



FCC TEST REPORT

REPORT NO.: RF110512C25

MODEL NO.: 4230700, MWP177_P6S

FCC ID: NIYMWP177P6S

RECEIVED: May 12, 2011

TESTED: May 18, 2011

ISSUED: May 27, 2011

APPLICANT: DEXIN Corporation

ADDRESS: 14F-8, No 258, Lian Cheng Rd., Chung Ho
City, Taipei Hsien, Taiwan, R.O.C

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

LAB LOCATION: No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou Hsiang,
Taipei Hsien, 244 Taiwan

This test report consists of 24 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product endorsement by TAF or any government agencies. The test results in the report only apply to the tested sample.



Table of Contents

RELEASE 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 CONFIGURATION OF SYSTEM UNDER TEST	7
3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:	8
3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS	9
3.4 DESCRIPTION OF SUPPORT UNITS.....	9
4. TEST TYPES AND RESULTS.....	10
4.1 RADIATED EMISSION 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.....	13
4.1.7 TEST RESULTS.....	14
4.2 BAND EDGES MEASUREMENT	19
4.2.1 LIMITS OF BAND EDGES MEASUREMENT	19
4.2.2 TEST INSTRUMENTS	19
4.2.3 TEST PROCEDURE	19
4.2.4 DEVIATION FROM TEST STANDARD	19
4.2.5 EUT OPERATING CONDITION	19
4.2.6 TEST RESULTS.....	19
5. PHOTOGRAPHS OF THE TEST CONFIGURATION.....	22
6. INFORMATION ON THE TESTING LABORATORIES	23
7. APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	24



RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF110512C25	Original release	May 27, 2011



1. CERTIFICATION

PRODUCT: 2.4GHz Wireless Mouse
BRAND NAME: Digital Innovations, Dexin
MODEL NO.: 4230700, MWP177_P6S
APPLICANT: DEXIN Corporation
TESTED: May 18, 2011
TEST ITEM: ENGINEERING SAMPLE
STANDARDS: FCC Part 15, Subpart C (Section 15.249)
ANSI C63.4-2003
ANSI C63.10-2009

The above equipment (Model No.: 4230700) 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 : Kay Chen , **DATE:** May 27, 2011
(Kay Chen / Supervisor)

APPROVED BY : Ken Liu , **DATE:** May 27, 2011
(Ken Liu / 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 SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
15.207	Conducted Emission Test	N/A	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 12.209	PASS	Minimum passing margin is -10.2dB at 76.81MHz

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:

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

Measurement	Frequency	Uncertainty
Radiated emissions	30MHz ~ 1GHz	3.87 dB
	Above 1GHz	2.89 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	2.4GHz Wireless Mouse
MODEL NO.	4230700, MWP177_P6S
FCC ID	NIYMWP177P6S
POWER SUPPLY	3Vdc from batteries
MODULATION TYPE	GFSK
OPERATING FREQUENCY	2405MHz ~ 2476MHz
NUMBER OF CHANNEL	64
ANTENNA TYPE	Copper trace antenna with -2.93dBi gain
ANTENNA CONNECTOR	N/A
DATA CABLE	N/A
I/O PORTS	N/A
ASSOCIATED DEVICES	N/A

NOTE:

1. The EUT is a transceiver and it has the following models:

Brand	Model No.	Differentiation
Digital Innovations	4230700	Representative test model no.
Dexin	MWP177_P6S	Series model no. for brand name differentiation.

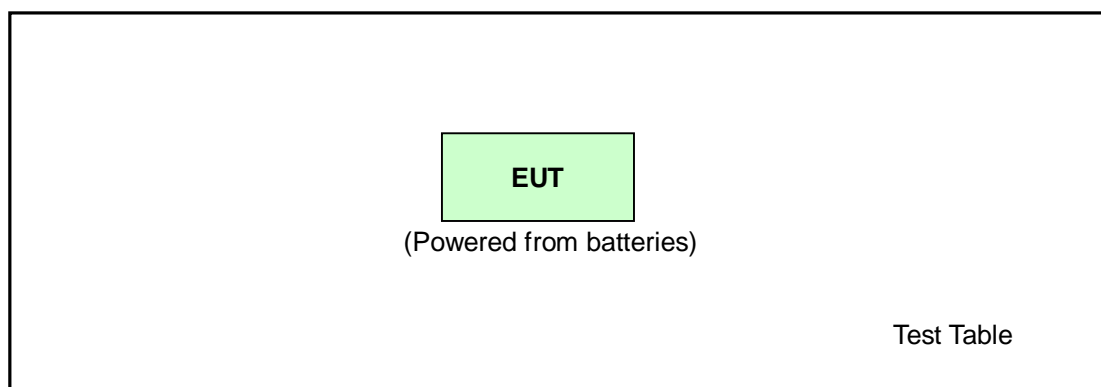
2. The above EUT information was declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

64 channels are provided to this EUT:

Frequency Group 1				Frequency Group 2			
CHANNEL	FREQ. (MHZ)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)
1	2407	17	2442	33	2405	49	2443
2	2408	18	2447	34	2406	50	2444
3	2412	19	2451	35	2419	51	2446
4	2414	20	2452	36	2410	52	2448
5	2417	21	2457	37	2411	53	2449
6	2420	22	2458	38	2413	54	2453
7	2421	23	2459	39	2415	55	2455
8	2422	24	2460	40	2416	56	2456
9	2427	25	2461	41	2418	57	2462
10	2428	26	2465	42	2419	58	2463
11	2431	27	2468	43	2423	59	2464
12	2435	28	2469	44	2425	60	2466
13	2436	29	2472	45	2429	61	2467
14	2437	30	2473	46	2430	62	2470
15	2438	31	2475	47	2432	63	2471
16	2439	32	2476	48	2434	64	2474

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST





3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:

EUT configure mode	Applicable to				Description
	PLC	RE<1G	RE≥1G	BM	
-	Note	√	√	√	-

Where PLC: Power Line Conducted Emission RE<1G RE: 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 batteries.

RADIATED EMISSION TEST (BELOW 1 GHz):

- 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 (FREQUENCY)	MODULATION TYPE
1 to 64	32	GFSK

RADIATED EMISSION TEST (ABOVE 1 GHz):

- 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 (FREQUENCY)	MODULATION TYPE
1 to 64	33, 16, 32	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 (FREQUENCY)	MODULATION TYPE
1 to 64	33, 32	GFSK

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	23deg. C, 78% RH, 1009hPa	3Vdc	Chad Lee
RE ³ 1G	23deg. C, 78% RH, 1009hPa	3Vdc	Chad Lee
BM	23deg. C, 78% RH, 1009hPa	3Vdc	Chad Lee

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

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

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

3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together without any necessary accessory or support unit.

4. TEST TYPES AND RESULTS

N/A

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.	CALIBRATED DATE	CALIBRATED UNTIL
HP Preamplifier	8447D	2432A03504	Mar. 04, 2011	Mar. 03, 2012
HP Preamplifier	8449B	3008A01924	Mar. 04, 2011	Mar. 03, 2012
HP Preamplifier	8449B	3008A01292	Mar. 04, 2011	Mar. 03, 2012
ROHDE & SCHWARZ TEST RECEIVER	ESU26	100005	Jun. 10, 2010	Jun. 09, 2011
Schwarzbeck Antenna	VULB 9168	137	Apr. 12, 2011	Apr. 11, 2012
Schwarzbeck Antenna	VHBA 9123	480	May 06, 2011	May 05, 2012
ADT. Turn Table	TT100	0306	NA	NA
ADT. Tower	AT100	0306	NA	NA
Software	ADT_Radiated_V 7.6.15.9.2	NA	NA	NA
SUHNER RF cable	SF102	CABLE-CH6	Aug. 20, 2010	Aug. 19, 2011
EMCO Horn Antenna	3115	6714	Oct. 26, 2010	Oct. 25, 2011
EMCO Horn Antenna	3115	9312-4192	Apr. 22, 2011	Apr. 21, 2012
Highpass filter Wainwright Instruments	WHK 3.1/18G-10SS	SN 8	NA	NA

- NOTE:**
1. The calibration interval of the above test instruments is 12/24 months. And the calibrations are traceable to NML/ROC and NIST/USA.
 2. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 3. The test was performed in Chamber No. 6.
 4. The Industry Canada Reference No. IC 7450E-6.
 5. The FCC Site Registration No. is 447212.



A D T

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 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. 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. 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 method or average method as specified and then reported in data sheet.

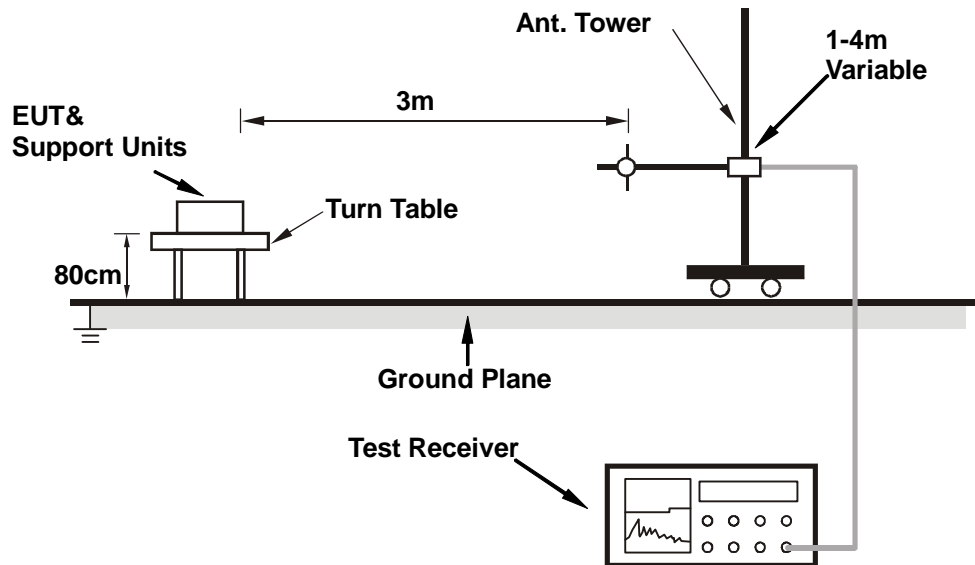
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.
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 SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.1.6 EUT OPERATING CONDITIONS

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



A D T

4.1.7 TEST RESULTS

ABOVE 1GHz DATA

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 33	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	3Vdc	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 78%RH 1009 hPa	TESTED BY	Chad Lee

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	50.7 PK	74.0	-23.3	1.00 H	201	18.21	32.47
2	2390.00	41.4 AV	54.0	-12.6	1.00 H	201	8.96	32.47
3	2400.00	47.7 PK	74.0	-26.4	1.00 H	201	15.14	32.51
4	2400.00	18.1 AV	54.0	-36.0	1.00 H	201	-14.46	32.51
5	*2405.00	91.2 PK	114.0	-22.8	1.00 H	201	58.64	32.53
6	*2405.00	61.6 AV	94.0	-32.4	1.00 H	201	29.04	32.53
7	4810.00	47.3 PK	74.0	-26.7	1.00 H	137	7.44	39.87
8	4810.00	17.7 AV	54.0	-36.3	1.00 H	137	-22.16	39.87
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	48.6 PK	74.0	-25.4	1.00 V	6	16.13	32.47
2	2390.00	41.0 AV	54.0	-13.0	1.00 V	6	8.56	32.47
3	2400.00	36.7 PK	74.0	-37.3	1.00 V	6	4.23	32.51
4	2400.00	7.1 AV	54.0	-46.9	1.00 V	6	-25.37	32.51
5	*2405.00	80.3 PK	114.0	-33.7	1.00 V	6	47.73	32.53
6	*2405.00	50.7 AV	94.0	-43.3	1.00 V	6	18.13	32.53
7	4810.00	56.1 PK	74.0	-17.9	1.00 V	16	16.22	39.87
8	4810.00	26.5 AV	54.0	-27.5	1.00 V	16	-13.38	39.87

- 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:
 $20 \log (\text{Duty cycle}) = 20 \log (0.3 \text{ ms} * 11 / 100 \text{ ms}) = -29.6\text{dB}$
Please see page 17 for plotted duty.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 16	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	3Vdc	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 78%RH 1009 hPa	TESTED BY	Chad Lee

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	*2439.00	90.1 PK	114.0	-23.9	1.00 H	203	57.41	32.65
2	*2439.00	60.5 AV	94.0	-33.5	1.00 H	203	27.81	32.65
3	4878.00	51.2 PK	74.0	-22.8	1.00 H	66	11.12	40.10
4	4878.00	21.6 AV	54.0	-32.4	1.00 H	66	-18.48	40.10
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	*2439.00	78.2 PK	114.0	-35.8	1.00 V	6	45.57	32.65
2	*2439.00	48.6 AV	94.0	-45.4	1.00 V	6	15.97	32.65
3	4878.00	56.5 PK	74.0	-17.5	1.00 V	29	16.36	40.10
4	4878.00	26.9 AV	54.0	-27.1	1.00 V	29	-13.24	40.10

- REMARKS:**
- Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 - Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 - The other emission levels were very low against the limit.
 - Margin value = Emission level – Limit value.
 - * * : Fundamental frequency
 - The average value of fundamental frequency is: Average = Peak value + 20log(Duty cycle) Where the duty factor is calculated from following formula:
 $20 \log (\text{Duty cycle}) = 20 \log (0.3 \text{ ms} * 11 / 100 \text{ ms}) = -29.6\text{dB}$
 Please see page 17 for plotted duty.



A D T

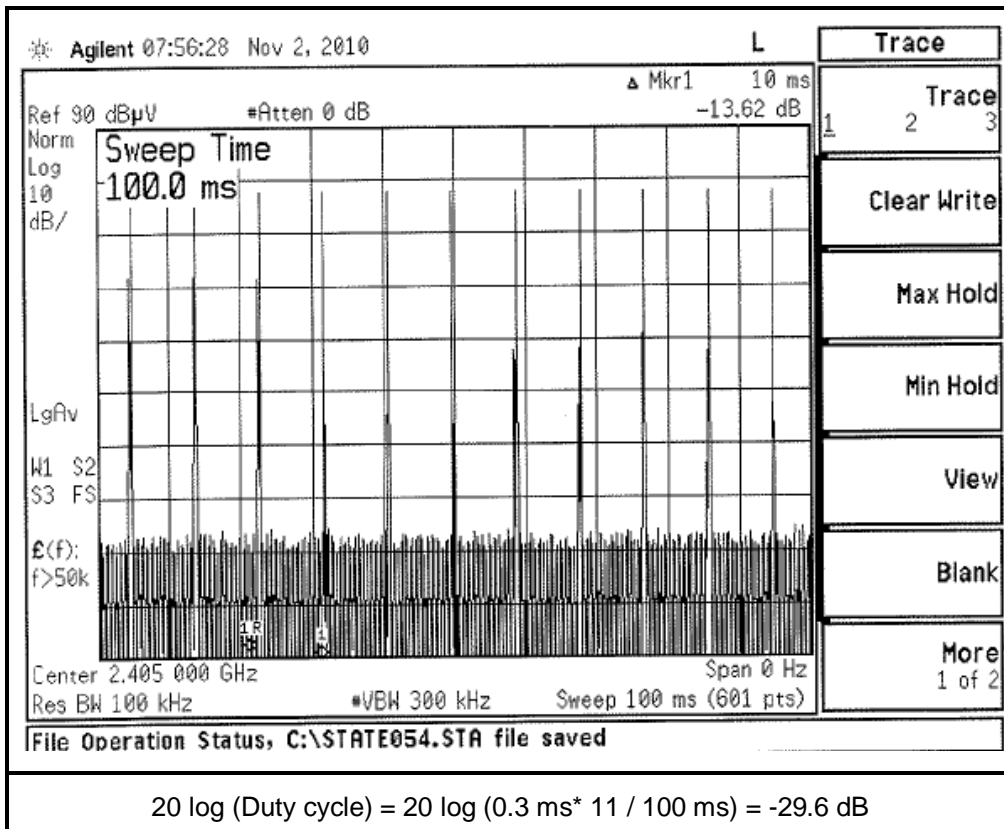
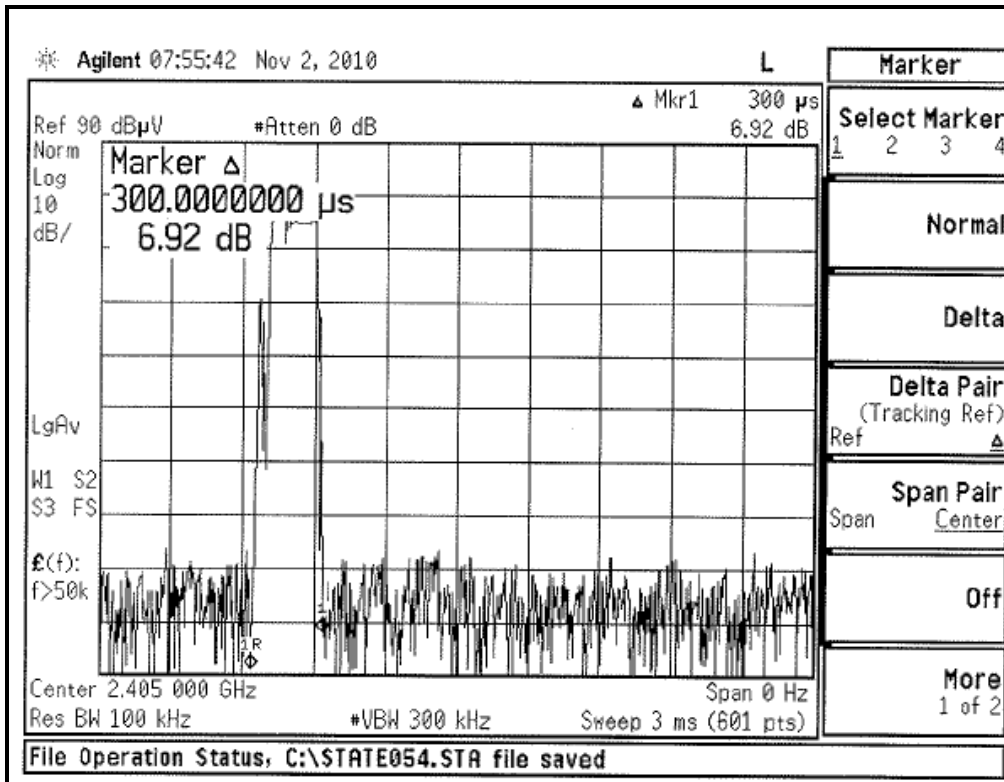
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 32	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	3Vdc	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 78%RH 1009 hPa	TESTED BY	Chad Lee

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	*2476.00	89.1 PK	114.0	-24.9	1.00 H	198	56.35	32.78
2	*2476.00	59.5 AV	94.0	-34.5	1.00 H	198	26.75	32.78
3	2483.50	62.4 PK	74.0	-11.6	1.00 H	198	29.57	32.81
4	2483.50	32.8 AV	54.0	-21.2	1.00 H	198	-0.03	32.81
5	4952.00	55.4 PK	74.0	-18.6	1.00 H	142	15.08	40.32
6	4952.00	25.8 AV	54.0	-28.2	1.00 H	142	-14.52	40.32
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	*2476.00	79.9 PK	114.0	-34.1	1.00 V	269	47.13	32.78
2	*2476.00	50.3 AV	94.0	-43.7	1.00 V	269	17.53	32.78
3	2483.50	53.2 PK	74.0	-20.8	1.00 V	142	20.35	32.81
4	2483.50	23.6 AV	54.0	-30.4	1.00 V	142	-9.25	32.81
5	4952.00	55.3 PK	74.0	-18.7	1.00 V	162	15.00	40.32
6	4952.00	25.7 AV	54.0	-28.3	1.00 V	162	-14.60	40.32

- 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:
 $20 \log (\text{Duty cycle}) = 20 \log (0.3 \text{ ms} * 11 / 100 \text{ ms}) = -29.6\text{dB}$
 Please see page 17 for plotted duty.



A D T



$$20 \log (\text{Duty cycle}) = 20 \log (0.3 \text{ ms} * 11 / 100 \text{ ms}) = -29.6 \text{ dB}$$



A D T

BELOW 1GHz WORST-CASE DATA

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 32	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	3Vdc	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 78%RH 1009 hPa	TESTED BY	Chad Lee

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	704.64	24.1 QP	46.0	-21.9	1.19 H	298	-0.06	24.15
2	733.69	24.5 QP	46.0	-21.5	1.63 H	268	-0.39	24.85
3	790.18	25.7 QP	46.0	-20.3	1.52 H	127	-0.49	26.21
4	825.69	26.1 QP	46.0	-19.9	1.84 H	256	-0.67	26.78
5	841.83	26.5 QP	46.0	-19.5	1.03 H	337	-0.47	26.99
6	956.42	28.2 QP	46.0	-17.8	1.50 H	67	-0.22	28.44
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	41.30	22.0 QP	40.0	-18.0	1.15 V	268	7.82	14.16
2	76.81	29.8 QP	40.0	-10.2	1.63 V	31	18.75	11.02
3	109.08	31.5 QP	43.5	-12.0	1.82 V	280	20.66	10.84
4	740.15	24.7 QP	46.0	-21.3	1.63 V	127	-0.30	25.00
5	765.97	25.0 QP	46.0	-21.1	1.57 V	1	-0.68	25.63
6	803.09	25.3 QP	46.0	-20.8	1.89 V	169	-1.24	26.49

- 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.	CALIBRATED DATE	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSP 40	100036	Apr. 06, 2011	Apr. 05, 2012

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

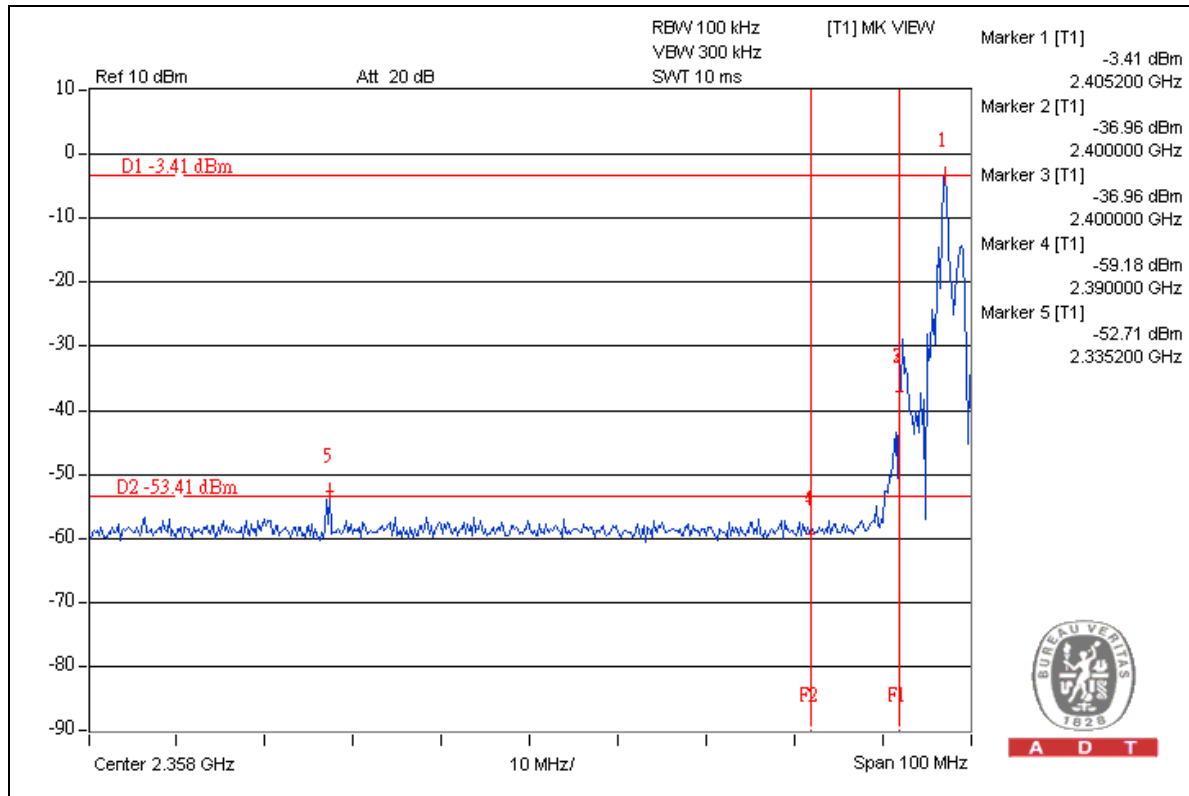
Same as Item 4.2.6

4.2.6 TEST RESULTS

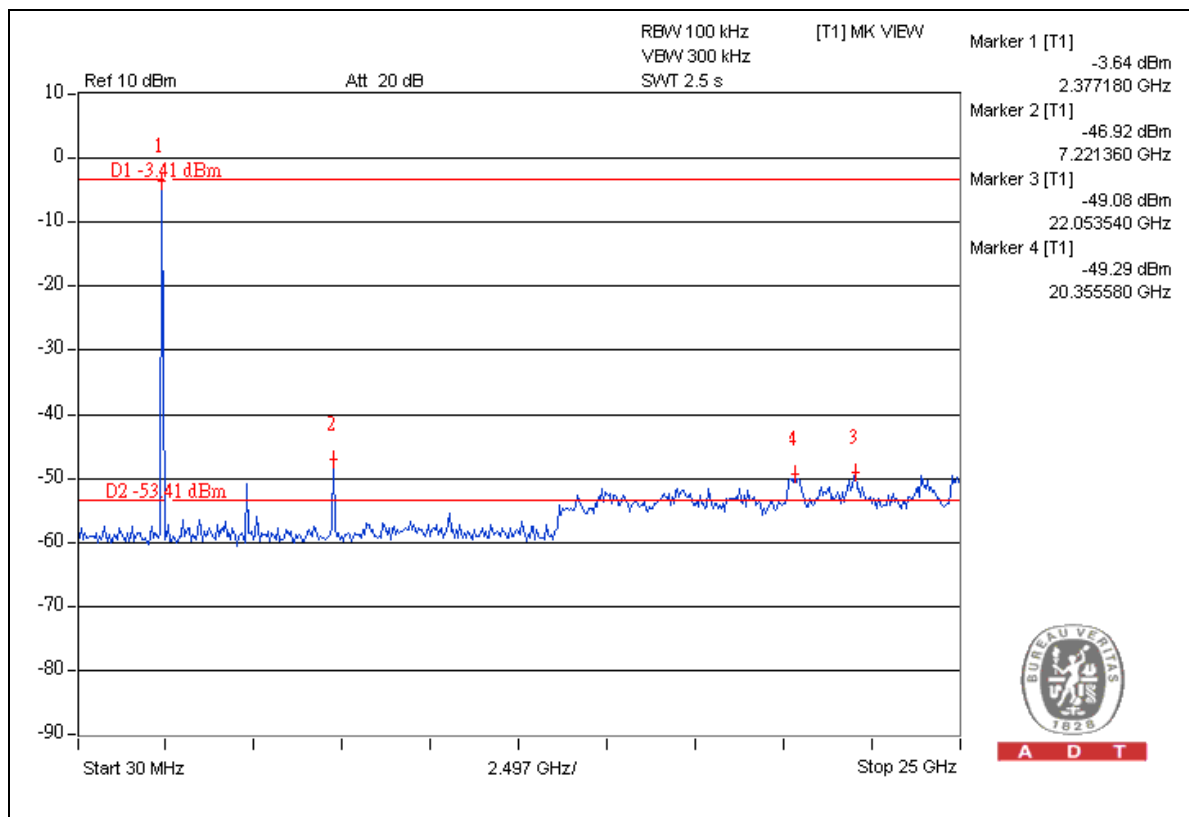
The spectrum plots are attached on the following 4 images. D1 line indicates the highest level, and D2 line indicates the 50dB offset below D1. It shows compliance with the requirement in part 15.249(d).



A D T



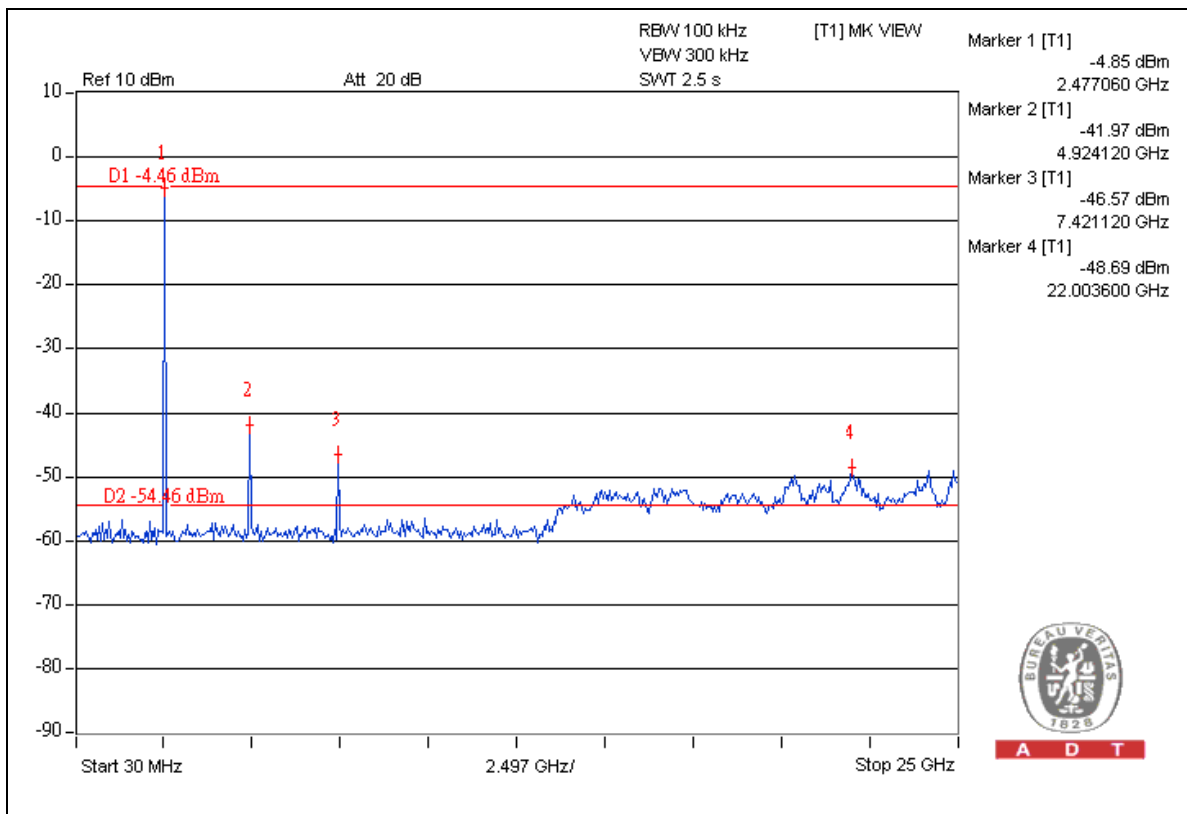
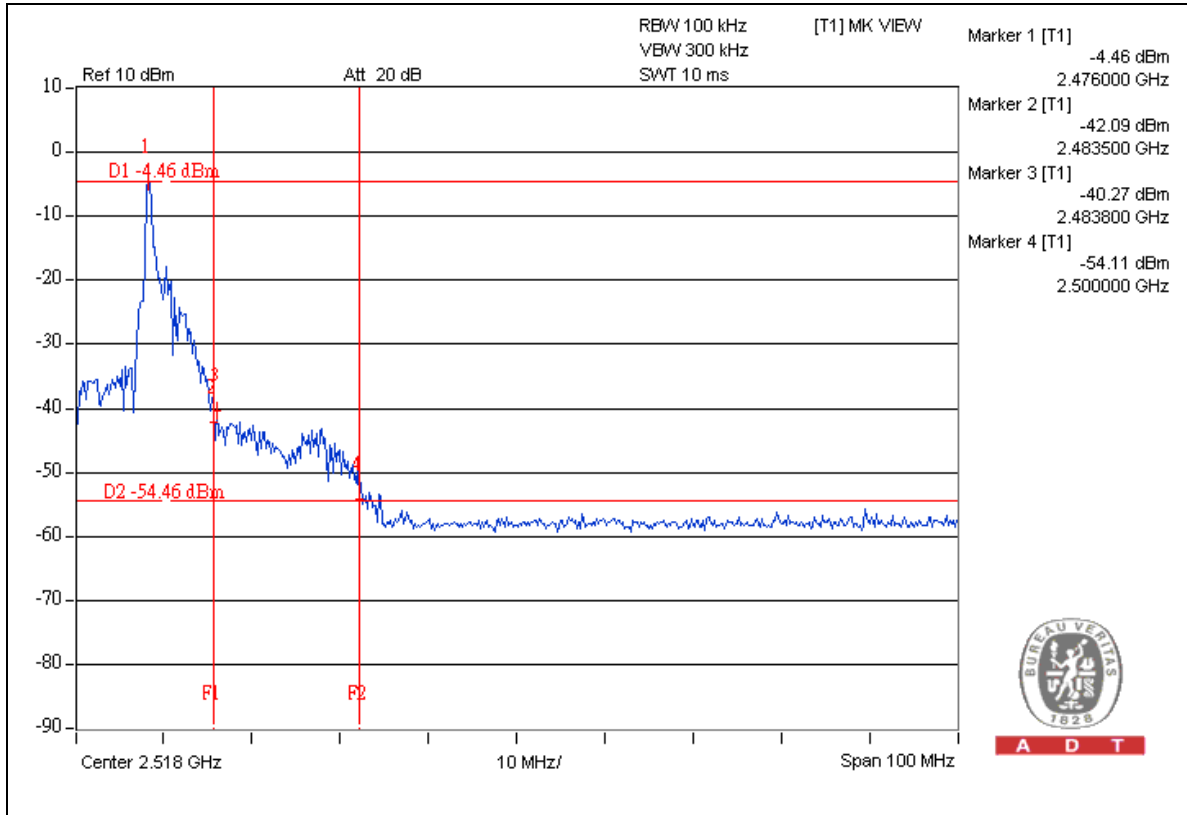
A D T



A D T



A D T



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.



A D T

7. APPENDIX A – MODIFICATIONS 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---