

Reference No.: A04060903 Report No.: FCBA04060903 Page:1 of 23 Date: June 16, 2004

Product Name: Model No.: Applicant:

Date of Receipt:

Finished date of Test:

Applicable Standards:

Wireless K + M KB-3008/R KYE SYSTEMS CORP. No. 492, Sec. 5, Chung Hsin Rd., San Chung, Taipei Hsien, 241, Taiwan, R.O.C. June 09, 2004 June 16, 2004 47 CFR Part 15, Subpart B ANSI C63.4:2003

We, Spectrum Research & Testing Laboratory Inc., hereby certify that one sample of the above was tested in our laboratory with positive results according to the above-mentioned standards. The records in the report are an accurate account of the results. Details of the results are given in the subsequent pages of this report.

Checked By :

Kan Su For , Date: June 16, 2004 (Sunyou Chen)

Approved By :

(Johnson Ho, Director), Date: 6/16/

2004







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# 1. DOCUMENT POLICY AND TEST STATEMENT

## 1.1 DOCUMENT POLICY

- The report shall not be reproduced except in full, without the written approval of SRT Lab, Inc.
- The report must not be used by the applicant to claim that the product is endorsed by NVLAP, TÜV, NEMKO and SRT.
- The NVLAP logo applies only to the applicable standards specified in this report.

# 1.2 TEST STATEMENT

- The test results in the report apply only to the unit tested by SRT Lab.
- There was no deviation from the requirements of test standards during the test.
- AC power source, 120 Vac/60 Hz, was used during the test.



## 2. DESCRIPTION OF EUT AND TEST MODE

## 2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Wireless K + M
MODEL NO.	KB-3008/R
POWER SUPPLY	5Vdc from USB Port of PC system
CABLE	1.5m shielded USB cable

## NOTE :

The product is a wireless mouse which includes transmitter part (TX) and receiver part (RX).

EUT	Model No.		
Transmitter part (TX)	KB-3008/T, KB-3008/KB		
Receiver part (RX)	KB-3008/R		

For more detailed features, please refer to the manufacturer's specification or User's Manual.

# 2.2 DESCRIPTION OF EUT INTERNAL DEVICE

DEVICE	BRAND / MAKER	MODEL #	FCC ID/DOC	REMARK
N/A				

# 2.3 DESCRIPTION OF TEST MODE

The EUT was tested for emission measurement under the following situations:

	Mode	Remark
1	Rx-Link	Without charger box
2	Rx-Link+Charger	There are two batteries in charger box
3	Rx-Link+Charger Only	There is no battery in charger box





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# 2.4 DESCRIPTION OF SUPPORT UNIT

The EUT was configured by the requirement of ANSI C63.4:2003 and CISRP22:2003. All interface ports were connected to the appropriate support units via specific cables. The support units and cables are listed below.

NO	DEVICE	BRAND	MODEL #	FCC ID/DOC	CABLE
1	NOTEBOOK	DELL	PP01L	DOC	1.8m unshielded power cord
2	MODEM	ACEEX	DM-1414	DOC	1.5m unshielded power cord 1.5m shielded data cable
3	PRINTER	EPSON	STYLUS C20SX	DOC	1.8m unshielded power cord 1.5m shielded data cable

**NOTE :** For the actual test configuration, please refer to the photos of testing.

# 3. DESCRIPTION OF APPLIED STANDARDS

The EUT is a kind of wireless product and to be connected with a PC system for normal use. According to the specifications provided by the applicant, it must comply with the requirements of the following standards:

47 CFR Part 15, Subpart B, Class B ANSI C63.4:2003

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



# 4. CONDUCTED EMISSION TEST

# 4.1 CONDUCTED EMISSION LIMIT

FREQUENCY (MHz)	Class A	(dBµV)	Class B (dBµV)		
FREQUENCT (MHZ)	Quasi-peak	Average	Quasi-peak	Average	
0.15 - 0.5	79	66	66 - 56	56 - 46	
0.5 - 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.

# 4.2 TEST EQUIPMENT

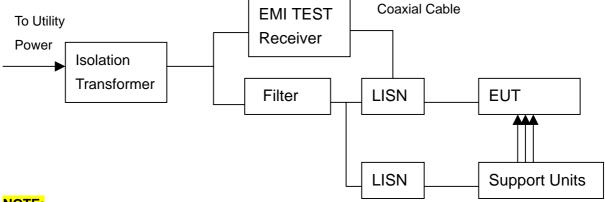
The following test equipment was used for the test:

EQUIPMENT/ FACILITIES	SPECIFICATIONS	MANUFACTURER	MODEL#/ SERIAL#	DUE DATE OF CAL. & CAL. CENTER
EMI TEST	9 kHz TO	ROHDE &	ESCS30/	AUG. 2004
RECEIVER	2750 MHz	SCHWARZ	830245/012	ETC
LISN (for EUT)	50 µH, 50 ohm	SOLAR ELECTRONICS	FCC-LISN-50-25-2 / 01018	NOV. 2004 ETC
LISN	Fould FO abo	SOLAR	9252-50-R-24-BNC	JUN. 2005
(for Peripheral)	50µH, 50 ohm	ELECTRONICS	/ 951318	ETC
50 ohm	50 aba		11593A/	MAR. 2005
TERMINATOR	50 ohm	HP	2	ETC
COAXIAL	2		J400/	JUL. 2005
CABLE	3m	SUNCITY	3M	SRT
ISOLATION	N1/A		AFC-11015/	N1/A
TRANSFORMER	N/A	APC	F102040016	N/A
			FC-943/	N1/A
FILTER	2 LINE, 30A	FIL.COIL	771	N/A
	2.3M (H) x	ODT		N1/A
GROUND PLANE	2.4M (W)	SRT	N/A	N/A
	2.4M (H) x	ODT	N1/A	N1/A
GROUND PLANE	2.4M (W)	SRT	N/A	N/A

**NOTE:** The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.



# 4.3 TEST SETUP



## NOTE:

1. The EUT was put on a wooden table with 0.8m heights above ground plane, and 0.4m away from reference ground plane (> 2mx2m).

- 2. For the actual test configuration, please refer to the photos of testing.
- 3. The serial no. of the LISN connected to EUT is 951318.
- 4. The serial no. of the LISN connected to support units is 924839.

# 4.4 TEST PROCEDURE

The EUT was tested according to the requirement of ANSI C63.4:2003 and CISRP22:2003. The frequency spectrum from 0.15 MHz to 30 MHz was investigated. The LISN used was 50 ohm/50µH as specified. All readings were quasi-peak and average values with 10 kHz resolution bandwidth of the test receiver. The EUT system was operated in all typical methods by users. Both lines of the power mains of EUT were measured and the cables connected to EUT and support units were moved to find the maximum emission levels for each frequency. First, find the margin or higher points at least 6 points by software, then use manual to find the maximum data. The procedure is referred on the test procedure of SRT LAB.

# 4.5 EUT OPERATING CONDITION

1. Under Windows XP run "EMI TEST" and "WORD" program and PC sent "H" pattern or accessed the following peripherals directly or via EUT:

- Color Monitor
- RS232
- Keyboard
- EUT (RX)
- Printer
- FDD
- HDD



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# 4.6 TEST RESULT

Temperature:	25°C	Humidity:	53 %RH
Ferquency Range:	0.15 – 30 MHz	Tested Mode:	1(Rx-Link)
Receiver Detector:	Q.P. and AV.	Tested By:	Kevin Liao
		Tested Date:	June 11, 2004

## Power Line Measured : Line

Freq. (MHz)	Correct. Factor		g Value μV)	Emissic (dB	on Level μV)		nit μV)	Mar (d	·gin B)
` '	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.177	0.20	48.8	39.5	49.0	39.7	64.6	54.6	-15.6	-14.9
0.183	0.20	46.9	37.4	47.1	37.6	64.3	54.3	-17.2	-16.7
1.153	0.20	35.7	23.8	35.9	24.0	56.0	46.0	-20.1	-22.0
1.240	0.20	33.1	24.5	33.3	24.7	56.0	46.0	-22.7	-21.3
5.558	0.20	31.8	26.5	32.0	26.7	60.0	50.0	-28.0	-23.3
27.782	0.25	24.3	11.5	24.6	11.8	60.0	50.0	-35.4	-38.2

# Power Line Measured : Neutral

Freq. (MHz)	Correct. Factor		<mark>g Value</mark> μV)		on Level μV)		nit μV)	Maı (d	gin B)
` '	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.180	0.20	47.0	38.8	47.2	39.0	64.5	54.5	-17.2	-15.5
0.538	0.20	30.4	27.1	30.6	27.3	56.0	46.0	-25.4	-18.7
3.358	0.20	28.7	25.0	28.9	25.2	56.0	46.0	-27.1	-20.8
5.102	0.20	29.3	25.8	29.5	26.0	60.0	50.0	-30.5	-24.0
5.162	0.20	28.8	26.2	29.0	26.4	60.0	50.0	-31.0	-23.6
25.404	0.21	24.4	19.1	24.6	19.3	60.0	50.0	-35.4	-30.7

#### NOTE :

1. Measurement uncertainty is +/-1.32dB

2. Emission level = Reading value + Correction factor

3. Correction Factor = Cable loss + Insertion loss of LISN

4. Margin value = Emission level - Limit

5. The emission of other frequencies were very low against the limit.

6. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.



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Temperature:	25°C	Humidity:	53 %RH
Ferquency Range:	0.15 – 30 MHz	Tested Mode:	2(Rx-Link+Charger)
Receiver Detector:	Q.P. and AV.	Tested By:	Kevin Liao
		Tested Date:	June 11, 2004

# Power Line Measured : Line

Freq. (MHz)	Correct. Factor	•		Emission Level (dBμV)		Limit (dBµV)		Margin (dB)	
(dB)	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.180	0.20	48.7	40.9	48.9	41.1	64.5	54.5	-15.6	-13.4
1.182	0.20	31.8	19.0	32.0	19.2	56.0	46.0	-24.0	-26.8
2.576	0.20	29.6	26.2	29.8	26.4	56.0	46.0	-26.2	-19.6
5.213	0.20	28.6	25.2	28.8	25.4	60.0	50.0	-31.2	-24.6
5.274	0.20	28.2	25.5	28.4	25.7	60.0	50.0	-31.6	-24.3
26.378	0.23	26.5	18.0	26.7	18.2	60.0	50.0	-33.3	-31.8

## Power Line Measured : Neutral

Freq. (MHz)	Correct. Factor	Reading Value (dBμV)		Emission Level (dBμV)		Limit (dBµV)		Margin (dB)	
(,	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.177	0.20	44.6	36.6	44.8	36.8	64.6	54.6	-19.8	-17.8
0.538	0.20	28.8	24.5	29.0	24.7	56.0	46.0	-27.0	-21.3
3.665	0.20	34.6	28.1	34.8	28.3	56.0	46.0	-21.2	-17.7
5.284	0.20	27.3	22.5	27.5	22.7	60.0	50.0	-32.5	-27.3
5.345	0.20	27.7	23.6	27.9	23.8	60.0	50.0	-32.1	-26.2
27.843	0.26	19.3	18.6	19.6	18.8	60.0	50.0	-40.4	-31.2

## NOTE :

1. Measurement uncertainty is +/-1.32dB

2. Emission level = Reading value + Correction factor

3. Correction Factor = Cable loss + Insertion loss of LISN

4. Margin value = Emission level - Limit

5. The emission of other frequencies were very low against the limit.

6. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.



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Temperature:	25°C	Humidity:	53 %RH
Ferquency Range:	0.15 – 30 MHz	Tested Mode:	3(Rx-Link+Charger Only)
Receiver Detector:	Q.P. and AV.	Tested By:	Kevin Liao
		Tested Date:	June 11, 2004

# Power Line Measured : Line

Freq. (MHz)	Correct. Factor		g Value μV)		on Level μV)		nit µV)		·gin B)
(/	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.177	0.20	49.6	41.0	49.8	41.2	64.6	54.6	-14.8	-13.4
0.654	0.20	27.9	25.7	28.1	25.9	56.0	46.0	-27.9	-20.1
2.794	0.20	29.1	26.3	29.3	26.5	56.0	46.0	-26.7	-19.5
3.210	0.20	28.7	25.6	28.9	25.8	56.0	46.0	-27.1	-20.3
5.650	0.20	26.6	23.1	26.8	23.3	60.0	50.0	-33.2	-26.7
26.993	0.24	27.5	19.9	27.8	20.1	60.0	50.0	-32.2	-29.9

## Power Line Measured : Neutral

Freq. (MHz)	Correct. Factor	Reading Value (dBµV)		Emission Level (dBμV)		Limit (dBµV)		Margin (dB)	
()	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.180	0.20	48.1	40.0	48.3	40.2	64.5	54.5	-16.1	-14.3
0.538	0.20	29.6	25.6	29.8	25.8	56.0	46.0	-26.2	-20.2
3.338	0.20	32.6	27.0	32.8	27.2	56.0	46.0	-23.2	-18.8
5.244	0.20	27.0	22.7	27.2	22.9	60.0	50.0	-32.8	-27.2
5.305	0.20	27.6	23.9	27.8	24.1	60.0	50.0	-32.2	-25.9
28.202	0.26	27.8	19.1	28.0	19.3	60.0	50.0	-32.0	-30.7

## NOTE :

1. Measurement uncertainty is +/-1.32dB

2. Emission level = Reading value + Correction factor

3. Correction Factor = Cable loss + Insertion loss of LISN

4. Margin value = Emission level - Limit

5. The emission of other frequencies were very low against the limit.

6. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.



## 5. RADIATED EMISSION TEST

# 5.1 RADIATED EMISSION LIMIT

#### FCC Part 15, Subpart B Section 15.209.

FREQUENCY (MHz)	DISTANCE (m)	FIELD STRENGTH (dBµV/m)
30 - 88	3	40.0
88 - 216	3	43.5
216 - 960	3	46.0
Above 960	3	54.0

#### NOTE :

1. In the emission tables above , the tighter limit applies at the band edges.

2. Distance refers to the distance between measuring instrument, antemma, and the closest point of any part of the device or system.

# 5.2 TEST EQUIPMENT

The following test equipment was used during the radiated emission test:

EQUIPMENT/ FACILITIES	SPECIFICATIONS	MANUFACTURER	MODEL#/ SERIAL#	DUE DATE OF CAL. & CAL. CENTER
EMI TEST	20 MHz TO	ROHDE &	ESVS30/	AUG. 2004
RECEIVER	1000 MHz	SCHWARZ	841977/003	ETC
BI-LOG	25 MHz TO	ЕМСО	3142/	APR. 2005
ANTENNA	2 GHz	ENICO	9701-1124	SRT
DIPOLE	30 MHz TO	FMCO	3121C/	MAR. 2005
ANTENNA	1 GHz	EMCO	9611-1239	ETC
OATS	3 – 10 M MEASUREMENT	SRT	SRT-1	APR. 2005 SRT
COAXIAL	2514	SUNCITY	J400/	AUG. 2004
CABLE	25M	SUNCTI	25M	SRT
			FC-943/	N1/A
FILTER	2 LINE, 30A	FIL.COIL	869	N/A
FREQUENCY			AFC-2KBB/	AUG. 2004
CONVERTER	N/A	APC	F100030031	SRT

#### NOTE:

1. The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.

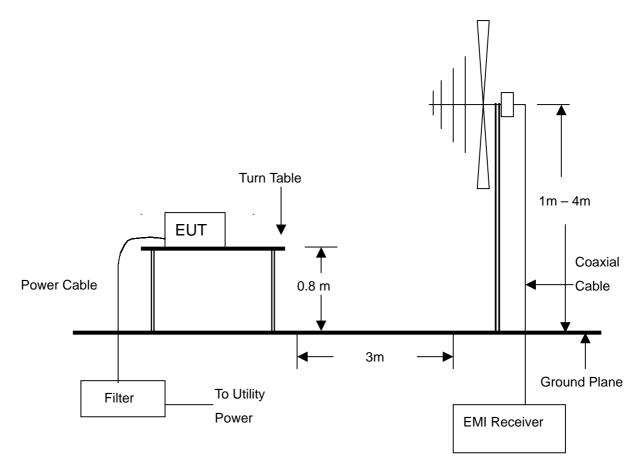
2. The Open Area Test Site (SRT-1) is registered by FCC with No. 90957 and VCCI with No. R-1081.

3. The Open Area Test Site (SRT-2) is registered by FCC with No. 98458 and VCCI with No. R-1168.



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## 5.3 TEST SET-UP



#### NOTE :

1. The EUT system was put on a wooden table with 0.8m heights above a ground plane.

2. For the actual test configuration, please refer to the photos of testing.





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# 5.4 TEST PROCEDURE

The EUT was tested according to the requirement of ANSI C63.4:2003. The measurements were made at an open area test site with 3 meter measurement distance under 1 GHz and with 3m distance above 1GHz. The frequency spectrum measured started from 30 MHz. Under 1 GHz, all readings were quasi-peak values with 120 kHz resolution bandwidth of the test receiver. Above 1 GHz, the measurements were made at an open area test site with 3 meter measurement distance and all readings were peak or average values with 1 MHz resolution bandwidth of the test receiver. The EUT system was operated in all typical methods by users. The cables connected to EUT and support units were moved to find the maximum emission levels for each frequency.

First, find the margin or higher points at least 6 points by software, then use manual to find the maximum data. The procedure is referred on the test procedure of SRT LAB.

# 5.5 EUT OPERATING CONDITION

Same as section 4.5 of this report.



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# 5.6 RADIATED EMISSION TEST RESULT

Temperature:	26°C	Humidity:	59 %RH
Ferquency Range:	30 – 1000 MHz	Measured Distance:	3m
Receiver Detector:	Q.P.	Tested Mode:	1(Rx-Link)
Tested Date:	June 16, 2004	Tested By:	Kevin Liao

## Antenna Polarization:Horizontal

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Reading Data (dBµV)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	AZ(°)	EL(m)
51.1370	0.76	8.40	11.9	21.1	40.0	-18.9	199.4	4.00
110.6750	1.13	6.40	24.6	32.1	43.5	-11.4	93.7	3.83
134.6260	1.21	7.36	26.1	34.7	43.5	-8.8	342.4	4.00
217.0180	1.60	10.27	21.3	33.2	46.0	-12.8	181.6	3.26
533.4475	2.79	19.98	16.9	39.7	46.0	-6.3	98.3	2.67
664.2720	3.11	21.24	15.9	40.2	46.0	-5.8	245.9	2.94

## Antenna Polarization:Vertical

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Reading Data (dBµV)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	AZ(°)	EL(m)
51.1370	0.76	8.40	24.6	33.8	40.0	-6.2	81.7	1.00
110.6750	1.13	6.40	26.0	33.5	43.5	-10.0	128.9	1.29
134.6270	1.21	7.36	24.1	32.7	43.5	-10.8	254.3	1.00
217.0180	1.60	10.27	20.8	32.7	46.0	-13.3	318.4	1.46
400.3480	2.29	15.80	21.4	39.5	46.0	-6.5	193.1	1.83
533.4475	2.79	19.98	14.7	37.5	46.0	-8.5	62.3	1.94

#### NOTE :

1. Measurement uncertainty is +/-2dB.

2. "\*": Measurement does not apply for this frequency.

3. Emissiom Level = Reading Value + Ant. Factor + Cable Loss.

4. The field strength of other emission frequencies were very low against the limit.



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Temperature:	26°C	Humidity:	59 %RH
Ferquency Range:	30 – 1000 MHz	Measured Distance:	3m
Receiver Detector:	Q.P.	Tested Mode:	2(Rx-Link+Charger)
Tested Date:	June 16, 2004	Tested By:	Kevin Liao

## Antenna Polarization:Horizontal

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Reading Data (dBµV)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	AZ(°)	EL(m)
51.1370	0.76	8.40	12.6	21.8	40.0	-18.2	173.4	3.69
110.6750	1.13	6.40	27.9	35.4	43.5	-8.1	128.7	3.92
217.0180	1.60	10.27	24.2	36.1	46.0	-9.9	305.4	3.44
533.4475	2.79	19.98	17.4	40.2	46.0	-5.8	211.7	2.93
625.4370	3.00	20.90	15.6	39.5	46.0	-6.5	68.8	2.84
664.2720	3.11	21.24	14.3	38.6	46.0	-7.4	312.8	2.96

## Antenna Polarization:Vertical

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Reading Data (dBµV)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	AZ(°)	EL(m)
110.6750	1.13	6.40	26.0	33.5	43.5	-10.0	93.7	1.16
134.6270	1.21	7.36	25.1	33.7	43.5	-9.8	148.9	1.00
217.0180	1.60	10.27	23.7	35.6	46.0	-10.4	288.4	1.63
397.5490	2.28	15.81	19.4	37.5	46.0	-8.5	273.6	1.00
533.4475	2.79	19.98	13.5	36.3	46.0	-9.7	103.5	1.78
664.2710	3.11	21.24	10.6	34.9	46.0	-11.1	88.3	1.54

## NOTE :

1. Measurement uncertainty is +/-2dB.

2. "\*": Measurement does not apply for this frequency.

3. Emissiom Level = Reading Value + Ant. Factor + Cable Loss.

4. The field strength of other emission frequencies were very low against the limit.



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Temperature:	26°C	Humidity:	59 %RH		
Ferquency Range:	30 – 1000 MHz	Measured Distance:	3m		
Receiver Detector:	Q.P.	Tested Mode:	3(Rx-Link+Charger Only)		
Tested Date:	June 16, 2004	Tested By:	Kevin Liao		

## Antenna Polarization:Horizontal

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Reading Data (dBµV)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	AZ(°)	EL(m)
51.1370	0.76	8.40	12.6	21.8	40.0	-18.2	172.9	3.61
110.6750	1.13	6.40	21.4	28.9	43.5	-14.6	137.6	4.00
217.0180	1.60	10.27	22.3	34.2	46.0	-11.8	205.4	3.42
453.7630	2.52	16.98	16.7	36.2	46.0	-9.8	311.7	3.71
533.4475	2.79	19.98	17.1	39.9	46.0	-6.1	93.4	2.94
664.2720	3.11	21.24	15.4	39.7	46.0	-6.3	342.8	2.88

## Antenna Polarization:Vertical

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Reading Data (dBµV)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	AZ(°)	EL(m)
110.6750	1.13	6.40	25.9	33.4	43.5	-10.1	69.1	1.16
134.6270	1.21	7.36	26.7	35.3	43.5	-8.2	118.7	1.42
217.0180	1.60	10.27	21.1	33.0	46.0	-13.0	328.9	1.29
400.3480	2.29	15.80	16.8	34.9	46.0	-11.1	283.6	1.57
533.4475	2.79	19.98	17.1	39.9	46.0	-6.1	88.4	1.33
664.2710	3.11	21.24	11.6	35.9	46.0	-10.1	59.7	1.72

## NOTE :

1. Measurement uncertainty is +/-2dB.

2. "\*": Measurement does not apply for this frequency.

3. Emissiom Level = Reading Value + Ant. Factor + Cable Loss.

4. The field strength of other emission frequencies were very low against the limit.



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## 6. PHOTOS OF TESTING

- Conducted test (Mode 1: Rx-Link)







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- Conducted test (Mode 2: Rx-Link+Charger)







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- Conducted test (Mode 3: Rx-Link+Charger Only)







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- Radiated test (Mode 1: RX-Link)

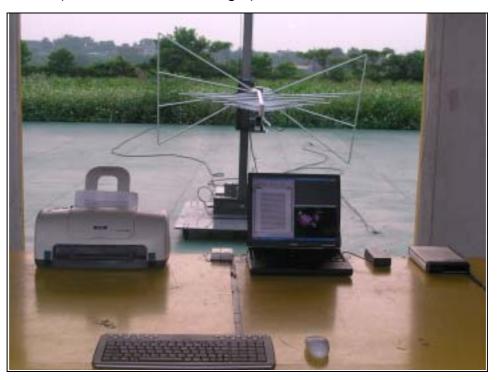






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- Radiated test (Mode 2: RX-Link+Charger)

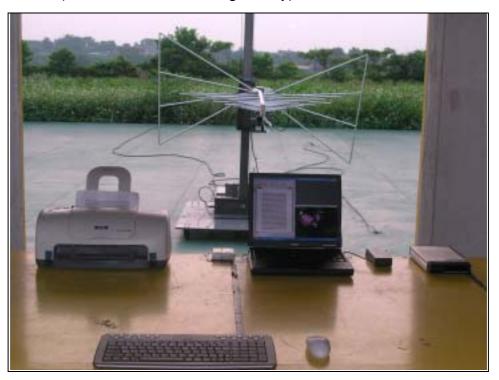






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- Radiated test (Mode 3: RX-Link+Charger Only)









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# 7. TERMS OF ABRIVATION

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AV.	Average detection
AZ(°)	Turn table azimuth
Correct.	Correction
EL(m)	Antenna height (meter)
EUT	Equipment Under Test
Horiz.	Horizontal direction
LISN	Line Impedance Stabilization Network
NSA	Normalized Site Attenuation
Q.P.	Quasi-peak detection
SRT Lab	Spectrum Research & Testing Laboratory, Inc.
Vert.	Vertical direction