

## Variant FCC Test Report

**Report No.:** RF181221C17-2

**FCC ID:** UK7-DW9

**Test Model:** DW9B1

**Received Date:** Dec. 21, 2018

**Test Date:** Jan. 04, 2019

**Issued Date:** Jan. 09, 2019

**Applicant:** Fossil Group, Inc.

**Address:** 901 S. Central Expressway, Richardson, TX 75080, USA

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

**Lab Address:** No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan  
( R.O.C )

**Test Location:** B2F., No.215, Sec. 3, Beixin Rd., Xindian Dist., New Taipei City 231,  
Taiwan, R.O.C

**FCC Registration /**  
**Designation Number:** 427177 / TW0011



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. . The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

## Table of Contents

<b>Release Control Record .....</b>	<b>3</b>
<b>1 Certificate of Conformity .....</b>	<b>4</b>
<b>2 Summary of Test Results.....</b>	<b>5</b>
2.1 Measurement Uncertainty.....	5
2.2 Modification Record .....	5
<b>3 General Information .....</b>	<b>6</b>
3.1 General Description of EUT .....	6
3.2 Description of Test Modes.....	7
3.2.1 Test Mode Applicability and Tested Channel Detail.....	8
3.3 Description of Support Units .....	9
3.3.1 Configuration of System under Test .....	9
3.4 General Description of Applied Standards.....	9
<b>4 Test Types and Results .....</b>	<b>10</b>
4.1 Radiated Emission and Bandedge Measurement .....	10
4.1.1 Limits of Radiated Emission and Bandedge Measurement .....	10
4.1.2 Test Instruments .....	11
4.1.3 Test Procedures.....	12
4.1.4 Deviation from Test Standard .....	13
4.1.5 Test Set Up .....	13
4.1.6 EUT Operating Conditions.....	14
4.1.7 Test Results .....	15
<b>5 Pictures of Test Arrangements.....</b>	<b>23</b>
<b>Annex A- Band-edge measurement .....</b>	<b>24</b>
<b>Appendix – Information on the Testing Laboratories .....</b>	<b>25</b>

### Release Control Record

Issue No.	Description	Date Issued
RF181221C17-2	Original Release	Jan. 09, 2019

## 1 Certificate of Conformity

**Product:** Smart Watch

**Test Model:** DW9B1

**Sample Status:** Identical Prototype

**Applicant:** Fossil Group, Inc.

**Test Date:** Jan. 04, 2019

**Standards:** 47 CFR FCC Part 15, Subpart C (Section 15.247)  
ANSI C63.10:2013

This report is issued as a supplementary report to BV CPS report no.: RF180621C33. This report shall be used by combining with its original report.

**Prepared by :** Gina Liu, **Date:** Jan. 09, 2019  
Gina Liu / Specialist

**Approved by :** Dylan Chiou, **Date:** Jan. 09, 2019  
Dylan Chiou / Project Engineer

## 2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	N/A	Refer to Note
15.205 & 209	Radiated Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -12.87 dB at 4960 MHz.
15.247(d)	Band Edge Measurement	N/A	Refer to Note
15.247(d)	Antenna Port Emission	N/A	Refer to Note
15.247(a)(2)	6 dB Bandwidth	N/A	Refer to Note
---	Occupied Bandwidth Measurement	N/A	Refer to Note
15.247(b)	Conducted power	N/A	Refer to Note
15.247(e)	Power Spectral Density	N/A	Refer to Note
15.203	Antenna Requirement	N/A	Refer to Note

**Note:** Only Radiated Emissions was performed for this report. Refer to original report for other test data.

### 2.1 Measurement Uncertainty

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

The listed uncertainties are the worst case uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results.

Measurement	Frequency	Expended Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	30 MHz ~ 200 MHz	2.93 dB
	200 MHz ~1000 MHz	2.95 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	2.26 dB
	18 GHz ~ 40 GHz	1.94 dB

### 2.2 Modification Record

There were no modifications required for compliance.

### 3 General Information

#### 3.1 General Description of EUT

<b>Product</b>	Smart Watch
<b>Test Model</b>	DW9B1
<b>Status of EUT</b>	Identical Prototype
<b>Power Supply Rating</b>	5 Vdc (adapter or host equipment) 3.85 Vdc (battery)
<b>Modulation Type</b>	GFSK
<b>Transfer Rate</b>	1 Mbps
<b>Operating Frequency</b>	2402 ~ 2480 MHz
<b>Number of Channel</b>	40
<b>Antenna Type</b>	Loop antenna
<b>Antenna Connector</b>	N/A
<b>Accessory Device</b>	Refer to Note as below
<b>Data Cable Supplied</b>	Refer to Note as below

Note:

1. This report is issued as a supplementary report to BV CPS report no. RF180621C33. The difference compared with original report is adding model (DW9B1) and new antenna. Therefore, only Radiated Emissions was verified and recorded in this report.
2. The model is listed as below.

<b>Model</b>	<b>WLAN / BT Antenna Gain</b>	<b>GPS Antenna Gain</b>
DW9B1	-5.88 dBi	-4.02 dBi

3. The EUT accessories list refer to user manual.
4. Confirmed output power has been verified as original filing before starting the C2PC testing.
5. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

### 3.2 Description of Test Modes

40 channels are provided to this EUT:

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

### 3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE $\geq$ 1G	RE<1G	PLC	APCM	
-	√	√	-	-	-

Where **RE $\geq$ 1G**: Radiated Emission above 1 GHz      **RE<1G**: Radiated Emission below 1 GHz  
**PLC**: Power Line Conducted Emission      **APCM**: Antenna Port Conducted Measurement

**Note:**

1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Y-plane**.
2. "-" means no effect.

#### **Radiated Emission Test (Above 1 GHz):**

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Channel	Tested Channel	Modulation Type	Data Rate (Mbps)
-	0 to 39	39	GFSK	1

#### **Radiated Emission Test (Below 1 GHz):**

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Channel	Tested Channel	Modulation Type	Data Rate (Mbps)
-	0 to 39	39	GFSK	1

#### **Test Condition:**

Applicable To	Environmental Conditions	Input Power	Tested by
RE $\geq$ 1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Charles Hsiao
RE<1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Karl Lee



### 3.3 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

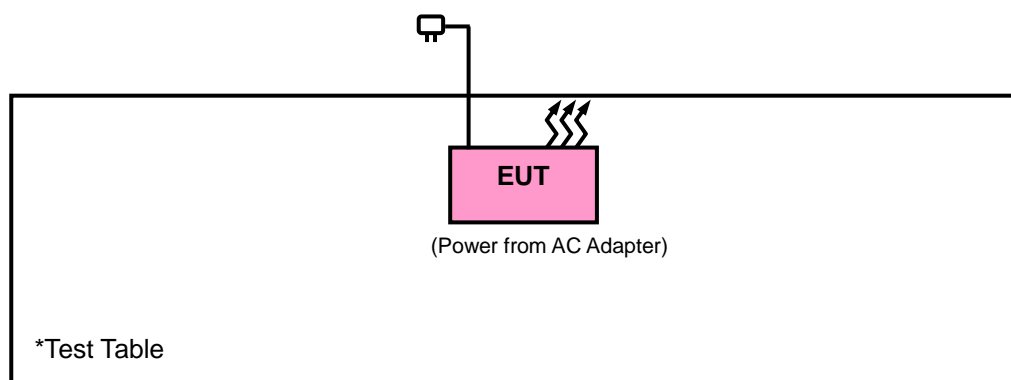
No.	Product	Brand	Model No.	Serial No.	FCC ID
1.	Adapter	HTC	TC U250	N/A	N/A

No.	Signal Cable Description Of The Above Support Units
1.	N/A

Note:

1. All power cords of the above support units are non-shielded (1.8m).

#### 3.3.1 Configuration of System under Test



### 3.4 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

**FCC Part 15, Subpart C (15.247)**

**558074 D01 15.247 Meas Guidance v05r01**

ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.

**Note:** The EUT has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

## 4 Test Types and Results

### 4.1 Radiated Emission and Bandedge Measurement

#### 4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20 dB below the highest level of the desired power:

Frequencies (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

**Note:**

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

#### 4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver Agilent Technologies	N9038A	MY51210203	Mar. 16, 2018	Mar. 15, 2019
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Jan. 11, 2018	Jan. 10, 2019
BILOG Antenna SCHWARZBECK	VULB9168	9168-616	Nov. 27, 2018	Nov. 26, 2019
HORN Antenna ETS-Lindgren	3117	00143293	Nov. 25, 2018	Nov. 24, 2019
HORN Antenna Schwarzbeck	BBHA 9170	9170-480	Nov. 25, 2018	Nov. 24, 2019
Loop Antenna	EM-6879	269	Sep. 07, 2018	Sep. 06, 2019
Preamplifier Agilent	310N	187226	Jun. 19, 2018	Jun. 18, 2019
Preamplifier Agilent	83017A	MY39501357	Jun. 19, 2018	Jun. 18, 2019
RF signal cable ETS-LINDGREN	5D-FB	Cable-CH1-01(RFC -SMS-100-SMS-12 0+RFC-SMS-100-S MS-400)	Jun. 19, 2018	Jun. 18, 2019
RF signal cable ETS-LINDGREN	8D-FB	Cable-CH1-02(RFC -SMS-100-SMS-24)	Jun. 19, 2018	Jun. 18, 2019
Software	E3 8.130425b	NA	NA	NA
Antenna Tower MF	NA	NA	NA	NA
Turn Table MF	NA	NA	NA	NA
Antenna Tower & Turn Table Controller MF	MF-7802	NA	NA	NA

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HsinTien Chamber 1.
3. The horn antenna and preamplifier (model: 83017A) are used only for the measurement of emission frequency above 1 GHz if tested.
4. The IC Site Registration No. is IC7450I-1.

#### 4.1.3 Test Procedures

##### **For Radiated Emission below 30 MHz**

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

##### **Note:**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz at frequency below 30 MHz.
2. There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

##### **For Radiated Emission above 30 MHz**

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30 MHz ~ 1 GHz) / 1.5 meters (for above 1 GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detected function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

##### **Note:**

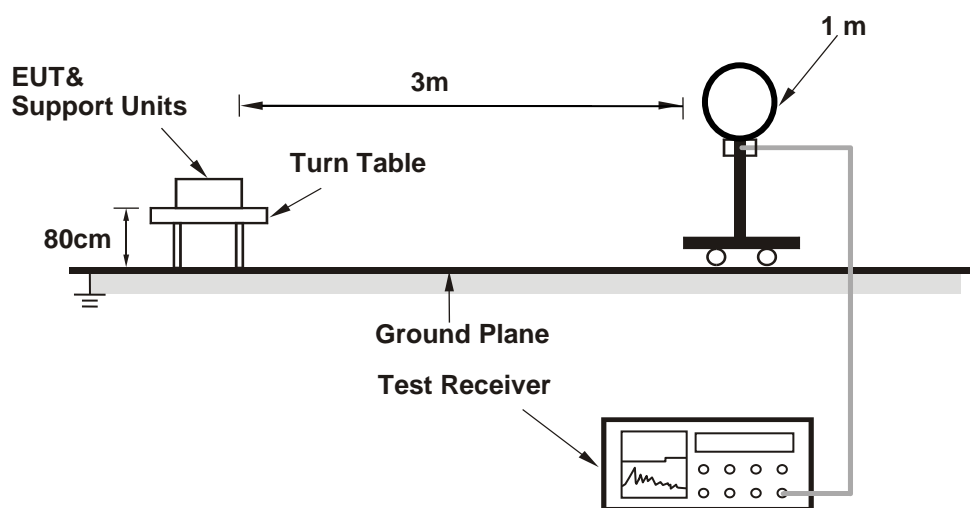
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) or Peak detection (PK) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is  $\geq 1/T$  (Duty cycle  $< 98\%$ ) or 10 Hz (Duty cycle  $\geq 98\%$ ) for Average detection (AV) at frequency above 1 GHz. (RBW = 1 MHz, VBW = 3 kHz)
4. All modes of operation were investigated and the worst-case emissions are reported.

#### 4.1.4 Deviation from Test Standard

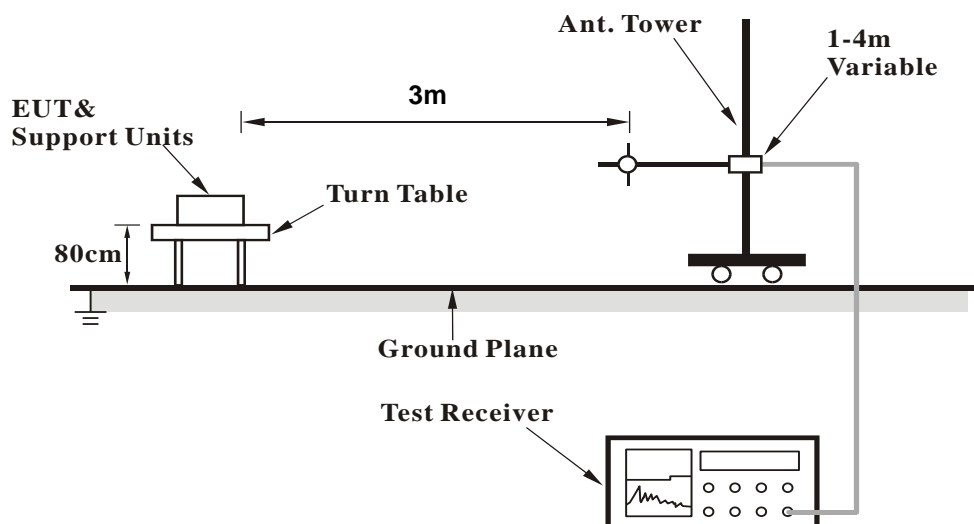
No deviation.

#### 4.1.5 Test Set Up

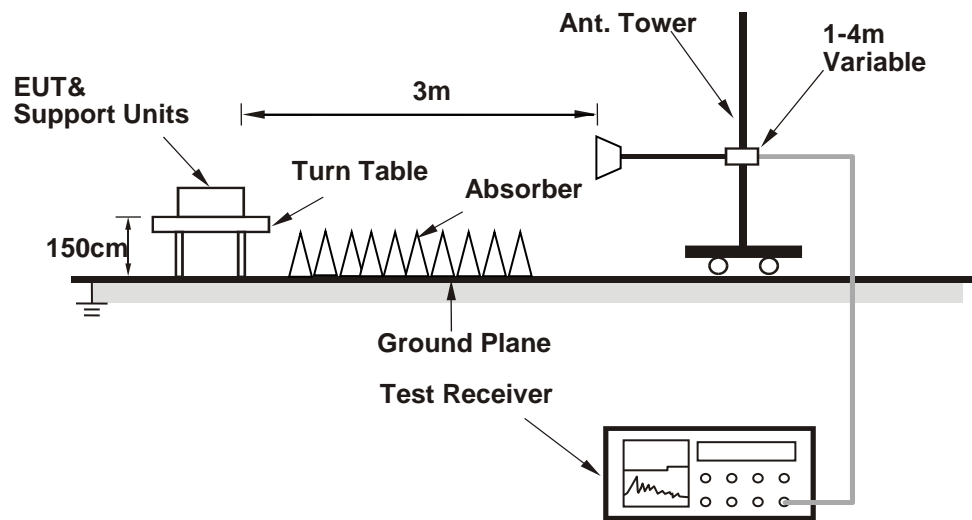
##### <Radiated emission below 30 MHz>



##### <Frequency Range below 1 GHz>



### <Frequency Range above 1 GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

#### 4.1.6 EUT Operating Conditions

- Placed the EUT on the testing table.
- Set the EUT under transmission condition continuously at specific channel frequency.

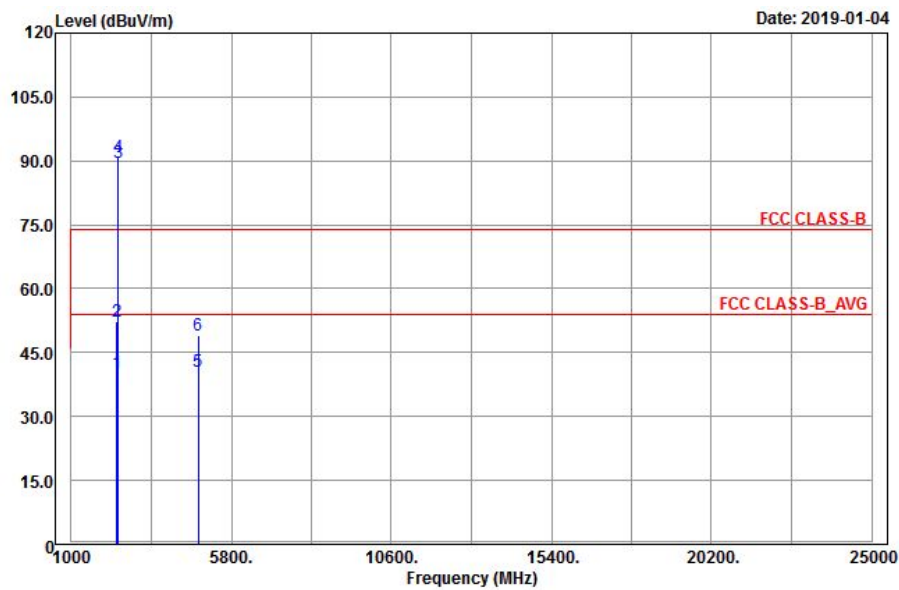
#### 4.1.7 Test Results

#### ABOVE 1GHz DATA

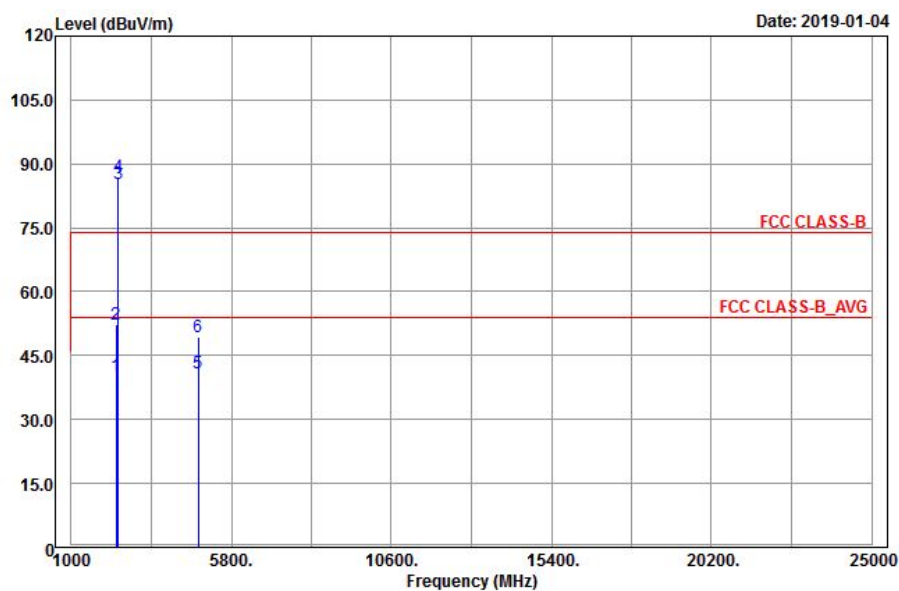
#### BT\_LE-GFSK

Channel	Channel 0	Frequency Range	1 GHz ~ 25 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Charles Hsiao

#### Horizontal



#### Vertical



Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2373.18	40.28	33.89	54	-13.72	31.78	5.37	30.76	276	185	Average
2373.18	52.16	45.77	74	-21.84	31.78	5.37	30.76	276	185	Peak
2402	89.65	83.18			31.8	5.4	30.73	276	185	Average
2402	90.9	84.43			31.8	5.4	30.73	276	185	Peak
4804	40.53	28.11	54	-13.47	33.96	8.25	29.79	124	4	Average
4804	48.89	36.47	74	-25.11	33.96	8.25	29.79	124	4	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2354.19	40.35	34.06	54	-13.65	31.76	5.33	30.8	208	90	Average
2354.19	52.25	45.96	74	-21.75	31.76	5.33	30.8	208	90	Peak
2402	85.44	78.97			31.8	5.4	30.73	208	6	Average
2402	86.92	80.45			31.8	5.4	30.73	208	6	Peak
4804	40.78	28.36	54	-13.22	33.96	8.25	29.79	154	11	Average
4804	49.41	36.99	74	-24.59	33.96	8.25	29.79	154	11	Peak

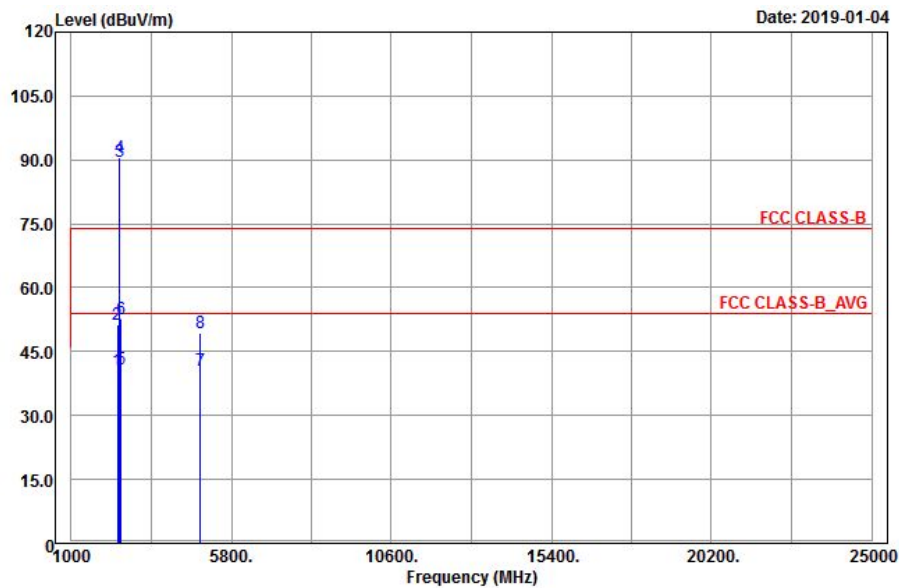
Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor  
Margin value = Emission level – Limit value
2. 2402 MHz: Fundamental frequency.
3. The emission levels of other frequencies were very low against the limit.

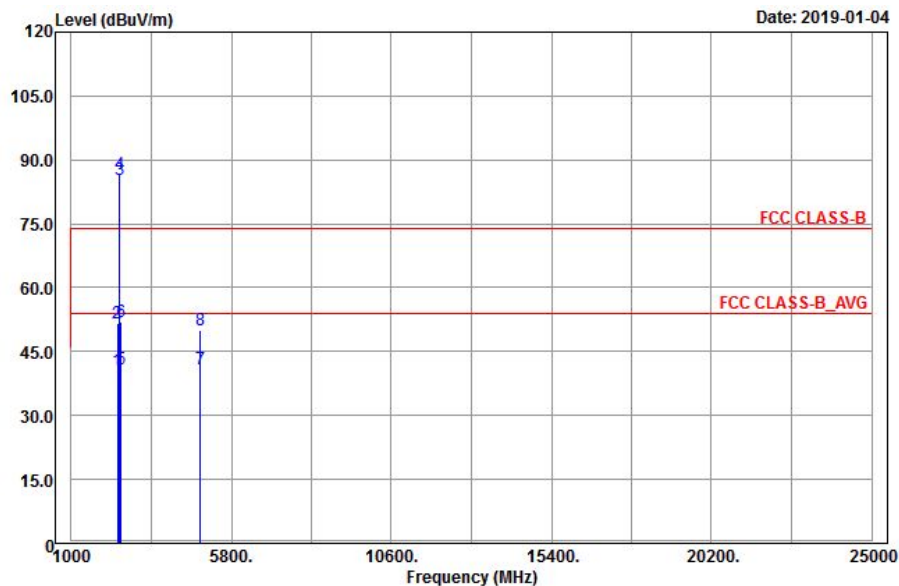


EUT Test Condition		Measurement Detail	
Channel	Channel 19	Frequency Range	1 GHz ~ 25 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Charles Hsiao

### Horizontal



### Vertical



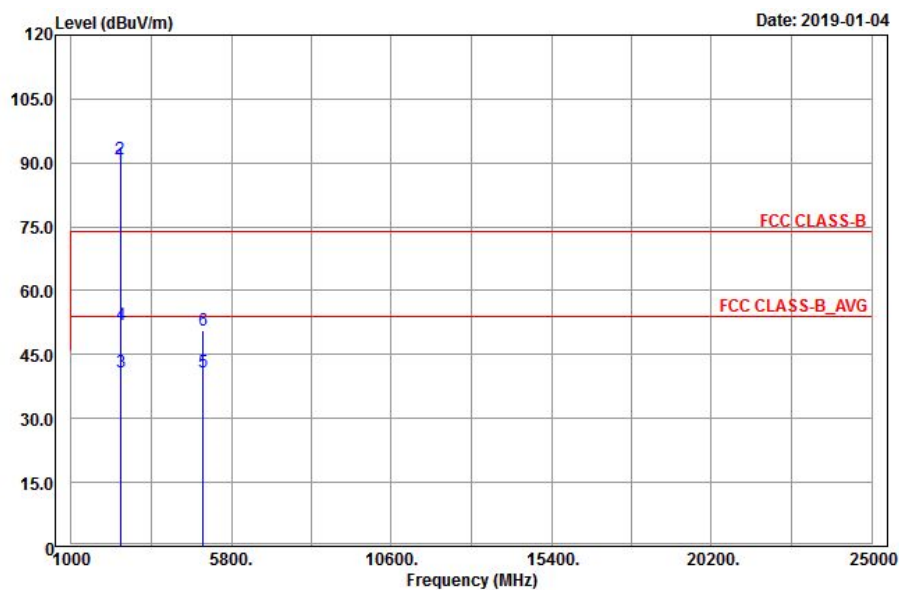
Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2388.03	40.44	34	54	-13.56	31.8	5.4	30.76	276	185	Average
2388.03	51.41	44.97	74	-22.59	31.8	5.4	30.76	276	185	Peak
2440	89.54	82.92			31.85	5.46	30.69	276	185	Average
2440	90.69	84.07			31.85	5.46	30.69	276	185	Peak
2485.16	40.85	34.06	54	-13.15	31.88	5.53	30.62	276	185	Average
2485.16	52.69	45.9	74	-21.31	31.88	5.53	30.62	276	185	Peak
4880	40.63	28.14	54	-13.37	33.98	8.27	29.76	185	5	Average
4880	49.35	36.86	74	-24.65	33.98	8.27	29.76	185	5	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2379.03	40.4	34.01	54	-13.6	31.78	5.37	30.76	208	6	Average
2379.03	51.78	45.39	74	-22.22	31.78	5.37	30.76	208	6	Peak
2440	85.25	78.63			31.85	5.46	30.69	208	6	Average
2440	86.71	80.09			31.85	5.46	30.69	208	6	Peak
2493.36	41.03	34.18	54	-12.97	31.9	5.53	30.58	208	6	Average
2493.36	52.06	45.21	74	-21.94	31.9	5.53	30.58	208	6	Peak
4880	40.74	28.25	54	-13.26	33.98	8.27	29.76	133	326	Average
4880	49.88	37.39	74	-24.12	33.98	8.27	29.76	133	326	Peak

Remarks:

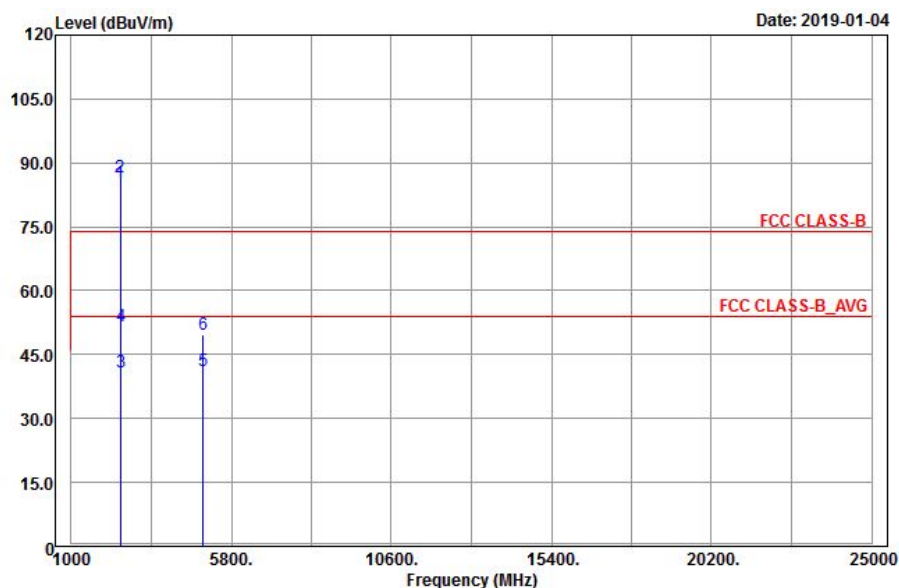
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor  
Margin value = Emission level – Limit value
2. 2440 MHz: Fundamental frequency.
3. The emission levels of other frequencies were very low against the limit.

EUT Test Condition		Measurement Detail	
Channel	Channel 39	Frequency Range	1 GHz ~ 25 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Charles Hsiao

### Horizontal



### Vertical



Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2480	89.6	82.84			31.88	5.5	30.62	276	185	Average
2480	90.93	84.17			31.88	5.5	30.62	276	185	Peak
2495	40.97	34.12	54	-13.03	31.9	5.53	30.58	276	185	Average
2495	52	45.15	74	-22	31.9	5.53	30.58	276	185	Peak
4960	40.74	28.18	54	-13.26	33.99	8.29	29.72	150	14	Average
4960	50.61	38.05	74	-23.39	33.99	8.29	29.72	150	14	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
2480	85.22	78.46			31.88	5.5	30.62	208	6	Average
2480	86.63	79.87			31.88	5.5	30.62	208	6	Peak
2498.48	40.96	34.11	54	-13.04	31.9	5.53	30.58	208	6	Average
2498.48	51.6	44.75	74	-22.4	31.9	5.53	30.58	208	6	Peak
4960	41.13	28.57	54	-12.87	33.99	8.29	29.72	131	159	Average
4960	49.75	37.19	74	-24.25	33.99	8.29	29.72	131	159	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor  
Margin value = Emission level – Limit value
- 2480 MHz: Fundamental frequency.
- The emission levels of other frequencies were very low against the limit.

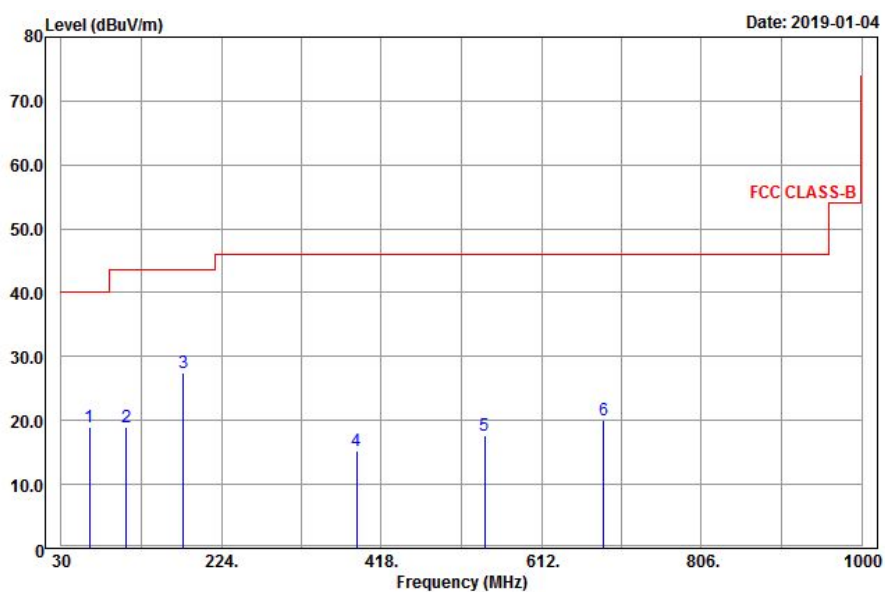
### 9 kHz ~ 30 MHz Data:

The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

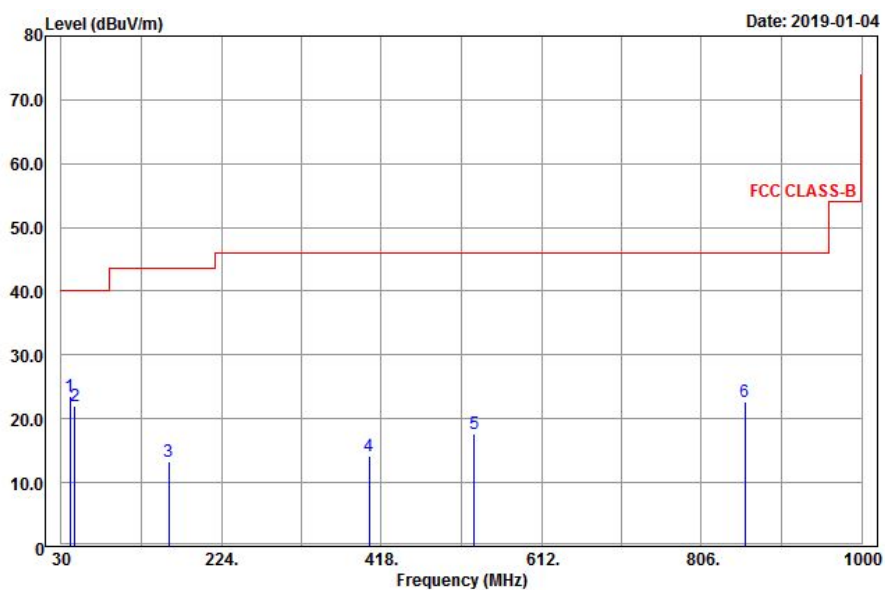
### 30 MHz ~ 1 GHz Worst-Case Data:

EUT Test Condition		Measurement Detail	
Channel	Channel 39	Frequency Range	30 MHz ~ 1 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Quasi-peak (QP)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

### Horizontal



### Vertical



Antennal Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
63.75	19.06	38.04	40	-20.94	12.35	0.9	32.23	136	125	Peak
108.57	19.06	37.92	43.5	-24.44	12.11	1.28	32.25	159	175	Peak
177.69	27.38	48.45	43.5	-16.12	9.56	1.61	32.24	122	158	Peak
388.2	15.27	30.37	46	-30.73	14.75	2.34	32.19	185	196	Peak
543.6	17.61	30.1	46	-28.39	16.94	2.76	32.19	172	168	Peak
687.1	20.07	30.09	46	-25.93	19.03	3.05	32.1	122	132	Peak
Antennal Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
40.8	23.48	41.38	40	-16.52	13.59	0.74	32.23	105	155	Peak
46.74	21.99	38.85	40	-18.01	14.46	0.9	32.22	188	159	Peak
160.14	13.23	35.23	43.5	-30.27	8.75	1.52	32.27	172	158	Peak
402.9	14.21	29.07	46	-31.79	15.02	2.34	32.22	132	136	Peak
530.3	17.69	30.4	46	-28.31	16.75	2.7	32.16	129	168	Peak
858.6	22.68	29.85	46	-23.32	21.13	3.44	31.74	177	188	Peak

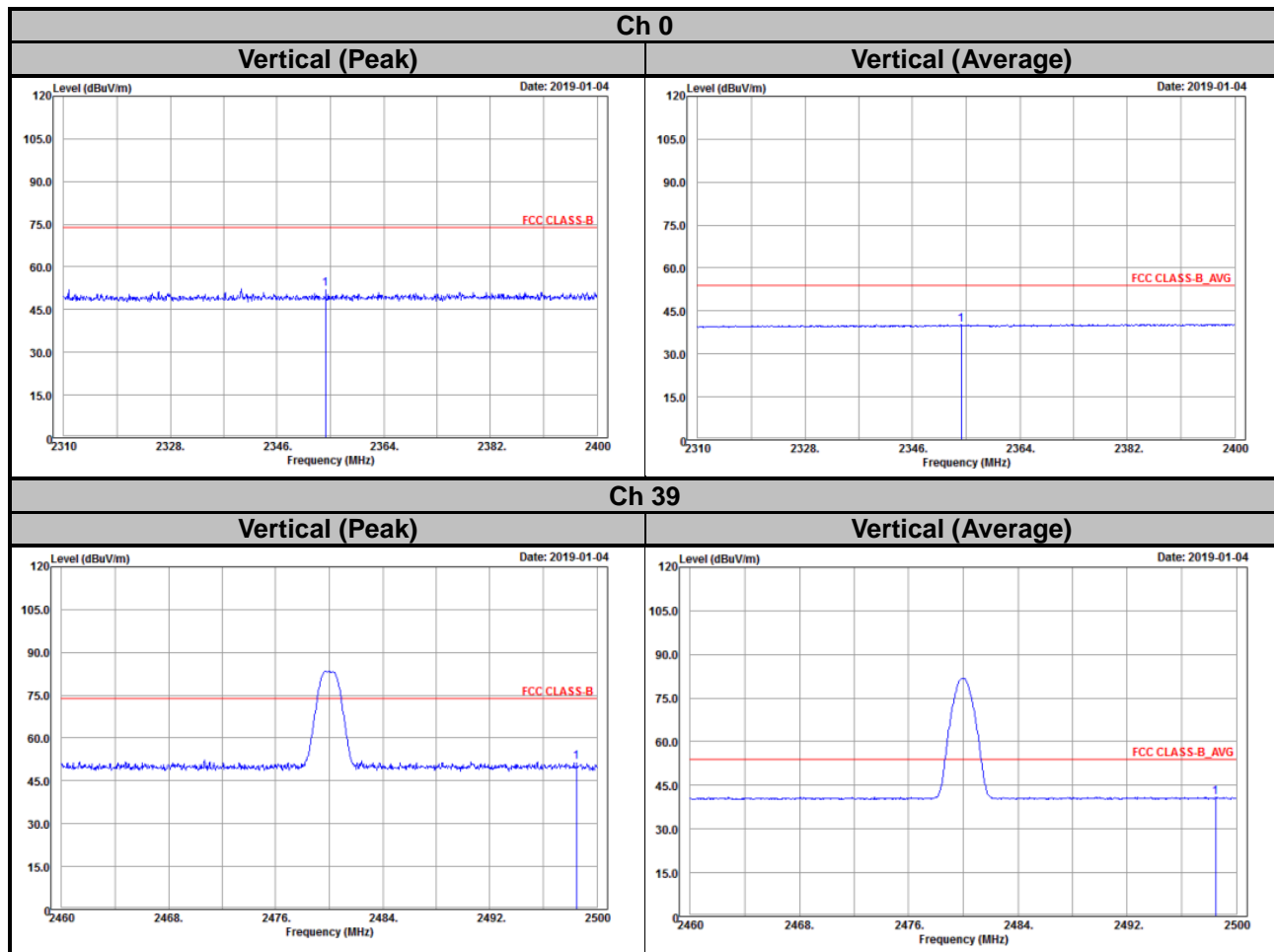
Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor  
Margin value = Emission level – Limit value
- The emission levels of other frequencies were very low against the limit.

## 5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

## Annex A- Band-edge measurement





## Appendix – Information on the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

**Linko EMC/RF Lab**

Tel: 886-2-26052180

Fax: 886-2-26051924

**Hsin Chu EMC/RF/Telecom Lab**

Tel: 886-3-6668565

Fax: 886-3-6668323

**Hwa Ya EMC/RF/Safety**

Tel: 886-3-3183232

Fax: 886-3-3270892

**Email:** [service.adt@tw.bureauveritas.com](mailto:service.adt@tw.bureauveritas.com)

**Web Site:** [www.bureauveritas-adt.com](http://www.bureauveritas-adt.com)

The address and road map of all our labs can be found in our web site also.

--- END ---