

FCC TEST REPORT

REPORT NO.:	RF120214C26A
MODEL NO.:	SRMB02
FCC ID:	FDISRMB02-0
RECEIVED :	May 03, 2012
TESTED:	May 11, 2012
ISSUED:	May 18, 2012

APPLICANT: BUFFALO INC.

ADDRESS: AKAMONDORI Bldg., 30-20, Ohsu 3-chome, Naka-ku, Nagoya. Aichi, 460-8315, Japan

ISSUED BY: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

- LAB ADDRESS: No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)
- **TEST LOCATION:** No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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Table of Contents

RELEAS	SE CONTROL RECORD	3
1.	CERTIFICATION	4
2.	SUMMARY OF TEST RESULTS	5
2.1	MEASUREMENT UNCERTAINTY	5
3.	GENERAL INFORMATION	6
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
4.	TEST TYPES AND RESULTS	10
4.1	RADIATED EMISSION AND BAND EDGE MEASUREMENT	10
4.1.1	LIMITS OF RADIATED EMISSION MEASUREMENT	10
4.1.2	TEST INSTRUMENTS	.11
4.1.3	TEST PROCEDURES	12
4.1.4	DEVIATION FROM TEST STANDARD	12
4.1.5	TEST SETUP	13
4.1.6	EUT OPERATING CONDITIONS	-
4.1.7	TEST RESULTS	14
5.	PHOTOGRAPHS OF THE TEST CONFIGURATION	20
6.	INFORMATION ON THE TESTING LABORATORIES	21
7.	APPENDIX A – MODIFICATION RECORDERS FOR ENGINEERING CHANGES	
	TO THE EUT BY THE LAB	22



RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF120214C26A	Original release	May 18, 2012
Report No.: RF1202140	C26A 3	Report Format Version 4.2.



1. CERTIFICATION

PRODUCT: Blue LED Wireless Mouse MODEL NO.: SRMB02 BRAND: iBUFFALO APPLICANT: BUFFALO INC. TESTED: May 11, 2012 TEST SAMPLE: ENGINEERING SAMPLE STANDARDS: FCC Part 15, Subpart C (Section 15.249) ANSI C63.10-2009

The above equipment (model: SRMB02) 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 EMC characteristics under the conditions specified in this report.

PREPARED BY	:, DATE : May 18, 2012 Ivy Jin / Specialist
APPROVED BY	Gary Chang / Technical Manager



2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C (Section 15.249)				
STANDARD PARAGRAPH	TEST TYPE	RESULT	REMARK	
15.207	Conducted Emission Test	NA	Power from 3Vdc battery	
· · ·	Radiated Emission Test Band Edge Measurement Limit: 50dB less than the peak value of fundamental frequency or meet radiated emission limit in section 15.209		Meet the requirement of limit. Minimum passing margin is -12.6dB at 4880.00MHz.	

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	FREQUENCY	UNCERTAINTY
Radiated emission	30MHz ~ 200MHz	3.34 dB
	200MHz ~1000MHz	3.35 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Blue LED Wireless Mouse
MODEL NO.	SRMB02
POWER SUPPLY	3.0Vdc (batteries) (1.5Vdc AAA *2)
MODULATION TYPE	GFSK
DATA RATE	2Mbps
OPERATING FREQUENCY	2406 ~ 2478MHz
NUMBER OF CHANNEL	5
ANTENNA TYPE	Copper trace antenna with -1.68dBi gain
DATA CABLE	N/A
I/O PORT	N/A
ACCESSORY DEVICES	N/A

NOTE:

1. The EUT has transmitter and receiver functions.

2. The above EUT information is declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.



3.2 DESCRIPTION OF TEST MODES

5 channels are provided to this EUT:

FREQUENCY	
2406 MHz	
2425 MHz	
2440 MHz	
2470 MHz	
2478 MHz	



3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT		APPLICABLE TO				
CONFIGURE MODE	RE≥1G	RE<1G	PLC	BM		DESCRIPTION
-	\checkmark	\checkmark	NOTE	\checkmark	-	
Where RE<1G: Radiated Emission below 1GHz RE≥1G: Radiated Emission above 1GHz PLC: Power Line Conducted Emission BM: Bandedge Measurement NOTE: No need to concern of Conducted Emission due to the EUT is powered by batteries.						
	ADIATED EMISSION TEST (ABOVE 1 GHz):					
Pre-Scan has between avai architecture).	been cor lable mod	nducted to ulations a	determir xis and a	ne the sintenna		rom all possible combina antenna diversity below.
EUT CONFIGURE MODE	OPERAT	ING FREQU NGE (MHz)	JENCY		REQUENCY (MHz)	MODULATION TYPE
-	24	406 ~ 2478		24	06, 2440, 2478	GFSK
Following cha	CONFIGURE OPERATING FREQUENCY TEST FREQUENCY (MHz) MODULATION TYPE					
-	24	406 ~ 2478	478 2406		2406	GFSK
 BANDEDGE MEASUREMENT: Pre-Scan has been conducted to determine the worst-case mode from all possible combination between available modulations and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below. 						
between avai	lable mod	nducted to ulations a	nd anten	na por	ts (if EUT with ante	enna diversity architecture
between avai	lable mod annel(s) w OPERAT	nducted to ulations a	nd anten selected JENCY	na por for the	ts (if EUT with ante	enna diversity architectur
between avai	lable mod annel(s) w OPERAT RA	nducted to ulations a as (were) ING FREQU	nd anten selected JENCY	na por for the	ts (if EUT with ante final test as listed	enna diversity architectur below.
between avai	lable mod annel(s) w OPERAT RA 24	nducted to ulations a as (were) ING FREQU	nd anten selected JENCY	na por for the	ts (if EUT with ante e final test as listed REQUENCY (MHz)	enna diversity architectur below. MODULATION TYPE
between avai Following cha EUT CONFIGURE MODE	lable mod annel(s) w OPERAT RA 24	nducted to ulations a as (were) ING FREQU	nd anten selected JENCY	na por for the TEST F	ts (if EUT with ante e final test as listed REQUENCY (MHz)	enna diversity architecture below. MODULATION TYPE

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	25deg. C, 65%RH	3.0Vdc	Haru Yang
RE<1G	25deg. C, 65%RH	3.0Vdc	Haru Yang
BM	25deg. C, 65%RH	3.0Vdc	Haru Yang



3.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit.

3.3.1 CONFIGURATION OF SYSTEM UNDER TEST

	EUT	
	(Power from batteries)	
*Test table		

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 (Section 15.249)

ANSI C63.10-2009

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

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It 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 BAND EDGE MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION AND BAND EDGE MEASUREMENT

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

Fundamental Frequency	Field Strength of Fundamental (millivolts/meter)	Field Strength of Harmonics (microvolts/meter)
902 ~ 928 MHz	50	500
2400 ~ 2483.5 MHz	50	500
5725 ~ 5875 MHz	50	500
24 ~ 24.25 GHz	250	2500

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 (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 1000MHz, 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 20dB 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 ROHDE & SCHWARZ	ESIB7	100212	Aug. 02, 2011	Aug. 01, 2012
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100041	Jul. 21, 2011	Jul. 20, 2012
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Apr. 06, 2012	Apr. 05, 2013
HORN Antenna SCHWARZBECK	9120D	209	Aug. 25, 2011	Aug. 24, 2012
HORN Antenna SCHWARZBECK	BBHA 9170	148	Jul. 20, 2011	Jul. 19, 2012
Preamplifier Agilent	8447D	2944A10633	Oct. 29, 2011	Oct. 28, 2012
Preamplifier Agilent	8449B	3008A01964	Oct. 29, 2011	Oct. 28, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250723/4	Aug. 30, 2011	Aug. 29, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 106	12738/6+30922 4/4	Aug. 30, 2011	Aug. 29, 2012
Software ADT.	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	017303	NA	NA
Turn Table ADT.	TT100	TT93021703	NA	NA
Turn Table Controller ADT.	SC100	SC93021703	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 HwaYa Chamber 3.

3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.

4. The FCC Site Registration No. is 988962.

5. The IC Site Registration No. is IC 7450F-3.



4.1.3 TEST PROCEDURES

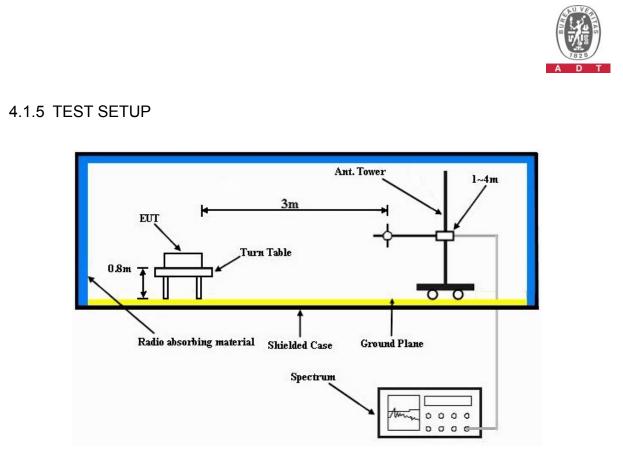
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical 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 Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE:

- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
- 2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- 3. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation.



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

4.1.6 EUT OPERATING CONDITIONS

Set the EUT under transmission condition continuously at specific channel frequency.



4.1.7 TEST RESULTS

ABOVE 1GHz DATA

EUT TEST CONDITION		MEASUREMENT DETAIL		
TEST FREQUENCY	2406MHz	FREQUENCY RANGE	1 ~ 25GHz	
INPUT POWER (SYSTEM)	3.0Vdc	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Haru Yang	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	50.0 PK	74.0	-24.0	1.36 H	7	18.70	31.30	
2	2390.00	27.9 AV	54.0	-26.1	1.36 H	7	-3.40	31.30	
3	2398.00	55.6 PK	74.0	-18.4	1.36 H	7	24.30	31.30	
4	2398.00	27.5 AV	54.0	-26.5	1.36 H	7	-3.80	31.30	
5	2400.00	59.2 PK	74.0	-14.8	1.39 H	5	27.90	31.30	
6	2400.00	27.1 AV	54.0	-26.9	1.39 H	5	-4.20	31.30	
7	*2406.00	90.5 PK	114.0	-23.5	1.39 H	5	59.10	31.40	
8	*2406.00	58.4 AV	94.0	-35.6	1.39 H	5	27.00	31.40	
9	4812.00	60.8 PK	74.0	-13.2	1.08 H	330	23.60	37.20	
10	4812.00	28.7 AV	54.0	-25.3	1.08 H	330	-8.50	37.20	

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).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " * " : Fundamental frequency
- The average value of fundamental frequency is: Average = Peak value + 20log(Duty cycle) Where the duty factor is calculated from following formula:
 20 log (Duty cycle) = 20 log (0.19 *13 ms / 100 ms) = -32.1 dB
 Please see page 18 for plotted duty.



EUT TEST CONDITION		MEASUREMENT DETAIL		
TEST FREQUENCY	2406MHz	FREQUENCY RANGE	1 ~ 25GHz	
INPUT POWER	3.0Vdc	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH hPa	TESTED BY	Haru Yang	

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (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	42.3 PK	74.0	-31.7	1.69 V	62	11.00	31.30	
2	2390.00	27.4 AV	54.0	-26.6	1.69 V	62	-3.90	31.30	
3	2398.00	48.9 PK	74.0	-25.1	1.69 V	62	17.60	31.30	
4	2398.00	27.1 AV	54.0	-26.9	1.69 V	62	-4.20	31.30	
5	2400.00	52.2 PK	74.0	-21.8	1.69 V	62	20.90	31.30	
6	2400.00	20.1 AV	54.0	-33.9	1.69 V	62	-11.20	31.30	
7	*2406.00	83.9 PK	114.0	-30.1	1.69 V	62	52.50	31.40	
8	*2406.00	51.8 AV	94.0	-42.2	1.69 V	62	20.40	31.40	
9	4812.00	58.3 PK	74.0	-15.7	1.12 V	129	21.10	37.20	
10	4812.00	26.2 AV	54.0	-27.8	1.12 V	129	-11.00	37.20	

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).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. "*": Fundamental frequency
- 6. The average value of fundamental frequency is: Average = Peak value + 20log(Duty cycle) Where the duty factor is calculated from following formula:
 20 log (Duty cycle) = 20 log (0.19 *13 ms / 100 ms) = -32.1 dB
 Please see page 18 for plotted duty.



EUT TEST CONDITION		MEASUREMENT DETAIL		
TEST FREQUENCY	2440MHz	FREQUENCY RANGE	1 ~ 25GHz	
INPUT POWER	3 0 0 0 0 0	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Haru Yang	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	Correction Factor (dB/m)
1	*2440.00	90.0 PK	114.0	-24.0	1.36 H	17	58.50	31.50
2	*2440.00	57.9 AV	94.0	-36.1	1.36 H	17	26.40	31.50
3	4880.00	61.4 PK	74.0	-12.6	1.04 H	344	24.10	37.30
4	4880.00	29.3 AV	54.0	-24.7	1.04 H	344	-8.00	37.30
5	7320.00	52.4 PK	74.0	-21.6	1.00 H	217	8.90	43.50
6	7320.00	20.3 AV	54.0	-33.7	1.00 H	217	-23.20	43.50
		ANTENNA		Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2440.00	83.6 PK	114.0	-30.4	1.69 V	79	52.10	31.50
2	*2440.00	51.5 AV	94.0	-42.5	1.69 V	79	20.00	31.50
3	4880.00	58.4 PK	74.0	-15.6	1.09 V	120	21.10	37.30
4	4880.00	26.3 AV	54.0	-27.7	1.09 V	120	-11.00	37.30
5	7320.00	52.9 PK	74.0	-21.1	1.00 V	173	9.40	43.50
	7320.00	20.8 AV	54.0	-33.2	1.00 V	173	-22.70	43.50

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).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. "*": Fundamental frequency

The average value of fundamental frequency is: Average = Peak value + 20log(Duty cycle) Where the duty factor is calculated from following formula:
 20 log (Duty cycle) = 20 log (0.19 *13 ms / 100 ms) = -32.1 dB
 Please see page 18 for plotted duty.



EUT TEST CONDITION		MEASUREMENT DETAIL		
TEST FREQUENCY	2478MHz	FREQUENCY RANGE	1 ~ 25GHz	
INPUT POWER	3 0Vdc	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Haru Yang	

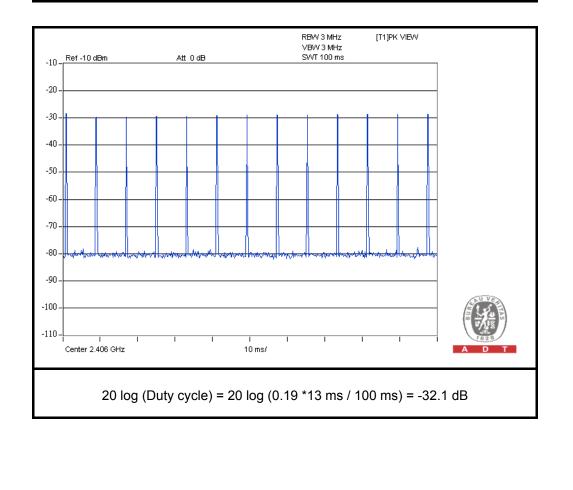
		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2478.00	89.9 PK	114.0	-24.1	1.31 H	17	58.30	31.60
2	*2478.00	57.8 AV	94.0	-36.2	1.31 H	17	26.20	31.60
3	2483.50	57.8 PK	74.0	-16.2	1.31 H	17	26.20	31.60
4	2483.50	25.7 AV	54.0	-28.3	1.31 H	17	-5.90	31.60
5	2485.50	53.4 PK	74.0	-20.6	1.31 H	17	21.80	31.60
6	2485.50	27.7 AV	54.0	-26.3	1.31 H	17	-3.90	31.60
7	4956.00	60.2 PK	74.0	-13.8	1.04 H	357	22.70	37.50
8	4956.00	28.1 AV	54.0	-25.9	1.04 H	357	-9.40	37.50
		ANTENNA	POLARIT	Y & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2478.00	83.8 PK	114.0	-30.2	1.66 V	77	52.20	31.60
2	*2478.00	51.7 AV	94.0	-42.3	1.66 V	77	20.10	31.60
3	2483.50	52.6 PK	74.0	-21.4	1.66 V	77	21.00	31.60
4	2483.50	20.5 AV	54.0	-33.5	1.66 V	77	-11.10	31.60
5	2485.50	50.4 PK	74.0	-23.6	1.66 V	77	18.80	31.60
6	2485.50	27.1 AV	54.0	-26.9	1.66 V	77	-4.50	31.60
7	4956.00	57.8 PK	74.0	-16.2	1.09 V	105	20.30	37.50
8	4956.00	25.7 AV	54.0	-28.3	1.09 V	105	-11.80	37.50

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).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. "* ": Fundamental frequency
- 6. The average value of fundamental frequency is: Average = Peak value + 20log(Duty cycle) Where the duty factor is calculated from following formula:
 20 log (Duty cycle) = 20 log (0.19 *13 ms / 100 ms) = -32.1 dB
 Please see page 18 for plotted duty.



-10Ref-10 dBm Att 0 dB	RBW 3 MHz [T1]PK VIEV VBW 3 MHz SWT 2.5 ms	W Marker 1 [T1] -84.14 dBm 1.395000 ms
	_	Detta 2 [T1] 0.72 dB
-20 -		190.000000 us
-30 -		<u> </u>
-40 -		
-50 -		
-50-		
-60 -		
-70 -		
	2	
-80-	the and a start and the start and the start	Www.h
-90-	and the second second	1
50-		
-100 -		
-110-		1828
Center 2.406 GHz 250 us/		ADT





BELOW 1GHz WORST-CASE DATA

EUT TEST CONDITION		MEASUREMENT DETAIL		
TEST FREQUENCY	2406MHz	FREQUENCY RANGE	Below 1000MHz	
INPUT POWER	3.0Vdc	DETECTOR FUNCTION	Quasi-Peak	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Haru Yang	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	Correction Factor (dB/m)
1	37.68	18.7 QP	40.0	-21.3	2.00 H	241	5.40	13.30
2	74.62	15.7 QP	40.0	-24.3	2.00 H	89	4.50	11.20
3	286.55	15.8 QP	46.0	-30.2	1.00 H	117	1.40	14.40
4	329.32	16.7 QP	46.0	-29.3	1.00 H	86	1.00	15.70
5	675.40	22.3 QP	46.0	-23.7	1.00 H	250	-0.50	22.80
6	725.96	23.4 QP	46.0	-22.6	2.00 H	246	-0.30	23.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	Correction Factor (dB/m)
1	33.79	21.0 QP	40.0	-19.0	1.50 V	46	8.30	12.70
2	74.62	18.3 QP	40.0	-21.7	1.50 V	4	7.10	11.20
3	129.06	15.6 QP	43.5	-27.9	1.50 V	91	3.00	12.60
4	164.06	14.7 QP	43.5	-28.8	1.00 V	132	0.80	13.90
5	403.20	17.4 QP	46.0	-28.6	1.99 V	111	-0.20	17.60
6	640.41	22.1 QP	46.0	-23.9	1.00 V	125	-0.40	22.50

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).

3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.



5. PHOTOGRAPHS OF THE TEST CONFIGURATION

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



6. 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 accredited and approved according to ISO/IEC 17025.

Copies of accreditation and authorization certificates of our laboratories obtained from approval agencies can be downloaded from our web site: <u>http://www.adt.com.tw/index.5.phtml</u>. 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 Lab Tel: 886-3-5935343 Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety/Telecom Lab Tel: 886-3-3183232 Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com Web Site: www.adt.com.tw

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



7. APPENDIX A – MODIFICATION RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

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