



A D T

FCC CERTIFICATION TEST REPORT

REPORT NO.: FD990129L10
MODEL NO.: F-08B
RECEIVED: Feb. 01, 2010
TESTED: Feb. 05 ~ Feb. 23, 2010
ISSUED: Feb. 24, 2010

APPLICANT: FUJITSU LIMITED

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

ISSUED BY: Bureau Veritas Consumer Products Services
(H.K.) Ltd., Taoyuan Branch

LAB ADDRESS: No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou
Hsiang, Taipei Hsien 244, Taiwan, R.O.C.

TEST LOCATION: No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen,
Kwei Shan Hsiang, Taoyuan Hsien 333,
Taiwan, R.O.C.

This test report consists of 25 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product endorsement by TAF or any government agencies. The test results in the report only apply to the tested sample.



Table of Contents

1.	CERTIFICATION.....	3
2.	SUMMARY OF TEST RESULTS	4
2.1	MEASUREMENT UNCERTAINTY.....	4
3.	GENERAL INFORMATION.....	5
3.1	GENERAL DESCRIPTION OF EUT	5
3.2	DESCRIPTION OF TEST MODES	6
3.2.1	CONFIGURATION OF SYSTEM UNDER TEST	6
3.2.2	TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL	7
3.3	GENERAL DESCRIPTION OF APPLIED STANDARDS	8
3.4	DESCRIPTION OF SUPPORT UNITS	8
4.	TEST TYPES AND RESULTS	9
4.1	RADIATED EMISSION MEASUREMENT	9
4.1.1	LIMITS OF RADIATED EMISSION MEASUREMENT	9
4.1.2	TEST INSTRUMENTS.....	10
4.1.3	TEST PROCEDURES	11
4.1.4	DEVIATION FROM TEST STANDARD.....	11
4.1.5	TEST SETUP	12
4.1.6	EUT OPERATING CONDITIONS	12
4.1.7	TEST RESULTS	13
4.2	CONDUCTED EMISSION MEASUREMENT	16
4.2.1	LIMITS OF CONDUCTED EMISSION MEASUREMENT	16
4.2.2	TEST INSTRUMENTS.....	16
4.2.3	TEST PROCEDURES	17
4.2.4	DEVIATION FROM TEST STANDARD.....	17
4.2.5	TEST SETUP	18
4.2.6	EUT OPERATING CONDITIONS	18
4.2.7	TEST RESULTS	19
5.	PHOTOGRAPHS OF THE TEST CONFIGURATION.....	23
6.	INFORMATION ON THE TESTING LABORATORIES	24
7.	APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB.....	25

1. CERTIFICATION

PRODUCT: Mobile phone

BRAND: FOMA

MODEL: F-08B

APPLICANT: FUJITSU LIMITED

TESTED: Feb. 05 ~ Feb. 23, 2010

TEST SAMPLE: ENGINEERING SAMPLE

STANDARDS: FCC Part 15, Subpart B, Class B

ANSI C63.4-2003

The above equipment (Model: F-08B) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Polly Chien , **DATE** : Feb. 24, 2010
Polly Chien / Specialist

TECHNICAL ACCEPTANCE : Long Chen , **DATE** : Feb. 24, 2010
Responsible for RF Long Chen / Senior Engineer

APPROVED BY : Gary Chang , **DATE** : Feb. 24, 2010
Gary Chang / Assistant Manager

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

Standard Section	Test Type	Result	Remark
FCC Part 15, Subpart B, Class B	Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -11.05dB at 0.177MHz.
	Radiated Emission	PASS	Meet the requirement of limit. Minimum passing margin is -4.1dB at 249.60MHz.

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	150kHz ~ 30MHz	2.44 dB
Radiated emissions	150MHz ~ 200MHz	2.93 dB
	200MHz ~1000MHz	2.95 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Mobile phone
MODEL NO.	F-08B
POWER SUPPLY	3.7Vdc (Li-ion battery) 5.4Vdc (Adapter)
MODULATION TYPE	ASK
FREQUENCY RANGE	13.56MHz
NUMBER OF CHANNEL	1
ANTENNA TYPE	Loop antenna
DATA CABLE	NA
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	Battery

NOTE:

1. The EUT is powered by the following adapter and battery.

ADAPTER (NOT FOR SALE)	
BRAND	SMK
INPUT POWER	100-240Vac, 0.12A, 50-60Hz
OUTPUT POWER	5.4Vdc, 700mA

BATTERY	
BRAND	Fujitsu Limited
MODEL	CA54310-0005
RATING	3.7Vdc, 770mAh

2. The test item of USB interface mode was tested by clients' requests and presented in this report.
3. The above EUT information was declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

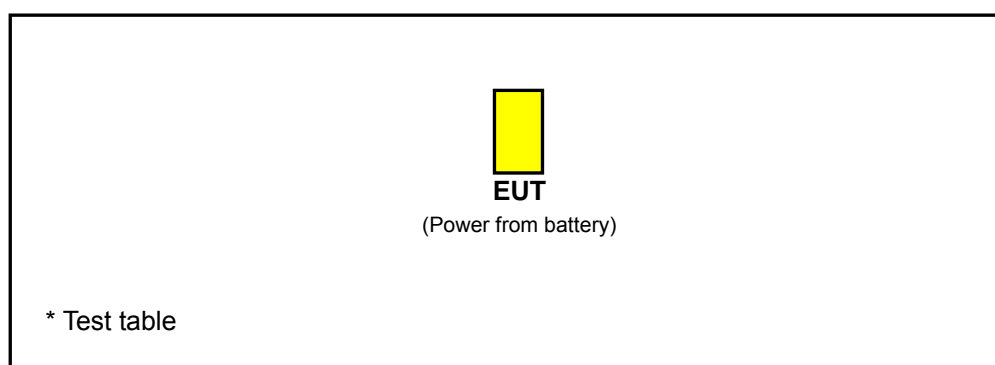
3.2 DESCRIPTION OF TEST MODES

The EUT only have 1 channel.

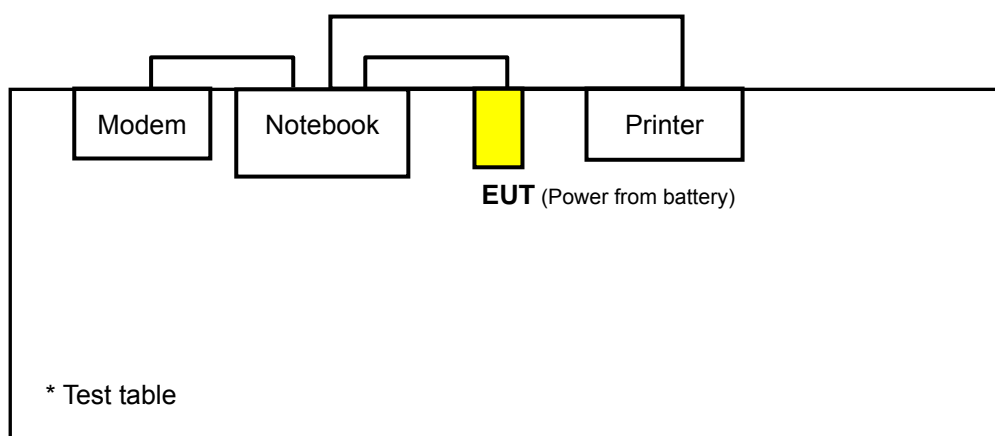
CHANNEL	FREQUENCY (MHz)
1	13.56

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST

TEST MODE A (For RFID Mode)



TEST MODE B, C (For USB Interface Mode)



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO		DESCRIPTION
	RE<1G	PLC	
A	√	NOTE	For RFID mode (Power from battery)
B	√	√	For USB Interface mode with screen open (Power from battery)
C	√	√	For USB Interface mode with screen close (Power from battery)

Where **RE≥1G**: Radiated Emission above 1GHz

RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission

NOTE : No need to concern of Conducted Emission due to the EUT is powered by battery.

RADIATED EMISSION TEST (BELOW 1 GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, XYZ axis, antenna ports (if EUT with antenna diversity architecture) and packet type.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE	AXIS
A	1	1	ASK	Z
B, C	-	-	-	-

POWER LINE CONDUCTED EMISSION TEST:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE	AXIS
B, C	-	-	-	-

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G (Mode A)	25deg. C, 65%RH, 1012 hPa	3.7Vdc	Brad Wu
RE<1G (Mode B, C)	25deg. C, 65%RH, 1017 hPa	3.7Vdc	Mark Liao
PLC (Mode B, C)	24deg. C, 64%RH, 1015 hPa	3.7Vdc	Brad Wu

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart B, Class B ANSI C63.4-2003

All test items have been performed and recorded as per the above standards.

3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

TEST MODE A

The EUT has been tested as an independent unit.

TEST MODE B, C

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK	DELL	D600	CN-0G5152-48643-49C-8226	NA
2	PRINTER	EPSON	LQ-300+	DCGY054146	FCC DoC Approved
3	MODEM	ACEEX	1414V/3	0401008277	IFAXDM1414

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	0.8m USB cable.
2	1.8m braid shielded wire, DB25 connector, w/o core.
3	1.2m braid shielded wire, DB25 & DB9 connector, w/o core.

NOTE:

1. All power cords of the above support units are non shielded (1.8m).
2. The USB cable was supplied from the client.

4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.109 as following:

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100212	May 25, 2009	May 24, 2010
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Jul. 07, 2009	Jul. 06, 2010
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Apr. 30, 2009	Apr. 29, 2010
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-563	Aug. 10, 2009	Aug. 09, 2010
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Dec. 25, 2009	Dec. 24, 2010
Preamplifier Agilent	8449B	3008A01910	Sep. 11, 2009	Sep. 10, 2010
Preamplifier Agilent	8447D	2944A10638	Dec. 21, 2009	Dec. 20, 2010
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	218190/4 231241/4	May 13, 2009	May 12, 2010
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 17, 2009	Aug. 16, 2010
Software	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower & Turn Table Controller EMCO	2090	NA	NA	NA

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HwaYa Chamber 9.
 3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 4. The FCC Site Registration No. is 460141.
 5. The IC Site Registration No. is IC 7450F-4.

4.1.3 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

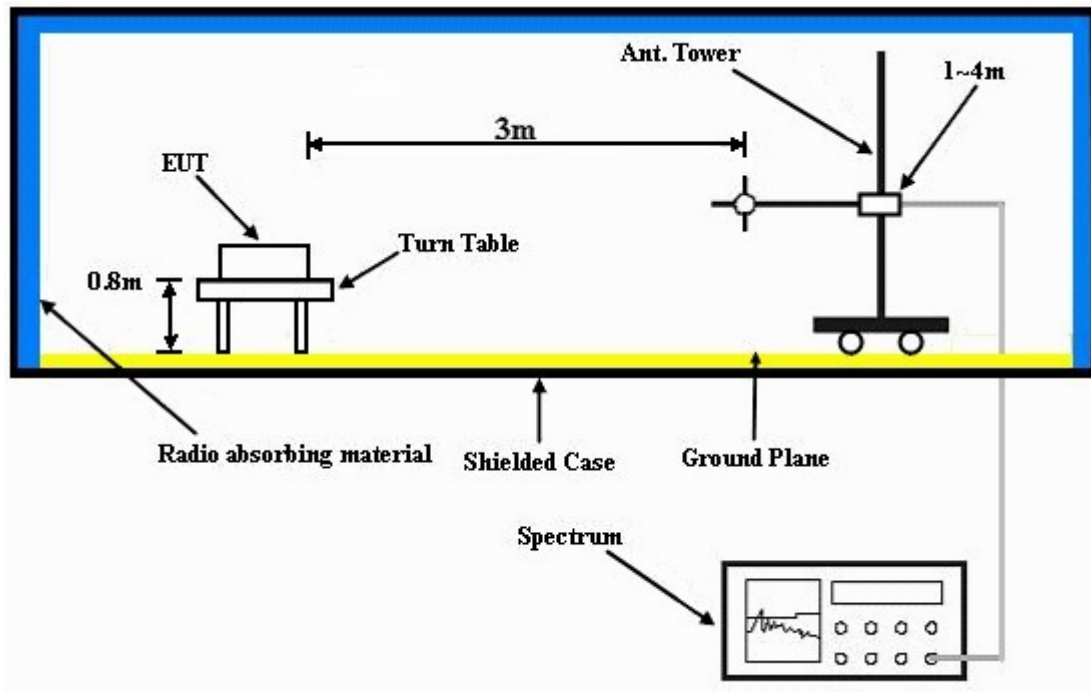
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT OPERATING CONDITIONS

TEST MODE A

Set the EUT under receiving condition.

TEST MODE B, C

- EUT connected to NB and placed on a testing table.
- NB executes EMCTEST tool to read data and write data to microSD of EUT via USB cable.
- The necessary accessories enable the system in full functions.



A D T

4.1.7 TEST RESULTS

BELOW 1GHz WORST-CASE DATA

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	3.7Vdc	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1012 hPa	TESTED BY	Brad Wu
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	59.06	18.3 QP	40.0	-21.7	1.50 H	25	5.40	12.90
2	138.78	15.5 QP	43.5	-28.0	1.50 H	10	2.60	12.90
3	286.55	16.9 QP	46.0	-29.1	1.50 H	274	3.10	13.80
4	385.70	19.4 QP	46.0	-26.6	1.50 H	13	1.90	17.50
5	428.48	20.3 QP	46.0	-25.7	2.00 H	124	1.50	18.80
6	959.27	28.8 QP	46.0	-17.2	2.00 H	10	0.20	28.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	61.01	25.3 QP	40.0	-14.7	1.50 V	334	12.30	13.00
2	166.00	20.9 QP	43.5	-22.6	1.50 V	202	6.90	14.00
3	204.89	22.8 QP	43.5	-20.7	1.50 V	103	12.00	10.80
4	234.05	22.5 QP	46.0	-23.5	2.00 V	259	9.70	12.80
5	626.80	22.0 QP	46.0	-24.0	1.00 V	181	-1.20	23.20
6	813.45	25.8 QP	46.0	-20.2	1.50 V	4	-0.50	26.30

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
FREQUENCY RANGE	Below 1000MHz	INPUT POWER	3.7Vdc
DETECTOR FUNCTION	Quasi-Peak	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1017 hPa
TESTED BY	Mark Liao	TEST MODE	B

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	212.84	29.2 QP	43.5	-14.3	1.99 H	348	17.80	11.40
2	239.88	38.3 QP	46.0	-7.7	2.00 H	349	25.10	13.20
3	360.43	34.6 QP	46.0	-11.4	1.00 H	103	18.20	16.40
4	465.42	33.1 QP	46.0	-12.9	1.50 H	76	13.40	19.70
5	667.63	36.1 QP	46.0	-9.9	1.00 H	43	11.80	24.30
6	871.78	38.5 QP	46.0	-7.5	1.50 H	7	11.10	27.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	247.53	29.7 QP	46.0	-16.3	1.48 V	0	16.00	13.70
2	399.31	35.6 QP	46.0	-10.4	2.00 V	175	17.50	18.10
3	667.63	34.5 QP	46.0	-11.5	1.00 V	250	10.20	24.30
4	704.57	37.5 QP	46.0	-8.5	1.00 V	211	12.40	25.10
5	733.73	36.6 QP	46.0	-9.4	1.50 V	127	11.20	25.40
6	871.78	40.7 QP	46.0	-5.3	1.00 V	241	13.30	27.40

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
FREQUENCY RANGE	Below 1000MHz	INPUT POWER	3.7Vdc
DETECTOR FUNCTION	Quasi-Peak	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1017 hPa
TESTED BY	Mark Liao	TEST MODE	C

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	99.89	39.3 QP	43.5	-4.2	2.00 H	4	27.70	11.60
2	215.95	38.8 QP	43.5	-4.7	1.80 H	111	27.20	11.60
3	249.60	41.9 QP	46.0	-4.1	1.00 H	106	28.00	13.90
4	263.21	38.2 QP	46.0	-7.8	1.00 H	103	24.40	13.80
5	667.63	41.3 QP	46.0	-4.7	1.00 H	43	17.00	24.30
6	720.12	39.7 QP	46.0	-6.3	1.00 H	10	14.40	25.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	31.84	31.2 QP	40.0	-8.8	1.00 V	67	18.10	13.10
2	397.37	34.6 QP	46.0	-11.4	1.00 V	10	16.60	18.00
3	667.63	36.6 QP	46.0	-9.4	1.50 V	199	12.30	24.30
4	733.73	36.6 QP	46.0	-9.4	1.50 V	22	11.20	25.40
5	873.72	39.9 QP	46.0	-6.1	1.00 V	160	12.50	27.40
6	932.05	39.3 QP	46.0	-6.7	1.00 V	97	10.90	28.40

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.

4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

- NOTE:**
1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
 3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100291	Dec. 16, 2009	Dec. 15, 2010
RF signal cable Woken	5D-FB	Cable-HYC01-01	Nov. 12, 2009	Nov. 11, 2010
LISN ROHDE & SCHWARZ	ESH3-Z5	100312	Jun. 18, 2009	Jun. 17, 2010
LISN ROHDE & SCHWARZ	ESH3-Z5	835239/001	Feb. 24, 2009	Feb. 23, 2010
Software ADT	ADT_Cond_ V7.3.7	NA	NA	NA

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HwaYa Shielded Room 1.
 3. The VCCI Site Registration No. is C-2040.

4.2.3 TEST PROCEDURES

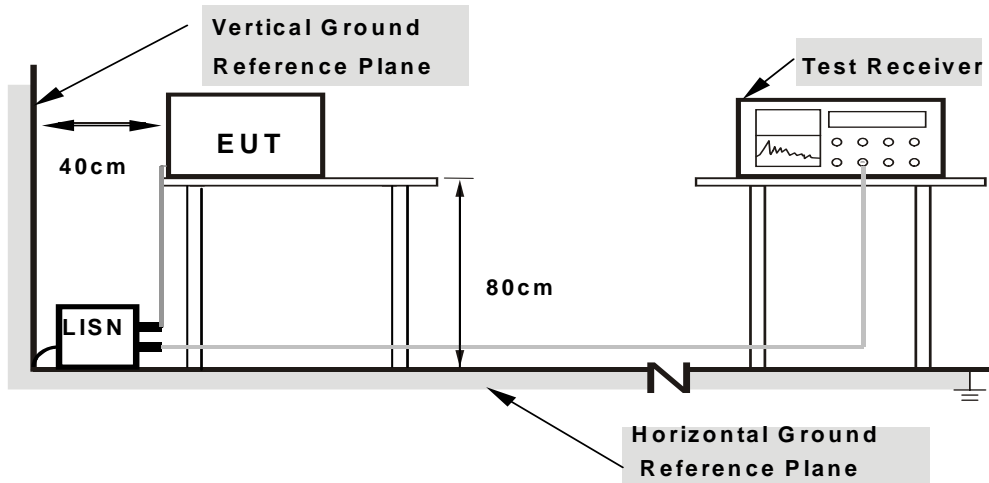
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: All modes of operation were investigated and the worst-case emissions are reported.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

4.2.5 TEST SETUP



- Note:**
1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT OPERATING CONDITIONS

TEST MODE B, C

- a. EUT connected to NB and placed on a testing table.
- b. NB executes EMCTEST tool to read data and write data to microSD of EUT via USB cable.
- c. The necessary accessories enable the system in full functions.

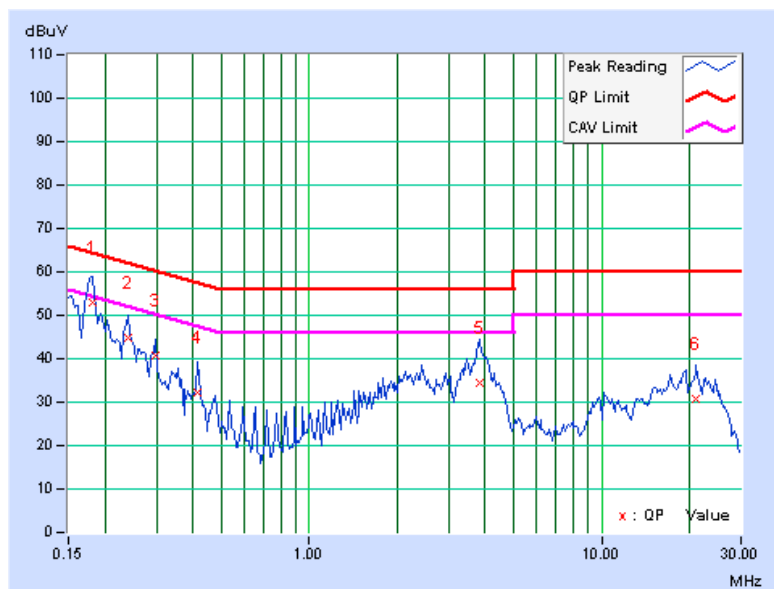
4.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA:

PHASE	Line 1	6dB BANDWIDTH	9kHz
TEST MODE	B		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.181	0.10	53.03	-	53.13	-	64.43	54.43	-11.30	-
2	0.240	0.10	44.66	-	44.76	-	62.10	52.10	-17.34	-
3	0.298	0.11	40.69	-	40.80	-	60.29	50.29	-19.49	-
4	0.416	0.12	31.94	-	32.06	-	57.54	47.54	-25.47	-
5	3.809	0.33	34.28	-	34.61	-	56.00	46.00	-21.39	-
6	20.984	1.26	29.35	-	30.61	-	60.00	50.00	-29.39	-

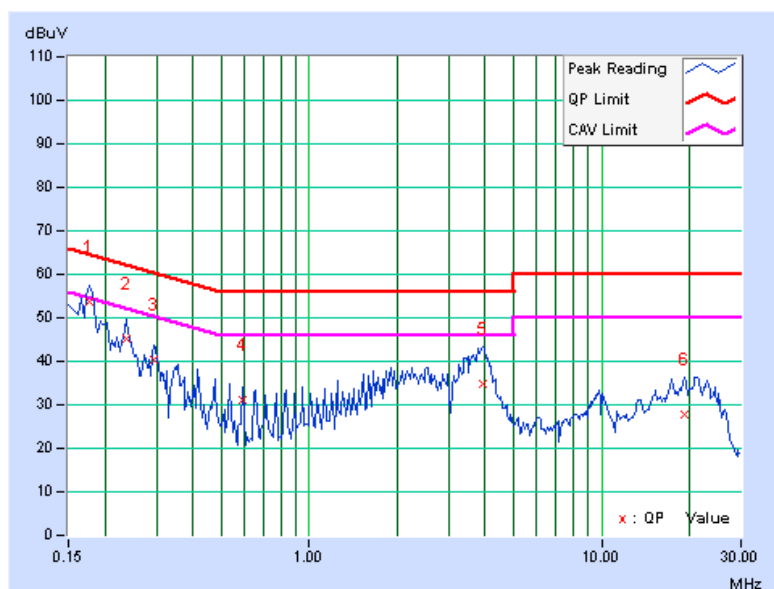
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.



PHASE	Line 2	6dB BANDWIDTH	9kHz
TEST MODE	B		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.177	0.12	53.44	-	53.56	-	64.61	54.61	-11.05	-
2	0.236	0.12	44.90	-	45.02	-	62.24	52.24	-17.21	-
3	0.295	0.13	40.12	-	40.25	-	60.40	50.40	-20.15	-
4	0.591	0.15	30.89	-	31.04	-	56.00	46.00	-24.96	-
5	3.914	0.33	34.59	-	34.92	-	56.00	46.00	-21.08	-
6	19.316	0.91	26.76	-	27.67	-	60.00	50.00	-32.33	-

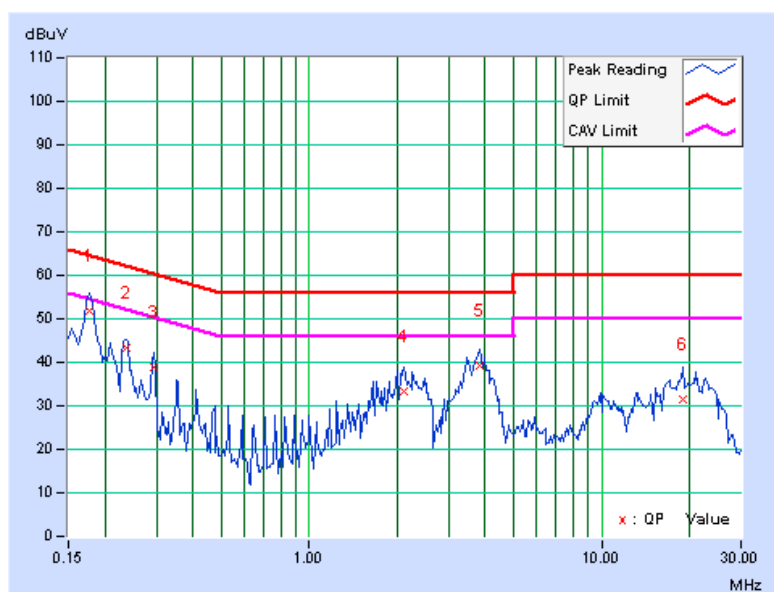
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.



PHASE	Line 1	6dB BANDWIDTH	9kHz
TEST MODE	C		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.177	0.10	51.83	-	51.93	-	64.61	54.61	-12.68	-
2	0.236	0.10	43.23	-	43.33	-	62.24	52.24	-18.90	-
3	0.295	0.11	38.85	-	38.96	-	60.40	50.40	-21.44	-
4	2.121	0.25	33.22	-	33.47	-	56.00	46.00	-22.53	-
5	3.828	0.33	38.76	-	39.09	-	56.00	46.00	-16.91	-
6	18.902	1.17	30.49	-	31.66	-	60.00	50.00	-28.34	-

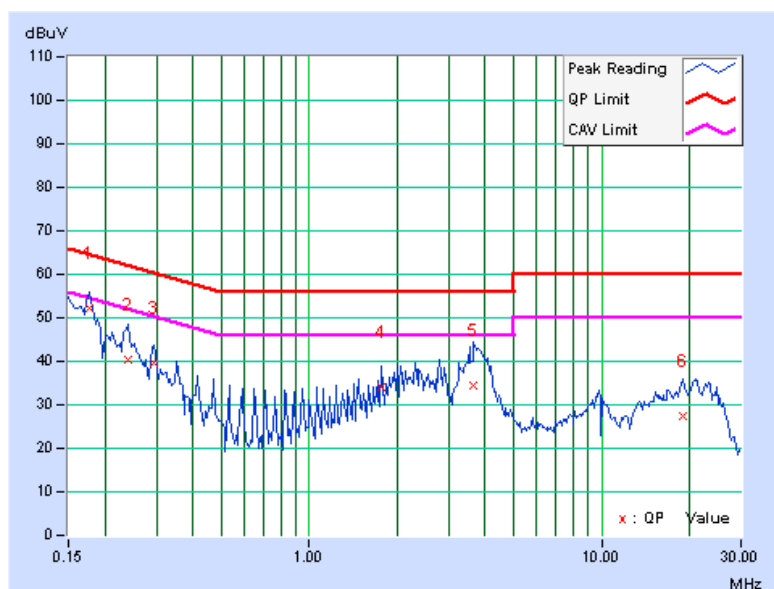
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.



PHASE	Line 2	6dB BANDWIDTH	9kHz
TEST MODE	C		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.177	0.12	52.27	-	52.39	-	64.61	54.61	-12.22	-
2	0.240	0.12	40.24	-	40.36	-	62.10	52.10	-21.74	-
3	0.295	0.13	39.54	-	39.67	-	60.40	50.40	-20.73	-
4	1.770	0.23	33.87	-	34.10	-	56.00	46.00	-21.90	-
5	3.660	0.32	34.16	-	34.48	-	56.00	46.00	-21.52	-
6	19.055	0.90	26.55	-	27.45	-	60.00	50.00	-32.55	-

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.





A D T

5. PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).

6. INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site:

www.adt.com.tw/index.5/phtml. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF Lab:

Tel: 886-3-5935343

Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Telecom Lab:

Tel: 886-3-3183232

Fax: 886-3-3185050

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.



A D T

7. APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

--- END ---