

# FCC DoC TEST REPORT

**REPORT NO. :** FD970714H01

**MODEL NO. :** SPX8WF, SPX8WFEF

**RECEIVED :** July 14, 2008

**TESTED :** Sep. 26, 2008

**ISSUED:** Oct. 14, 2008

**APPLICANT :** SmartParts Inc.

**ADDRESS :** Block A&B, Xili Industrial Area, Xili Town, Nanshan district, shenzhen, China

**ISSUED BY :** Advance Data Technology Corporation

**LAB LOCATION :** No. 81-1, Lu Liao Keng, 9 Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien, Taiwan

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## Table of Contents

1	CERTIFICATION .....	3
2	SUMMARY OF TEST RESULTS .....	4
2.1	MEASUREMENT UNCERTAINTY .....	4
3	GENERAL INFORMATION .....	5
3.1	GENERAL DESCRIPTION OF EUT .....	5
3.2	GENERAL DESCRIPTION OF TEST MODE .....	7
3.3	DESCRIPTION OF SUPPORT UNITS .....	8
3.4	CONFIGURATION OF SYSTEM UNDER TEST .....	9
4	EMISSION TEST .....	10
4.1	CONDUCTED EMISSION MEASUREMENT .....	10
4.1.1	LIMITS OF CONDUCTED EMISSION MEASUREMENT .....	10
4.1.2	TEST INSTRUMENTS .....	10
4.1.3	TEST PROCEDURE .....	11
4.1.4	DEVIATION FROM TEST STANDARD .....	11
4.1.5	TEST SETUP .....	11
4.1.6	EUT OPERATING CONDITIONS .....	12
4.1.7	TEST RESULTS .....	13
4.2	RADIATED EMISSION MEASUREMENT .....	15
4.2.1	LIMITS OF RADIATED EMISSION MEASUREMENT .....	15
4.2.2	TEST INSTRUMENTS .....	16
4.2.3	TEST PROCEDURE .....	17
4.2.4	DEVIATION FROM TEST STANDARD .....	17
4.2.5	TEST SETUP .....	18
4.2.6	EUT OPERATING CONDITIONS .....	18
4.2.7	TEST RESULTS .....	19
5	INFORMATION ON THE TESTING LABORATORIES .....	23
6	APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB .....	24

## 1 CERTIFICATION

**PRODUCT :** Digital Photo Frame  
**BRAND NAME :** SMARTPARTS  
**MODEL NO. :** SPX8WF, SPX8WFEF  
**TESTED :** Sep. 26, 2008  
**TEST SAMPLE :** R&D SAMPLE  
**APPLICANT :** SmartParts Inc.  
**STANDARDS :** FCC Part 15, Subpart B, Class B  
(section 15.31, 15.107 and 15.109)  
ICES-003: 2004, Class B (section 4 and 5)  
ANSI C63.4-2003 (section 7 and 8)

The above equipment (Model: SPX8WF) has been tested by **Advance Data Technology Corporation**, 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 :** Midoli Peng , **DATE:** Oct. 14, 2008  
( Midoli Peng, Specialist )

**TECHNICAL ACCEPTANCE :** Hank Chung , **DATE:** Oct. 14, 2008  
Responsible for RF ( Hank Chung, Deputy Manager )

**APPROVED BY :** May Chen , **DATE:** Oct. 14, 2008  
(May Chen, Deputy Manager )

## 2 SUMMARY OF TEST RESULTS

Standard	Test Type	Result	Remarks
FCC Part 15, Subpart B, Class B	Conducted Test	<b>PASS</b>	Meets Class B Limit Minimum passing margin is -4.69 dB at 0.537 MHz
ICES-003, Class B	Radiated Test	<b>PASS</b>	Meets Class B Limit Minimum passing margin is -3.10 dB at 148.50 MHz

Note: The limit for radiated test was performed according to CISPR 22, which was specified in FCC PART 15 Subpart B 15.109(g). Also the limits of ICES-003: 2004 and CISPR 22 are same.

### 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:

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

Measurement	Value
Conducted emissions	2.45 dB
Radiated emissions (30MHz ~ 1GHz)	3.98 dB
Radiated emissions (1GHz ~ 18GHz)	2.28 dB

### 3 GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

<b>PRODUCT</b>	Digital Photo Frame
<b>MODEL NO.</b>	SPX8WF, SPX8WFEF
<b>POWER SUPPLY</b>	Power Adapter, Class II
<b>POWER CORD</b>	DC Output cable (1.6m without core)
<b>DATA CABLE SUPPLIED</b>	USB cable (Shielded, 1.3m without core)
<b>I/O PORT</b>	CF SD/MMC/MS/XD USB HOST USB
<b>ASSOCIATED DEVICES</b>	Remote Control (Brand : SMARTPARTS)

#### Note:

1. The EUT has two model names, which are identical to each other in all aspects except for the followings:

Model Name	Different
SPX8WF	For different marketing
SPX8WFEF	

From the above models, model: **SPX8WF** was selected as representative model for the test and its data was recorded in this report.

2. The EUT must be supplied with a power adapter as following:

Brand	Model No.	Spec.
SMARTPARTS	MT12-Y120100-A1	Input: 120VAC, 0.3A, 60Hz Output: 12VDC, 1A

3. The EUT inside has one module which model is WLAN module US106.

4. The EUT was pre-tested under following test modes.

Pre-test Mode	Description
<b>Mode A</b>	<b>PC link Mode: by (CF card 、SD card 、USB driver(Load) 、HDD&lt;internal&gt;) R/W</b>
Mode B	PC link Mode: by (CF card 、MMC card 、USB driver(Load) 、HDD<internal>) R/W
Mode C	Picture slide show mode: by CF card 、SD card 、USB driver (playing from CF card)
Mode D	Picture slide show mode: by CF card 、SD card 、USB driver (playing from SD card)
Mode E	Picture slide show mode: by CF card 、SD card 、USB driver (playing from USB driver)
Mode F	Picture slide show mode: by CF card 、XD card 、USB driver (playing from XD card)
Mode G	Picture slide show mode: by CF card 、MMC card 、USB driver (playing from MMC card)
Mode H	Picture slide show mode: by CF card 、MS card 、USB driver (playing from MS card)
Mode I	Picture slide show mode: by CF card 、MS card 、USB driver(Load) 、HDD<internal> (playing from HDD<internal>)

From the above modes, the radiated worst cases were found in **Mode A**.

Therefore only the test data of the modes were recorded in this report.

5. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

### 3.2 GENERAL DESCRIPTION OF TEST MODE

The EUT was tested under the following test modes, and its data were recorded in this report:

Test Mode	Description
Mode 1	PC link Mode: by (CF card 、SD card 、USB driver(Load) 、 HDD<internal>) R/W

### 3.3 DESCRIPTION OF SUPPORT UNITS

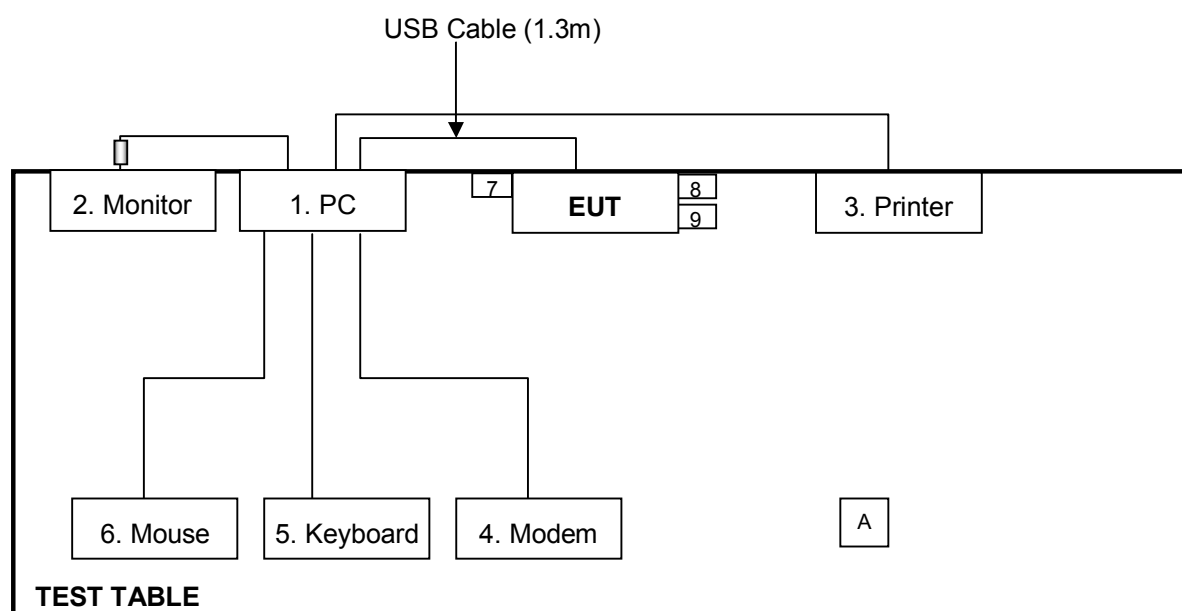
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Product	Brand	Model No.	Serial No.	FCC ID
1	PC	DELL	DCSM	G84QL1S	FCC DoC
2	Monitor	DELL	2007FPb	CN-0DC2144663363V-12WS	FCC
3	Printer	EPSON	LQ-300+	DCGY017079	DOC
4	Modem	ACEEX	1414	0206026775	IFAXDM1414
5	Keyboard	DELL	SK-8115	MY-0J4635-71619-67V-0349	FCC Standards
6	Mouse	DELL	M056UOA	FOROOSZ3	FCC DoC
7	USB Driver	SanDisk	SDCZ2-512-A10	5482374371	FCC DoC
8	SD CARD	ADATA	My flash 1G	NA	NA
9	CF CARD	Transcend	256MB	NA	NA

No.	Signal cable description
1	NA
2	1.8 m braid shielded wire, terminated with VGA connector via metallic frame, with one core.
3	1.8m braid shielded wire, terminated with DB25 and Centronics connector via metallic frame, w/o core
4	1.2 m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core.
5	1.9m foil shielded wire, USB Connector, w/o core.
6	1.8m foil shielded wire, USB Connector, w/o core.
7	NA
8	NA
9	NA



### 3.4 CONFIGURATION OF SYSTEM UNDER TEST



- NOTE:** 1. Item 7 is USB driver.  
 2. Item 8 is SD card.  
 3. Item 9 is CF card.  
 4. Item A is Remote Control.

## 4 EMISSION TEST

### 4.1 CONDUCTED EMISSION MEASUREMENT

#### 4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

##### TEST STANDARD:

FCC Part 15, Subpart B (Section: 15.107)

ICES-003: 2004 (Class A: section 5.2/Class B: section 5.3)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

- NOTE:**
- (1) The lower limit shall apply at the transition frequencies.
  - (2) The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
  - (3) All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

#### 4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	100287	March 11, 2008	March 10, 2009
Line-Impedance Stabilization Network(for EUT)	KNW-407	8-1395-12	May 07, 2008	May 06, 2009
Line-Impedance Stabilization Network(for Peripheral)	ENV-216	100072	June 13, 2008	June 12, 2009
RF Cable (JYEBAO)	5DFB	COACAB-001	July 24, 2008	July 23, 2009
50 ohms Terminator	50	3	Nov. 16, 2007	Nov. 15, 2008
Software	ADT_Conc_V7.3.2	NA	NA	NA

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
  2. The test was performed in ADT Shielded Room No. A.
  3. The VCCI Con A Registration No. is C-817.

### 4.1.3 TEST PROCEDURE

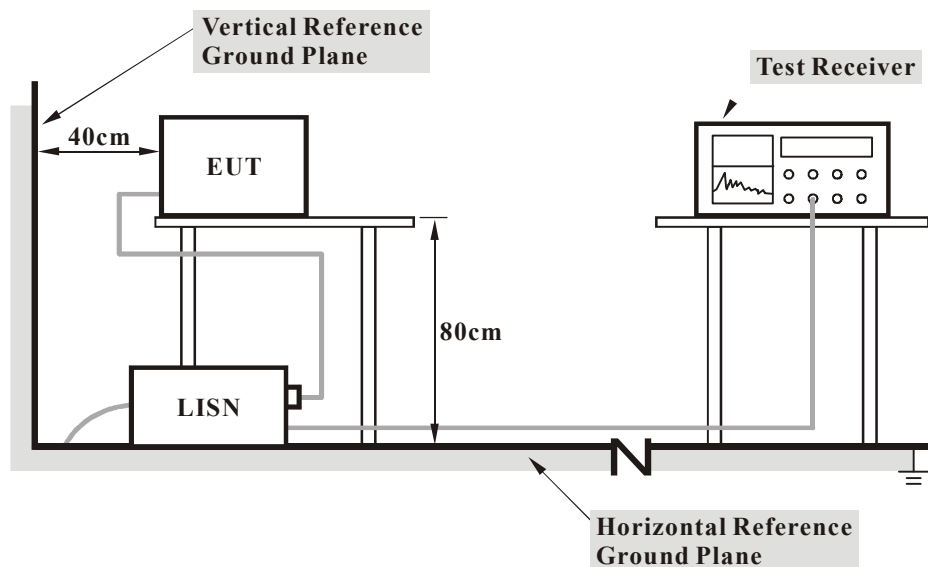
The basic test procedure was in accordance with ANSI C63.4-2003 (section 7), CISPR 22 (section 9) and ICES-003: 2004 (section 4).

- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit-20dB) were not recorded.

### 4.1.4 DEVIATION FROM TEST STANDARD

No deviation

### 4.1.5 TEST SETUP



- Note:**
- Support units were connected to second LISN.
  - Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes support units.

For the actual test configuration, please refer to the related Item - Photographs of the Test Configuration.

#### **4.1.6 EUT OPERATING CONDITIONS**

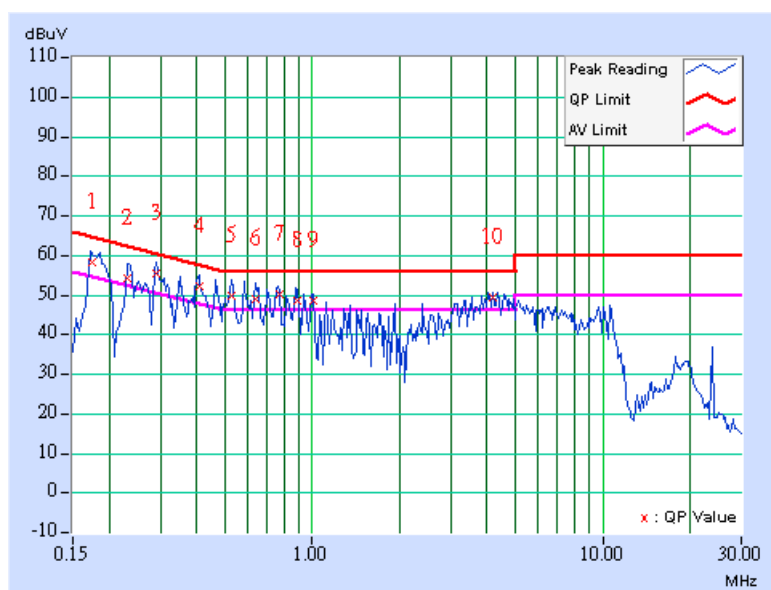
1. Turn on the power of all equipment.
2. Plug the SD card · CF card · USB driver(Load) into EUT, EUT reads messages from MMC card and displays "H " messages on its screen.
3. PC reads and writes messages from SD card · CF card · HDD(internal) and displays its messages on EUT's screen.

## 4.1.7 TEST RESULTS

TEST MODE	Mode 1	PHASE	Line (L)
INPUT POWER	120Vac, 60 Hz	6dB BANDWIDTH	9 kHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 60 % RH, 965 hPa	TESTED BY	Max Tseng

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.176	0.55	57.96	44.96	58.51	45.51	64.69	54.69	-6.17	-9.17
2	0.232	0.48	53.59	44.38	54.07	44.86	62.38	52.38	-8.30	-7.51
3	0.291	0.45	55.10	40.98	55.55	41.43	60.51	50.51	-4.95	-9.07
4	0.408	0.40	51.70	38.86	52.10	39.26	57.69	47.69	-5.59	-8.43
5	0.525	0.41	49.39	38.23	49.80	38.64	56.00	46.00	-6.20	-7.36
6	0.642	0.43	48.65	36.28	49.08	36.71	56.00	46.00	-6.92	-9.29
7	0.770	0.44	49.57	37.78	50.01	38.22	56.00	46.00	-5.99	-7.78
8	0.889	0.46	47.93	35.70	48.39	36.16	56.00	46.00	-7.61	-9.84
9	1.012	0.47	48.10	34.81	48.57	35.28	56.00	46.00	-7.43	-10.72
10	4.160	0.48	48.73	36.44	49.21	36.92	56.00	46.00	-6.79	-9.08

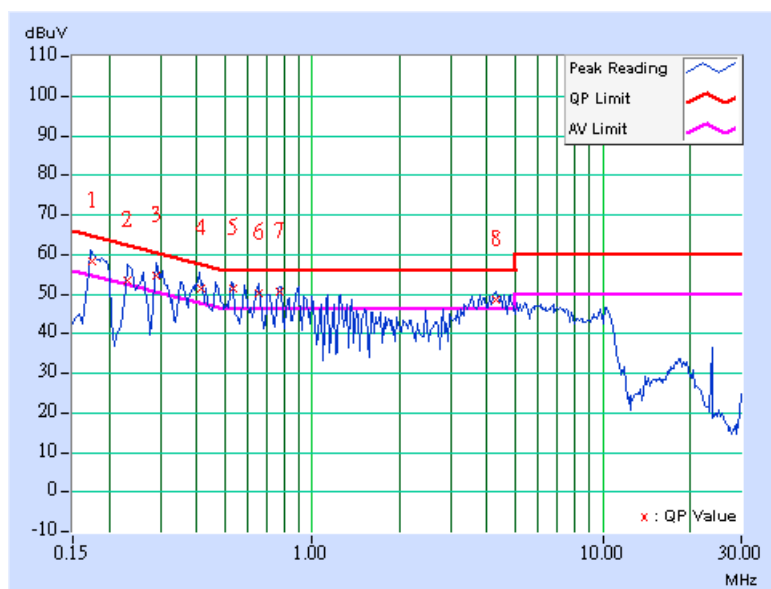
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
  2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  3. The emission levels of other frequencies were very low against the limit.
  4. Margin value = Emission level - Limit value
  5. Correction factor = Insertion loss + Cable loss
  6. Emission Level = Correction Factor + Reading Value.



<b>TEST MODE</b>	Mode 1	<b>PHASE</b>	Neutral (N)
<b>INPUT POWER</b>	120Vac, 60 Hz	<b>6dB BANDWIDTH</b>	9 kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 60 % RH, 965 hPa	<b>TESTED BY</b>	Max Tseng

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.174	0.31	58.15	44.75	58.46	45.06	64.76	54.76	-6.30	-9.70
2	0.232	0.24	53.33	44.49	53.57	44.73	62.38	52.38	-8.81	-7.65
3	0.291	0.21	54.53	41.37	54.74	41.58	60.51	50.51	-5.76	-8.92
4	0.416	0.17	51.22	41.11	51.39	41.28	57.53	47.53	-6.13	-6.24
<b>5</b>	<b>0.537</b>	<b>0.18</b>	<b>51.13</b>	<b>37.90</b>	<b>51.31</b>	<b>38.08</b>	<b>56.00</b>	<b>46.00</b>	<b>-4.69</b>	<b>-7.92</b>
6	0.658	0.20	49.75	35.70	49.95	35.90	56.00	46.00	-6.05	-10.10
7	0.775	0.21	50.49	35.81	50.70	36.02	56.00	46.00	-5.30	-9.98
8	4.294	0.27	48.15	35.28	48.42	35.55	56.00	46.00	-7.58	-10.45

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
  2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  3. The emission levels of other frequencies were very low against the limit.
  4. Margin value = Emission level - Limit value
  5. Correction factor = Insertion loss + Cable loss
  6. Emission Level = Correction Factor + Reading Value.



## 4.2 RADIATED EMISSION MEASUREMENT

### 4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

#### TEST STANDARD:

FCC Part 15, Subpart B (Section: 15.109)

ICES-003: 2004 (Class A: Section 5.4/Class B: Section 5.5)

#### FOR FREQUENCY BELOW 1000 MHz (47 CFR Part 15 Subpart B)

FREQUENCY (MHz)	Class A (at 10m)		Class B (at 3m)	
	uV/m	dBuV/m	uV/m	dBuV/m
30 – 88	90	39.1	100	40.0
88 – 216	150	43.5	150	43.5
216 - 960	210	46.4	200	46.0
Above 960	300	49.5	500	54.0

#### FOR FREQUENCY BELOW 1000 MHz (CISPR 22)

FREQUENCY (MHz)	Class A (at 10m)	Class B (at 10m)
	dBuV/m	dBuV/m
30 – 230	40	30
230 - 1000	47	37

**Note:** The limit for radiated test was performed according to CISPR 22, which was specified in FCC PART 15 Subpart B 15.109(g) and ICES-003 clause 7.

#### LIMIT OF RADIATED EMISSION OF FCC PART 15, SUBPART B FOR FREQUENCY ABOVE 1000 MHz

FREQUENCY (MHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80.0	60.0	74.0	54.0

Note: (1) The lower limit shall apply at the transition frequencies.

(2) Emission level (dBuV/m) = 20 log Emission level (uV/m).

(3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

#### FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 <sup>th</sup> harmonic of the highest frequency or 40 GHz, whichever is lower

## 4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ADVANTEST Spectrum Analyzer	R3271A	85060311	July 22, 2008	July 21, 2009
HP Pre_Amplifier	8449B	3008A01922	Oct. 05, 2007	Oct. 04, 2008
ROHDE & SCHWARZ Test Receiver	ESCS 30	100027	May 09, 2008	May 08, 2009
SCHWARZBECK Broadband Antenna	VULB-9168	263	April 25, 2008	April 24, 2009
Schwarzbeck Horn_Antenna	BBHA9120	D123	Oct. 05, 2007	Oct. 04, 2008
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 28, 2008	Jan. 27, 2009
RF Switches	MP59B	M50867	July 04, 2008	July 03, 2009
RF Cable	8DFB	STACAB-30 M-1GHz	Aug. 10, 2008	Aug. 09, 2009
Software	ADT_Radiated_V7.6.15.8	NA	NA	NA
CT Antenna Tower & Turn Table	TT100	ADT01	NA	NA
CORCOM AC Filter	MRI2030	107/108	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 horn antenna, HP preamplifier (model: 8449B) and Spectrum Analyzer (model: R3271A) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in ADT Open Site No. A.
4. The VCCI Site Registration No. is R-782.
5. The FCC Site Registration No. is 91097.
6. The CANADA Site Registration No. is IC 3789C-1.



### 4.2.3 TEST PROCEDURE

The basic test procedure was in accordance with ANSI C63.4-2003 (section 8), CISPR 22 (section 10) and ICES-003: 2004 (section 4).

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10-meter open field site. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 10 meters (3 meters above 1GHz) 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 turn table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

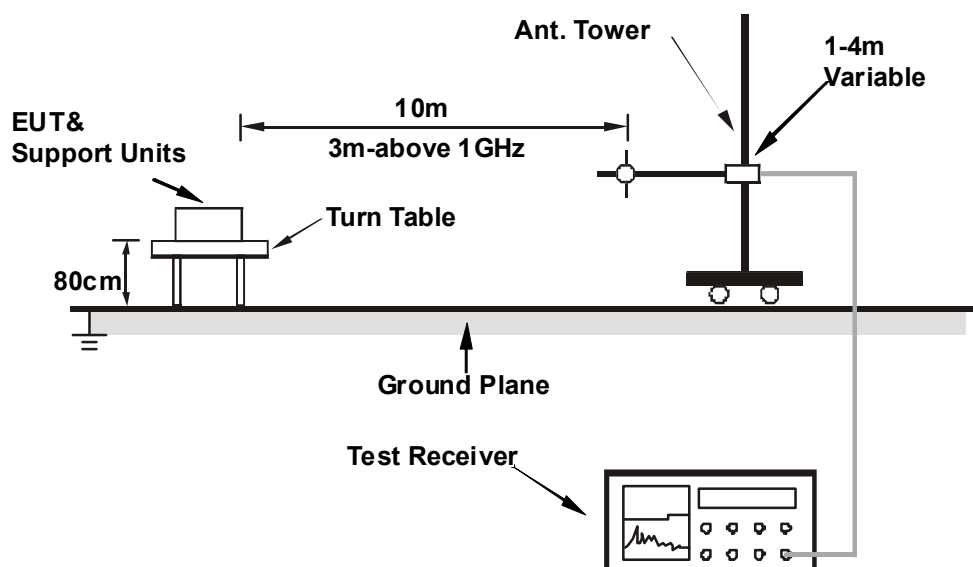
**NOTE:**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3MHz for Peak detection at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz for Average detection (AV) at frequency above 1GHz.
3. For measurement of frequency above 1000 MHz, the EUT was set 3 meters away from the interference-receiving antenna.

### 4.2.4 DEVIATION FROM TEST STANDARD

No deviation

## 4.2.5 TEST SETUP



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

## 4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6

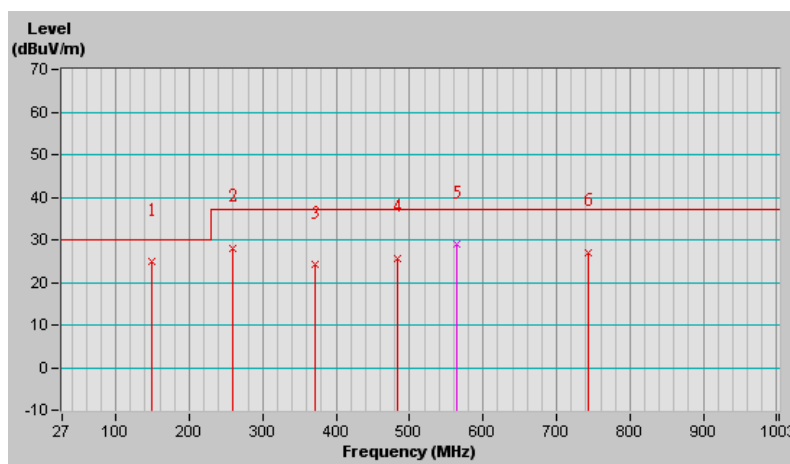
## 4.2.7 TEST RESULTS

TEST MODE	Mode 1	INPUT POWER	120Vac, 60Hz
FREQUENCY RANGE	30-1000 MHz	DETECTOR FUNCTION & BANDWIDTH	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	28 deg. C, 65 % RH, 965 hPa	TESTED BY	Timmy Hu

### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 10 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	148.50	24.82 QP	30.00	-5.18	1.00 H	233	8.49	16.33
2	259.87	27.91 QP	37.00	-9.09	1.00 H	77	11.98	15.93
3	372.00	24.15 QP	37.00	-12.85	1.00 H	0	4.49	19.66
4	482.62	25.63 QP	37.00	-11.37	1.12 H	22	2.63	23.00
5	563.80	28.82 QP	37.00	-8.18	1.00 H	196	4.84	23.98
6	742.49	27.06 QP	37.00	-9.94	1.00 H	130	0.50	26.56

- 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.

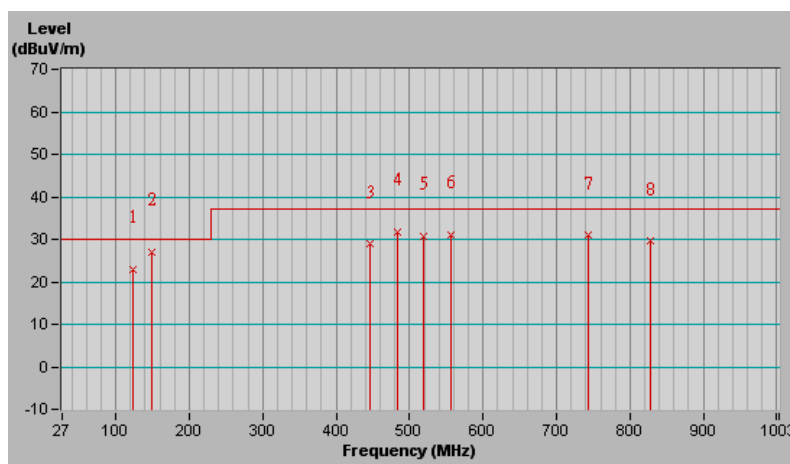


<b>TEST MODE</b>	Mode 1	<b>INPUT POWER</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	28 deg. C, 65 % RH, 965 hPa	<b>TESTED BY</b>	Timmy Hu

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 10 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	123.60	22.85 QP	30.00	-7.15	1.00 V	139	8.61	14.24
2	148.50	26.90 QP	30.00	-3.10	1.00 V	171	10.57	16.33
3	445.50	28.87 QP	37.00	-8.13	1.00 V	354	6.95	21.92
4	482.62	31.79 QP	37.00	-5.21	1.00 V	270	8.79	23.00
5	519.74	30.76 QP	37.00	-6.24	1.18 V	261	7.11	23.65
6	556.87	30.94 QP	37.00	-6.06	1.00 V	280	7.02	23.92
7	742.49	30.88 QP	37.00	-6.12	1.56 V	333	4.32	26.56
8	827.99	29.52 QP	37.00	-7.48	1.22 V	304	0.05	29.47

- 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.

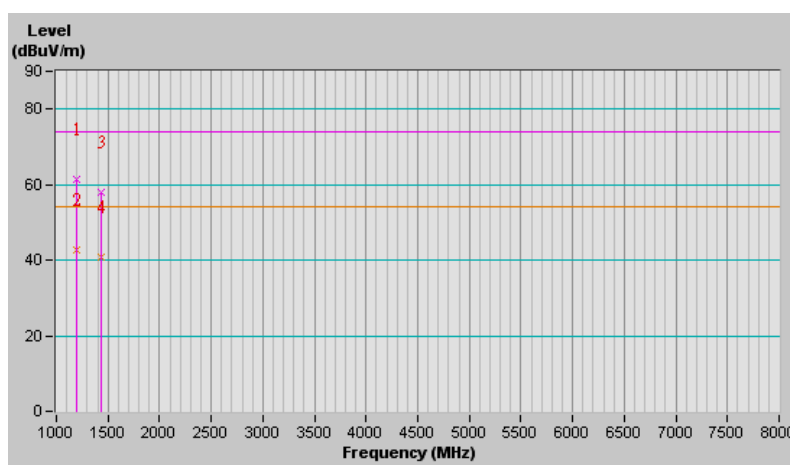


<b>TEST MODE</b>	Mode 1	<b>FREQUENCY RANGE</b>	1000-2000 MHz
<b>INPUT POWER</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Peak(PK)/ Average(AV), 1 MHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 60% RH, 965 hPa	<b>TESTED BY</b>	Timmy Hu

#### 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	1200.00	61.48 PK	74.00	-12.52	1.00 H	308	34.63	26.85
2	1200.00	42.62 AV	54.00	-11.38	1.00 H	308	15.77	26.85
3	1440.11	57.89 PK	74.00	-16.11	1.19 H	243	30.34	27.55
4	1440.11	40.73 AV	54.00	-13.27	1.19 H	243	13.18	27.55

- 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.

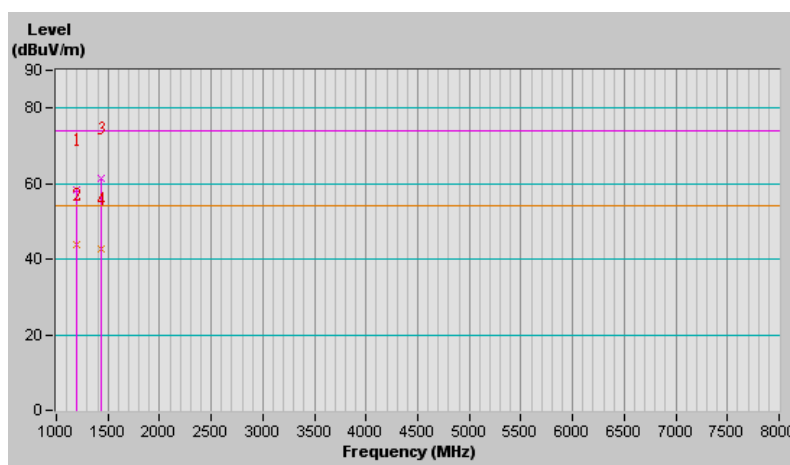


<b>TEST MODE</b>	Mode 1	<b>FREQUENCY RANGE</b>	1000-2000 MHz
<b>INPUT POWER</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Peak(PK)/ Average(AV), 1 MHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 60% RH, 965 hPa	<b>TESTED BY</b>	Timmy Hu

#### 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	1200.00	58.46 PK	74.00	-15.54	1.16 V	200	31.61	26.85
2	1200.00	43.91 AV	54.00	-10.09	1.16 V	200	17.06	26.85
3	1440.11	61.22 PK	74.00	-12.78	1.05 V	179	33.67	27.55
4	1440.11	42.73 AV	54.00	-11.27	1.05 V	179	15.18	27.55

- 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 INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025:

<b>USA</b>	FCC, UL
<b>Germany</b>	TUV Rheinland
<b>Japan</b>	VCCI
<b>Norway</b>	NEMKO
<b>Canada</b>	INDUSTRY CANADA, CSA
<b>R.O.C.</b>	TAF, BSMI, NCC
<b>Netherlands</b>	Telefication
<b>Singapore</b>	GOST-ASIA (MOU)
<b>Russia</b>	CERTIS (MOU)

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](http://www.adt.com.tw/index.5/phtml).  
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.

## **6 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---