FCC TEST REPORT

CATEGORY	:	Portable
PRODUCT NAME	:	Wireless Optical Mouse
FILING TYPE	:	Certification
MODEL NAME	:	RMO130L, RMO170L, RMO173L, RMO185L
APPLICANT	:	**Chic Technology Corp** 16F, No. 150, Chien-1 Road, 235 Chung Ho City, Taipei Hsien, Taiwan, R.O.C.
MANUFACTURER	:	**Chic Technology Corp** Xiwang Industrial Park, Tian Tang Wei, Feng Gang, Dongguan, Guangdong, China.
ISSUED BY	:	**SPORTON INTERNATIONAL INC.** 6F, No. 106, Sec. 1, Hsin Tai Wu Rd., His Chih, Taipei Hsien, Taiwan, R.O.C.

Statements:

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.

Certificate or Test Report could not be used by the applicant to claim the product endorsement by CNLA and any agency of U.S. government.

The test equipments used to perform the test are calibrated and traceable to NML/ROC or NIST/USA.

CNLA

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ILAC MRA

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HISTORY OF THIS TEST REPORT

Received Date: May 05, 2005
Test Date: May 09, 2005
Original Report Issue Date: May 19, 2005
Report No.: FR542227

■ No additional attachment.

☐ Additional attachment were issued as following record:

Attachment No.	Issue Date	Description

CERTIFICATE OF COMPLIANCE

with

47 CFR FCC Part 15 Subpart C

PRODUCT NAME : Wireless Optical Mouse

MODEL NAME : RMO130L, RMO170L, RMO173L, RMO185L

APPLICANT : **Chic Technology Corp**
16F, No. 150, Chien-1 Road, 235 Chung Ho City, Taipei Hsien, Taiwan, R.O.C.

MANUFACTURER : **Chic Technology Corp**
Xiwang Industrial Park, Tian Tang Wei, Feng Gang, Dongguan, Guangdong, China.

I **HEREBY** CERTIFY THAT:

The measurements shown in this test report were made in accordance with the procedures given in ANSI C63.4-2003 and all test are performed according to 47 CFR FCC Part 15 Subpart C. Testing was carried out on May 09, 2005 at SPORTON International Inc. LAB.

Wayne Hsu
Sporton International Inc.

1. General Description of Equipment under Test

1.1. Applicant

Chic Technology Corp

16F, No. 150, Chien-1 Road, 235 Chung Ho City, Taipei Hsien, Taiwan, R.O.C.

1.2. Manufacturer

Chic Technology Corp

Xiwang Industrial Park, Tian Tang Wei, Feng Gang, Dongguan, Guangdong, China.

1.3. Basic Description of Equipment under Test

This product is a wireless Optical mouse with FSK modulation solution. Please refer to “Features of Equipment under Test”. This mouse is powered by battery and can be charged by adapter.

1.4. Features of Equipment under Test

Items	Description
Type of Modulation	FSK
Number of Channels	2
Carrier Frequency	See section 1.5 for details
Antenna Type	Trace on board (loop)
Testing Duty Cycle	100.00%
Power Rating (DC/AC, Voltage)	3~2.4VDC from battery / DC 6V from Adapter
Temperature Range (Operating)	0 ~ 40 °C

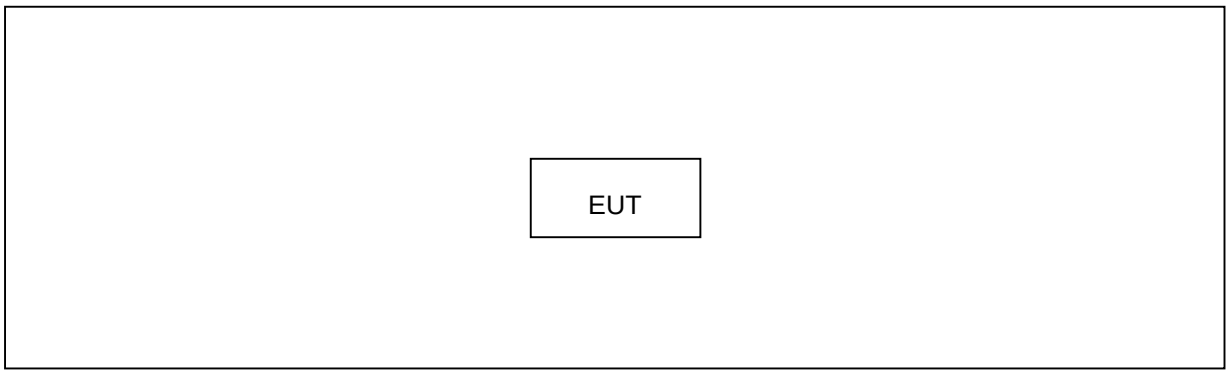
1.5. Table for Carrier Frequencies

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
1	27.045MHz	2	27.095MHz	-	-	-	-

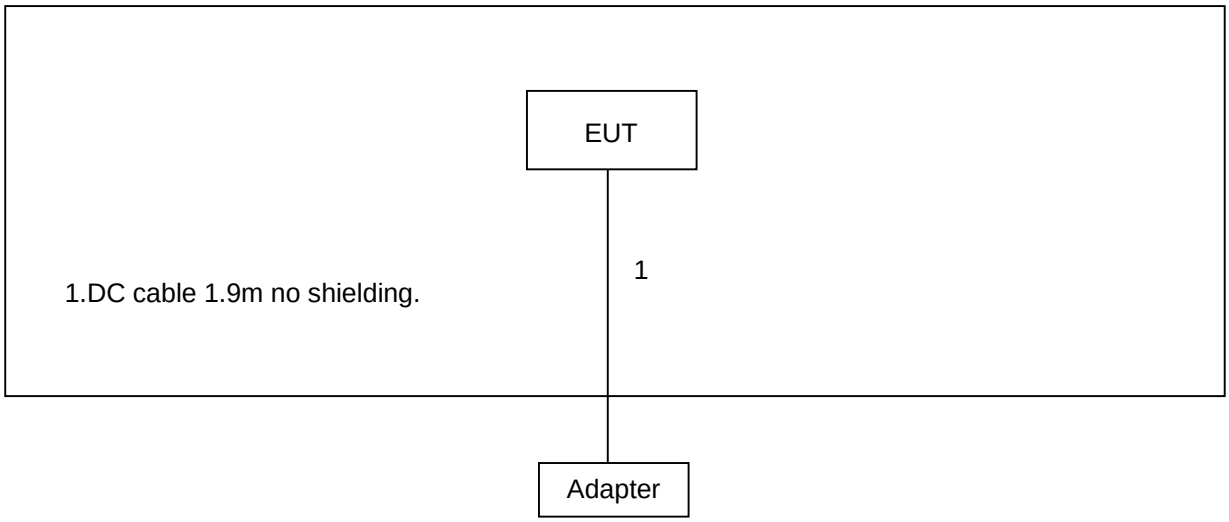
2. Test Configuration of the Equipment under Test

2.1. Connection Diagram of Test System

Powered by battery



Powered by charger



2.2. The Test Mode Description

EUT is transmitting data continuously. Spurious emission was tested under 2 configurations. One is EUT powered by battery, the other by charger.

2.3. Description of Test Supporting Units

There is no supporting unit for the test.

3. General Information of Test

3.1. Test Facility

Test Site Location	:	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiag, Tao Yuan Hsien, Taiwan, R.O.C.
	:	TEL 886-3-327-3456
	:	FAX 886-3-318-0055
Test Site No	:	03CH03-HY / CO04-HY

3.2. Standards for Methods of Measurement

Here is the list of the standards followed in this test report.

ANSI C63.4-2003

47 CFR FCC Part 15 Subpart C

3.3. Frequency Range Investigated

Radiated emission test: from 9 kHz to 10th carrier harmonic

3.4. Test Distance

The test distance of radiated emission (9 kHz~1GHz) test from antenna to EUT is 3 M.

The test distance of radiated emission (1GHz~10th carrier harmonic) test from antenna to EUT is 3 M.

3.5. Test Software

During testing, there is no test software for the test.

4. List of Measurements

4.1. Summary of the Test Results

Applied Standard: 47 CFR FCC Part 15 Subpart C			
Paragraph	**FCC Section**	**Description of Test**	**Result**
5.1	15.227(a)	Maximum Field Strength of Fundamental	Pass
5.2	15.215(c)	20dB Spectrum Bandwidth	Pass
5.3	15.207	AC Power Line Conducted Emission	Pass
5.4	15.227(b)	Spurious Radiated Emission	Pass
5.5	15.209	Band Edge Emissions	Pass
5.6	15.203	Antenna Requirement	Pass

5. Test Result

5.1. Test of Maximum Field Strength of Fundamental

5.1.1. Applicable Standard

Section 15.227(a): The field strength of any emission within this band shall not exceed 10,000 microvolts/meter at 3 meters. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

5.1.2. Measuring Instruments

Item 6~17 of the table on section 6.

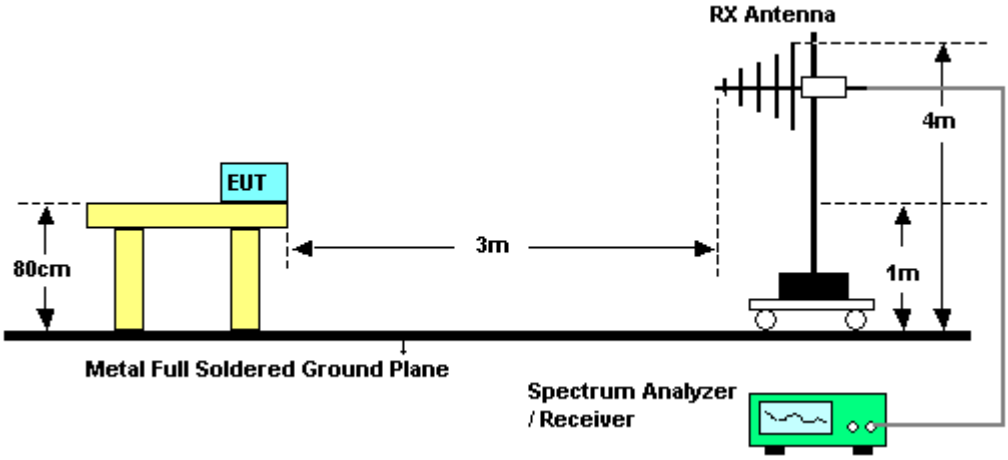
5.1.3. Description of Major Test Instruments Setting

- Test Receiver : (R&S ESCS 30)
  Attenuation : Auto
  Center Frequency : Carrier Frequency of EUT
  IF Bandwidth : 9 KHz

5.1.4. Test Procedures and Test Instruments Setting

1. Configure the EUT according to ANSI C63.4.
2. 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 emission field strength of both horizontal and vertical polarization.
4. For carrier field strength emission, 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 carrier field strength emission, use 9kHz RBW of Receiver for reading under average and peak detector.

5.1.5. Test Setup Layout



5.1.6. Test Criteria

All test results complied with the requirements of 15.227(a). Measurement Uncertainty is 2.26dB.

5.1.7. Test Result of Maximum Field Strength

- Temperature: 26°C
- Relative Humidity: 56%
- Duty Cycle of the Equipment During the Test: 100.00%
- Test Engineer: Wayne Hsu

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Detector
27.090	47.31	-32.69	80	61.90	Average
27.090	48.37	-51.63	100	62.96	Peak

Note:

Correct Factor = Antenna Factor + Cable Loss - Preamp Factor.

Read Level = Level of Receiver or Spectrum.

Level = Read Level + Correct Factor.

5.2. 20dB Spectrum Bandwidth Measurement

5.2.1. Limit

Intentional radiators must be designed to ensure that the 20 dB bandwidth of the emissions in the specific band (26.96 ~ 27.28MHz).

5.2.2. Measuring Instruments and Setting

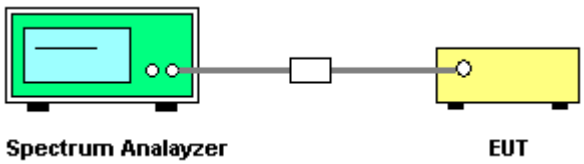
Please refer to section 5 in this report. The following table is the setting of the Spectrum Analyzer.

- Spectrum Parameters : Setting
  Attenuation : Auto
  Span Frequency : > 20dB Bandwidth
  RB : 1 kHz
  VB : 1 kHz
  Detector : Peak
  Trace : Max Hold
  Sweep Time : Auto

5.2.3. Test Procedures

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

5.2.4. Test Setup Layout



5.2.5. Test Deviation

There is no deviation with the original standard.

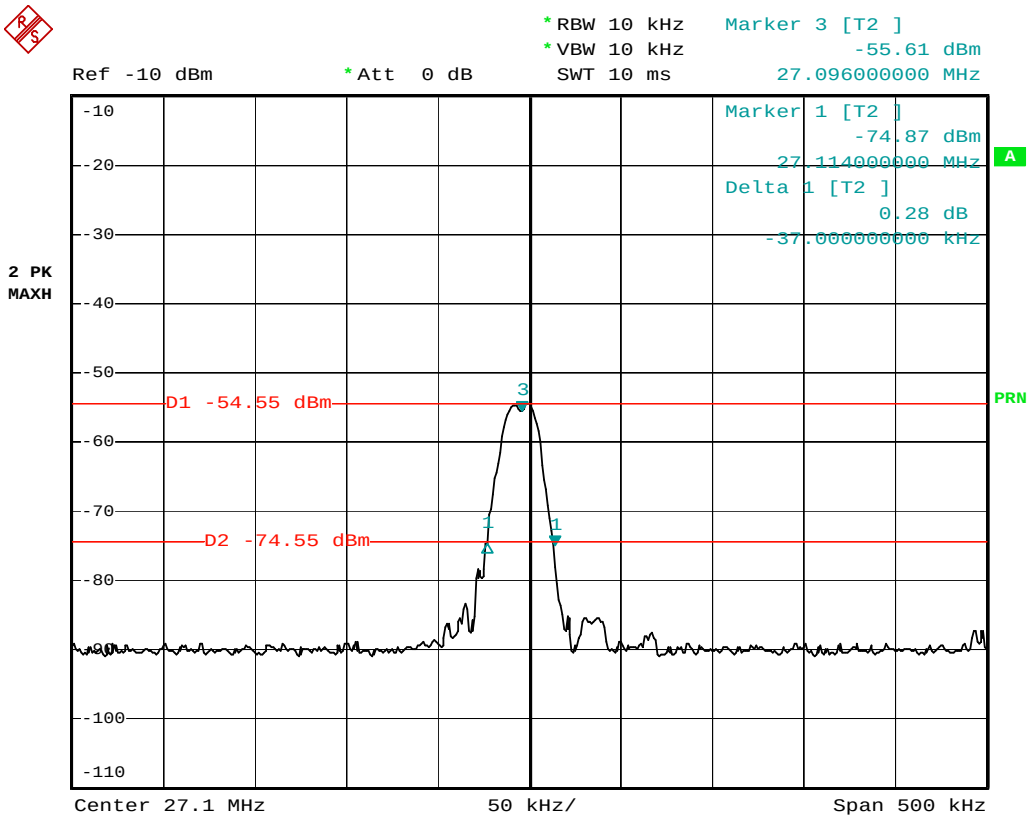
5.2.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

5.2.7. Test Result of 20dB Spectrum Bandwidth

Temperature	20℃	Humidity	60%
Test Engineer	Sam Lee	Configurations	Channel 2

20 dB Bandwidth Plot on 27.095 MHz



5.3. Test of AC Power Line Conducted Emission

5.3.1. Applicable Standard

Section 15.207: For a Low-power Radio-frequency Device is designed to be connected to the AC power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed below limits table.

Frequency (MHz)	QP Limit (dBuV)	AV Limit (dBuV)
0.15~0.5	66~56	56~46
0.5~5	56	46
5~30	60	50

5.3.2. Measuring Instruments

Please reference item 1~5 in chapter 6 for the instruments used for testing.

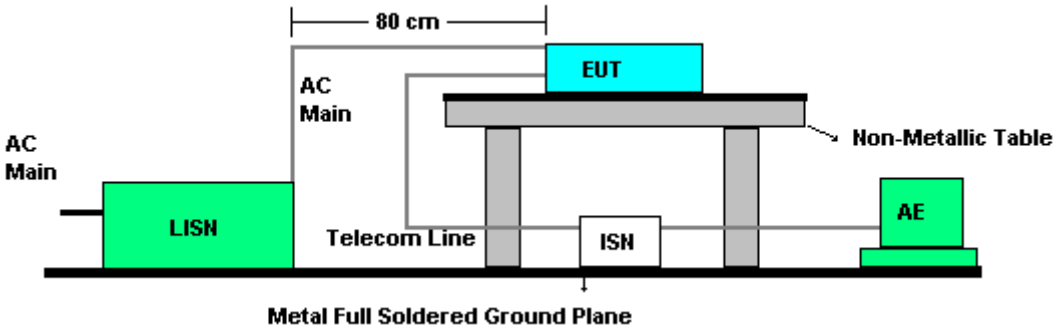
5.3.3. Description of Major Test Instruments Setting

- Test Receiver : R&S ESCS 30
  Attenuation : 10 dB
  Start Frequency : 0.15 MHz
  Stop Frequency : 30 MHz
  IF Bandwidth : 9 KHz

5.3.4. Test Procedures

1. Configure the EUT according to ANSI C63.4.
2. The EUT has to be placed 0.4 meter far from the conducting wall of the shielding room and at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance stabilization network (LISN)
4. All the support units are connected to the other LISNs. The LISN should provides 50uH/50ohms coupling impedance.
5. The frequency range from 150 KHz to 30 MHz was searched.
6. Use the Channel & Power Controlling software to make the EUT working on selected channel and expected output power, then use the “H” Patter Generator software to make the supporting equipments stay on working condition.
7. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
8. The measurement has to be done between each power line and ground at the power terminal for each RF channel. Only one RF channel has to be investigated since this test is independent with the RF channel selection.

5.3.5. Test Setup Layout



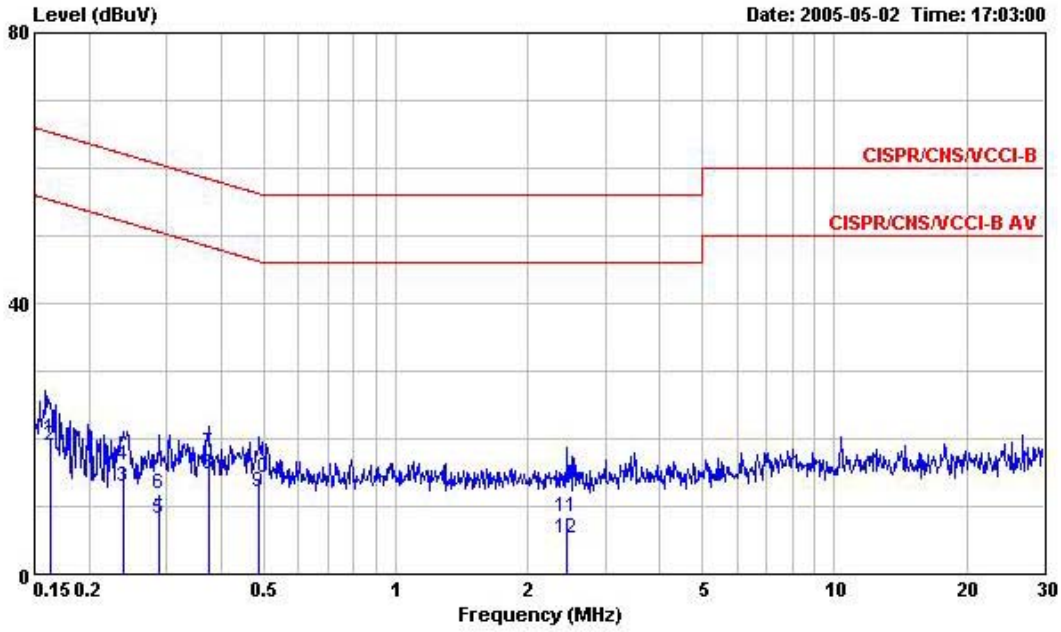
5.3.6. Test Criteria

All test results complied with the requirements of 15.207. Measurement Uncertainty is 2.54dB.

5.3.7. Test Result of Conducted Emission CH 2 / 27.095MHz

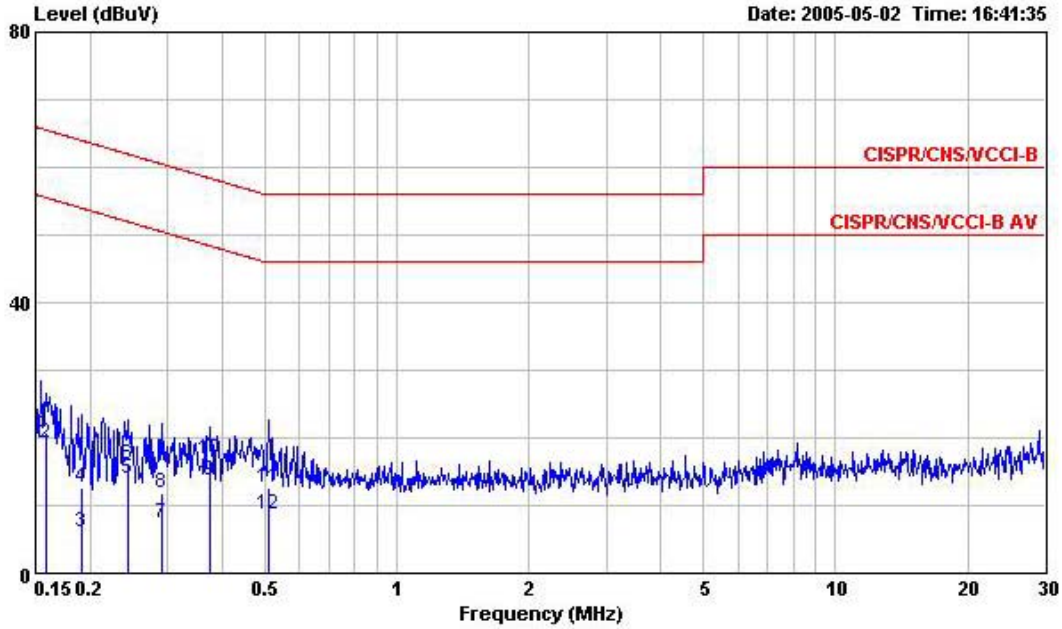
- Temperature: 26°C
- Relative Humidity: 55%
- Test Engineer: Wayne Hsu

Line to Ground



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1624080	20.10	-45.24	65.34	19.55	0.10	0.45	QP
2	0.1624080	18.94	-36.40	55.34	18.39	0.10	0.45	Average
3	0.2391010	12.83	-39.30	52.13	12.48	0.10	0.25	Average
4	0.2391010	15.93	-46.20	62.13	15.58	0.10	0.25	QP
5	0.2893470	8.07	-42.47	50.54	7.66	0.10	0.31	Average
6	0.2893470	11.92	-48.62	60.54	11.51	0.10	0.31	QP
7	0.3731370	17.91	-40.52	58.43	17.52	0.10	0.29	QP
8	@0.3731370	14.74	-33.69	48.43	14.35	0.10	0.29	Average
9	@0.4889010	12.06	-34.13	46.19	11.75	0.10	0.21	Average
10	0.4889010	14.27	-41.92	56.19	13.96	0.10	0.21	QP
11	2.460	8.51	-47.49	56.00	8.17	0.10	0.24	QP
12	2.460	5.15	-40.85	46.00	4.81	0.10	0.24	Average

Neutral to Ground

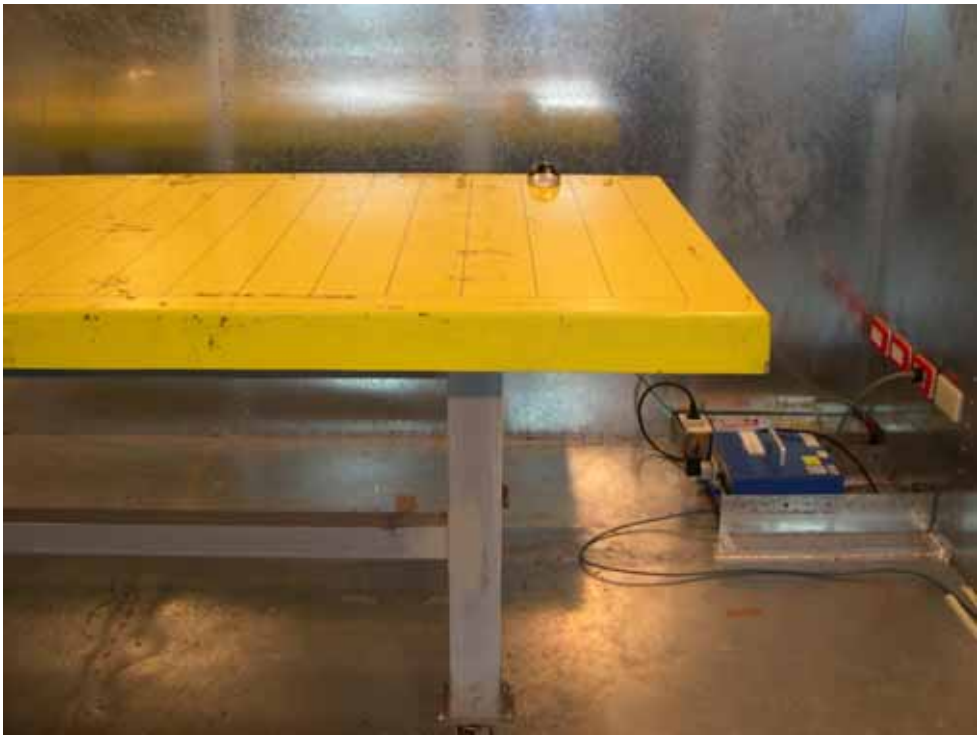


	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1588250	20.71	-44.82	65.53	20.14	0.10	0.47	QP
2	0.1588250	19.22	-36.31	55.53	18.65	0.10	0.47	Average
3	0.1903870	6.12	-47.90	54.02	5.76	0.10	0.26	Average
4	0.1903870	12.69	-51.33	64.02	12.33	0.10	0.26	QP
5	0.2429320	13.91	-38.09	52.00	13.55	0.10	0.26	Average
6	0.2429320	16.00	-46.00	62.00	15.64	0.10	0.26	QP
7	0.2924290	7.34	-43.12	50.46	6.93	0.10	0.31	Average
8	0.2924290	11.81	-48.65	60.46	11.40	0.10	0.31	QP
9	@0.3751190	13.68	-34.71	48.39	13.29	0.10	0.29	Average
10	0.3751190	16.88	-41.51	58.39	16.49	0.10	0.29	QP
11	0.5100690	12.71	-43.29	56.00	12.38	0.10	0.23	QP
12	0.5100690	8.59	-37.41	46.00	8.26	0.10	0.23	Average

Note:
Corrected Reading: Probe (LISN / ISN) Factor + Cable Loss + Read Level = Level.

5.3.8. Photographs of Conducted Emission Test Configuration

RONT VIEW



REAR VIEW

5.4. Test of Spurious Radiated Emission

5.4.1. Applicable Standard

Section 15.227(b): The field strength of any emissions which appear outside of this band shall not exceed the general radiated emission limits in Section 15.209.

5.4.2. Measuring Instruments

Please reference item 1~17 in chapter 6 for the instruments used for testing.

5.4.3. Description of Major Test Instruments Setting

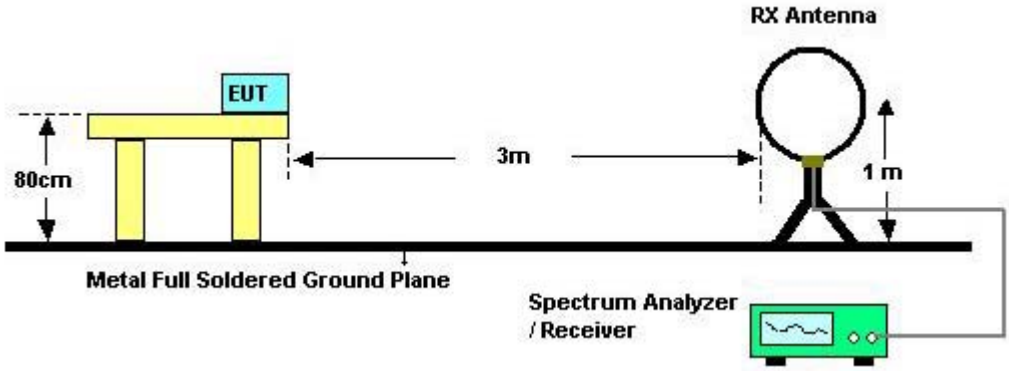
- Test Receiver : R&S ESCS 30
  Attenuation : Auto
  Start Frequency : 30 MHz
  Stop Frequency : 10th carrier harmonic
  RB : 120 KHz for QP or PK

5.4.4. Test Procedures

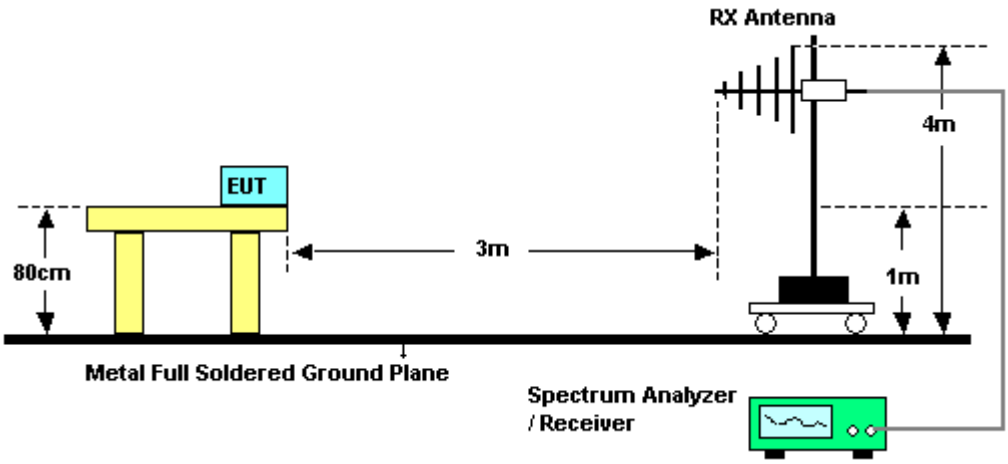
1. Configure the EUT according to ANSI C63.4.
2. The EUT was placed on the top of the turntable 0.8 meter above ground.
3. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
4. Power on the EUT and all the supporting units.
5. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
6. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emission field strength of both horizontal and vertical polarization.
7. For each suspected emission, 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.
8. Set the test-receiver system to peak or quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.

5.4.5. Test Setup Layout

For radiated emissions below 30MHz



For radiated emissions above 30MHz



5.4.6. Test Criteria

All test results complied with the requirements of 15.227(b). Measurement Uncertainty is 2.26dB.

5.4.7. Test Results

For radiated emissions below 30MHz

Temperature	20℃	Humidity	70%
Test Engineer	Ted Chiu	Configurations	Channel 2

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.

For radiated emissions above 30MHz

- Temperature: 26°C
- Relative Humidity: 56%
- Duty Cycle of the Equipment During the Test: 100.00%
- Test Engineer: Wayne Hsu

Powered by battery

(A) Polarization: Horizontal

	Freq	Level	Over Limit	Read Level	Limit Line	Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV	dBuV/m	dB	dB	dB	
1 @	54.140	24.78	-15.22	43.29	40.00	-18.51	0.72	30.25	Peak
2 @	81.340	20.53	-19.47	40.32	40.00	-19.79	0.89	30.04	Peak
3	162.430	16.66	-26.34	32.84	43.00	-16.18	1.27	30.31	Peak
1	243.200	23.82	-22.18	40.50	46.00	-16.68	1.54	31.03	Peak
2	269.600	21.35	-24.65	38.04	46.00	-16.69	1.63	31.21	Peak
3	324.000	19.35	-26.65	33.72	46.00	-14.37	1.76	30.66	Peak

(B) Polarization: Vertical

	Freq	Level	Over Limit	Read Level	Limit Line	Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV	dBuV/m	dB	dB	dB	
1 @	40.030	21.93	-18.07	39.15	40.00	-17.22	0.63	30.45	Peak
2 @	65.020	19.28	-20.72	38.90	40.00	-19.62	0.82	30.58	Peak
3	86.270	17.80	-22.20	38.10	40.00	-20.30	0.93	30.09	Peak
1	243.200	15.52	-30.48	32.20	46.00	-16.68	1.54	31.03	Peak
2	672.800	20.55	-25.45	27.97	46.00	-7.42	2.53	30.56	Peak
3	886.400	22.04	-23.96	27.27	46.00	-5.23	3.07	30.03	Peak

Note:

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

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

Powered by charger

(A) Polarization: Horizontal

	Freq	Level	Over Limit	Read Level	Limit Line	Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV	dBuV/m	dB	dB	dB	
1	326.400	19.07	-26.93	33.40	46.00	-14.33	1.76	30.70	Peak
2	624.800	19.91	-26.09	27.79	46.00	-7.88	2.44	30.80	Peak
3 @	905.600	25.56	-20.44	30.49	46.00	-4.93	3.11	29.87	Peak
1 @	51.420	19.74	-20.26	37.82	40.00	-18.08	0.69	30.05	Peak
2 @	57.540	22.17	-17.83	41.05	40.00	-18.88	0.74	30.34	Peak
3	96.980	14.71	-28.29	34.99	43.00	-20.28	0.94	30.06	Peak

(B) Polarization: Vertical

	Freq	Level	Over Limit	Read Level	Limit Line	Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV	dBuV/m	dB	dB	dB	
1 @	52.950	31.95	-8.05	50.29	40.00	-18.34	0.71	30.18	Peak
2 @	96.980	28.78	-14.22	49.06	43.00	-20.28	0.94	30.06	Peak
3 @	103.100	24.56	-18.44	44.70	43.00	-20.14	0.97	30.54	Peak
1	208.800	19.45	-23.55	33.38	43.00	-13.93	1.16	30.58	Peak
2	330.400	17.67	-28.33	31.98	46.00	-14.31	1.77	30.78	Peak
3	624.000	20.01	-25.99	27.90	46.00	-7.89	2.44	30.81	Peak

Note:

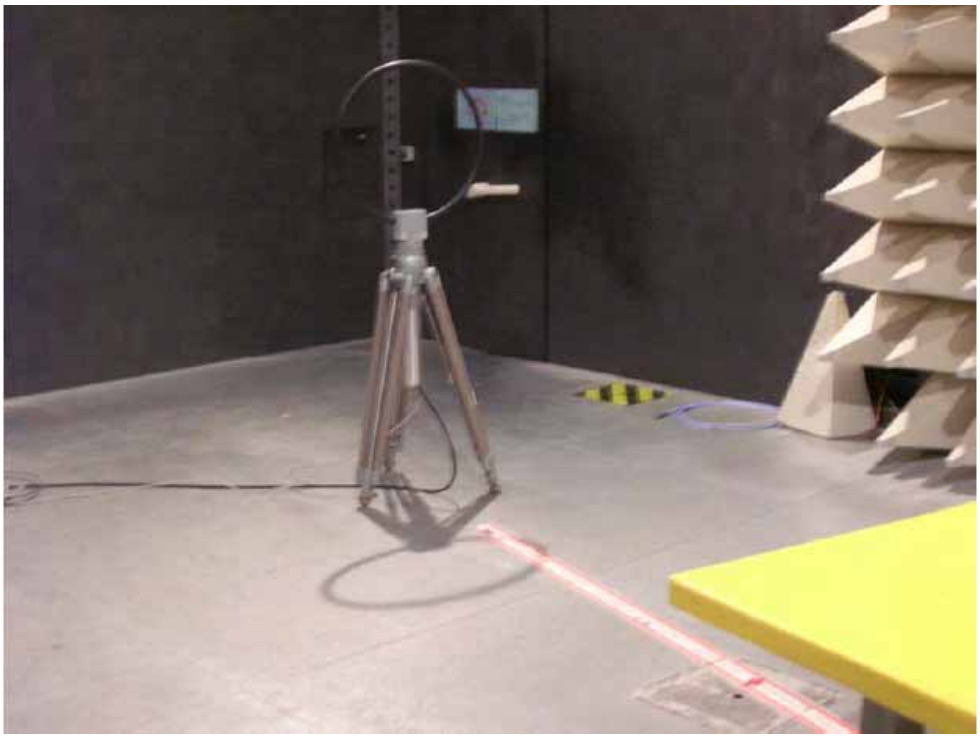
Emission level (dBuV/m) = 20 log Emission level (uV/m)

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

5.4.8. Photographs of Radiated Emission Test Configuration

For radiated emissions below 30MHz

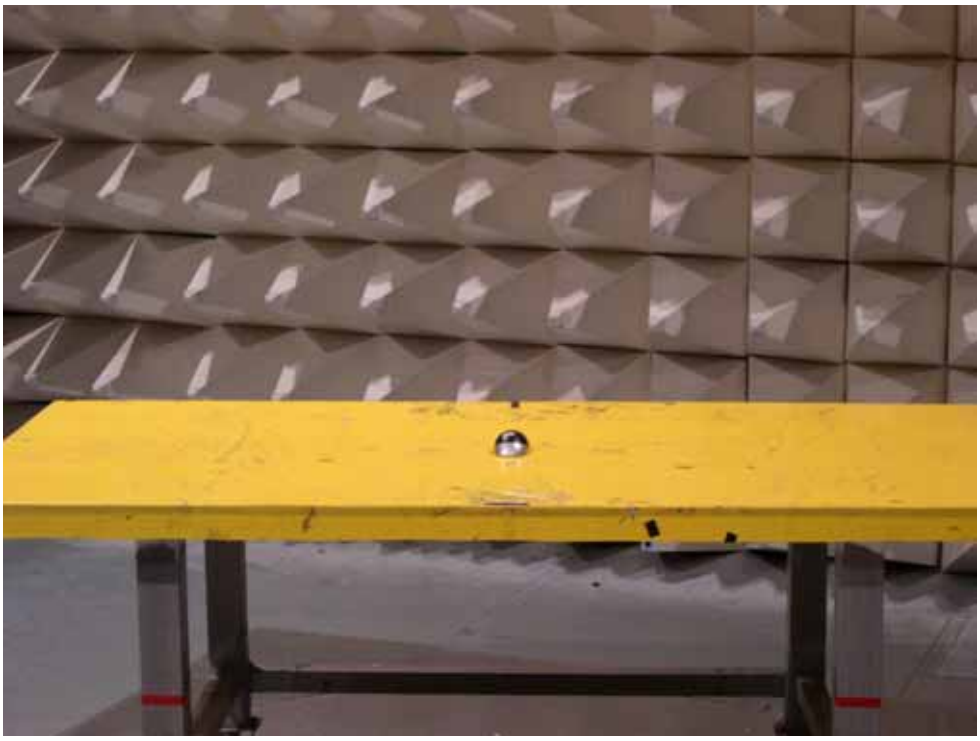
FRONT VIEW



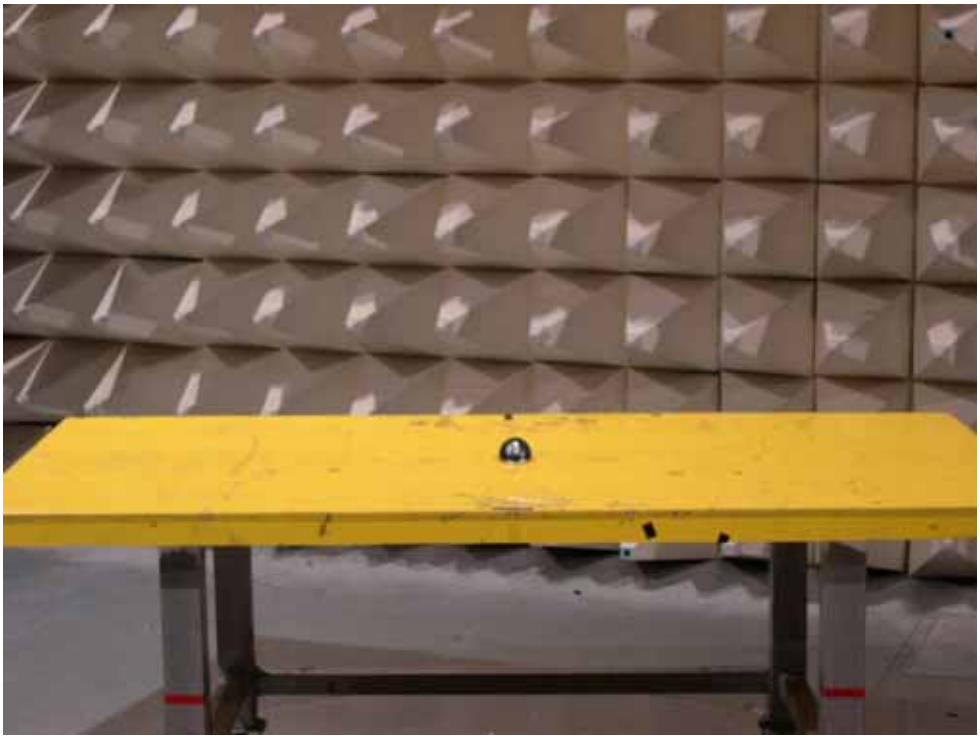
REAR VIEW

Powered by battery

FRONT VIEW

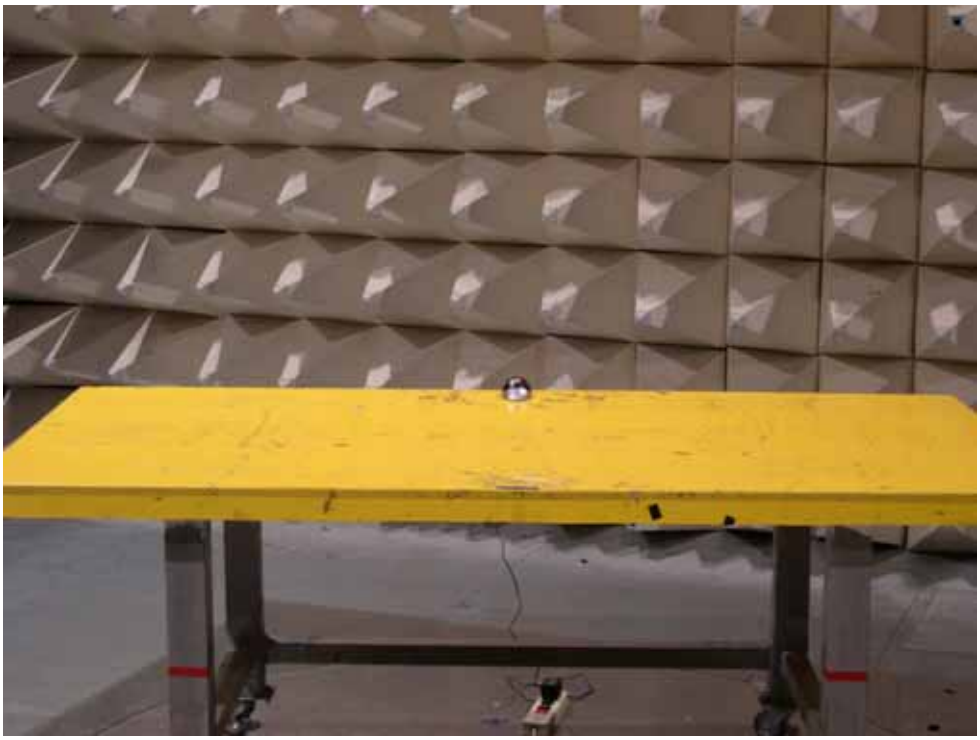


REAR VIEW



Powered by charger

FRONT VIEW



REAR VIEW

5.5. Band Edge Emissions Measurement

5.5.1. Limit

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

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

5.5.2. Measuring Instruments and Setting

Please refer to section 5 in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	100 MHz
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (other emission)	100 KHz /100 KHz for Peak

5.5.3. Test Procedures

1. The test procedure is the same as section 4.5.3, only the freqeuncy range investigated is limited to 100MHz around bandedges.
2. In case the emission is fail due to the used RB/VB is too wide, marker-delta method of FCC Public Notice DA00-705 will be followed.

5.5.4. Test Setup Layout

This test setup layout is the same as that shown in section 4.5.4.

5.5.5. Test Deviation

There is no deviation with the original standard.

5.5.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

5.5.7. Test Result of Band Edge and Fundamental Emissions

Temperature	20℃	Humidity	70%
Test Engineer	Ted Chiu	Configurations	Channel 2

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1	26.960	23.53			38.00	15.17	0.52	30.17	Peak
2	27.090	47.31	-22.23	69.54	61.90	15.05	0.52	30.17	QP
3 @	27.090	48.37	-21.17	69.54	62.96	15.05	0.52	30.17	Peak
4	27.280	16.47			31.18	14.93	0.52	30.17	Peak

Item 1, 4 is Band Edge.

Note:

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

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

Receiving maximum band edge emissions are Vertical Polarization /Horizontal Polarization.

5.6. Antenna Requirements

5.6.1. Standard Applicable

Section 15.203: 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 a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

5.6.2. Antenna Connected Construction

There is no antenna connector.

5.6.3. Test Criteria

All test results complied with the requirements of 15.203.

6. List of Measuring Equipments Used

Items	Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
1	EMC Receiver	R&S	ESCS 30	100174	9kHz – 2.75GHz	Feb. 19, 2005	Conduction (CO04-HY)
2	LISN	EMCO	3810/2NM	9703-1839	9kHz – 30MHz	Mar. 15, 2005	Conduction (CO04-HY)
3	LISN (Support Unit)	MessTec	NNB-2/16Z	99041	9kHz – 30MHz	Apr. 08, 2005	Conduction (CO04-HY)
4	EMI Filter	LINDGREN	LRE-2030	2651	< 450 Hz	N/A	Conduction (CO04-HY)
5	RF Cable-CON	UTIFLEX	3102-26886-4	CB044	9kHz – 30MHz	Apr. 20, 2005	Conduction (CO04-HY)
6	3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz~1GHz 3m	Jun. 21, 2004	Radiation (03CH03-HY)
7	Spectrum Analyzer	R&S	FSP40	100004	9KHZ~4GHz	Aug. 31, 2004	Radiation (03CH03-HY)
8	Amplifier	Schaffner	CPA9231A	18667	9KHz – 2GHz	Jan. 04, 2005	Radiation (03CH03-HY)
9	Biconical Antenna	SCHWARZBECK	VHBB 9124	301	30MHz –200MHz	Jul. 23, 2004	Radiation (03CH03-HY)
10	Log Antenna	SCHWARZBECK	VUSLP 9111	221	200MHz -1GHz	Jul. 23, 2004	Radiation (03CH03-HY)
11	RF Cable-R03m	Jye Bao	RG142	CB021	30MHz~1GHz	Dec. 02, 2004	Radiation (03CH03-HY)
12	Amplifier	MITEQ	AFS44	879984	1GHz~26.5GHz	Mar. 25, 2005	Radiation (03CH03-HY)
13	Horn Antenna	COMPOWER	AH-118	10092	1GHz – 18GHz	Feb. 18, 2005	Radiation (03CH03-HY)
14	Turn Table	HD	DS 420	420/650/00	0 ~ 360 degree	N/A	Radiation (03CH03-HY)
15	Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	Radiation (03CH03-HY)
16	Horn Antenna	Schwarzbeck	BBHA9170	154	15GHz~40GHz	Jun. 09, 2004	Radiation (03CH03-HY)
17	RF Cable-HIGH	SUHNER	SUCOFLES 106	SN30094/6	1GHz~26.5GHz	Mar. 05, 2005	Radiation (03CH03-HY)
18	Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz - 30 MHz	May 24, 2004*	Radiation (03CH03-HY)
19	Spectrum analyzer	R&S	FSP30	100023	9kHz ~ 30GHx	Aug. 02, 2004	Conducted (TH01-HY)

※ Calibration Interval of instruments listed above is one year.

※ * Calibration Interval of instruments listed above is two year.

7. Company Profile

SPORTON Lab. was established in 1986 with one shielded room: the first private EMI test facility, offering local manufacturers an alternative EMI test familial apart from ERSO. In 1988, one 3M and 10M/3M open area test site were setup and also obtained official accreditation from FCC, VCCI and NEMKO. In 1993, a Safety laboratory was founded and obtained accreditation from UL of USA, CSA of Canada and TUV (Rhineland & PS) of Germany. In 1995, one EMC lab, including EMI and EMS test facilities was setup. In 1997, SPORTON Group has provided financial expense to relocate the headquarter to Orient Scientific Park in Taipei Hsien to offer more comprehensive, more qualified and better service to local suppliers and manufactures. In 1999, Safety Group and Component Group were setup. In 2001, SPORTON has established 3M/10M chamber in Hwa Ya Technology Park.

7.1. Certificate of Accreditation

Taiwan	BSMI, CNLA, DGT
USA	FCC, NVLAP, UL
EU	Nemko, TUV
Japan	VCCI
Canada	Industry Canada

7.2. Test Location

SHIJR	ADD：	6Fl., No. 106, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C.
	TEL：	02-2696-2468
	FAX：	02-2696-2255
HWA YA	ADD：	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
	TEL：	03-327-3456
	FAX：	03-318-0055
LINKOU	ADD：	No. 30-2, Dingfu Tsuen, Linkou Shiang, Taipei, Taiwan 244, R.O.C
	TEL：	02-2601-1640
	FAX：	02-2601-1695
DUNGHU	ADD：	No. 3, Lane 238, Kangle St., Neihu Chiu, Taipei, Taiwan 114, R.O.C.
	TEL：	02-2631-4739
	FAX：	02-2631-9740
JUNGHE	ADD：	7Fl., No. 758, Jungjeng Rd., Junghe City, Taipei, Taiwan 235, R.O.C.
	TEL：	02-8227-2020
	FAX：	02-8227-2626
NEIHU	ADD：	4Fl., No. 339, Hsin Hu 2nd Rd., Taipei 114, Taiwan, R.O.C.
	TEL：	02-2794-8886
	FAX：	02-2794-9777

8. CNLA Certificate of Accreditation

Test Lab.	:	Sporton International Inc.
Accreditation Number	:	1190
Originally Accredited	:	2003/12/15
Effective Period	:	2003/12/15~2006/12/14
Accredited Scope	:	47 CFR FCC Part 15 Subpart C (9kHz~40GHz)

Taiwan Accreditation Foundation
Chinese National Laboratory Accreditation
Certificate of Accreditation

Accreditation Criteria:	ISO 17025
Accreditation Number:	1190
Organization/Laboratory:	EMC & Wireless Communications Laboratory,Sporton International Inc.
Originally Accredited:	December 15, 2003
Effective Period:	December 15, 2003 To December 14, 2006
Accredited Scope:	Electrical Testing Field, 7 items, details shown in the following pages.
Specific Accreditation Program:	Recognition and Approval of Designated Laboratory for Commodities Inspection

President, Taiwan Accreditation Foundation
Date:July 19, 2004

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