

## **FCC CERTIFICATION TEST REPORT**

**REPORT NO.:** FD990804C02

MODEL NO.: F-03C

**RECEIVED:** Aug. 04, 2010 **TESTED:** Aug. 25, 2010 **ISSUED:** Sep. 02, 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 22 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, certification, approval or endorsement by TAF or any government agency. The test results in the report only apply to the tested sample. The test results in this report are traceable to the national or international standards.





## **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
3.3	DESCRIPTION OF SUPPORT UNITS	6
3.3.1	CONFIGURATION OF SYSTEM UNDER TEST	7
3.4	GENERAL DESCRIPTION OF APPLIED STANDARDS	7
4.	TEST TYPES AND RESULTS	8
4.1	RADIATED EMISSION MEASUREMENT	8
4.1.1	LIMITS OF RADIATED EMISSION MEASUREMENT	8
4.1.2	TEST INSTRUMENTS	9
4.1.3	TEST PROCEDURES	.10
4.1.4	DEVIATION FROM TEST STANDARD	.10
4.1.5	TEST SETUP	. 11
4.1.6	EUT OPERATING CONDITIONS	. 11
4.1.7	TEST RESULTS	.12
4.2	CONDUCTED EMISSION MEASUREMENT	.15
4.2.1	LIMITS OF CONDUCTED EMISSION MEASUREMENT	.15
4.2.2	TEST INSTRUMENTS	.15
4.2.3	TEST PROCEDURES	.16
4.2.4	DEVIATION FROM TEST STANDARD	
4.2.5	TEST SETUP	.17
4.2.6	EUT OPERATING CONDITIONS	.17
4.2.7	TEST RESULTS	.18
5.	PHOTOGRAPHS OF THE TEST CONFIGURATION	.20
6.	INFORMATION ON THE TESTING LABORATORIES	.21
7.	APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES	
	TO THE EUT BY THE LAB	.22



#### 1. CERTIFICATION

Responsible for RF

**APPROVED BY** 

**PRODUCT:** Mobile phone

**BRAND: FOMA** 

MODEL: F-03C

**APPLICANT: FUJITSU LIMITED** 

**TESTED:** Aug. 25, 2010

TEST SAMPLE: ENGINEERING SAMPLE

STANDARDS: FCC Part 15, Subpart B, Class B

ANSI C63.4-2003

The above equipment (Model: F-03C) 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.

Ivy Ion / Specialist , DATE: Sep. 02, 2010 PREPARED BY

**TECHNICAL** Long Chery/ Senior Engineer , DATE: Sep. 02, 2010 ACCEPTANCE

Gary Chang / Assistant Manager , DATE: Sep. 02, 2010



## 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,	Conducted Emission		Meet the requirement of limit. Minimum passing margin is -18.52dB at 0.556MHz.
Class B	Radiated Emission		Meet the requirement of limit. Minimum passing margin is -8.3dB at 37.68MHz.

#### **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	2.44dB
Radiated emissions	30MHz ~ 1GHz	3.43dB

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-03C		
POWER SUPPLY	3.7Vdc (Li-ion battery)		
	5.4Vdc (Adapter)		
	For Bluetooth: GFSK, $\pi$ /4-DQPSK, 8DPSK		
MODULATION TYPE	For RFID: ASK		
MODULATION THE	For WCDMA 850: WCDMA (Band 5) / HSDPA / HSUPA		
	For GSM 1900: GMSK		
	For Bluetooth: 2402 ~ 2480MHz		
FREQUENCY RANGE	For RFID: 13.56MHz		
FREQUENCY RANGE	For WCDMA 850: 826.4MHz ~ 846.6MHz		
	For GSM 1900: 1850.2MHz ~ 1909.8MHz		
	For Bluetooth: 79		
NUMBER OF CHANNEL	For RFID: 1		
NUMBER OF CHANNEL	For WCDMA 850: 102		
	For GSM 1900: 299		
	For Bluetooth: Monopole antenna with -8dBi gain		
	For WCDMA 850: Integral antenna with 0dBi gain (EUT open)		
ANTENNA TYPE	Integral antenna with -4dBi gain (EUT close)		
	For GSM 1900: Integral antenna with 0dBi gain (EUT open)		
	Integral antenna with -2dBi gain (EUT close)		
DATA CABLE	NA		
I/O PORTS	Refer to user's manual		
ACCESSORY DEVICES	Battery		

#### NOTE:

1. The EUT uses the following Li-ion battery:

BRAND	Fujitsu Limited
MODEL	F19
RATING	3.7Vdc, 830mAh

2. The following accessories are for support units only.

PRODUCT	BRAND	DESCRIPTION
Adapter	SIMK	I/P: 100-240Vac, 50-60Hz, 0.12A O/P: 5.4Vdc, 700mA
USB cable	NA	0.8m non-shielded cable without core

- 3. IMEI Code: 352148040000052.
- 4. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.



## 3.2 DESCRIPTION OF TEST MODES

Test modes are presented in the report as below.

TEST MODE	DESCRIPTION	TEST ITEM
А	USB mode, X Axis	All test items
В	USB mode, Y Axis Radiated emission test of	
С	USB mode, Z Axis	Radiated emission test only

#### 3.3 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.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK	HP	NC6000	CNU4110Y6Q	NA
2	MODEM	ACEEX	1414V/3	0401008277	IFAXDM1414
3	PRINTER	EPSON	LQ-300+	DCGY054146	FCC DoC Approved

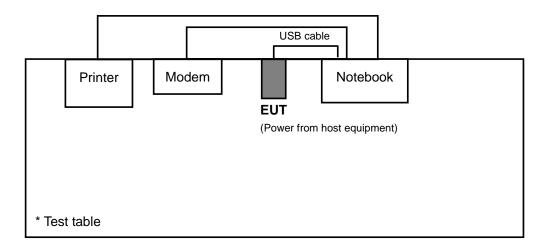
NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS		
1	0.8m USB cable.		
2	1.2m braid shielded wire, DB25 & DB9 connector, w/o core.		
3	1.8m braid shielded wire, DB25 connector, w/o core.		

#### NOTE:

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



#### 3.3.1 CONFIGURATION OF SYSTEM UNDER TEST



### 3.4 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.



## 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.

Report No.: FD990804C02 8 Report Format Version 3.0.1



## 4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100188	Dec. 21, 2009	Dec. 20, 2010
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Dec. 31, 2009	Dec. 30, 2010
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Apr. 27, 2010	Apr. 26, 2011
HORN Antenna SCHWARZBECK	9120D	9120D-405	Feb. 03, 2010	Feb. 02, 2011
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 25, 2009	Dec. 24, 2010
Preamplifier Agilent	8447D	2944A10633	Nov. 10, 2009	Nov. 09, 2010
Preamplifier Agilent	8449B	3008A01964	Nov. 09, 2009	Nov. 08, 2010
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	238141/4	May 14, 2010	May 13, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	12738/6	May 14, 2010	May 13, 2011
Software ADT.	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	017303	NA	NA
Turn Table ADT.	TT100.	TT93021703	NA	NA
Turn Table Controller ADT.	SC100.	SC93021703	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 3.
- 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 988962.
- 5. The IC Site Registration No. is IC 7450F-3.



#### 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:

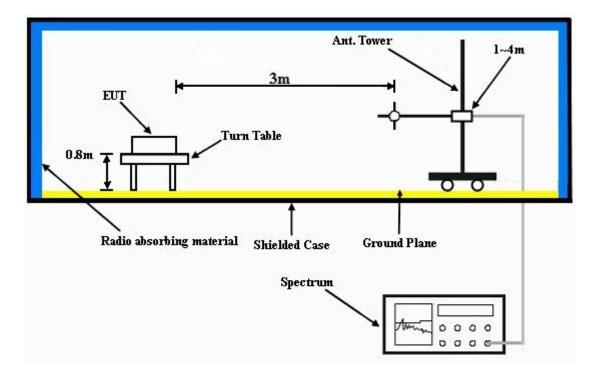
- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
- 2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- 3. All modes 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

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



## 4.1.7 TEST RESULTS

#### **BELOW 1GHz WORST-CASE DATA:**

<b>EUT TEST CONDITION</b>		MEASUREMENT DETAIL		
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	FREQUENCY RANGE	Below 1000MHz	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1007 hPa	DETECTOR FUNCTION	Quasi-Peak	
TEST MODE	A	TESTED BY	Sun Lin	

	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	119.34	31.1 QP	43.5	-12.4	1.50 H	145	18.80	12.30			
2	208.77	30.1 QP	43.5	-13.4	1.00 H	145	19.40	10.70			
3	327.38	30.4 QP	46.0	-15.6	1.25 H	112	15.00	15.40			
4	432.37	30.5 QP	46.0	-15.5	1.50 H	85	12.50	18.00			
5	597.63	33.5 QP	46.0	-12.5	1.00 H	82	11.60	21.90			
6	648.18	32.9 QP	46.0	-13.1	1.00 H	64	10.10	22.80			
		ANTENNA	POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 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	37.68	31.1 QP	40.0	-8.9	1.25 V	274	17.60	13.50			
2	111.56	31.4 QP	43.5	-12.1	1.00 V	307	19.90	11.50			
3	300.16	28.6 QP	46.0	-17.4	1.50 V	106	13.90	14.70			
4	364.32	31.9 QP	46.0	-14.1	1.50 V	136	15.60	16.30			
5	432.37	32.2 QP	46.0	-13.8	1.25 V	154	14.20	18.00			
6	665.68	31.6 QP	46.0	-14.4	1.00 V	217	8.50	23.10			

**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.



<b>EUT TEST CONDITION</b>		MEASUREMENT DETAIL		
INPUT POWER (SYSTEM) 120 Vac, 60 Hz		FREQUENCY RANGE	Below 1000MHz	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1007 hPa	DETECTOR FUNCTION	Quasi-Peak	
TEST MODE			Sun Lin	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	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	121.28	29.6 QP	43.5	-13.9	1.25 H	142	17.10	12.50
2	204.89	32.6 QP	43.5	-10.9	1.25 H	130	22.10	10.50
3	239.88	33.7 QP	46.0	-12.3	1.00 H	127	21.40	12.30
4	399.31	32.7 QP	46.0	-13.3	1.00 H	238	15.60	17.10
5	496.53	31.2 QP	46.0	-14.8	1.25 H	118	11.50	19.70
6	599.58	33.5 QP	46.0	-12.5	1.00 H	94	11.50	22.00
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 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	37.68	31.7 QP	40.0	-8.3	1.25 V	145	18.20	13.50
2	117.39	29.6 QP	43.5	-13.9	1.25 V	142	17.50	12.10
3	206.83	29.4 QP	43.5	-14.1	1.25 V	190	18.80	10.60
4	366.26	33.1 QP	46.0	-12.9	1.25 V	127	16.80	16.30
5	432.37	29.6 QP	46.0	-16.4	1.00 V	136	11.60	18.00
6	500.42	30.8 QP	46.0	-15.2	1.00 V	169	11.00	19.80

**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.



<b>EUT TEST CONDITION</b>		MEASUREMENT DETAIL		
INPUT POWER (SYSTEM) 120 Vac, 60 Hz		FREQUENCY RANGE	Below 1000MHz	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1007 hPa	DETECTOR FUNCTION	Quasi-Peak	
TEST MODE			Sun Lin	

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	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	123.23	31.7 QP	43.5	-11.8	1.50 H	151	19.10	12.60
2	206.83	31.3 QP	43.5	-12.2	1.25 H	157	20.70	10.60
3	239.88	31.7 QP	46.0	-14.3	1.00 H	10	19.40	12.30
4	331.26	33.1 QP	46.0	-12.9	1.00 H	10	17.60	15.50
5	498.47	33.4 QP	46.0	-12.6	1.25 H	64	13.60	19.80
6	595.69	35.8 QP	46.0	-10.2	1.00 H	91	13.90	21.90
		ANTENNA	POLARIT	/ & TEST DI	STANCE: V	ERTICAL A	T 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	37.68	30.1 QP	40.0	-9.9	1.00 V	235	16.60	13.50
2	208.77	29.9 QP	43.5	-13.6	1.50 V	10	19.20	10.70
3	366.26	34.2 QP	46.0	-11.8	1.25 V	133	17.90	16.30
4	430.42	32.7 QP	46.0	-13.3	1.00 V	157	14.70	18.00
5	498.47	31.1 QP	46.0	-14.9	1.00 V	148	11.30	19.80
6	733.73	31.2 QP	46.0	-14.8	1.25 V	85	7.30	23.90

**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 (dBµV)				
	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	100288	Sep. 24, 2009	Sep. 23, 2010
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 31, 2009	Dec. 30, 2010
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Dec. 25, 2009	Dec. 24, 2010
LISN ROHDE & SCHWARZ	ESH3-Z5	100311	Jul. 08, 2010	Jul. 07, 2011
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 2.
- 3. The VCCI Site Registration No. is C-2047.



#### 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.

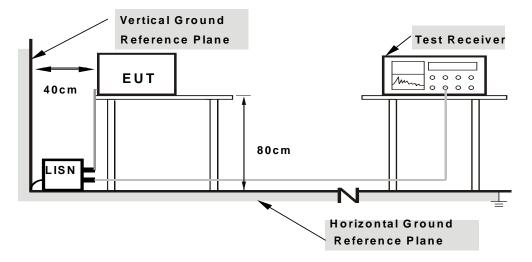
NOTE: All modes of operation were investigated and the worst-case emissions are reported.

4.2.4 F	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 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

Same as item 4.1.6.



#### 4.2.7 TEST RESULTS

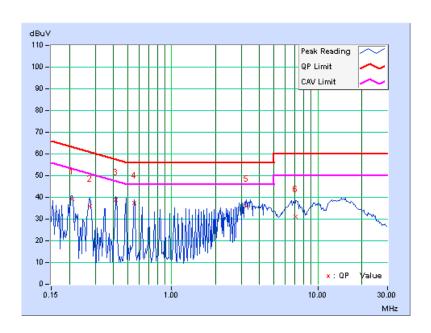
#### **CONDUCTED WORST-CASE DATA:**

PHASE	Line 1	6dB BANDWIDTH	9kHz

	Freq.	Corr.	Reading	g Value	Emis Le	ssion vel	Lir	nit	Mar	gin
No		Factor	[dB (	(uV)]	[dB (	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.209	0.16	39.13	-	39.29	-	63.26	53.26	-23.97	-
2	0.275	0.17	35.76	-	35.93	-	60.97	50.97	-25.04	-
3	0.416	0.18	38.64	-	38.82	-	57.54	47.54	-18.71	-
4	0.556	0.19	37.29	-	37.48	-	56.00	46.00	-18.52	-
5	3.266	0.34	35.64	-	35.98	-	56.00	46.00	-20.02	-
6	7.082	0.35	30.70	-	31.05	-	60.00	50.00	-28.95	-

**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 loss6. Emission Level = Correction Factor + Reading Value.



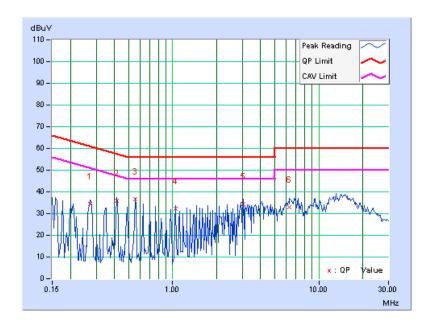


PHASE	Line 2	6dB BANDWIDTH	9kHz

No	Freq.	Corr.	Reading	g Value	Emis Le		Lir	nit	Mar	gin
		Factor	[dB (	(uV)]	[dB (uV)]		(uV)] [dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.271	0.14	34.15	-	34.29	-	61.08	51.08	-26.79	-
2	0.416	0.16	35.83	-	35.99	-	57.54	47.54	-21.54	-
3	0.556	0.18	36.49	-	36.67	-	56.00	46.00	-19.33	-
4	1.047	0.22	31.85	-	32.07	-	56.00	46.00	-23.93	-
5	3.059	0.33	34.21	-	34.54	-	56.00	46.00	-21.46	-
6	6.324	0.39	32.55	-	32.94	-	60.00	50.00	-27.06	-

**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.





	782B
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:
 Hsin Chu EMC/RF Lab:

 Tel: 886-2-26052180
 Tel: 886-3-5935343

 Fax: 886-2-26051924
 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.



# 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 ---