

FCC TEST REPORT

for

47 CFR FCC Rules and Regulations Part 15 Subpart B, Class B Digital Device

Equipment : A housing for SCND502A1232

Model No. : SCND502A1232

FCC ID : WFZSCND502A1232

Filing Type : Certification

Applicant : **EU3C Company Limited**

Unit7, 8/F., Austin Tower, 22-26 Austin Avenue, Tsim Sha Tsui, Kowloon, Hong Kong

- The test result refers exclusively to the test presented test model / sample.
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SPORTON International Inc.

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

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History of this test report

Original Report Issue Date: Feb. 18, 2011

- No additional attachment.
 - Additional attachment were issued as following record:



CERTIFICATE OF COMPLIANCE

for

47 CFR FCC Rules and Regulations Part 15 Subpart B,
Class B Digital Device

Equipment : A housing for SCND502A1232

Model No. : SCND502A1232

FCC ID : WFZSCND502A1232

Applicant : EU3C Company Limited
Unit7, 8/F., Austin Tower, 22-26 Austin Avenue, Tsim Sha Tsui, Kowloon, Hong Kong

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 the energy emitted by this equipment was passed FCC Part 15 Subpart B in both radiated and conducted emission class B limits.

Testing was carried out on Dec. 09, 2010 at SPORTON International Inc. LAB.


Castries Huang
Supervisor

SPORTON International Inc.

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

SPORTON International Inc.

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FCC ID : WFZSCND502A1232
Page No. : 1/18
Issued Date : Feb. 18, 2011

1. General Description of Equipment under Test**1.1. Applicant**

EU3C Company Limited
Unit7, 8/F., Austin Tower, 22-26 Austin Avenue,
Tsim Sha Tsui, Kowloon, Hong Kong.

1.2. Manufacturer

EU3C Company Limited
Unit7, 8/F., Austin Tower, 22-26 Austin Avenue,
Tsim Sha Tsui, Kowloon, Hong Kong

1.3. Basic Description of Equipment under Test

Equipment : A housing for SCND502A1232
Model No. : SCND502A1232
Trade Name : FS-II-5M-2.4-TV out
AV Cable : Non-Shielded, 3.0m
USB Cable : Shielded, 1.21m, with core
Power Supply Type : Switching
AC Power Cord : Non-Shielded, 1.21m, 2pin

1.4. Feature of Equipment under Test

Please refer to user manual.

2. Test Configuration of Equipment under Test

2.1. Test Manner

- a. The EUT has been associated with peripheral pursuant to ANSI C63.4-2003 and configuration operated in a manner which tended to maximize its emission characteristics in a typical application.
- b. The complete test system included TCL TV、DELL Notebook、DELL Mouse(USB)、Kingston SD Card and EUT for EMI test.
- c. The following modes were performed:
Mode 1. Scanner+Adaptor
Mode 2. USB Date Transfer
Mode 3. TV-OUT+Adpator
For Conduction test, cause "mode 3" generated the worst test result, they were reported as final data.
For Radiation test, cause "mode 3" generated the worst test result, they were reported as final data.
- d. Frequency range investigated: conduction 150 KHz to 30 MHz, radiation 30 MHz to 1000MHz.

2.2. Description of Test System

Support Unit 1. – Notebook (DELL)

FCC ID	: DOC
Model No.	: DELL1458
Power Cord	: Non-Shielded 1.2m
Serial No.	: N/A
Remark	: This support device was tested to comply with FCC standards and authorized under a declaration of conformity.

Support Unit 2. -- USB Mouse (DELL)

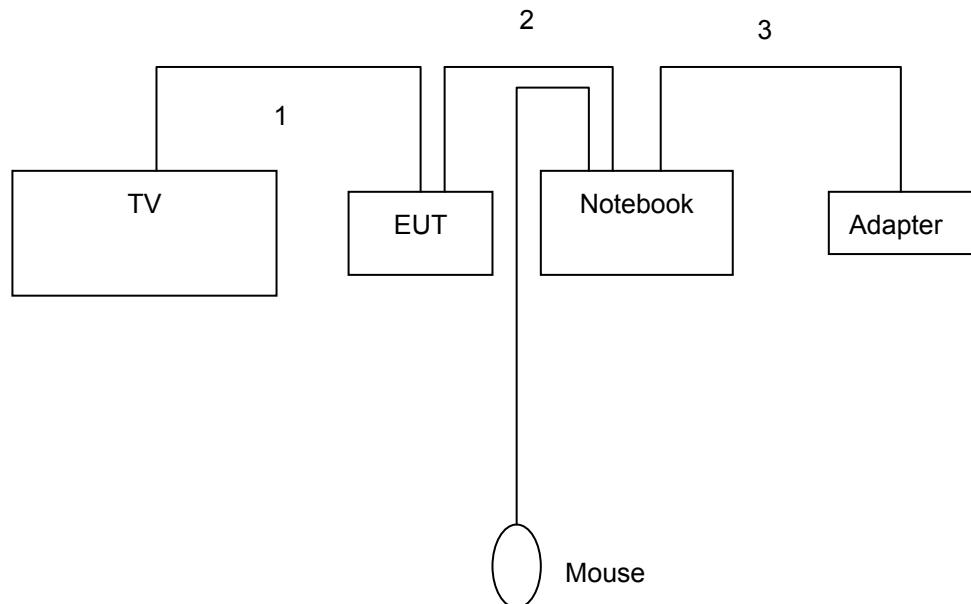
FCC ID	: DOC
Model No.	: MO56UC
Serial No.	: N/A
Data Cable	: Non-Shielded, 1.5m
Remark	: This support device was tested to comply with FCC standards and authorized under a declaration of conformity.

Support Unit 3. -- TV (TCL)

FCC ID : DOC
Model No. : 1475S
Serial No. : N/A
Data Cable : Non-Shielded, 1.8m
Remark : This support device was tested to comply with FCC standards and authorized under a declaration of conformity.

Support Unit 4. – SD Card (Kingston)

FCC ID : DOC
Model No. : 2GB
Serial No. : N/A
Data Cable : N/A
Remark : This support device was tested to comply with FCC standards and authorized under a declaration of conformity.

2.3. Connection Diagram of Test System

1. The TV out cable is connected from TV to EUT.
2. The USB cable is connected from EUT to the support unit 1.
3. The I/O cable is connected from Adapter to the support unit 1.

Note: Above support unit on behalf of the meaning, please refer to section 2.2.

3. Test Software

An executive program, "EMCTEST.EXE" under WIN XP, which generates a complete line of continuously An executive program, "EMITEST.EXE" under WIN XP, which generates a complete line of continuously repeating "H" pattern was used as the test software in the mode 3.

The program was executed as follows:

- a. Scanner carries out the scanning modem.
- b. Scanner connects TV and broadcasts the pictures.
- c. Scanner connects PC and charges, then carries out the scanning modem.

4. General Information of Test

4.1. Test Facility

This test was carried out by SPORTON International Inc.

Test Site Location : No.3-2 Ping-Xiang Rd,
Kunshan Economic & Technical Development Zone, JiangSu, China.
TEL : 86-0512-57900158
FAX : 86-0512-57900958
Test Site No. : CO01-KS, 03CH01-KS

4.2. Test Voltage

120V / 60Hz

4.3. Standard for Methods of Measurement

ANSI C63.4-2003

4.4. Test in Compliance with

FCC Rules, Regulations Part 15 Subpart B

4.5. Frequency Range Investigated

- a. Conduction: from 150 kHz to 30 MHz
- b. Radiation: from 30 MHz to 1000 MHz

4.6. Test Distance

The test distance of radiated emission from antenna to EUT is 10 m.

5. Test of Conducted Powerline

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz and return leads of the EUT according to the methods defined in ANSI C63.4-2003 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 5.3. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

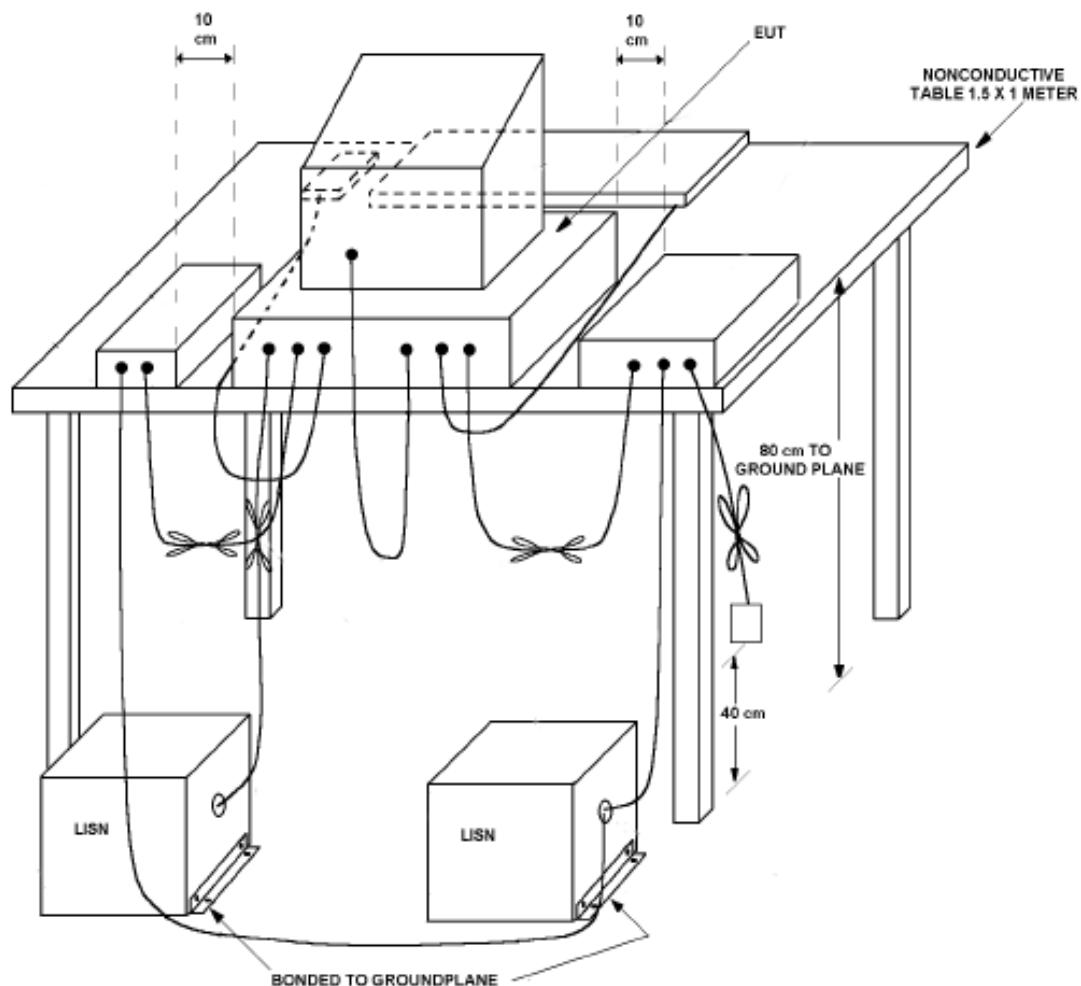
5.1. Major Measuring Instruments

● Test Receiver	(R&S ESCI)
Attenuation	10
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

5.2. Test Procedures

- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- c. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- d. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- e. Both sides of AC line were checked for maximum conducted interference.
- f. The frequency range from 150 kHz to 30 MHz was searched.
- g. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

5.3. Typical Test Setup Layout of Conducted Powerline

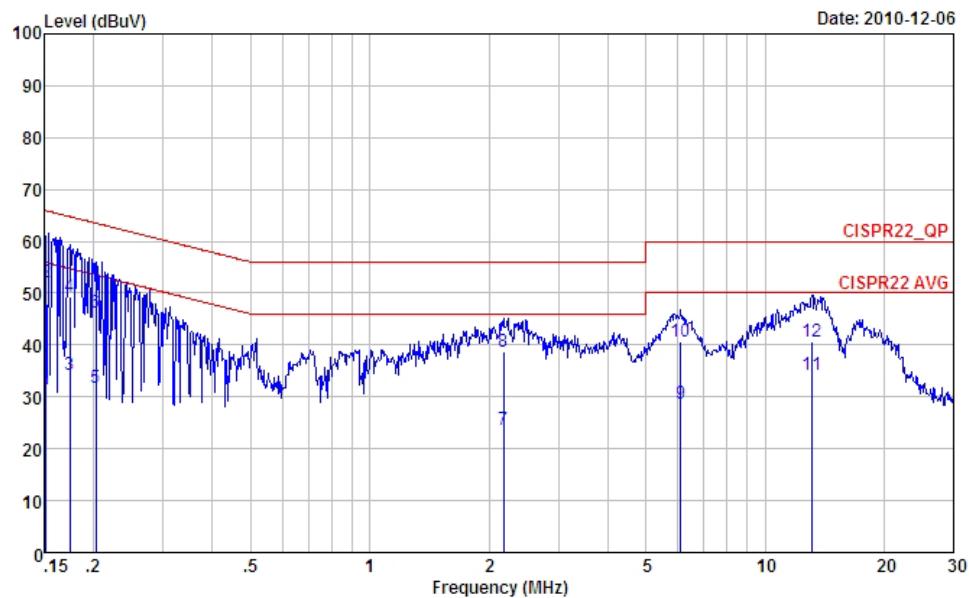


5.4. Test Result of AC Powerline Conducted Emission

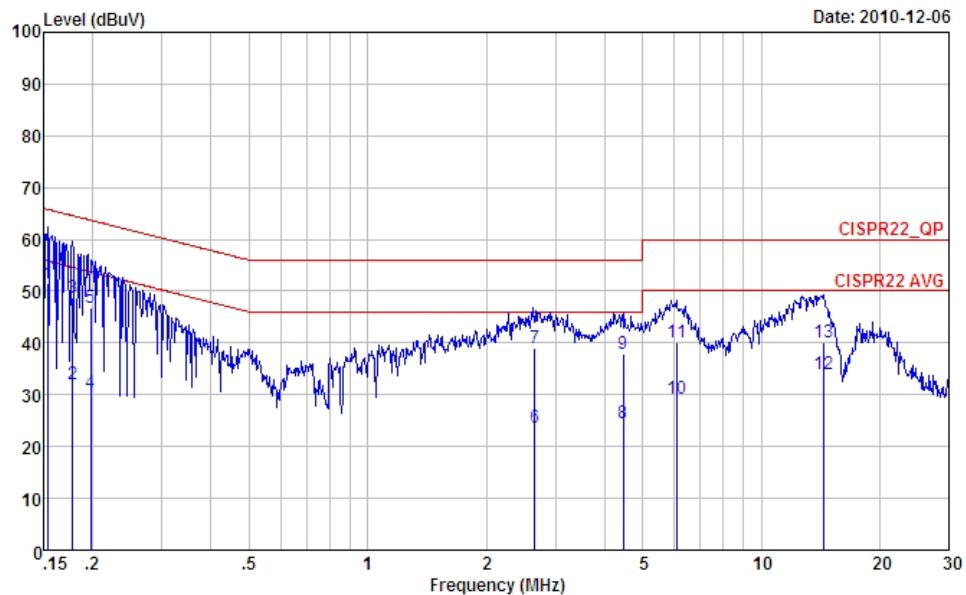
5.4.1. Test Mode: Mode 3

- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 21-22 °C
- Relative Humidity: 41-42 %
- Corrected Reading (dBuV) = Probe Factor + Cable Loss + Read Level = Level
- All emissions not reported here are more than 10 dB below the prescribed limit.

■ The test was passed at the minimum margin that marked by the frame in the following table.



Condition	CISPR22_QP LISN_L_2000601 LINE						
	Project	090702					
Freq	Level	Over	Limit	Read	LISN	Cable	Remark
		Limit	Line	Level	Factor	Loss	
MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15	31.48	-24.43	55.91	21.40	0.03	10.05 Average
2 a	0.15	52.18	-13.73	65.91	42.10	0.03	10.05 QP
3	0.17	34.38	-20.36	54.74	24.30	0.03	10.05 Average
4	0.17	49.38	-15.36	64.74	39.30	0.03	10.05 QP
5	0.20	31.68	-21.83	53.51	21.59	0.03	10.06 Average
6	0.20	46.28	-17.23	63.51	36.19	0.03	10.06 QP
7	2.18	23.80	-22.20	46.00	13.60	0.04	10.16 Average
8	2.18	38.60	-17.40	56.00	28.40	0.04	10.16 QP
9	6.12	28.69	-21.31	50.00	18.40	0.09	10.20 Average
10	6.12	40.59	-19.41	60.00	30.30	0.09	10.20 QP
11 a	13.13	34.33	-15.67	50.00	23.70	0.25	10.38 Average
12	13.13	40.63	-19.37	60.00	30.00	0.25	10.38 QP



Condition : CISPR22_QP LISN_N_2000601 NEUTRAL
 Project : 090702

Freq	Level	Over	Limit	Read	LISN	Cable	
		Line	Level	Factor		Loss	Remark
1 q	0.15	51.47	-14.30	65.77	41.40	0.02	10.05 QP
2	0.18	31.97	-22.62	54.59	21.90	0.02	10.05 Average
3	0.18	48.77	-15.82	64.59	38.70	0.02	10.05 QP
4	0.20	30.47	-23.24	53.71	20.39	0.02	10.06 Average
5	0.20	46.67	-17.04	63.71	36.59	0.02	10.06 QP
6	2.66	23.72	-22.28	46.00	13.50	0.04	10.18 Average
7	2.66	39.12	-16.88	56.00	28.90	0.04	10.18 QP
8	4.46	24.56	-21.44	46.00	14.30	0.07	10.19 Average
9	4.46	37.96	-18.04	56.00	27.70	0.07	10.19 QP
10	6.10	29.30	-20.70	50.00	19.00	0.10	10.20 Average
11	6.10	40.10	-19.90	60.00	29.80	0.10	10.20 QP
12 a	14.38	34.05	-15.95	50.00	23.30	0.34	10.41 Average
13	14.38	40.05	-19.95	60.00	29.30	0.34	10.41 QP

Test Engineer : James Huang
 James Huang

6. Test of Radiated Emission

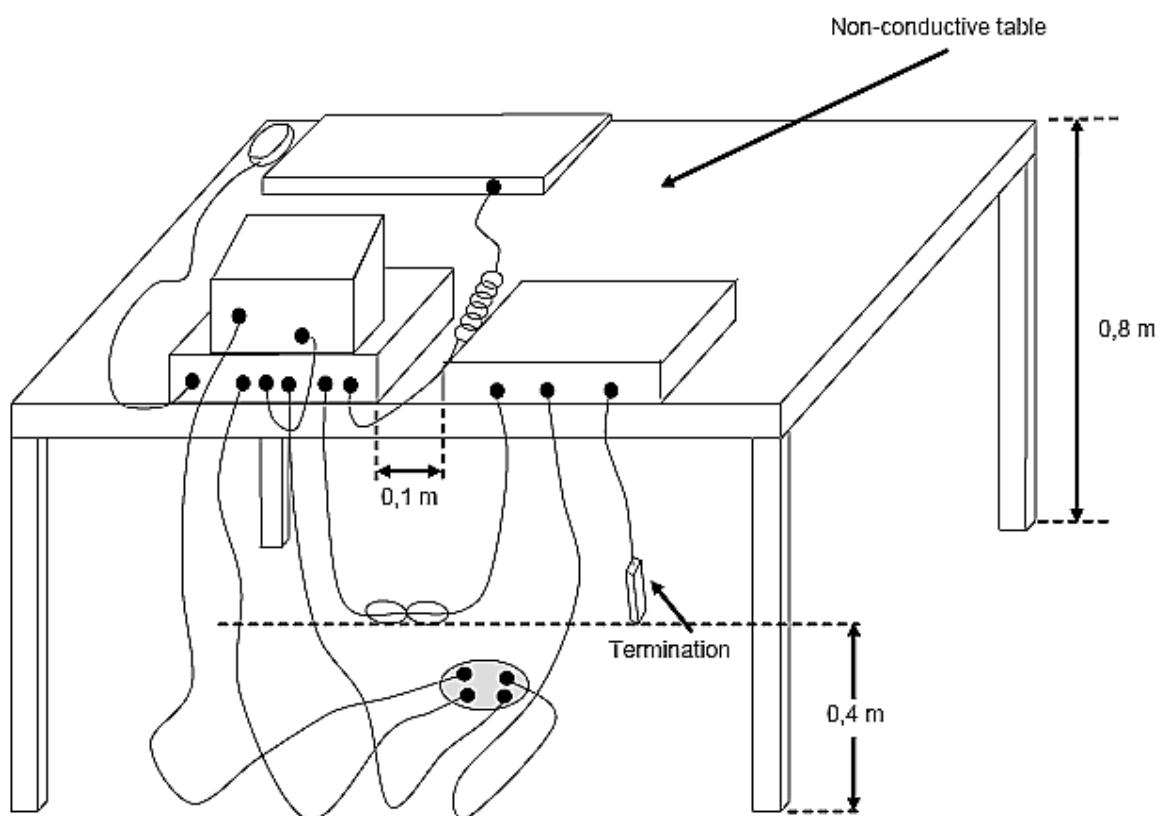
Radiated emissions from 30 MHz to 1,000 MHz were measured with a bandwidth of 120 kHz according to the methods defined in ANSI C63.4-2003. The EUT was placed on a nonmetallic stand, 0.8 meter above the ground plane, as shown in section 6.3. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions.

6.1. Major Measuring Instruments

● Amplifier Wireless	(FPA-6592G)
RF Gain	28 dB
Signal Input	30MHz~2GHz
● EMI Receiver	(R&S ESCI)
Attenuation	10 dB
Start Frequency	30 MHz
Stop Frequency	1000 MHz
Resolution Bandwidth	120 kHz
Signal Input	9 kHz - 3 GHz
● Bilog Antenna	SCHAFFNER (CBL6112D)
Start Frequency	30 MHz
Stop Frequency	1 GHz
Signal Input	25MHz~2GHz

6.2. Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 10 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a half wave dipole and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 3 dB lower than the 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 and reported.

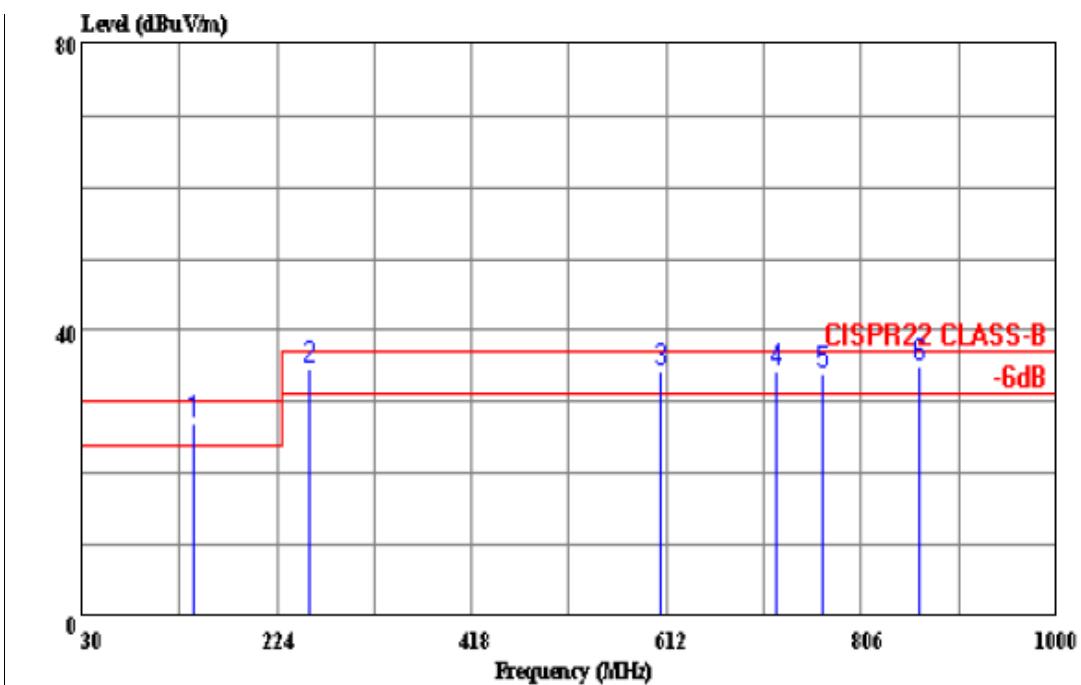
6.3. Typical Test Setup Layout of Radiated Emission

6.4. Test Result of Radiated Emission

6.4.1. Test Mode: Mode 3

- Frequency Range of Test: from 30 MHz to 1,000 MHz
- Temperature : 21-22 °C
- Relative Humidity : 41-42 %
- Emission level (dB_{uV/m}) = 20 log Emission level (uV/m)
- Corrected Reading : Antenna Factor + Cable Loss + Read Level – Preamplifier Factor = Level

■ The test was passed at the minimum margin that marked by the frame in the following test record

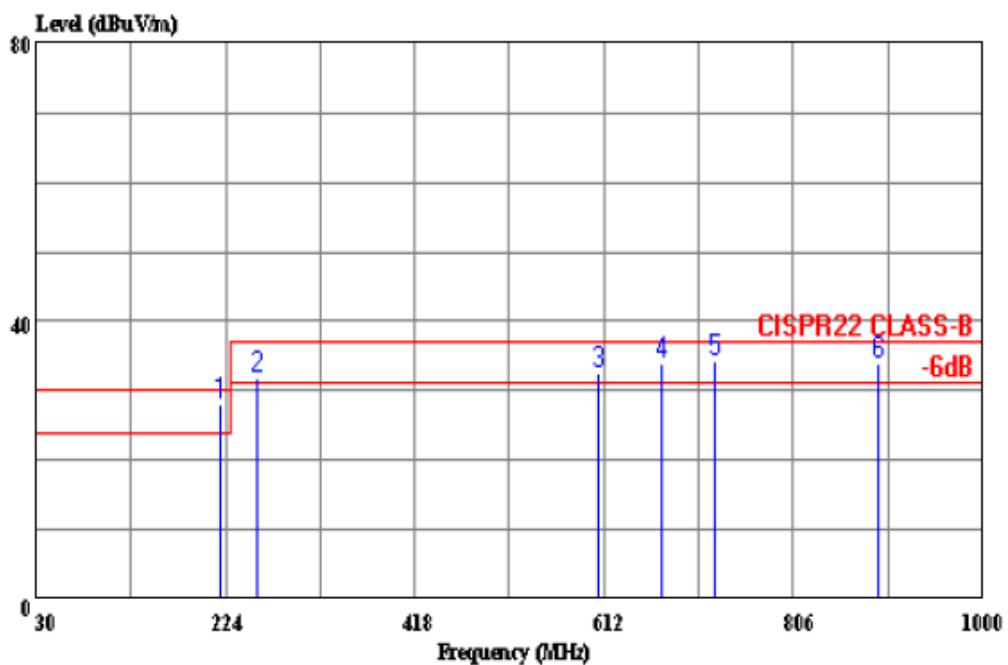


Trace:

Ref Trace:

Condition: CISPR22 CLASS-B 10M 100608 VERTICAL
 eut : 5633
 power:
 mode :

Freq	Level	Limit		Over Limit	Read Level	Factor	Remark
		Line	dB				
1 ! 141.550	27.08	30.00	-2.92	53.89	-26.81	QP	
2 ! 256.980	34.66	37.00	-2.34	54.79	-20.13	QP	
3 ! 605.210	34.41	37.00	-2.59	48.06	-13.65	QP	
4 ! 720.640	34.40	37.00	-2.60	44.99	-10.59	QP	
5 ! 768.170	33.79	37.00	-3.21	41.82	-8.03	QP	
6 ! 864.200	34.87	37.00	-2.13	45.22	-10.35	QP	



Trace:

Ref Trace:

Condition: CISPR22 CLASS-B 10M 100608 HORIZONTAL
 eut : 5633
 power:
 mode : ..

Freq	Level	Limit	Over	Read	Factor	Remark
		Line	Limit	Level		
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	
1 ! 219.150	28.01	30.00	-1.99	53.71	-25.69	QP
2 ! 256.980	32.00	37.00	-5.00	56.02	-24.02	QP
3 ! 605.210	32.52	37.00	-4.48	40.94	-8.43	QP
4 ! 670.200	33.91	37.00	-3.09	43.08	-9.17	QP
5 ! 725.490	34.16	37.00	-2.84	45.62	-11.46	QP
6 ! 892.330	34.05	37.00	-2.95	43.90	-9.85	QP

Test Engineer : James Huang
 James Huang

7. List of Measuring Equipment Used

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMI Receiver	R&S	ESCI	100534	9kHz~3GHz	Nov. 16, 2010	Radiation (03CH01-KS)
Bilog Antenna	SCHAFFNER	CBL6112D	23182	25MHz~2GHz	Jan. 18, 2010	Radiation (03CH01-KS)
Amplifier	Wireless	FPA-6592G	060004	30MHz~2GHz	Feb. 02, 2010	Radiation (03CH01-KS)
EMI Test Receiver	R&S	ESCI7	100768	9kHz~7GHz	Jun. 22.2010	Conduction (CO01-KS)
LISN	MessTec	AN3016	060103	9kHz~30MHz	Jan. 18, 2010	Conduction (CO01-KS)
LISN	MessTec	AN3016	060105	9kHz~30MHz	Jan. 18, 2010	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	N/A	Nov. 10, 2010	Conduction (CO01-KS)

※ Calibration Interval of instruments listed above is two year.

8. Uncertainty of Test Site

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.10	Normal(k=2)	0.05
Cable loss	0.10	Normal(k=2)	0.05
AMN insertion loss	2.50	Rectangular	0.63
Receiver Spec	1.50	Rectangular	0.43
Site imperfection	1.39	Rectangular	0.80
Mismatch +0.34/	-0.35	U-shape	0.24
combined standard uncertainty $U_c(y)$	1.13		
Measuring uncertainty for a level of confidence of 95% $U=2U_c(y)$	2.26		

Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.27	Normal(k=2)	0.14
Antenna factor calibration	0.92	Normal(k=2)	0.46
Cable loss calibration	0.16	Normal(k=2)	0.08
Pre Amplifier Gain calibration	0.17	Normal(k=2)	0.09
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.99	Rectangular	1.15
Mismatch +0.50/	-0.54	U-shaped	0.37
combined standard uncertainty $U_c(y)$	1.52		
Measuring uncertainty for a level of confidence of 95% $U=2U_c(y)$	3.04		