 802.11n HT20 TX (CH Middle) | TEMP& Humidity | 25.8°C, 52% |

| | TX / IEEE 802.11n HT20 mode / CH Middle | | | | Measurement Distance at 3m | | | | Horizontal polarity | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Freq. | Reading | AF | Cable Loss | Pre-amp | Filter | Level | Limit | Margin | Mark |
| | (MHz) | (dBμV) | (dB/m) | (dB) | (dB) | (dB) | (dBμV/m) | (dBμV/m) | (dB) | (P/Q/A) |
| * | 1626.40 | 64.77 | 27.49 | 2.41 | 44.94 | 0.59 | 50.32 | 74.00 | -23.68 | P |
| * | 1626.40 | 60.95 | 27.49 | 2.41 | 44.94 | 0.59 | 46.50 | 54.00 | -7.50 | A |
| * | 4882.88 | 56.52 | 33.15 | 4.42 | 44.34 | 0.23 | 49.98 | 74.00 | -24.02 | P |
| * | 4882.88 | 46.74 | 33.15 | 4.42 | 44.34 | 0.23 | 40.20 | 54.00 | -13.80 | A |
| * | 7320.38 | 56.65 | 39.09 | 5.53 | 43.94 | 0.27 | 57.60 | 74.00 | -16.40 | P |
| * | 7320.38 | 45.72 | 39.09 | 5.53 | 43.94 | 0.27 | 46.67 | 54.00 | -7.33 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

| | TX / IEEE 802.11n HT20 mode / CH Middle | | | | Measurement Distance at 3m | | | | Vertical polarity | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Freq. | Reading | AF | Cable Loss | Pre-amp | Filter | Level | Limit | Margin | Mark |
| | (MHz) | (dBμV) | (dB/m) | (dB) | (dB) | (dB) | (dBμV/m) | (dBμV/m) | (dB) | (P/Q/A) |
| * | 1151.54 | 66.80 | 25.04 | 2.00 | 45.31 | 0.42 | 48.95 | 74.00 | -25.05 | P |
| * | 1151.54 | 64.52 | 25.04 | 2.00 | 45.31 | 0.42 | 46.67 | 54.00 | -7.33 | A |
| * | 4870.42 | 57.22 | 33.11 | 4.41 | 44.33 | 0.23 | 50.63 | 74.00 | -23.37 | P |
| * | 4870.42 | 46.78 | 33.11 | 4.41 | 44.33 | 0.23 | 40.19 | 54.00 | -13.81 | A |
| * | 7313.32 | 55.60 | 39.07 | 5.53 | 43.94 | 0.27 | 56.52 | 74.00 | -17.48 | P |
| * | 7313.32 | 45.42 | 39.07 | 5.53 | 43.94 | 0.27 | 46.34 | 54.00 | -7.66 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

*REMARK:*

1. *AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: 2.4GHz~2.5GHz Filter Insertion Loss*
2. *Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz*
3. *The result basic equation calculation is as follow:*
   *Level = Reading + AF + Cable – Preamp + Filter , Margin = Level-Limit*
4. *The other emission levels were 20dB below the limit*
5. *The test limit distance is 3M limit.*
6 **=Restricted bands of operation*

| Product Name | Portable Prime DJ System with Battery | Test Date | 2019/09/12 |
|---|---|---|---|
| Model | PRIME GO | Test By | Ted Huang |
| Test Mode | IEEE 802.11n HT20 TX (CH High) | TEMP& Humidity | 25.8°C, 52% |

| | TX / IEEE 802.11n HT20 mode / CH High | | | Measurement Distance at 3m | | | | Horizontal polarity | |
|---|---|---|---|---|---|---|---|---|---|
| | Freq. | Reading | AF | Cable Loss | Pre-amp | Filter | Level | Limit | Margin | Mark |
| | (MHz) | (dBμV) | (dB/m) | (dB) | (dB) | (dB) | (dBμV/m) | (dBμV/m) | (dB) | (P/Q/A) |
| | 1626.52 | 64.75 | 27.49 | 2.41 | 44.94 | 0.59 | 50.30 | 74.00 | -23.70 | P |
| | 1626.52 | 60.63 | 27.49 | 2.41 | 44.94 | 0.59 | 46.18 | 54.00 | -7.82 | A |
| * | 4932.64 | 56.58 | 33.30 | 4.44 | 44.35 | 0.23 | 50.20 | 74.00 | -23.80 | P |
| * | 4932.64 | 46.58 | 33.30 | 4.44 | 44.35 | 0.23 | 40.20 | 54.00 | -13.80 | A |
| * | 7391.24 | 55.74 | 39.33 | 5.55 | 43.88 | 0.27 | 57.01 | 74.00 | -16.99 | P |
| * | 7391.24 | 45.36 | 39.33 | 5.55 | 43.88 | 0.27 | 46.63 | 54.00 | -7.37 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

| | TX / IEEE 802.11n HT20 mode / CH High | | | Measurement Distance at 3m | | | | Vertical polarity | |
|---|---|---|---|---|---|---|---|---|---|
| | Freq. | Reading | AF | Cable Loss | Pre-amp | Filter | Level | Limit | Margin | Mark |
| | (MHz) | (dBμV) | (dB/m) | (dB) | (dB) | (dB) | (dBμV/m) | (dBμV/m) | (dB) | (P/Q/A) |
| * | 1151.42 | 66.75 | 25.04 | 2.00 | 45.31 | 0.42 | 48.90 | 74.00 | -25.10 | P |
| * | 1151.42 | 64.82 | 25.04 | 2.00 | 45.31 | 0.42 | 46.97 | 54.00 | -7.03 | A |
| * | 4924.70 | 55.82 | 33.27 | 4.44 | 44.35 | 0.23 | 49.42 | 74.00 | -24.58 | P |
| * | 4924.70 | 46.61 | 33.27 | 4.44 | 44.35 | 0.23 | 40.21 | 54.00 | -13.79 | A |
| * | 7380.24 | 56.28 | 39.29 | 5.55 | 43.89 | 0.27 | 57.50 | 74.00 | -16.50 | P |
| * | 7380.24 | 44.82 | 39.29 | 5.55 | 43.89 | 0.27 | 46.04 | 54.00 | -7.96 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

*REMARK:*

1. *AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: 2.4GHz~2.5GHz Filter Insertion Loss*
2. *Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz*
3. *The result basic equation calculation is as follow:*
   *Level = Reading + AF + Cable – Preamp + Filter , Margin = Level-Limit*
4. *The other emission levels were 20dB below the limit*
5. *The test limit distance is 3M limit.*
6 **=Restricted bands of operation*

| Product Name | Portable Prime DJ System with Battery | Test Date | 2019/9/12 |
|---|---|---|---|
| Model | PRIME GO | Test By | Ted Huang |
| Test Mode | Bluetooth 4.0 TX (CH Low) | TEMP& Humidity | 25.8℃, 52% |

| | TX / Bluetooth 4.0 (GFSK) mode / CH Low | | | | Measurement Distance at 3m | | | | Horizontal polarity | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Freq. | Reading | AF | Cable Loss | Pre-amp | Filter | Level | Limit | Margin | Mark |
| | (MHz) | (dBμV) | (dB/m) | (dB) | (dB) | (dB) | (dBμV/m) | (dBμV/m) | (dB) | (P/Q/A) |
| * | 1061.03 | 64.52 | 24.66 | 1.92 | 45.38 | 0.41 | 46.12 | 74.00 | -27.88 | P |
| * | 1061.03 | 60.68 | 24.66 | 1.92 | 45.38 | 0.41 | 42.28 | 54.00 | -11.72 | A |
| | 1626.52 | 64.68 | 27.49 | 2.41 | 44.94 | 0.59 | 50.23 | 74.00 | -23.77 | P |
| | 1626.52 | 60.72 | 27.49 | 2.41 | 44.94 | 0.59 | 46.27 | 54.00 | -7.73 | A |
| * | 4804.14 | 57.13 | 32.91 | 4.37 | 44.32 | 0.22 | 50.32 | 74.00 | -23.68 | P |
| * | 4804.14 | 46.45 | 32.91 | 4.37 | 44.32 | 0.22 | 39.64 | 54.00 | -14.36 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

| | TX / Bluetooth 4.0 (GFSK) mode / CH Low | | | | Measurement Distance at 3m | | | | Vertical polarity | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Freq. | Reading | AF | Cable Loss | Pre-amp | Filter | Level | Limit | Margin | Mark |
| | (MHz) | (dBμV) | (dB/m) | (dB) | (dB) | (dB) | (dBμV/m) | (dBμV/m) | (dB) | (P/Q/A) |
| * | 1061.34 | 65.48 | 24.66 | 1.92 | 45.38 | 0.41 | 47.08 | 74.00 | -26.92 | P |
| * | 1061.34 | 62.62 | 24.66 | 1.92 | 45.38 | 0.41 | 44.22 | 54.00 | -9.78 | A |
| * | 1151.50 | 66.82 | 25.04 | 2.00 | 45.31 | 0.42 | 48.97 | 74.00 | -25.03 | P |
| * | 1151.50 | 64.65 | 25.04 | 2.00 | 45.31 | 0.42 | 46.80 | 54.00 | -7.20 | A |
| * | 4804.06 | 55.58 | 32.91 | 4.37 | 44.32 | 0.22 | 48.77 | 74.00 | -25.23 | P |
| * | 4804.06 | 45.72 | 32.91 | 4.37 | 44.32 | 0.22 | 38.91 | 54.00 | -15.09 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

*REMARK:*

1. *AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: 2.4GHz~2.5GHz Filter Insertion Loss*
2. *Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz*
3. *The result basic equation calculation is as follow:*
   *Level = Reading + AF + Cable – Preamp + Filter , Margin = Level-Limit*
4. *The other emission levels were 20dB below the limit*
5. *The test limit distance is 3M limit.*
6 **=Restricted bands of operation*

| **Product Name** | Portable Prime DJ System with Battery | **Test Date** | 2019/9/12 |
|---|---|---|---|
| **Model** | PRIME GO | **Test By** | Ted Huang |
| **Test Mode** | Bluetooth 4.0 TX (CH Middle) | **TEMP& Humidity** | 25.8°C, 52% |

| | **TX / Bluetooth 4.0 (GFSK) mode / CH Middle** | | | | **Measurement Distance at 3m** | | | | **Horizontal polarity** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Freq.** | **Reading** | **AF** | **Cable Loss** | **Pre-amp** | **Filter** | **Level** | **Limit** | **Margin** | **Mark** |
| | **(MHz)** | **(dBµV)** | **(dB/m)** | **(dB)** | **(dB)** | **(dB)** | **(dBµV/m)** | **(dBµV/m)** | **(dB)** | **(P/Q/A)** |
| * | 1061.08 | 64.65 | 24.66 | 1.92 | 45.38 | 0.41 | 46.25 | 74.00 | -27.75 | P |
| * | 1061.08 | 60.84 | 24.66 | 1.92 | 45.38 | 0.41 | 42.44 | 54.00 | -11.56 | A |
| | 1626.64 | 64.52 | 27.49 | 2.41 | 44.94 | 0.59 | 50.07 | 74.00 | -23.93 | P |
| | 1626.64 | 60.63 | 27.49 | 2.41 | 44.94 | 0.59 | 46.18 | 54.00 | -7.82 | A |
| * | 4884.02 | 55.42 | 33.15 | 4.42 | 44.34 | 0.23 | 48.88 | 74.00 | -25.12 | P |
| * | 4884.02 | 44.78 | 33.15 | 4.42 | 44.34 | 0.23 | 38.24 | 54.00 | -15.76 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

| | **TX / Bluetooth 4.0 (GFSK) mode / CH Middle** | | | | **Measurement Distance at 3m** | | | | **Vertical polarity** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Freq.** | **Reading** | **AF** | **Cable Loss** | **Pre-amp** | **Filter** | **Level** | **Limit** | **Margin** | **Mark** |
| | **(MHz)** | **(dBµV)** | **(dB/m)** | **(dB)** | **(dB)** | **(dB)** | **(dBµV/m)** | **(dBµV/m)** | **(dB)** | **(P/Q/A)** |
| * | 1061.30 | 65.56 | 24.66 | 1.92 | 45.38 | 0.41 | 47.16 | 74.00 | -26.84 | P |
| * | 1061.30 | 62.67 | 24.66 | 1.92 | 45.38 | 0.41 | 44.27 | 54.00 | -9.73 | A |
| * | 1151.42 | 66.80 | 25.04 | 2.00 | 45.31 | 0.42 | 48.95 | 74.00 | -25.05 | P |
| * | 1151.42 | 64.56 | 25.04 | 2.00 | 45.31 | 0.42 | 46.71 | 54.00 | -7.29 | A |
| * | 4884.06 | 55.68 | 33.15 | 4.42 | 44.34 | 0.23 | 49.14 | 74.00 | -24.86 | P |
| * | 4884.06 | 44.70 | 33.15 | 4.42 | 44.34 | 0.23 | 38.16 | 54.00 | -15.84 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

*REMARK:*

1. *AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: 2.4GHz~2.5GHz Filter Insertion Loss*
2. *Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz*
3. *The result basic equation calculation is as follow:*
   *Level = Reading + AF + Cable – Preamp + Filter , Margin = Level-Limit*
4. *The other emission levels were 20dB below the limit*
5. *The test limit distance is 3M limit.*
6 **=Restricted bands of operation*

| Product Name | Portable Prime DJ System with Battery | Test Date | 2019/9/12 |
|---|---|---|---|
| Model | PRIME GO | Test By | Ted Huang |
| Test Mode | Bluetooth 4.0 TX (CH High) | TEMP& Humidity | 25.8°C, 52% |

| | TX / Bluetooth 4.0 (GFSK) mode / CH High | | | | Measurement Distance at 3m | | | | | Horizontal polarity |
|---|---|---|---|---|---|---|---|---|---|---|
| | Freq. | Reading | AF | Cable Loss | Pre-amp | Filter | Level | Limit | Margin | Mark |
| | (MHz) | (dBμV) | (dB/m) | (dB) | (dB) | (dB) | (dBμV/m) | (dBμV/m) | (dB) | (P/Q/A) |
| * | 1061.05 | 64.65 | 24.66 | 1.92 | 45.38 | 0.41 | 46.25 | 74.00 | -27.75 | P |
| * | 1061.05 | 60.86 | 24.66 | 1.92 | 45.38 | 0.41 | 42.46 | 54.00 | -11.54 | A |
| * | 1626.46 | 64.77 | 27.49 | 2.41 | 44.94 | 0.59 | 50.32 | 74.00 | -23.68 | P |
| * | 1626.46 | 60.86 | 27.49 | 2.41 | 44.94 | 0.59 | 46.41 | 54.00 | -7.59 | A |
| * | 4959.98 | 56.18 | 33.38 | 4.46 | 44.36 | 0.24 | 49.89 | 74.00 | -24.11 | P |
| * | 4959.98 | 45.43 | 33.38 | 4.46 | 44.36 | 0.24 | 39.14 | 54.00 | -14.86 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

| | TX / Bluetooth 4.0 (GFSK) mode / CH High | | | | Measurement Distance at 3m | | | | | Vertical polarity |
|---|---|---|---|---|---|---|---|---|---|---|
| | Freq. | Reading | AF | Cable Loss | Pre-amp | Filter | Level | Limit | Margin | Mark |
| | (MHz) | (dBμV) | (dB/m) | (dB) | (dB) | (dB) | (dBμV/m) | (dBμV/m) | (dB) | (P/Q/A) |
| * | 1061.28 | 65.75 | 24.66 | 1.92 | 45.38 | 0.41 | 47.35 | 74.00 | -26.65 | P |
| * | 1061.28 | 62.68 | 24.66 | 1.92 | 45.38 | 0.41 | 44.28 | 54.00 | -9.72 | A |
| * | 1151.54 | 66.80 | 25.04 | 2.00 | 45.31 | 0.42 | 48.95 | 74.00 | -25.05 | P |
| * | 1151.54 | 64.52 | 25.04 | 2.00 | 45.31 | 0.42 | 46.67 | 54.00 | -7.33 | A |
| * | 4960.10 | 57.38 | 33.38 | 4.46 | 44.36 | 0.24 | 51.10 | 74.00 | -22.90 | P |
| * | 4960.10 | 46.62 | 33.38 | 4.46 | 44.36 | 0.24 | 40.34 | 54.00 | -13.66 | A |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | P |
| | N/A | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | A |

*REMARK:*

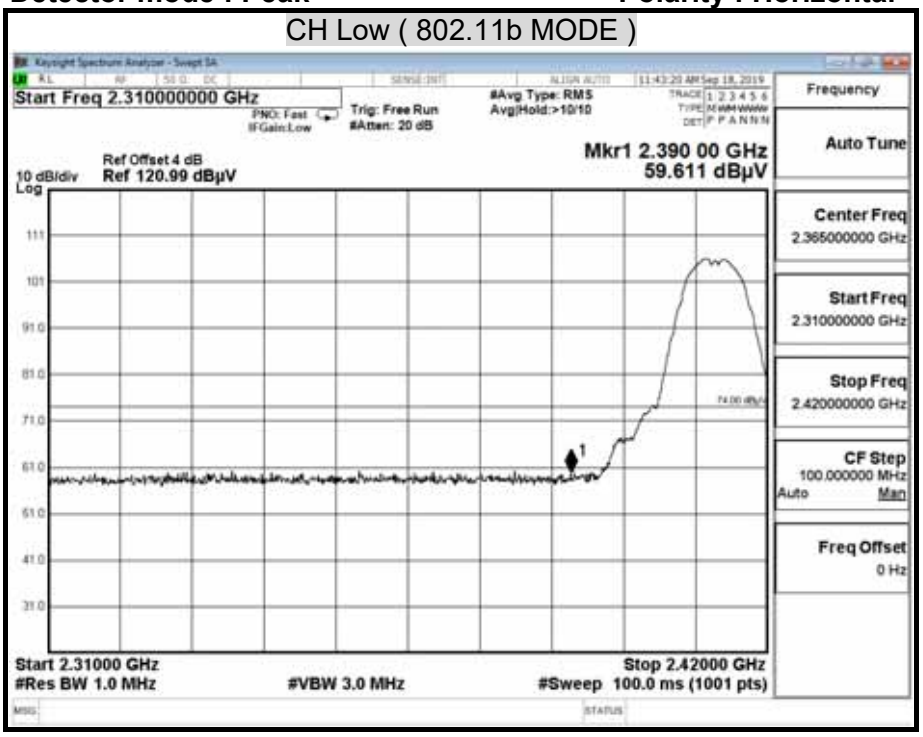
1. *AF: Antenna Factor, Cable: Cable Loss, Pre-Amp: Preamplifier gain, Filter: 2.4GHz~2.5GHz Filter Insertion Loss*
2. *Spectrum analyzer setting P(Peak): RBW=1MHz, VBW=1MHz, A(Average): RBW=1MHz, VBW=10Hz*
3. *The result basic equation calculation is as follow:*
   *Level = Reading + AF + Cable – Preamp + Filter , Margin = Level-Limit*
4. *The other emission levels were 20dB below the limit*
5. *The test limit distance is 3M limit.*
6 **=Restricted bands of operation*

## 8.6.4 RESTRICTED BAND EDGES

| Model Name | PRIME GO | Test By | Ted Huang |
|---|---|---|---|
| Temp & Humidity | 25.8°C, 52% | Test Date | 2019/09/12 |

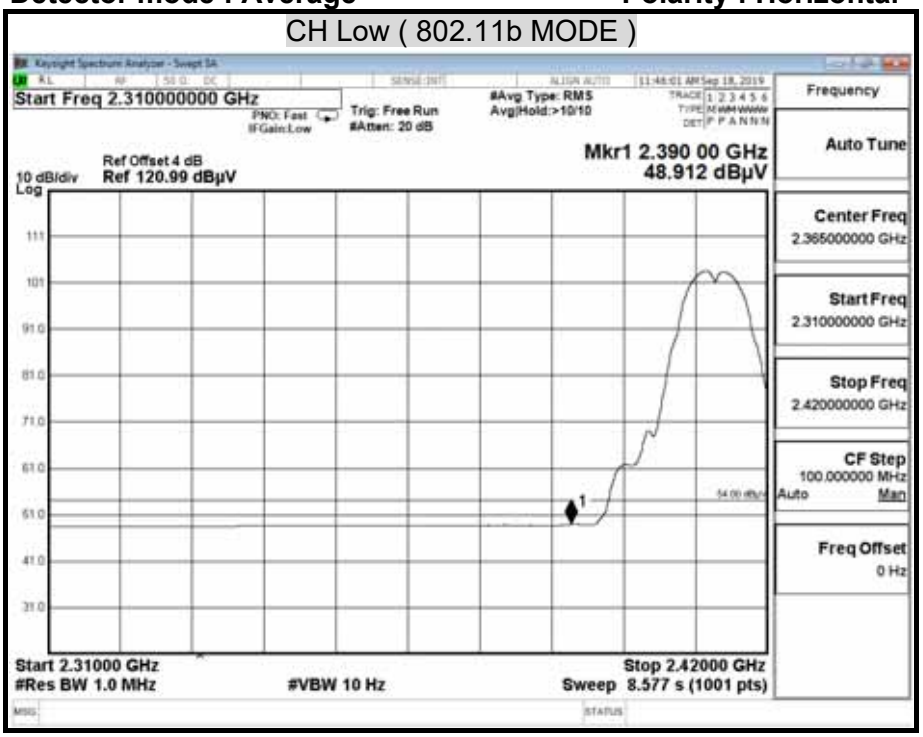
**Detector mode : Peak** **Polarity : Horizontal**

CH Low ( 802.11b MODE )



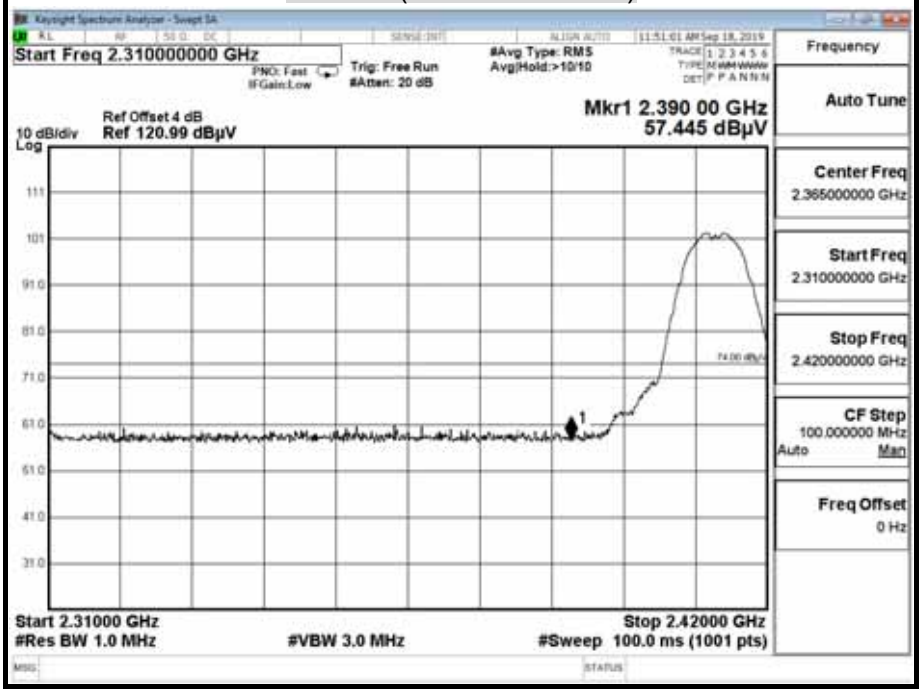

**Detector mode : Average** **Polarity : Horizontal**

CH Low ( 802.11b MODE )



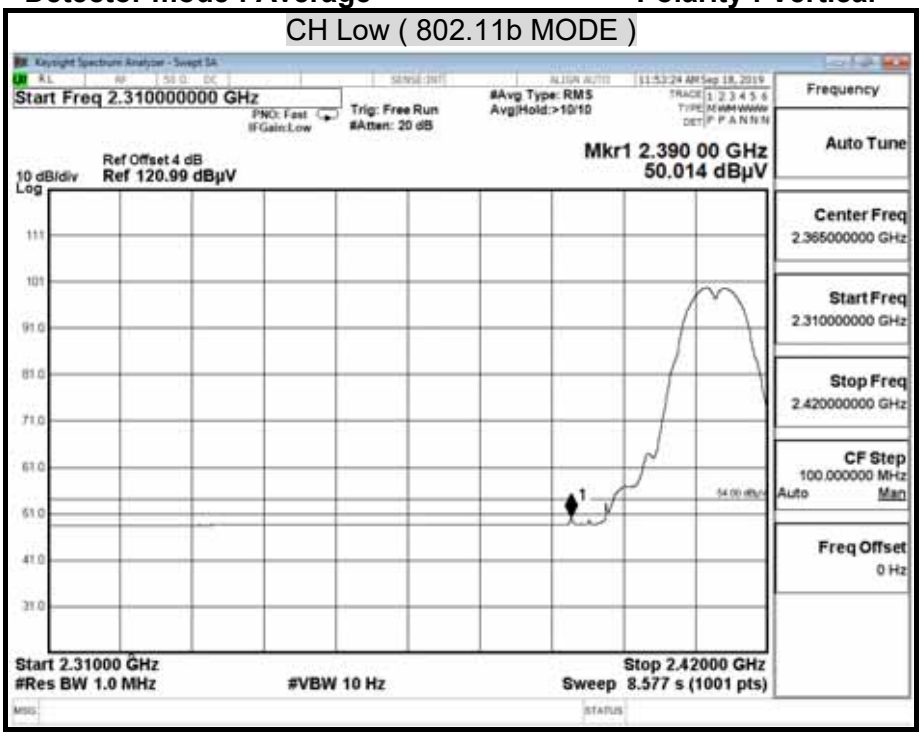
**Detector mode : Peak** **Polarity : Vertical**

CH Low ( 802.11b MODE )



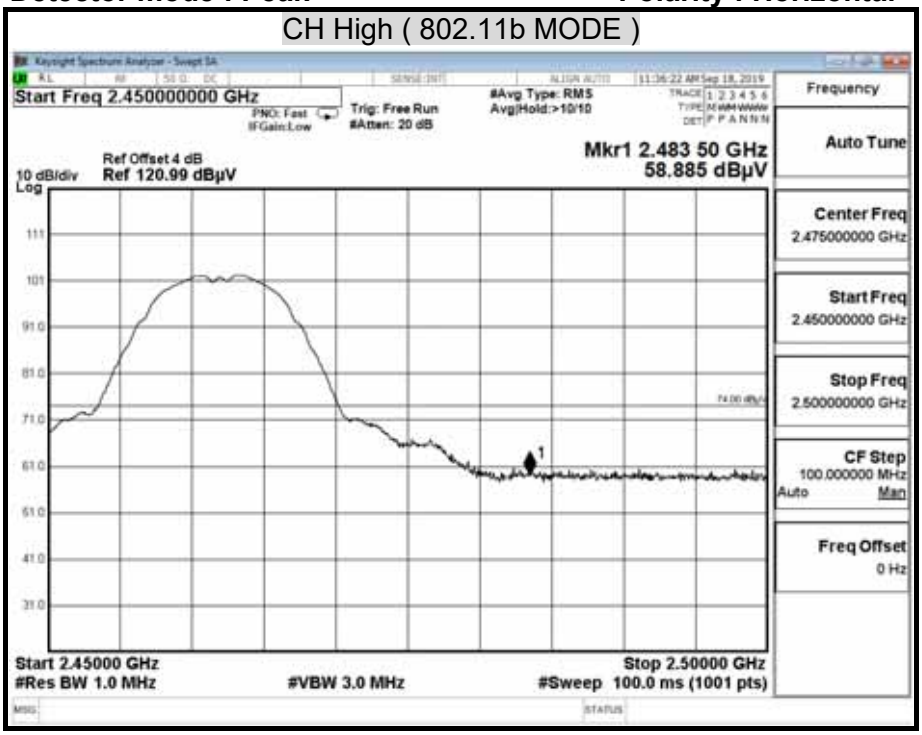

**Detector mode : Average** **Polarity : Vertical**

CH Low ( 802.11b MODE )



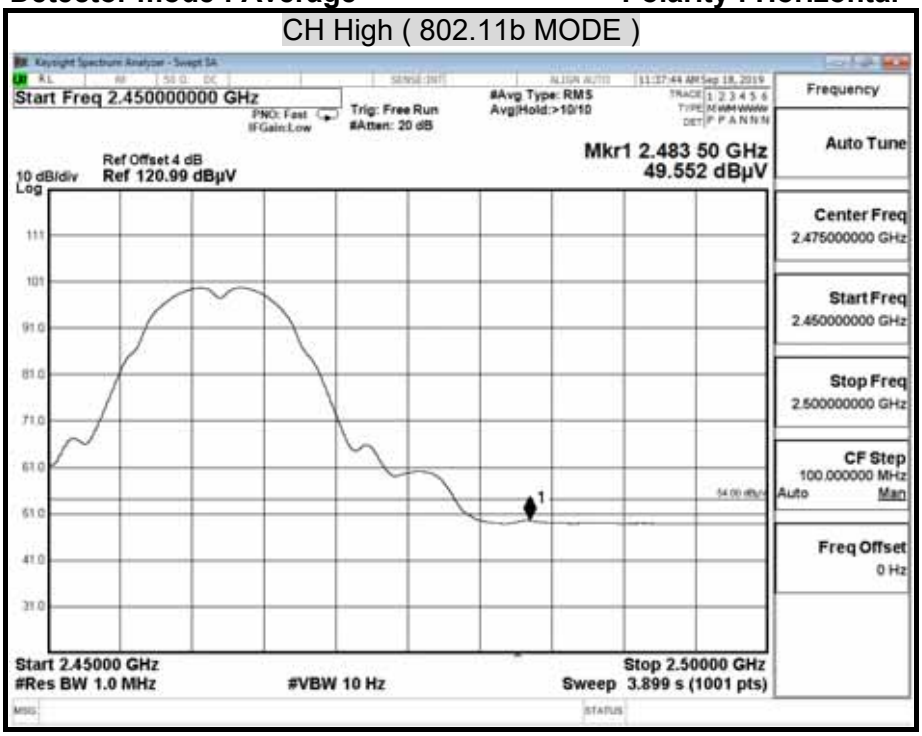
**Detector mode : Peak** **Polarity : Horizontal**

CH High ( 802.11b MODE )



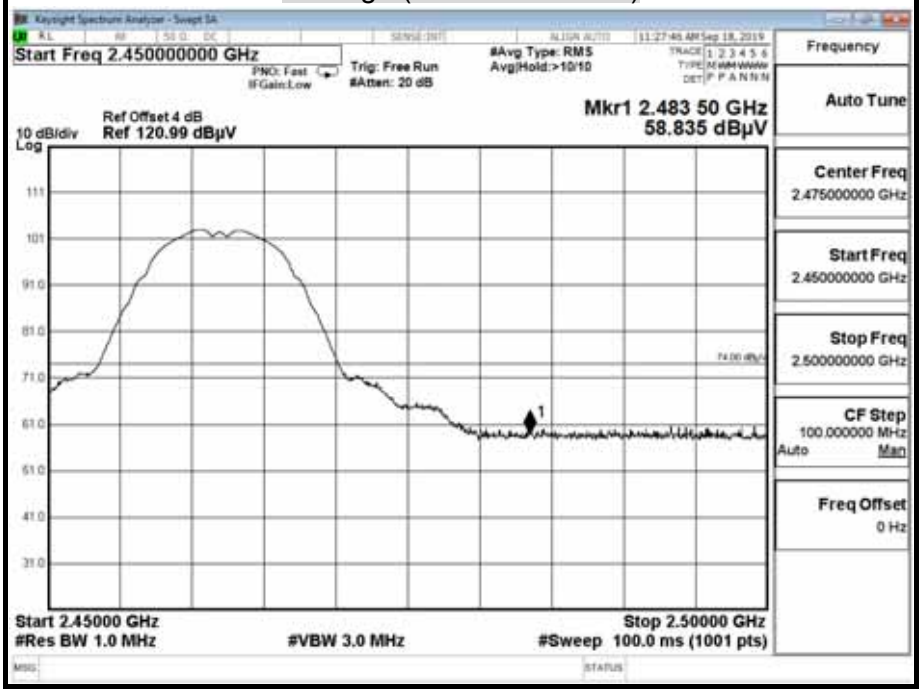

**Detector mode : Average** **Polarity : Horizontal**

CH High ( 802.11b MODE )



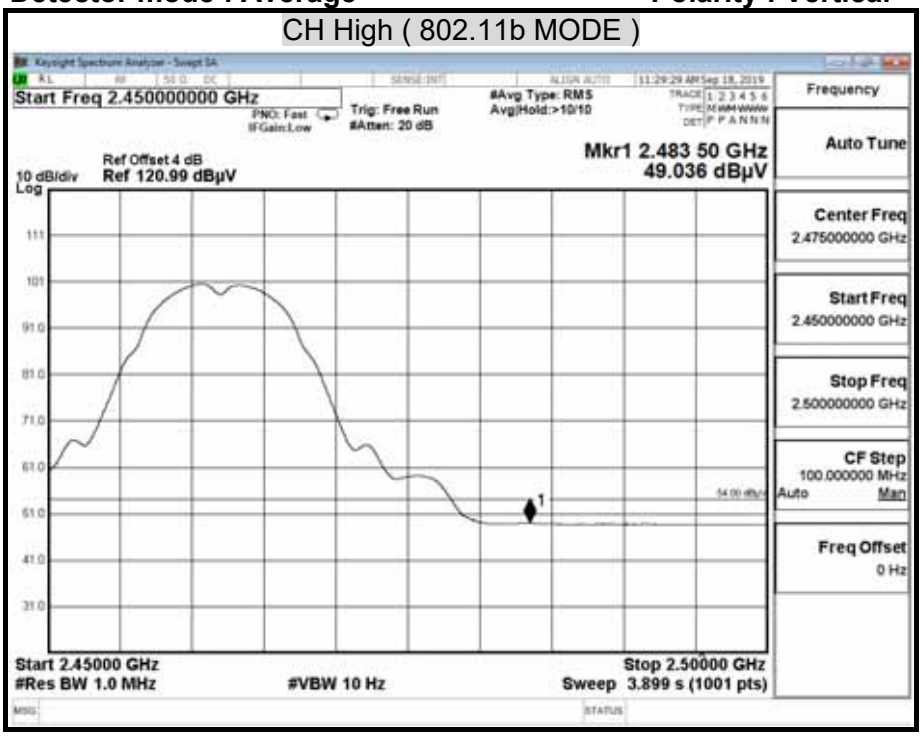
**Detector mode : Peak** **Polarity : Vertical**

CH High ( 802.11b MODE )



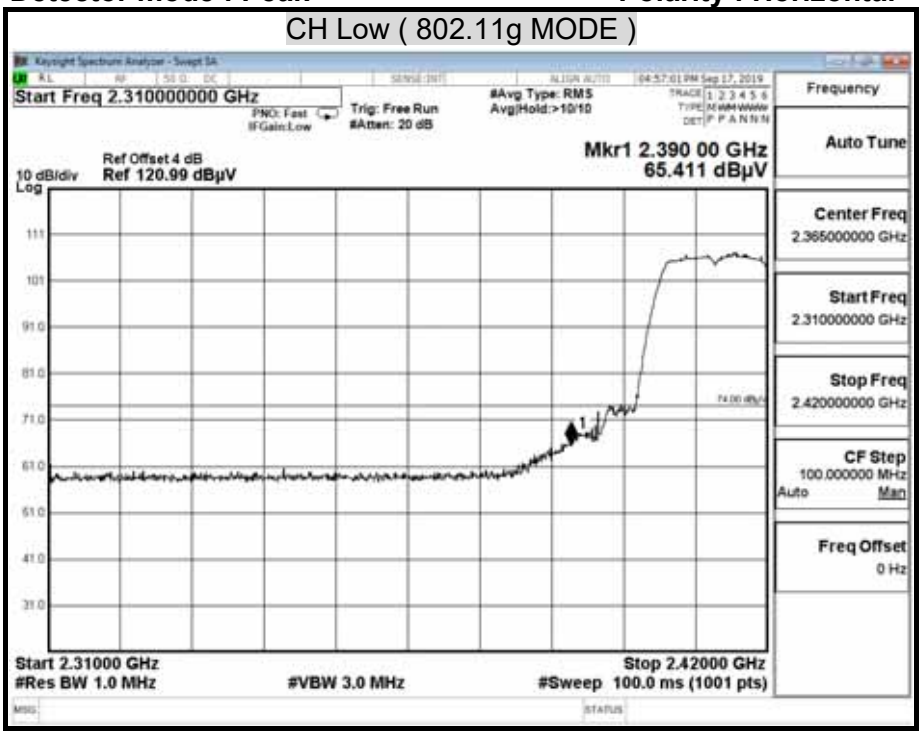

**Detector mode : Average** **Polarity : Vertical**

CH High ( 802.11b MODE )



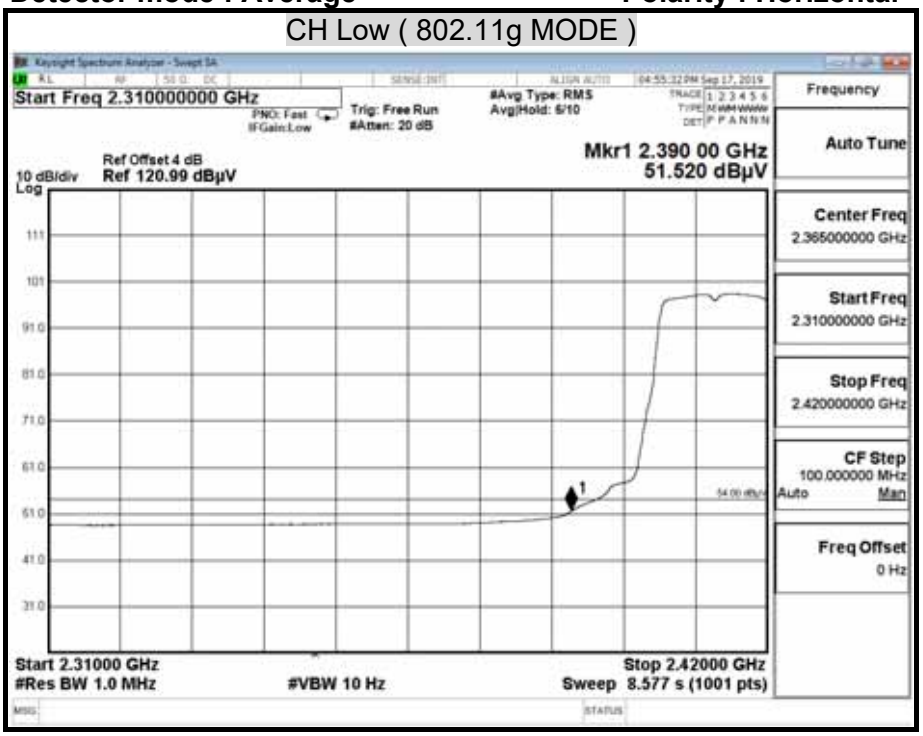
**Detector mode : Peak** **Polarity : Horizontal**

CH Low ( 802.11g MODE )



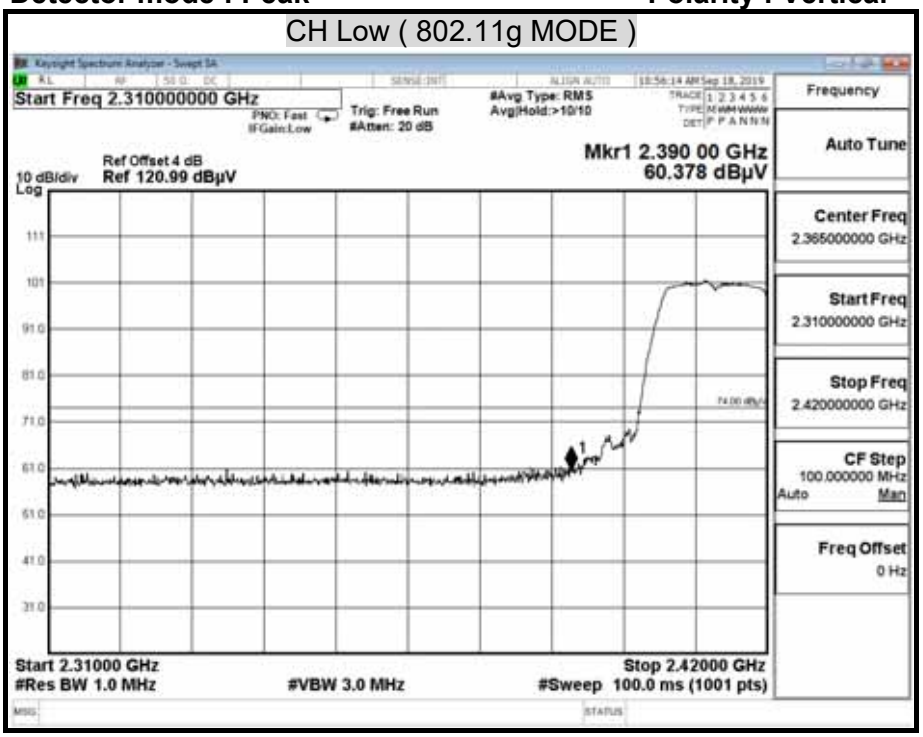

**Detector mode : Average** **Polarity : Horizontal**

CH Low ( 802.11g MODE )



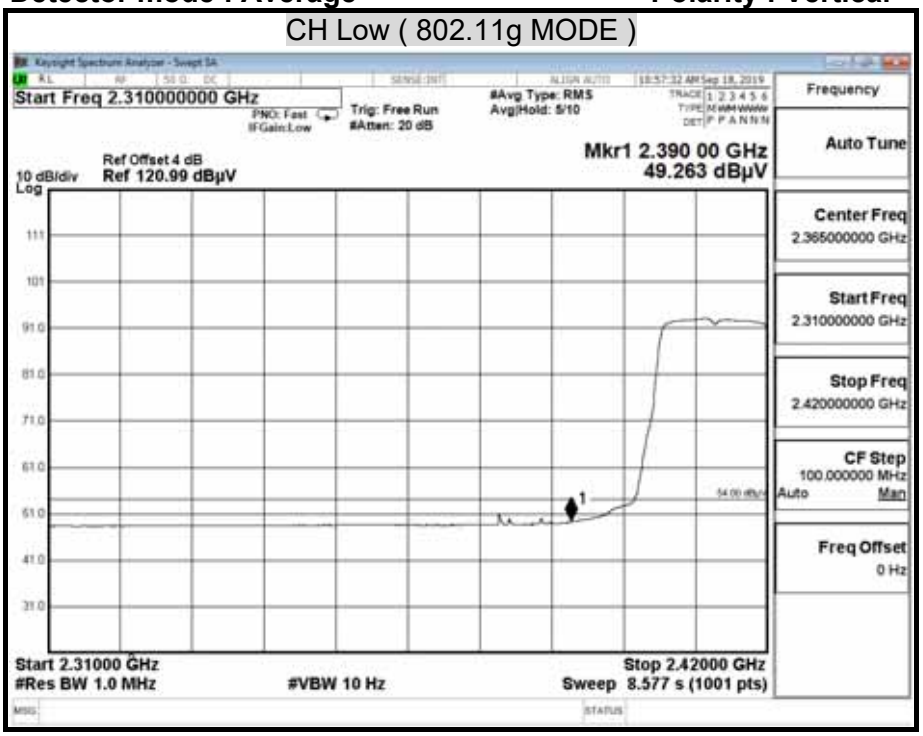
**Detector mode : Peak** **Polarity : Vertical**

CH Low ( 802.11g MODE )



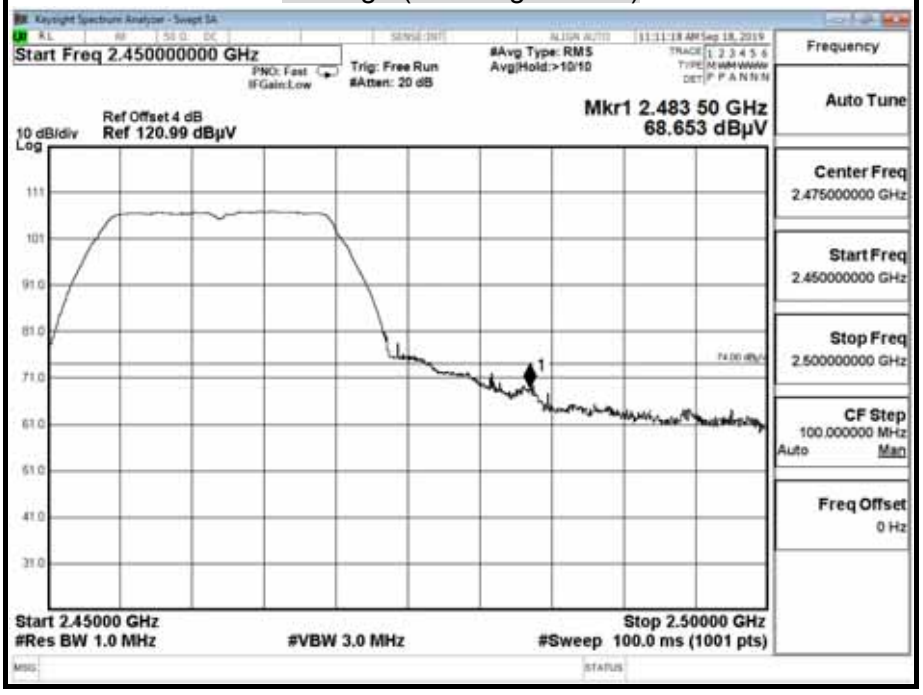

**Detector mode : Average** **Polarity : Vertical**

CH Low ( 802.11g MODE )



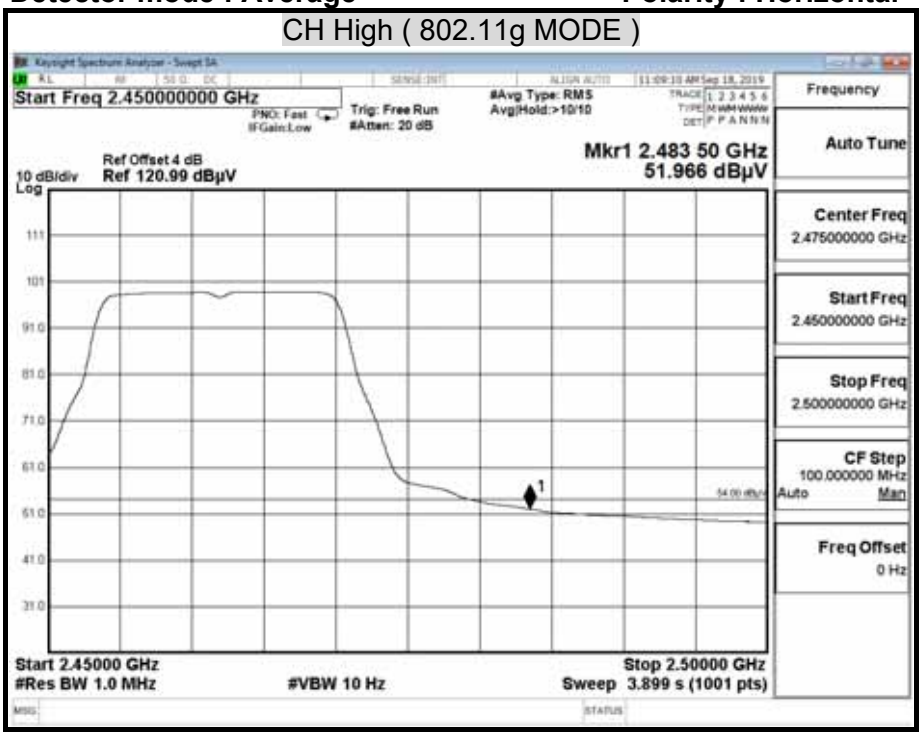
**Detector mode : Peak** **Polarity : Horizontal**

CH High ( 802.11g MODE )



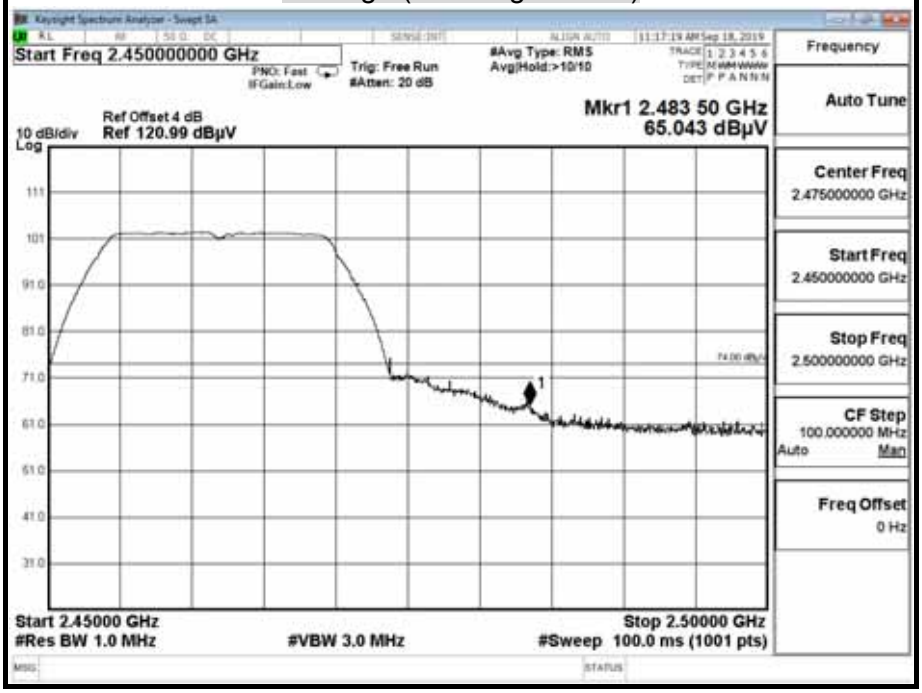

**Detector mode : Average** **Polarity : Horizontal**

CH High ( 802.11g MODE )



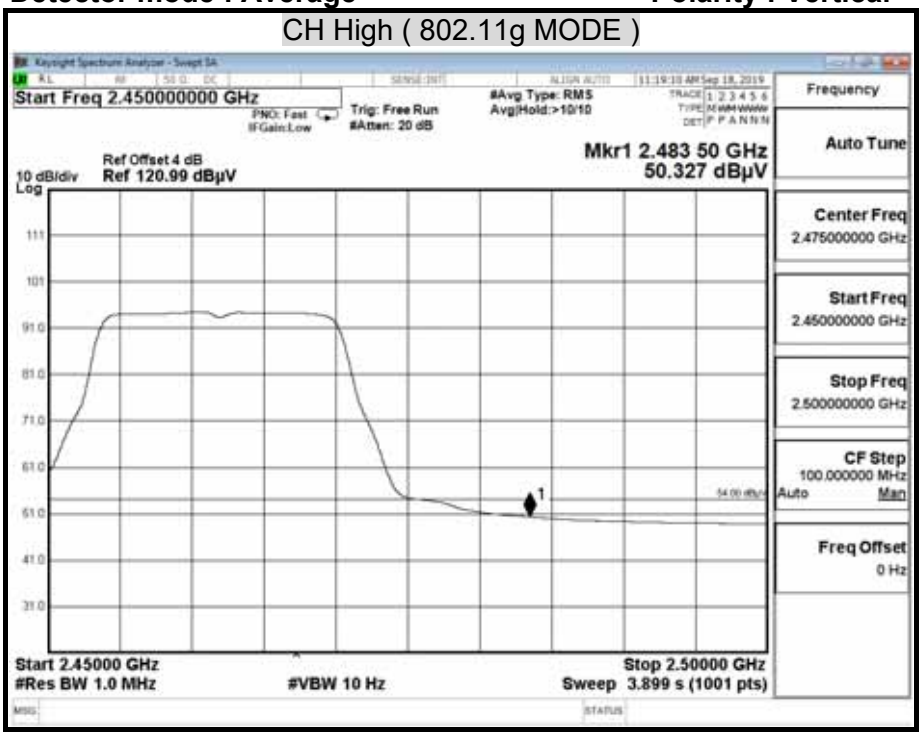
**Detector mode : Peak** **Polarity : Vertical**

CH High ( 802.11g MODE )



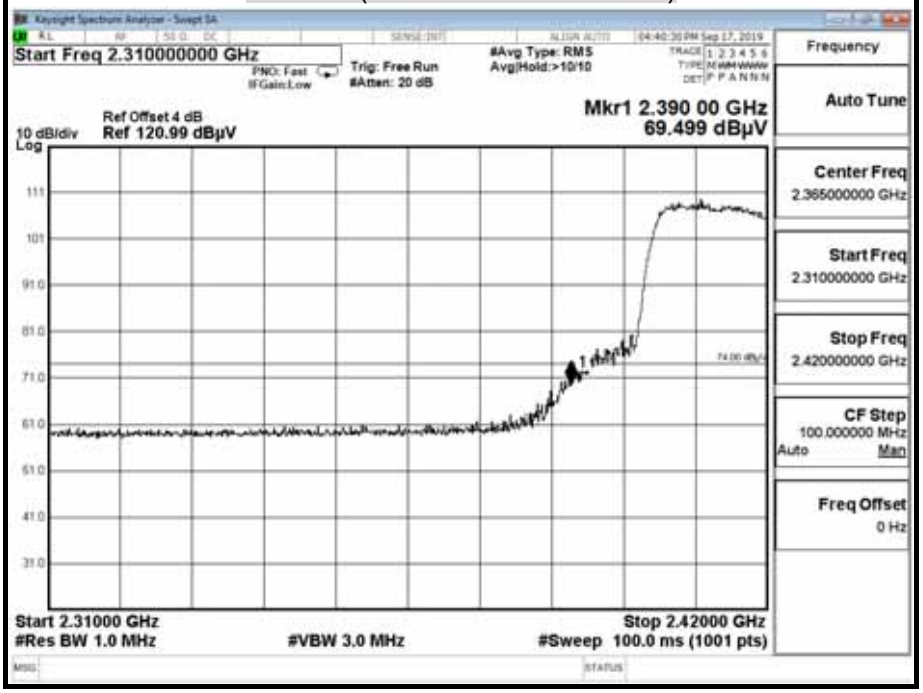

**Detector mode : Average** **Polarity : Vertical**

CH High ( 802.11g MODE )



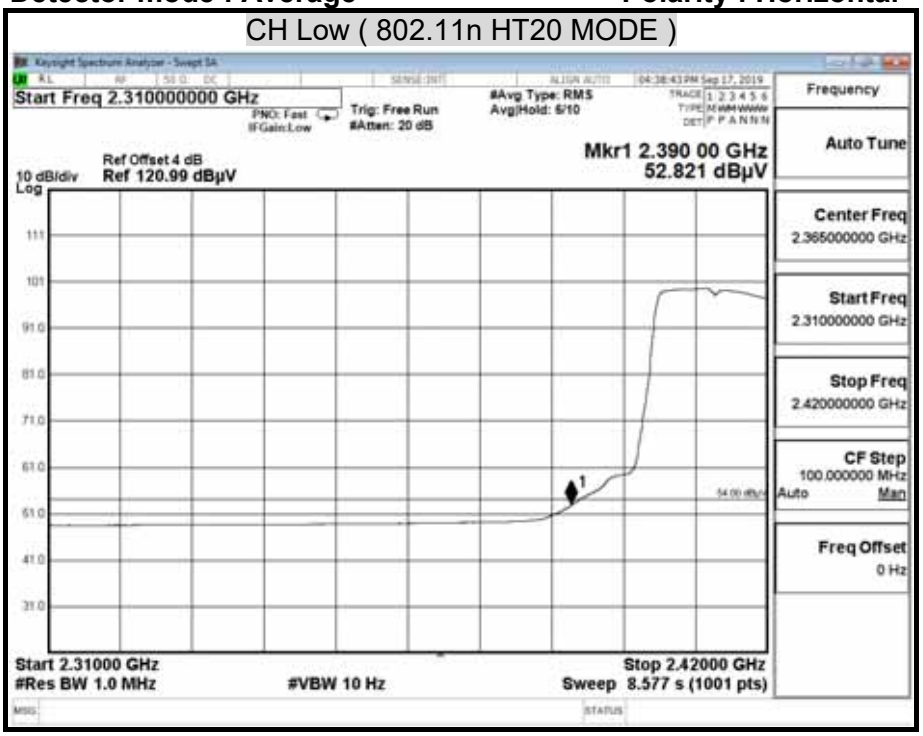
**Detector mode : Peak** **Polarity : Horizontal**

CH Low ( 802.11n HT20 MODE )



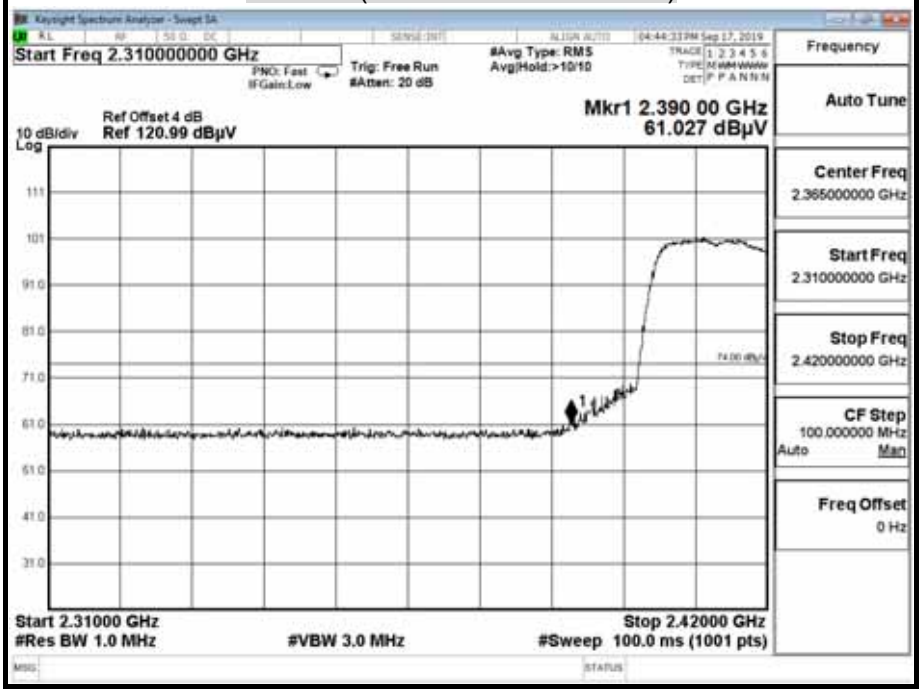

**Detector mode : Average** **Polarity : Horizontal**

CH Low ( 802.11n HT20 MODE )



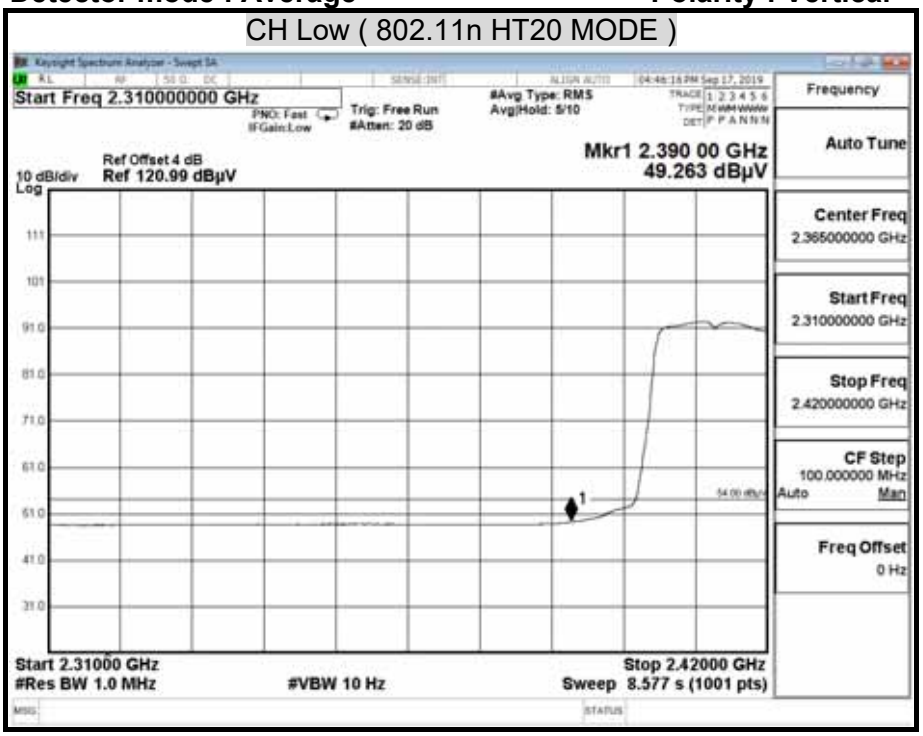
**Detector mode : Peak** **Polarity : Vertical**

CH Low ( 802.11n HT20 MODE )



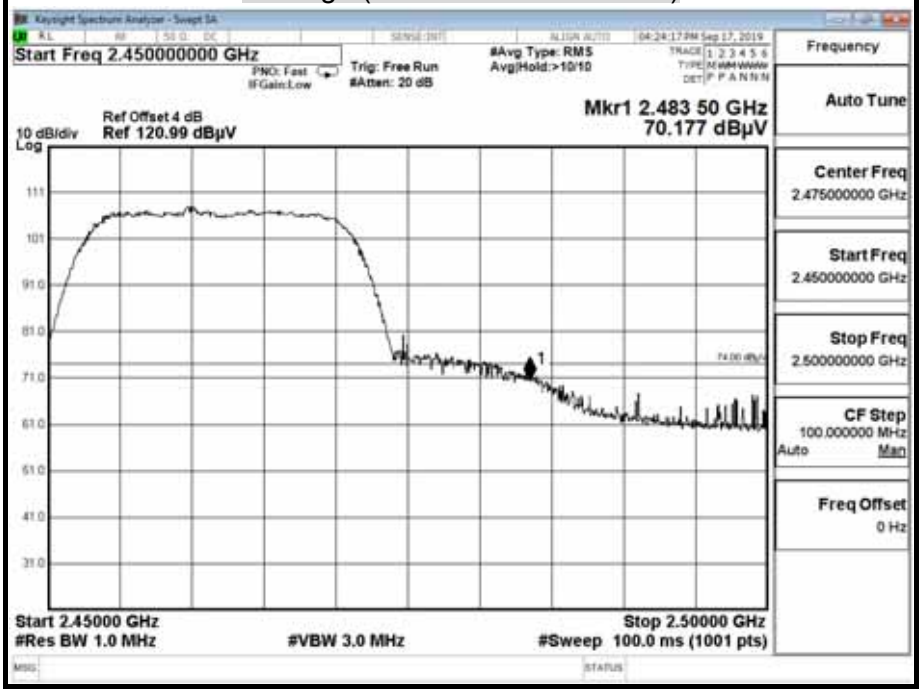

**Detector mode : Average** **Polarity : Vertical**

CH Low ( 802.11n HT20 MODE )



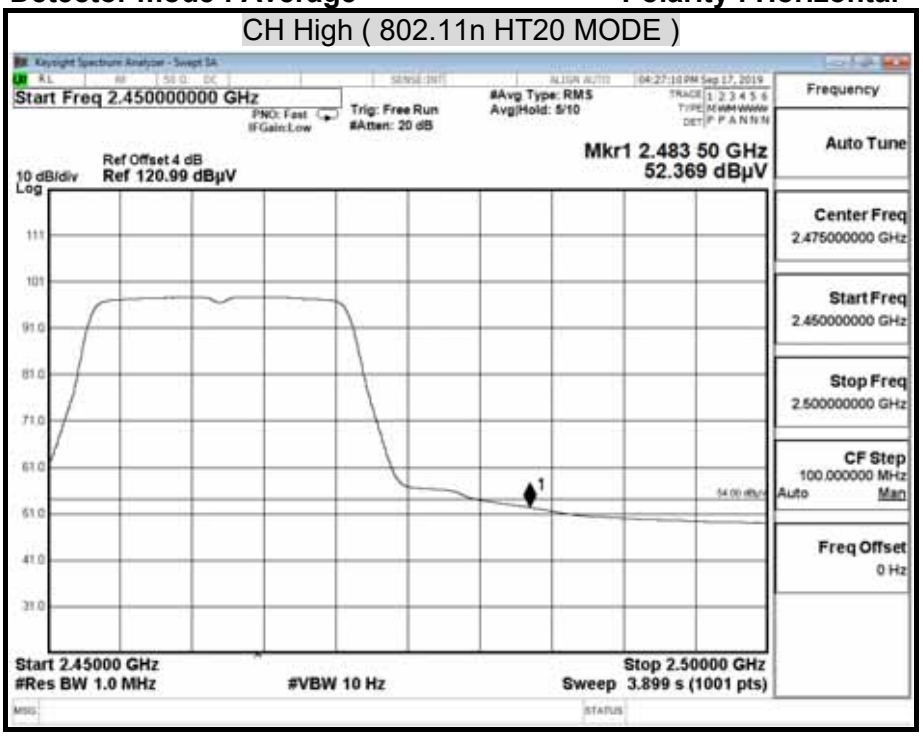
**Detector mode : Peak** **Polarity : Horizontal**

CH High ( 802.11n HT20 MODE )



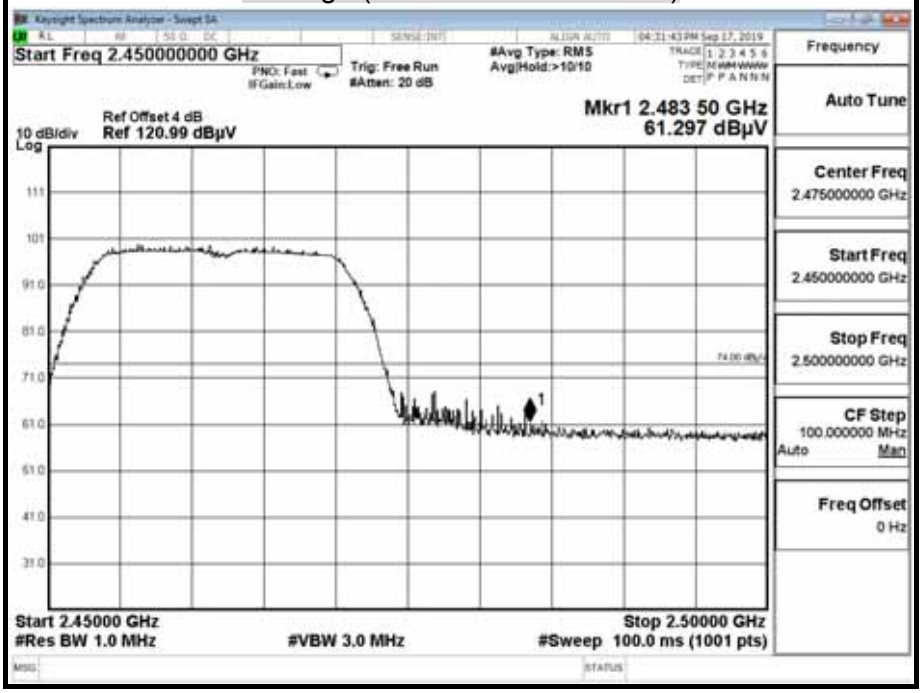

**Detector mode : Average** **Polarity : Horizontal**

CH High ( 802.11n HT20 MODE )



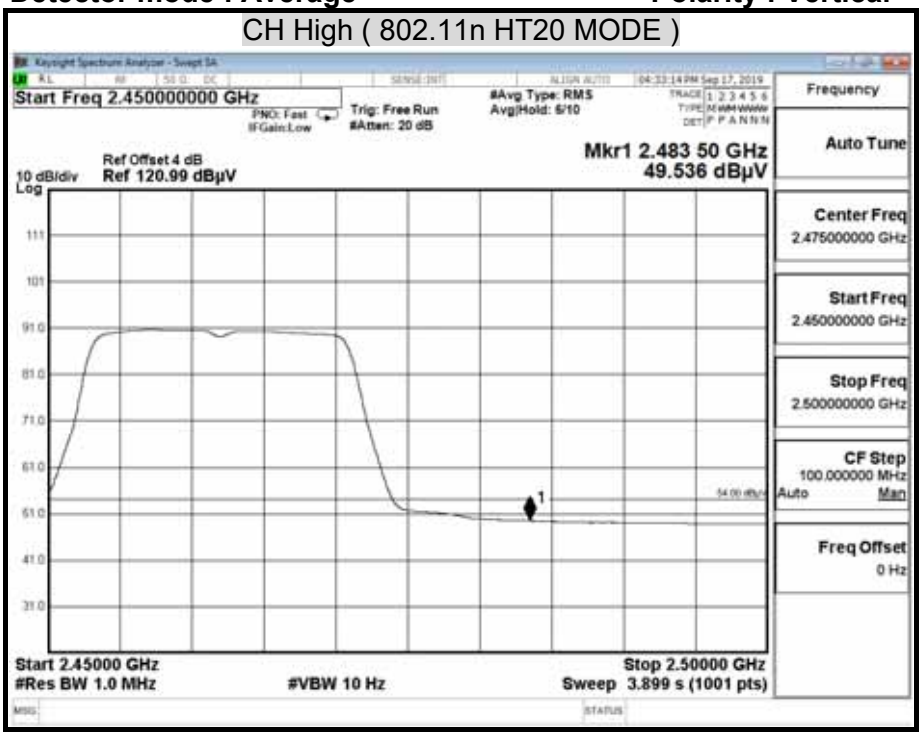
**Detector mode : Peak** **Polarity : Vertical**

CH High ( 802.11n HT20 MODE )




**Detector mode : Average** **Polarity : Vertical**

CH High ( 802.11n HT20 MODE )

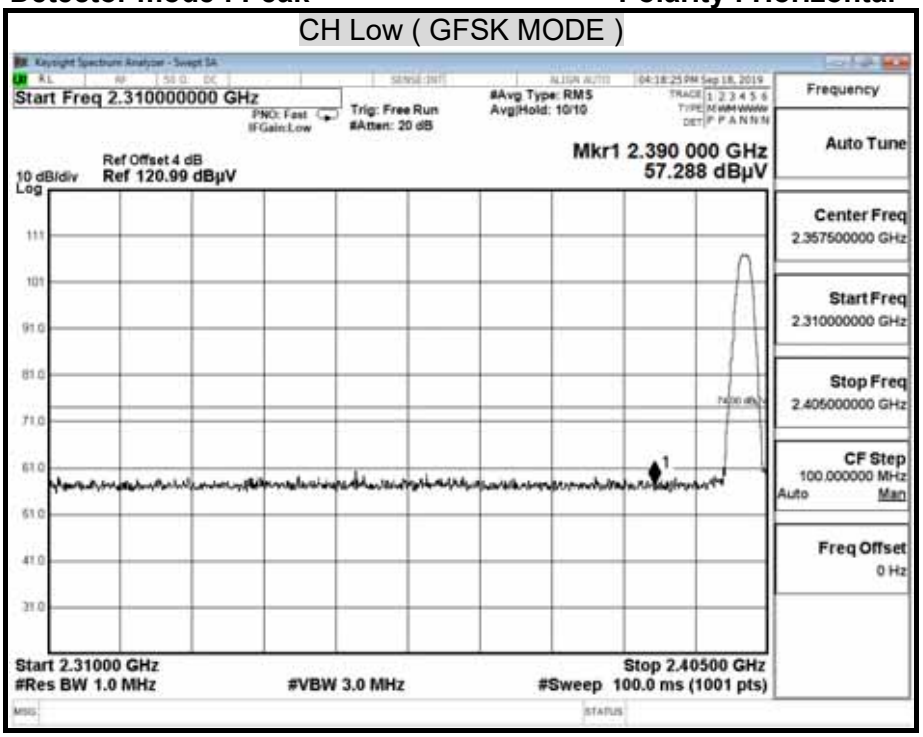


**Bluetooth 4.0**

| Model Name | PRIME GO | Test By | Ted Huang |
|---|---|---|---|
| Temp & Humidity | 25.8°C, 52% | Test Date | 2019/9/12 |

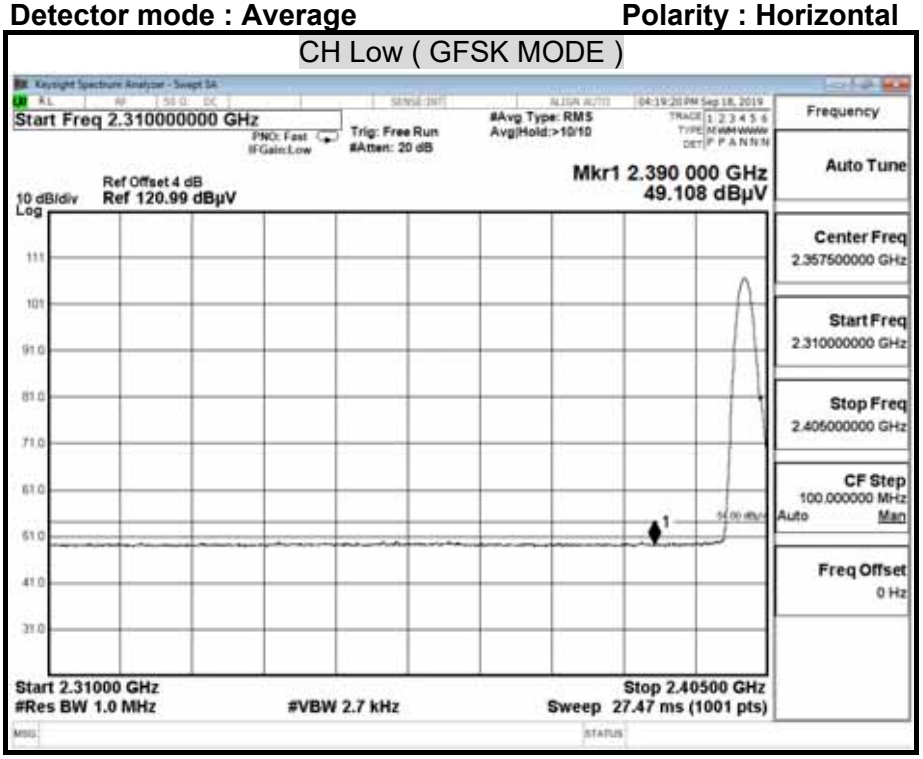
**Detector mode : Peak** **Polarity : Horizontal**

CH Low ( GFSK MODE )



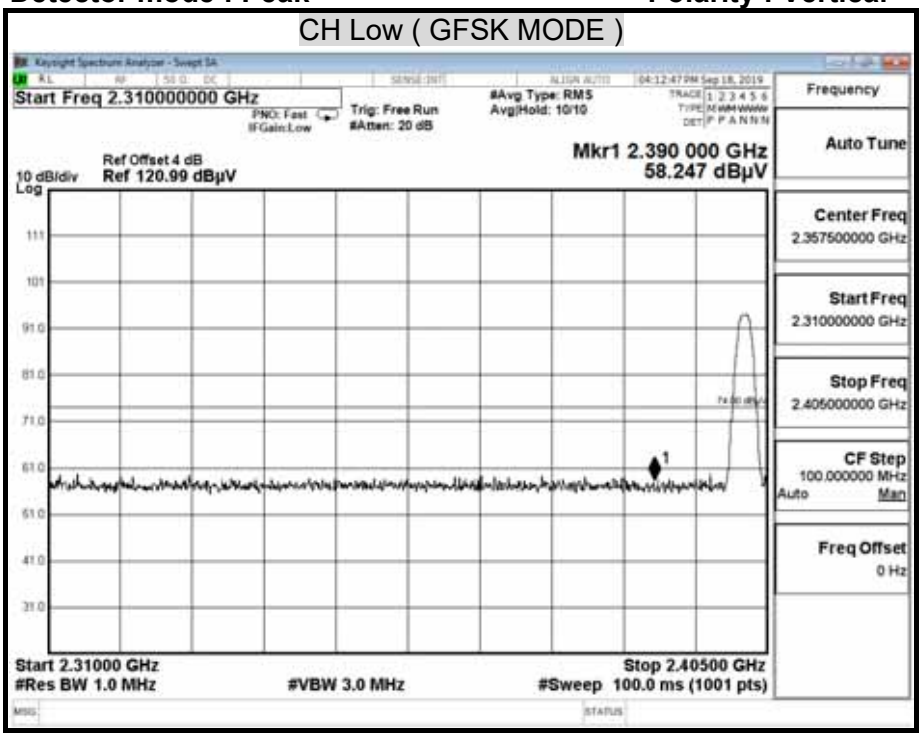

**Detector mode : Average** **Polarity : Horizontal**

CH Low ( GFSK MODE )



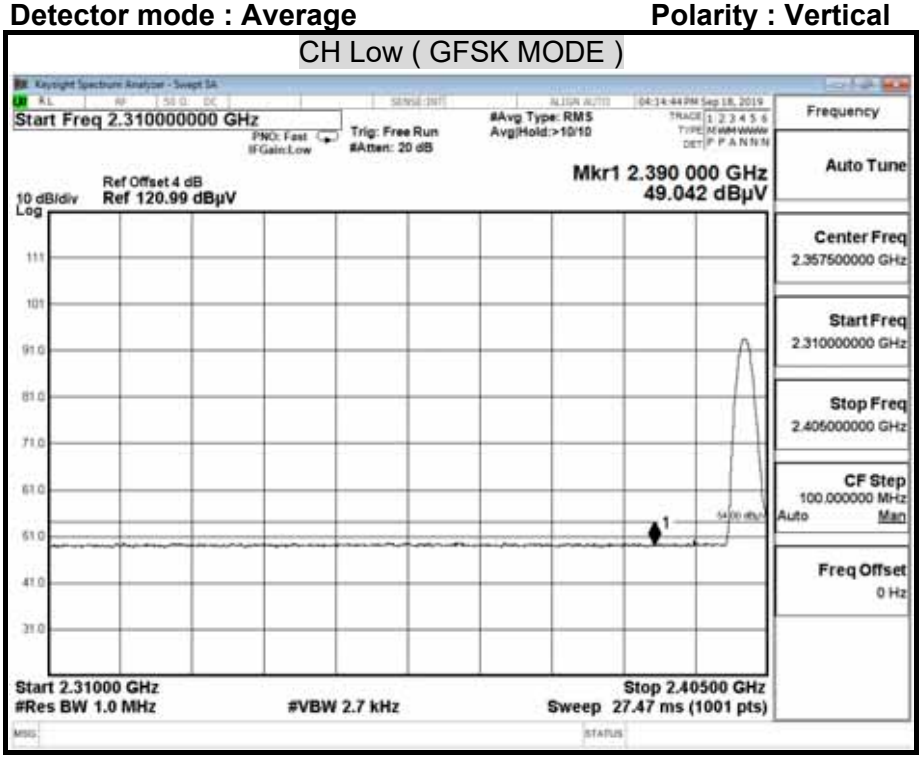
**Detector mode : Peak** **Polarity : Vertical**

CH Low ( GFSK MODE )



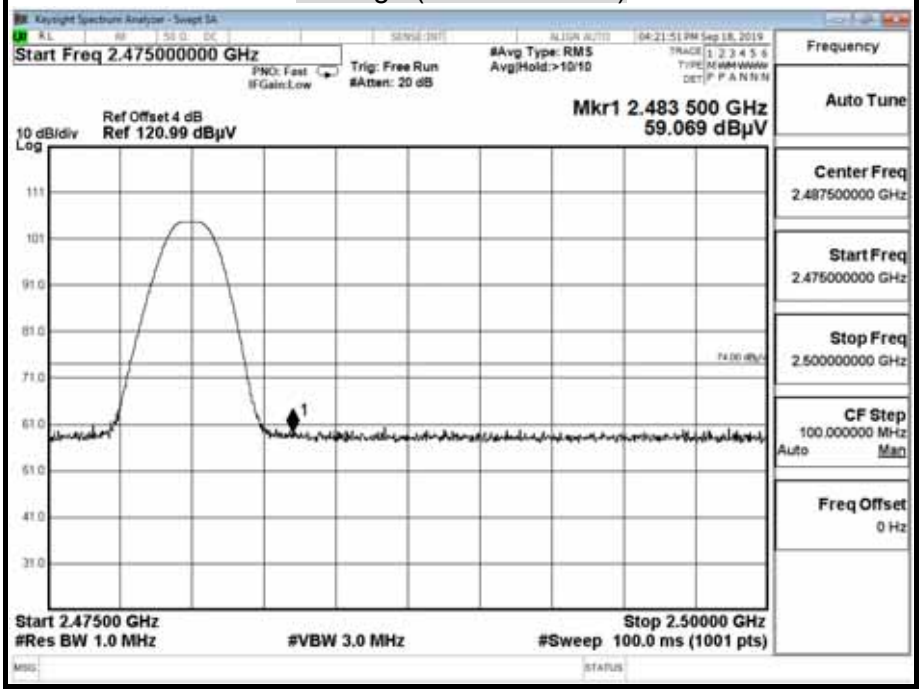

**Detector mode : Average** **Polarity : Vertical**

CH Low ( GFSK MODE )



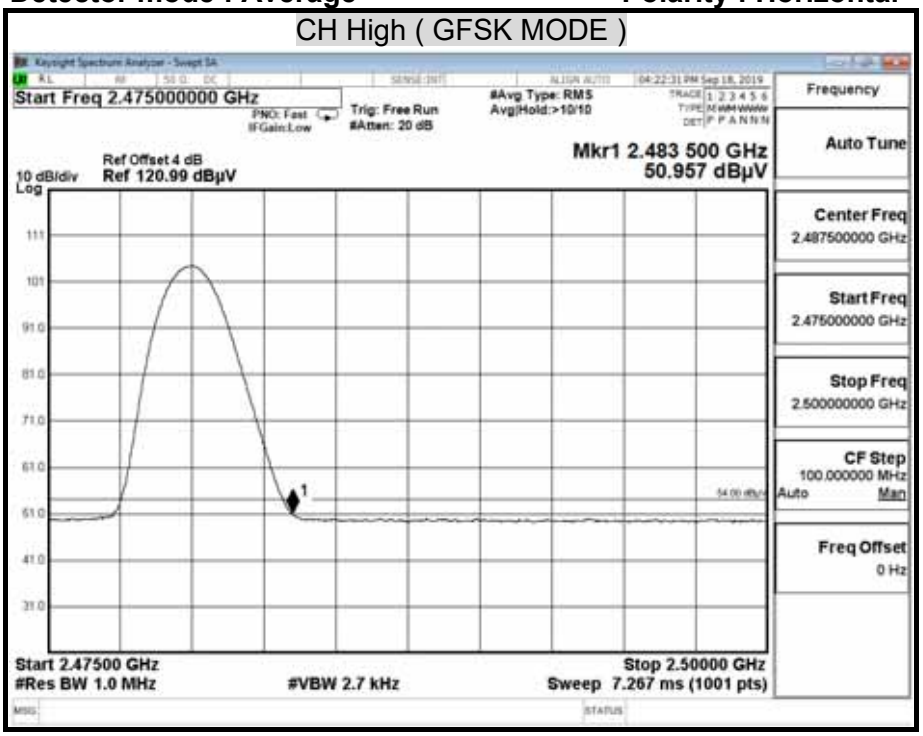
**Detector mode : Peak** **Polarity : Horizontal**

CH High ( GFSK MODE )



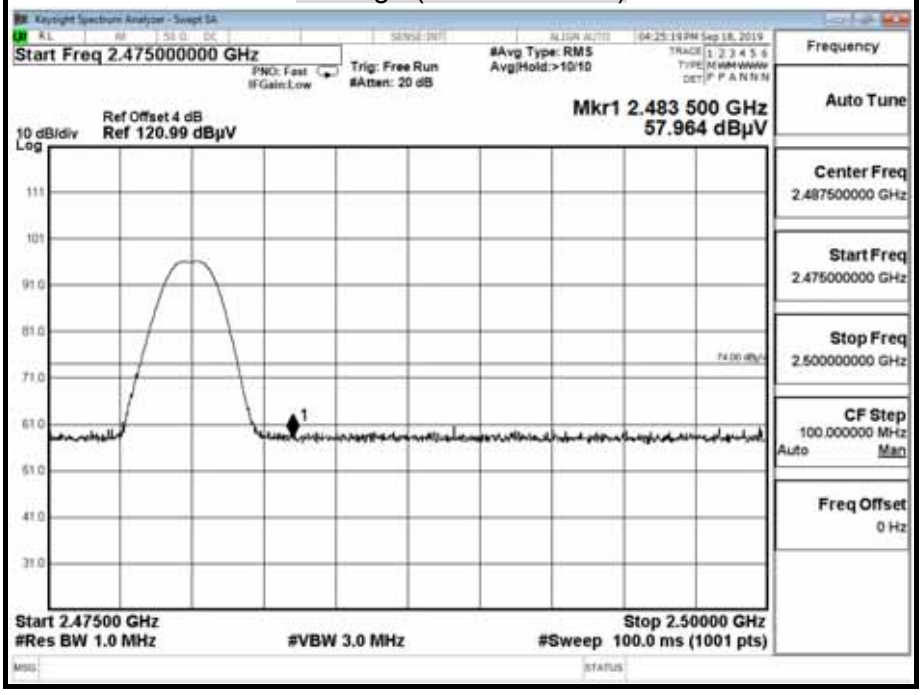

**Detector mode : Average** **Polarity : Horizontal**

CH High ( GFSK MODE )



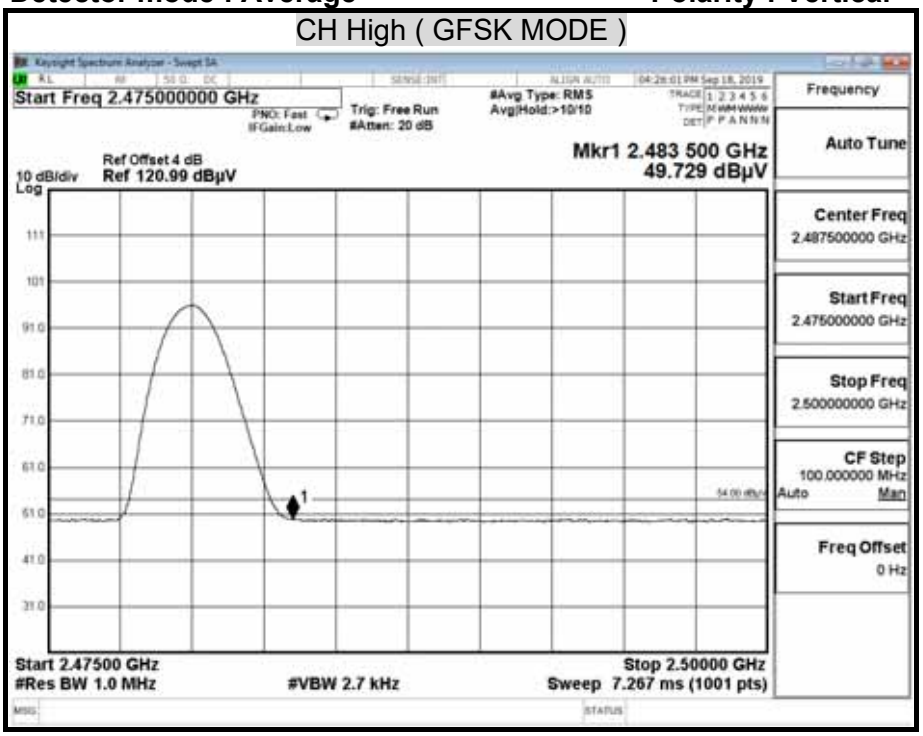
**Detector mode : Peak** **Polarity : Vertical**

CH High ( GFSK MODE )




**Detector mode : Average** **Polarity : Vertical**

CH High ( GFSK MODE )



## 8.7 POWERLINE CONDUCTED EMISSIONS

**LIMITS**

§ 15.207 (a) Except as shown in paragraph (b) and (c) this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal.

The lower limit applies at the boundary between the frequency ranges.

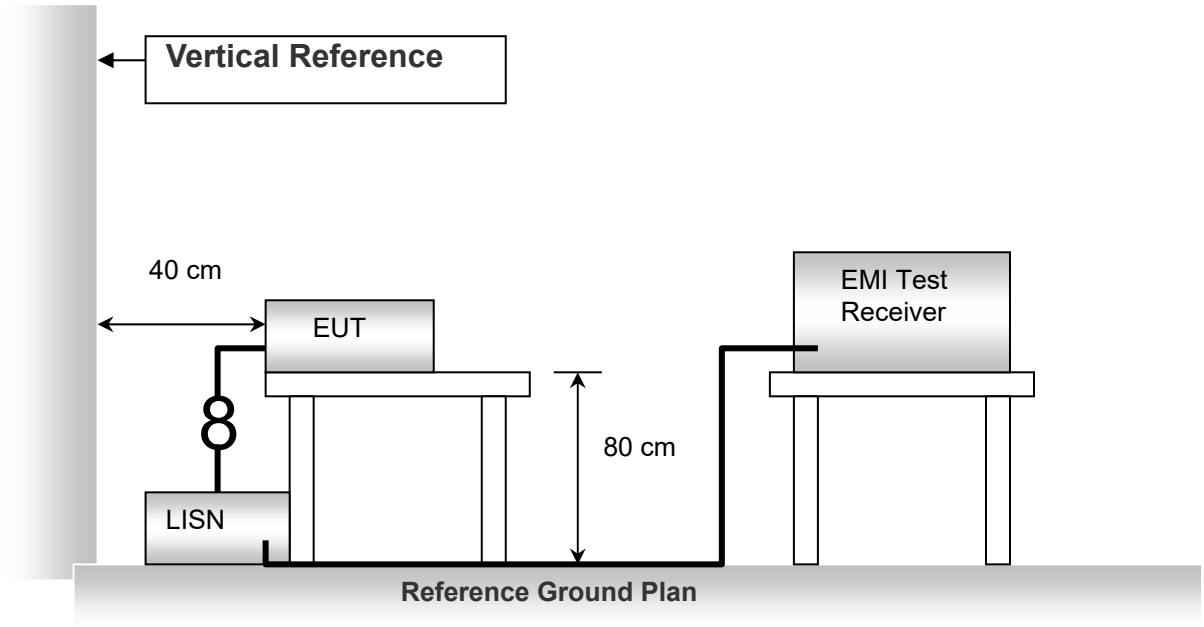
| Frequency of Emission (MHz) | Conducted limit (dBμv) | |
|---|---|---|
| | Quasi-peak | Average |
| 0.15 - 0.5 | 66 to 56 | 56 to 46 |
| 0.5 - 5 | 56 | 46 |
| 5 - 30 | 60 | 50 |

**TEST EQUIPMENTS**

The following test equipments are used during the conducted power line tests：

| Conducted Emission room #1 | | | | | |
|---|---|---|---|---|---|
| **Name of Equipment** | **Manufacturer** | **Model** | **Serial Number** | **Calibration Date** | **Calibration Due** |
| BNC Coaxial Cable | CCS | BNC50 | 11 | 02/25/2019 | 02/24/2020 |
| EMI Test Receiver | R&S | ESCS 30 | 100348 | 02/19/2019 | 02/18/2020 |
| LISN | SCHWARZBECK | NNLK8130 | 8130124 | 01/02/2019 | 01/01/2020 |
| LISN | FCC | FCC-LISN-50-32-2 | 08009 | 06/12/2019 | 06/11/2020 |
| Pulse Limiter | R&S | ESH3-Z2 | 100116 | 02/25/2019 | 02/24/2020 |
| Software | e3(6.101222) | | | | |

## TEST SETUP




## TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80cm above the horizontal ground plane. The EUT IS CONFIGURED IN ACCORDANCE WITH ANSI C63.10.

The resolution bandwidth is set to 9 kHz for both quasi-peak detection and average detection measurements.

Line conducted data is recorded for both NEUTRAL and LINE.

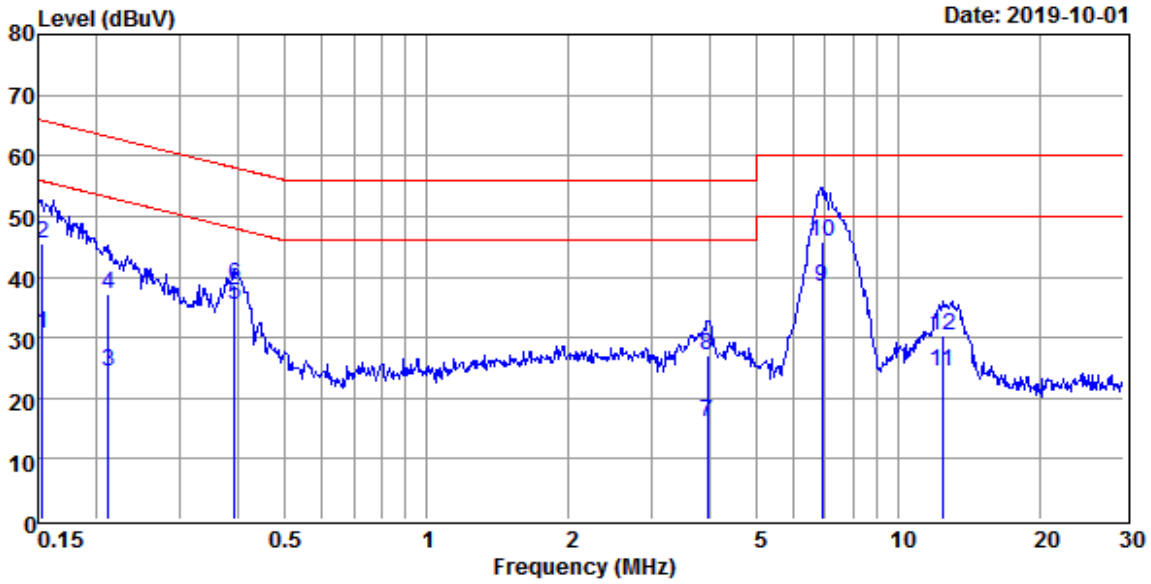
## TEST RESULTS

No non-compliance noted.

| Model No. | PRIME GO | Test Mode | Normal Operation |
|---|---|---|---|
| Environmental Conditions | 25°C, 56% RH | Resolution Bandwidth | 9 kHz |
| Tested by | Leo Wang | | |

**Line**

(The chart below shows the highest readings taken from the final data.)




| Freq | Reading Level | C.F | Result | Limit | Over Limit | Detector |
|---|---|---|---|---|---|---|
| MHz | dBuV | dB | dBuV | dBuV | dB | |
| 0.153 | 21.97 | 8.78 | 30.75 | 55.82 | -25.07 | Average |
| 0.153 | 36.68 | 8.78 | 45.46 | 65.82 | -20.36 | QP |
| 0.212 | 15.53 | 8.82 | 24.35 | 53.14 | -28.79 | Average |
| 0.212 | 28.33 | 8.82 | 37.15 | 63.14 | -25.99 | QP |
| 0.392 | 26.58 | 8.94 | 35.52 | 48.02 | -12.50 | Average |
| 0.392 | 29.74 | 8.94 | 38.68 | 58.02 | -19.34 | QP |
| 3.943 | 6.65 | 9.43 | 16.08 | 46.00 | -29.92 | Average |
| 3.943 | 17.54 | 9.43 | 26.97 | 56.00 | -29.03 | QP |
| 6.878 | 28.74 | 9.59 | 38.33 | 50.00 | -11.67 | Average |
| 6.878 | 36.28 | 9.59 | 45.87 | 60.00 | -14.13 | QP |
| 12.384 | 14.61 | 9.79 | 24.40 | 50.00 | -25.60 | Average |
| 12.384 | 20.46 | 9.79 | 30.25 | 60.00 | -29.75 | QP |

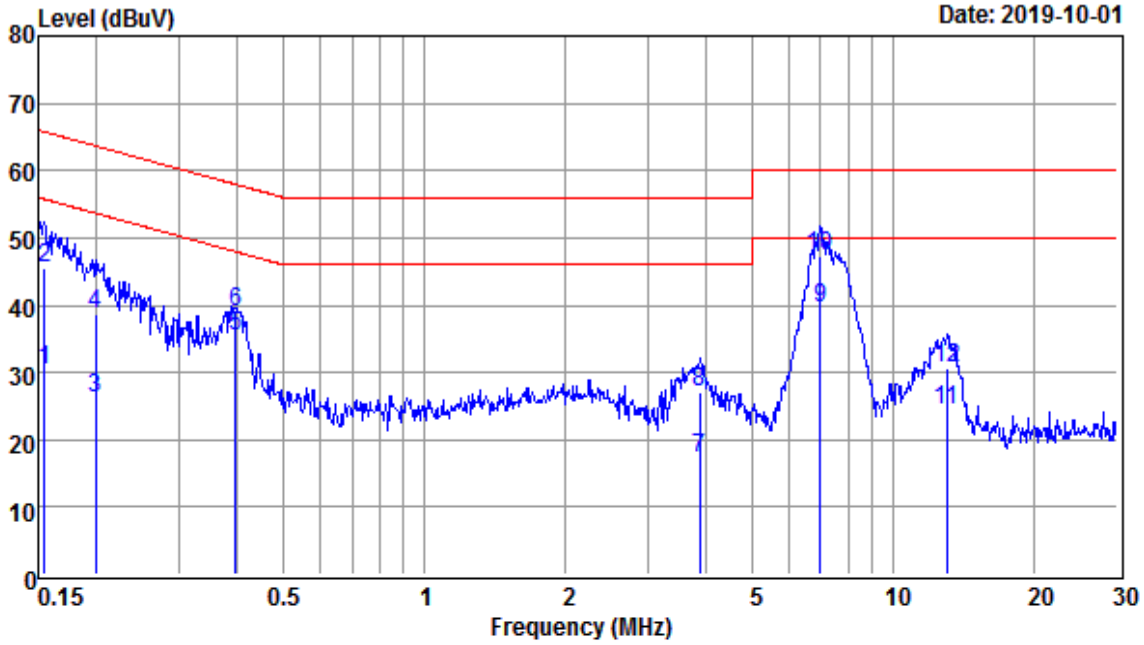
**NOTE:**

1. Measured Level (dBuV) = LISN Factor (dB) + Cable Loss (dB)+ Meter Reading (dBuV)
2. Over Limit (dBuV) = Measured Level (dBuV) – Limits (dBuV)

| Model No. | PRIME GO | Test Mode | Normal Operation |
|---|---|---|---|
| Environmental Conditions | 25°C, 56% RH | Resolution Bandwidth | 9 kHz |
| Tested by | Leo Wang | | |

**Neutral**

(The chart below shows the highest readings taken from the final data.)




| Freq | Reading Level | C.F | Result | Limit | Over Limit | Detector |
|---|---|---|---|---|---|---|
| MHz | dBuV | dB | dBuV | dBuV | dB | |
| 0.155 | 21.42 | 8.78 | 30.20 | 55.74 | -25.54 | Average |
| 0.155 | 36.64 | 8.78 | 45.42 | 65.74 | -20.32 | QP |
| 0.199 | 17.28 | 8.81 | 26.09 | 53.67 | -27.58 | Average |
| 0.199 | 29.84 | 8.81 | 38.65 | 63.67 | -25.02 | QP |
| 0.396 | 26.32 | 8.94 | 35.26 | 47.95 | -12.69 | Average |
| 0.396 | 30.01 | 8.94 | 38.95 | 57.95 | -19.00 | QP |
| 3.860 | 7.92 | 9.42 | 17.34 | 46.00 | -28.66 | Average |
| 3.860 | 17.58 | 9.42 | 27.00 | 56.00 | -29.00 | QP |
| 6.988 | 30.06 | 9.59 | 39.65 | 50.00 | -10.35 | Average |
| 6.988 | 37.57 | 9.59 | 47.16 | 60.00 | -12.84 | QP |
| 12.988 | 14.58 | 9.81 | 24.39 | 50.00 | -25.61 | Average |
| 12.988 | 20.86 | 9.81 | 30.67 | 60.00 | -29.33 | QP |

**NOTE:**

1. Measured Level (dBuV) = LISN Factor (dB) + Cable Loss (dB)+ Meter Reading (dBuV)
2. Over Limit (dBuV) = Measured Level (dBuV) – Limits (dBuV)

# 9. ANTENNA REQUIREMENT

## 9.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

## 9.2 ANTENNA CONNECTED CONSTRUCTION

Type: PCB Antenna
Model: WLA-EM-1508-0008-B
Manufacturer: BRITO
Gain: 4.6 dBi

**=== END of Report ===**