FCC TEST REPORT

REPORT NO.:	RF110125C21
MODEL NO.:	GM7
FCC ID:	PRDOPWIRWMU27
RECEIVED:	Jan. 25, 2011
TESTED:	Jan. 27, 2011
ISSUED:	Feb. 10, 2011

APPLICANT:	Acrox Technologies Co., Ltd
ADDRESS:	4F., No. 89, Minshan St., Neihu Dist., Taipei City 114, Taiwan, R.O.C.
ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
LAB ADDRESS:	No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou Hsiang, Taipei Hsien 244, 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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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	N/A	Feb. 10, 2011

1. CERTIFICATION

PRODUCT:	Wireless Mouse
MODEL NO.:	GM7
BRAND:	HP
APPLICANT:	Acrox Technologies Co., Ltd
TESTED:	Jan. 27, 2011
TEST SAMPLE:	ENGINEERING SAMPLE
STANDARDS:	**FCC Part 15, Subpart C (Section 15.249)**
	ANSI C63.4-2003
	ANSI C63.10-2009

The above equipment (Model: GM7) have 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 :** Feb. 10, 2011
Suntee Liu / Specialist

APPROVED BY : _____ , **DATE :** Feb. 10, 2011
Gary Chang / Assistant 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 supply is 3Vdc from batteries.
15.209 15.249 15.249 (d)	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	PASS	Meet the requirement of limit. Minimum passing margin is -8.1dB at 4960.00MHz.

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	Wireless Mouse
MODEL NO.	GM7
FCC ID	PRDOPWIRWMU27
POWER SUPPLY	3Vdc from batteries (1.5V AAA x 2)
MODULATION TYPE	GFSK
DATA RATE	1Mbps
OPERATING FREQUENCY	2403 ~ 2480MHz
NUMBER OF CHANNEL	78
ANTENNA TYPE	Printed antenna
DATA CABLE	NA
I/O PORT	NA
ACCESSORY DEVICES	2.4GHz Wireless Receiver (Brand: ACROX & Lexma, Model: MRP)

NOTE:

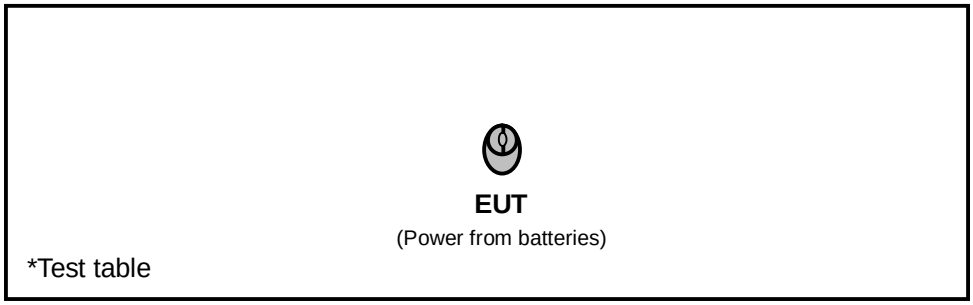
1. The above EUT information is declared by manufacturer and for more detailed feature description, please refer to the manufacturer's specifications or user's manual.

3.2 DESCRIPTION OF TEST MODES

78 channels are provided to this EUT.

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

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	BM	
-	√	√	NOTE	√	-

Where **RE<1G:** Radiated Emission below 1GHz **RE≥1G:** Radiated Emission above 1GHz

BM: Bandedge Measurement

NOTE: No need to concern of Conducted Emission due to the EUT is powered by battery.

RADIATED EMISSION TEST (ABOVE 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations axis and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE
1 to 78	1, 38, 78	GFSK

RADIATED EMISSION TEST (BELOW 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations axis and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE
1 to 78	1	GFSK

BANDEDGE MEASUREMENT:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations 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.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE
1 to 78	1, 78	GFSK

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	25deg. C, 68%RH, 9984 hPa	3Vdc	Sun Lin
RE<1G	25deg. C, 68%RH, 9984 hPa	3Vdc	Sun Lin
BM	25deg. C, 68%RH, 9984 hPa	3Vdc	Sun Lin

3.3 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 C63.4-2003

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.

3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit.

4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209, 15.249 as following:

15.209 Limit		
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
15.249 Limit		
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

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), 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	100033	Jul. 29, 2010	Jul. 28, 2011
Spectrum Analyzer Agilent	E4446A	MY48250266	Aug. 11, 2010	Aug. 10, 2011
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Apr. 27, 2010	Apr. 26, 2011
HORN Antenna SCHWARZBECK	9120D	9120D-405	Feb. 03, 2010	Feb. 02, 2011
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 27, 2010	Dec. 26, 2011
Preamplifier Agilent	8447D	2944A10633	Nov. 02, 2010	Nov. 01, 2011
Preamplifier Agilent	8449B	3008A01964	Nov. 02, 2010	Nov. 01, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	238141/4	May 14, 2010	May 13, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	12738/6	May 14, 2010	May 13, 2011
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.

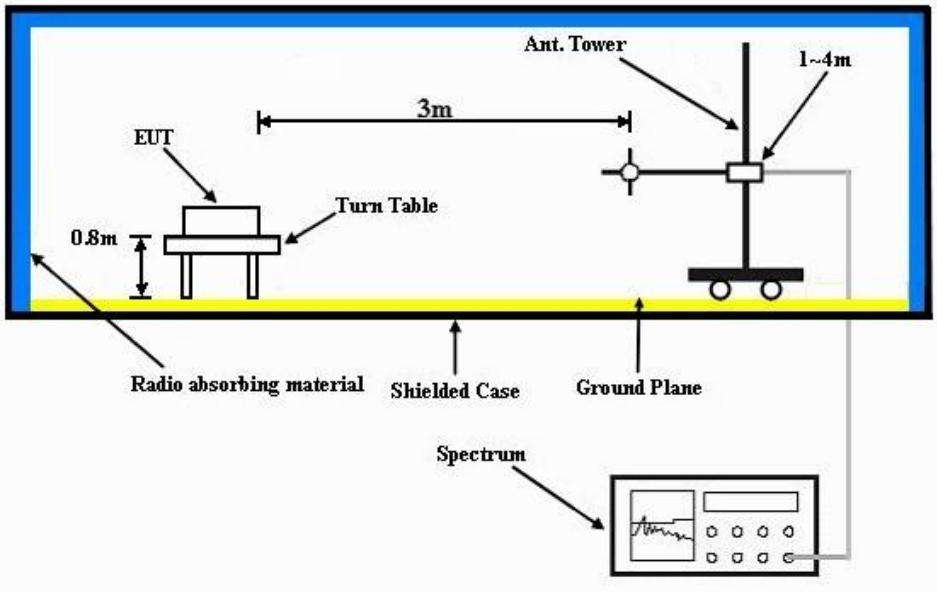
NOTE:

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.

4.1.5 TEST SETUP



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	
CHANNEL	Channel 1	**FREQUENCY RANGE**	1 ~ 25GHz
INPUT POWER	3Vdc	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 984 hPa	**TESTED BY**	Sun Lin

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	39.9 PK	74.0	-34.1	1.34 H	44	9.40	30.50
2	2390.00	30.9 AV	54.0	-23.1	1.34 H	44	0.40	30.50
3	2398.00	42.3 PK	74.0	-31.7	1.34 H	44	11.80	30.50
4	2398.00	30.6 AV	54.0	-23.4	1.34 H	44	0.10	30.50
5	2400.00	59.1 PK	74.0	-14.9	1.34 H	44	28.60	30.50
6	2400.00	7.9 AV	54.0	-46.1	1.34 H	44	-22.60	30.50
7	*2403.00	96.1 PK	114.0	-17.9	1.34 H	44	65.60	30.50
8	*2403.00	44.9 AV	94.0	-49.1	1.34 H	44	14.40	30.50
9	4806.00	64.8 PK	74.0	-9.2	1.16 H	217	28.70	36.10
10	4806.00	13.6 AV	54.0	-40.4	1.16 H	217	-22.50	36.10

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 (0.276 ms / 100 ms) = -51.2 dB

Please see page 18 for plotted duty.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	**FREQUENCY RANGE**	1 ~ 25GHz
INPUT POWER	3Vdc	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 984 hPa	**TESTED BY**	Sun Lin

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	47.8 PK	74.0	-26.2	1.00 V	309	17.30	30.50
2	2390.00	36.6 AV	54.0	-17.4	1.00 V	309	6.10	30.50
3	2398.00	48.8 PK	74.0	-25.2	1.00 V	309	18.30	30.50
4	2398.00	36.4 AV	54.0	-17.6	1.00 V	309	5.90	30.50
5	2400.00	54.2 PK	74.0	-19.8	1.00 V	309	23.70	30.50
6	2400.00	3.0 AV	54.0	-51.0	1.00 V	309	-27.50	30.50
7	*2403.00	86.2 PK	114.0	-27.8	1.00 V	309	55.70	30.50
8	*2403.00	35.0 AV	94.0	-59.0	1.00 V	309	4.50	30.50
9	4806.00	56.9 PK	74.0	-17.1	1.00 V	39	20.80	36.10
10	4806.00	5.7 AV	54.0	-48.3	1.00 V	39	-30.40	36.10

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 (0.276 ms / 100 ms) = -51.2 dB

Please see page 18 for plotted duty.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	3Vdc	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 984 hPa	TESTED BY	Sun Lin

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	*2440.00	96.6 PK	114.0	-17.4	1.30 H	43	65.90	30.70
2	*2440.00	45.4 AV	94.0	-48.6	1.30 H	43	14.70	30.70
3	4880.00	64.1 PK	74.0	-9.9	1.13 H	209	27.90	36.20
4	4880.00	12.9 AV	54.0	-41.1	1.13 H	209	-23.30	36.20
5	7320.00	61.6 PK	74.0	-12.4	1.22 H	359	19.00	42.60
6	7320.00	10.4 AV	54.0	-43.6	1.22 H	359	-32.20	42.60
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	*2440.00	86.8 PK	114.0	-27.2	1.00 V	312	56.10	30.70
2	*2440.00	35.6 AV	94.0	-58.4	1.00 V	312	4.90	30.70
3	4880.00	57.2 PK	74.0	-16.8	1.12 V	312	21.00	36.20
4	4880.00	6.0 AV	54.0	-48.0	1.12 V	312	-30.20	36.20
5	7320.00	60.9 PK	74.0	-13.1	1.07 V	182	18.30	42.60
6	7320.00	9.7 AV	54.0	-44.3	1.07 V	182	-32.90	42.60

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 (0.276 ms / 100 ms) = -51.2 dB

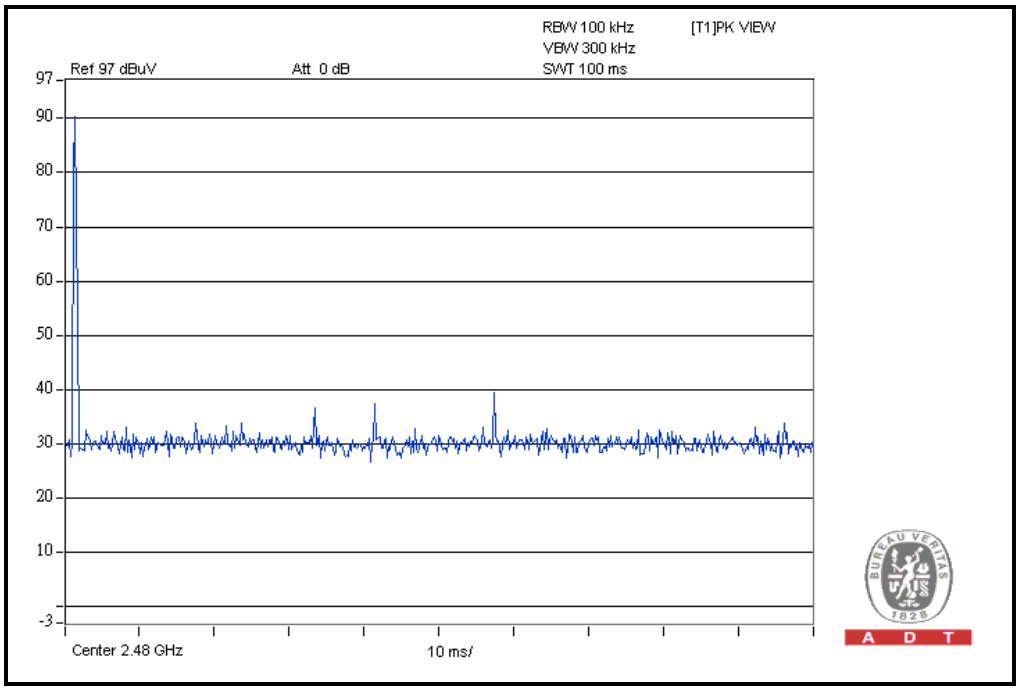
Please see page 18 for plotted duty.

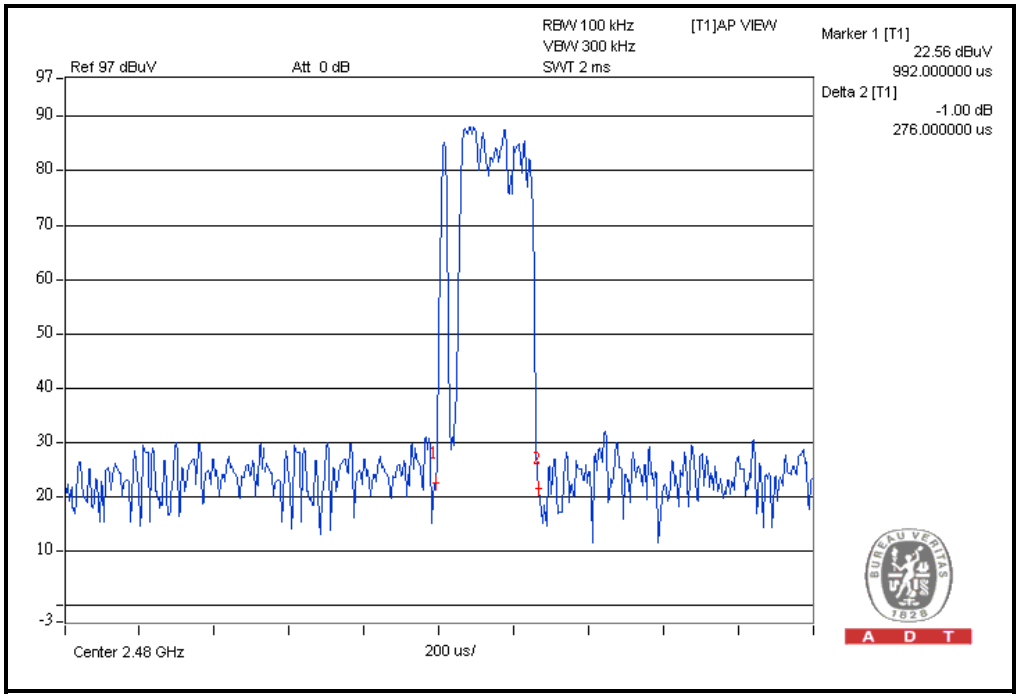
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 78	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	3Vdc	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 984 hPa	TESTED BY	Sun Lin

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	*2480.00	97.0 PK	114.0	-17.0	1.31 H	45	66.20	30.80
2	*2480.00	45.8 AV	94.0	-48.2	1.31 H	45	15.00	30.80
3	2483.50	58.8 PK	74.0	-15.2	1.31 H	45	28.00	30.80
4	2483.50	7.6 AV	54.0	-46.4	1.31 H	45	-23.20	30.80
5	2485.50	46.7 PK	74.0	-27.3	1.31 H	45	15.90	30.80
6	2485.50	35.7 AV	54.0	-18.3	1.31 H	45	4.90	30.80
7	**4960.00**	**65.9 PK**	**74.0**	**-8.1**	**1.00 H**	**177**	**29.50**	**36.40**
8	4960.00	14.7 AV	54.0	-39.3	1.00 H	177	-21.70	36.40
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	*2480.00	87.6 PK	114.0	-26.4	1.00 V	305	56.80	30.80
2	*2480.00	36.4 AV	94.0	-57.6	1.00 V	305	5.60	30.80
3	2483.50	55.0 PK	74.0	-19.0	1.00 V	305	24.20	30.80
4	2483.50	3.8 AV	54.0	-50.2	1.00 V	305	-27.00	30.80
5	2485.50	39.0 PK	74.0	-35.0	1.00 V	305	8.20	30.80
6	2485.50	28.1 AV	54.0	-25.9	1.00 V	305	-2.70	30.80
7	4960.00	61.2 PK	74.0	-12.8	1.08 V	189	24.80	36.40
8	4960.00	10.0 AV	54.0	-44.0	1.08 V	189	-26.40	36.40

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 (0.276 ms / 100 ms) = -51.2 dB

Please see page 18 for plotted duty.





20 log (Duty cycle) = 20 log (0.276 ms / 100 ms) = -51.2 dB

BELOW 1GHz WORST-CASE DATA

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	3Vdc	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 984 hPa	TESTED BY	Sun Lin

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	33.79	23.1 QP	40.0	-16.9	1.25 H	181	10.70	12.40
2	146.56	19.1 QP	43.5	-24.4	1.25 H	88	4.70	14.40
3	286.55	17.9 QP	46.0	-28.1	1.00 H	217	3.50	14.40
4	374.04	25.4 QP	46.0	-20.6	1.00 H	325	8.60	16.80
5	552.91	23.1 QP	46.0	-22.9	1.75 H	310	1.70	21.40
6	700.68	29.1 QP	46.0	-16.9	1.50 H	109	5.00	24.10
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	45.45	24.3 QP	40.0	-15.7	1.00 V	103	9.80	14.50
2	101.84	21.3 QP	43.5	-22.2	1.00 V	337	10.80	10.50
3	158.22	17.2 QP	43.5	-26.3	1.00 V	115	2.40	14.80
4	234.05	19.2 QP	46.0	-26.8	1.75 V	250	7.00	12.20
5	515.97	23.1 QP	46.0	-22.9	1.00 V	37	2.50	20.60
6	700.68	30.4 QP	46.0	-15.6	1.00 V	43	6.30	24.10

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.

4.2 BAND EDGES MEASUREMENT

4.2.1 LIMITS OF BAND EDGES MEASUREMENT

Below –50dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
SPECTRUM ANALYZER R&S	FSP40	100040	Jul. 17, 2010	Jul. 16, 2011

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.2.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100 kHz and 300 kHz with suitable frequency span including 100 MHz bandwidth from band edge. The band edges was measured and recorded.
The spectrum plots are attached on the following pages.

4.2.4 DEVIATION FROM TEST STANDARD

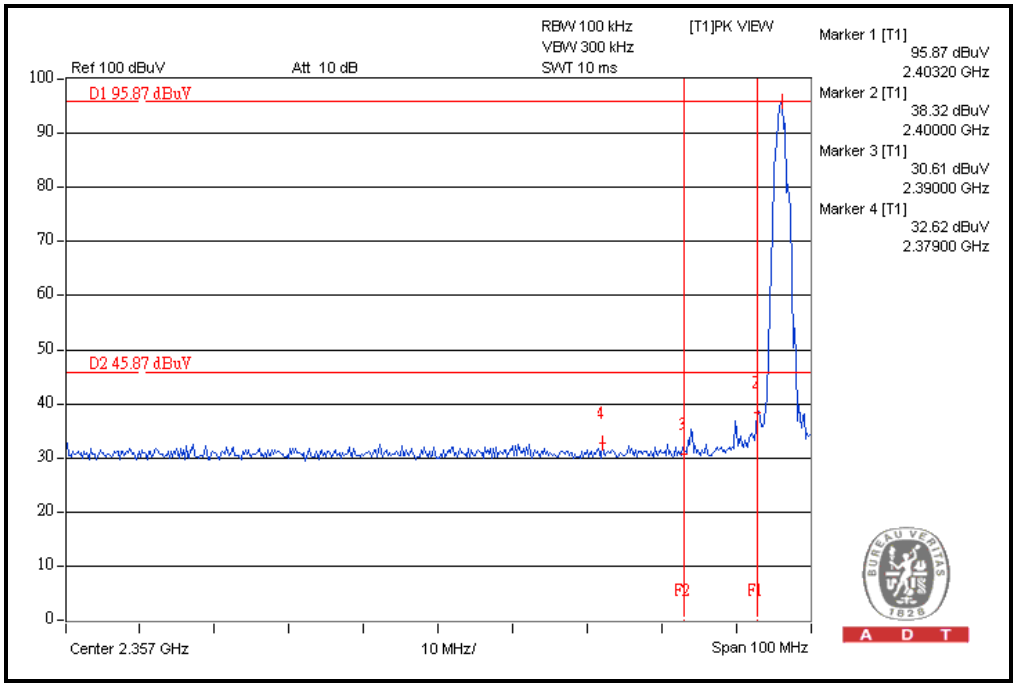
No deviation.

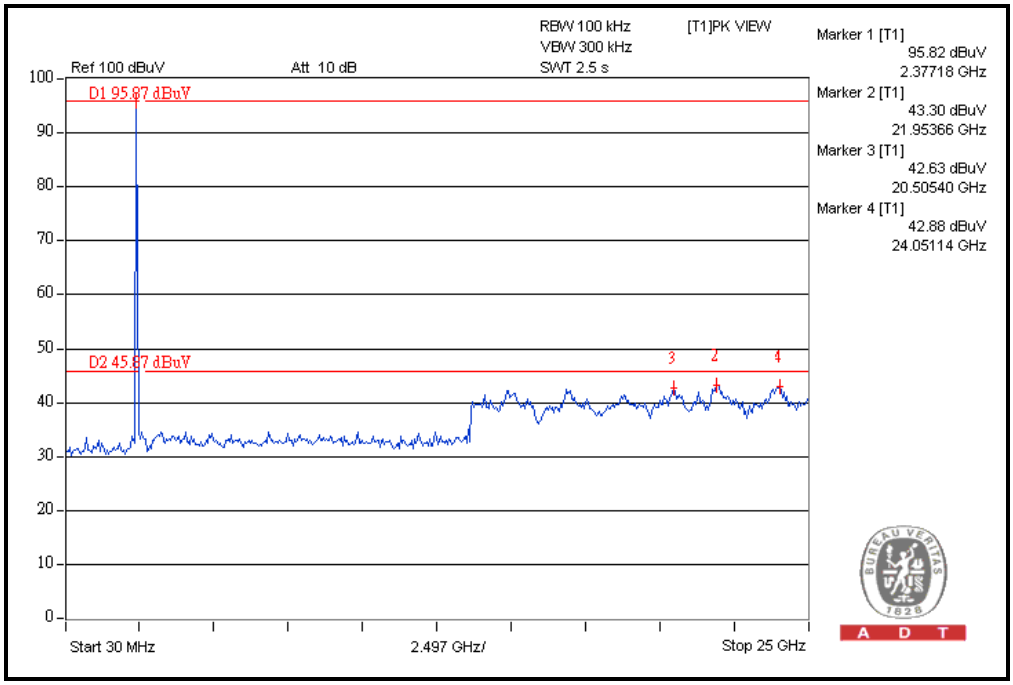
4.2.5 EUT OPERATING CONDITION

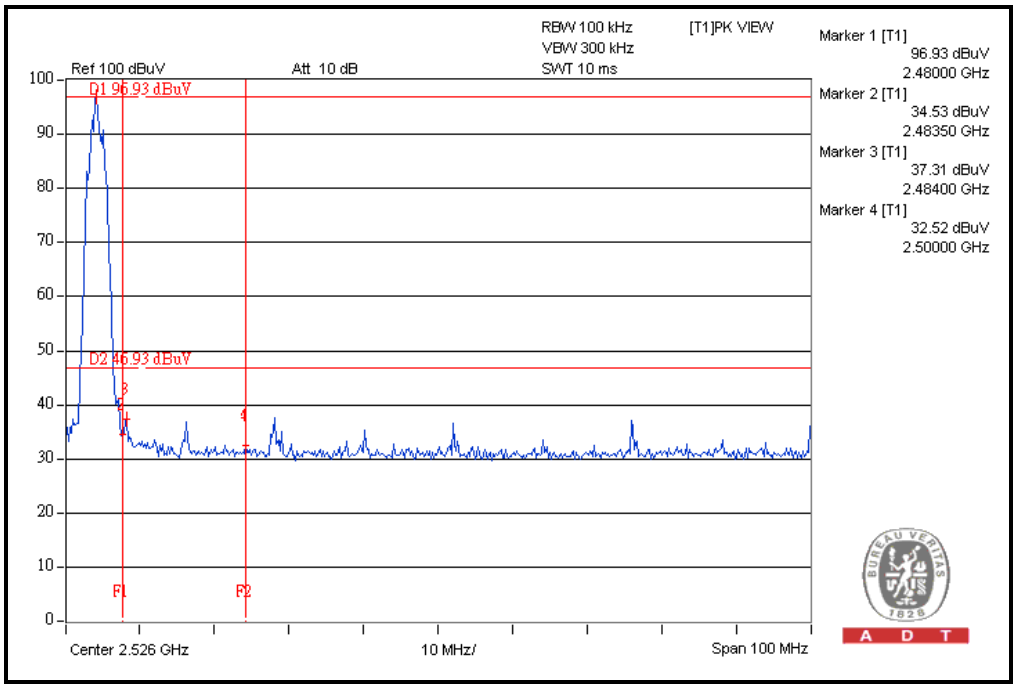
The software provided by client to enable the EUT under transmission condition continuously at lowest and highest channel frequencies individually.

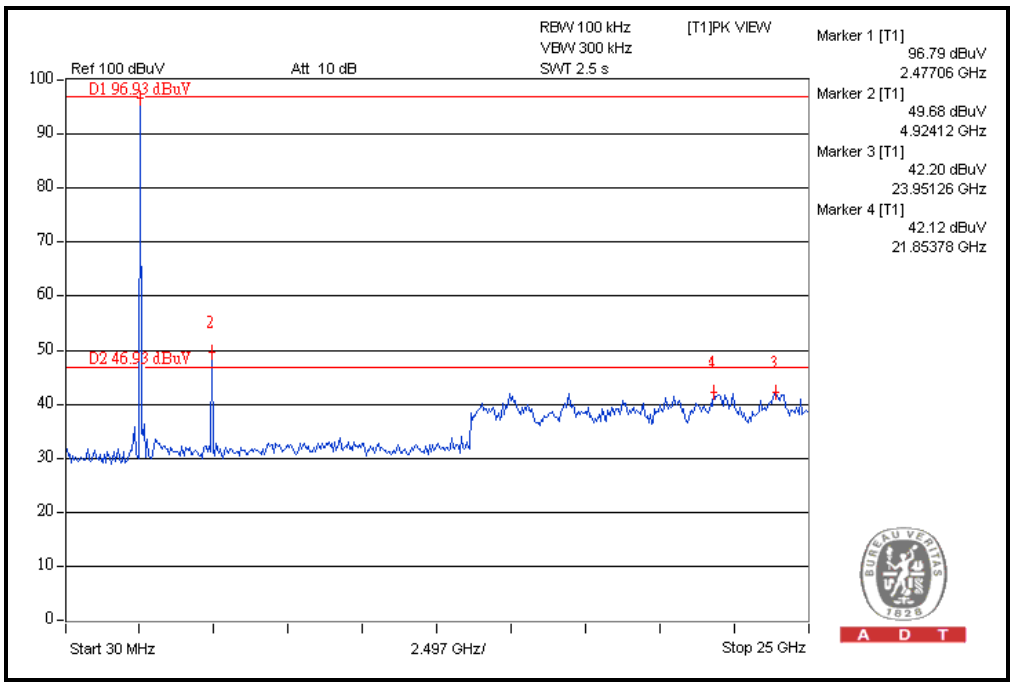
4.2.6 TEST RESULTS

The spectrum plots are attached on the following images. D1 line indicates the highest level, and D2 line indicates the 50dB offset below D1. It shows compliance with the requirement in part 15.249 (d).






RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1]PK VIEW
Ref 100 dBuV
Att 10 dB
D1 96.93 dBuV
D2 46.93 dBuV
Marker 1 [T1]
96.93 dBuV
2.48000 GHz
Marker 2 [T1]
34.53 dBuV
2.48350 GHz
Marker 3 [T1]
37.31 dBuV
2.48400 GHz
Marker 4 [T1]
32.52 dBuV
2.50000 GHz
Center 2.526 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1]PK VIEW
Ref 100 dBuV
Att 10 dB
D1 96.93 dBuV
D2 46.93 dBuV
Marker 1 [T1]
96.79 dBuV
2.47706 GHz
Marker 2 [T1]
49.68 dBuV
4.92412 GHz
Marker 3 [T1]
42.20 dBuV
23.95126 GHz
Marker 4 [T1]
42.12 dBuV
21.85378 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz

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 certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.adt.com.tw/index.5.phtml.
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: 886-3-3185050

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.

---END---