



Partial FCC RF Test Report

APPLICANT : FUJITSU LIMITED
EQUIPMENT : Fujitsu Stylistic Q Series Tablet PC
BRAND NAME : Fujitsu
MODEL NAME : Q704
FCC ID : EJE-WB0087
STANDARD : FCC Part 15 Subpart C §15.247
CLASSIFICATION : (DTS) Digital Transmission System

This is a partial report which is included conducted power, radiated band edges, radiated spurious emission, and AC conducted emission measurement. The product was received on Sep. 17, 2013 and testing was completed on Oct. 31, 2013. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and shown to be compliant with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager



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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REVISION HISTORY



SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.247(d)	RSS-210 A8.5	Radiated Band Edges and Spurious Emission	15.209(a) & 15.247(d)	Pass	Under limit 6.76 dB at 2361.930 MHz
3.2	15.207	RSS-Gen 7.2.4	AC Conducted Emission	15.207(a)	Pass	Under limit 13.80 dB at 0.198 MHz
3.3	15.203 & 15.247(b)	RSS-210 A8.4	Antenna Requirement	N/A	Pass	-



1 General Description

1.1 Applicant

FUJITSU LIMITED

1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki, 211-8588 Japan

1.2 Manufacturer

FUJITSU LIMITED

1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki, 211-8588 Japan

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	Fujitsu Stylistic Q Series Tablet PC
Brand Name	Fujitsu
Model Name	Q704
FCC ID	EJE-WB0087
Integrated Module	Brand Name: Intel Model Name: 7260HMW FCC ID: PD97260H
EUT supports Radios application	WLAN 11a/b/g/n HT20/HT40 Bluetooth v3.0 + EDR / v4.0-LE
EUT Stage	Pre-Production Unit

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx/Rx Frequency Range	2402 MHz ~ 2480 MHz
Number of Channels	40
Carrier Frequency of Each Channel	40 Channel(37 hopping + 3 advertising channel)
Maximum Output Power to Antenna	3.69 dBm (0.0023 W)
Antenna Type	PIFA Antenna type with gain -0.95 dBi
Type of Modulation	Bluetooth 4.0 - LE : GFSK



1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Testing Site

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-3273456 / FAX: +886-3-3284978		
Test Site No.	Sporton Site No.		FCC/IC Registration No.
	TH02-HY	CO05-HY	03CH08-HY

Note: The test site complies with ANSI C63.4 2003 requirement.

1.7 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart C §15.247
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r01
- ANSI C63.4-2003

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.



2 Test Configuration of Equipment Under Test

2.1 Descriptions of Test Mode

The RF output power was recorded in the following table:

Channel	Frequency	Bluetooth 4.0 – LE RF Output Power
		Data Rate / Modulation
		GFSK
		1Mbps
Ch00	2402MHz	2.63 dBm
Ch19	2440MHz	3.08 dBm
Ch39	2480MHz	3.69 dBm

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction (150 kHz to 30 MHz), radiation (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). Pre-scanned tests, X, Y, Z in three orthogonal panels to determine the final configuration (X plane as worst plane) from all possible combinations.

- b. AC power line Conducted Emission was tested under maximum output power.

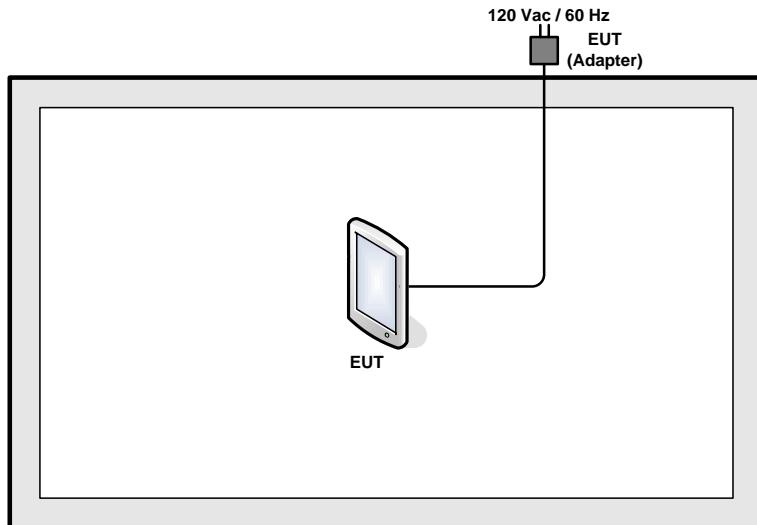
2.2 Test Mode

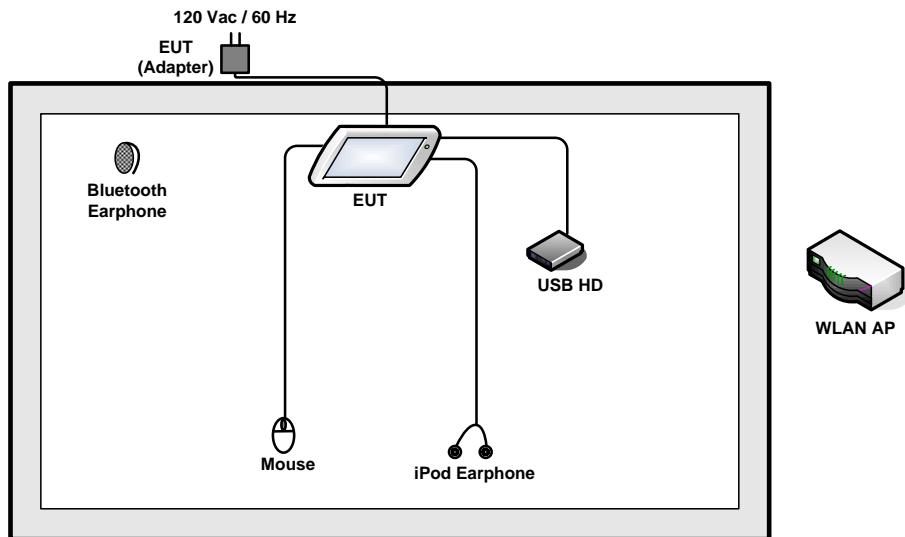
The following summary table is showing all test modes to demonstrate in compliance with the standard.

Summary table of Test Cases	
Test Item	Data Rate / Modulation
	Bluetooth 4.0 – LE / GFSK
Radiated TCs	Mode 1: Bluetooth Tx CH00_2402 MHz_1Mbps Mode 2: Bluetooth Tx CH19_2440 MHz_1Mbps Mode 3: Bluetooth Tx CH39_2480 MHz_1Mbps
AC Conducted Emission	Mode 1: WLAN (2.4GHz) Link + Bluetooth Link + MPEG4 + Earphone + Mouse + Adapter + USB HD + H Pattern

2.3 Connection Diagram of Test System

<Bluetooth 4.0 – LE Tx Mode>



<AC Conducted Emission Mode>

2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
2.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
3.	iPod Earphone	Apple	N/A	verification	Unshielded, 1.0 m	N/A
4.	(USB) Mouse	Lenovo	MO20BOL	FCC DoC	Shielded, 1.3 m	N/A
5.	USB HD	WD	WDBAAR3200 ABK-PESN	FCC DoC	Unshielded, 0.5 m	N/A
6.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A

2.5 EUT Operation Test Setup

For Bluetooth function, the RF utility, "DRTU" was installed in EUT which was programmed in order to make the EUT get into the engineering modes for continuous transmitting and receiving signals.



3 Test Result

3.1 Radiated Band Edges and Spurious Emission Measurement

3.1.1 Limit of Radiated Band Edges and Spurious Emission

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the FCC section 15.209 limits as below.

Frequency (MHz)	Field Strength (microvolts/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

3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.



3.1.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r01.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
7. Use the following spectrum analyzer settings:
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Set RBW=100 kHz for $f < 1$ GHz; VBW \geq RBW; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement.

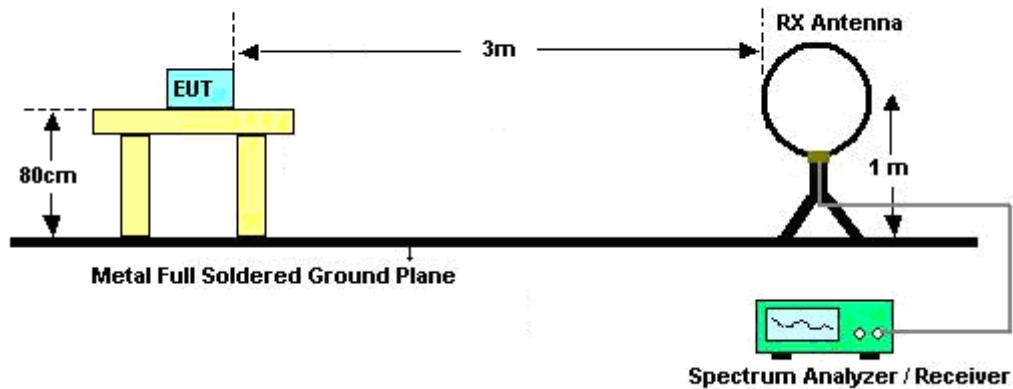
For average measurement:

 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

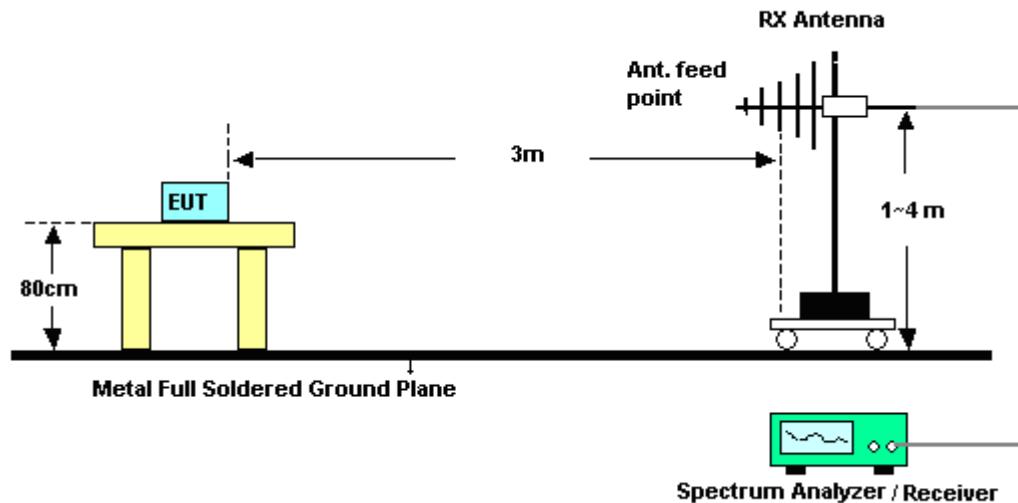
Band	Duty Cycle(%)	T(μs)	1/T(kHz)	VBW Setting
Bluetooth 4.0 - LE	62.99	388.00	2.58	3kHz

3.1.4 Test Setup

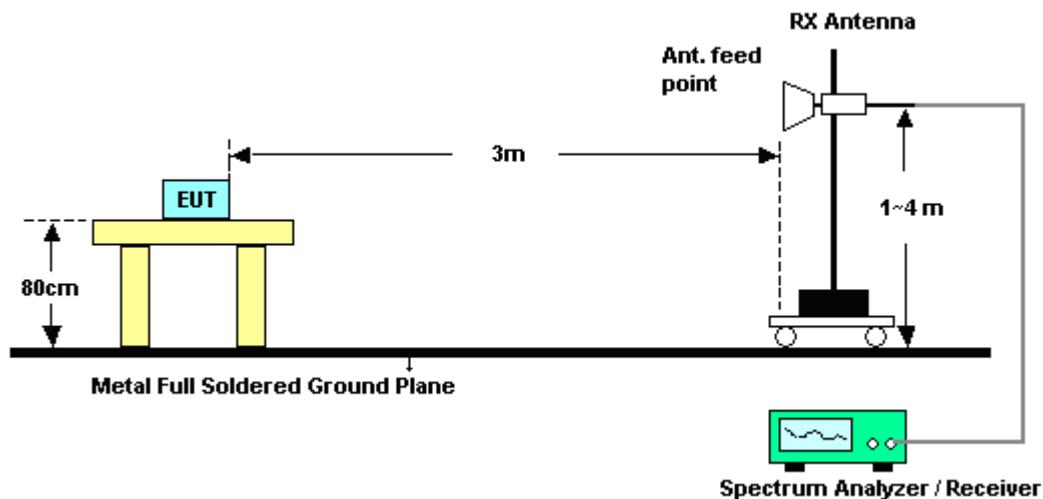
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.1.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.



3.1.6 Test Result of Radiated Spurious at Band Edges

Test Mode :	Mode 1			Temperature :		23~24°C		
Test Channel :	00			Relative Humidity :		50~51%		
				Test Engineer :		Jet Lui		

ANTENNA POLARITY : HORIZONTAL

Frequency (MHz)	Level (dB μ V / m)	Over Limit (dB)	Limit Line (dB μ V / m)	Read Level (dB μ V)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2362.29	54.39	-19.61	74	49.54	32.13	6.21	33.49	100	66	Peak
2361.93	47.24	-6.76	54	42.39	32.13	6.21	33.49	100	66	Average

ANTENNA POLARITY : VERTICAL

Frequency (MHz)	Level (dB μ V / m)	Over Limit (dB)	Limit Line (dB μ V / m)	Read Level (dB μ V)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2370.75	52.67	-21.33	74	47.99	31.95	6.21	33.48	157	114	Peak
2362.02	42.96	-11.04	54	38.4	31.84	6.21	33.49	157	114	Average

Test Mode :	Mode 3			Temperature :		23~24°C		
Test Channel :	39			Relative Humidity :		50~51%		
				Test Engineer :		Jet Lui		

ANTENNA POLARITY : HORIZONTAL

Frequency (MHz)	Level (dB μ V / m)	Over Limit (dB)	Limit Line (dB μ V / m)	Read Level (dB μ V)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2484.94	57.39	-16.61	74	51.77	32.63	6.45	33.46	100	63	Peak
2499.94	46.87	-7.13	54	41.18	32.7	6.45	33.46	100	63	Average

ANTENNA POLARITY : VERTICAL

Frequency (MHz)	Level (dB μ V / m)	Over Limit (dB)	Limit Line (dB μ V / m)	Read Level (dB μ V)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2484.97	54.22	-19.78	74	48.64	32.59	6.45	33.46	185	122	Peak
2484.82	43.58	-10.42	54	38	32.59	6.45	33.46	185	122	Average



3.1.7 Test Result of Radiated Spurious Emission (30MHz ~ 10th Harmonic)

Note: Pre-scanned all test modes and only choose the worst case mode recorded in the test report for radiated spurious emission below 1GHz.

Test Mode :	Mode 1	Temperature :	23~24°C
Test Channel :	00	Relative Humidity :	50~51%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	1. 2403 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
42.69	29.14	-10.86	40	48.73	11.64	0.76	31.99	-	-	Peak
78.33	30.74	-9.26	40	54.76	6.91	1.03	31.96	125	221	Peak
268.41	35.29	-10.71	46	52.55	12.54	1.91	31.71	-	-	Peak
335.7	28.32	-17.68	46	44.05	13.89	2.12	31.74	-	-	Peak
446.3	31	-15	46	43.68	16.16	2.44	31.28	-	-	Peak
799.8	27.63	-18.37	46	35.38	19.95	3.26	30.96	-	-	Peak
2403	99.73	-	-	94.65	32.34	6.22	33.48	100	66	Average
2403	100.62	-	-	95.54	32.34	6.22	33.48	100	66	Peak
4803	40.8	-33.2	74	57.31	34.46	8	58.97	100	0	Peak

Note: Other harmonics are lower than background noise.



Test Mode :	Mode 1	Temperature :	23~24°C
Test Channel :	00	Relative Humidity :	50~51%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	1. 2403 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.54	30.15	-9.85	40	39.88	21.66	0.65	32.04	147	258	Peak
41.61	26.83	-13.17	40	46.97	11.1	0.76	32	-	-	Peak
268.41	31.22	-14.78	46	48.38	12.64	1.91	31.71	-	-	Peak
359.5	27.99	-18.01	46	42.84	14.67	2.19	31.71	-	-	Peak
447	26.75	-19.25	46	39.65	15.93	2.44	31.27	-	-	Peak
600.3	25.84	-20.16	46	35.28	18.91	2.83	31.18	-	-	Peak
2403	95.54	-	-	90.64	32.16	6.22	33.48	157	114	Average
2403	95.94	-	-	91.04	32.16	6.22	33.48	157	114	Peak
4803	43.34	-30.66	74	56.44	34.46	8	55.56	100	0	Peak

Note: Other harmonics are lower than background noise.



Test Mode :	Mode 2	Temperature :	23~24°C
Test Channel :	19	Relative Humidity :	50~51%
Test Engineer :	Jet Lui	Polarization :	Horizontal
Remark :	1. 2440 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2440	100.19	-	-	94.83	32.49	6.34	33.47	100	62	Average
2440	101.34	-	-	95.98	32.49	6.34	33.47	100	62	Peak
4881	38.5	-35.5	74	54.82	34.4	8.15	58.87	100	0	Peak
7320	41.36	-32.64	74	53.75	35.63	10.47	58.49	100	0	Peak

Note: Other harmonics are lower than background noise.

Test Mode :	Mode 2	Temperature :	23~24°C
Test Channel :	19	Relative Humidity :	50~51%
Test Engineer :	Jet Lui	Polarization :	Vertical
Remark :	1. 2440 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2440	95.62	-	-	90.37	32.38	6.34	33.47	189	122	Average
2440	96.72	-	-	91.47	32.38	6.34	33.47	189	122	Peak
4881	43.07	-30.93	74	56.2	34.4	8.15	55.68	100	0	Peak
7320	43	-31	74	53.23	35.54	10.47	56.24	100	0	Peak

Note: Other harmonics are lower than background noise.



Test Mode :	Mode 3		Temperature :		23~24°C				
Test Channel :	39		Relative Humidity :		50~51%				
Test Engineer :	Jet Lui		Polarization :		Horizontal				
Remark :	1. 2481 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.								

Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2481	100.85	-	-	95.23	32.63	6.45	33.46	100	63	Average
2481	101.95	-	-	96.33	32.63	6.45	33.46	100	63	Peak
4959	39.77	-34.23	74	55.93	34.33	8.26	58.75	100	0	Peak
7440	40.73	-33.27	74	53.29	35.68	10.47	58.71	100	0	Peak

Note: Other harmonics are lower than background noise.

Test Mode :	Mode 3		Temperature :		23~24°C				
Test Channel :	39		Relative Humidity :		50~51%				
Test Engineer :	Jet Lui		Polarization :		Vertical				
Remark :	1. 2481 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.								

Frequency (MHz)	Level (dB μ V/m)	Over Limit (dB)	Limit Line (dB μ V/m)	Read Level (dB μ V)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2481	96.22	-	-	90.64	32.59	6.45	33.46	185	122	Average
2481	97.21	-	-	91.63	32.59	6.45	33.46	185	122	Peak
4959	43.23	-30.77	74	56.48	34.33	8.26	55.84	100	0	Peak
7440	42.42	-31.58	74	52.51	35.44	10.47	56	100	0	Peak

Note: Other harmonics are lower than background noise.



3.2 AC Conducted Emission Measurement

3.2.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (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 the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

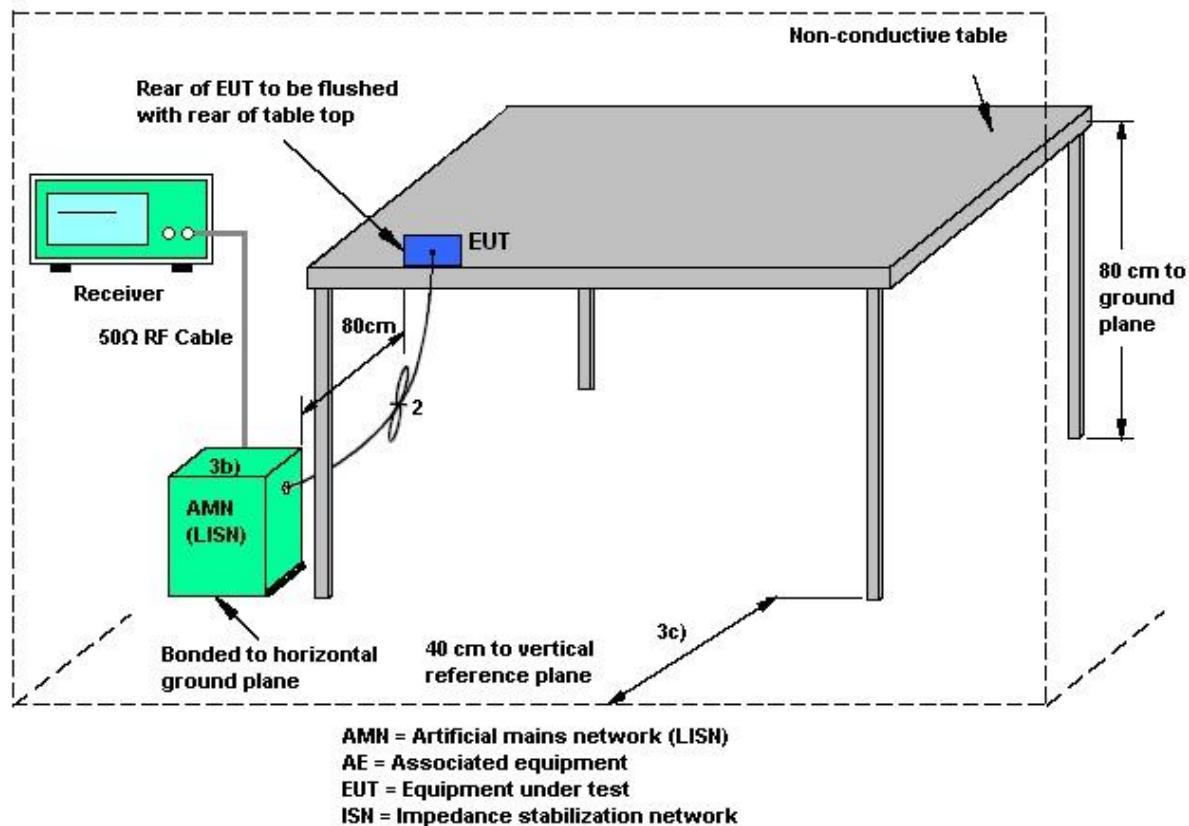
3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.2.3 Test Procedures

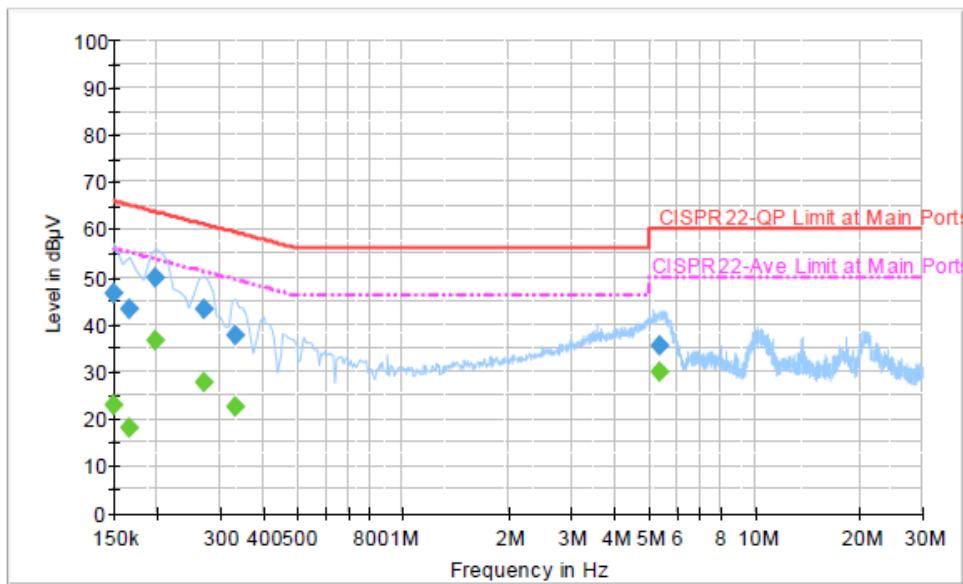
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.2.4 Test Setup



3.2.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Kai-Chun Chu	Relative Humidity :	46~48%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WLAN (2.4GHz) Link + Bluetooth Link + MPEG4 + Earphone + Mouse + Adapter + USB HD + H Pattern		



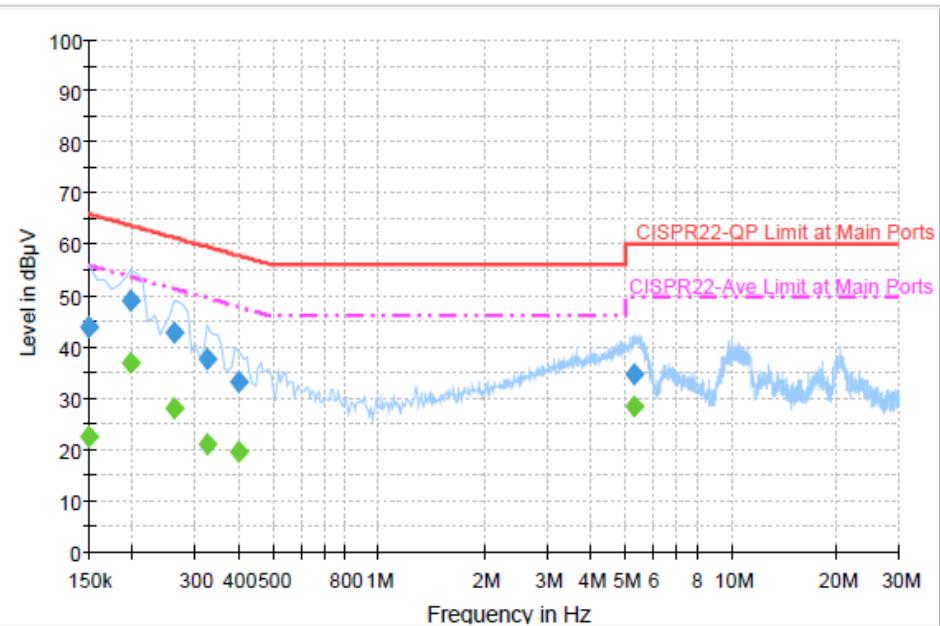
Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	46.4	Off	L1	19.4	19.6	66.0
0.166000	43.2	Off	L1	19.4	22.0	65.2
0.198000	49.9	Off	L1	19.3	13.8	63.7
0.270000	43.1	Off	L1	19.3	18.0	61.1
0.334000	37.7	Off	L1	19.4	21.7	59.4
5.374000	35.5	Off	L1	19.6	24.5	60.0

Final Result : Average

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	23.0	Off	L1	19.4	33.0	56.0
0.166000	18.0	Off	L1	19.4	37.2	55.2
0.198000	36.5	Off	L1	19.3	17.2	53.7
0.270000	27.5	Off	L1	19.3	23.6	51.1
0.334000	22.4	Off	L1	19.4	27.0	49.4
5.374000	29.8	Off	L1	19.6	20.2	50.0

Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Kai-Chun Chu	Relative Humidity :	46~48%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WLAN (2.4GHz) Link + Bluetooth Link + MPEG4 + Earphone + Mouse + Adapter + USB HD + H Pattern		



Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	43.8	Off	N	19.4	22.2	66.0
0.198000	49.1	Off	N	19.3	14.6	63.7
0.262000	42.7	Off	N	19.4	18.7	61.4
0.326000	37.5	Off	N	19.4	22.1	59.6
0.398000	33.0	Off	N	19.5	24.9	57.9
5.326000	34.6	Off	N	19.6	25.4	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	22.4	Off	N	19.4	33.6	56.0
0.198000	37.0	Off	N	19.3	16.7	53.7
0.262000	28.2	Off	N	19.4	23.2	51.4
0.326000	21.0	Off	N	19.4	28.6	49.6
0.398000	19.5	Off	N	19.5	28.4	47.9
5.326000	28.5	Off	N	19.6	21.5	50.0



3.3 Antenna Requirements

3.3.1 Standard Applicable

If directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. 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 FCC rule.

3.3.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.3.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz~40GHz	Jun. 07, 2013	Oct. 20, 2013	Jun. 06, 2014	Conducted (TH02-HY)
Power Meter	Agilent	E4416A	GB412923 44	300MHz~40GHz	Feb. 05, 2013	Oct. 20, 2013	Feb. 04, 2014	Conducted (TH02-HY)
Power Sensor	Agilent	E9327A	US404415 48	300MHz~40GHz	Feb. 05, 2013	Oct. 20, 2013	Feb. 04, 2014	Conducted (TH02-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100472	20Hz – 26.5GHz	Jan. 23, 2013	Oct. 31, 2013	Jan. 22, 2014	Radiation (03CH08-HY)
Bilog Antenna	Teseq GmbH	CBL6112D	35379	30MHz~2GHz	Oct. 10, 2013	Oct. 31, 2013	Oct. 09, 2014	Radiation (03CH08-HY)
Horn Antenna	ESCO	3117	000143261	1GHz~18GHz	Jan. 08, 2013	Oct. 31, 2013	Jan. 07, 2014	Radiation (03CH08-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170 251	18GHz~40GHz	Oct. 03, 2013	Oct. 31, 2013	Oct. 02, 2014	Radiation (03CH08-HY)
Amplifier	SONOMA	310N	187231	9kHz~1GHz	May 15, 2013	Oct. 31, 2013	May 14, 2014	Radiation (03CH08-HY)
Pre Amplifier	EMC INSTRUMENT	EMC011830	980148	100MHz~18GHz	Jun. 21, 2013	Oct. 31, 2013	Jun. 20, 2014	Radiation (03CH08-HY)
Pre Amplifier	Agilent	8449B	3008A026 65	1GHz~26.5GHz	Sep. 04, 2013	Oct. 31, 2013	Sep. 03, 2014	Radiation (03CH08-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	860004/00 01	9 kHz~30 Mhz	Jul. 03, 2012	Oct. 31, 2013	Jul. 03, 2014	Radiation (03CH08-HY)
Turn Table	Chaintek	Chaintek 3000	N/A	0~360 Degree	N/A	Oct. 31, 2013	N/A	Radiation (03CH08-HY)
Antenna Mast	MF	MFA520BS	N/A	1m~4m	N/A	Oct. 31, 2013	N/A	Radiation (03CH08-HY)
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100356	9kHz ~ 2.75GHz	Nov. 13, 2012	Oct. 18, 2013	Nov. 12, 2013	Conduction (CO05-HY)
Two-LISN (for auxiliary equipment)	Rohde & Schwarz	ENV216	100081	9kHz ~ 30MHz	Dec. 12, 2012	Oct. 18, 2013	Dec. 11, 2013	Conduction (CO05-HY)
Two-LISN	Rohde & Schwarz	ENV216	100080	9kHz ~ 30MHz	Dec. 06, 2012	Oct. 18, 2013	Dec. 05, 2013	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	Oct. 18, 2013	N/A	Conduction (CO05-HY)



5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.26
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.3
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Appendix A. Photographs of EUT

Please refer to Sporton report number EP391724 as below.