



# FCC RADIO TEST REPORT

**FCC ID** : IHDT56AA6  
**Equipment** : Wearable Cellular Device  
**Brand Name** : Motorola  
**Model Name** : XT2209-1  
**Applicant** : Motorola Mobility, LLC  
222 W Merchandise Mart Plaza, Suite  
1800, Chicago, IL 60654, United States  
**Manufacturer** : Motorola Mobility, LLC  
222 W Merchandise Mart Plaza, Suite  
1800, Chicago, IL 60654, United States  
**Standard** : FCC Part 15 Subpart C §15.247

The product was received on Oct. 19, 2021 and testing was performed from Nov. 05, 2021 to Nov. 30, 2021. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Approved by: Louis Wu

**Sporton International Inc. Wensan Laboratory**

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan



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### Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.247(a)(2)	6dB Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.247(b)(3)	Output Power	Pass	-
3.3	15.247(e)	Power Spectral Density	Pass	-
3.4	15.247(d)	Conducted Band Edges and Spurious Emission	Pass	-
3.5	15.247(d)	Radiated Band Edges and Spurious Emission	Pass	9.33 dB under the limit at 41.640 MHz
3.6	15.207	AC Conducted Emission	Pass	18.65 dB under the limit at 0.940 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	Pass	-

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and Explanations:**

The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

**Reviewed by: Keven Cheng**

**Report Producer: Celery Wei**



# 1 General Description

## 1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Wearable Cellular Device
Brand Name	Motorola
Model Name	XT2209-1
FCC ID	IHDT56AA6
IMEI Code	<b>Conducted :</b> 356636550004361 <b>Conduction :</b> 356636550004478 <b>Radiation :</b> 356636550004429
EUT supports Radios application	LTE/5G NR/GNSS WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80/VHT160 WLAN 11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE
HW Version	EVT1
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer.

Accessory List		
Battery	Brand Name :	Motorola
	Model Name :	NR70

## 1.2 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
<b>Tx/Rx Frequency Range</b>	2400 MHz ~ 2483.5 MHz
<b>Number of Channels</b>	40
<b>Carrier Frequency of Each Channel</b>	40 Channel (37 hopping + 3 advertising channel)
<b>Maximum Output (Peak) Power to Antenna</b>	<b>&lt;Ant. 4&gt; :</b> Bluetooth – LE (1Mbps): 10.44 dBm / 0.0111 W Bluetooth – LE (2Mbps): 10.53 dBm / 0.0113 W <b>&lt;Ant. 5&gt; :</b> Bluetooth – LE (1Mbps): 10.20 dBm / 0.0105 W Bluetooth – LE (2Mbps): 10.31 dBm / 0.0107W
<b>Maximum Output (Average) Power to Antenna</b>	<b>&lt;Ant. 4&gt; :</b> Bluetooth – LE (1Mbps): 10.01 dBm / 0.0100 W Bluetooth – LE (2Mbps): 10.22 dBm / 0.0105 W <b>&lt;Ant. 5&gt; :</b> Bluetooth – LE (1Mbps): 9.76 dBm / 0.0095 W Bluetooth – LE (2Mbps): 9.94 dBm / 0.0099 W
<b>99% Occupied Bandwidth</b>	<b>&lt;Ant. 4&gt; :</b> Bluetooth – LE (1Mbps): 1.015 dBm Bluetooth – LE (2Mbps): 1.994 dBm <b>&lt;Ant. 5&gt; :</b> Bluetooth – LE (1Mbps): 1.015 dBm Bluetooth – LE (2Mbps): 1.998 dBm
<b>Type of Modulation</b>	Bluetooth LE : GFSK
<b>Antenna Type / Gain</b>	<b>&lt;Ant. 4&gt; :</b> Printed ILA Antenna Type with gain -4.0 dBi <b>&lt;Ant. 5&gt; :</b> Printed ILA Antenna Type with gain -5.6 dBi

**Remark:** The above EUT's information is declared by manufacturer. Please refer to Comments and Explanations in report summary.

## 1.3 Modification of EUT

No modifications made to the EUT during the testing.



### 1.4 Testing Location

<b>Test Site</b>	Sporton International Inc. EMC & Wireless Communications Laboratory
<b>Test Site Location</b>	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan TEL: +886-3-327-3456 FAX: +886-3-328-4978
<b>Test Site No.</b>	<b>Sporton Site No.</b> CO05-HY (TAF Code: 1190)
<b>Remark</b>	The Conducted Emission test item subcontracted to Sporton International Inc. EMC & Wireless Communications Laboratory.

**Note:** The test site complies with ANSI C63.4 2014 requirement.

<b>Test Site</b>	Sporton International Inc. Wensan Laboratory
<b>Test Site Location</b>	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan TEL: +886-3-327-0868 FAX: +886-3-327-0855
<b>Test Site No.</b>	<b>Sporton Site No.</b> TH05-HY, 03CH15-HY

**Note:** The test site complies with ANSI C63.4 2014 requirement.

FCC designation No.: TW1190 and TW3786

### 1.5 Applicable Standards

According to the specifications declared by the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ FCC Part 15 Subpart C §15.247
- ♦ FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v05r02
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01
- ♦ ANSI C63.10-2013

**Remark:**

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



## 2 Test Configuration of Equipment Under Test

### 2.1 Carrier Frequency Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
2400-2483.5 MHz	0	2402	21	2444
	1	2404	22	2446
	2	2406	23	2448
	3	2408	24	2450
	4	2410	25	2452
	5	2412	26	2454
	6	2414	27	2456
	7	2416	28	2458
	8	2418	29	2460
	9	2420	30	2462
	10	2422	31	2464
	11	2424	32	2466
	12	2426	33	2468
	13	2428	34	2470
	14	2430	35	2472
	15	2432	36	2474
	16	2434	37	2476
	17	2436	38	2478
	18	2438	39	2480
	19	2440	-	-
20	2442	-	-	





## 2.2 Test Mode

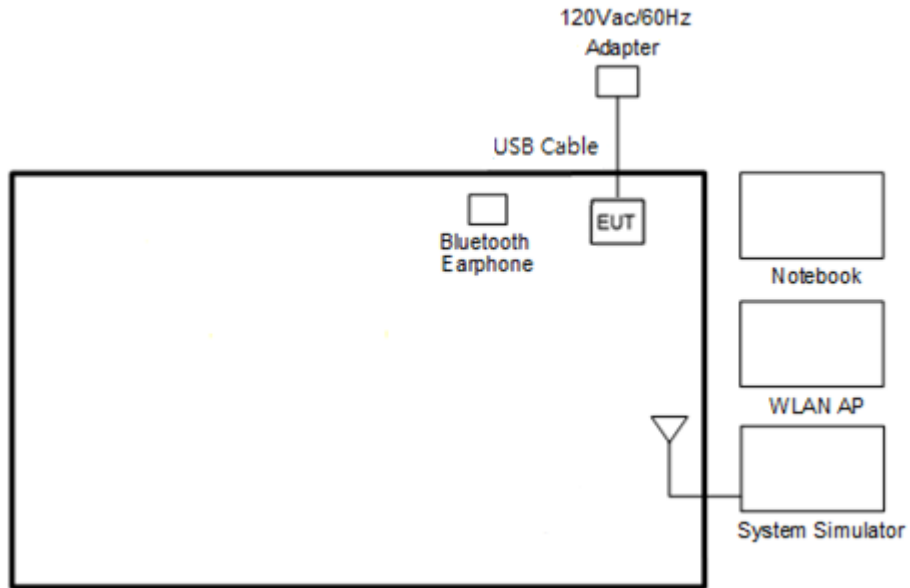
- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and find Y plane as worst plane.
- b. AC power line Conducted Emission was tested under maximum output power.

The following summary table is showing all test modes to demonstrate in compliance with the standard.

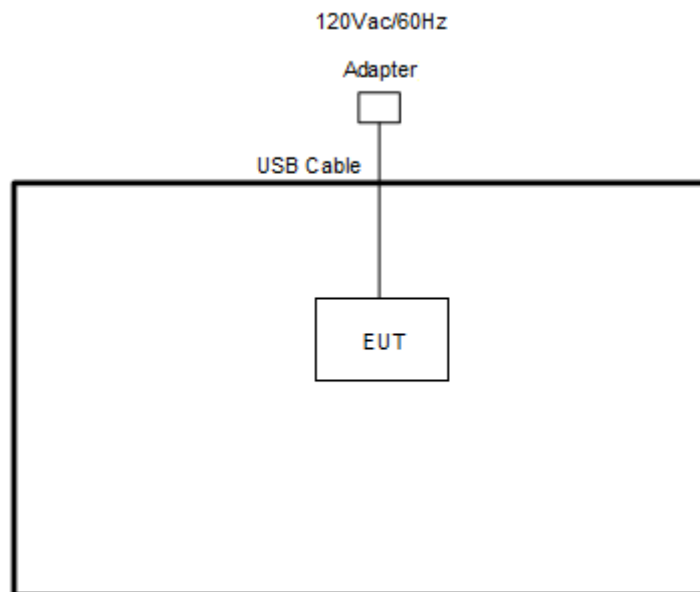
Summary table of Test Cases	
Test Item	Data Rate / Modulation
<b>Conducted Test Cases</b>	<b>Bluetooth – LE / GFSK</b>
	Mode 1: Bluetooth Tx CH00_2402 MHz_1Mbps
	Mode 2: Bluetooth Tx CH19_2440 MHz_1Mbps
	Mode 3: Bluetooth Tx CH39_2480 MHz_1Mbps
	Mode 4: Bluetooth Tx CH00_2402 MHz_2Mbps
	Mode 5: Bluetooth Tx CH19_2440 MHz_2Mbps
	Mode 6: Bluetooth Tx CH39_2480 MHz_2Mbps
<b>Radiated Test Cases</b>	Mode 1: Bluetooth Tx CH00_2402 MHz_1Mbps
	Mode 2: Bluetooth Tx CH19_2440 MHz_1Mbps
	Mode 3: Bluetooth Tx CH39_2480 MHz_1Mbps
	Mode 4: Bluetooth Tx CH00_2402 MHz_2Mbps
	Mode 5: Bluetooth Tx CH19_2440 MHz_2Mbps
	Mode 6: Bluetooth Tx CH39_2480 MHz_2Mbps
<b>AC Conducted Emission</b>	Mode 1 : LTE Band 2 Link + Bluetooth Link + WLAN (2.4GHz) Link + Bottom USB Port (Charging from Adapter)

## 2.3 Connection Diagram of Test System

<AC Conducted Emission Mode>



<Bluetooth – LE Tx Mode>



## 2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
3.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
4.	Notebook	DELL	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
5.	USB Cable	Samsung	N/A	N/A	Shielded,1.3m	N/A
6.	USB Cable	N/A	N/A	N/A	N/A	N/A
7.	Adapter	DVE	DSA-5PFM-05 FUS	FCC DoC	N/A	N/A
8.	Adapter	Samsung	GT-N7000	NA	N/A	N/A

## 2.5 EUT Operation Test Setup

The RF test items, utility "QRCT 4.0.00193.0" was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

## 2.6 Measurement Results Explanation Example

**For all conducted test items:**

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

*Offset = RF cable loss + attenuator factor.*

Following shows an offset computation example with cable loss 4.2 dB and 10 dB attenuator.

$$\begin{aligned}
 \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\
 &= 4.2 + 10 = 14.2 \text{ (dB)}
 \end{aligned}$$

### 3 Test Result

#### 3.1 6dB and 99% Bandwidth Measurement

##### 3.1.1 Limit of 6dB and 99% Bandwidth

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

##### 3.1.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

##### 3.1.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 6.9.3 (OBW) and 11.8.1 (6dB BW).
2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6dB bandwidth must be greater than 500 kHz.
5. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW)  $\geq 3 * RBW$ .
6. Measure and record the results in the test report.

##### 3.1.4 Test Setup



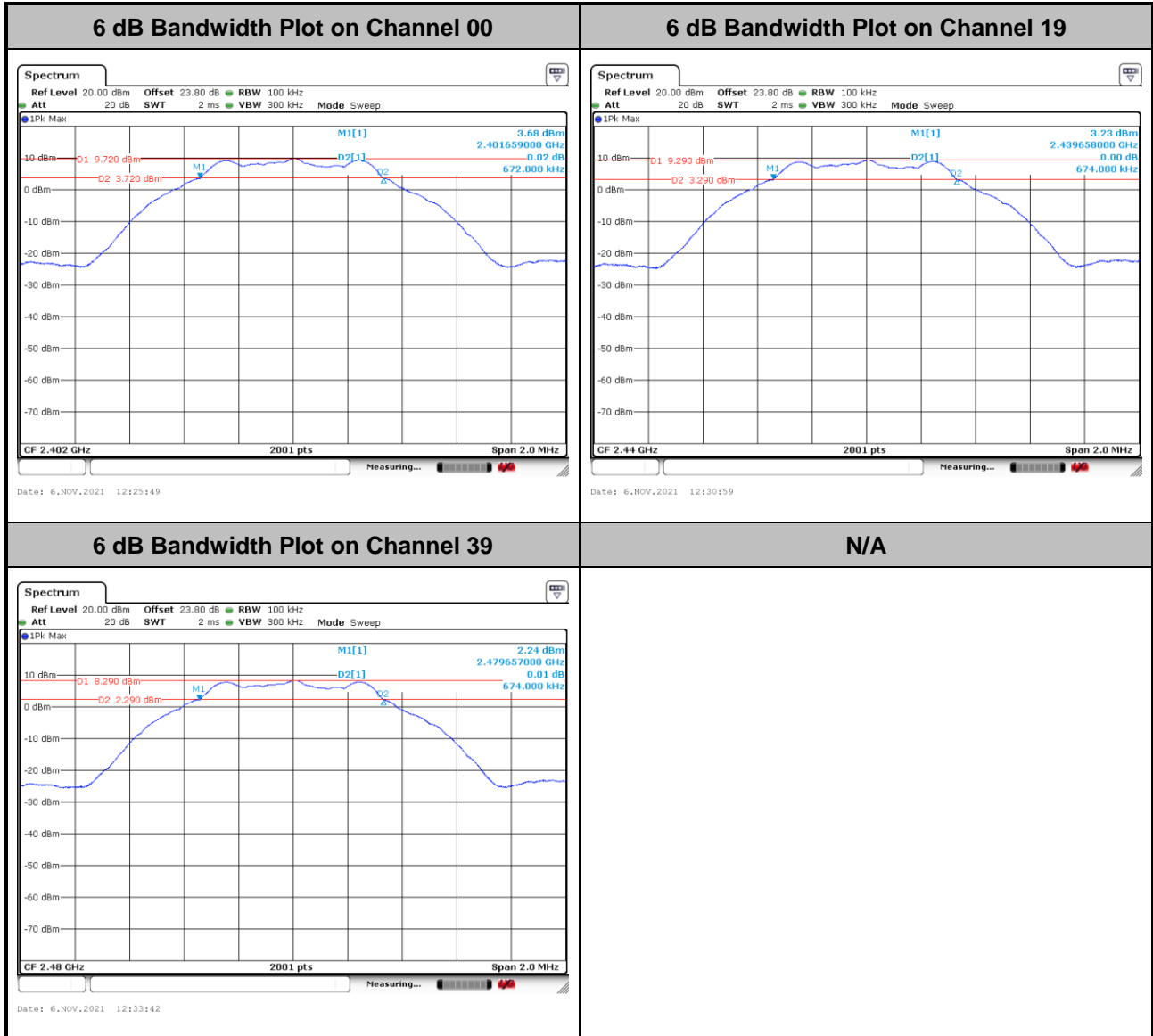


### 3.1.5 Test Result of 6dB Bandwidth

Please refer to Appendix A.

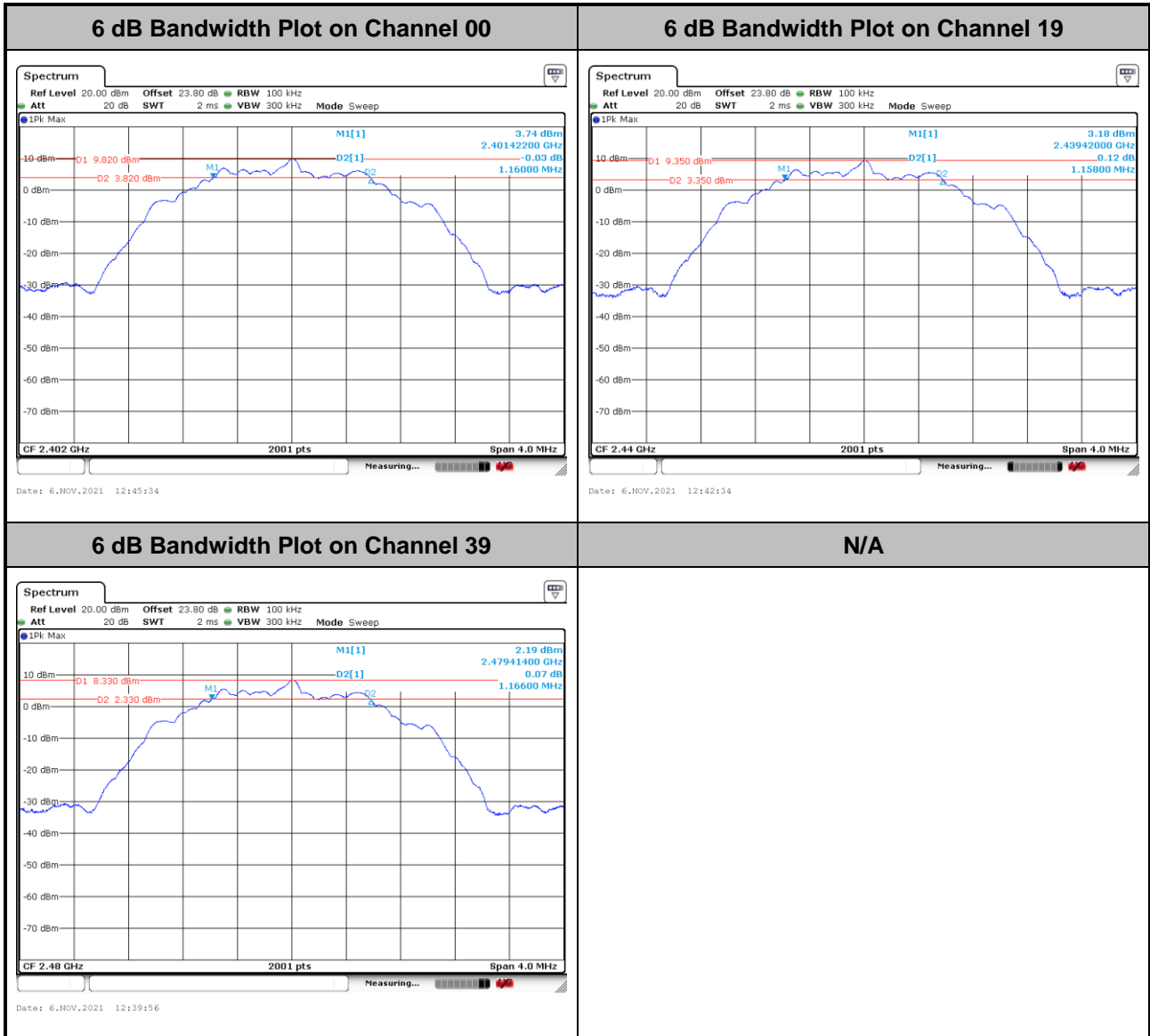
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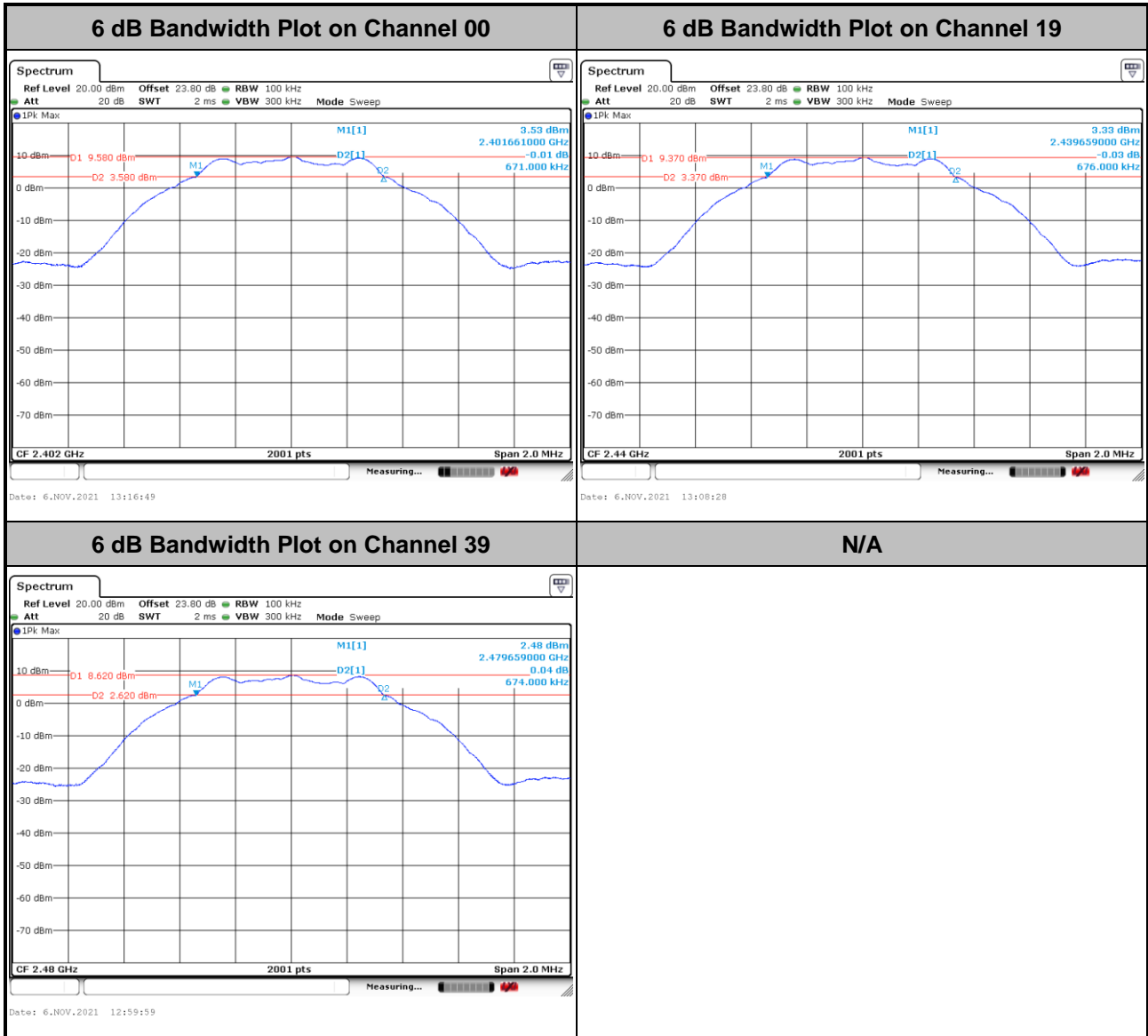
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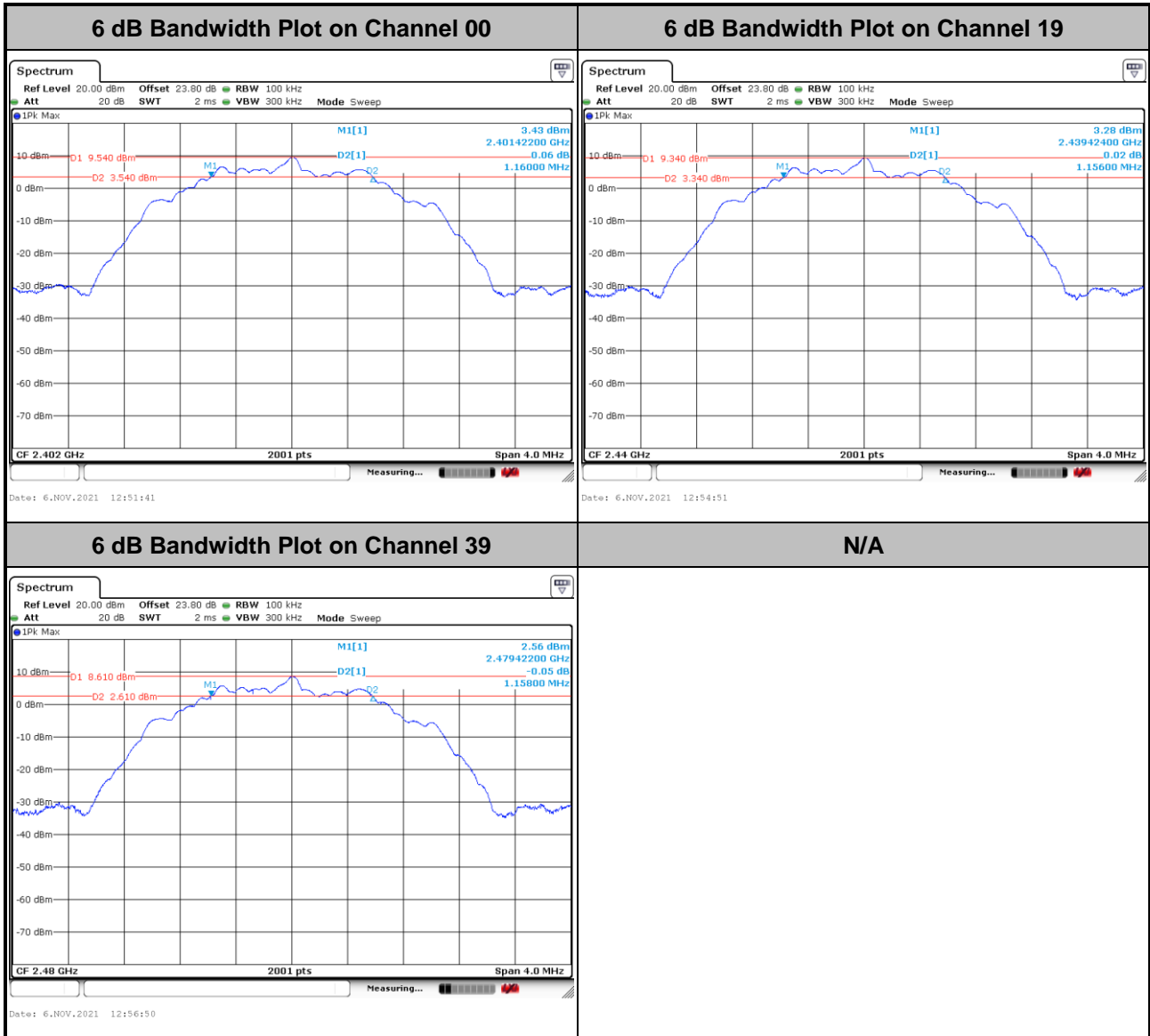
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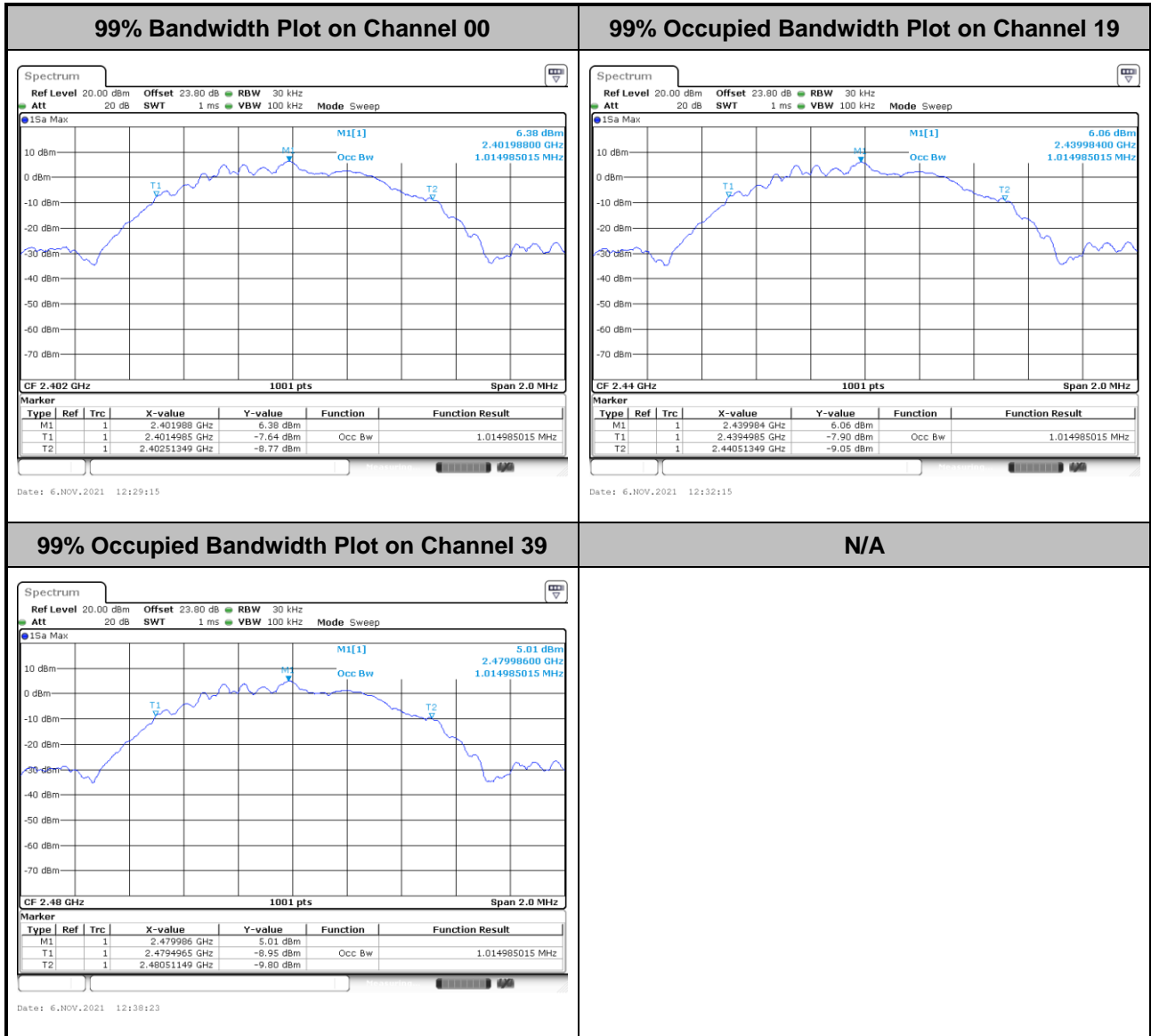


### 3.1.6 Test Result of 99% Occupied Bandwidth

Please refer to Appendix A.

<Ant. 4>

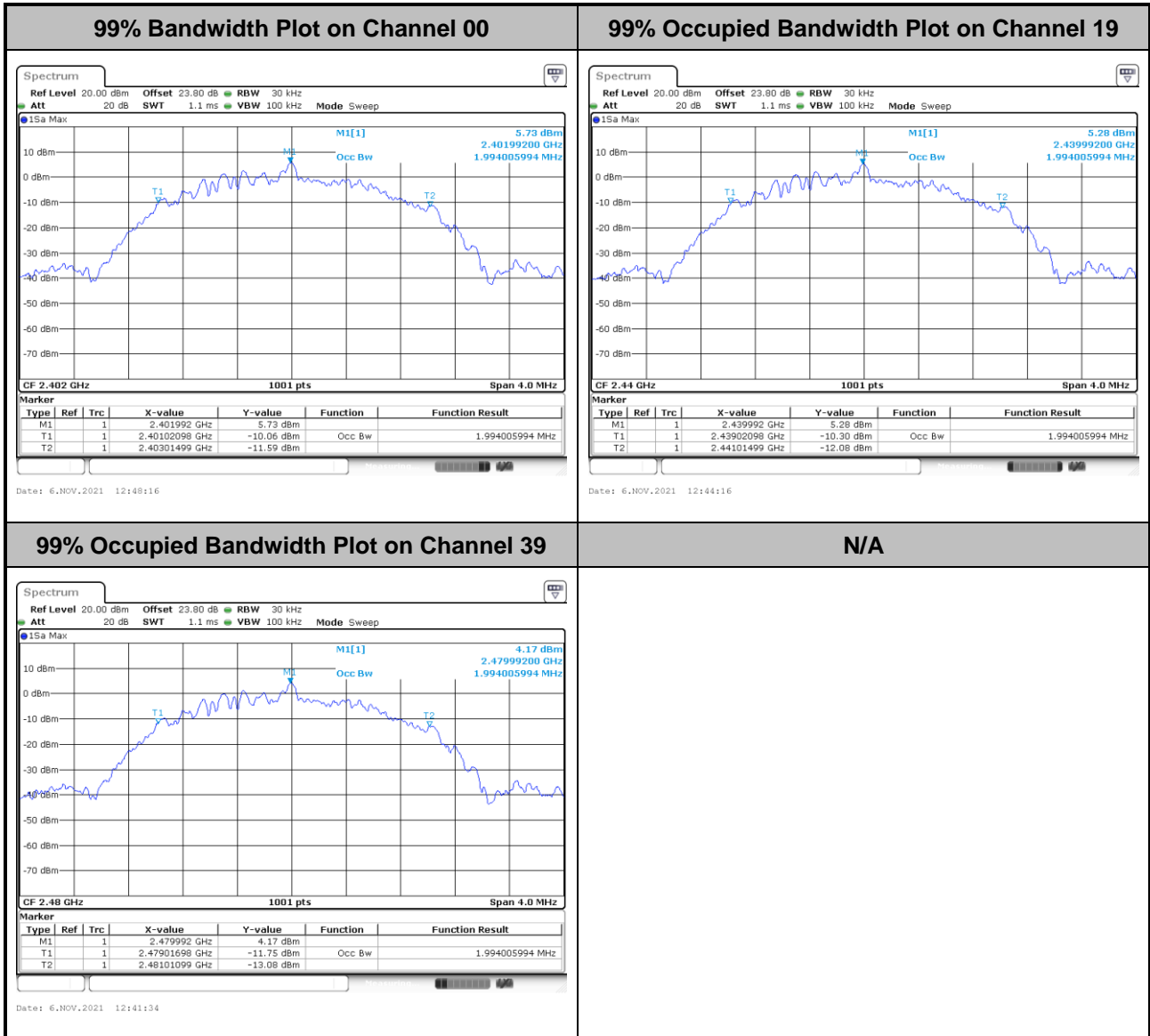
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Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



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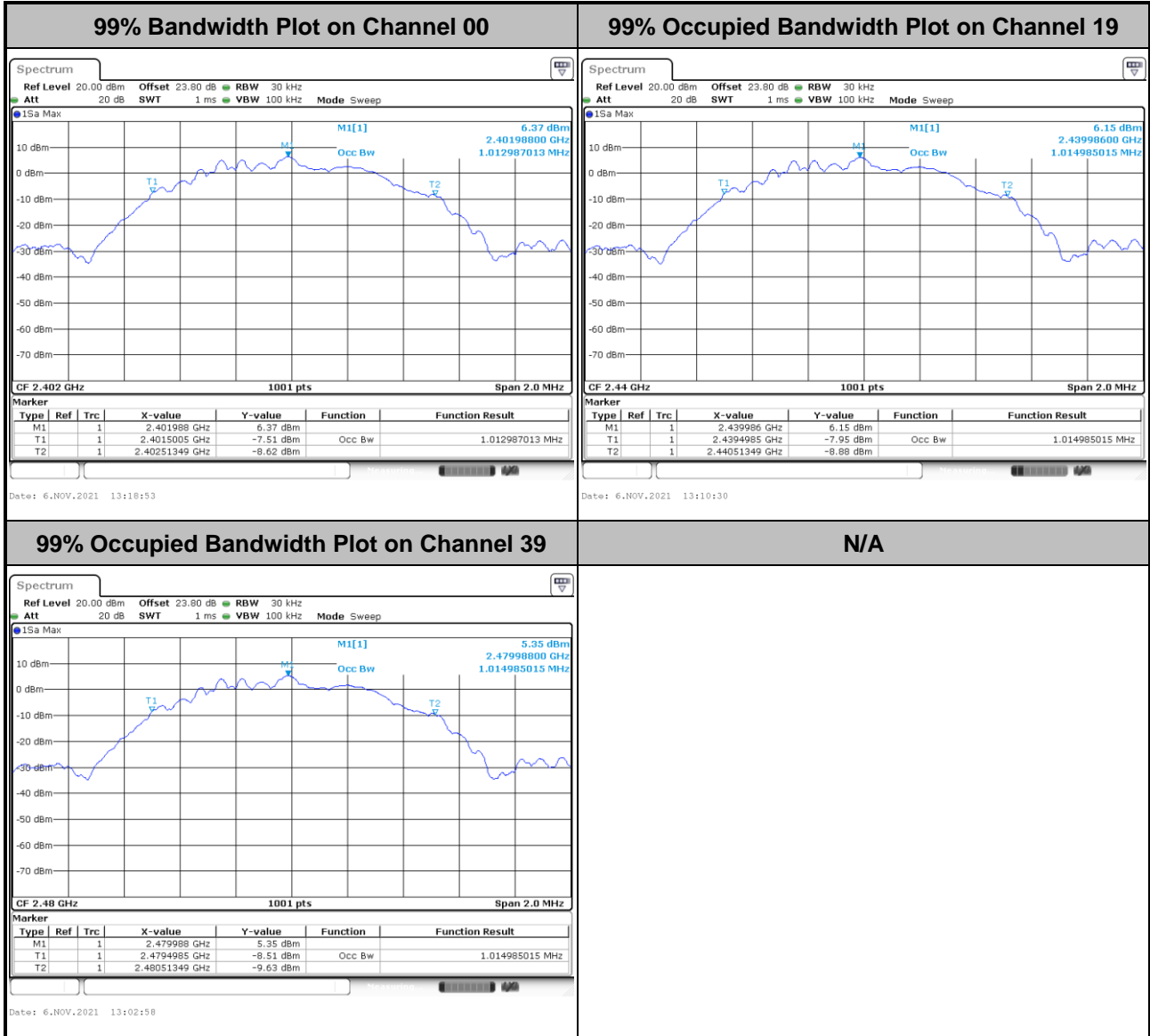


Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



<Ant. 5>

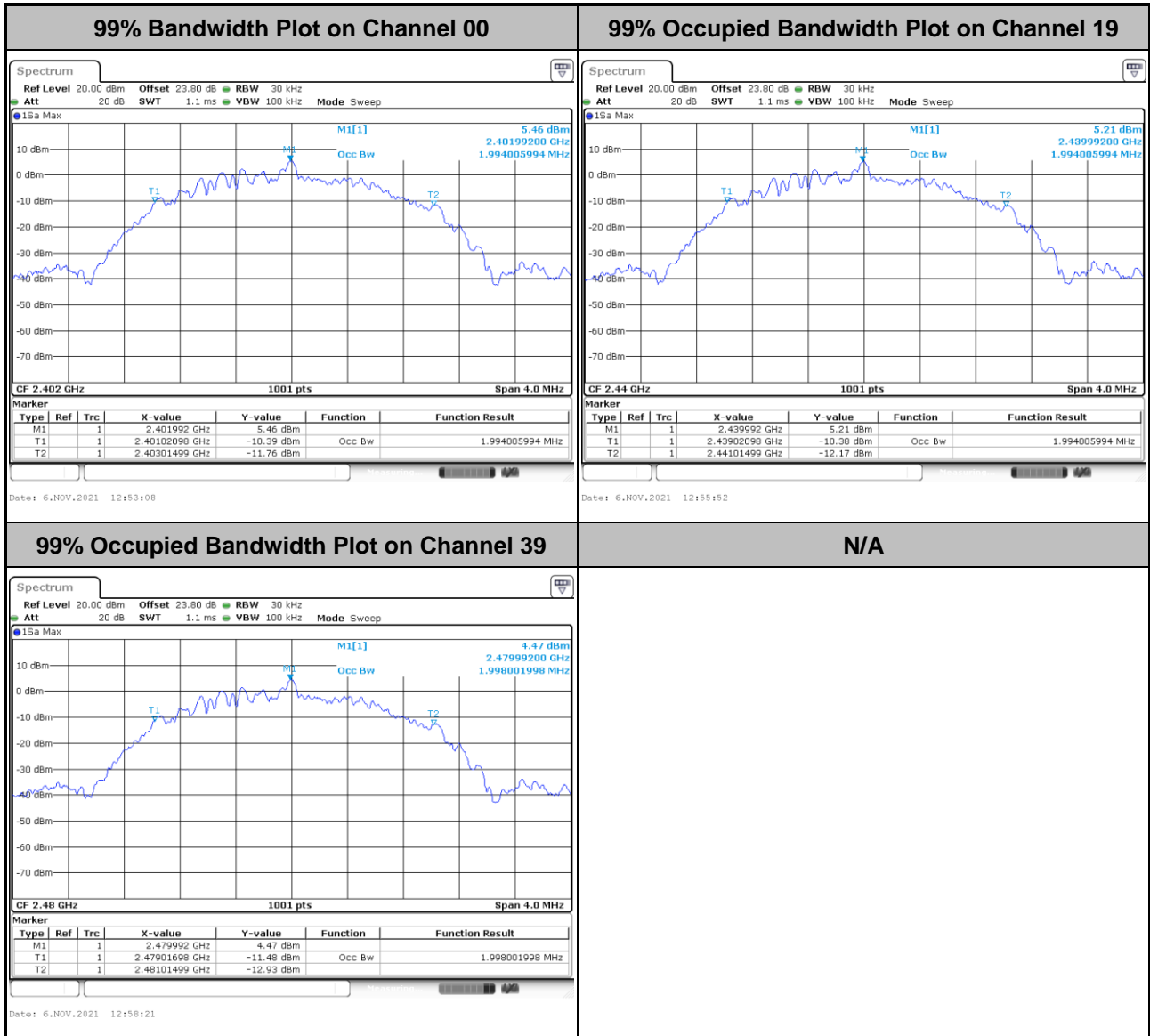
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Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



<2Mbps>



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

## 3.2 Output Power Measurement

### 3.2.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5 MHz, the limit for output power is 30 dBm. If transmitting antenna of directional gain greater than 6 dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

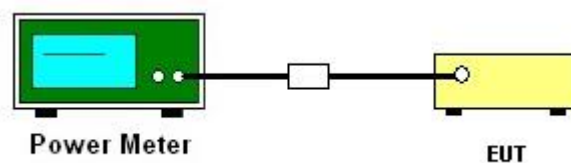
### 3.2.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

### 3.2.3 Test Procedures

1. For Peak Power, the testing follows ANSI C63.10 Section 11.9.1.3 PKPM1.
2. For Average Power, the testing follows ANSI C63.10 Section 11.9.2.3.1 Method AVGPM
3. The RF output of EUT is connected to the power meter by RF cable and attenuator.
4. The path loss is compensated to the results for each measurement.
5. Set the maximum power setting and enable the EUT to transmit continuously.
6. Measure the conducted output power and record the results in the test report.

### 3.2.4 Test Setup



### 3.2.5 Test Result of Peak Output Power

Please refer to Appendix A.

### 3.2.6 Test Result of Average Output Power (Reporting Only)

Please refer to Appendix A.

### 3.3 Power Spectral Density Measurement

#### 3.3.1 Limit of Power Spectral Density

The peak power spectral density shall not be greater than 8 dBm in any 3 kHz band at any time interval of continuous transmission.

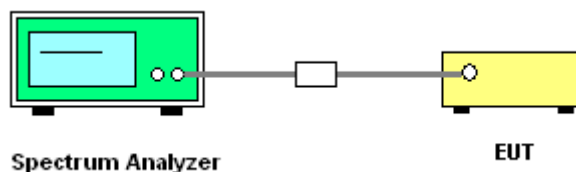
#### 3.3.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

#### 3.3.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.10.2 Method PKPSD.
2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth (VBW) = 10 kHz. In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6 dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.
7. The Measured power density (dBm)/ 100 kHz is a reference level and is used as 20 dBc down limit line for Conducted Band Edges and Conducted Spurious Emission.

#### 3.3.4 Test Setup



#### 3.3.5 Test Result of Power Spectral Density

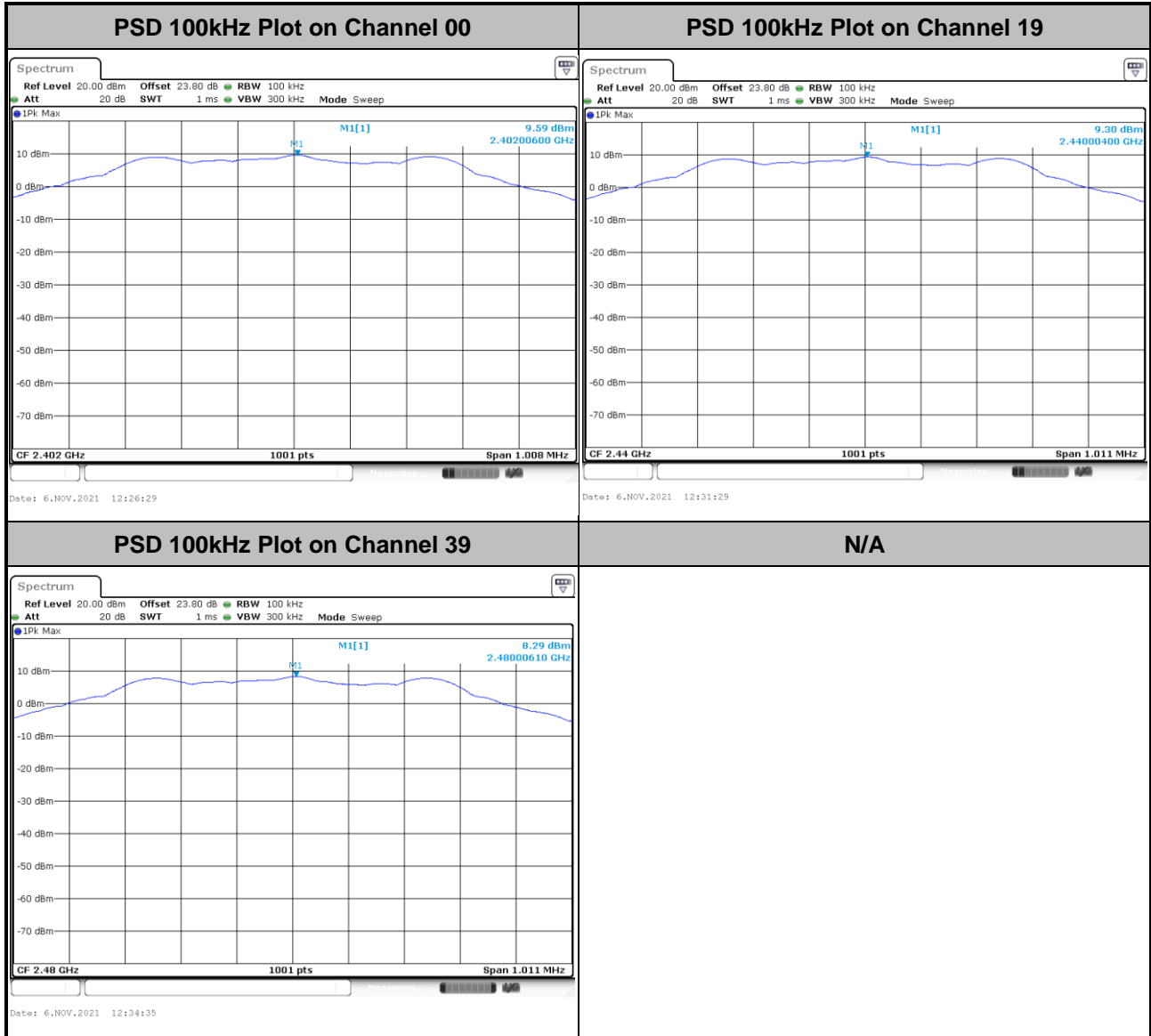
Please refer to Appendix A.



### 3.3.6 Test Result of Power Spectral Density Plots (100kHz)

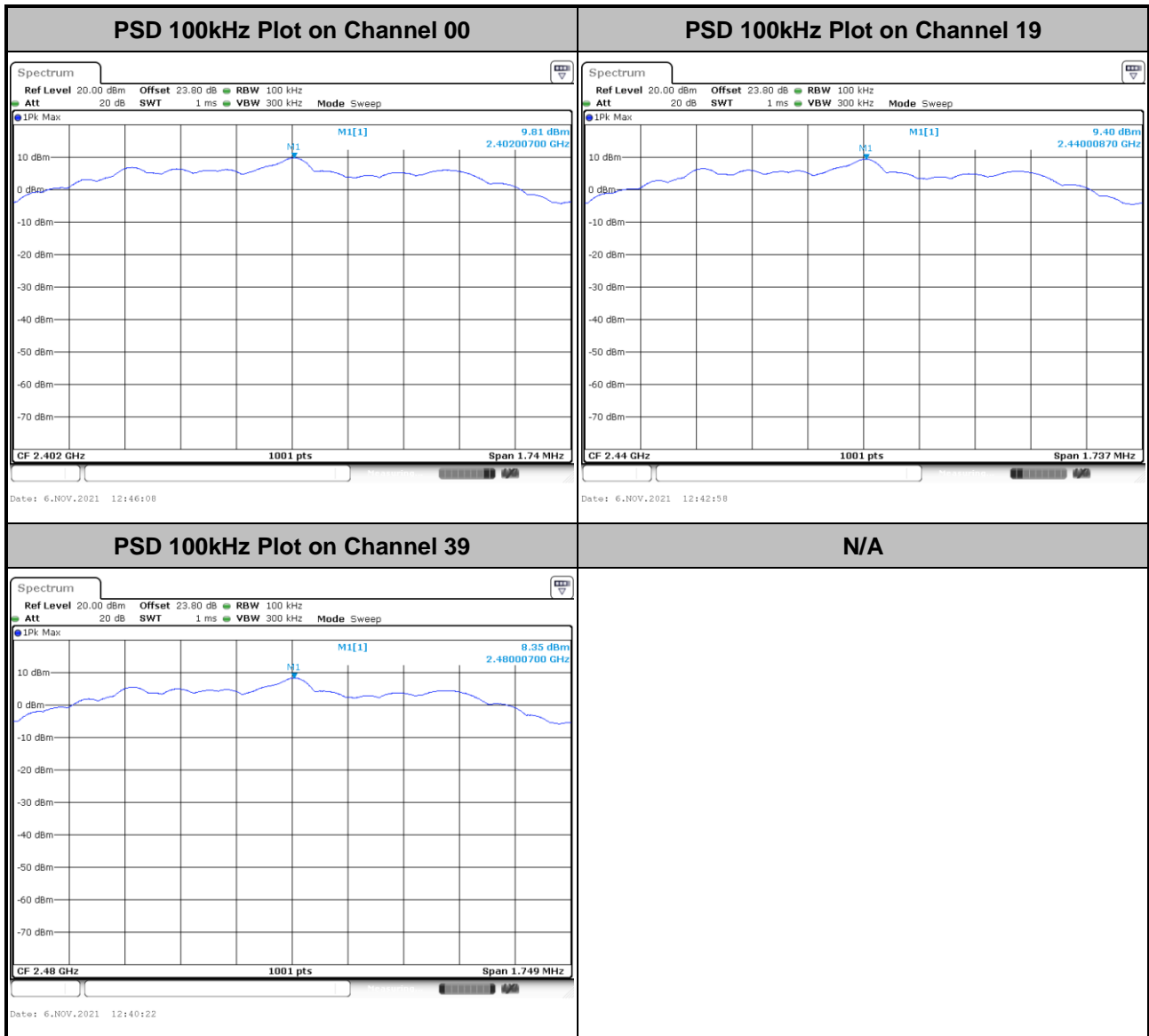
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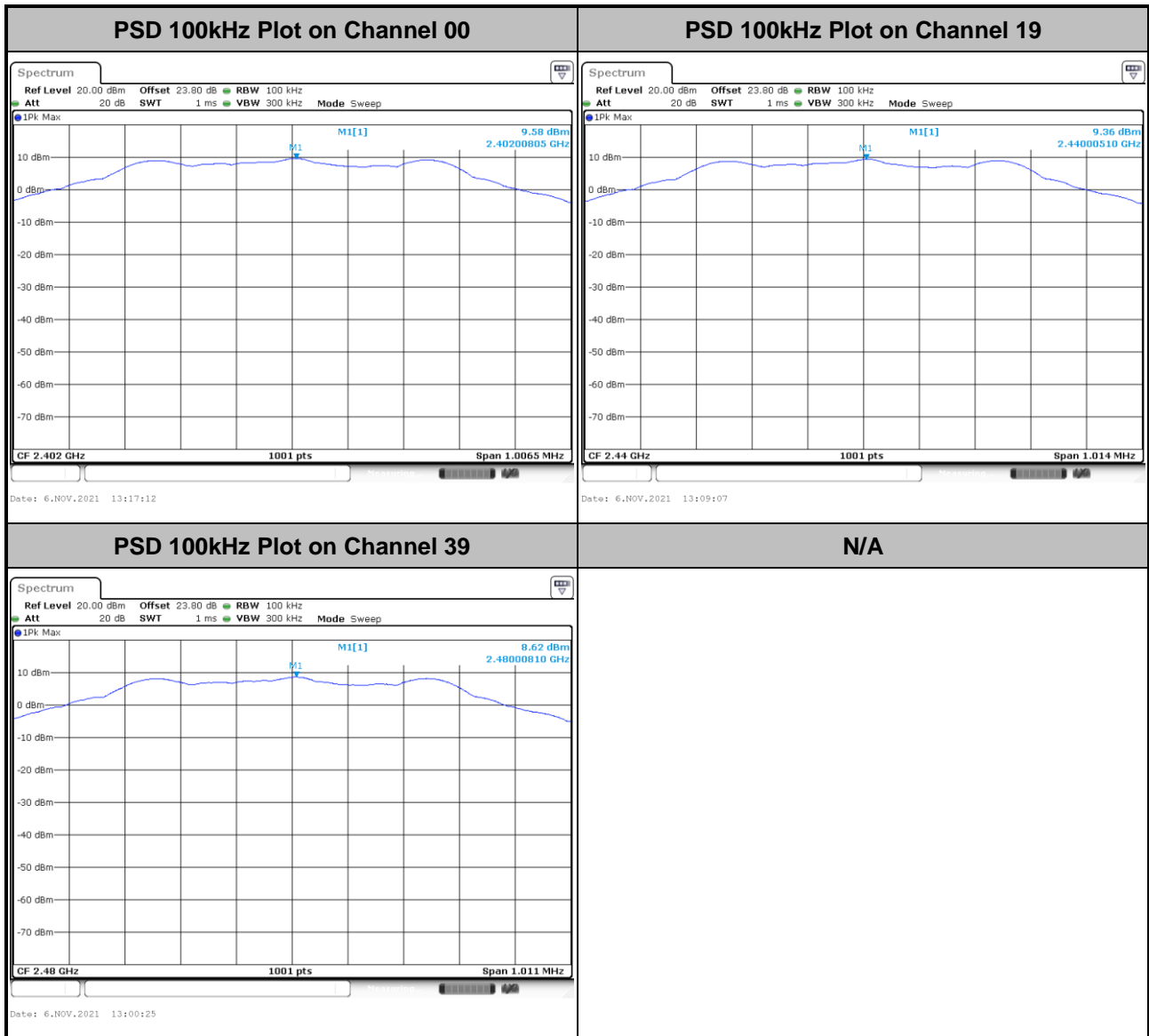






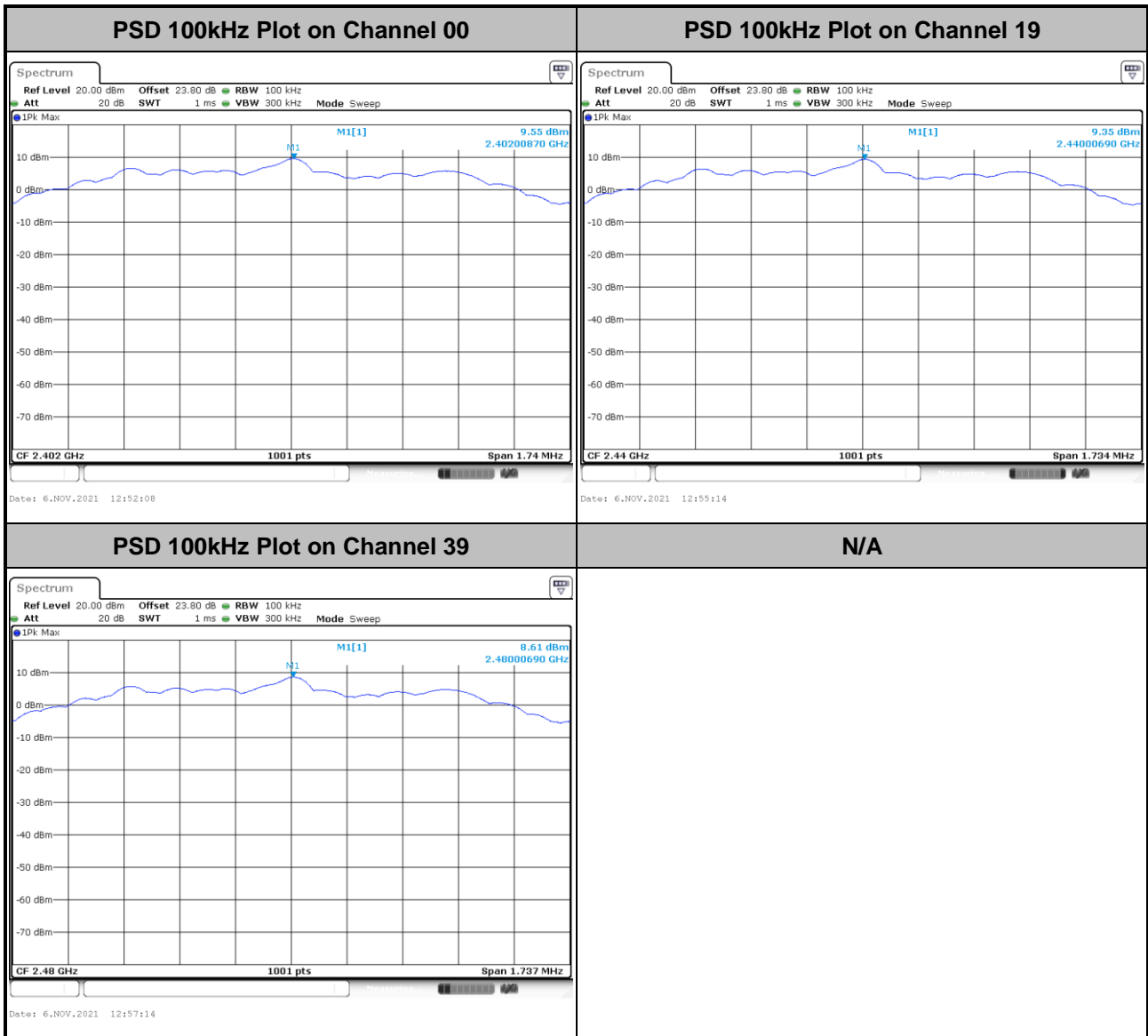
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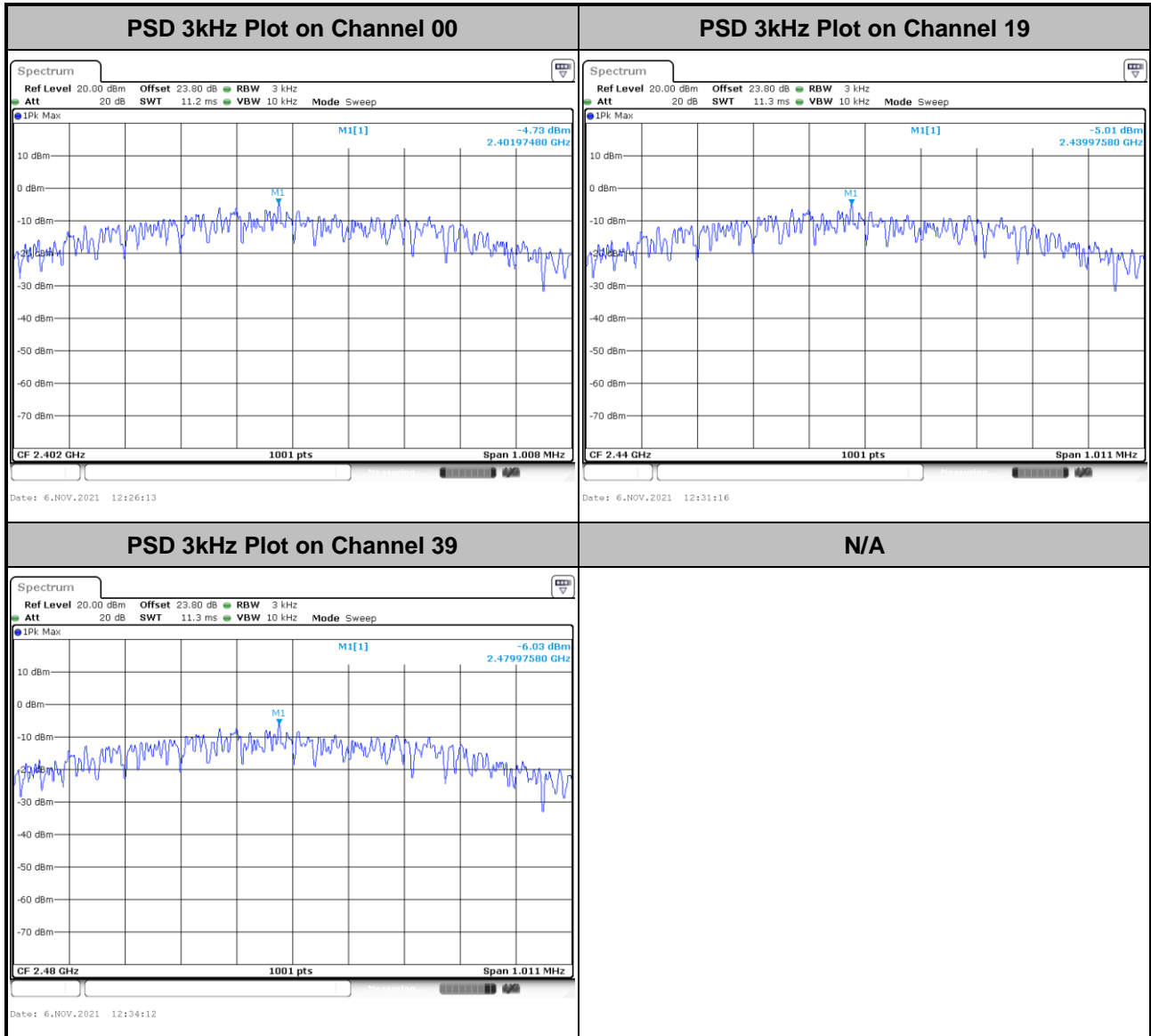




### 3.3.7 Test Result of Power Spectral Density Plots (3kHz)

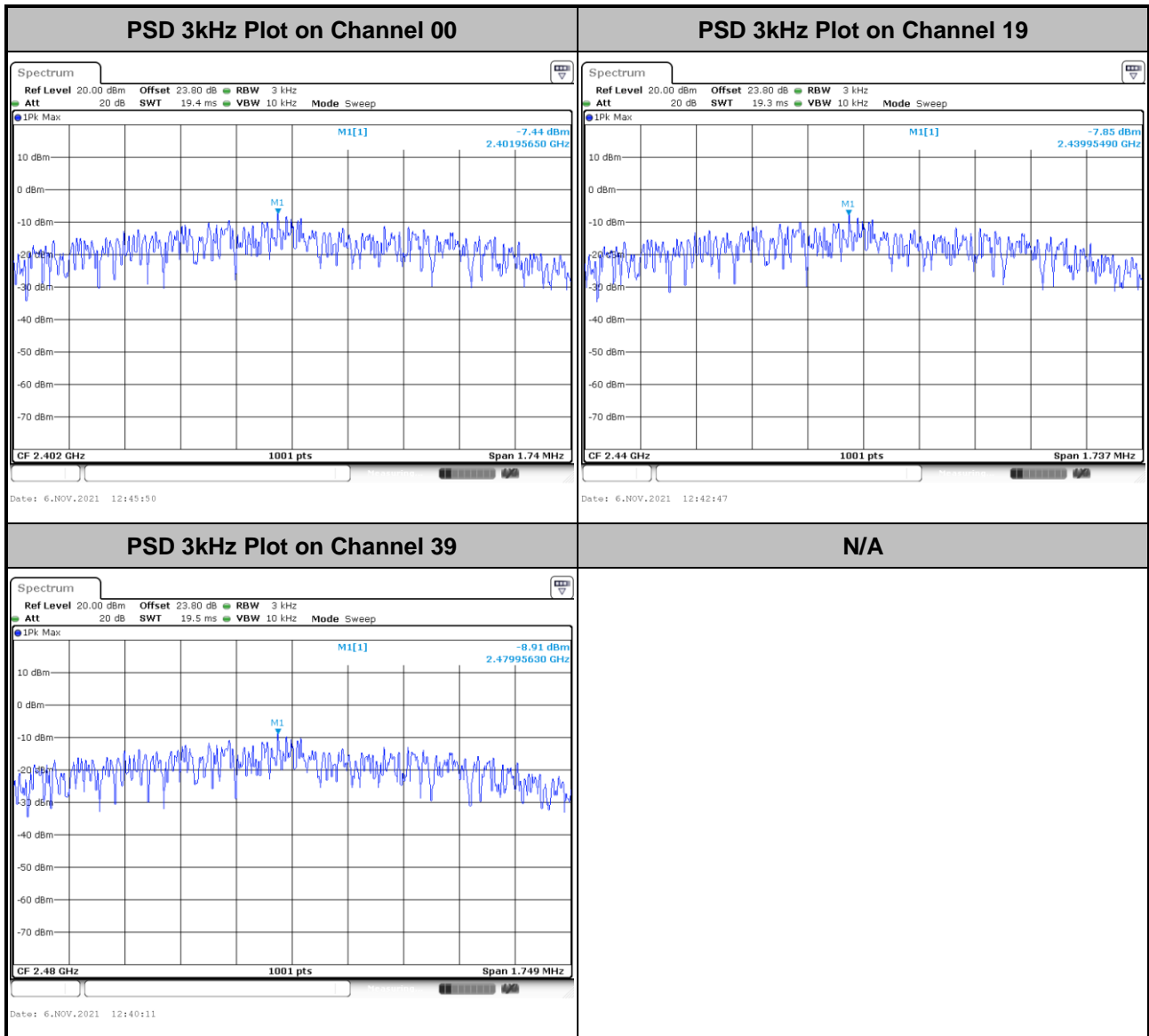
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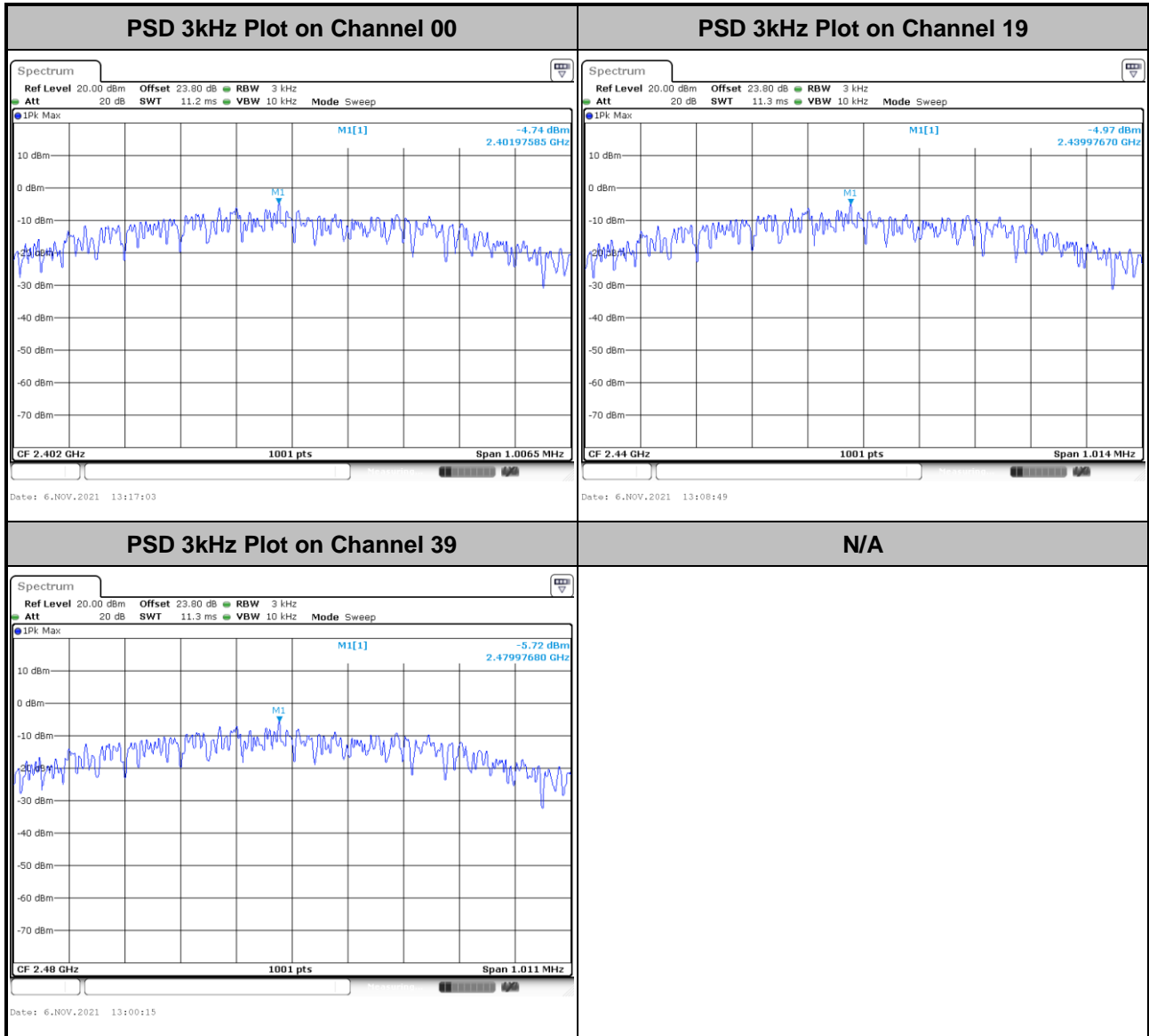
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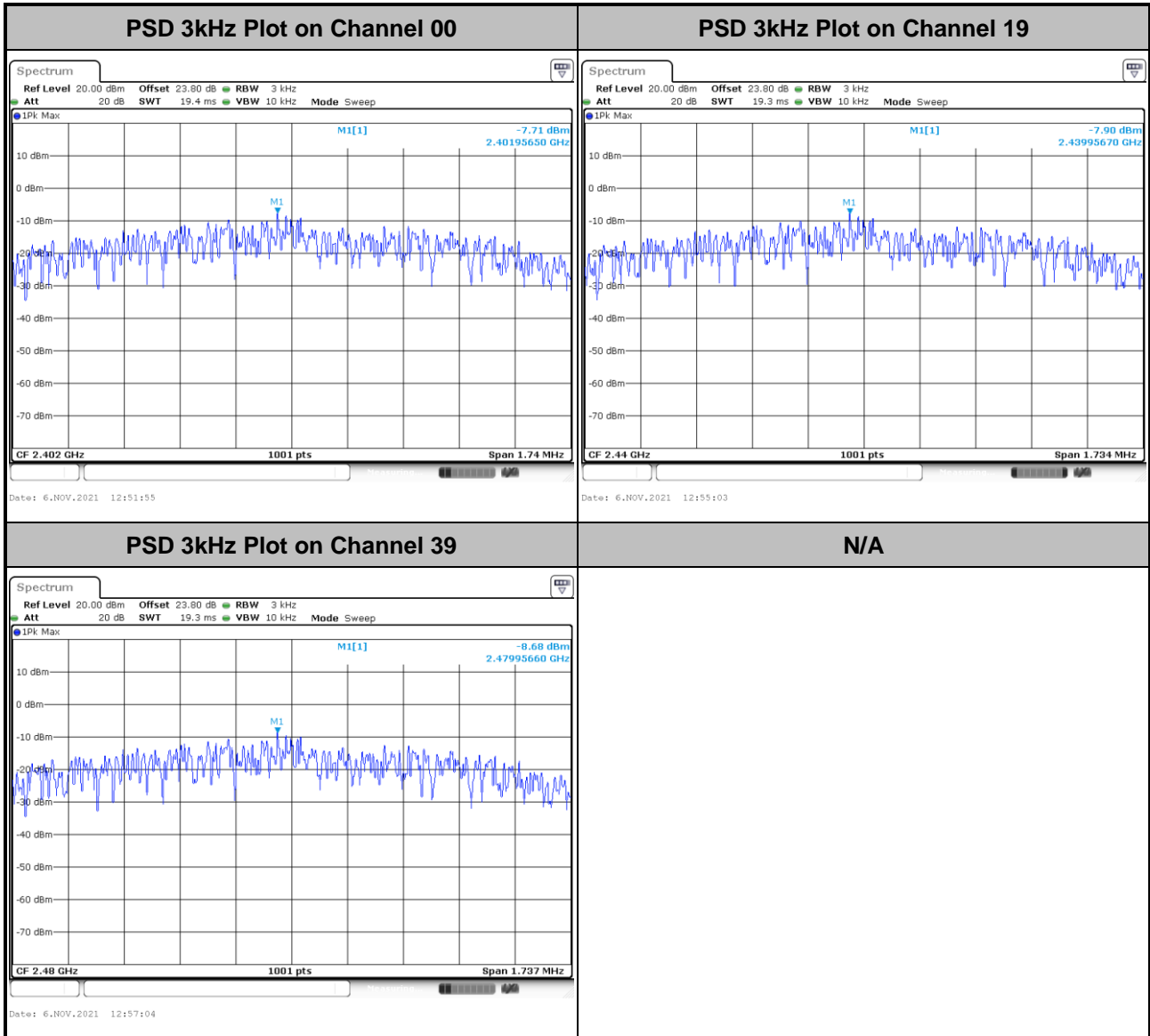
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<2Mbps>



## 3.4 Conducted Band Edges and Spurious Emission Measurement

### 3.4.1 Limit of Conducted Band Edges and Spurious Emission

All harmonics/spurious must be at least 20 dB down from the highest emission level within the authorized band.

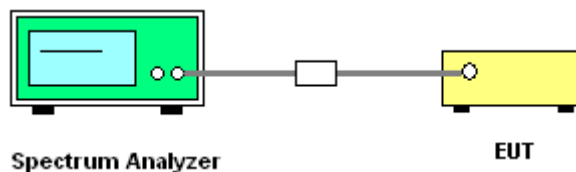
### 3.4.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

### 3.4.3 Test Procedure

1. The testing follows the ANSI C63.10 Section 11.11.3 Emission level measurement.
2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
3. Set the maximum power setting and enable the EUT to transmit continuously.
4. Set RBW = 100 kHz, VBW = 300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

### 3.4.4 Test Setup

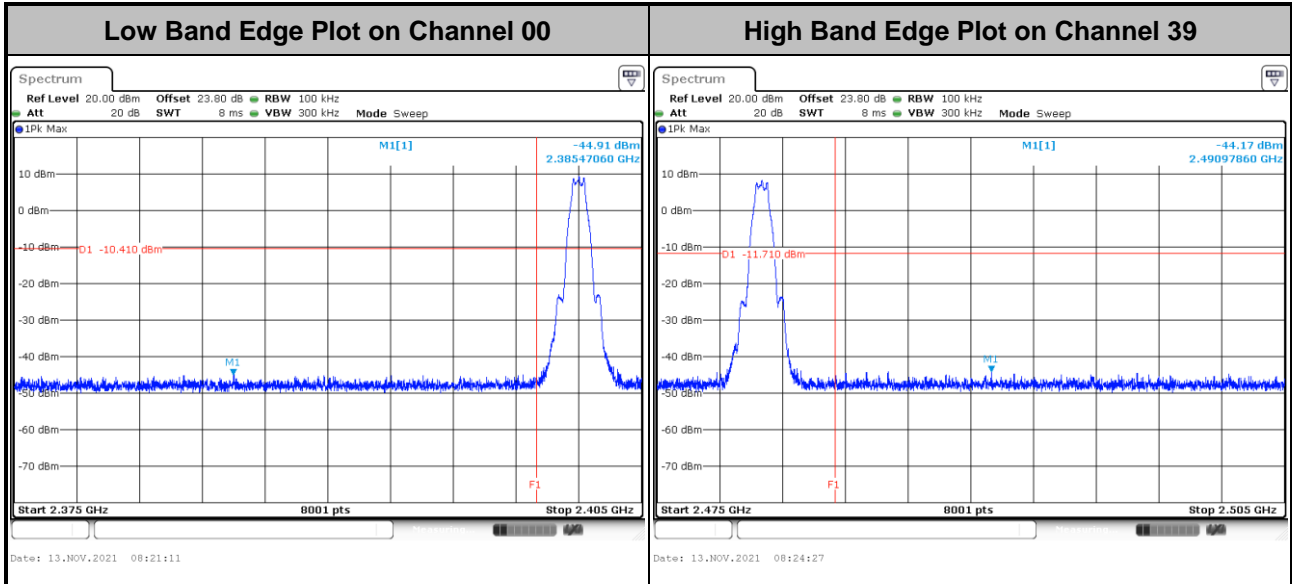




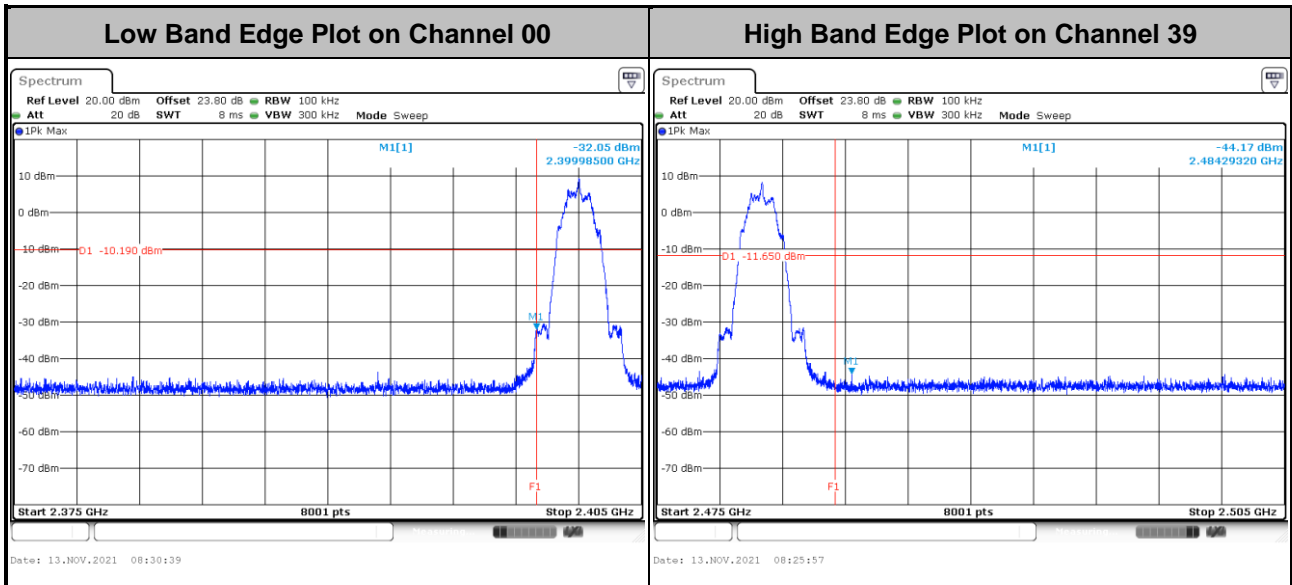
### 3.4.5 Test Result of Conducted Band Edges Plots

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<2Mbps>

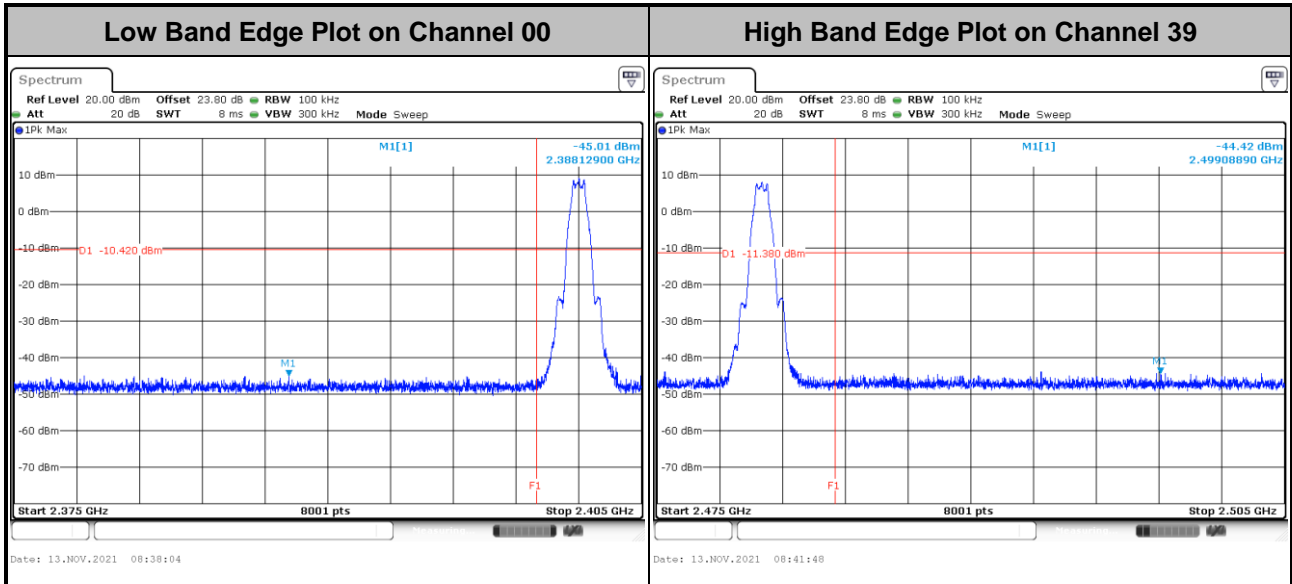




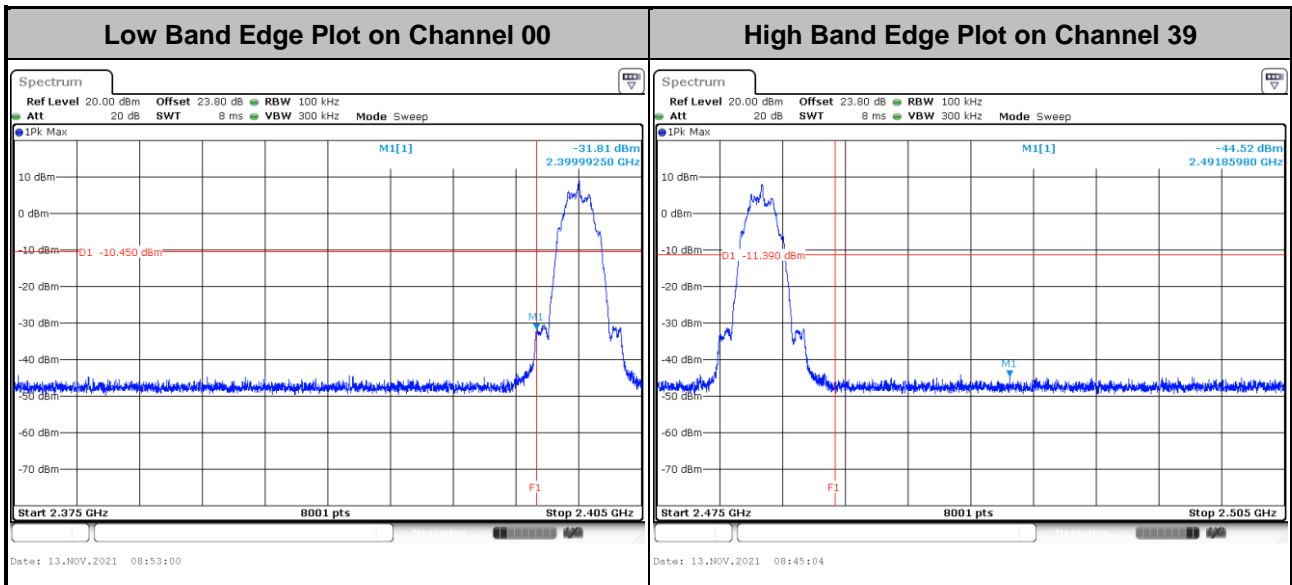


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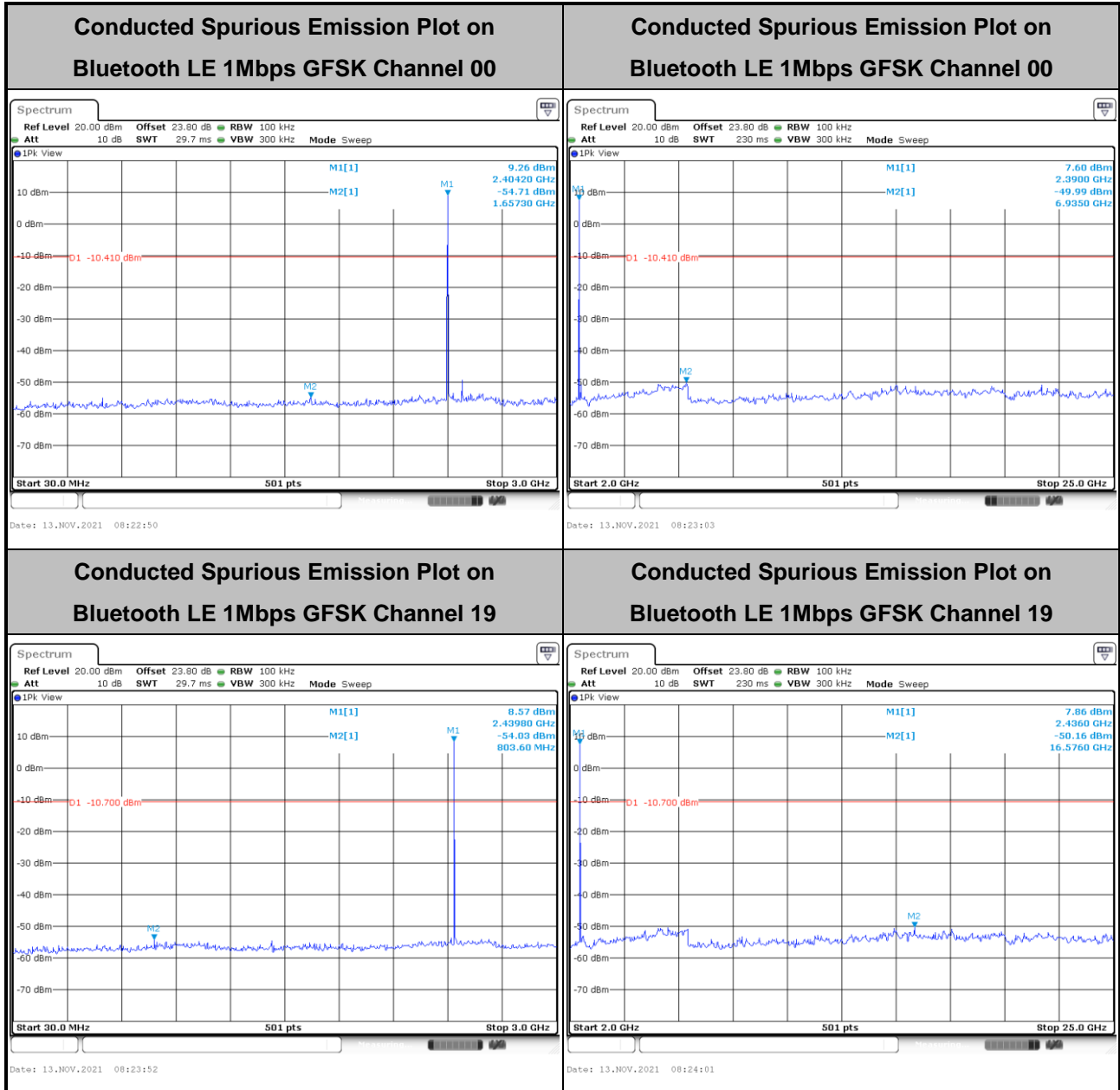


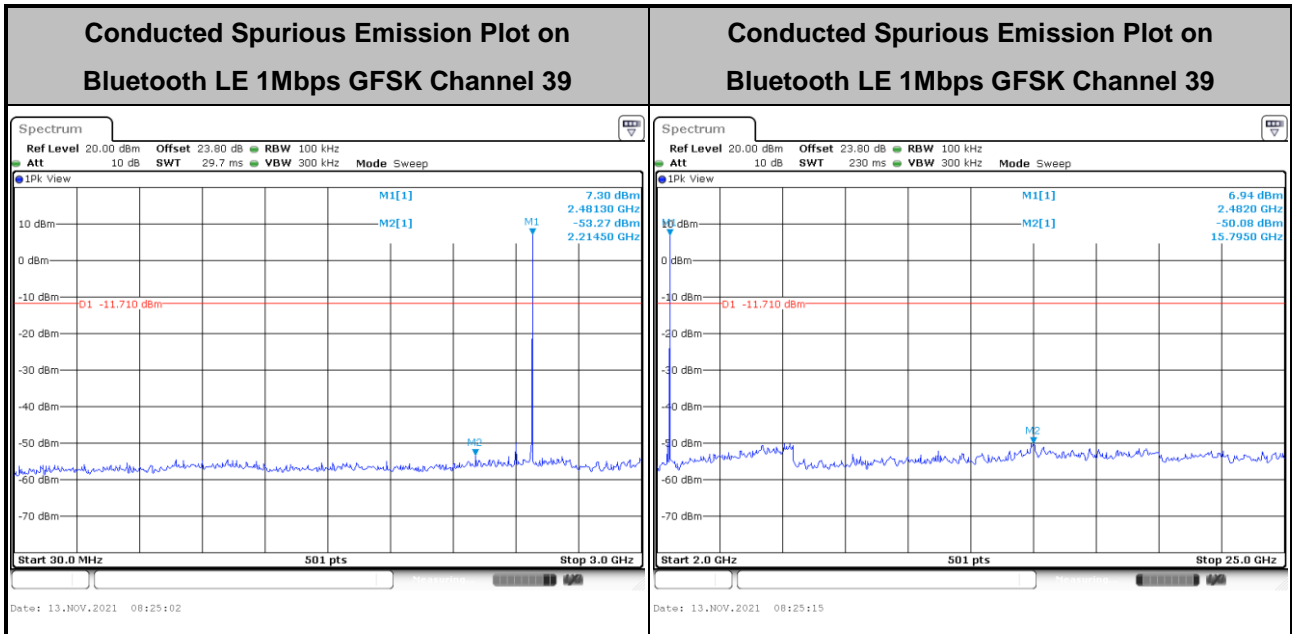


### 3.4.6 Test Result of Conducted Spurious Emission Plots

<Ant. 4>

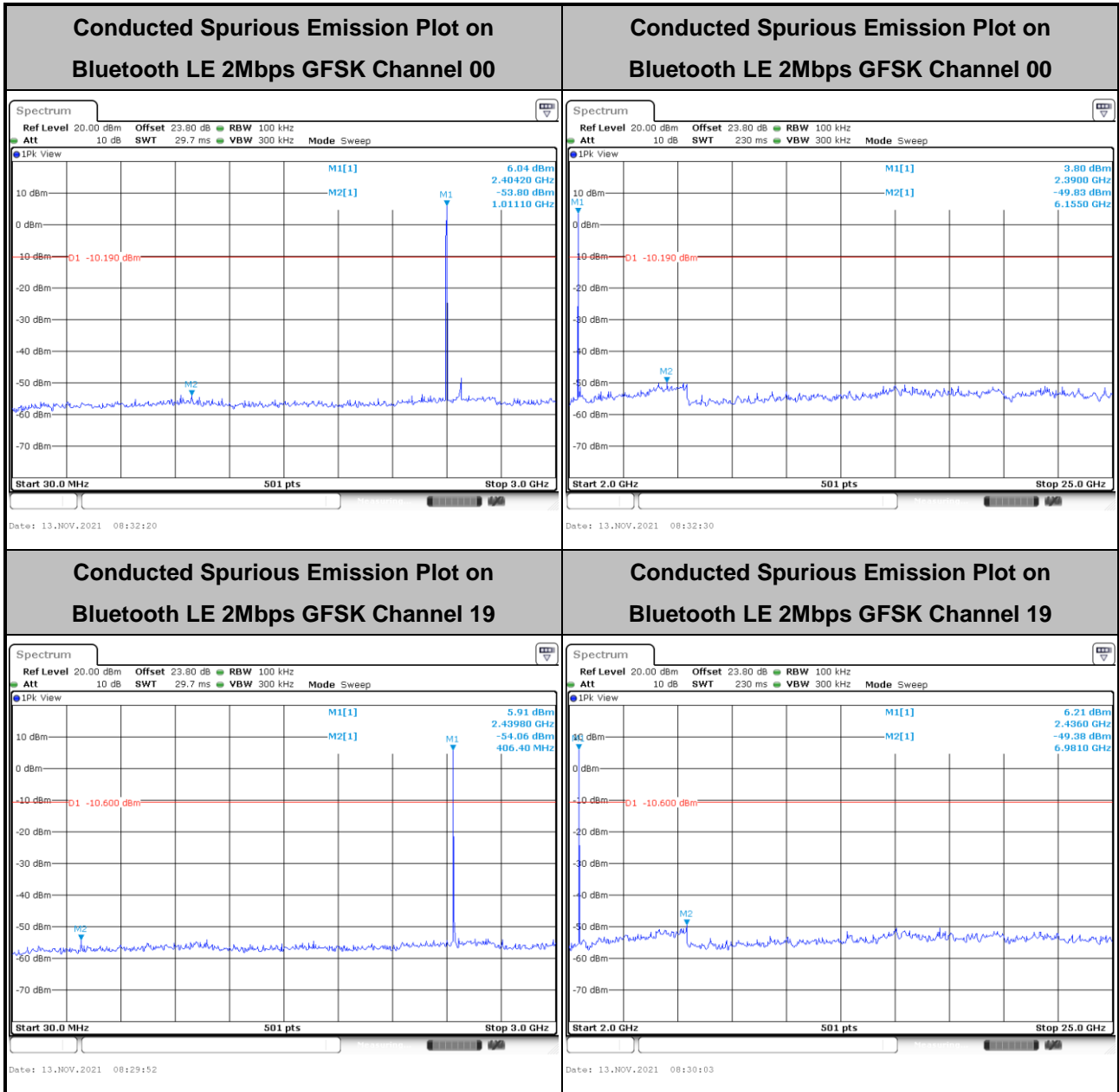
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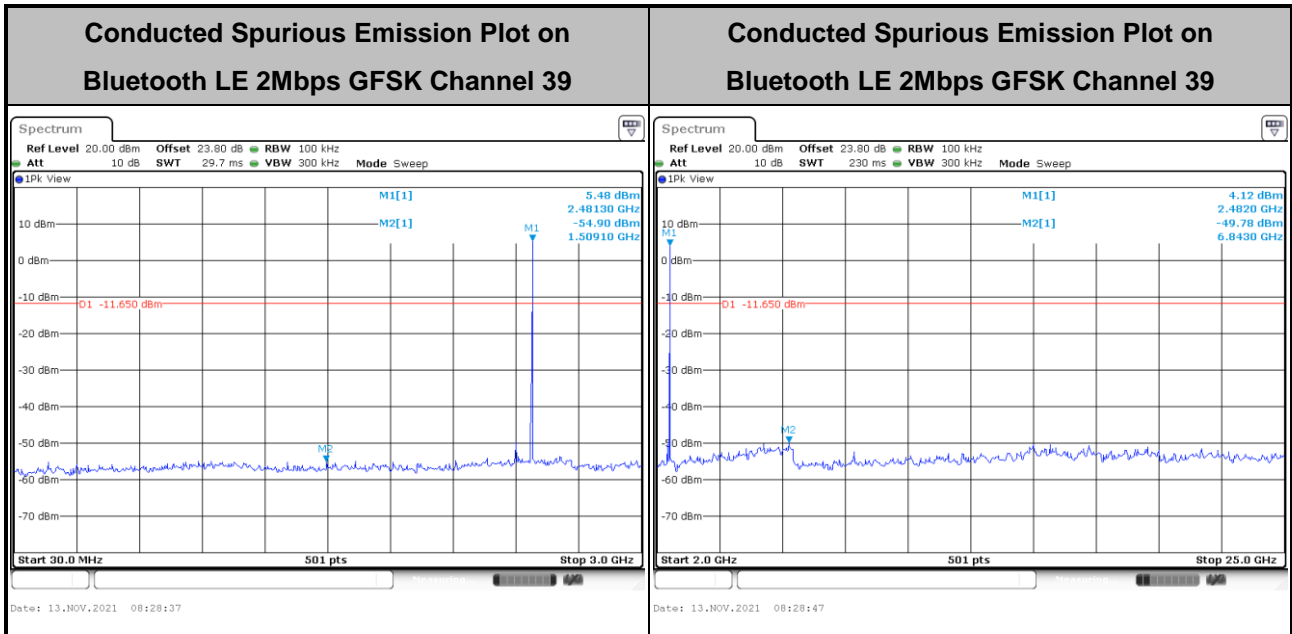






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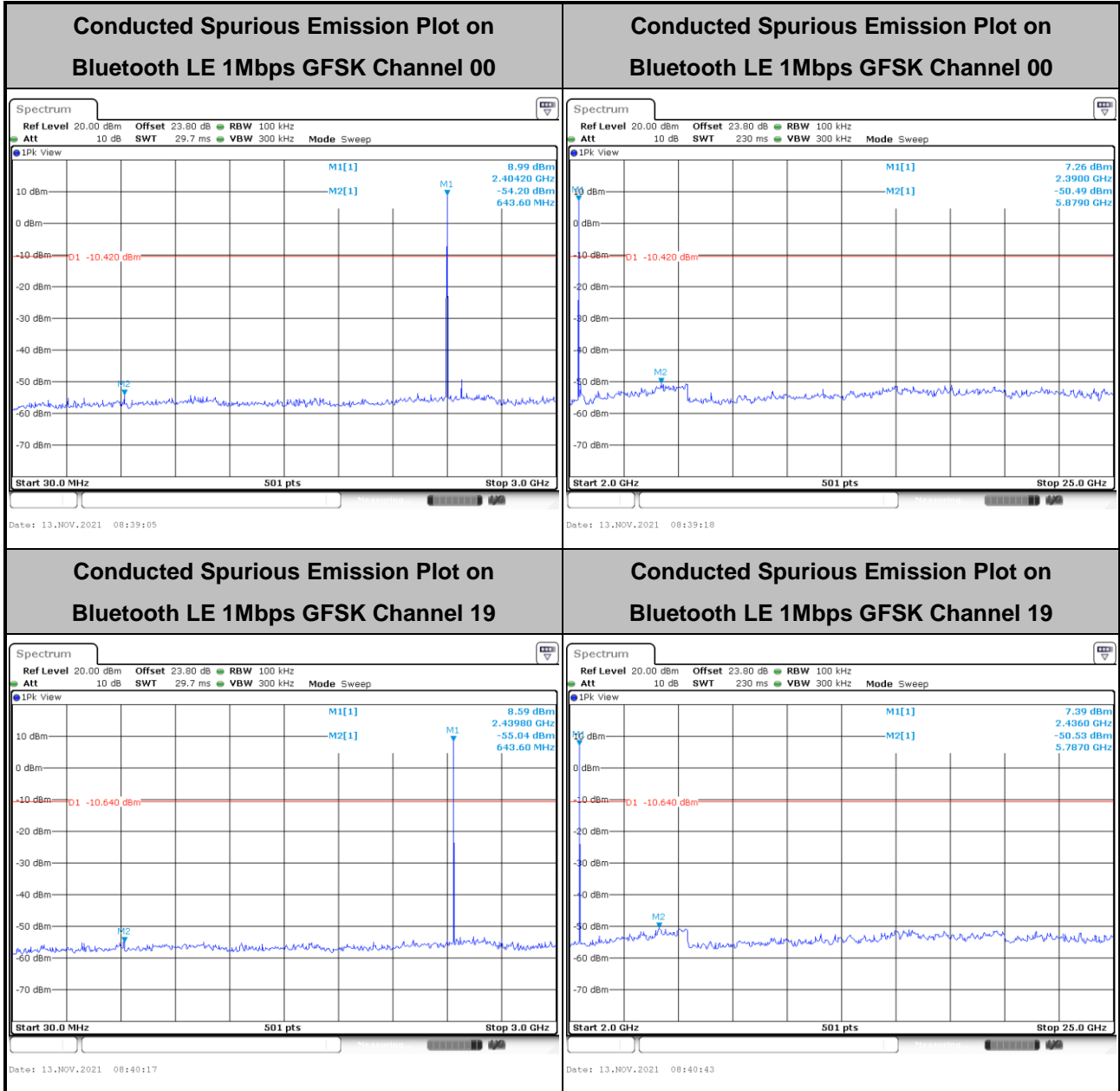


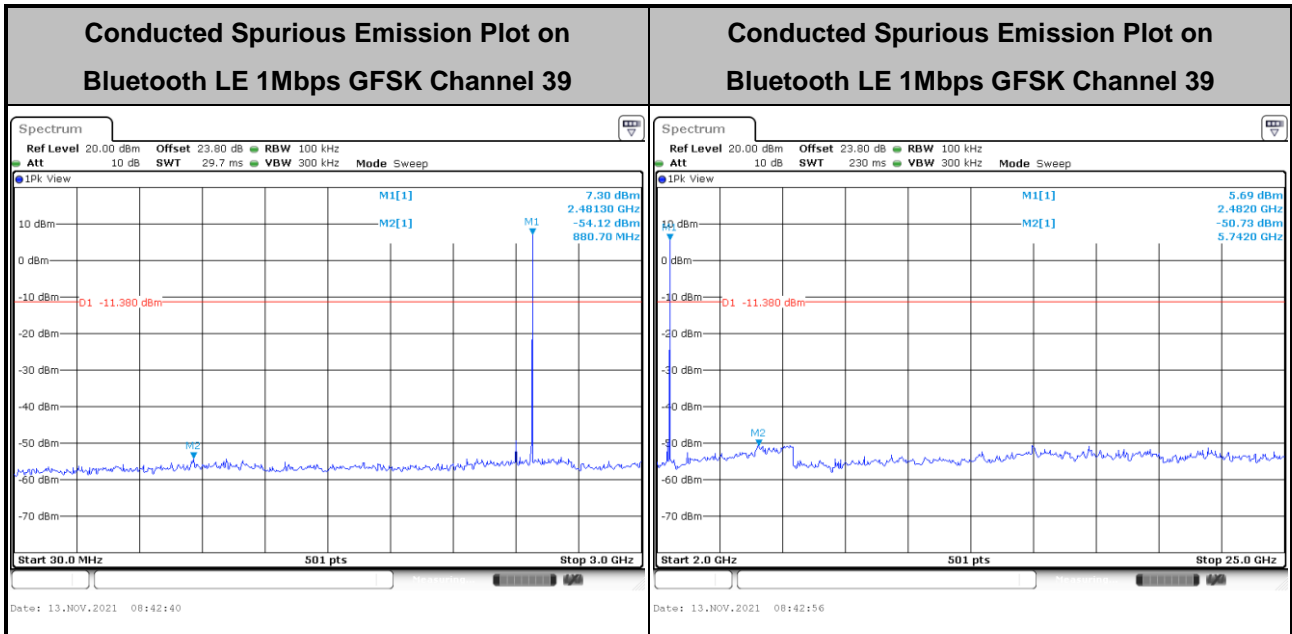




<Ant. 5>

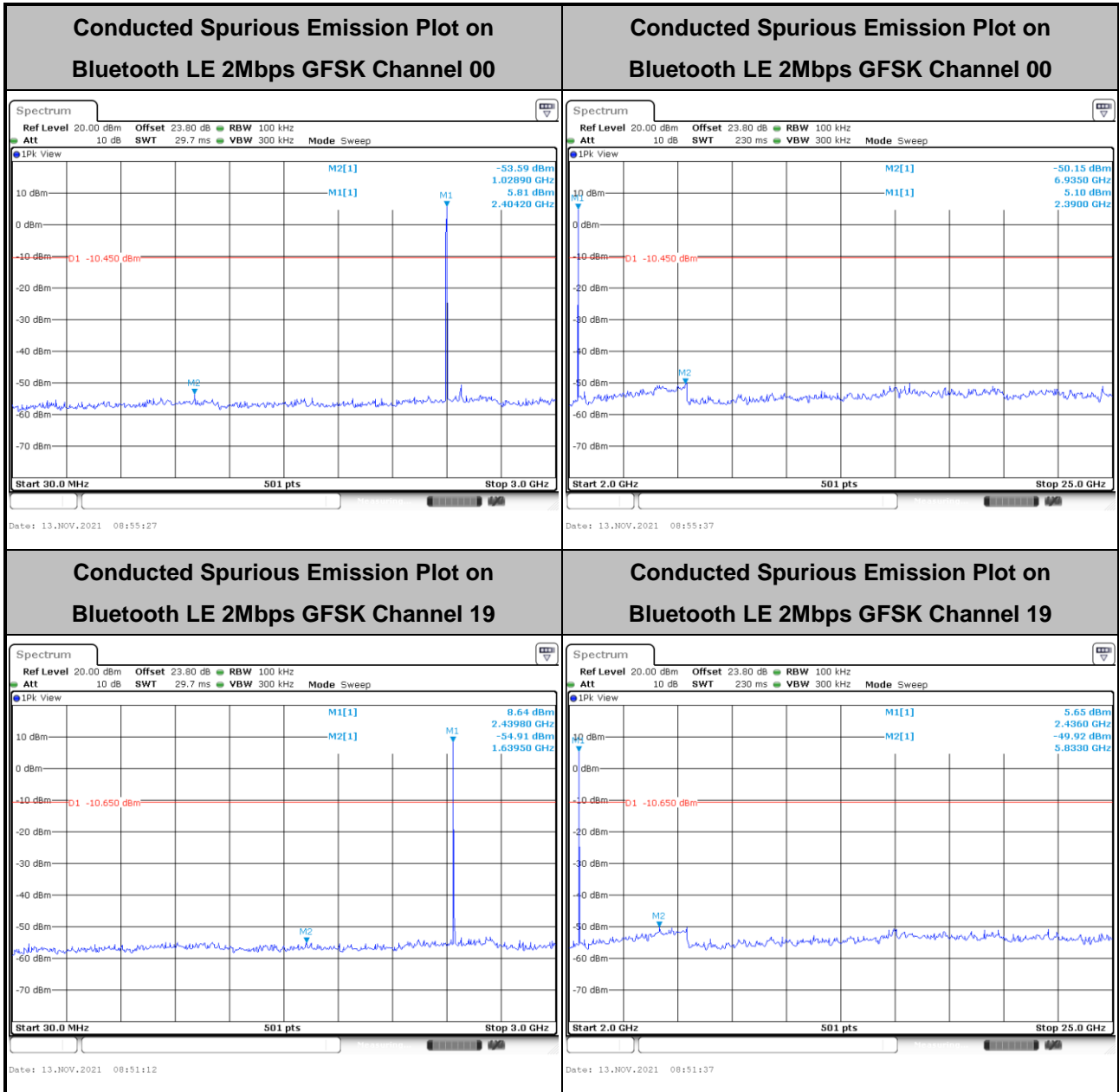
<1Mbps>



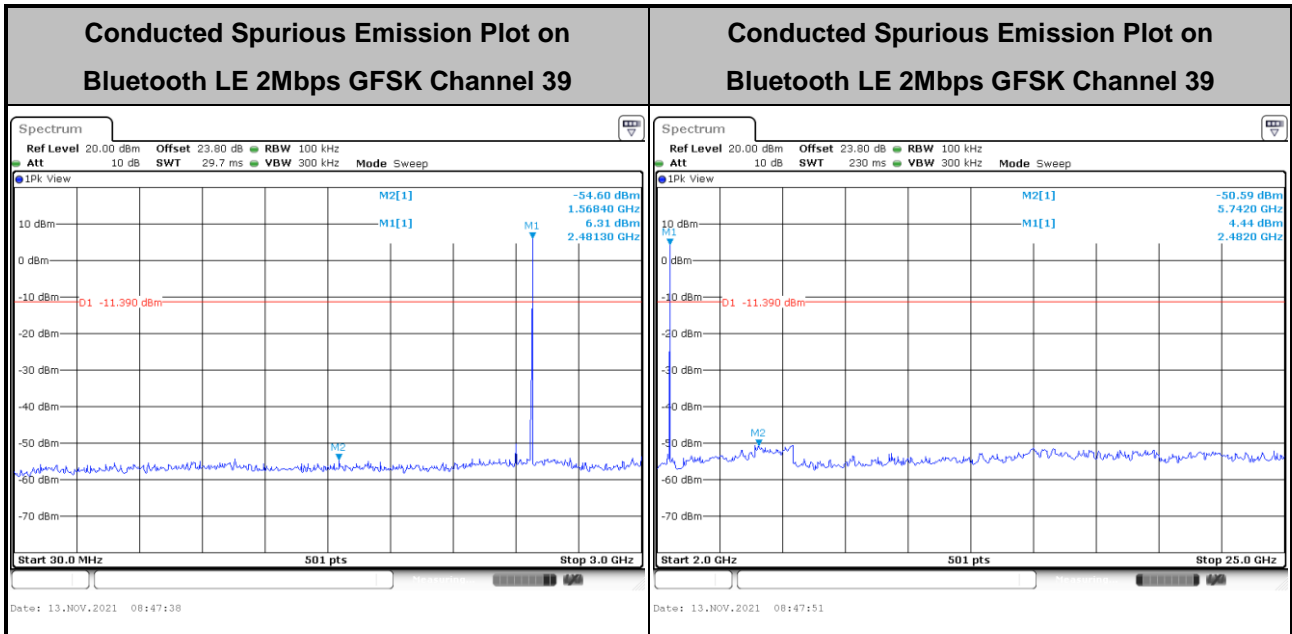




<2Mbps>









### 3.5 Radiated Band Edges and Spurious Emission Measurement

#### 3.5.1 Limit of Radiated Band Edges and Spurious Emission

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device is measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

#### 3.5.2 Measuring Instruments

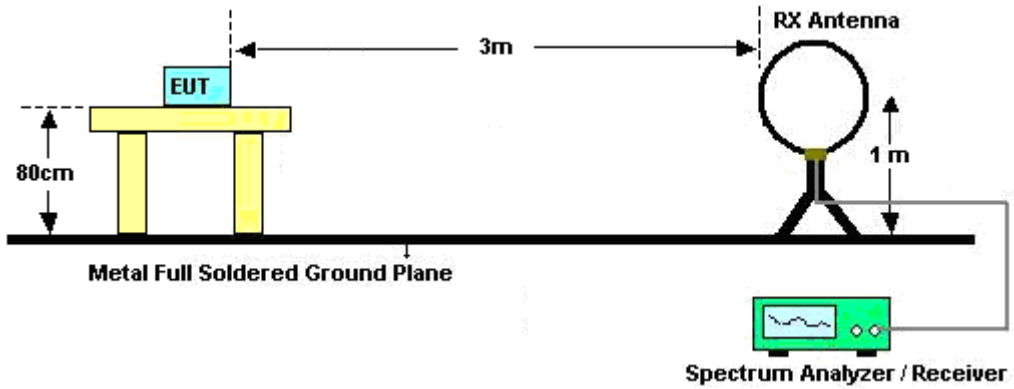
Please refer to the measuring equipment list in this test report.

**3.5.3 Test Procedures**

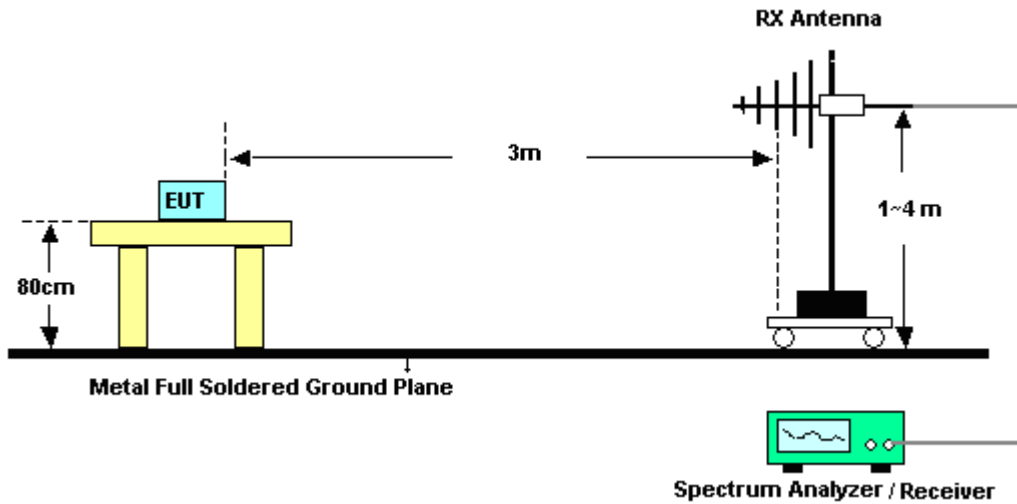
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT is arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT is placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
4. The EUT is set 3 meters away from the receiving antenna, which is mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit line, the position is marked as “-“.
7. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies. When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as “-“.
8. Use the following spectrum analyzer settings:
  - (1) Span shall wide enough to fully capture the emission being measured;
  - (2) Set RBW = 100 kHz for  $f < 1$  GHz; VBW  $\geq$  RBW; Sweep = auto; Detector function = peak; Trace = max hold;
  - (3) Set RBW = 1 MHz, VBW = 3 MHz for  $f \geq 1$  GHz for peak measurement.  
For average measurement:
    - VBW = 10 Hz, when duty cycle is no less than 98 percent.
    - VBW  $\geq 1/T$ , when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

### 3.5.4 Test Setup

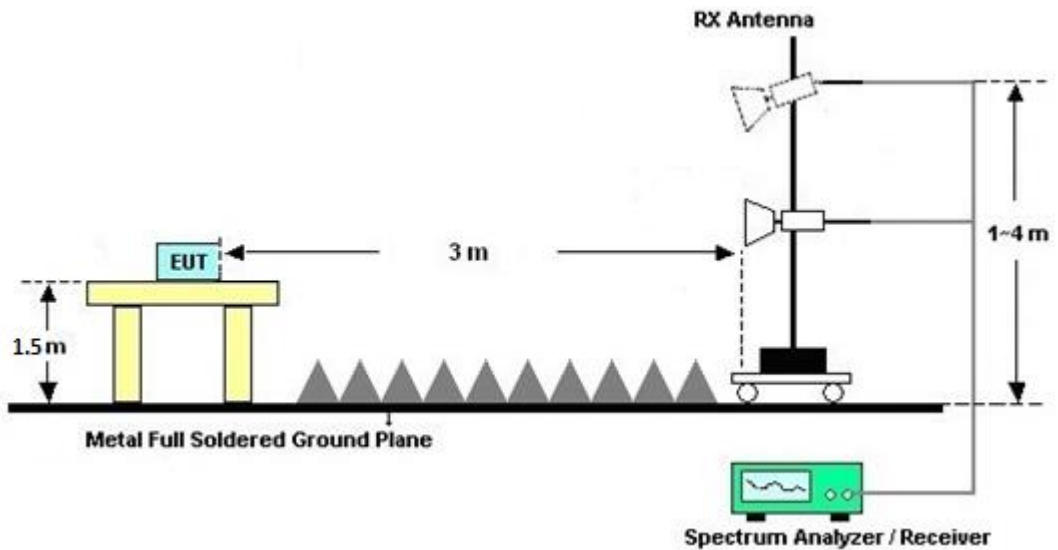
For radiated test below 30MHz



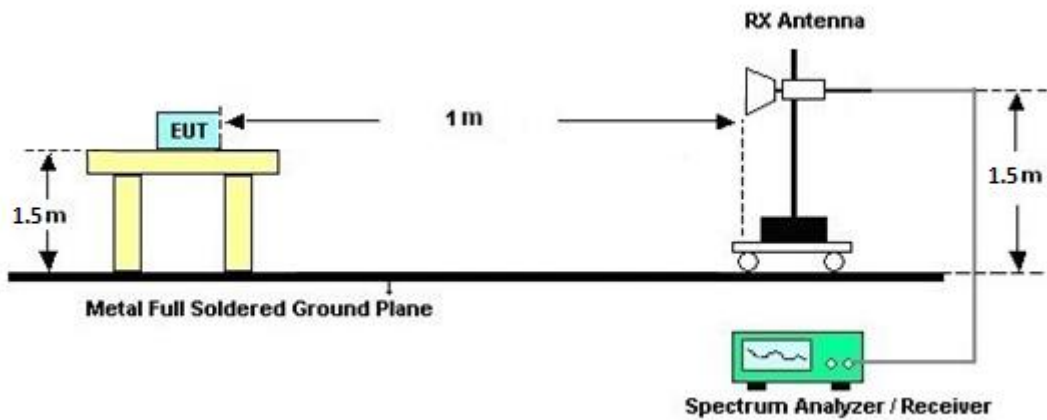
For radiated test from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



### 3.5.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

The low frequency, which starts from 9 kHz to 30 MHz, is pre-scanned and the result which is 20 dB lower than the limit line is not reported.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result comes out very similar.

### 3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

### 3.5.7 Duty Cycle

Please refer to Appendix E.

### 3.5.8 Test Result of Radiated Spurious Emission (30 MHz ~ 10th Harmonic)

Please refer to Appendix C and D.



### 3.6 AC Conducted Emission Measurement

#### 3.6.1 Limit of AC Conducted Emission

For equipment 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.

Frequency of emission (MHz)	Conducted limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

\*Decreases with the logarithm of the frequency.

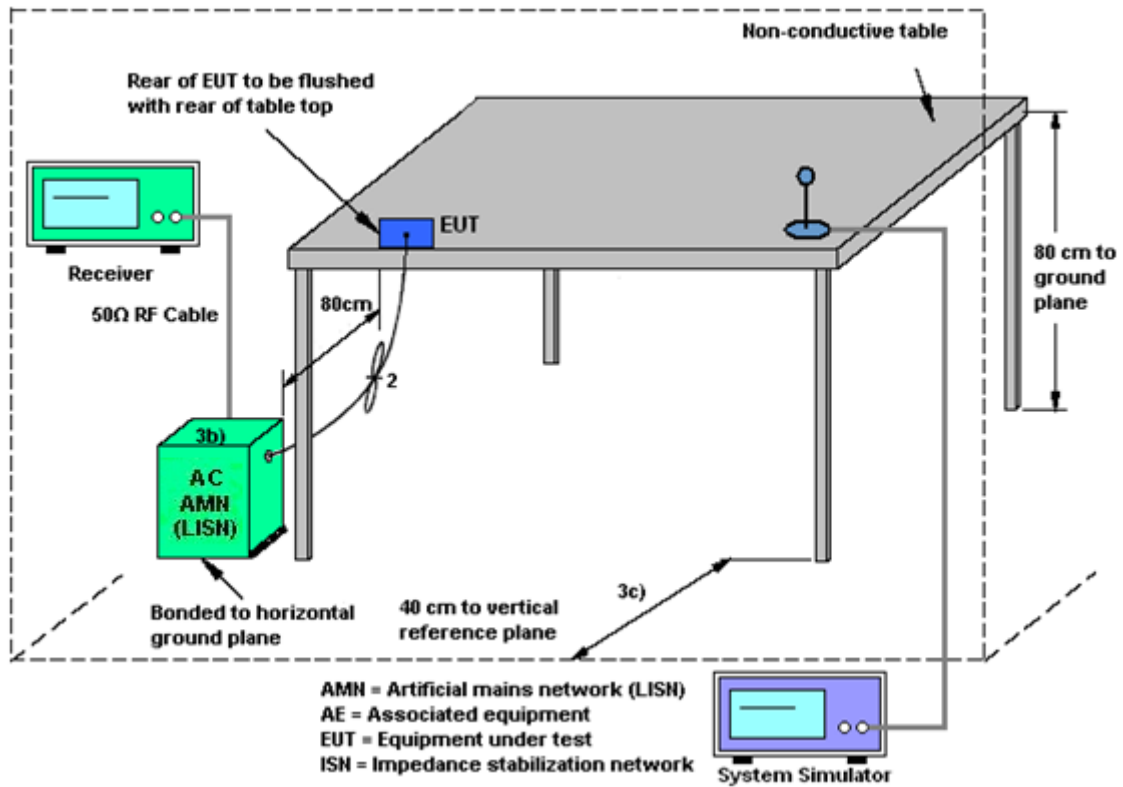
#### 3.6.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

#### 3.6.3 Test Procedures

1. The EUT is placed 0.4 meter away from the conducting wall of the shielding room, and is kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN shall be used.
6. Both Line and Neutral shall be tested in order to find out the maximum conducted emission.
7. The frequency range from 150 kHz to 30 MHz is scanned.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9 kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

### 3.6.4 Test Setup



### 3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.



## **3.7 Antenna Requirements**

### **3.7.1 Standard Applicable**

If directional gain of transmitting antennas is greater than 6 dBi, the power shall be reduced by the same level in dB comparing to gain minus 6 dBi. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the rule.

### **3.7.2 Antenna Anti-Replacement Construction**

An embedded-in antenna design is used.

### **3.7.3 Antenna Gain**

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.





## 4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 04, 2021	Nov. 10, 2021~ Nov. 30, 2021	Jan. 03, 2022	Radiation (03CH15-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	41912 & 05	30MHz~1GHz	Feb. 08, 2021	Nov. 10, 2021~ Nov. 30, 2021	Feb. 07, 2022	Radiation (03CH15-HY)
Amplifier	SONOMA	310N	363440	9kHz~1GHz	Dec. 28, 2020	Nov. 10, 2021~ Nov. 30, 2021	Dec. 27, 2021	Radiation (03CH15-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-01620	1GHz~18GHz	Oct. 25, 2021	Nov. 10, 2021~ Nov. 30, 2021	Oct. 24, 2022	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	00991	18GHz~40GHz	May 12, 2021	Nov. 10, 2021~ Nov. 30, 2021	May 11, 2022	Radiation (03CH15-HY)
Preamplifier	Jet-Power	JPA0118-55-30 3	17100018000 55006	1GHz~18GHz	May 06, 2021	Nov. 10, 2021~ Nov. 30, 2021	May 05, 2022	Radiation (03CH15-HY)
Preamplifier	Keysight	83017A	MY53270195	1GHz~26.5GHz	Aug. 19, 2021	Nov. 10, 2021~ Nov. 30, 2021	Aug. 18, 2022	Radiation (03CH15-HY)
Preamplifier	EMEC	EM18G40G	060801	18-40GHz	Jun. 22, 2021	Nov. 10, 2021~ Nov. 30, 2021	Jun. 21, 2022	Radiation (03CH15-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY55420170	20MHz~8.4GHz	Jul. 15, 2021	Nov. 10, 2021~ Nov. 30, 2021	Jul. 14, 2022	Radiation (03CH15-HY)
Spectrum Analyzer	Agilent	E4446A	MY50180136	3Hz~44GHz	May 07, 2021	Nov. 10, 2021~ Nov. 30, 2021	May 06, 2022	Radiation (03CH15-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Nov. 10, 2021~ Nov. 30, 2021	N/A	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Nov. 10, 2021~ Nov. 30, 2021	N/A	Radiation (03CH15-HY)
Software	Audix	E3 6.2009-8-24(k5 )	RK-000451	N/A	N/A	Nov. 10, 2021~ Nov. 30, 2021	N/A	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104, 102E	MY36980/4, MY9838/4PE, 508405/2E	30MHz~18G	Nov. 16, 2020	Nov. 10, 2021~ Nov. 14, 2021	Nov. 15, 2021	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104, 102E	MY36980/4, MY9838/4PE, 508405/2E	30MHz~18G	Nov. 15, 2021	Nov. 15, 2021~ Nov. 30, 2021	Nov. 14, 2022	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz-40GHz	Feb. 22, 2021	Nov. 10, 2021~ Nov. 30, 2021	Feb. 21, 2022	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz-40GHz	Feb. 22, 2021	Nov. 10, 2021~ Nov. 30, 2021	Feb. 21, 2022	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 11, 2021	Nov. 10, 2021~ Nov. 30, 2021	Mar. 10, 2022	Radiation (03CH15-HY)
Filter	Wainwright	WLJ4-1000-1530 -6000-40ST	SN4	1.53GHz Low Pass Filter	Jul. 02, 2021	Nov. 10, 2021~ Nov. 30, 2021	Jul. 01, 2022	Radiation (03CH15-HY)
Filter	Wainwright	WHKX12-2700 -3000-18000-6 OST	SN4	3GHz High Pass Filter	Sep. 15, 2021	Nov. 10, 2021~ Nov. 30, 2021	Sep. 14, 2022	Radiation (03CH15-HY)



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	Testo	608-H1	34893241	N/A	Mar. 01, 2021	Nov. 06, 2021~ Nov. 13, 2021	Feb. 28, 2022	Conducted (TH05-HY)
Power Meter	Anritsu	ML2495A	1036004	N/A	Aug. 01, 2021	Nov. 06, 2021~ Nov. 13, 2021	Jul. 31, 2022	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz ~ 40GHz	Aug. 30, 2021	Nov. 06, 2021~ Nov. 13, 2021	Aug. 29, 2022	Conducted (TH05-HY)
DC Power Supply	GW Instek	GPE2323	GET861546	0V~64V ; 0A~6A	Jun. 22, 2021	Nov. 06, 2021~ Nov. 13, 2021	Jun. 21, 2022	Conducted (TH05-HY)
Switch Box & RF Cable	EM Electronics	EMSW18SE	SW200302	N/A	Mar. 17, 2021	Nov. 06, 2021~ Nov. 13, 2021	Mar. 16, 2022	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Nov. 05, 2021	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 30, 2020	Nov. 05, 2021	Nov. 29, 2021	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 18, 2020	Nov. 05, 2021	Nov. 17, 2021	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 01, 2020	Nov. 05, 2021	Nov. 30, 2021	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 16, 2020	Nov. 05, 2021	Nov. 15, 2021	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Nov. 05, 2021	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-FN	00691	N/A	Jul. 28, 2021	Nov. 05, 2021	Jul. 27, 2022	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 31, 2020	Nov. 05, 2021	Dec. 30, 2021	Conduction (CO05-HY)



## 5 Uncertainty of Evaluation

### Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.1 dB
---	--------

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.8 dB
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### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.3 dB
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### Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.6 dB
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## Appendix A. Test Result of Conducted Test Items

Test Engineer:	Benny Ku	Temperature:	21~25	°C
Test Date:	2021/11/6~2021/11/13	Relative Humidity:	51~54	%

&lt;Ant. 4&gt;

### **TEST RESULTS DATA** **6dB and 99% Occupied Bandwidth**

Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Occupied BW (MHz)	6dB BW (MHz)	6dB BW Limit (MHz)	Pass/Fail
BLE	1Mbps	1	0	2402	1.015	0.672	0.50	Pass
BLE	1Mbps	1	19	2440	1.015	0.674	0.50	Pass
BLE	1Mbps	1	39	2480	1.015	0.674	0.50	Pass

### **TEST RESULTS DATA** **Peak Power Table**

Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Peak Conducted Power (dBm)	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
BLE	1Mbps	1	0	2402	10.44	30.00	-4.00	6.44	36.00	Pass
BLE	1Mbps	1	19	2440	10.08	30.00	-4.00	6.08	36.00	Pass
BLE	1Mbps	1	39	2480	9.32	30.00	-4.00	5.32	36.00	Pass

### **TEST RESULTS DATA** **Average Power Table**

Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Average Conducted Power (dBm)	Duty Factor (dB)	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
BLE	1Mbps	1	0	2402	10.01	2.10	30.00	-4.00	6.01	36.00	Pass
BLE	1Mbps	1	19	2440	9.65	2.10	30.00	-4.00	5.65	36.00	Pass
BLE	1Mbps	1	39	2480	8.79	2.10	30.00	-4.00	4.79	36.00	Pass

### **TEST RESULTS DATA** **Peak Power Density**

Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Peak PSD (dBm /100kHz)	Peak PSD (dBm /3kHz)	DG (dBi)	Peak PSD Limit (dBm /3kHz)	Pass/Fail
BLE	1Mbps	1	0	2402	9.59	-4.73	-4.00	8.00	Pass
BLE	1Mbps	1	19	2440	9.30	-5.01	-4.00	8.00	Pass
BLE	1Mbps	1	39	2480	8.29	-6.03	-4.00	8.00	Pass

**Note:** PSD (dBm/ 100kHz) is a reference level used for Conducted Band Edges and Conducted Spurious Emission 30dBc limit.

**TEST RESULTS DATA**  
**6dB and 99% Occupied Bandwidth**

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Occupied BW (MHz)	6dB BW (MHz)	6dB BW Limit (MHz)	Pass/Fail
BLE	2Mbps	1	0	2402	1.994	1.160	0.50	Pass
BLE	2Mbps	1	19	2440	1.994	1.158	0.50	Pass
BLE	2Mbps	1	39	2480	1.994	1.166	0.50	Pass

**TEST RESULTS DATA**  
**Peak Power Table**

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
BLE	2Mbps	1	0	2402	10.53	30.00	-4.00	6.53	36.00	Pass
BLE	2Mbps	1	19	2440	10.20	30.00	-4.00	6.20	36.00	Pass
BLE	2Mbps	1	39	2480	9.40	30.00	-4.00	5.40	36.00	Pass

**TEST RESULTS DATA**  
**Average Power Table**  
**(Reporting Only)**

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)	Duty Factor (dB)	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
BLE	2Mbps	1	0	2402	10.22	4.88	30.00	-4.00	6.22	36.00	Pass
BLE	2Mbps	1	19	2440	9.92	4.88	30.00	-4.00	5.92	36.00	Pass
BLE	2Mbps	1	39	2480	8.96	4.88	30.00	-4.00	4.96	36.00	Pass

**TEST RESULTS DATA**  
**Peak Power Density**

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm /100kHz)	Peak PSD (dBm /3kHz)	DG (dBi)	Peak PSD Limit (dBm /3kHz)	Pass/Fail
BLE	2Mbps	1	0	2402	9.81	-7.44	-4.00	8.00	Pass
BLE	2Mbps	1	19	2440	9.40	-7.85	-4.00	8.00	Pass
BLE	2Mbps	1	39	2480	8.35	-8.91	-4.00	8.00	Pass

**Note:** PSD (dBm/ 100kHz) is a reference level used for Conducted Band Edges and Conducted Spurious Emission 30dBc limit.

&lt;Ant. 5&gt;

**TEST RESULTS DATA**  
**6dB and 99% Occupied Bandwidth**

Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Occupied BW (MHz)	6dB BW (MHz)	6dB BW Limit (MHz)	Pass/Fail
BLE	1Mbps	1	0	2402	1.013	0.671	0.50	Pass
BLE	1Mbps	1	19	2440	1.015	0.676	0.50	Pass
BLE	1Mbps	1	39	2480	1.015	0.674	0.50	Pass

**TEST RESULTS DATA**  
**Peak Power Table**

Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Peak Conducted Power (dBm)	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
BLE	1Mbps	1	0	2402	10.20	30.00	-5.60	4.60	36.00	Pass
BLE	1Mbps	1	19	2440	10.00	30.00	-5.60	4.40	36.00	Pass
BLE	1Mbps	1	39	2480	9.35	30.00	-5.60	3.75	36.00	Pass

**TEST RESULTS DATA**  
**Average Power Table**  
**(Reporting Only)**

Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Average Conducted Power (dBm)	Duty Factor(dB)	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
BLE	1Mbps	1	0	2402	9.76	2.09	30.00	-5.60	4.16	36.00	Pass
BLE	1Mbps	1	19	2440	9.55	2.09	30.00	-5.60	3.95	36.00	Pass
BLE	1Mbps	1	39	2480	8.84	2.09	30.00	-5.60	3.24	36.00	Pass

**TEST RESULTS DATA**  
**Peak Power Density**

Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Peak PSD (dBm /100kHz)	Peak PSD (dBm /3kHz)	DG (dBi)	Peak PSD Limit (dBm /3kHz)	Pass/Fail
BLE	1Mbps	1	0	2402	9.58	-4.74	-5.60	8.00	Pass
BLE	1Mbps	1	19	2440	9.36	-4.97	-5.60	8.00	Pass
BLE	1Mbps	1	39	2480	8.62	-5.72	-5.60	8.00	Pass

**Note:** PSD (dBm/ 100kHz) is a reference level used for Conducted Band Edges and Conducted Spurious Emission 30dBc limit.

**TEST RESULTS DATA**  
**6dB and 99% Occupied Bandwidth**

Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Occupied BW (MHz)	6dB BW (MHz)	6dB BW Limit (MHz)	Pass/Fail
BLE	2Mbps	1	0	2402	1.994	1.160	0.50	Pass
BLE	2Mbps	1	19	2440	1.994	1.156	0.50	Pass
BLE	2Mbps	1	39	2480	1.998	1.158	0.50	Pass

**TEST RESULTS DATA**  
**Peak Power Table**

Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Peak Conducted Power (dBm)	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
BLE	2Mbps	1	0	2402	10.31	30.00	-5.60	4.71	36.00	Pass
BLE	2Mbps	1	19	2440	10.09	30.00	-5.60	4.49	36.00	Pass
BLE	2Mbps	1	39	2480	9.15	30.00	-5.60	3.55	36.00	Pass

**TEST RESULTS DATA**  
**Average Power Table**  
**(Reporting Only)**

Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Average Conducted Power (dBm)	Duty Factor(dB)	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
BLE	2Mbps	1	0	2402	9.94	4.88	30.00	-5.60	4.34	36.00	Pass
BLE	2Mbps	1	19	2440	9.67	4.88	30.00	-5.60	4.07	36.00	Pass
BLE	2Mbps	1	39	2480	8.74	4.88	30.00	-5.60	3.14	36.00	Pass

**TEST RESULTS DATA**  
**Peak Power Density**

Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Peak PSD (dBm /100kHz)	Peak PSD (dBm /3kHz)	DG (dBi)	Peak PSD Limit (dBm /3kHz)	Pass/Fail
BLE	2Mbps	1	0	2402	9.55	-7.71	-5.60	8.00	Pass
BLE	2Mbps	1	19	2440	9.35	-7.90	-5.60	8.00	Pass
BLE	2Mbps	1	39	2480	8.61	-8.68	-5.60	8.00	Pass

**Note:** PSD (dBm/ 100kHz) is a reference level used for Conducted Band Edges and Conducted Spurious Emission 30dBc limit.



## Appendix B. AC Conducted Emission Test Results

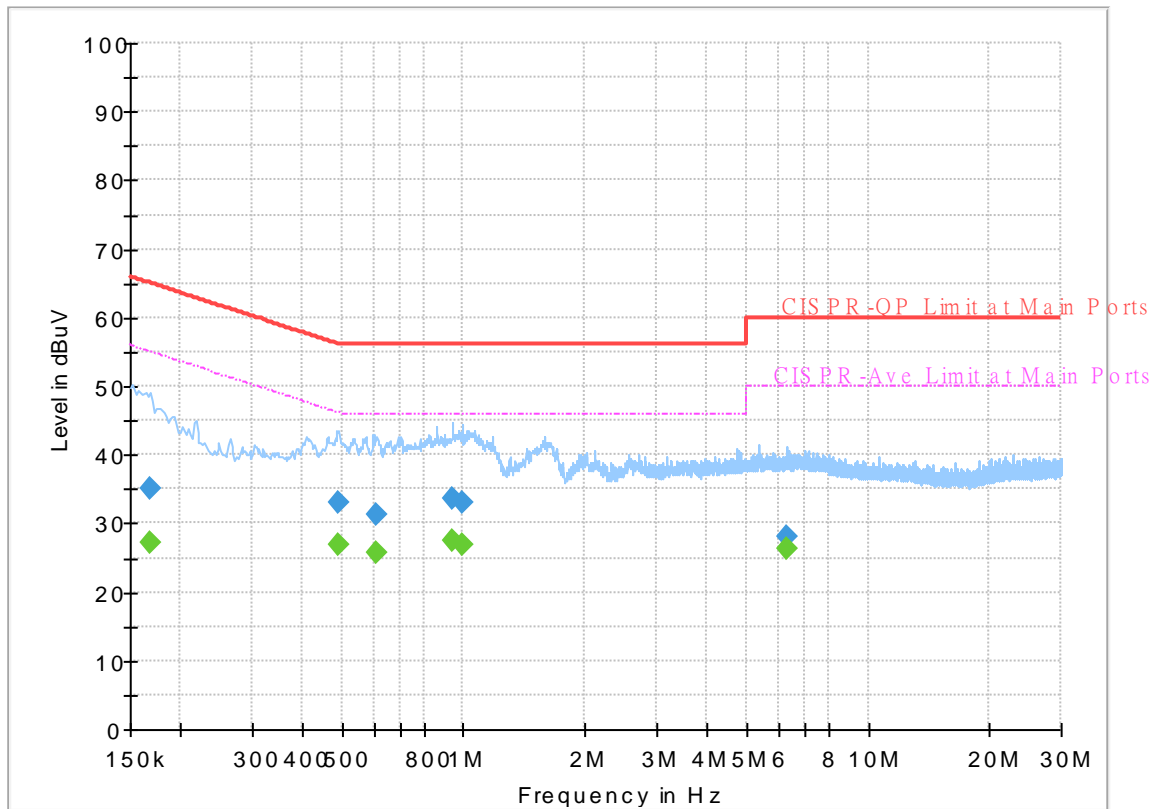
Test Engineer :	Calvin Wang	Temperature :	23~26°C
		Relative Humidity :	45~55%



# EUT Information

Report NO : 1O2008  
 Test Mode : Mode 1  
 Test Voltage : 120Vac/60Hz  
 Phase : Line

Full Spectrum



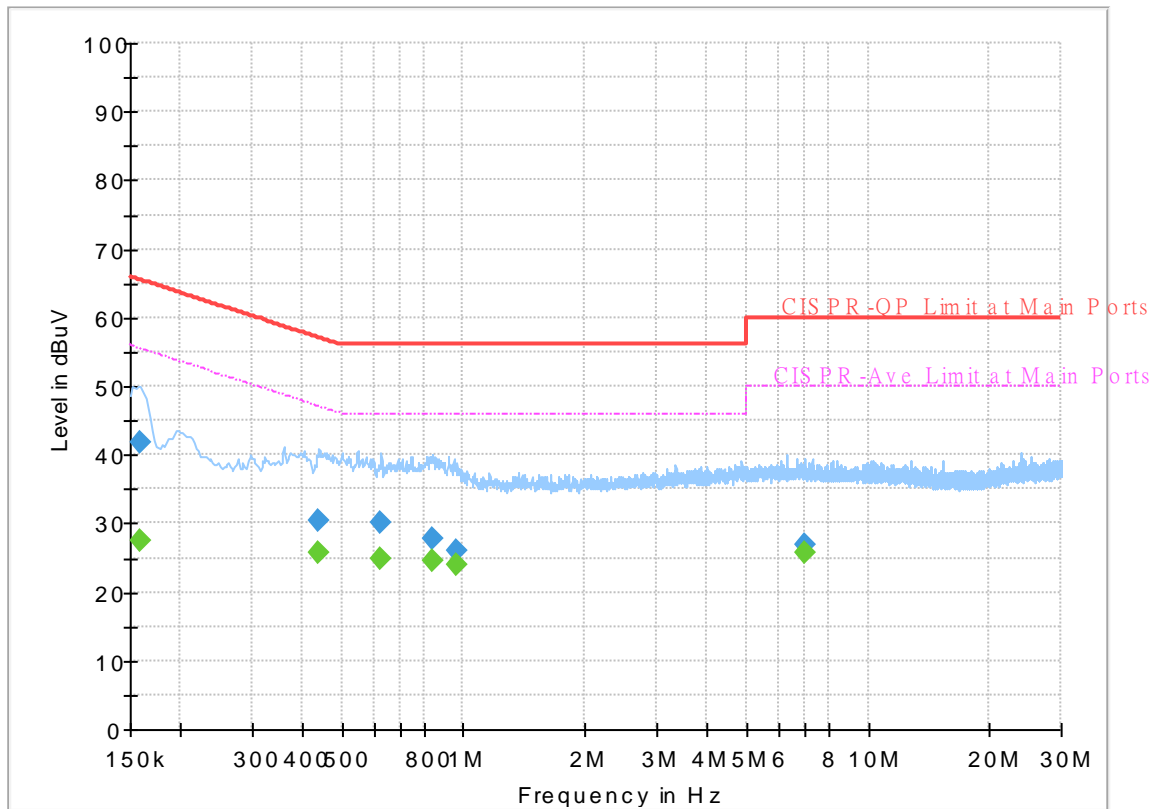
## Final\_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.168000	---	27.20	55.06	27.86	L1	OFF	19.7
0.168000	35.00	---	65.06	30.06	L1	OFF	19.7
0.492000	---	26.93	46.13	19.20	L1	OFF	19.8
0.492000	33.13	---	56.13	23.00	L1	OFF	19.8
0.611250	---	25.81	46.00	20.19	L1	OFF	19.9
0.611250	31.31	---	56.00	24.69	L1	OFF	19.9
0.939750	---	27.35	46.00	18.65	L1	OFF	20.2
0.939750	33.69	---	56.00	22.31	L1	OFF	20.2
0.991500	---	27.02	46.00	18.98	L1	OFF	20.2
0.991500	33.10	---	56.00	22.90	L1	OFF	20.2
6.279000	---	26.40	50.00	23.60	L1	OFF	20.0
6.279000	28.22	---	60.00	31.78	L1	OFF	20.0

# EUT Information

Report NO : 1O2008  
 Test Mode : Mode 1  
 Test Voltage : 120Vac/60Hz  
 Phase : Neutral

Full Spectrum



## Final\_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.159000	---	27.54	55.52	27.98	N	OFF	19.7
0.159000	41.68	---	65.52	23.84	N	OFF	19.7
0.440250	---	25.63	47.06	21.43	N	OFF	19.7
0.440250	30.51	---	57.06	26.55	N	OFF	19.7
0.624750	---	24.98	46.00	21.02	N	OFF	19.9
0.624750	30.14	---	56.00	25.86	N	OFF	19.9
0.836250	---	24.71	46.00	21.29	N	OFF	20.1
0.836250	27.80	---	56.00	28.20	N	OFF	20.1
0.964500	---	24.09	46.00	21.91	N	OFF	20.2
0.964500	26.12	---	56.00	29.88	N	OFF	20.2
6.994500	---	25.81	50.00	24.19	N	OFF	20.1
6.994500	27.02	---	60.00	32.98	N	OFF	20.1



### Appendix C. Radiated Spurious Emission

Test Engineer :	Leo Lee, Mancy Chou and Bigshow Wang	Temperature :	22.1~23.5°C
		Relative Humidity :	55~65%

<Ant. 4>  
<1Mbps>

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

BLE	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.	
		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )	
BLE CH 00 2402MHz		2358.195	49.5	-24.5	74	46.81	27.88	16.51	41.7	356	18	P	H	
		2357.46	39.14	-14.86	54	36.44	27.89	16.51	41.7	356	18	A	H	
	*	2402	104.5	-	-	101.83	27.79	16.58	41.7	356	18	P	H	
	*	2402	104.09	-	-	101.42	27.79	16.58	41.7	356	18	A	H	
													H	
			2371.32	49.35	-24.65	74	46.66	27.86	16.53	41.7	400	307	P	V
			2340.765	39.35	-14.65	54	36.65	27.92	16.48	41.7	400	307	A	V
	*		2402	100.31	-	-	97.64	27.79	16.58	41.7	400	307	P	V
	*		2402	99.66	-	-	96.99	27.79	16.58	41.7	400	307	A	V
													V	
BLE CH 19 2440MHz		2314.8	49.13	-24.87	74	46.42	27.97	16.44	41.7	341	31	P	H	
		2331.28	39.16	-14.84	54	36.45	27.94	16.47	41.7	341	31	A	H	
	*	2440	103.74	-	-	101.16	27.64	16.64	41.7	341	31	P	H	
	*	2440	103.13	-	-	100.55	27.64	16.64	41.7	341	31	A	H	
			2485.06	49.11	-24.89	74	46.5	27.6	16.71	41.7	341	31	P	H
			2484.79	39.06	-14.94	54	36.45	27.6	16.71	41.7	341	31	A	H
			2371.6	49.05	-24.95	74	46.36	27.86	16.53	41.7	349	304	P	V
			2338.32	39.17	-14.83	54	36.47	27.92	16.48	41.7	349	304	A	V
	*		2440	99.45	-	-	96.87	27.64	16.64	41.7	349	304	P	V
	*		2440	98.88	-	-	96.3	27.64	16.64	41.7	349	304	A	V
			2499.37	48.55	-25.45	74	45.92	27.6	16.73	41.7	349	304	P	V
			2488.39	39.18	-14.82	54	36.56	27.6	16.72	41.7	349	304	A	V



<b>BLE CH 39 2480MHz</b>	*	2480	102.5	-	-	99.9	27.6	16.7	41.7	306	24	P	H
	*	2480	102.02	-	-	99.42	27.6	16.7	41.7	306	24	A	H
		2499.64	49.11	-24.89	74	46.48	27.6	16.73	41.7	306	24	P	H
		2487.24	39.36	-14.64	54	36.74	27.6	16.72	41.7	306	24	A	H
													H
													H
	*	2480	99	-	-	96.4	27.6	16.7	41.7	360	360	P	V
	*	2480	99.12	-	-	96.52	27.6	16.7	41.7	360	360	A	V
		2491.16	48.77	-25.23	74	46.15	27.6	16.72	41.7	360	360	P	V
		2483.52	39.26	-14.74	54	36.65	27.6	16.71	41.7	360	360	A	V
													V
													V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz  
BLE (Harmonic @ 3m)

BLE	Note	Frequency ( MHz )	Level ( dBµV/m )	Over Limit ( dB )	Limit Line ( dBµV/m )	Read Level ( dBµV )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
BLE CH 00 2402MHz		4804	38.47	-35.53	74	55.81	31.38	10.13	58.85	-	-	P	H
													H
													H
													H
		4804	38.71	-35.29	74	56.05	31.38	10.13	58.85	-	-	P	V
													V
													V
BLE CH 19 2440MHz		4880	39.1	-34.9	74	56.48	31.32	10.21	58.91	-	-	P	H
		7320	44.28	-29.72	74	53.92	36.34	12.43	58.41	-	-	P	H
													H
													H
		4880	38.42	-35.58	74	55.8	31.32	10.21	58.91	-	-	P	V
		7320	45.03	-28.97	74	54.67	36.34	12.43	58.41	-	-	P	V
													V
BLE CH 39 2480MHz		4960	39.72	-34.28	74	56.98	31.44	10.28	58.98	-	-	P	H
		7440	45.55	-28.45	74	54.91	36.36	12.48	58.2	-	-	P	H
													H
													H
		4960	39.12	-34.88	74	56.38	31.44	10.28	58.98	-	-	P	V
		7440	44.69	-29.31	74	54.05	36.36	12.48	58.2	-	-	P	V
													V
Remark	<ol style="list-style-type: none"> <li>No other spurious found.</li> <li>All results are PASS against Peak and Average limit line.</li> <li>The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.</li> </ol>												



<2Mbps>

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

BLE	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.	
		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )	
BLE CH 00 2402MHz		2340.555	48.81	-25.19	74	46.11	27.92	16.48	41.7	250	310	P	H	
		2350.32	41.3	-12.7	54	38.6	27.9	16.5	41.7	250	310	A	H	
	*	2402	101.07	-	-	98.4	27.79	16.58	41.7	250	310	P	H	
	*	2402	97.31	-	-	94.64	27.79	16.58	41.7	250	310	A	H	
													H	
														H
			2349.06	49.26	-24.74	74	46.56	27.9	16.5	41.7	200	11	P	V
			2381.295	41.15	-12.85	54	38.46	27.84	16.55	41.7	200	11	A	V
	*		2402	96.21	-	-	93.54	27.79	16.58	41.7	200	11	P	V
	*		2402	97.85	-	-	95.18	27.79	16.58	41.7	200	11	A	V
														V
													V	
BLE CH 19 2440MHz		2355.36	49.69	-24.31	74	46.99	27.89	16.51	41.7	100	154	P	H	
		2378.04	40.91	-13.09	54	38.23	27.84	16.54	41.7	100	154	A	H	
	*	2440	102.77	-	-	100.19	27.64	16.64	41.7	100	154	P	H	
	*	2440	101.62	-	-	99.04	27.64	16.64	41.7	100	154	A	H	
			2495.31	48.58	-25.42	74	45.95	27.6	16.73	41.7	100	154	P	H
			2494.75	40.89	-13.11	54	38.26	27.6	16.73	41.7	100	154	A	H
			2386.86	48.9	-25.1	74	46.21	27.83	16.56	41.7	350	290	P	V
			2379.44	40.79	-13.21	54	38.1	27.84	16.55	41.7	350	290	A	V
	*		2440	100.16	-	-	97.58	27.64	16.64	41.7	350	290	P	V
	*		2440	98.94	-	-	96.36	27.64	16.64	41.7	350	290	A	V
			2496.5	48.02	-25.98	74	45.39	27.6	16.73	41.7	350	290	P	V
		2496.85	40.7	-13.3	54	38.07	27.6	16.73	41.7	350	290	A	V	



<b>BLE CH 39 2480MHz</b>	*	2480	102.45	-	-	99.85	27.6	16.7	41.7	100	153	P	H
	*	2480	101.09	-	-	98.49	27.6	16.7	41.7	100	153	A	H
		2483.56	49.31	-24.69	74	46.7	27.6	16.71	41.7	100	153	P	H
		2483.52	41.14	-12.86	54	38.53	27.6	16.71	41.7	100	153	A	H
													H
													H
	*	2480	99.71	-	-	97.11	27.6	16.7	41.7	350	288	P	V
	*	2480	95.15	-	-	92.55	27.6	16.7	41.7	350	288	A	V
		2484.76	48.89	-25.11	74	46.28	27.6	16.71	41.7	350	288	P	V
		2487.72	40.94	-13.06	54	38.32	27.6	16.72	41.7	350	288	A	V
													V
													V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz  
BLE (Harmonic @ 3m)

BLE	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
BLE CH 00 2402MHz		4804	38.49	-35.51	74	55.83	31.38	10.13	58.85	-	-	P	H
													H
													H
													H
		4804	38.45	-35.55	74	55.79	31.38	10.13	58.85	-	-	P	V
													V
													V
BLE CH 19 2440MHz		4880	39.71	-34.29	74	57.09	31.32	10.21	58.91	-	-	P	H
		7320	44.76	-29.24	74	54.4	36.34	12.43	58.41	-	-	P	H
													H
													H
		4880	39.47	-34.53	74	56.85	31.32	10.21	58.91	-	-	P	V
		7320	44.66	-29.34	74	54.3	36.34	12.43	58.41	-	-	P	V
													V
BLE CH 39 2480MHz		4960	39.32	-34.68	74	56.58	31.44	10.28	58.98	-	-	P	H
		7440	44.88	-29.12	74	54.24	36.36	12.48	58.2	-	-	P	H
													H
													H
		4960	38.75	-35.25	74	56.01	31.44	10.28	58.98	-	-	P	V
		7440	45.66	-28.34	74	55.02	36.36	12.48	58.2	-	-	P	V
													V
Remark	<ol style="list-style-type: none"> <li>No other spurious found.</li> <li>All results are PASS against Peak and Average limit line.</li> <li>The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.</li> </ol>												





Emission below 1GHz

2.4GHz BLE (LF)

BLE	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )	
2.4GHz BLE LF		30	22.64	-17.36	40	29.93	24.59	0.61	32.49	-	-	P	H	
		125.06	27.37	-16.13	43.5	40.94	17.44	1.53	32.54	-	-	P	H	
		185.2	21.98	-21.52	43.5	37.81	14.79	1.85	32.47	-	-	P	H	
		475.23	25.79	-20.21	46	31.83	23.54	2.92	32.5	-	-	P	H	
		623.64	26.97	-19.03	46	30.23	25.76	3.39	32.41	-	-	P	H	
		845.77	31.38	-14.62	46	30.43	28.87	3.98	31.9	-	-	P	H	
													H	
													H	
													H	
													H	
													H	
													H	
			41.64	30.67	-9.33	40	43.87	18.59	0.78	32.57	-	-	P	V
			123.12	18.25	-25.25	43.5	31.83	17.45	1.51	32.54	-	-	P	V
			212.36	18.47	-25.03	43.5	33.85	15.04	2.01	32.43	-	-	P	V
			347.19	20.74	-25.26	46	30.44	20.34	2.5	32.54	-	-	P	V
			564.47	26.54	-19.46	46	29.74	26.15	3.24	32.59	-	-	P	V
			713.85	29.36	-16.64	46	31.61	26.6	3.6	32.45	-	-	P	V
													V	
													V	
												V		
												V		
												V		
												V		

**Remark**

- No other spurious found.
- All results are PASS against Peak and Average limit line.
- The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.



**Note symbol**

*	<b>Fundamental Frequency</b> which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is <b>over limit</b> line.
P/A	<b>Peak</b> or <b>Average</b>
H/V	<b>Horizontal</b> or <b>Vertical</b>



A calculation example for radiated spurious emission is shown as below:

BLE	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
		( MHz )	( dBμV/m )	( dB )	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
					( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
BLE		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 00		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H
2402MHz													

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) =  
Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

**For Peak Limit @ 2390MHz:**

1. Level(dBμV/m)  
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)  
= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)  
= 55.45 (dBμV/m)
2. Over Limit(dB)  
= Level(dBμV/m) – Limit Line(dBμV/m)  
= 55.45(dBμV/m) – 74(dBμV/m)  
= -18.55(dB)

**For Average Limit @ 2390MHz:**

1. Level(dBμV/m)  
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)  
= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)  
= 43.54 (dBμV/m)
2. Over Limit(dB)  
= Level(dBμV/m) – Limit Line(dBμV/m)  
= 43.54(dBμV/m) – 54(dBμV/m)  
= -10.46(dB)

**Both peak and average measured complies with the limit line, so test result is “PASS”.**



<Ant. 5>  
<1Mbps>

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

BLE	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.	
		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )	
BLE CH 00 2402MHz		2341.92	48.65	-25.35	74	45.95	27.92	16.48	41.7	200	18	P	H	
		2368.065	39.17	-14.83	54	36.48	27.86	16.53	41.7	200	18	A	H	
	*	2402	102.65	-	-	99.98	27.79	16.58	41.7	200	18	P	H	
	*	2402	102.06	-	-	99.39	27.79	16.58	41.7	200	18	A	H	
													H	
													H	
			2321.13	48.66	-25.34	74	45.95	27.96	16.45	41.7	300	220	P	V
			2323.125	39.37	-14.63	54	36.67	27.95	16.45	41.7	300	220	A	V
	*		2402	90.91	-	-	88.24	27.79	16.58	41.7	300	220	P	V
	*		2402	90.39	-	-	87.72	27.79	16.58	41.7	300	220	A	V
													V	
													V	
BLE CH 19 2440MHz		2371.12	49.03	-24.97	74	46.34	27.86	16.53	41.7	198	15	P	H	
		2378.64	39.33	-14.67	54	36.65	27.84	16.54	41.7	198	15	A	H	
	*	2440	101.51	-	-	98.93	27.64	16.64	41.7	198	15	P	H	
	*	2440	99.16	-	-	96.58	27.64	16.64	41.7	198	15	A	H	
			2484.25	48.21	-25.79	74	45.6	27.6	16.71	41.7	198	15	P	H
			2485.15	39.23	-14.77	54	36.62	27.6	16.71	41.7	198	15	A	H
			2346.8	48.74	-25.26	74	46.04	27.91	16.49	41.7	302	219	P	V
			2349.52	39.32	-14.68	54	36.62	27.9	16.5	41.7	302	219	A	V
	*		2440	91.7	-	-	89.12	27.64	16.64	41.7	302	219	P	V
	*		2440	91.13	-	-	88.55	27.64	16.64	41.7	302	219	A	V
			2486.23	48.31	-25.69	74	45.7	27.6	16.71	41.7	302	219	P	V
			2494.42	39.32	-14.68	54	36.69	27.6	16.73	41.7	302	219	A	V



<b>BLE CH 39 2480MHz</b>	*	2480	101.21	-	-	98.61	27.6	16.7	41.7	200	11	P	H
	*	2480	100.73	-	-	98.13	27.6	16.7	41.7	200	11	A	H
		2487.56	49.33	-24.67	74	46.71	27.6	16.72	41.7	200	11	P	H
		2484.8	39.43	-14.57	54	36.82	27.6	16.71	41.7	200	11	A	H
													H
													H
	*	2480	92.12	-	-	89.52	27.6	16.7	41.7	300	214	P	V
	*	2480	87.59	-	-	84.99	27.6	16.7	41.7	300	214	A	V
		2492.52	48.53	-25.47	74	45.91	27.6	16.72	41.7	300	214	P	V
		2497.48	39.18	-14.82	54	36.55	27.6	16.73	41.7	300	214	A	V
													V
													V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz  
BLE (Harmonic @ 3m)

BLE	Note	Frequency ( MHz )	Level ( dBµV/m )	Over Limit ( dB )	Limit Line ( dBµV/m )	Read Level ( dBµV )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
BLE CH 00 2402MHz		4804	38.77	-35.23	74	56.11	31.38	10.13	58.85	-	-	P	H
													H
													H
													H
		4804	38.69	-35.31	74	56.03	31.38	10.13	58.85	-	-	P	V
													V
													V
BLE CH 19 2440MHz		4880	39.81	-34.19	74	57.19	31.32	10.21	58.91	-	-	P	H
		7320	45.26	-28.74	74	54.9	36.34	12.43	58.41	-	-	P	H
													H
													H
		4880	38.66	-35.34	74	56.04	31.32	10.21	58.91	-	-	P	V
		7320	44.85	-29.15	74	54.49	36.34	12.43	58.41	-	-	P	V
													V
BLE CH 39 2480MHz		4960	39.32	-34.68	74	56.58	31.44	10.28	58.98	-	-	P	H
		7440	45.76	-28.24	74	55.12	36.36	12.48	58.2	-	-	P	H
													H
													H
		4960	39.27	-34.73	74	56.53	31.44	10.28	58.98	-	-	P	V
		7440	45.4	-28.6	74	54.76	36.36	12.48	58.2	-	-	P	V
													V
Remark	<ol style="list-style-type: none"> <li>No other spurious found.</li> <li>All results are PASS against Peak and Average limit line.</li> <li>The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.</li> </ol>												



<2Mbps>

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

BLE	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.	
		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )	
BLE CH 00 2402MHz		2376.045	48.77	-25.23	74	46.08	27.85	16.54	41.7	299	345	P	H	
		2311.155	40.58	-13.42	54	37.87	27.98	16.43	41.7	299	345	A	H	
	*	2402	105.31	-	-	102.64	27.79	16.58	41.7	299	345	P	H	
	*	2402	104.23	-	-	101.56	27.79	16.58	41.7	299	345	A	H	
													H	
														H
			2384.655	49.13	-24.87	74	46.45	27.83	16.55	41.7	340	320	P	V
			2346.855	40.96	-13.04	54	38.26	27.91	16.49	41.7	340	320	A	V
	*		2402	101.22	-	-	98.55	27.79	16.58	41.7	340	320	P	V
	*		2402	97.88	-	-	95.21	27.79	16.58	41.7	340	320	A	V
														V
													V	
BLE CH 19 2440MHz		2375.38	48.81	-25.19	74	46.12	27.85	16.54	41.7	217	258	P	H	
		2310.28	40.93	-13.07	54	38.22	27.98	16.43	41.7	217	258	A	H	
	*	2440	101.31	-	-	98.73	27.64	16.64	41.7	217	258	P	H	
	*	2440	99.88	-	-	97.3	27.64	16.64	41.7	217	258	A	H	
			2495.45	47.91	-26.09	74	45.28	27.6	16.73	41.7	217	258	P	H
			2498.39	41.03	-12.97	54	38.4	27.6	16.73	41.7	217	258	A	H
			2342.62	48.61	-25.39	74	45.91	27.91	16.49	41.7	200	228	P	V
			2387.7	41.13	-12.87	54	38.45	27.82	16.56	41.7	200	228	A	V
	*		2440	101.24	-	-	98.66	27.64	16.64	41.7	200	228	P	V
	*		2440	99.96	-	-	97.38	27.64	16.64	41.7	200	228	A	V
			2484.74	47.61	-26.39	74	45	27.6	16.71	41.7	200	228	P	V
		2496.5	40.7	-13.3	54	38.07	27.6	16.73	41.7	200	228	A	V	



<b>BLE CH 39 2480MHz</b>	*	2480	103.02	-	-	100.42	27.6	16.7	41.7	295	344	P	H
	*	2480	101.77	-	-	99.17	27.6	16.7	41.7	295	344	A	H
		2483.8	49.97	-24.03	74	47.36	27.6	16.71	41.7	295	344	P	H
		2483.6	41.35	-12.65	54	38.74	27.6	16.71	41.7	295	344	A	H
													H
													H
	*	2480	99.09	-	-	96.49	27.6	16.7	41.7	400	319	P	V
	*	2480	97.19	-	-	94.59	27.6	16.7	41.7	400	319	A	V
		2487.48	48.68	-25.32	74	46.06	27.6	16.72	41.7	400	319	P	V
		2496.52	40.58	-13.42	54	37.95	27.6	16.73	41.7	400	319	A	V
													V
													V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





2.4GHz 2400~2483.5MHz  
BLE (Harmonic @ 3m)

BLE	Note	Frequency ( MHz )	Level ( dBµV/m )	Over Limit ( dB )	Limit Line ( dBµV/m )	Read Level ( dBµV )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
BLE CH 00 2402MHz		4804	38.9	-35.1	74	56.24	31.38	10.13	58.85	-	-	P	H
													H
													H
													H
		4804	39.34	-34.66	74	56.68	31.38	10.13	58.85	-	-	P	V
													V
													V
BLE CH 19 2440MHz		4880	39.41	-34.59	74	56.79	31.32	10.21	58.91	-	-	P	H
		7320	44.67	-29.33	74	54.31	36.34	12.43	58.41	-	-	P	H
													H
													H
		4880	38.92	-35.08	74	56.3	31.32	10.21	58.91	-	-	P	V
		7320	44.51	-29.49	74	54.15	36.34	12.43	58.41	-	-	P	V
													V
BLE CH 39 2480MHz		4960	39.67	-34.33	74	56.93	31.44	10.28	58.98	-	-	P	H
		7440	45.2	-28.8	74	54.56	36.36	12.48	58.2	-	-	P	H
													H
													H
		4960	39.26	-34.74	74	56.52	31.44	10.28	58.98	-	-	P	V
		7440	45.31	-28.69	74	54.67	36.36	12.48	58.2	-	-	P	V
													V
Remark	<ol style="list-style-type: none"> <li>No other spurious found.</li> <li>All results are PASS against Peak and Average limit line.</li> <li>The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.</li> </ol>												





**Note symbol**

*	<b>Fundamental Frequency</b> which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is <b>over limit</b> line.
P/A	<b>Peak</b> or <b>Average</b>
H/V	<b>Horizontal</b> or <b>Vertical</b>



A calculation example for radiated spurious emission is shown as below:

BLE	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
BLE CH 00 2402MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) =  
Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

**For Peak Limit @ 2390MHz:**

1. Level(dBμV/m)  
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)  
= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)  
= 55.45 (dBμV/m)
2. Over Limit(dB)  
= Level(dBμV/m) – Limit Line(dBμV/m)  
= 55.45(dBμV/m) – 74(dBμV/m)  
= -18.55(dB)

**For Average Limit @ 2390MHz:**

1. Level(dBμV/m)  
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)  
= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)  
= 43.54 (dBμV/m)
2. Over Limit(dB)  
= Level(dBμV/m) – Limit Line(dBμV/m)  
= 43.54(dBμV/m) – 54(dBμV/m)  
= -10.46(dB)

**Both peak and average measured complies with the limit line, so test result is “PASS”.**



## Appendix D. Radiated Spurious Emission Plots

Test Engineer :	Leo Lee, Mancy Chou and Bigshow Wang	Temperature :	22.1~23.5°C
		Relative Humidity :	55~65%

### Note symbol

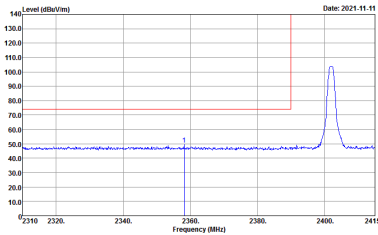
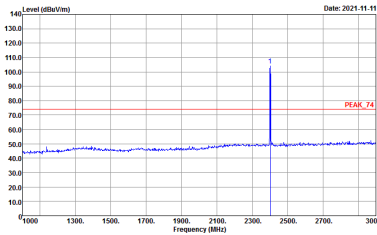
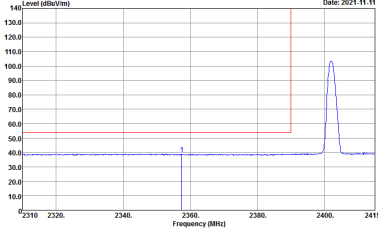
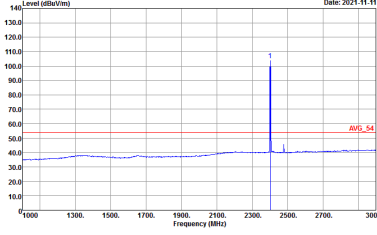
-L	Low channel location
-R	High channel location



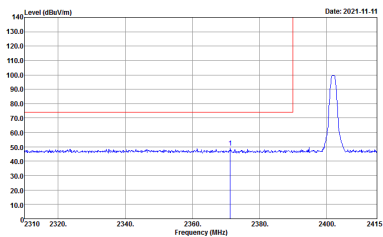
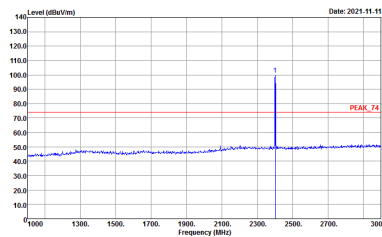
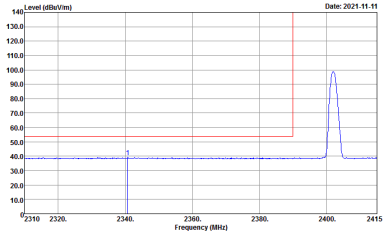
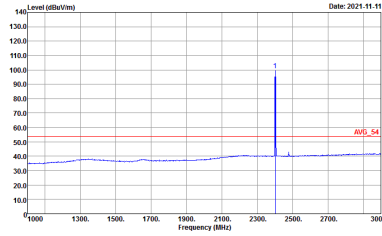
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<1Mbps>

2.4GHz 2400~2483.5MHz

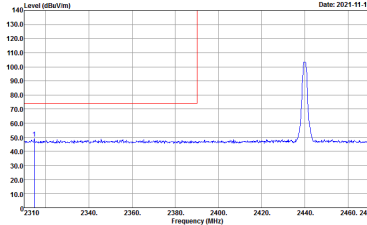
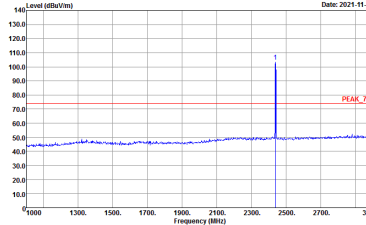
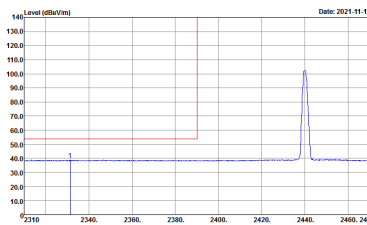
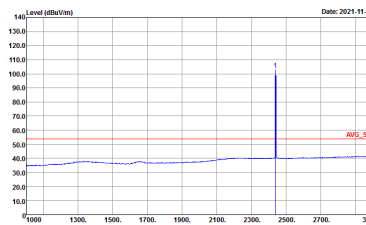
BLE (Band Edge @ 3m)

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH00 2402MHz	
	Horizontal	Fundamental
Peak	 <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 91200_1620_20211025 HORIZONTAL Detector : Peak Project : 102008</p>	 <p>Site : 03CH15-HY Condition : PEAK_74 3m 91200_1620_20211025 HORIZONTAL Detector : Peak Project : 102008</p>
Avg.	 <p>Site : 03CH15-HY Condition : AV6_BE_54 3m 91200_1620_20211025 HORIZONTAL Detector : Peak Project : 102008</p>	 <p>Site : 03CH15-HY Condition : AV6_54 3m 91200_1620_20211025 HORIZONTAL Detector : Peak Project : 102008</p>



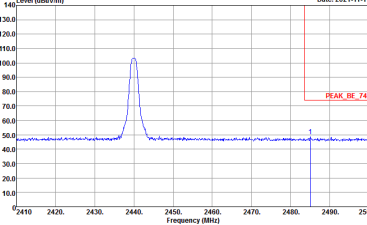
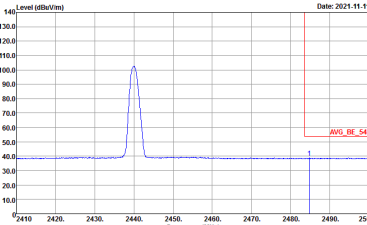
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
BLE CH00 2402MHz		
Vertical		Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 VERTICAL            Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Project : 1O2008</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL            Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Project : 1O2008</p>
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_1620_20211025 VERTICAL            Detector : RBW:1000.000KHz VBW:3.000KHz SWT:Auto            Project : 1O2008</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_1620_20211025 VERTICAL            Detector : RBW:1000.000KHz VBW:3.000KHz SWT:Auto            Project : 1O2008</p>



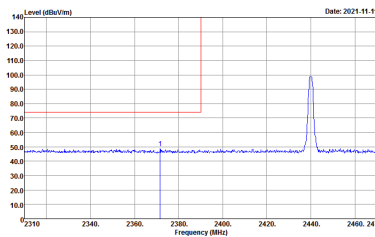
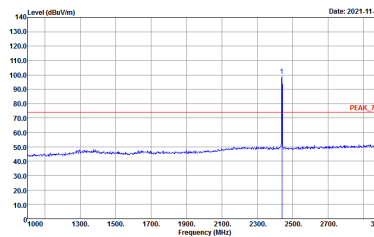
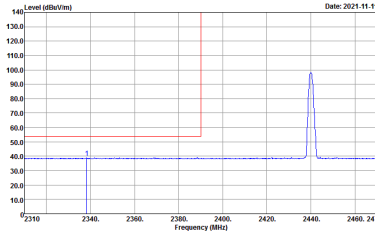
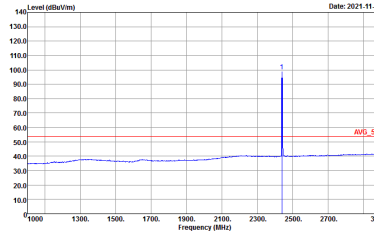
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
BLE CH19 2440MHz - L		
Horizontal		Fundamental
Peak	 <p>Level (dBm/1m) vs Frequency (MHz) plot showing a peak at 2440 MHz. The y-axis ranges from 10.0 to 140.0 dBm/1m, and the x-axis ranges from 2310 to 2470 MHz. A red vertical line marks the peak at 2440 MHz.</p> <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : IO2008</p>	 <p>Level (dBm/1m) vs Frequency (MHz) plot showing a peak at 2440 MHz. The y-axis ranges from 10.0 to 140.0 dBm/1m, and the x-axis ranges from 1000 to 3000 MHz. A red vertical line marks the peak at 2440 MHz.</p> <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_1620_20211025 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : IO2008</p>
Avg.	 <p>Level (dBm/1m) vs Frequency (MHz) plot showing an average spectrum. The y-axis ranges from 10.0 to 140.0 dBm/1m, and the x-axis ranges from 2310 to 2470 MHz. A red vertical line marks the peak at 2440 MHz.</p> <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_1620_20211025 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : IO2008</p>	 <p>Level (dBm/1m) vs Frequency (MHz) plot showing an average spectrum. The y-axis ranges from 10.0 to 140.0 dBm/1m, and the x-axis ranges from 1000 to 3000 MHz. A red vertical line marks the peak at 2440 MHz.</p> <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_1620_20211025 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : IO2008</p>



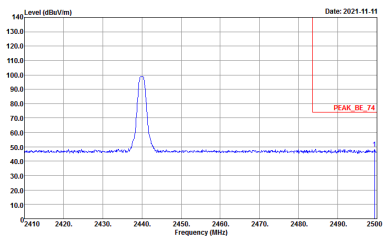
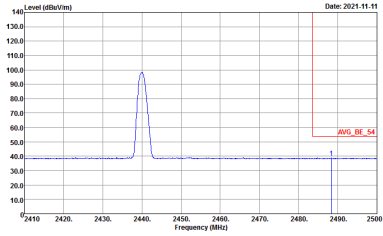


BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - R	
	Horizontal	Fundamental
<b>Peak</b>	 <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 91200_1620_20211025 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 1O2008</p>	Left blank
<b>Avg.</b>	 <p>Site : 03CH15-HY Condition : AVG_BE_54 3m 91200_1620_20211025 HORIZONTAL Detector : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Project : 1O2008</p>	Left blank

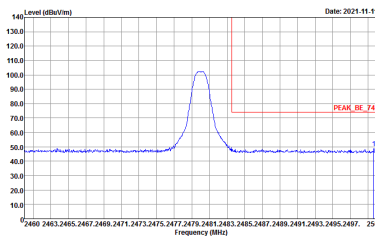
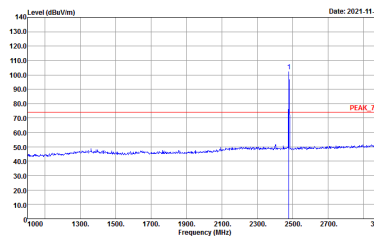
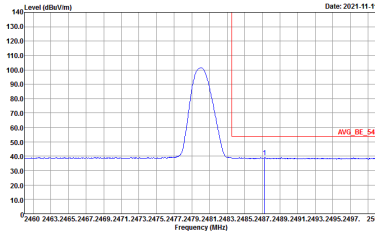
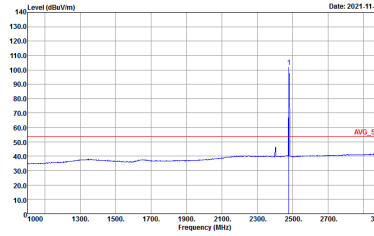


BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
BLE CH19 2440MHz - L		
Vertical		Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 VERTICAL            Detector : Peak            Project : 1O2008</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL            Detector : Peak            Project : 1O2008</p>
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_1620_20211025 VERTICAL            Detector : Peak            Project : 1O2008</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_1620_20211025 VERTICAL            Detector : Peak            Project : 1O2008</p>

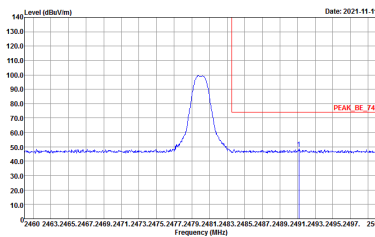
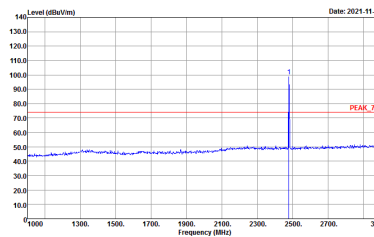
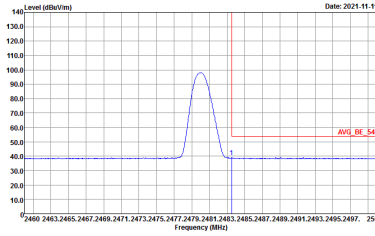
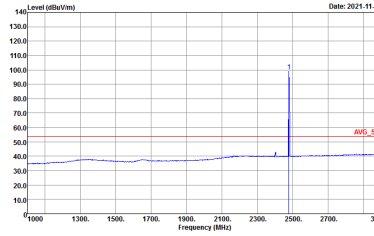


BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
BLE CH19 2440MHz - R		
Vertical		Fundamental
<p><b>Peak</b></p>	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 VERTICAL            Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Project : 1O2008</p>	<p>Left blank</p>
<p><b>Avg.</b></p>	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_1620_20211025 VERTICAL            Detector : RBW:1000.000KHz VBW:3.000KHz SWT:Auto            Project : 1O2008</p>	<p>Left blank</p>



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH39 2480MHz	
	Horizontal	Fundamental
Peak	 <p>Date: 2021.11.11</p> <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 1O2008</p>	 <p>Date: 2021.11.11</p> <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_1620_20211025 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 1O2008</p>
Avg.	 <p>Date: 2021.11.11</p> <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_1620_20211025 HORIZONTAL            RBW:1000.000KHz VBW:3.000KHz SWT:Auto            Detector : Peak            Project : 1O2008</p>	 <p>Date: 2021.11.11</p> <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_1620_20211025 HORIZONTAL            RBW:1000.000KHz VBW:3.000KHz SWT:Auto            Detector : Peak            Project : 1O2008</p>



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
BLE CH39 2480MHz		
Vertical		Fundamental
Peak	 <p>Level (dBm/1m) vs Frequency (MHz) plot showing a peak at 2480 MHz. The peak level is approximately 100 dBm/1m. The plot includes a red horizontal line labeled 'PEAK_BE_74' at the peak level.</p> <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 VERTICAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 1O2008</p>	 <p>Level (dBm/1m) vs Frequency (MHz) plot showing a sharp peak at 2480 MHz. The peak level is approximately 100 dBm/1m. The plot includes a red horizontal line labeled 'PEAK_74' at the peak level.</p> <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 1O2008</p>
Avg.	 <p>Level (dBm/1m) vs Frequency (MHz) plot showing an average spectrum with a peak at 2480 MHz. The peak level is approximately 100 dBm/1m. The plot includes a red horizontal line labeled 'AVG_BE_54' at the peak level.</p> <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_1620_20211025 VERTICAL            RBW:1000.000KHz VBW:3.000KHz SWT:Auto            Detector : Peak            Project : 1O2008</p>	 <p>Level (dBm/1m) vs Frequency (MHz) plot showing an average spectrum with a sharp peak at 2480 MHz. The peak level is approximately 100 dBm/1m. The plot includes a red horizontal line labeled 'AVG_54' at the peak level.</p> <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_1620_20211025 VERTICAL            RBW:1000.000KHz VBW:3.000KHz SWT:Auto            Detector : Peak            Project : 1O2008</p>



2.4GHz 2400~2483.5MHz

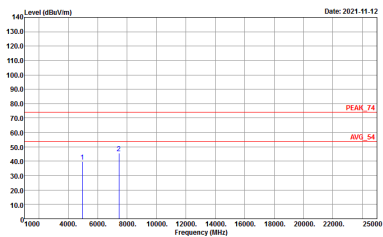
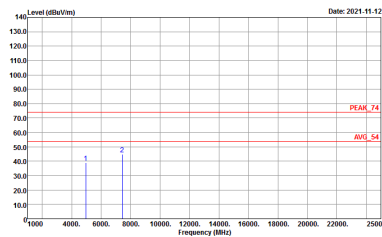
BLE (Harmonic @ 3m)

BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE CH00 2402MHz	
	Horizontal	Vertical
<p><b>Peak</b></p> <p><b>Avg.</b></p>	<p>Site : 03CH15-11Y            Condition : PEAK_74 3m 91200_1620_20211025 HORIZONTAL            Detector : Peak            Project : 1O2008</p>	<p>Site : 03CH15-11Y            Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL            Detector : Peak            Project : 1O2008</p>



BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE CH19 2440MHz	
	Horizontal	Vertical
<p><b>Peak</b></p> <p><b>Avg.</b></p>	<p>Site : 03CH15-11Y Condition : PEAK_74 3m 91200_1620_20211025 HORIZONTAL Detector : Peak Project : 1O2008</p>	<p>Site : 03CH15-11Y Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL Detector : Peak Project : 1O2008</p>



BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE CH39 2480MHz	
	Horizontal	Vertical
<b>Peak</b>	 <p>Site : 03CH15-11Y Condition : PEAK_74 3m 91200_1620_20211025 HORIZONTAL Detector : Peak Project : 1O2008</p>	 <p>Site : 03CH15-11Y Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL Detector : Peak Project : 1O2008</p>





<2Mbps>

2.4GHz 2400~2483.5MHz

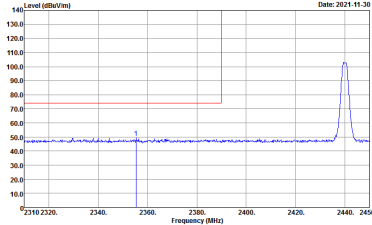
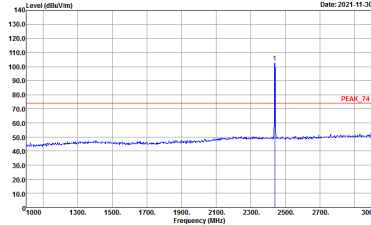
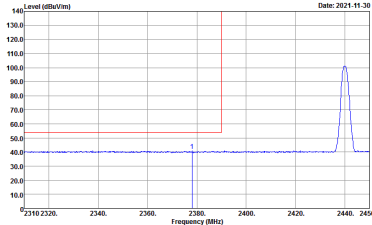
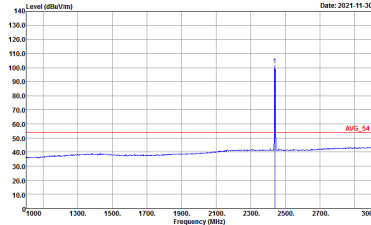
BLE (Band Edge @ 3m)

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH00 2402MHz	
	Horizontal	Fundamental
Peak	<p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 HORIZONTAL            Detector : Peak            Project : 1O2008</p>	<p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_1620_20211025 HORIZONTAL            Detector : Peak            Project : 1O2008</p>
Avg.	<p>Site : 03CH15-HY            Condition : AV6_BE_54 3m 91200_1620_20211025 HORIZONTAL            Detector : Peak            Project : 1O2008</p>	<p>Site : 03CH15-HY            Condition : AV6_54 3m 91200_1620_20211025 HORIZONTAL            Detector : Peak            Project : 1O2008</p>

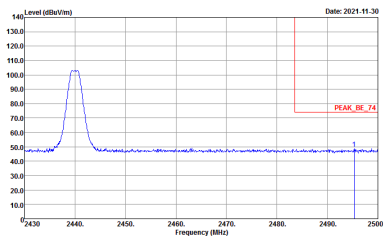
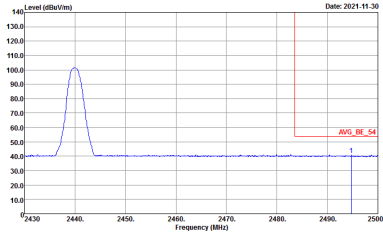


BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH00 2402MHz	
	Vertical	Fundamental
<p><b>Peak</b></p>	<p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 VERTICAL            Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Project : 102008</p>	<p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL            Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Project : Peak            Project : 102008</p>
<p><b>Avg.</b></p>	<p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_1620_20211025 VERTICAL            Detector : RBW:1000.000KHz VBW:10.000KHz SWT:Auto            Project : Peak            Project : 102008</p>	<p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_1620_20211025 VERTICAL            Detector : RBW:1000.000KHz VBW:10.000KHz SWT:Auto            Project : Peak            Project : 102008</p>

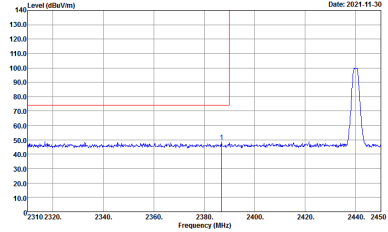
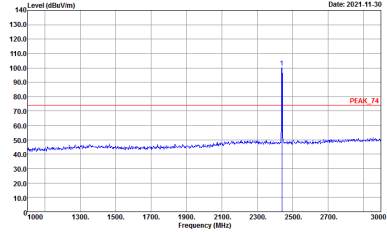
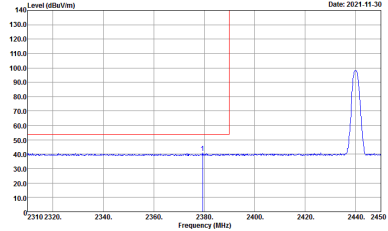
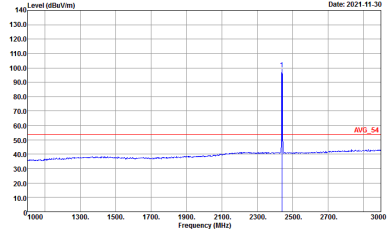


BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
BLE CH19 2440MHz - L		
Horizontal		Fundamental
Peak	 <p>Date: 2021-11-30</p> <p>Site : 03CH15-11Y            Condition : PEAK_BE_74 3m 91200_1620_20211025 HORIZONTAL            : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 102008</p>	 <p>Date: 2021-11-30</p> <p>Site : 03CH15-11Y            Condition : PEAK_74 3m 91200_1620_20211025 HORIZONTAL            : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 102008</p>
Avg.	 <p>Date: 2021-11-30</p> <p>Site : 03CH15-11Y            Condition : AVG_BE_54 3m 91200_1620_20211025 HORIZONTAL            : RBW:1000.000KHz VBW:10.000KHz SWT:Auto            Detector : Peak            Project : 102008</p>	 <p>Date: 2021-11-30</p> <p>Site : 03CH15-11Y            Condition : AVG_54 3m 91200_1620_20211025 HORIZONTAL            : RBW:1000.000KHz VBW:10.000KHz SWT:Auto            Detector : Peak            Project : 102008</p>

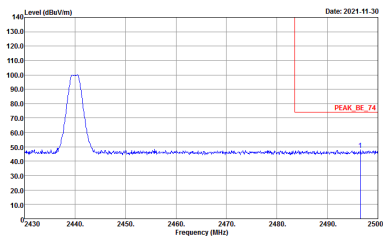
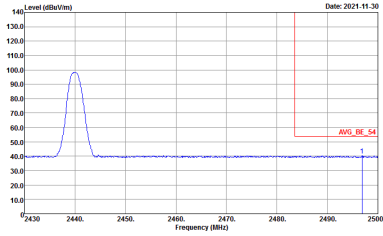


BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - R	
	Horizontal	Fundamental
<p><b>Peak</b></p>	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 HORIZONTAL            Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Project : 102008</p>	<p>Left blank</p>
<p><b>Avg.</b></p>	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_1620_20211025 HORIZONTAL            Detector : RBW:1000.000KHz VBW:30.000KHz SWT:Auto            Project : 102008</p>	<p>Left blank</p>

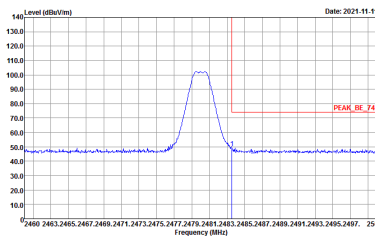
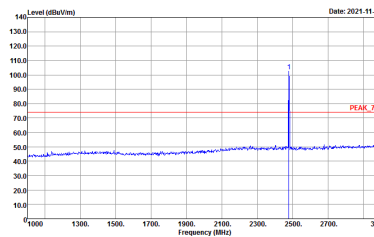
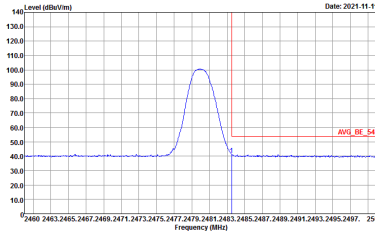
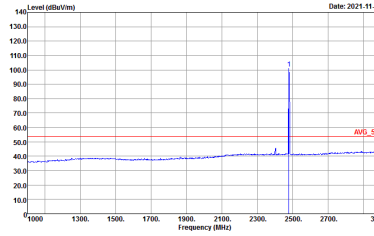


BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - L	
	Vertical	Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 VERTICAL            Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Project : 102008</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL            Detector : Peak            Project : 102008</p>
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_1620_20211025 VERTICAL            Detector : Peak            Project : 102008</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_1620_20211025 VERTICAL            Detector : Peak            Project : 102008</p>

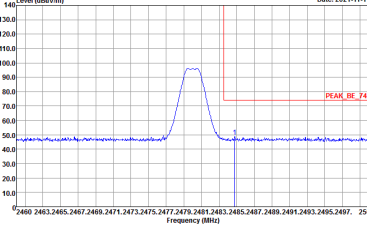
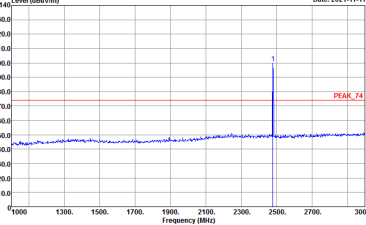
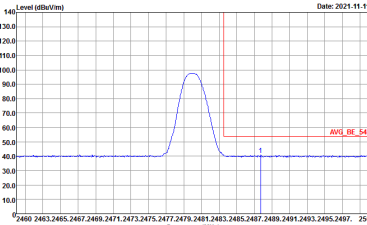
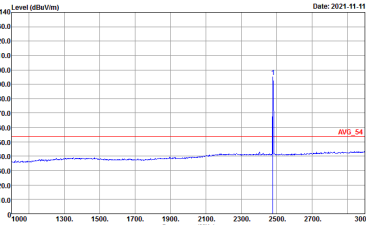


BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
BLE CH19 2440MHz - R		
Vertical		Fundamental
<p><b>Peak</b></p>	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 VERTICAL            Detector : Peak            Project : 1O2008</p>	<p>Left blank</p>
<p><b>Avg.</b></p>	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_1620_20211025 VERTICAL            Detector : Peak            Project : 1O2008</p>	<p>Left blank</p>



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH39 2480MHz	
	Horizontal	Fundamental
<p><b>Peak</b></p>	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 HORIZONTAL            Detector : Peak            Project : 1O2008</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_1620_20211025 HORIZONTAL            Detector : Peak            Project : 1O2008</p>
<p><b>Avg.</b></p>	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_1620_20211025 HORIZONTAL            Detector : Peak            Project : 1O2008</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_1620_20211025 HORIZONTAL            Detector : Peak            Project : 1O2008</p>



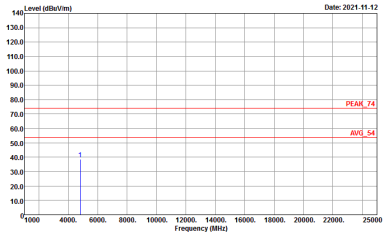
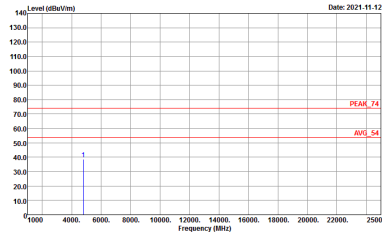
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
BLE CH39 2480MHz		
Vertical		Fundamental
Peak	 <p>Level (dBm/1m) vs Frequency (MHz) plot showing a peak at 2480 MHz. The peak level is approximately 100 dBm/1m. A red line indicates the peak level at 100.0 dBm/1m.</p> <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 VERTICAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 1O2008</p>	 <p>Level (dBm/1m) vs Frequency (MHz) plot showing a sharp peak at 2480 MHz. The peak level is approximately 100 dBm/1m. A red line indicates the peak level at 100.0 dBm/1m.</p> <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 1O2008</p>
Avg.	 <p>Level (dBm/1m) vs Frequency (MHz) plot showing an average spectrum with a peak at 2480 MHz. The peak level is approximately 95 dBm/1m. A red line indicates the average level at 95.0 dBm/1m.</p> <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_1620_20211025 VERTICAL            RBW:1000.000KHz VBW:10.000KHz SWT:Auto            Detector : Peak            Project : 1O2008</p>	 <p>Level (dBm/1m) vs Frequency (MHz) plot showing an average spectrum with a sharp peak at 2480 MHz. The peak level is approximately 95 dBm/1m. A red line indicates the average level at 95.0 dBm/1m.</p> <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_1620_20211025 VERTICAL            RBW:1000.000KHz VBW:10.000KHz SWT:Auto            Detector : Peak            Project : 1O2008</p>



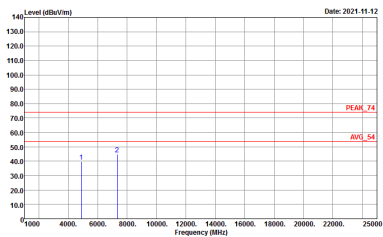
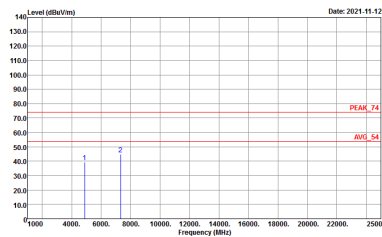


2.4GHz 2400~2483.5MHz

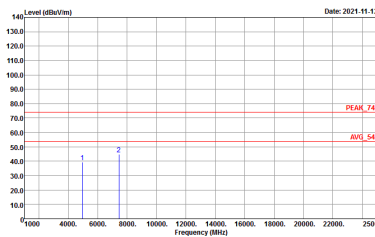
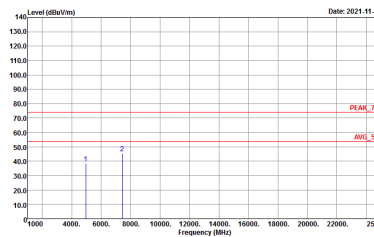
BLE (Harmonic @ 3m)

BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE CH00 2402MHz	
	Horizontal	Vertical
<b>Peak</b>  <b>Avg.</b>	 <p>Site : 03CH15-11Y  Condition : PEAK_74 3m 91200_1620_20211025 HORIZONTAL  Detector : Peak  Project : 1O2008</p>	 <p>Site : 03CH15-11Y  Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL  Detector : Peak  Project : 1O2008</p>



BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE CH19 2440MHz	
	Horizontal	Vertical
<p><b>Peak</b></p> <p><b>Avg.</b></p>	 <p>Site : 03CH15-11Y Condition : PEAK_74 3m 91200_1620_20211025 HORIZONTAL Detector : Peak Project : 1O2008</p>	 <p>Site : 03CH15-11Y Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL Detector : Peak Project : 1O2008</p>

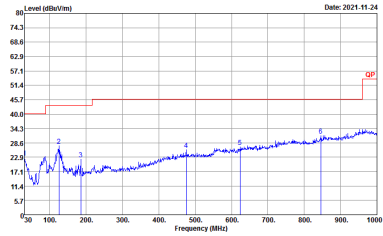
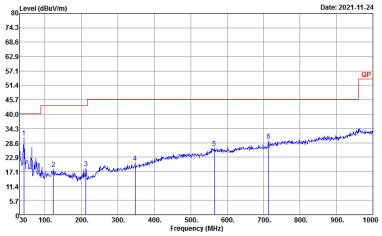


BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE CH39 2480MHz	
	Horizontal	Vertical
<b>Peak</b>	 <p>Site : 03CH15-11Y Condition : PEAK_74 3m 91200_1620_20211025 HORIZONTAL Detector : Peak Project : 1O2008</p>	 <p>Site : 03CH15-11Y Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL Detector : Peak Project : 1O2008</p>



Emission below 1GHz

2.4GHz BLE (LF)

BLE	2.4GHz 2400~2483.5MHz	
BLE LF		
Horizontal		Vertical
<p>QP / Peak</p>	 <p>Site : 03CH15-HY            Condition : QP 3m BIL06_41912_20210208 HORIZONTAL            Detector : Peak            Project : 1O2008</p>	 <p>Site : 03CH15-HY            Condition : QP 3m BIL06_41912_20210208 VERTICAL            Detector : Peak            Project : 1O2008</p>



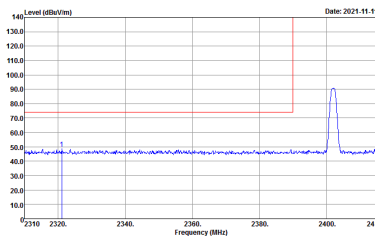
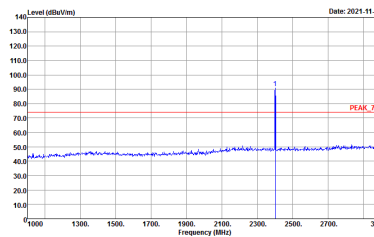
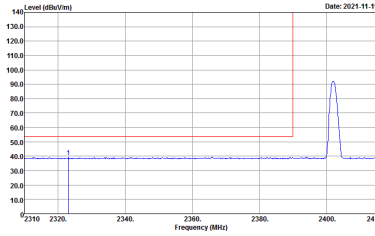
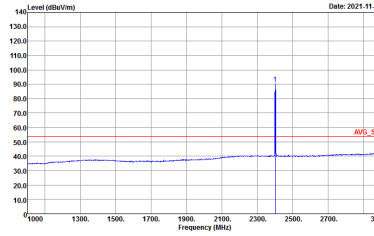
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2.4GHz 2400~2483.5MHz

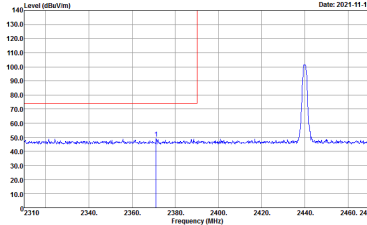
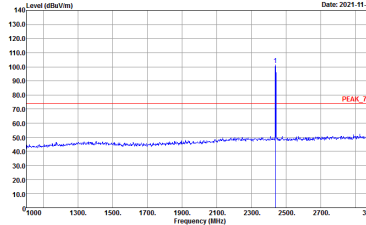
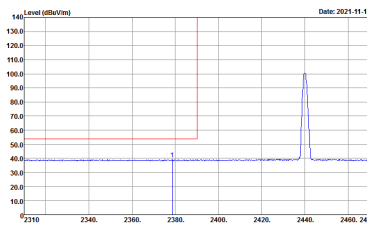
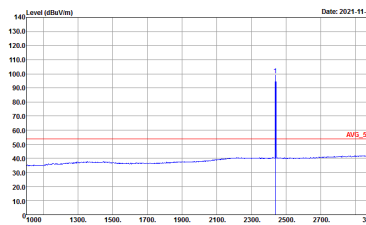
BLE (Band Edge @ 3m)

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH00 2402MHz	
	Horizontal	Fundamental
Peak	<p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 91200_1620_20211025 HORIZONTAL Detector : Peak Project : 102008</p>	<p>Site : 03CH15-HY Condition : PEAK_74 3m 91200_1620_20211025 HORIZONTAL Detector : Peak Project : 102008</p>
Avg.	<p>Site : 03CH15-HY Condition : AV6_BE_54 3m 91200_1620_20211025 HORIZONTAL Detector : Peak Project : 102008</p>	<p>Site : 03CH15-HY Condition : AV6_54 3m 91200_1620_20211025 HORIZONTAL Detector : Peak Project : 102008</p>

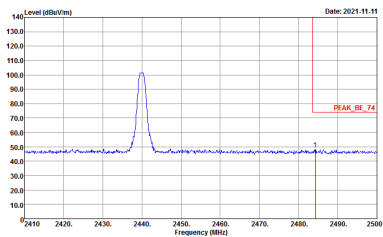
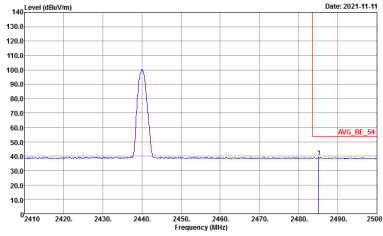


BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
BLE CH00 2402MHz		
Vertical		Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 VERTICAL            Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Project : 102008</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL            Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Project : 102008</p>
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_1620_20211025 VERTICAL            Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Project : 102008</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_1620_20211025 VERTICAL            Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Project : 102008</p>



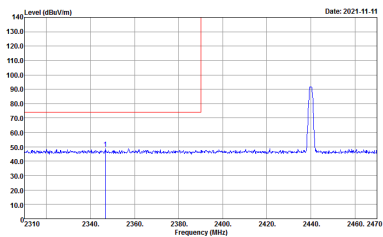
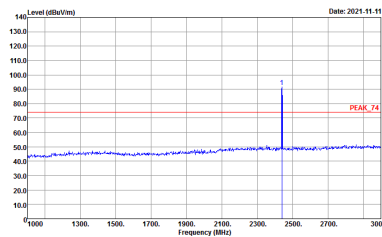
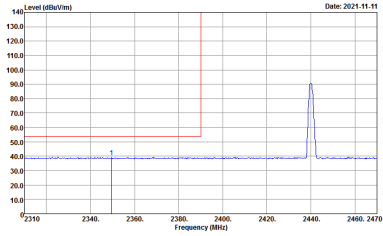
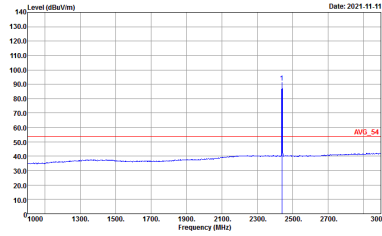
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
BLE CH19 2440MHz - L		
Horizontal		Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 HORIZONTAL            Detector : Peak            Project : IO2008</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_1620_20211025 HORIZONTAL            Detector : Peak            Project : IO2008</p>
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_1620_20211025 HORIZONTAL            Detector : Peak            Project : IO2008</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_1620_20211025 HORIZONTAL            Detector : Peak            Project : IO2008</p>



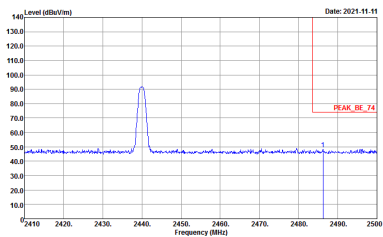
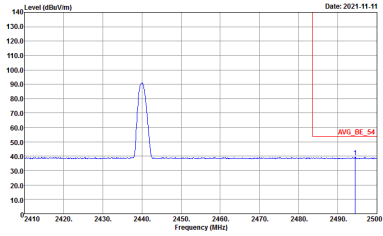
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - R	
	Horizontal	Fundamental
<b>Peak</b>	 <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 91200_1620_20211025 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 1O2008</p>	Left blank
<b>Avg.</b>	 <p>Site : 03CH15-HY Condition : AVG_BE_54 3m 91200_1620_20211025 HORIZONTAL Detector : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Project : 1O2008</p>	Left blank



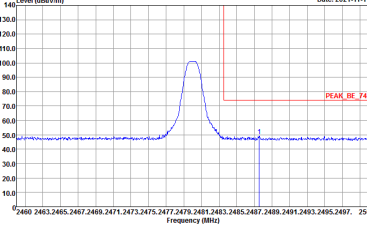
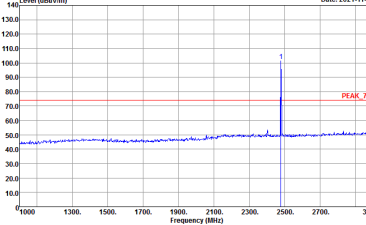
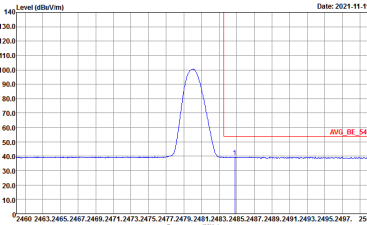
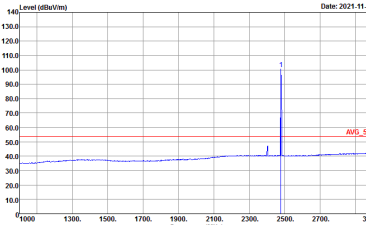


BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
BLE CH19 2440MHz - L		
Vertical		Fundamental
Peak	 <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 VERTICAL            Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Project : 1O2008</p>	 <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL            Detector : Peak            Project : 1O2008</p>
Avg.	 <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_1620_20211025 VERTICAL            Detector : Peak            Project : 1O2008</p>	 <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_1620_20211025 VERTICAL            Detector : Peak            Project : 1O2008</p>



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
BLE CH19 2440MHz - R		
	Vertical	Fundamental
<b>Peak</b>	 <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 91200_1620_20211025 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 1O2008</p>	Left blank
<b>Avg.</b>	 <p>Site : 03CH15-HY Condition : AVG_BE_54 3m 91200_1620_20211025 VERTICAL Detector : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Project : 1O2008</p>	Left blank



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
BLE CH39 2480MHz		
Horizontal		Fundamental
Peak	 <p>Level (dBm/100kHz) vs Frequency (MHz) plot showing a peak at 2480 MHz. The peak level is approximately 105 dBm/100kHz. A red horizontal line indicates the peak level at 105 dBm/100kHz, labeled 'PEAK_BE_74'.</p> <p>Site : 03CH15-HY            Condition : PEAK_BE_74 3m 91200_1620_20211025 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 1O2008</p>	 <p>Level (dBm/100kHz) vs Frequency (MHz) plot showing a sharp peak at 2480 MHz. The peak level is approximately 105 dBm/100kHz. A red horizontal line indicates the peak level at 105 dBm/100kHz, labeled 'PEAK_74'.</p> <p>Site : 03CH15-HY            Condition : PEAK_74 3m 91200_1620_20211025 HORIZONTAL            RBW:1000.000KHz VBW:3000.000KHz SWT:Auto            Detector : Peak            Project : 1O2008</p>
Avg.	 <p>Level (dBm/100kHz) vs Frequency (MHz) plot showing an average spectrum with a peak at 2480 MHz. The average level is approximately 55 dBm/100kHz. A red horizontal line indicates the average level at 55 dBm/100kHz, labeled 'AVG_BE_54'.</p> <p>Site : 03CH15-HY            Condition : AVG_BE_54 3m 91200_1620_20211025 HORIZONTAL            RBW:1000.000KHz VBW:3.000KHz SWT:Auto            Detector : Peak            Project : 1O2008</p>	 <p>Level (dBm/100kHz) vs Frequency (MHz) plot showing an average spectrum with a sharp peak at 2480 MHz. The average level is approximately 55 dBm/100kHz. A red horizontal line indicates the average level at 55 dBm/100kHz, labeled 'AVG_54'.</p> <p>Site : 03CH15-HY            Condition : AVG_54 3m 91200_1620_20211025 HORIZONTAL            RBW:1000.000KHz VBW:3.000KHz SWT:Auto            Detector : Peak            Project : 1O2008</p>