

FCC Test Report

(Co-Located)

Report No.:RFBUUY-WTW-P24040386-2FCC ID:XGB-HWBB0006Product:Wireless HeadsetBrand:TURTLE BEACHModel No.:HWBB0006Received Date:2024/4/18Test Date:2024/5/10 ~ 2024/5/15Issued Date:2024/5/27

Applicant: Voyetra Turtle Beach, Inc.

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

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

Test Location: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

FCC Registration /

Designation Number: 198487 / TW2021



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Table of Contents

R	eleas	se Control Record	. 3				
1	Certificate of Conformity						
2		Summary of Test Results	. 5				
	2.1 2.2	Measurement Uncertainty Modification Record					
3		General Information	. 6				
	3.1 3.2 3.3 3.3. 3.4 3.4. 3.5	Description of Support Units	. 6 . 7 . 8 . 9 . 9				
4		Test Types and Results	11				
	4.1.3 4.1.4 4.1.8 4.1.6	Radiated Emission and Bandedge Measurement	11 13 15 16 17 18				
5		Construction Photos of EUT	22				
Α	Appendix – Information of the Testing Laboratories						



Release Control Record

Issue No.	Description	Date Issued
RFBUUY-WTW-P24040386-2	Original release	2024/5/27



1 Certificate of Conformity

Product:	Wireless Headset
Brand:	TURTLE BEACH
Test Model:	HWBB0006
Sample Status:	Engineering sample
Applicant:	Voyetra Turtle Beach, Inc.
Test Date:	2024/5/10 ~ 2024/5/15
Standard:	47 CFR FCC Part 15, Subpart C (Section 15.247)
	47 CFR FCC Part 15, Subpart C (Section 15.249)
	ANSI C63.10-2013
procedure:	KDB 558074 D01 15.247 Meas Guidance v05r02

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by :

Annie Chang / Senior Specialist

Date:

2024/5/27

Approved by :

em.

Date:

2024/5/27

Jeremy Lin / Project Engineer



2 Summary of Test Results

Applied Standard	47 CFR FCC Part 15, Subpart C (Section 15.247) 47 CFR FCC Part 15, Subpart C (Section 15.249)					
Clause	Test Item	Result	Remarks			
15.205 / 15.209 /	Unwanted Emissions below 1 GHz		Meet the requirement of limit.			
15.247(d)		Pass	Minimum passing margin is			
15.209 / 15.249(d)	Radiated Emissions below 1 GHz		-14.7dB at 354.80MHz.			
15.205 / 15.209 / 15.247(d)	Unwanted Emissions above 1 GHz		Meet the requirement of limit.			
15.209 / 15.249(a) / 15.249(d) / 15.249(e)	Radiated Emissions above 1 GHz	Pass	Minimum passing margin is -18.2dB at 2390.00MHz.			

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Specification	Expanded Uncertainty (k=2) (±)
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	2.85 dB
Radiated Emissions below 1 GHz	30 MHz ~ 1 GHz	5.7 dB
University of Engineering and any 4 OUT	1 GHz ~ 6 GHz	3.06 dB
Unwanted Emissions above 1 GHz Radiated Emissions above 1 GHz	6 GHz ~ 18 GHz	3.06 dB
	18 GHz ~ 40 GHz	3.29 dB

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

2.2 Modification Record

There were no modifications required for compliance.



3 General Information

3.1 General Description of EUT

Product Wireless Headset				
Brand	TURTI	TURTLE BEACH		
Test Model	HWBB	0006		
Status of EUT	Engine	pering sample		
Power Supply Rating	3.7Vdd	from Battery & 5Vdc from host equipment		
Madulatian Truss	BT	GFSK, π/4-DQPSK, 8DPSK		
Modulation Type	SRD	GFSK		
Modulation Technology	BT	FHSS		
Transfer Rate	BT	Up to 3 Mbps		
	SRD	1 Mbps		
Number of Observal	BT	2.402 GHz ~ 2.48 GHz		
Number of Channel	SRD	2.402 GHz ~ 2.48 GHz		
	BT	79		
Operating Frequency	SRD	40		
Output Davies	BT	2.228 mW (3.48 dBm)		
Output Power	SRD	70 dBuV/m (Average) at 3 meters		

Note:

1. The EUT uses following accessories.

Item	Specification				
USB-A to USB-C cable	Shielded without core, 0.7m / 2m				

2. There are Bluetooth and SRD technology used for the EUT.

3. Simultaneously transmission condition.

Condition	Technology				
1	SRD Bluetooth				
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.					

4. 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 Antenna Description of EUT

The antenna information is listed as below.

Function	Model	Gain (dBi)	Antenna Type	Connector Type
BT	AA055U	0.5	Chip	NA
SRD	WW20D0	3	FPCB	IPEX

*Detail antenna specification please refer to antenna datasheet and/or antenna measurement report



3.3 Description of Test Modes

79 channels are provided for BT-EDR:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	20	2422	40	2442	60	2462
1	2403	21	2423	41	2443	61	2463
2	2404	22	2424	42	2444	62	2464
3	2405	23	2425	43	2445	63	2465
4	2406	24	2426	44	2446	64	2466
5	2407	25	2427	45	2447	65	2467
6	2408	26	2428	46	2448	66	2468
7	2409	27	2429	47	2449	67	2469
8	2410	28	2430	48	2450	68	2470
9	2411	29	2431	49	2451	69	2471
10	2412	30	2432	50	2452	70	2472
11	2413	31	2433	51	2453	71	2473
12	2414	32	2434	52	2454	72	2474
13	2415	33	2435	53	2455	73	2475
14	2416	34	2436	54	2456	74	2476
15	2417	35	2437	55	2457	75	2477
16	2418	36	2438	56	2458	76	2478
17	2419	37	2439	57	2459	77	2479
18	2420	38	2440	58	2460	78	2480
19	2421	39	2441	59	2461		

40 channels are provided for SRD:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (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



3.3.1 Test Mode Applicability and Tested Channel Detail

EUT Configur	e Applica	ble To	Description
Mode	RE≥1G	RE<1G	Description
-	- V V -		-
Where	RE≥1G: Radiated Emissior	n above 1GHz	
	DE .40. Dedicted Enterior		

RE<1G: Radiated Emission below 1GHz

Radiated Emission Test (Above 1GHz):

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	Mode	Freq. Range (MHz)	Available Channel	Tested Channel	Modulation
		2402 ~ 2480	0 to 78	78 + 0	GFSK
-	BT + SRD	2402 ~ 2480	0 to 39	78 + 0	GFSK

Radiated Emission Test (Below 1GHz):

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	Mode	Freq. Range (MHz)	Available Channel	Tested Channel	Modulation
	BT + SRD	2402 ~ 2480	0 to 78	78 + 0	GFSK
-	DI + 3KD	2402 ~ 2480	0 to 39	78 + 0	GFSK

Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested By
RE>1G	25deg. C, 75%RH	120Vac, 60Hz	Jed Wu
RE<1G	22.3deg. C, 73.8%RH	120Vac, 60Hz	Jed Wu



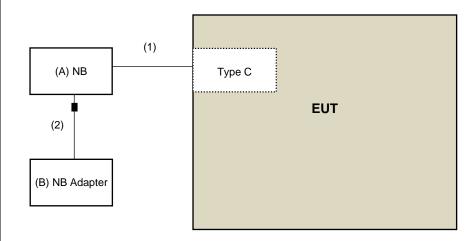
3.4 Description of Support Units

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.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
Α	NB	Dell	P90F	N/A	N/A	Provided by Lab
В	NB Adapter	Dell	LA65NS2-01	N/A	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	USB-A to USB-C cable	1	2	Y	0	Supplied by applicant
2	DC cable	1	1.9	Ν	1	Provided by Lab

3.4.1 Configuration of System under Test





3.5 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 and references:

Test Standard: 47 CFR FCC Part 15, Subpart C (Section 15.247) 47 CFR FCC Part 15, Subpart C (Section 15.249) ANSI C63.10-2013

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

References Test Guidance: KDB 558074 D01 15.247 Meas Guidance v05r02

All test items have been performed as a reference to the above KDB test guidance.



4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

For FCC 15.247 & FCC 15.249

Radiated emissions up to 1 GHz 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

Notes:

- 1. The lower limit shall apply at the transition frequencies.
- 2. Emission level (dBuV/m) = 20 log Emission level (uV/m).



For FCC 15.247

Radiated emissions above 1 GHz 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	Field Strength	Measurement Distance
(MHz)	(microvolts/meter)	(meters)
Above 960	500	

Notes:

- 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.

For FCC 15.249

The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following

Fundamental Frequency	Field Strength of Fundamental (millivolts/meter)	Field Strength of Harmonics (microvolts/meter)
2400 ~ 2483.5 MHz	50	500

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits as below table, whichever is the lesser attenuation

Frequencies	Field Strength	Measurement Distance
(MHz)	(microvolts/meter)	(meters)
Above 960	500	3

Notes:

- 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

Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bi_Log Antenna Schwarzbeck	VULB 9168	137	2023/10/13	2024/10/12
Coupling / Decoupling Network	CDNE-M2	00097	2023/5/25	2024/5/24
Schwarzbeck	CDNE-M3	00091	2023/5/25	2024/5/24
Loop Antenna EMCI	LPA600	270	2023/9/4	2024/9/3
MXE EMI Receiver	N9038A	MY51210129	2024/3/22	2025/3/21
Agilent	N9036A	MY51210137	2023/6/5	2024/6/4
Preamplifier Agilent	8447D	2944A11064	2024/2/15	2025/2/14
Preamplifier EMCI	EMC001340	980269	2023/6/27	2024/6/26
RF Coaxial Cable Pacific	8D-FB	Cable-CH6-02	2023/6/27	2024/6/26
Software BVADT	Radiated_V8.7.08	N/A	N/A	N/A
Tower ADT	AT100	0306	N/A	N/A
Turn Table ADT	TT100	0306	N/A	N/A

Notes:

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 Linkou 966 Chamber 6 (CH 6).

3. Tested Date: 2024/5/15



Unwanted Emissions above 1 GHz

Unwanted Emissions above 1 G	12		r	
Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Boresight antenna tower fixture BV	BAF-02	6	N/A	N/A
High Pass Filter Wainwright	WHK 3.1/18G-10SS	SN 8	2023/5/25	2024/5/24
Horn Antenna EMCO	3115	00028257	2023/11/12	2024/11/11
Horn Antenna ETS-Lindgren	3117-PA	00215857	2023/11/12	2024/11/11
Horn Antenna	BBHA 9170	212	2023/10/16	2024/10/15
Schwarzbeck	DDHA 9170	BBHA9170241	2023/10/16	2024/10/15
MXE EMI Receiver	N9038A	MY51210129	2024/3/22	2025/3/21
Agilent	NOCOGNI	MY51210137	2023/6/5	2024/6/4
Notch Filter	BRC50703-01	010	2023/5/25	2024/5/24
Micro-Tronics	BRM17690	005	2023/5/25	2024/5/24
	EMC0126545	980076	2024/2/15	2025/2/14
Preamplifier EMCI		980175	2023/9/2	2024/9/1
EMCI	EMC184045B	980235	2024/2/15	2025/2/14
Preamplifier HP	8449B	3008A01201	2024/2/15	2025/2/14
	EMC102-KM-KM-1000	200310	2024/3/11	2025/3/10
RF Coaxial Cable EMCI	EM0404	190801	2023/9/13	2024/9/12
EMCI	EMC104	190804	2023/9/13	2024/9/12
RF Coaxial Cable HUBER+SUHNER	SF-104	Cable-CH6-01	2023/9/13	2024/9/12
Signal Analyzer R&S	FSV40	101042	2023/9/5	2024/9/4
Software BVADT	Radiated_V7.7.1.1.1	N/A	N/A	N/A
Tower ADT	AT100	0306	N/A	N/A
Turn Table ADT	TT100	0306	N/A	N/A

Notes:

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 Linkou 966 Chamber 6 (CH 6).

3. Tested Date: 2024/5/10



4.1.3 Test Procedure

For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters 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. 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, except for the frequency band (9 kHz to 90 kHz and 110 kHz to 490 kHz) set to average detect function and peak detect function.

Notes:

- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 200 Hz at frequency below 150 kHz.
- 2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz or 10 kHz at frequency (150 kHz to 30 MHz).
- 3. All modes of operation were investigated and the worst-case emissions are reported.

For Radiated emission 30MHz ~ 1GHz

- a. The EUT was placed on the top of a rotating table 0.8 meters 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.

Notes:

- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
- 2. All modes of operation were investigated and the worst-case emissions are reported.



For Radiated emission above 1GHz

- a. The EUT was placed on the top of a rotating table 1.5 meters 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 peak and average detects 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.

Notes:

- 1. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
- According to ANSI C63.10 section 6.6.4 and 4.1.4.2.2. For fundamental and harmonic signal measurement, according to ANSI C63.10 section 7.5, the average value = peak value + duty cycle correction factor. For duty cycle correction factor values, see the Test Signal Duty Cycle section in this report.
- 3. All modes of operation were investigated and the worst-case emissions are reported.

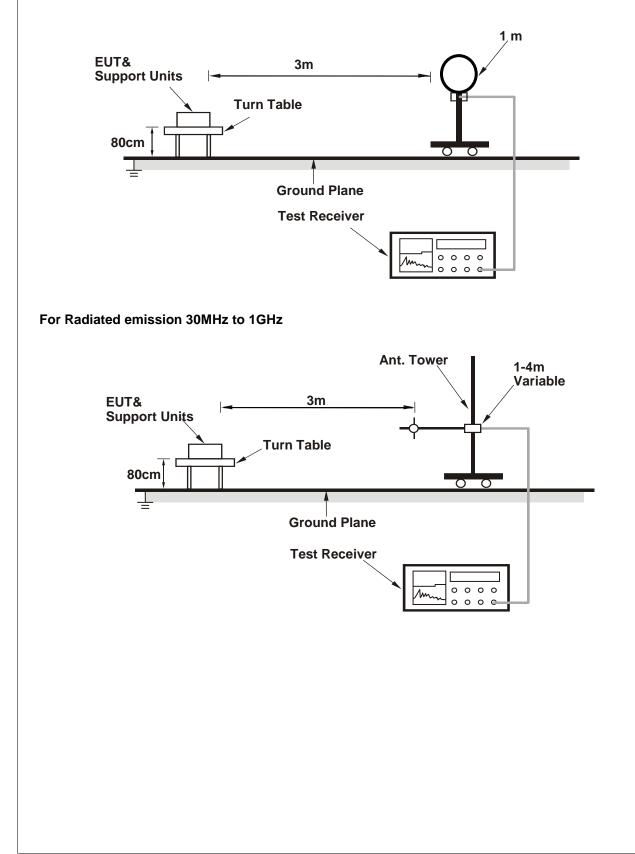
4.1.4 Deviation from Test Standard

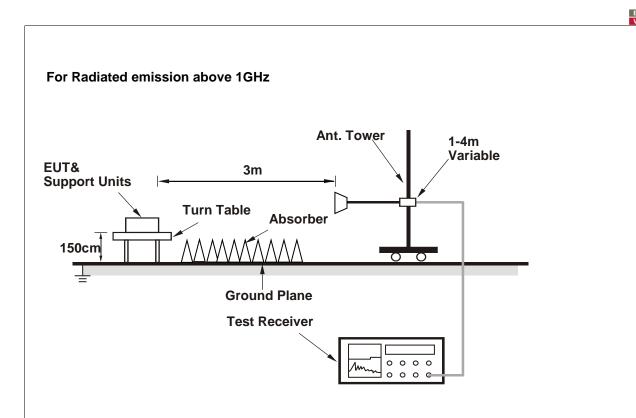
No deviation.



4.1.5 Test Setup

For Radiated emission below 30MHz





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

4.1.6 EUT Operating Condition

Controlling software (AB1565_AB1568_Airoha_Tool_Kit(ATK)_v3.8.0.1) has been activated to set the EUT under transmission condition continuously at specific channel frequency.



4.1.7 Test Results

Above 1GHz data:

RF Mode	BT + SRD	Channel	CH 78:2480 MHz + CH 0:2402 MHz
Frequency Range	1 GHz ~ 25 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
Input Power	120 Vac, 60 Hz	Environmental Conditions	22.3°C, 73.8% RH
Tested By	Jed Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	46.8 PK	74.0	-27.2	2.18 H	139	43.9	2.9
2	2390.00	35.6 AV	54.0	-18.4	2.18 H	139	32.7	2.9
3	2400.00	36.4 PK	74.0	-37.6	2.18 H	139	33.5	2.9
4	2400.00	8.4 AV	54.0	-45.6	2.18 H	139	5.5	2.9
5	2483.50	49.8 PK	74.0	-24.2	1.17 H	345	46.4	3.4
6	2483.50	19.0 AV	54.0	-35.0	1.17 H	345	15.6	3.4
7	4804.00	54.0 PK	74.0	-20.0	3.10 H	125	40.8	13.2
8	4804.00	26.0 AV	54.0	-28.0	3.10 H	125	12.8	13.2
9	4960.00	55.3 PK	74.0	-18.7	2.40 H	357	41.5	13.8
10	4960.00	24.5 AV	54.0	-29.5	2.40 H	357	10.7	13.8
		An	tenna Polari	ty & Test Dis	stance : Vert	ical at 3 m		
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	46.9 PK	74.0	-27.1	1.69 V	286	44.0	2.9
2	2390.00	35.8 AV	54.0	-18.2	1.69 V	286	32.9	2.9
3	2400.00	52.4 PK	74.0	-21.6	1.69 V	286	49.5	2.9
4	2400.00	24.4 AV	54.0	-29.6	1.69 V	286	21.5	2.9
5	2483.50	46.7 PK	74.0	-27.3	1.97 V	23	43.3	3.4
6	2483.50	15.9 AV	54.0	-38.1	1.97 V	23	12.5	3.4
7	4804.00	54.5 PK	74.0	-19.5	1.34 V	262	41.3	13.2
8	4804.00	26.5 AV	54.0	-27.5	1.34 V	262	13.3	13.2
9	4960.00	54.9 PK	74.0	-19.1	3.63 V	156	41.1	13.8
10	4960.00	24.1 AV	54.0	-29.9	3.63 V	156	10.3	13.8

Remarks:

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) Pre-Amplifier Factor(dB)
- 3. Margin value = Emission Level Limit value
- 4. The other emission levels were very low against the lim
- 5. The average value of fundamental and harmonic frequency is: Average = Peak value + 20 log(Duty cycle) Where the duty cycle correction factor is calculated from following formula:
 20 log(Duty cycle) = 20 log(4 ms / 100 ms) = -28.0 dB (For SRD)
 20 log(Duty cycle) = 20 log(2.9 ms / 100 ms) = -30.8 dB (For BT EDR)



Below 1GHz data:

RF Mode	BT + SRD	Channel	CH 78 : 2480 MHz + CH 0 : 2402 MHz		
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak		
Input Power	120 Vac, 60 Hz Environmental Conditions		25°C, 75% RH		
Tested By	Jed Wu				

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	66.42	20.2 QP	40.0	-19.8	1.89 H	182	30.2	-10.0
2	154.21	21.4 QP	43.5	-22.1	1.24 H	278	29.3	-7.9
3	239.81	29.2 QP	46.0	-16.8	1.37 H	62	37.8	-8.6
4	354.80	31.3 QP	46.0	-14.7	1.65 H	180	36.1	-4.8
5	478.96	28.4 QP	46.0	-17.6	1.28 H	213	30.3	-1.9
6	540.85	28.5 QP	46.0	-17.5	1.17 H	110	29.5	-1.0

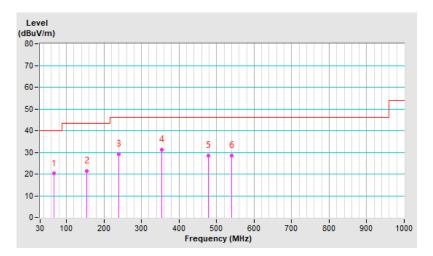
Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)

3. Margin value = Emission Level - Limit value

- 4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
- 5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



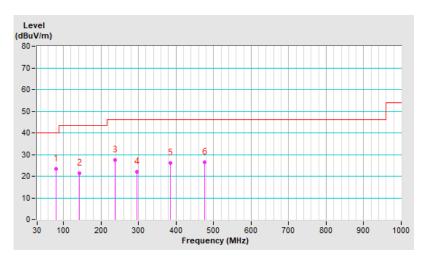


RF Mode	BT + SRD	Channel	CH 78 : 2480 MHz + CH 0 : 2402 MHz		
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak		
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH		
Tested By	Jed Wu				

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	80.05	23.5 QP	40.0	-16.5	1.64 V	116	36.6	-13.1
2	142.18	21.5 QP	43.5	-22.0	1.27 V	213	29.9	-8.4
3	238.16	27.6 QP	46.0	-18.4	1.86 V	338	36.4	-8.8
4	296.65	22.0 QP	46.0	-24.0	1.35 V	175	28.0	-6.0
5	384.68	26.1 QP	46.0	-19.9	1.59 V	281	30.2	-4.1
6	476.05	26.5 QP	46.0	-19.5	1.08 V	88	28.4	-1.9

Remarks:

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) Pre-Amplifier Factor(dB)
- 3. Margin value = Emission Level Limit value
- 4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
- 5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.





5 Construction Photos of EUT

Please refer to the attached file (Test Setup Photo)



Appendix – Information of 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:

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

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