FCC RADIO TEST REPORT

according to

47 CFR Part 15.231

Equipment	:	**Remote Control**
Model No.	:	**SPS6010A**
FCC ID	:	**PAGSPS6010A**
Filing Type	:	**New Application**
Applicant	:	**KAB Enterprise Co., Ltd.**
Manufacturer		**Verdant Electronics(Dong Guan) Co., Ltd.**
Received Date	:	Jan. 05, 2012
Final Test Date	:	Mar. 01, 2012

Statement

The test result in this report refers exclusively to the presented test model / sample.
Without written approval of SPORTON International Inc., the test report shall not be reproduced except in full.
The measurements and test results shown in this test report were made in accordance with the procedures and found in compliance with the limit given in **ANSI C63.10-2009** and **47 CFR FCC Part 15 Subpart C**.
The test equipment used to perform the test is calibrated and traceable to NML/ROC.

Testing Laboratory
1190

SPORTON International Inc.
No. 52 Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

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History of This Test Report

Original Issue Date: Mar. 05, 2012

Report No.: FR210507

■ No additional attachment.

□ Additional attachment were issued as following record:

Attachment No.	Issue Date	Description

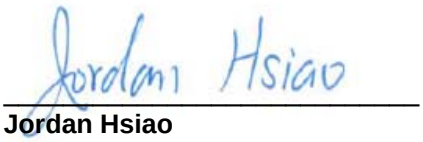
CERTIFICATE OF COMPLIANCE

according to

47 CFR Part 15.231

Equipment	:	Remote Control
Model No.	:	SPS6010A
Applicant	:	KAB Enterprise Co., Ltd.
		Verdant Electronics(Dong Guan) Co., Ltd.

Sporton International as requested by the applicant to evaluate the EMC performance of the product sample received on Jan. 05, 2012 would like to declare that the tested sample has been evaluated and found to be in compliance with the tested rule parts. The data recorded as well as the test configuration specified is true and accurate for showing the sample's EMC nature.



Jordan Hsiao

SPORTON International Inc.

No. 52 Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

1. SUMMARY OF THE TEST RESULT

Applied Standard: 47 CFR FCC Part 15 Subpart C				
Part	**Rule Section**	**Description of Test**	**Result**	**Under Limit**
-	15.207	AC Power Line Conducted Emissions	-	Note
3.1	-	Duty Factor	Complies	-
3.2	15.231(b)/(e)	Field Strength of Fundamental Emissions	Complies	24.91 dB
3.3	15.231(c)	20dB Spectrum Bandwidth	Complies	-
3.4	15.231(a)/(e)	Deactivating time	Complies	-
3.5	15.231(b)/(e)	Radiated Emissions	Complies	10.36 dB
3.6	15.203	Antenna Requirements	Complies	-

Note: The Power Supply of this EUT is from battery.

Conduced Powerline tests are not applicable for this EUT.

Test Items	Uncertainty	Remark
Field Strength of Fundamental Emissions	±3.72dB	Confidence levels of 95%
20dB Spectrum Bandwidth	±6.25×10-7	Confidence levels of 95%
Radiated Emissions/ Band Edge Emissions	±3.72dB	Confidence levels of 95%

2. GENERAL INFORMATION

2.1 Product Details

Items	Description
Power Type	Battery
Modulation	ASK
Frequency	315 MHz
Channel Number	1
Channel Band Width (99%)	232.00kHz
Max. Fundamental Field Strength	50.71 dBuV/m
Antenna	Inverted antenna

2.2 Table for Test Modes

The following table is a list of the test modes shown in this test report.

Test Items	Mode	Frequency
Duty Factor	CTX	315 MHz
Field Strength of Fundamental Emissions 20dB Spectrum Bandwidth	CTX	315 MHz
Deactivating Time	Normal Use	315 MHz
Radiated Emissions 9kHz~10^{th} Harmonic Band Edge Emissions	CTX	315 MHz

Note: CTX=continuously transmitter.

2.3 Table for Testing Locations

Test Site No.	Site Category	Location
TH01-CB	OVEN Room	Hsin Chu
03CH01-CB	SAC	Hsin Chu

Semi Anechoic Chamber (SAC).

2.4 Table for Supporting Units

N/A

2.5 Test Configurations

2.5.1 Radiation Emissions Test Configuration

3. TEST RESULT

3.1 Duty Factor Measurement

3.1.1 Limit

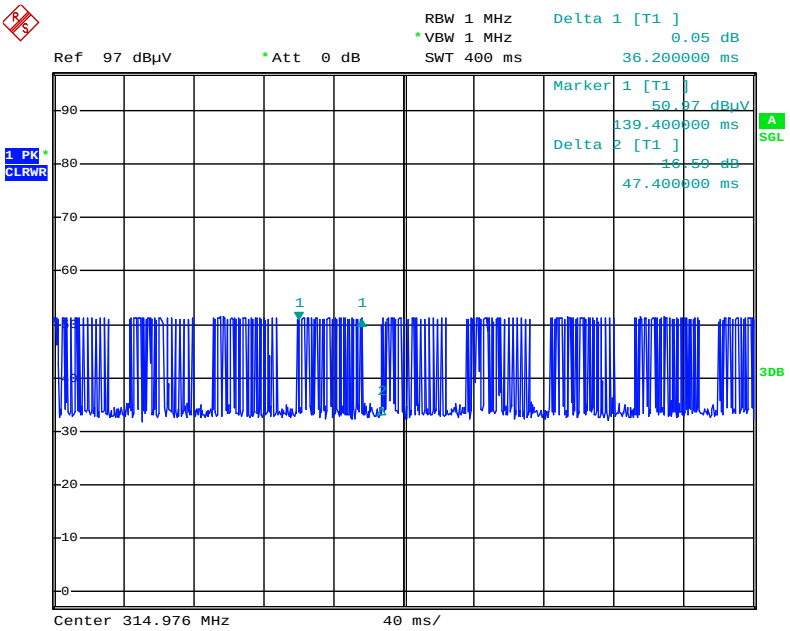
None. For reporting purposes only.

3.1.2 Test Result of Duty Factor

Temperature	23℃	Humidity	63%
Test Engineer	Allen Liu	Configurations	315 MHz
Test Date	Mar. 01, 2012		

TX-on (ms)	TX-on+TX-off (ms)	Duty cycle (%)	Correction Factor (dB)
36.2	47.4	0.76371308	-2.34

TX_on and TX_on+off Plot



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3.2 Field Strength of Fundamental Emissions Measurement

3.2.1 Limit

Devices complying with 47 CFR FCC Part 15 Subpart C, section 3.4.2(4.1). The field strength of emissions from intentional radiators at 3 meters operated under this Section shall not exceed the following:

Frequency Band (MHz)	Fundamental Emissions Limit (uV/m) at 3m
40.66-40.70	2250
70-130	1250
130-174	1250-3750(**)
174-260	3750
260-470	3750-12500(**)
Above 470	12500

**1. Linear interpolations, the formulas for calculating the maximum permitted fundamental field strengths are as follows:
(1) for the band 130 - 174 MHz, μV/m at 3 meters = 56.81818×(operating frequency, MHz) - 6136.3636;
(2) for the band 260 - 470 MHz, μV/m at 3 meters = 41.6667×(operating frequency, MHz) - 7083.3333.
So the field strength of emission limits have been calculated in below table.

Carrier Frequency (MHz)	Fundamental Emissions Limit (dBuV/m) at 3m
315 MHz	75.62 (Average)
315 MHz	95.62 (Peak)

3.2.2 Measuring Instruments and Setting

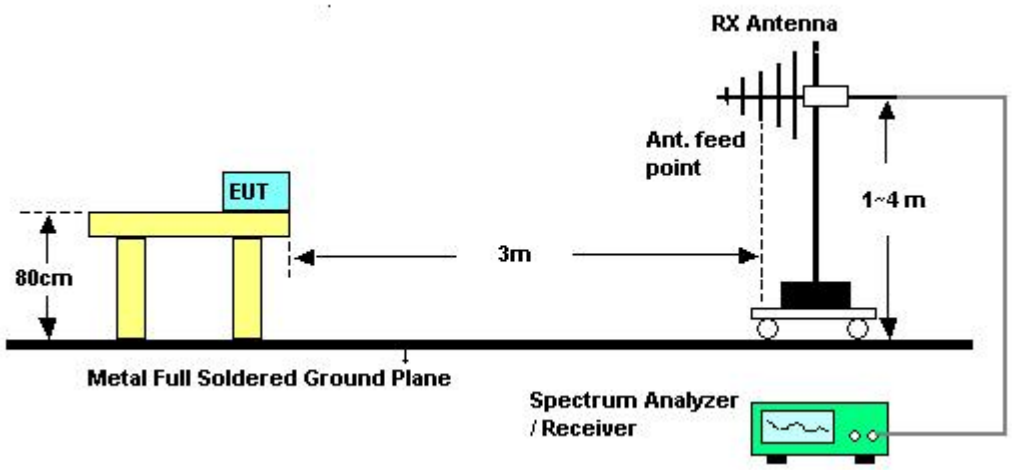
Please refer to section 4 of equipments list in this report.The following table is the setting of the receiver.

Receiver Parameter	Setting
Attenuation	Auto
Center Frequency	Fundamental Frequency
RB	120 kHz
Detector	Peak / Average

3.2.3 Test Procedures

1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. For Fundamental emissions, use the receiver to measure peak and average reading.
6. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.

3.2.4 Test Setup Layout



3.2.5 Test Deviation

There is no deviation with the original standard.

3.2.6 EUT Operation during Test

The EUT was manually operated to be in transmitting mode.

3.2.7 Test Result of Field Strength of Fundamental Emissions

Final Test Date	Feb. 27, 2012	**Test Site No.**	03CH03-CB
Temperature	26℃	**Humidity**	60%
Test Engineer	Rion Li	**Configurations**	315 MHz

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 p	314.97	53.05	95.62	-42.57	63.27	2.60	27.00	14.18	92	100	Peak	HORIZONTAL
2 a	314.97	50.71	75.62	-24.91	60.93	2.60	27.00	14.18	92	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 p	314.96	42.45	95.62	-53.17	52.67	2.60	27.00	14.18	162	142	Peak	VERTICAL
2 a	314.96	40.11	75.62	-35.51	50.33	2.60	27.00	14.18	162	142	Average	VERTICAL

3.3 20dB Spectrum Bandwidth Measurement

3.3.1 Limit

The bandwidth of the emissions shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. So the emission bandwidth limits have been calcuated in below table.

Fundamental Frequency	20dB Bandwidth Limits (MHz)
315 MHz	0.7875

3.3.2 Measuring Instruments and Setting

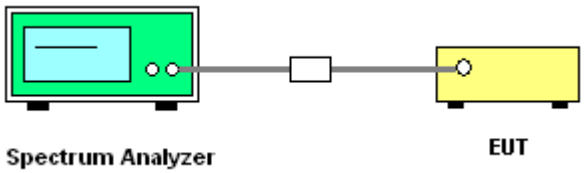
Please refer to section 4 of equipments list in this report.The following table is the setting of the Spectrum Analyzer.

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> 20dB Bandwidth
RB	100 kHz
VB	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

3.3.3 Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyser in peak hold mode.
2. The resolution bandwidth of 100 kHz and the video bandwidth of 100 kHz were used.
3. Measured the spectrum width with power higher than 20dB below carrier.

3.3.4 Test Setup Layout



3.3.5 Test Deviation

There is no deviation with the original standard.

3.3.6 EUT Operation during Test

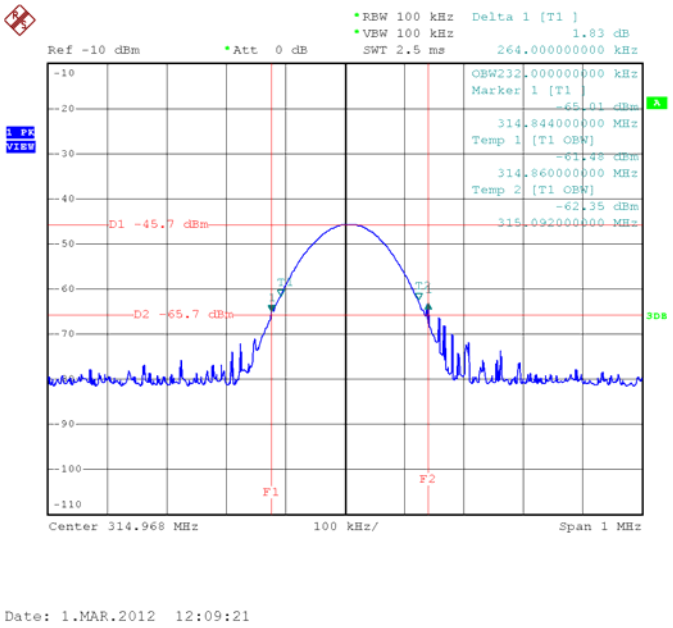
The EUT was manually operated to be in transmitting mode.

3.3.7 Test Result of 20dB Spectrum Bandwidth

Final Test Date	Feb. 27, 2012	**Test Site No.**	THCH01-CB
Temperature	23℃	**Humidity**	63%
Test Engineer	Allen Liu	**Configurations**	315 MHz

Frequency	**20dB BW (kHz)**	**99% OBW (kHz)**	**20 dB BW Limits (MHz)**	**Test Result**
315 MHz	264.00	232.00	0.7875	**Complies**

20 dB / 99% Bandwidth Plot on 315 MHz



3.4 Deactivating Time

3.4.1 Limit

A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

3.4.2 Measuring Instruments and Setting

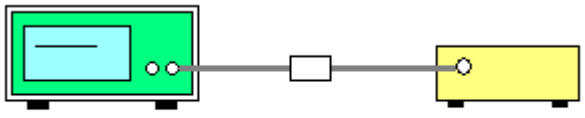
Please refer to section 4 of equipments list in this report.The following table is the setting of the Spectrum Analyzer.

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	0 MHz
RB	1MHz
VB	1MHz
Detector	Peak
Trace	Single Trigger
Attenuation	Auto

3.4.3 Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyser
2. Set RBW of spectrum analyzer to 1MHz and VBW to 1MHz.
3. Use a video trigger with the trigger level set to enable triggering only on full pulses.
4. Sweep Time is more than one pulse time.
5. Set the center frequency on any frequency would be measure and set the frequency span to zero span.
6. Measure the maximum time duration of one single pulse.

3.4.4 Test Setup Layout



3.4.5 Test Deviation

There is no deviation with the original standard.

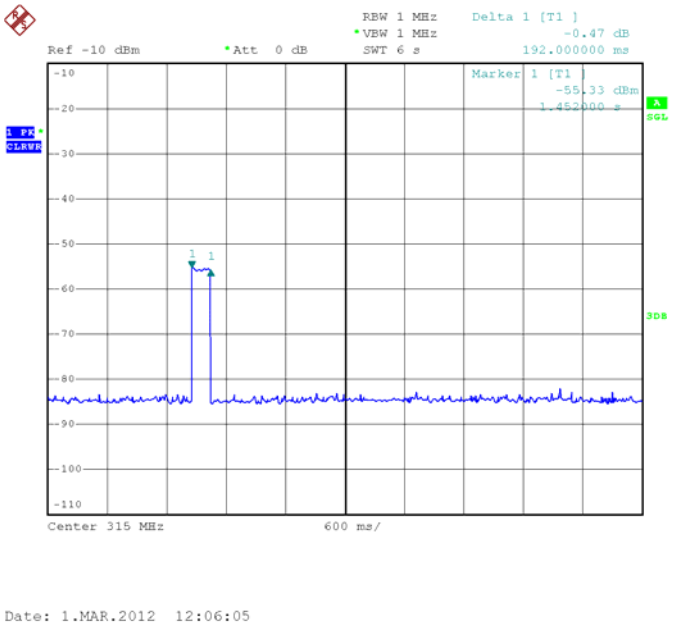
3.4.6 EUT Operation during Test

The EUT was manually operated to be in transmitting mode.

3.4.7 Deactivating Time

Final Test Date	Feb. 27, 2012	**Test Site No.**	THCH01-CB
Temperature	23℃	**Humidity**	63%
Test Engineer	Allen Liu	**Configurations**	315 MHz

Frequency (MHz)	Operation time (Sec)	Limits (Sec)	PASS/FAIL
315	0.1920	5.0000	PASS



Note: The EUT is deactivated immediately after being released.

3.4.8 Test Result of Operation Restriction

Periodic Operation Restriction	Applicable	Declared by applicant	Test performance	Passed
The transmitter is used for				
☐ security or safety applications ☒ other applications		☒		
The transmitter is operated				
☒ manually ☐ automatically		☒		
Periodic operation according to				
☒ 47 CFR FCC Part 15 Subpart C 15.231(a)/(e)				
Only control signals are sent and there is no continuous transmission.	☒	☒	☐	☒
(1) A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.	☒	☐	☒	☒
(2) A transmitter activated automatically shall cease transmission within 5 seconds after activation.	☐	☐	☐	☐
(3) Periodic transmissions at regular predetermined intervals are ☒ not permitted ☐ permitted with total transmission time of two seconds per hour or less (for polling or supervision transmission to determine system integrity of transmitters used in security or safety applications)	☐	☐	☐	☐
☐ 47 CFR FCC Part 15 Subpart C 3.4.2(4.2)				
The device is provided with a means for automatically limiting operation so that the duration of each transmissions is not greater than one second and the silent period between transmissions is at least 30 times the duration of the transmission but in no case less than 10 seconds.	☐	☐	☐	☐

Note: Result may be based on the applicant declaration (i.e. no test is performed). However, in this casethere is no vertification by the test laboratory.

3.5 Radiated Emissions Measurement

3.5.1 Limit

Devices complying with 47 CFR FCC Part 15 Subpart C, section 3.4.2(4.1). The field strength of emissions from intentional radiators at 3 meters operated under this Section shall not exceed the following:

Frequency Band (MHz)	Spurious Emissions Limit (up/m) at 3m
40.66-40.70	225
70-130	125
130-174	125-375(**)
174-260	375
260-470	375-1250(**)
Above 470	1250

**1. Linear interpolations, the formulas for calculating the maximum permitted fundamental field strengths are as follows:

(1) for the band 130 - 174 MHz, μV/m at 3 meters = 56.81818×(operating frequency, MHz) - 6136.3636;

(2) for the band 260 - 470 MHz, μV/m at 3 meters = 41.6667×(operating frequency, MHz) - 7083.3333.

(3)The maximum permitted unwanted emissions level is 20 dB below the maximum permitted fundamental level. In addition field strength of any emissions which appear inside of the restriction band shall not exceed the general radiated emissions limits in Section 2.8.

Frequencies (MHz)	Field Strength (micorvolts/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

3.5.2 Measuring Instruments and Setting

Please refer to section 4 of equipments list in this report.The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	3MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (other emission)	3MHz / 1MHz for peak

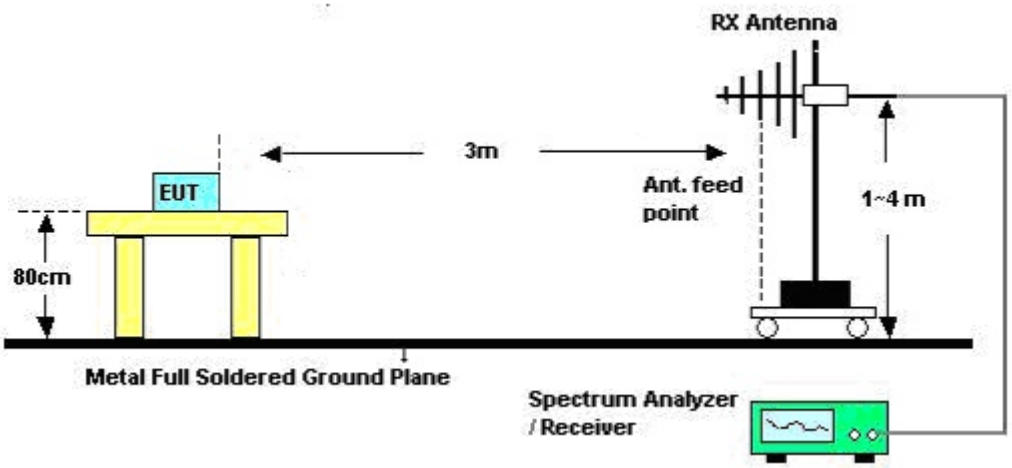
Spectrum Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.5.3 Test Procedures

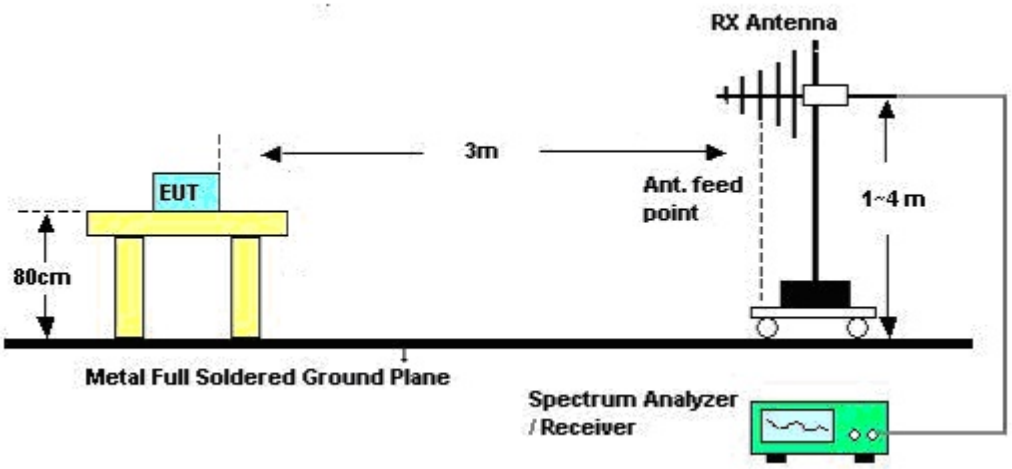
1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High – Low scan is not required in this case.

3.5.4 Test Setup Layout

For radiated emissions below 1GHz



For radiated emissions above 1GHz



3.5.5 Test Deviation

There is no deviation with the original standard.

3.5.6 EUT Operation during Test

The EUT was manually operated to be in transmitting mode.

3.5.7 Results of Radiated Emissions (9kHz~30MHz)

Final Test Date	Feb. 27, 2012	**Test Site No.**	03CH01-CB
Temperature	26℃	**Humidity**	60%
Test Engineer	Rion Li	**Configurations**	315 MHz

Freq. (MHz)	Level (dBuV)	Over Limit (dB)	Limit Line (dBuV)	Remark
-	-	-	-	See Note

Note:

The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

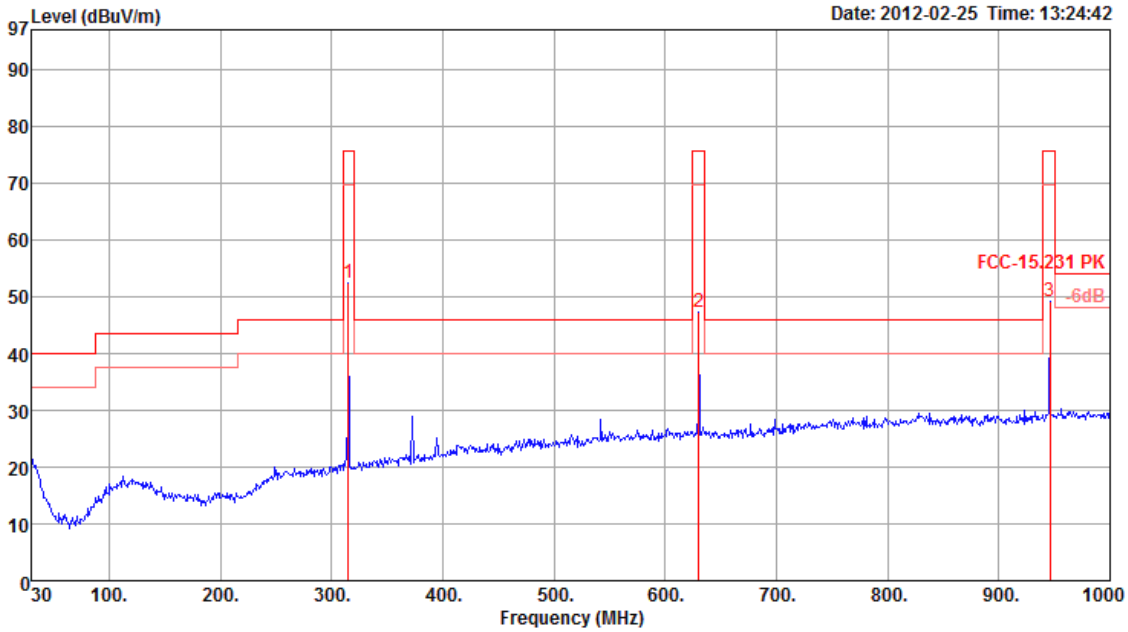
Distance extrapolation factor = 40 log (specific distance / test distance) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

3.5.8 Results for Radiated Emissions (30MHz~10th Harmonic)

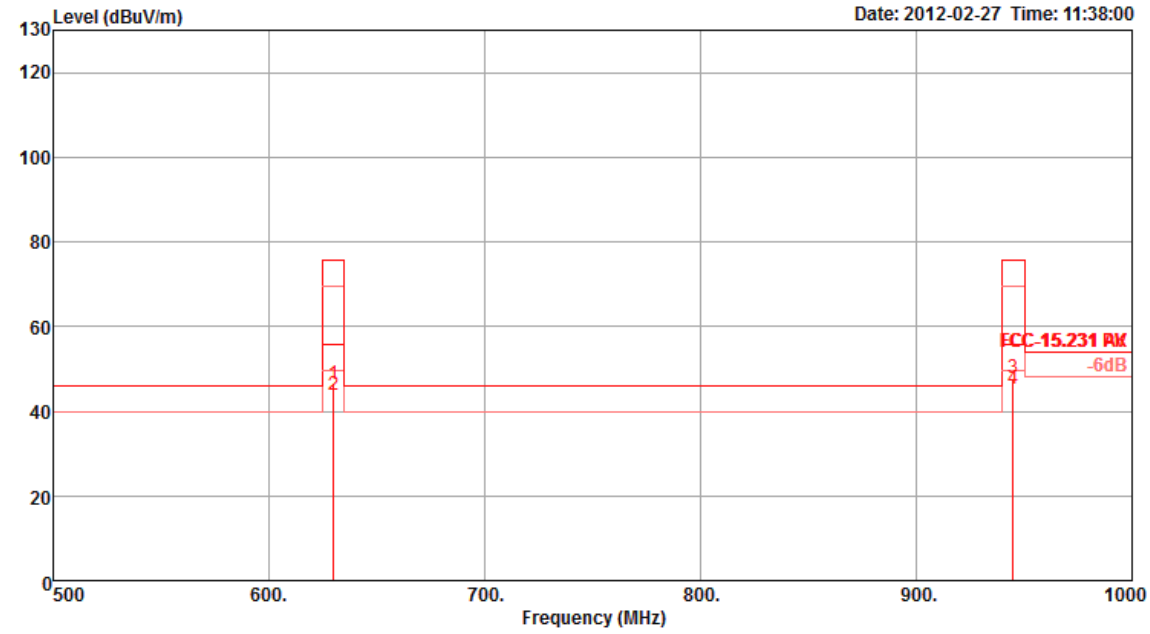
Final Test Date	Feb. 27, 2012	Test Site No.	03CH01-CB
Temperature	26℃	Humidity	60%
Test Engineer	Rion Li	Configurations	315 MHz

Horizontal



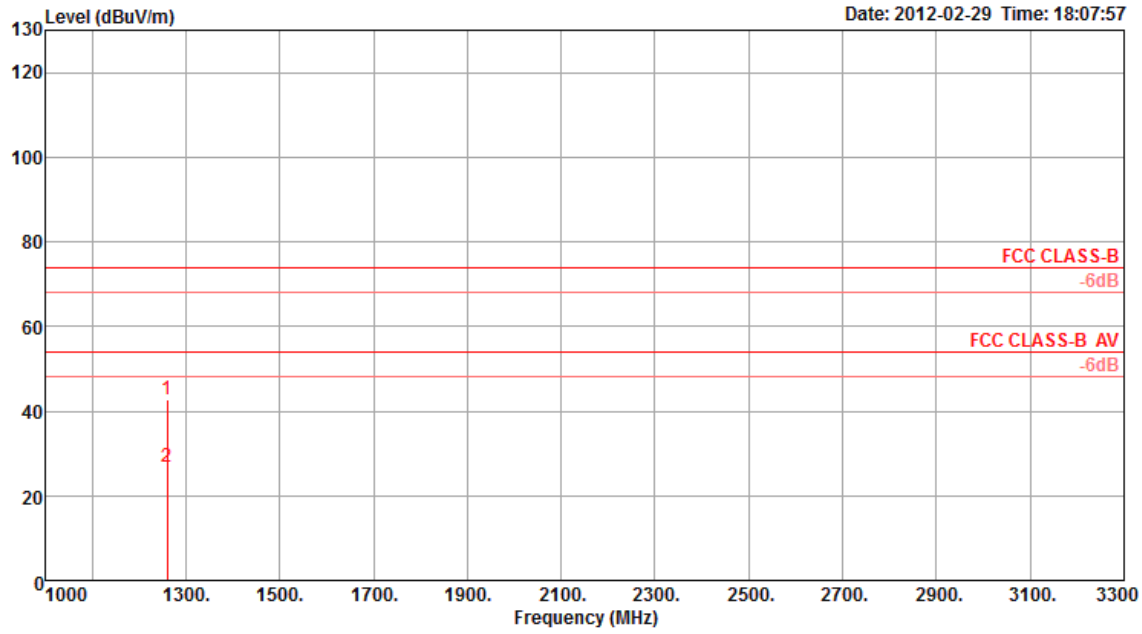
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 p	315.18	52.55	75.62	-23.07	62.78	2.60	27.01	14.18	0	400	Peak	HORIZONTAL
2	630.43	47.18	75.62	-28.44	51.74	3.83	28.07	19.68	0	400	Peak	HORIZONTAL
3	945.68	49.22	75.62	-26.40	50.38	4.83	27.22	21.23	0	400	Peak	HORIZONTAL

Horizontal



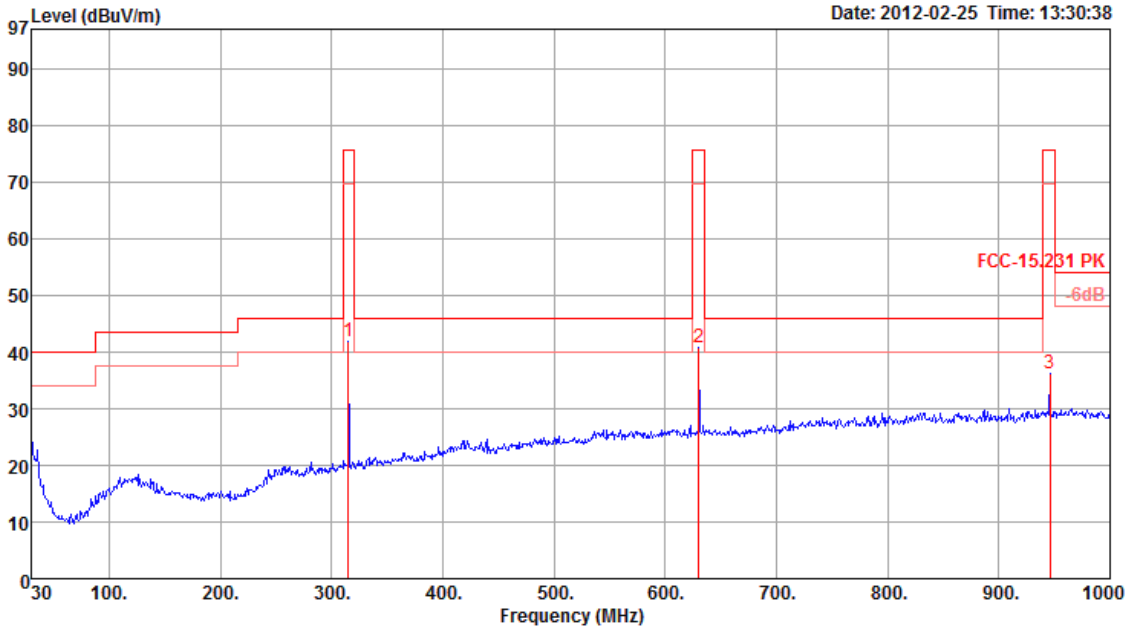
		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1		629.94	46.28	75.62	-29.34	50.84	3.83	28.07	19.68	320	132	Peak	HORIZONTAL
2		629.94	43.94	55.62	-11.68	48.50	3.83	28.07	19.68	320	132	Average	HORIZONTAL
3	p	944.93	47.90	75.62	-27.72	49.10	4.83	27.22	21.19	276	100	Peak	HORIZONTAL
4	a	944.93	45.26	55.62	-10.36	46.46	4.83	27.22	21.19	276	100	Average	HORIZONTAL

Horizontal



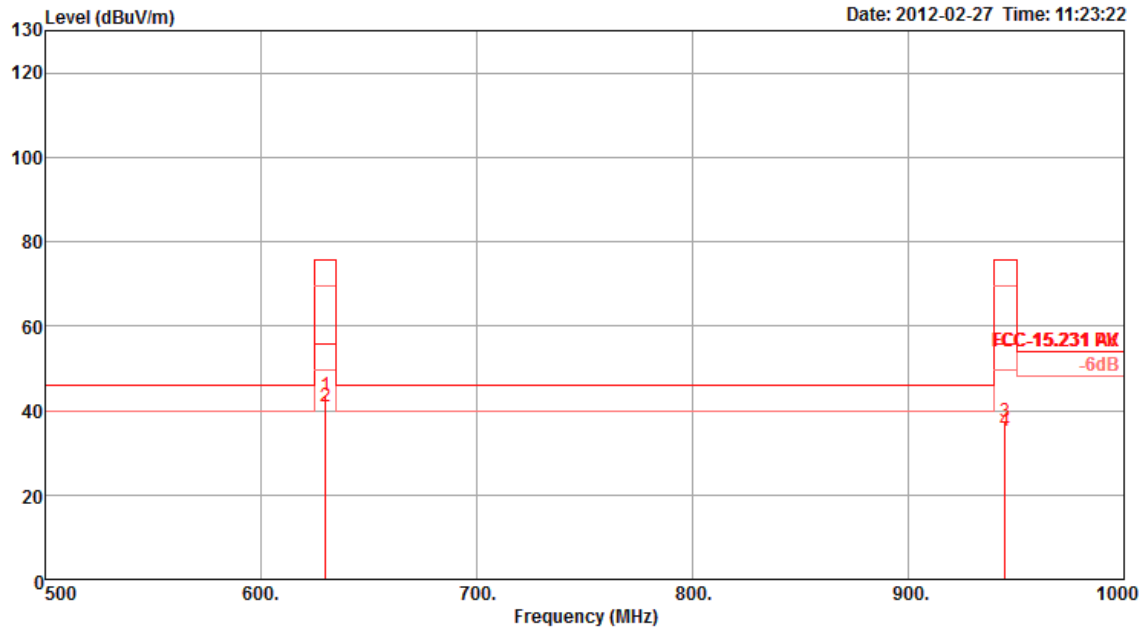
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 p	1259.93	42.65	74.00	-31.35	51.53	2.01	35.47	24.58	112	133	Peak	HORIZONTAL
2 a	1259.97	26.98	54.00	-27.02	35.86	2.01	35.47	24.58	112	133	Average	HORIZONTAL

Vertical



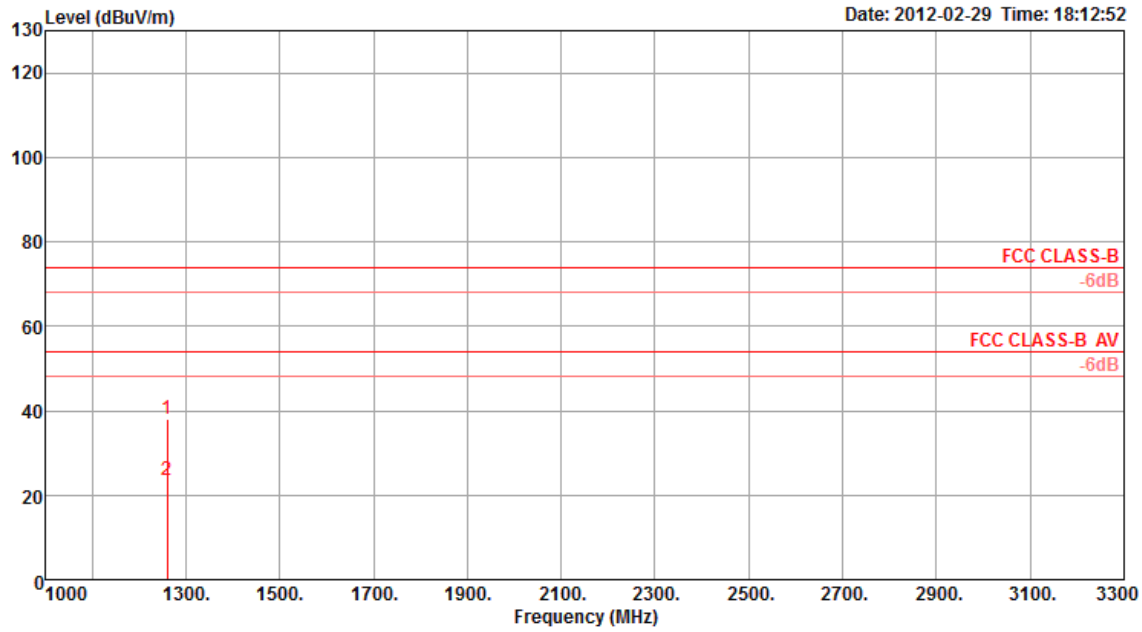
	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 p	315.18	41.89	75.62	-33.73	52.12	2.60	27.01	14.18	0	100	Peak	VERTICAL
2	630.43	40.89	75.62	-34.73	45.45	3.83	28.07	19.68	0	100	Peak	VERTICAL
3	945.68	36.17	75.62	-39.45	37.33	4.83	27.22	21.23	0	100	Peak	VERTICAL

Vertical



		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	p	629.95	43.33	75.62	-32.29	47.89	3.83	28.07	19.68	175	100	Peak	VERTICAL
2	a	629.95	40.99	55.62	-14.63	45.55	3.83	28.07	19.68	175	100	Average	VERTICAL
3		944.93	37.31	75.62	-38.31	38.51	4.83	27.22	21.19	0	100	Peak	VERTICAL
4		944.93	34.97	55.62	-20.65	36.17	4.83	27.22	21.19	0	100	Average	VERTICAL

Vertical



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 p	1259.88	37.89	74.00	-36.11	46.77	2.01	35.47	24.58	276	100	Peak	VERTICAL
2 a	1259.92	23.49	54.00	-30.51	32.37	2.01	35.47	24.58	276	100	Average	VERTICAL

Note:

The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

3.6 Antenna Requirements

3.6.1 Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited.

3.6.2 Antenna Connector Construction

All antenna connectors comply with the requirements.

4. LIST OF MEASURING EQUIPMENTS

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
BILOG ANTENNA	Schaffner	CBL6112D	22021	20MHz ~ 2GHz	Jan. 11, 2012	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz~18GHz	Nov. 25, 2011	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10991	0.1MHz ~ 1.3GHz	Nov. 17, 2011	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Nov. 29, 2011	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSP40	100056	9KHz~40GHz	Nov. 03, 2011	Radiation (03CH01-CB)
EMI Test Receiver	R&S	ESCS 30	100355	9KHz ~ 2.75GHz	Mar. 22, 2011	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9 kHz - 30 MHz	Sep. 09, 2010*	Radiation (03CH01-CB)
Turn Table	INN CO	CO 2000	N/A	0 ~ 360 degree	N/A	Radiation (03CH01-CB)
Antenna Mast	INN CO	CO2000	N/A	1 m - 4 m	N/A	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-1	N/A	30 MHz - 1 GHz	Nov. 17, 2011	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-1	N/A	1 GHz – 26.5 GHz	Nov. 17, 2011	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-2	N/A	1 GHz – 26.5 GHz	Nov. 17, 2011	Radiation (03CH01-CB)
Signal analyzer	R&S	FSV40	100979	9KHz~40GHz	Sep. 26, 2011	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	May 20, 2011	Conducted (TH01-CB)
Thermo-Hygro Meter	N/A	HC 520	#1	15~70 degree	Nov. 02, 2011	Conducted (TH01-CB)
RF Power Divider	HP	11636A	00306	2GHz ~ 18GHz	N/A	Conducted (TH01-CB)
RF Power Splitter	Anaren	44100	1839	2GHz ~ 18GHz	N/A	Conducted (TH01-CB)
RF Power Splitter	Anaren	42100	17930	2GHz ~ 18GHz	N/A	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-7	-	1 GHz – 26.5 GHz	Nov. 17, 2011	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-8	-	1 GHz – 26.5 GHz	Nov. 17, 2011	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-9	-	1 GHz – 26.5 GHz	Nov. 17, 2011	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-10	-	1 GHz – 26.5 GHz	Nov. 17, 2011	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-11	-	1 GHz – 26.5 GHz	Nov. 17, 2011	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-12	-	1 GHz – 26.5 GHz	Nov. 17, 2011	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-13	-	1 GHz – 26.5 GHz	Nov. 17, 2011	Conducted (TH01-CB)
Power Sensor	Anritsu	MA2411B	0917223	300MHz~40GHz	Nov. 01, 2011	Conducted (TH01-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Nov. 01, 2011	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.

Note: "*" Calibration Interval of instruments listed above is two years.

5. TEST LOCATION

SHIJR	ADD	:	6Fl., No. 106, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C.
	TEL	:	886-2-2696-2468
	FAX	:	886-2-2696-2255
HWA YA	ADD	:	No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
	TEL	:	886-3-327-3456
	FAX	:	886-3-318-0055
LINKOU	ADD	:	No. 30-2, Dingfu Tsuen, Linkou Shiang, Taipei, Taiwan 244, R.O.C
	TEL	:	886-2-2601-1640
	FAX	:	886-2-2601-1695
DUNGHU	ADD	:	No. 3, Lane 238, Kangle St., Neihu Chiu, Taipei, Taiwan 114, R.O.C.
	TEL	:	886-2-2631-4739
	FAX	:	886-2-2631-9740
JUNGHE	ADD	:	7Fl., No. 758, Jungjeng Rd., Junghe City, Taipei, Taiwan 235, R.O.C.
	TEL	:	886-2-8227-2020
	FAX	:	886-2-8227-2626
NEIHU	ADD	:	4Fl., No. 339, Hsin Hu 2nd Rd., Taipei 114, Taiwan, R.O.C.
	TEL	:	886-2-2794-8886
	FAX	:	886-2-2794-9777
JHUBEI	ADD	:	No.8, Lane 728, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.
	TEL	:	886-3-656-9065
	FAX	:	886-3-656-9085

6. TAF CERTIFICATE OF ACCREDITATION

Certificate No. : L1190-110702

財團法人全國認證基金會
Taiwan Accreditation Foundation

Certificate of Accreditation

This is to certify that

Sporton International Inc.
EMC & Wireless Communications Laboratory
No.52, Hwa Ya 1st Road, Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

is accredited in respect of laboratory

Accreditation Criteria	:	ISO/IEC 17025:2005
Accreditation Number	:	1190
Originally Accredited	:	December 15, 2003
Effective Period	:	January 10, 2010 to January 09, 2013
Accredited Scope	:	Testing Field, see described in the Appendix
Specific Accreditation Program	:	Accreditation Program for Designated Testing Laboratory for Commodities Inspection Accreditation Program for Telecommunication Equipment Testing Laboratory Accreditation Program for BSMI Mutual Recognition Arrangment with Foreign Authorities

Jay-San Chen
President, Taiwan Accreditation Foundation
Date : July 02, 2011

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The Appendix forms an integral part of this Certificate, which shall be invalid when use without the Appendix