Testing Laboratory
1190

FCC TEST REPORT

CERTIFICATION

according to

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

Equipment : 7”Tablet PC

Model No. : QMV7B

FCC ID : HFS-QMV7B

Filing Type : Certification

Applicant : **Quanta Computer Inc.**
No. 188, Wen Hwa 2nd RD., Kuei Shan Hsiang,
Tao Yuan Shien, Taiwan

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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 Report Issue Date: Sep. 10, 2013
□ No additional attachment.
■ Additional attachment were issued as following record:

Report No.	Issue Date	Description
FC380603	Sep. 10, 2013	Original Report (Model No.:QMV7A)
FC440734	Apr. 30, 2014	Update information as below: 1. Changes LTE module, LTE antenna and shielding case design. 2. Added Adapter 2. (TPT / SSS050200BU)

Certificate No. : FC440734

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Class B Digital Device

Equipment : 7”Tablet PC

Model No. : QMV7B

FCC ID : HFS-QMV7B

Applicant : **Quanta Computer Inc.**
No. 188, Wen Hwa 2nd RD., Kuei Shan Hsiang,
Tao Yuan Shien, Taiwan

I **HEREBY** CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 - 2009** and the energy emitted by this equipment was ***passed*** **CISPR PUB. 22 and FCC Part 15** in both radiated and conducted emission **Class B** limits.
The product sample received on **Apr. 11, 2014** and completely tested on **Apr. 29, 2014** at **SPORTON International Inc.** LAB.

Kero Kuo
Engineering Supervisor

SPORTON International Inc.

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

1. General Description of Equipment under Test

1.1 Applicant

Quanta Computer Inc.

No. 188, Wen Hwa 2nd RD., Kuei Shan Hsiang, Tao Yuan Shien, Taiwan

1.2 Manufacturer

Same 1.1

1.3 Basic Description of Equipment under Test

Equipment	:	7”Tablet PC
Model No.	:	QMV7B
Trade Name	:	Verizon
Power Supply Type	:	1. Switching 2. From Battery 3. From System
AC Power Cord	:	Wall-mount, 2 pin
DC Power Cable	:	D-Shielded, 1.0m, 2 pin (USB connector type)

The maximum operating frequency is 2.4GHz

1.4 Feature of Equipment under Test

	QMV7B, LTE Version
CPU	MTK MT8125 quad core ,1.2GHz
System Memory	micron/MT41K256M16HA-125:E
LCD	Innolux/N070ICN (7"W TFT , IPS , 1280 x 800, MIPI interface)
Touch Screen	O-Film/MCF-070-1071-01
Storage	sandisk/SDIN7DP2-8G
G Sensors	BOSCH/CX5032GB12000H0PHSZZ
Ambient Light Sensor	Capella/CM3218A3OP-AD
Gyro	Yes
Digital Compass	Yes
I/O	3.5mm Headphone-out & Mic-in combo jack x 1
	Micro USB x 1 (support PC connection and DC-in charge)
	Micro SD card (up to 32GB)
	Micro-SIM card for LTE
Switch	One Power switch for Power on off / Suspend / Resume ; 2 Volume keys for Volume +
WLAN/Bluetooth	Mediatek/MT6628QP
GPS	Mediatek/MT6628QP
Modem Connection	USI MESSI-V
Antenna	wifi/BT, GPS ,LTE x 2
Front Camera	ShenZhen Kingcome/G5PV-MV7AFHQ
Rear Camera	LITE-ON,13P2BF305
Speakers	Stereo speakers 0.5W x 2
Microphone	Internal MIC x 1, digital type
AC Adapter 1	PI Electronics / AD83531 Input: 100-240V ~ 50/60Hz 0.3A Output: 5V ⎓ 2A
AC Adapter 2	**TPT / SSS050200BU** **Input: 100-240V,50/60Hz 0.3A** **Output: 5V ⎓ 2A**
Operating System	Android 4.2.2
Battery	McNair / MLP3970125 Power Rating: 3.7V / 4000mAh / 14.8Wh
Target Dimension	196mm x 125.5mm x 10.25mm
Estimated Weight	Under 360g

Please refer to user's manual.

1.5 Product Equality Declaration

Differences Statement between QMV7A (FC380603) and QMV7B (FC440734)

There are below differences between QMV7A and QMV7B:

1. LTE module and antenna have been modified for QMV7B to support both B4 & B13. QMV7A LTE module and antenna can only support B13.
2. Change shielding case design from clip type (QMV7A) to 2 piece design (QMV7B) to enhance RFI performance.
3. Added Adapter 2. (TPT / SSS050200BU)

2. Test Configuration of Equipment under Test

2.1 Test Manner

a. The EUT has been associated with peripherals pursuant to ANSI C63.4-2009 and configuration operated in a manner which tended to maximize its emission characteristics in a typical application.

b. The EUT of this report is serial product of original report no. FC380603, it changes LTE module and antenna have been modified for to support both B4 & B13 and shielding case design to 2 piece design to enhance RFI performance of EUT in this report. Therefore, EMI was verified from worse case from original test.

c. The complete test system included remote workstation, Earphone, Micro SD Card, SIM Card and EUT for EMI test. The remote workstation included AP and Base Station. **(For conducted emission test)**

d. The complete test system included remote workstation, PC, LCD Monitor, Modem, Printer, USB Keyboard, USB Mouse, Earphone, Micro SD Card, SIM Card, and EUT for EMI. The remote workstation included AP and Base Station. **(For radiated emission below and above 1GHz test)**

e. The following test modes were pretested for conducted test: **(During the test, the WLAN and Bluetooth function are at working condition)**

Mode 1. Play MP4 + Wi-Fi + Bluetooth + Earphone + Adapter 1 + LTE
Mode 2. Play MP4 + Wi-Fi + Bluetooth + Earphone + Adapter 2 + LTE

⇨ Cause **"Mode 1"** generated the worst test result; it was reported as final data.

f. The following test modes were pretested for radiated test: **(During the test, the WLAN and Bluetooth function are at working condition)**

Mode 1. Play SD Music + H patten + Wi-Fi + Bluetooth + Earphone + Adapter 2 + LTE
Mode 2. Play SD Music + H patten + PC Link + Wi-Fi + Bluetooth + Earphone + LTE

⇨ Cause **"Mode 2"** generated the worst test result; it was reported as final data.

g. The following test mode was referring to radiated pretest worst case "**Mode 2**" for radiated (1GHz / 5th of harmonic CPU fundamental) final test: **(During the test, the WLAN and Bluetooth function are at working condition)**

Mode 2. Play SD Music + H patten + PC Link + Wi-Fi + Bluetooth + Earphone + LTE

h. Frequency range investigated: Conducted 150 kHz to 30 MHz, Radiated 30 MHz to 13,000 MHz.

2.2 Description of Test System

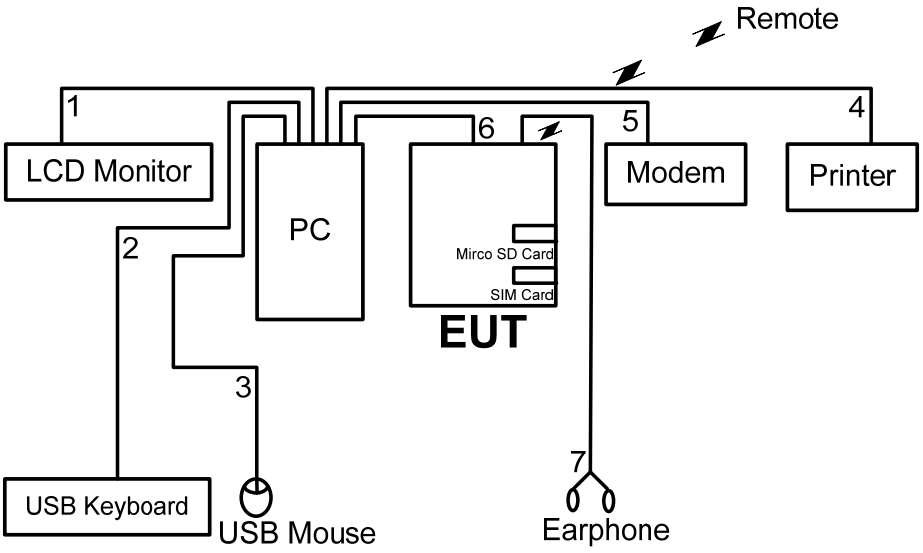
For conduction emission

No.	Description	Manufacturer	Model	FCC ID	Signal Cable Description
For Local					
1	Earphone	APPLE	MB770FE/A	---	Audio Cable, Non-Shielded, 1.5m
2	Micro SD Card (Inserted into EUT)	Transcend	8GB	---	---
3	SIM Card (Inserted into EUT)	R&S	---	---	---
For Remote					
-	AP	ASUS	RT-AC66U	MSQ-RTAC66U	---
-	Base Station	R&S	CMW500	---	---

For radiation emission below and above 1GHz

No.	Description	Manufacturer	Model	FCC ID	Signal Cable Description
For Local					
1	PC	HP	DC7700	DoC	---
2	LCD Monitor	DELL	U2410f	DoC	D-Sub Cable, D-Shielded, 1.5m
3	Modem	ACEEX	DM1414	IFAXDM1414	RS232 Cable, D-Shielded, 1.15m
4	Printer	HP	C2642A	B94C2642X	LPT Cable, D-Shielded, 1.8m
5	USB Keyboard	DELL	SK-8175	DoC	USB Cable, AL-F-Shielded, 1.8m
6	USB Mouse	DELL	MOC5UO	DoC	USB Cable, AL-F-Shielded, 1.8m
7	Earphone	APPLE	MB770FE/A	---	Audio Cable, Non-Shielded, 1.5m
8	Micro SD Card (Inserted into EUT)	Transcend	8GB	---	---
9	SIM Card (Inserted into EUT)	R&S	---	---	---
For Remote					
-	AP	ASUS	RT-AC66U	MSQ-RTAC66U	---
-	Base Station	R&S	CMW500	---	---

2.3 Connection Diagram of Test System for Radiation Emission



The support unit 8 and unit 9 insert into EUT

1. The D-Sub cable is connected from support unit 1 to the support unit 2.
2. The USB cable is connected from support unit 1 to the support unit 5.
3. The USB cable is connected from support unit 1 to the support unit 6.
4. The LPT cable is connected from support unit 1 to the support unit 4.
5. The RS232 cable is connected from support unit 1 to the support unit 3.
6. The USB cable is connected from EUT to the support unit 1.
7. The Audio cable is connected from EUT to the support unit 7.

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

3. Test Software

< EMI >

Conducted emission

For EUT

During testing, the following program under "Android 4.2.2" was executed:
At the same time, the following programs were executed:
- The EUT plays MP4 music from Micro SD card via Earphone.
- The EUT opens "Wi-Fi" to link with the remote workstation (AP) to maintain the connection by wireless.
- The EUT opens the "Bluetooth" function
- The EUT opens "LTE" to link with the remote workstation (Base Station) to maintain the connection by wireless.

Radiated emission

For PC

Two executive programs, "EMITEST.exe" and "EMCTEST.exe" under Win 7 (PC) which generates a complete line of continuously repeating "H" pattern was used as the test software.

The two programs were executed as follows:

a. Turn on the power of all equipment.
b. The PC reads the test program "EMITEST.exe" and "EMCTEST.exe" from the hard disk drive and runs it.
c. The PC sends "H" messages to the LCD monitor, and the LCD monitor displays "H" patterns on the screen.
d. The PC sends "H" messages to the printer, and then the printer prints them on the paper.
e. The PC sends messages to modem.
f. Repeat the steps from b to e.

At the same time, the following program was executed:
- The PC run "Copy Data" to read and write function from eMMC of EUT.

For EUT

An executive program, "SDC Test Utility-3.1.exe" under "Android 4.2.2", which generates a complete line of continuously repeating "H" pattern was used as the test software.

The EUT connected with PC via USB cable.
At the same time, the following programs were executed:
- The EUT plays MP3 music from Micro SD Card via Earphone.
- The EUT opens "Wi-Fi" to link with the remote workstation (AP) to maintain the connection by wireless.
- The EUT opens the "Bluetooth" function
- The EUT opens "LTE" to link with the remote workstation (Base Station) to maintain the connection by wireless.

4. General Information of Test

4.1 Test Facility

For Conducted Emission

Test Site Location : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
TEL: 886-3-327-3456
FAX: 886-3-327-0973

Test Site No. : CO04-HY

For Radiated Emission

Test Site Location : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
TEL: 886-3-327-3456
FAX: 886-3-327-0973

Test Site No. : 03CH04-HY

4.2 Uncertainty of Test Site

Test Items	Test Site No.	Uncertainty	Remark
Conducted Emissions	CO04-HY	± 2.26dB	Confidence levels of 95%
Radiated Emissions below 1GHz	03CH04-HY	± 2.60dB	Confidence levels of 95%
Radiated Emissions above 1GHz	03CH04-HY	± 4.78dB	Confidence levels of 95%

4.3 Test Voltage

AC 120V / 60Hz

4.4 Measurement Procedure

ANSI C63.4-2009

4.5 Test in Compliance with

CISPR PUB. 22 and Part 15 Subpart B
15.107 Conducted Emission
15.109 Radiated Emission

4.6 Frequency Range Investigated

a. Conducted emission test: from 150 kHz to 30 MHz

b. Radiated emission test: from 30 MHz to 13 GHz

4.7 Test Distance

c. The test distance of radiated emission test from antenna to EUT is 10 M (from 30MHz~1000MHz).

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

e. The test distance of radiated emission test from antenna to EUT is 1 M (from 9GHz~ 13GHz).

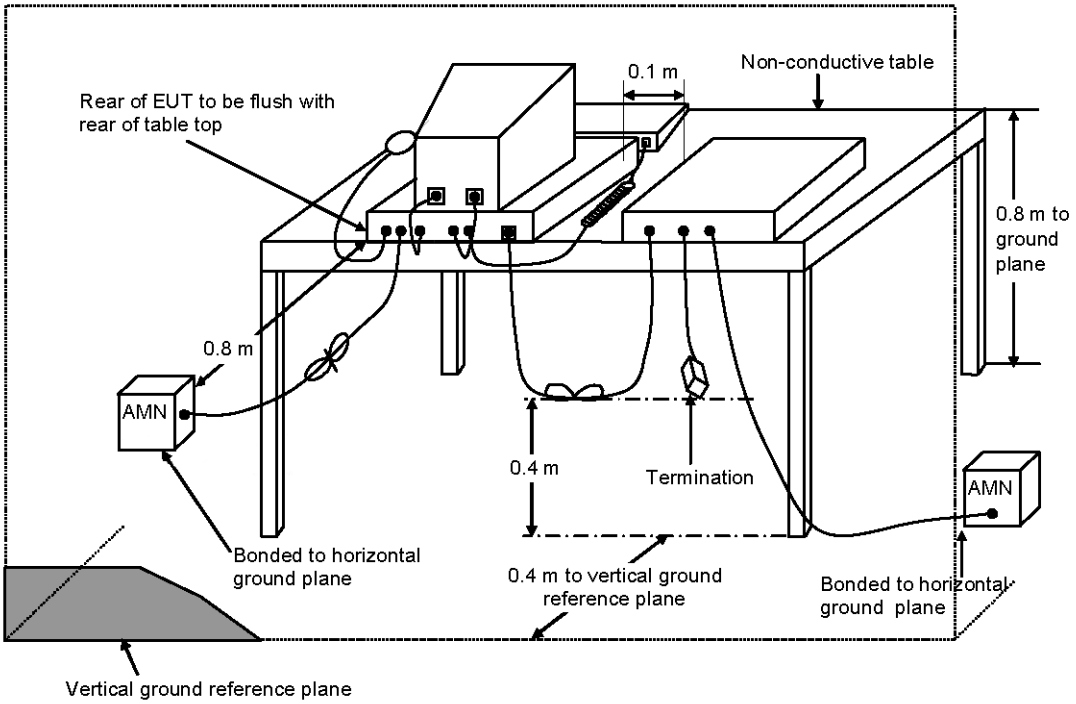
5. Test of Conducted Powerline

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, Clause 7. 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 producing maximum conducted emissions.

5.1 Test Procedures

a. The EUT was warmed up for 15 minutes before testing started.
b. The EUT was placed on a desk 0.8 meters height from the metal ground plane and 0.4 meter from the conducting wall of the shielding room and it was kept at least 0.8 meters from any other grounded conducting surface.
c. Connect EUT to the power mains through a line impedance stabilization network (LISN).
d. All the support units are connect to the other LISN.
e. The LISN provides 50 ohm coupling impedance for the measuring instrument.
f. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
g. Both sides of AC line were checked for maximum conducted interference.
h. The frequency range from 150 kHz to 30 MHz was searched.
i. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

5.2 Typical Test Setup Layout of Conducted Powerline

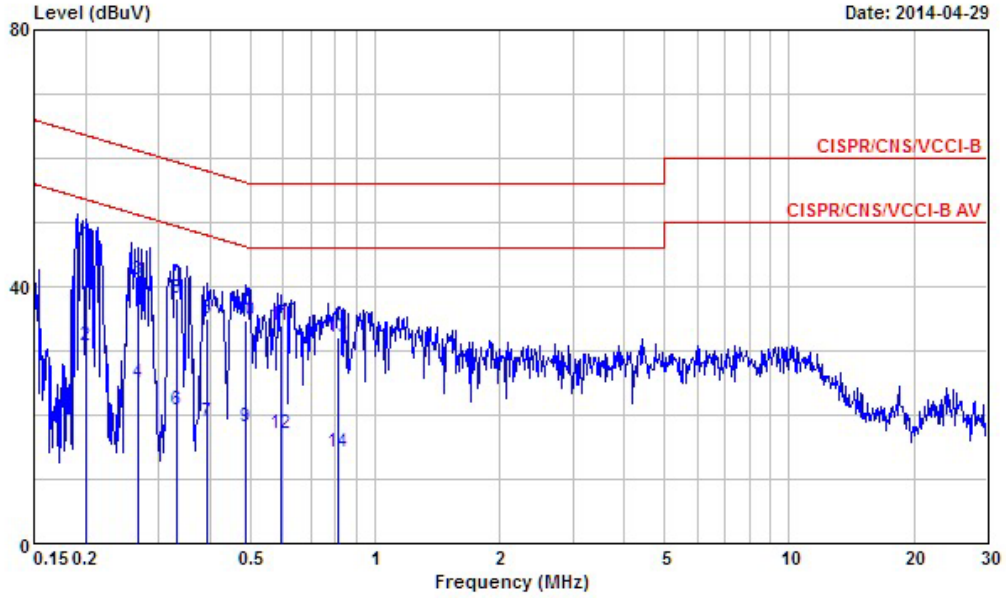


a. AMN is 80 cm from the EUT and at least 80 cm from other units and other metal planes.
b. EUT is connected to one artificial mains network (AMN).
c. All other units of a system are powered from a second AMN. A multiple outlet strip can be used for multiple mains cords.
d. Rear of EUT to be flushed with rear of table top.
e. Peripherals shall be placed at a distance of 10 cm from each other and from the controller, except for the monitor which, if this is an acceptable installation practice, shall be placed directly on the top of the controller.
f. If cables, which hang closer than 40 cm to the horizontal metal ground plane, cannot be shortened to appropriate length, the excess shall be folded back and forth forming a bundle 30 cm to 40 cm long.
g. Mains cords and signal cables shall be positioned for their entire lengths, as far as possible, at 40 cm from the vertical reference plane.
h. Cables of hand operated devices, such as keyboards, mice, etc. shall be placed as for normal usage.

5.3 Test Result of AC Powerline Conducted Emission

Test Mode	Mode 1	**Test Site No.**	CO04-HY
Test Frequency	0.15 MHz ~ 30 MHz	**Test Engineer**	Zeus Chen
Temperature	22 ℃	**Relative Humidity**	53 %
Note: 1. Corrected Reading (dBμV) = LISN Factor + Cable Loss + Read Level = Level			
2. 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 data**			

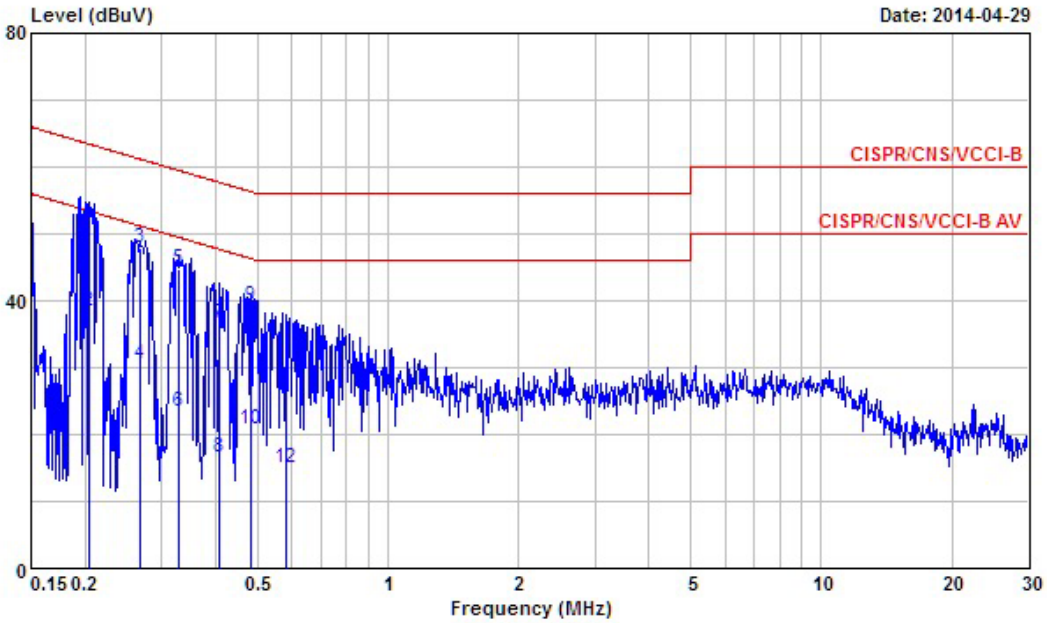
Line



Site : CO04-HY
Condition : CISPR/CNS/VCCI-B NSLK (8127-477)-2014 LINE
EUT : 7" Tablet PC
Model : QMV7B

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	@0.1996860	46.55	-17.07	63.62	46.02	0.03	0.50	QP
2	0.1996860	30.78	-22.84	53.62	30.25	0.03	0.50	Average
3	0.2686610	41.16	-20.00	61.16	40.59	0.03	0.54	QP
4	0.2686610	24.87	-26.29	51.16	24.30	0.03	0.54	Average
5	0.3320820	38.22	-21.18	59.40	37.62	0.03	0.57	QP
6	0.3320820	20.81	-28.59	49.40	20.21	0.03	0.57	Average
7	0.3934400	19.04	-28.95	47.99	18.41	0.03	0.60	Average
8	0.3934400	35.08	-22.91	57.99	34.45	0.03	0.60	QP
9	0.4863180	18.18	-28.05	46.23	17.50	0.04	0.64	Average
10	0.4863180	34.84	-21.39	56.23	34.16	0.04	0.64	QP
11	0.5916410	33.88	-22.12	56.00	33.16	0.04	0.68	QP
12	0.5916410	17.08	-28.92	46.00	16.36	0.04	0.68	Average
13	0.8173740	32.01	-23.99	56.00	31.20	0.05	0.76	QP
14	0.8173740	14.26	-31.74	46.00	13.45	0.05	0.76	Average

Neutral



Site : CO04-HY
Condition : CISPR/CNS/VCCI-B NSLK (8127-477)-2014 NEUTRAL
EUT : 7" Tablet PC
Model : QMV7B

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	@0.2039630	51.64	-11.81	63.45	51.12	0.02	0.50	QP
2	@0.2039630	38.50	-14.95	53.45	37.98	0.02	0.50	Average
3	@0.2672410	47.95	-13.25	61.20	47.39	0.02	0.54	QP
4	0.2672410	30.60	-20.60	51.20	30.04	0.02	0.54	Average
5	@0.3303280	44.82	-14.62	59.44	44.22	0.03	0.57	QP
6	0.3303280	23.43	-26.01	49.44	22.83	0.03	0.57	Average
7	0.4083060	36.46	-21.22	57.68	35.83	0.03	0.60	QP
8	0.4083060	16.68	-31.00	47.68	16.05	0.03	0.60	Average
9	@0.4837480	39.31	-16.96	56.27	38.64	0.03	0.64	QP
10	0.4837480	20.74	-25.53	46.27	20.07	0.03	0.64	Average
11	0.5792340	32.55	-23.45	56.00	31.83	0.04	0.68	QP
12	0.5792340	14.96	-31.04	46.00	14.24	0.04	0.68	Average

6. Test of Radiated Emission

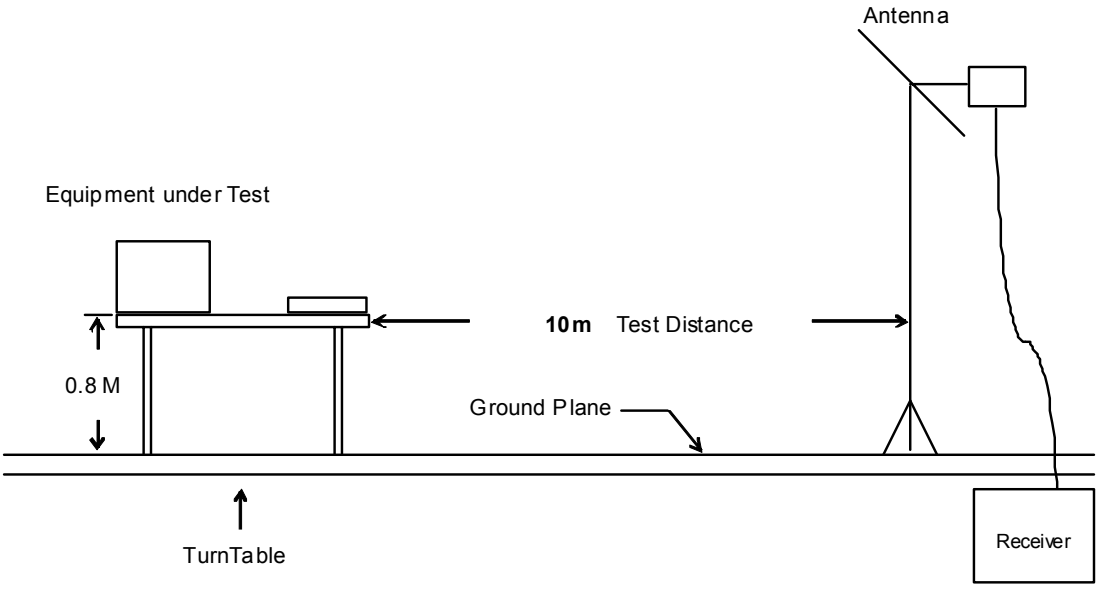
Radiated emissions below 1 GHz were measured with a bandwidth of 120 kHz for 30 MHz to 1,000 MHz and bandwidth of 1 MHz for above 1 GHz to 5th harmonic of highest frequency according to the methods defines in ANSI C63.4, Clause 8. The EUT was placed on a nonmetallic stand, 0.8 meter above the ground 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 Test Procedures

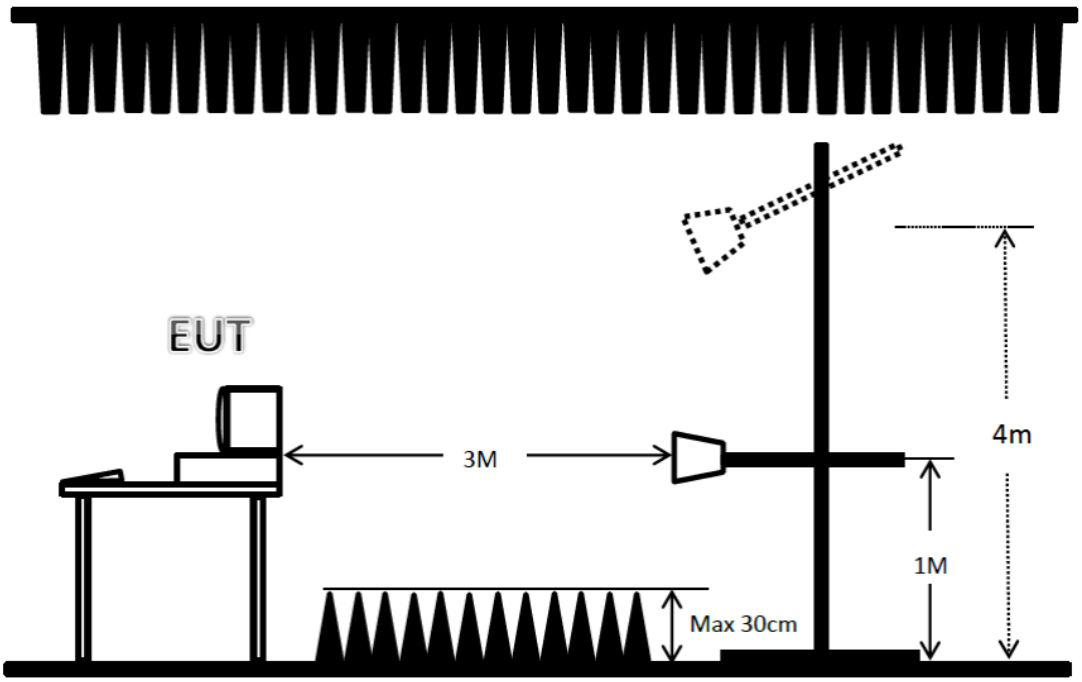
a. The EUT was placed on a rotatable table top 0.8 meter above ground.
b. The EUT was set 1/3m(above 1GHz)/10m(below 1GHz) from the interference-receiving antenna which was mounted on the top of a variable height antenna tower.
c. The table was rotated 360 degrees to determine the position of the highest 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.
h. The FCC Part 15.109 (g) permit parties seeking to authorize a digital device to choose to demonstrate that the device complies with either the Part 15 standards or the international standards found in Publication 22 of the International Special Committee on Radio Interference (CISPR).
i. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission 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.
j. The main board was tested in accordance with section 15.32 of the FCC rules. Testing for radiated emissions was first performed with the main board installed in a typical enclosure but with the enclosure's cover removed so that the internal circuitry is exposed at the top and on at least two sides. And then the EUT was tested with enclosure's cover unless it pass the required limits at first condition.

6.2 Typical Test Setup Layout of Radiated Emission

< Below 1GHz >



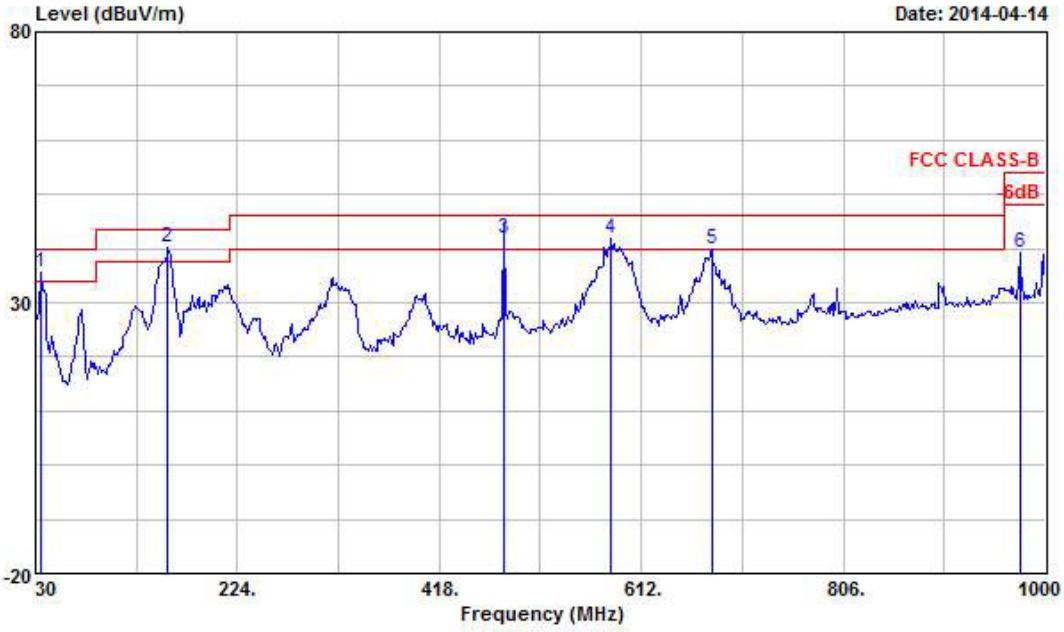
< Above 1GHz >



6.3 Test Result of Radiated Emission for Below 1GHz

Test mode	Mode 2	**Test Site No.**	03CH04-HY
Test frequency	30 MHz ~ 1000 MHz	**Test Engineer**	Alan Chen
Temperature	25 ℃	**Relative Humidity**	56 %
Note: 1. Emission level (dBμV/m) = 20 log Emission level (μV/m)			
2. Corrected Reading : Antenna Factor + Cable Loss + Read Level – Preamp Factor = Level			
■ The test was passed at the minimum margin that marked by the frame in the following data			

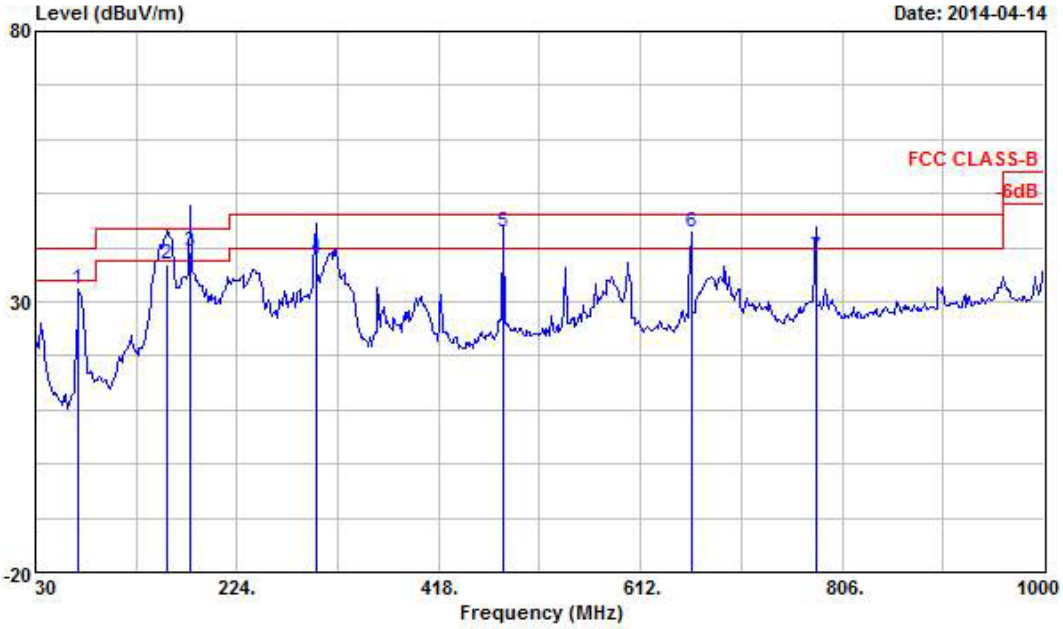
Vertical



Site :03CH04-HY
Condition:FCC CLASS-B 3m ANT2724 VERTICAL
EUT :7" Tablet PC
MODEL :QMV7B

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 !	35.820	35.68	-4.32	40.00	47.40	15.88	28.19	0.59	---	---	Peak
2 !	157.070	40.04	-3.46	43.50	56.14	10.71	27.89	1.08	---	---	Peak
3 !	479.110	41.71	-4.29	46.00	51.09	17.55	28.65	1.73	100	250	QP
4 !	582.900	41.68	-4.32	46.00	49.34	19.35	28.91	1.90	---	---	Peak
5	679.900	39.97	-6.03	46.00	46.43	20.48	28.92	1.98	---	---	Peak
6	975.750	39.14	-14.86	54.00	40.69	24.32	28.18	2.31	---	---	Peak

Horizontal



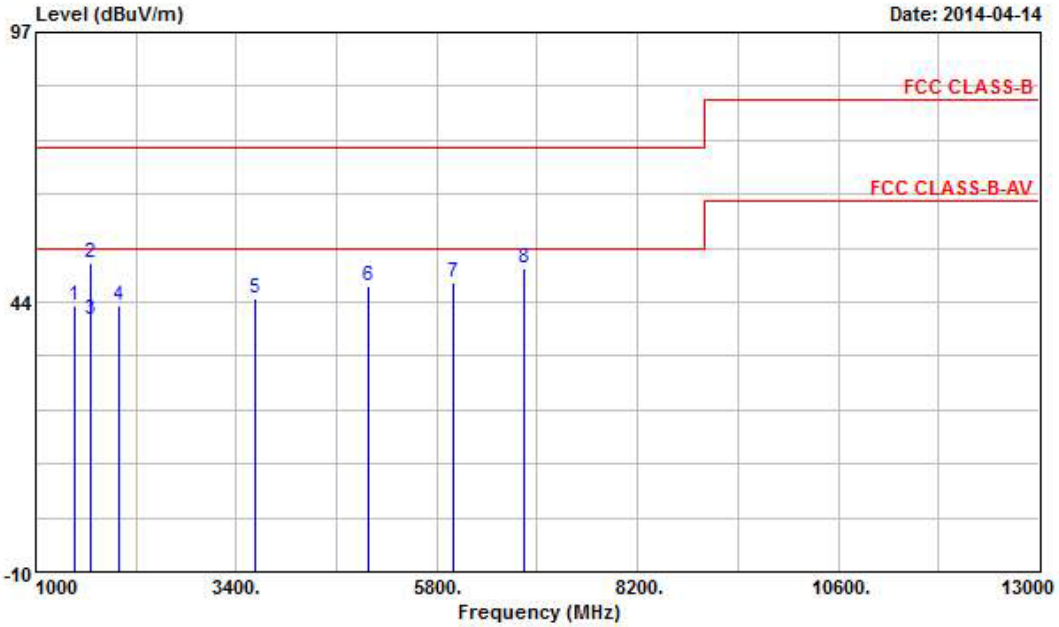
Site :03CH04-HY
Condition:FCC CLASS-B 3m ANT2724 HORIZONTAL
EUT :7" Tablet PC
MODEL :QMV7B
POWER :from system

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	71.710	32.38	-7.62	40.00	53.28	6.48	28.17	0.78	---	---	Peak
2	157.070	36.89	-6.61	43.50	52.99	10.71	27.89	1.08	200	100	QP
3 !	179.380	39.36	-4.14	43.50	57.02	9.01	27.80	1.14	200	160	QP
4	299.660	37.82	-8.18	46.00	50.57	13.30	27.47	1.42	200	300	QP
5 @	479.110	42.95	-3.05	46.00	52.33	17.55	28.65	1.73	100	261	QP
6 !	660.500	42.86	-3.14	46.00	49.54	20.27	28.92	1.97	---	---	Peak
7	780.780	38.37	-7.63	46.00	43.40	21.67	28.80	2.09	100	104	QP

6.4 Test Result of Radiated Emission for Above 1GHz

Test mode	Mode 2	**Test Site No.**	03CH04-HY
Test frequency	1 GHz ~ 13 GHz	**Test Engineer**	Alan Chen
Temperature	25 ℃	**Relative Humidity**	56 %
Note: 1. Emission level (dBμV/m) = 20 log Emission level (μV/m)			
2. Corrected Reading : Antenna Factor + Cable Loss + Read Level – Preamp Factor = Level			
■ **The test was passed at the minimum margin that marked by the frame in the following data**			

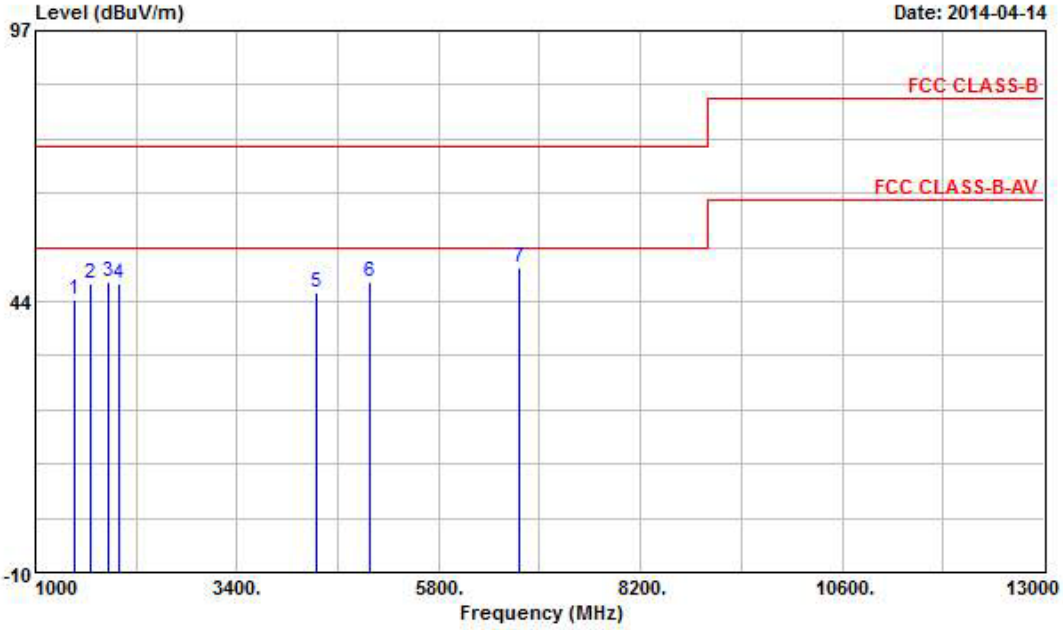
Vertical



Site :03CH04-HY
Condition:FCC CLASS-B 3m HF-ANT-9120D VERTICAL
EUT :7" Tablet PC
MODEL :QMV7B
POWER :from system

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1462.000	42.89	-31.11	74.00	48.26	25.72	33.83	2.73	---	---	Peak
2	1652.000	51.22	-22.78	74.00	56.06	25.89	33.68	2.94	100	199	Peak
3 @	1652.000	39.84	-14.16	54.00	44.68	25.89	33.68	2.94	100	199	Average
4	1998.000	42.89	-31.11	74.00	46.97	26.10	33.52	3.34	---	---	Peak
5	3621.000	44.08	-29.92	74.00	44.52	28.89	34.34	5.00	---	---	Peak
6	4986.000	46.62	-27.38	74.00	43.57	31.47	34.40	5.98	---	---	Peak
7	5985.000	47.54	-26.46	74.00	43.59	32.38	34.46	6.03	---	---	Peak
8	6846.000	50.15	-23.85	74.00	43.75	34.73	34.64	6.31	---	---	Peak

Horizontal



Site :03CH04-HY
Condition:FCC CLASS-B 3m HF-ANT-9120D HORIZONTAL
EUT :7" Tablet PC
MODEL :QMV7B
POWER :from system

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1460.000	44.01	-29.99	74.00	49.38	25.72	33.83	2.73	---	---	Peak
2	1662.000	46.99	-27.01	74.00	51.80	25.90	33.68	2.97	---	---	Peak
3	1862.000	47.25	-26.75	74.00	51.63	26.02	33.58	3.18	---	---	Peak
4	1996.000	46.93	-27.07	74.00	51.01	26.10	33.52	3.34	---	---	Peak
5	4350.000	45.34	-28.66	74.00	43.76	30.34	34.37	5.61	---	---	Peak
6	4989.000	47.35	-26.65	74.00	44.27	31.50	34.40	5.98	---	---	Peak
7	6762.000	50.02	-23.98	74.00	43.84	34.52	34.62	6.28	---	---	Peak

7. List of Measuring Equipment Used

< Conducted Emission >

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMC Receiver	R&S	ESCS 30	100174	9kHz ~ 2.75GHz	Mar. 26, 2014	Conduction (CO04-HY)
LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	8127-477	9kHz ~ 30MHz	Jan. 21, 2014	Conduction (CO04-HY)
RF Cable-CON	HUBER+SUHNER	RG213/U	07611832020001	9kHz ~ 30MHz	Oct. 30, 2013	Conduction (CO04-HY)
EMI Filter	LINDGREN	LRE-2030	2651	< 450 Hz	N/A	Conduction (CO04-HY)

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

< Radiated Emission below 1GHz >

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH04-HY	30 MHz ~ 1 GHz 3m	Oct. 19, 2013	Radiation (03CH04-HY)
Amplifier	Agilent	8447D	2944A09073	0.1 MHz ~ 1.3 GHz	Nov. 04, 2013	Radiation (03CH04-HY)
Receiver	R&S	ESI	838496/008	20 Hz ~ 7 GHz	May 16, 2013	Radiation (03CH04-HY)
Bilog Antenna	SCHAFFNER	CBL6111C	2724	30 MHz ~ 1 GHz	Oct. 07, 2013	Radiation (03CH04-HY)
Turn Table	Chaintek	3000	MF7802056	0 ~ 360 degree	NCR	Radiation (03CH04-HY)
Antenna Mast	MF	MF-7802	MF780208163	1 m ~ 4 m	NCR	Radiation (03CH04-HY)
RF Cable-R03m	Suhner Switzerland + RFIDEN	RG223/U +RG8/U	CB024	30 MHz ~ 1 GHz	Sep. 04, 2013	Radiation (03CH04-HY)

※ Note: Calibration Interval of instruments listed above is one year. NCR: NCR: No calibration request.

< Radiated Emission above 1GHz >

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH04-HY	1 GHz ~ 6 GHz 3m	May 17, 2013	Radiation (03CH04-HY)
Spectrum Analyzer	R&S	FSP40	100593	9 kHz ~ 40 GHz	Oct. 03, 2013	Radiation (03CH04-HY)
Amplifier	Agilent	8449B	3008A02326	1 GHz ~ 26.5 GHz	May 17, 2013	Radiation (03CH04-HY)
Horn Antenna	SCHWARZBECK	BBHA9120	BBHA9120D1130	1 GHz ~ 18 GHz	Sep.10, 2013	Radiation (03CH04-HY)
Turn Table	Chaintek	3000	MF7802056	0 ~ 360 degree	NCR	Radiation (03CH04-HY)
Antenna Mast	MF	MF-7802	MF780208163	1 m ~ 4 m	NCR	Radiation (03CH04-HY)
RF Cable-HIGH	SUHNER	SUCOFLEX 106	CB063-HF	1 GHz ~ 40 GHz	Nov. 20 , 2013	Radiation (03CH04-HY)

※ Note: Calibration Interval of instruments listed above is one year. NCR: NCR: No calibration request.