

FCC TEST REPORT (CO-LOCATION)

REPORT NO.: RF980702L17B
MODEL NO.: 0251 (refer to item 3.1 for more details)
RECEIVED: Jul. 17, 2009
TESTED: Jul. 17 ~ Oct. 15, 2009
ISSUED: Oct. 19, 2009

APPLICANT: Wistron Corporation

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ISSUED BY: Bureau Veritas Consumer Products Services (H.K.)
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2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C (Section 15.247) FCC Part 22, Subpart H FCC Part 24, Subpart E			
Standard Section	Test Type and Limit	Result	Remark
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -13.74dB at 0.541MHz.
15.247(d) 2.1053 22.917 24.238	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -4.74dB at 1612.80MHz and 1382.60MHz.

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	2.44dB
Radiated emissions	30MHz ~ 200MHz	2.93dB
	200MHz ~ 1000MHz	2.95dB
	1GHz ~ 18GHz	2.26dB
	18GHz ~ 40GHz	1.94dB

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

PRODUCT	Notebook Computer
MODEL NO.	0251 (refer to NOTE 3 for more details)
FCC ID	PU5-BU7LTN
POWER SUPPLY	12Vdc from adapter 7.4Vdc from rechargeable lithium battery
MODULATION TYPE	WLAN: CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM Bluetooth: GFSK, $\pi/4$ -DQPSK, 8DPSK for FHSS Mobile phone: GMSK / 8PSK / BPSK
TRANSFER RATE	WLAN: 802.11b: 11.0/ 5.5/ 2.0/ 1.0Mbps 802.11g: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps Bluetooth: 1/2/3Mbps
OPERATING FREQUENCY	WLAN: 2412MHz ~ 2462MHz Bluetooth: 2402MHz ~ 2480MHz Mobile phone: 824MHz ~ 849MHz (850MHz band) 1850MHz ~ 1910MHz (1900MHz band)
NUMBER OF CHANNEL	WLAN: 11 Bluetooth: 79 Mobile phone: 850MHz band: 124 (for GPRS/E-GPRS) / 102 (for WCDMA) 1900MHz band: 299 (for GPRS/E-GPRS) / 277 (for WCDMA)
MAXIMUM OUTPUT POWER	WLAN: 143.880mW Bluetooth: 1.040mW Mobile phone: 850MHz band: GPRS Mode: 26.03dBm (0.401Watts) E-GPRS Mode: 21.54dBm (0.143Watts) WCDMA Mode: 19.36dBm (0.086Watts) 1900MHz band: GPRS Mode: 29.69dBm (0.931Watts) E-GPRS Mode: 26.75dBm (0.473Watts) WCDMA Mode: 21.48dBm (0.141Watts)
ANTENNA TYPE	WLAN & Bluetooth: PIFA antenna with 1.82dBi gain Mobile phone: PIFA antenna with -3dBi gain (850MHz band) PIFA antenna with -1dBi gain (1900MHz band)
ANTENNA CONNECTOR	U.FL
DATA CABLE	NA
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	Adapter, battery

NOTE:

1. This is a supplementary report of RF980702L17/ RF980702L17-1/RF980702L17-2/ RF980702L17-3. This report shall be combined together with its original report.
2. This report is prepared for FCC class II permissive change. Differences compared with the original report are enable the co-located WAN and WLAN to be able to transmit at same time by software. Therefore, test items for radiated emission and conducted emission had been re-tested for this addendum.
3. The following models are provided to this EUT.

MODEL	DESCRIPTION
0251	All models are electrically identical, different model names are for marketing purpose.
2872	

4. The EUT was powered by the following adapter:

BRAND:	DELTA
MODEL:	EADP-18SB BA
INPUT:	100-240Vac, 50-60Hz, 0.4A
OUTPUT:	12Vdc, 1.5A
POWER LINE:	1.8m non-shielded cable with one core

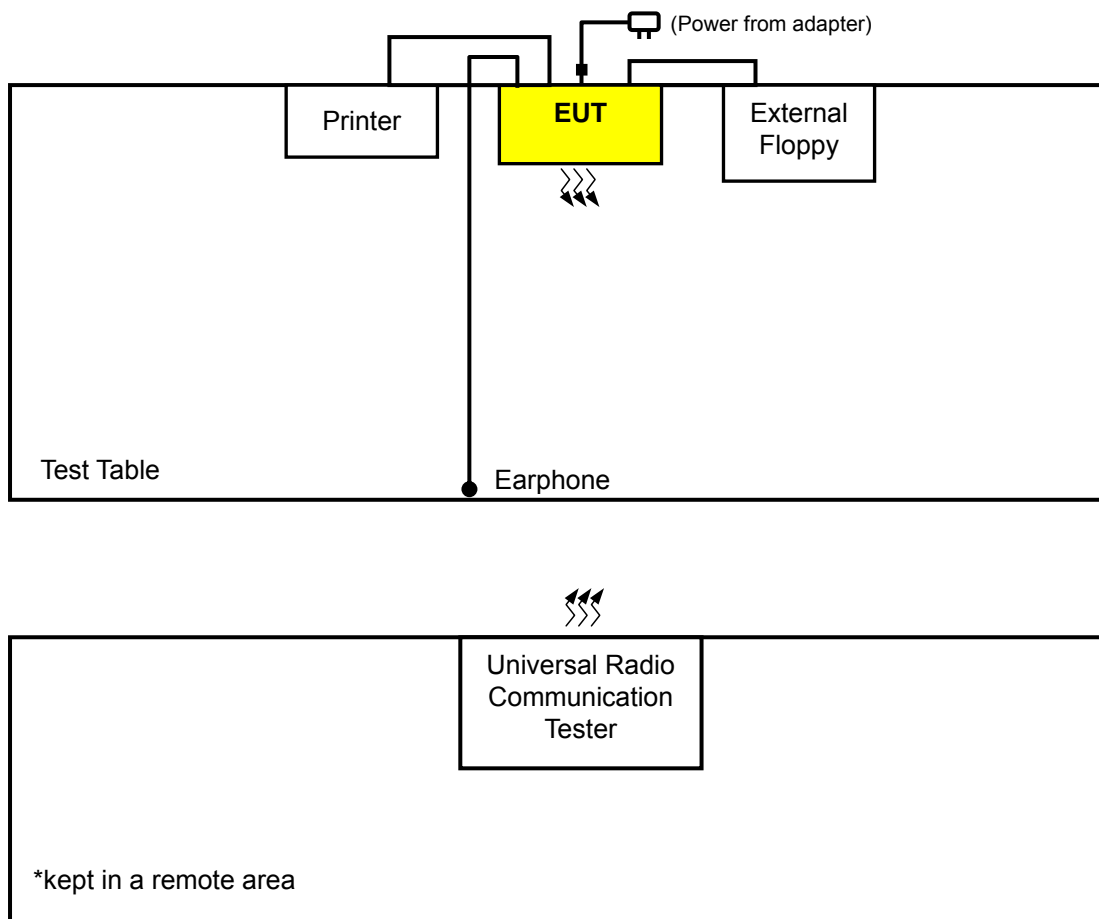
5. The EUT is a Notebook Computer. The functions of EUT listed as below.

		850MHz	1900MHz	With 802.11b/g + Bluetooth functions
2G	GPRS	√	√	
	E-GPRS	√	√	
3G	WCDMA	√	√	
	Release 6 HSDPA	√	√	
	Release 6 HSUPA	√	√	

6. The EUT, operates in the 2.4GHz frequency range, lets you connect IEEE 802.11g or IEEE 802.11b devices to the network. With its high-speed data transmissions of up to 54Mbps.
7. Hardware version: SIV
8. Software version: Beta1.
9. IMEI Code: 358733*****.
10. 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

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO			DESCRIPTION
	RE \geq 1G	RE<1G	PLC	
-	√	√	√	-

Where **PLC**: Power Line Conducted Emission **RE<1G**: Radiated Emission below 1GHz
RE \geq 1G: Radiated Emission above 1GHz

NOTE: Test modes as below are composed of the max output power channel of each band.

RADIATED EMISSION TEST (ABOVE 1 GHz):

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE
802.11g + GPRS850	1 to 11	6 + 251	OFDM	BPSK
	128 to 251		-	GPRS
802.11g + GPRS1900	1 to 11	6 + 512	OFDM	BPSK
	512 to 810		-	GPRS
802.11g + WCDMA850	1 to 11	6 + 4132	OFDM	BPSK
	4132 to 4233		-	WCDMA
802.11g + WCDMA1900	1 to 11	6 + 9262	OFDM	BPSK
	9262 to 9538		-	WCDMA
8DPSK + GPRS850	0 to 78	39 + 251	FHSS	8DPSK
	128 to 251		-	GPRS
8DPSK + GPRS1900	0 to 78	39 + 512	FHSS	8DPSK
	512 to 810		-	GPRS
8DPSK + WCDMA850	0 to 78	39 + 4132	FHSS	8DPSK
	4132 to 4233		-	WCDMA
8DPSK + WCDMA1900	0 to 78	39 + 9262	FHSS	8DPSK
	9262 to 9538		-	WCDMA

RADIATED EMISSION TEST (BELOW 1 GHz):

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE
802.11g + GPRS850	1 to 11	6 + 251	OFDM	BPSK
	128 to 251		-	GPRS
802.11g + GPRS1900	1 to 11	6 + 512	OFDM	BPSK
	512 to 810		-	GPRS
802.11g + WCDMA850	1 to 11	6 + 4132	OFDM	BPSK
	4132 to 4233		-	WCDMA
802.11g + WCDMA1900	1 to 11	6 + 9262	OFDM	BPSK
	9262 to 9538		-	WCDMA
8DPSK + GPRS850	0 to 78	39 + 251	FHSS	8DPSK
	128 to 251		-	GPRS
8DPSK + GPRS1900	0 to 78	39 + 512	FHSS	8DPSK
	512 to 810		-	GPRS
8DPSK + WCDMA850	0 to 78	39 + 4132	FHSS	8DPSK
	4132 to 4233		-	WCDMA
8DPSK + WCDMA1900	0 to 78	39 + 9262	FHSS	8DPSK
	9262 to 9538		-	WCDMA

POWER LINE CONDUCTED EMISSION TEST:

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE
802.11g + GPRS850	1 to 11	6 + 251	OFDM	BPSK
	128 to 251		-	GPRS
802.11g + GPRS1900	1 to 11	6 + 512	OFDM	BPSK
	512 to 810		-	GPRS
802.11g + WCDMA850	1 to 11	6 + 4132	OFDM	BPSK
	4132 to 4233		-	WCDMA
802.11g + WCDMA1900	1 to 11	6 + 9262	OFDM	BPSK
	9262 to 9538		-	WCDMA
8DPSK + GPRS850	0 to 78	39 + 251	FHSS	8DPSK
	128 to 251		-	GPRS
8DPSK + GPRS1900	0 to 78	39 + 512	FHSS	8DPSK
	512 to 810		-	GPRS
8DPSK + WCDMA850	0 to 78	39 + 4132	FHSS	8DPSK
	4132 to 4233		-	WCDMA
8DPSK + WCDMA1900	0 to 78	39 + 9262	FHSS	8DPSK
	9262 to 9538		-	WCDMA

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	23deg. C, 68%RH, 997 hPa	120Vac, 60Hz	Lori Chiu
RE<1G	23deg. C, 70%RH, 1002 hPa	120Vac, 60Hz	Lori Chiu
PLC	25deg. C, 65%RH, 1008 hPa	120Vac, 60Hz	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 C (15.247)

FCC Part 22, Subpart H

FCC Part 24, Subpart E

ANSI C63.4-2003

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

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

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.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	PRINTER	HP	HP LASERJET 1300	CNCM065675	FCC DoC Approved
2	EXTERNAL FLOPPY	SONY	MPF82E	50010133	FCC DoC Approved
3	EARPHONE	PHILIPS	HL145	NA	NA
4	UNIVERSAL RADIO COMMUNICATION TESTER	R&S	CMU200	104484	NA
5	NJZ-2000 (GSM+WCDMA SIMULATOR)	JRC	NJZ-2000	ET00054	NA

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

NOTE 1: All power cords of the above support units are non shielded (1.8m).

NOTE 2: Item 4-5 acted as a communication partners to transfer data.

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 15.209 as following:

FREQUENCIES (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

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.

In the FCC 24.238(a), On any frequency outside a licensee's frequency block within USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P) by at least 43 +10 log (P) dB. The emission limit equal to -13dBm. So the limit of emission is the same absolute specified line.

LIMIT (dBm)	EQUIVALENT FIELD STRENGTH AT 3m (dBuV/m) (NOTE)
-13	82.22

NOTE: The following formula is used to convert the equipment radiated power to field strength.

$$E = [1000000 \cdot I (30P)] / 3 \text{ uV/m, where P is Watts.}$$



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	Jan. 06, 2009	Jan. 05, 2010
Preamplifier Agilent	8449B	3008A01910	Sep. 11, 2009	Sep. 10, 2010
Preamplifier Agilent	8447D	2944A10638	Dec. 26, 2008	Dec. 25, 2009
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 meters 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.

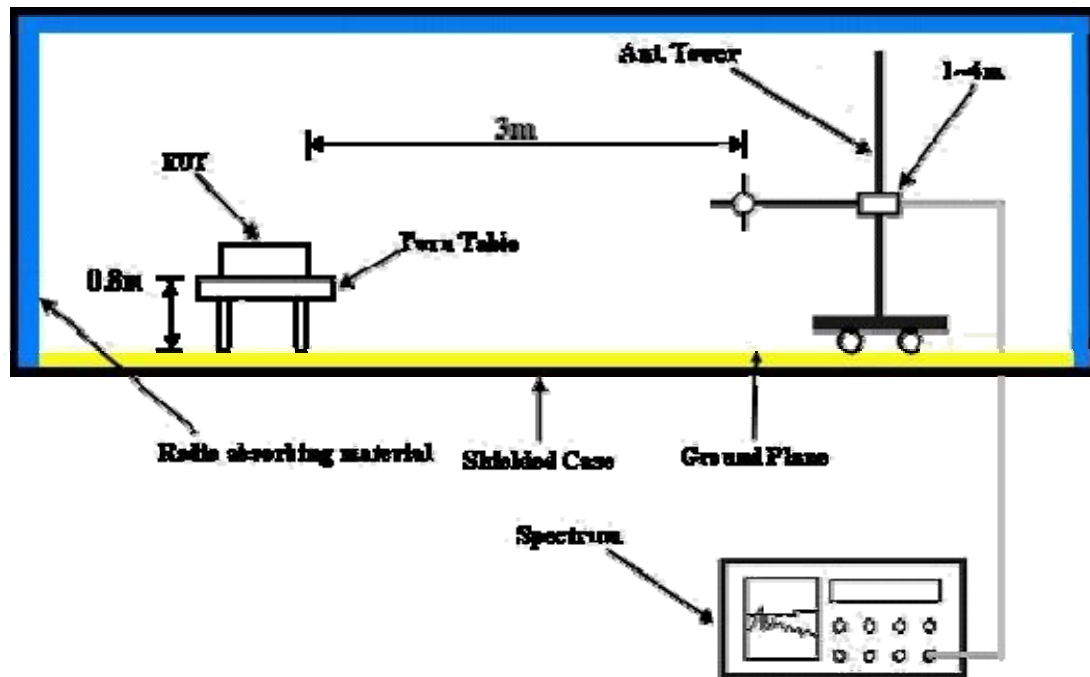
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) 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. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.
4. 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

FOR WLAN / BLUETOOTH FUNCTION:

- a. Placed the EUT on a testing table.
- b. The EUT ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
- c. The necessary accessories enable the system in full functions.

FOR MOBILE PHONE FUNCTION:

- a. The EUT makes a phone call to the communication simulator.
- b. The communication simulator station system controlled an EUT to export maximum output power under transmission mode and specific channel frequency.



4.1.7 TEST RESULTS

802.11g + GPRS850

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 6 + CH 251	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 68%RH 997 hPa	TESTED BY	Lori Chiu

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	1612.80	64.39 PK	74.00	-9.61	1.05 H	67	34.79	29.60
2	1612.80	48.73 AV	54.00	-5.27	1.05 H	67	19.13	29.60
3	1697.60	50.65 PK	82.22	-31.57	1.25 H	248	20.78	29.87
4	*2437.00	105.55 PK			1.06 H	64	73.16	32.39
5	*2437.00	95.71 AV			1.06 H	64	63.32	32.39
6	2546.40	49.34 PK	82.22	-32.88	1.08 H	199	16.55	32.79
7	3395.20	45.47 PK	82.22	-36.75	1.10 H	169	10.62	34.85
8	4874.00	48.67 PK	74.00	-25.33	1.01 H	111	10.26	38.41
9	4874.00	34.71 AV	54.00	-19.29	1.01 H	111	-3.70	38.41
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	1612.80	64.85 PK	74.00	-9.15	1.16 V	98	35.25	29.60
2	1612.80	49.26 AV	54.00	-4.74	1.16 V	98	19.66	29.60
3	1697.60	52.61 PK	82.22	-29.61	1.22 V	136	22.74	29.87
4	*2437.00	107.70 PK			1.31 V	104	75.31	32.39
5	*2437.00	97.74 AV			1.31 V	104	65.35	32.39
6	2546.40	50.29 PK	82.22	-31.93	1.34 V	65	17.50	32.79
7	3395.20	45.63 PK	82.22	-36.59	1.02 V	235	10.78	34.85
8	4874.00	48.46 PK	74.00	-25.54	1.52 V	169	10.05	38.41
9	4874.00	35.60 AV	54.00	-18.40	1.52 V	169	-2.81	38.41

- 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.
 5. “ * “: Fundamental frequency.
 6. The limit value of point 3, 6, 7 is defined as per 22.917.



A D T

802.11g + GPRS1900

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 6 + CH 512	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 68%RH 997 hPa	TESTED BY	Lori Chiu

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	1382.60	63.60 PK	74.00	-10.40	1.06 H	44	34.80	28.80
2	1382.60	48.71 AV	54.00	-5.29	1.06 H	44	19.91	28.80
3	*1850.20	123.36 PK			1.00 H	153	93.07	30.29
4	*2437.00	105.33 PK			1.11 H	120	72.94	32.39
5	*2437.00	95.41 AV			1.11 H	120	63.02	32.39
6	3700.40	45.86 PK	82.22	-36.36	1.01 H	110	10.33	35.53
7	4874.00	48.43 PK	74.00	-25.57	1.01 H	200	10.02	38.41
8	4874.00	34.71 AV	54.00	-19.29	1.01 H	200	-3.70	38.41
9	5550.60	50.49 PK	82.22	-31.73	1.33 H	157	10.95	39.54
10	12950.00	69.61 PK	82.22	-12.61	1.05 H	359	19.27	50.34

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	1382.60	64.31 PK	74.00	-9.69	1.10 V	47	35.51	28.80
2	1382.60	49.26 AV	54.00	-4.74	1.10 V	47	20.46	28.80
3	*1850.20	127.45 PK			1.04 V	227	97.16	30.29
4	*2437.00	107.63 PK			1.27 V	208	75.24	32.39
5	*2437.00	97.59 AV			1.27 V	208	65.20	32.39
6	3700.40	45.69 PK	82.22	-36.53	1.33 V	243	10.16	35.53
7	4874.00	48.36 PK	74.00	-25.64	1.00 V	360	9.95	38.41
8	4874.00	35.64 AV	54.00	-18.36	1.00 V	360	-2.77	38.41
9	5550.60	48.92 PK	82.22	-33.30	1.01 V	318	9.38	39.54
10	12950.00	71.18 PK	82.22	-11.04	1.00 V	144	20.84	50.34

- 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.
 5. “ * “: Fundamental frequency.
 6. The limit value of point 6, 9, 10 is defined as per 24.238.



A D T

802.11g + WCDMA850

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 6 + 4132	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 68%RH 997 hPa	TESTED BY	Lori Chiu

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	1652.80	52.63 PK	82.22	-29.59	1.04 H	110	22.90	29.73
2	*2437.00	105.34 PK			1.52 H	20	72.95	32.39
3	*2437.00	95.40 AV			1.52 H	20	63.01	32.39
4	2479.20	42.43 PK	82.22	-39.79	1.22 H	315	9.88	32.55
5	4874.00	48.21 PK	74.00	-25.79	1.10 H	219	9.80	38.41
6	4874.00	34.55 AV	54.00	-19.45	1.10 H	219	-3.86	38.41
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	1652.80	55.69 PK	82.22	-26.53	1.31 V	204	25.96	29.73
2	*2437.00	107.32 PK			1.09 V	220	74.93	32.39
3	*2437.00	97.41 AV			1.09 V	220	65.02	32.39
4	2479.20	42.33 PK	82.22	-39.89	1.34 V	16	9.78	32.55
5	4874.00	48.42 PK	74.00	-25.58	1.01 V	160	10.01	38.41
6	4874.00	35.71 AV	54.00	-18.29	1.01 V	160	-2.70	38.41

- REMARKS:**
- Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 - Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 - The other emission levels were very low against the limit.
 - Margin value = Emission level – Limit value.
 - * *: Fundamental frequency.
 - The limit value of point 1, 4 is defined as per 22.917.



A D T

802.11g + WCDMA1900

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 6 + CH 9262	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 68%RH 997 hPa	TESTED BY	Lori Chiu

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	*1852.40	115.78 PK			1.33 H	157	85.48	30.30
2	*2437.00	105.22 PK			1.32 H	229	72.83	32.39
3	*2437.00	95.46 AV			1.32 H	229	63.07	32.39
4	3704.80	50.49 PK	82.22	-31.73	1.54 H	206	14.95	35.54
5	4874.00	48.46 PK	74.00	-25.54	1.06 H	114	10.05	38.41
6	4874.00	34.71 AV	54.00	-19.29	1.06 H	114	-3.70	38.41
7	5557.20	47.98 PK	82.22	-34.24	1.28 H	80	8.43	39.55
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	*1852.40	119.42 PK			1.04 V	115	89.12	30.30
2	*2437.00	107.66 PK			1.11 V	15	75.27	32.39
3	*2437.00	97.71 AV			1.11 V	15	65.32	32.39
4	3704.80	50.16 PK	82.22	-32.06	1.33 V	26	14.62	35.54
5	4874.00	48.41 PK	74.00	-25.59	1.32 V	218	10.00	38.41
6	4874.00	35.66 AV	54.00	-18.34	1.32 V	218	-2.75	38.41
7	5557.20	48.16 PK	82.22	-34.06	1.28 V	197	8.61	39.55

- 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.
 5. “ * “: Fundamental frequency.
 6. The limit value of point 4, 7 is defined as per 24.238.



A D T

8DPSK + GPRS850

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 39 + 251	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 68%RH 997 hPa	TESTED BY	Lori Chiu

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	1697.60	50.47 PK	82.22	-31.75	1.25 H	248	20.60	29.87
2	*2441.00	91.13 PK			1.02 H	223	58.72	32.41
3	*2441.00	61.03 AV			1.02 H	223	28.62	32.41
4	2546.40	49.28 PK	82.22	-32.94	1.08 H	199	16.76	32.79
5	3395.20	45.39 PK	82.22	-36.83	1.10 H	169	10.54	34.85
6	4882.00	47.89 PK	74.00	-26.11	1.22 H	63	9.47	38.42
7	4882.00	17.79 AV	54.00	-36.21	1.22 H	63	-20.63	38.42
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	1697.60	52.52 PK	82.22	-29.70	1.22 V	136	22.65	29.87
2	*2441.00	95.43 PK			1.36 V	253	63.02	32.41
3	*2441.00	65.33 AV			1.36 V	253	32.92	32.41
4	2546.40	50.14 PK	82.22	-32.08	1.34 V	65	17.35	32.79
5	3395.20	45.46 PK	82.22	-36.76	1.02 V	235	10.61	34.85
6	4882.00	48.15 PK	74.00	-25.85	1.20 V	83	9.73	38.42
7	4882.00	18.05 AV	54.00	-35.95	1.20 V	83	-20.37	38.42

- 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.
 5. “ * “: Fundamental frequency.
 6. The DH5 packet was the worse case duty cycle for a transmit dwell time on a channel, based upon bluetooth theory the transmitter is on 0.625 * 5 per 296.25 ms per channel. Therefore, the duty cycle correlation factor be equal to: $20\log(3.125 / 100) = -30.1$ dB.
 7. Average value = peak reading + $20\log(\text{duty cycle})$.
 8. The limit value of point 1, 4, 5 is defined as per 22.917.



A D T

8DPSK + GPRS1900

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 39 + 512	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 68%RH 997 hPa	TESTED BY	Lori Chiu

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	*1850.20	123.29 PK			1.00 H	153	93.00	30.29
2	*2441.00	91.18 PK			1.36 H	187	58.77	32.41
3	*2441.00	61.08 AV			1.36 H	187	28.67	32.41
4	3700.40	45.94 PK	82.22	-36.28	1.01 H	110	10.41	35.53
5	4882.00	48.00 PK	74.00	-26.00	1.36 H	187	9.58	38.42
6	4882.00	18.00 AV	54.00	-36.00	1.36 H	187	-20.42	38.42
7	5550.60	50.54 PK	82.22	-31.68	1.33 H	157	11.00	39.54
8	12950.00	69.58 PK	82.22	-12.64	1.05 H	359	19.24	50.34
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	*1850.20	127.56 PK			1.04 V	227	97.27	30.29
2	*2441.00	95.49 PK			1.22 V	211	63.08	32.41
3	*2441.00	65.39 AV			1.22 V	211	32.98	32.41
4	3700.40	45.74 PK	82.22	-36.48	1.33 V	243	10.21	35.53
5	4882.00	48.17 PK	74.00	-25.83	1.00 V	19	9.75	38.42
6	4882.00	18.17 AV	54.00	-35.83	1.00 V	19	-20.25	38.42
7	5550.60	49.03 PK	82.22	-33.19	1.01 V	318	9.49	39.54
8	12950.00	71.29 PK	82.22	-10.93	1.00 V	144	20.95	50.34

- 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.
 5. “ * “: Fundamental frequency.
 6. The DH5 packet was the worse case duty cycle for a transmit dwell time on a channel, based upon bluetooth theory the transmitter is on 0.625 * 5 per 296.25 ms per channel. Therefore, the duty cycle correlation factor be equal to: $20\log(3.125 / 100) = -30.1$ dB.
 7. Average value = peak reading + $20\log(\text{duty cycle})$.
 8. The limit value of point 4, 7, 8 is defined as per 24.238.



A D T

8DPSK + WCDMA850

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 39 + 4132	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 68%RH 997 hPa	TESTED BY	Lori Chiu

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	1652.80	52.77 PK	82.22	-29.45	1.20 H	196	23.04	29.73
2	*2441.00	91.13 PK			1.20 H	130	58.72	32.41
3	*2441.00	61.03 AV			1.20 H	130	28.62	32.41
4	2479.20	42.23 PK	82.22	-39.99	1.00 H	316	9.68	32.55
5	4882.00	47.97 PK	74.00	-26.03	1.24 H	102	9.55	38.42
6	4882.00	17.87 AV	54.00	-36.13	1.24 H	102	-20.55	38.42

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	1652.80	55.72 PK	82.22	-26.50	1.11 V	163	25.99	29.73
2	*2441.00	95.49 PK			1.05 V	155	63.08	32.41
3	*2441.00	65.39 AV			1.05 V	155	32.98	32.41
4	2479.20	42.29 PK	82.22	-39.93	1.33 V	264	9.74	32.55
5	4882.00	48.01 PK	74.00	-25.99	1.56 V	254	9.59	38.42
6	4882.00	17.91 AV	54.00	-36.09	1.56 V	254	-20.51	38.42

- REMARKS:**
- Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 - Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 - The other emission levels were very low against the limit.
 - Margin value = Emission level – Limit value.
 - “ * ”: Fundamental frequency.
 - The DH5 packet was the worse case duty cycle for a transmit dwell time on a channel, based upon bluetooth theory the transmitter is on 0.625 * 5 per 296.25 ms per channel. Therefore, the duty cycle correlation factor be equal to: $20\log(3.125 / 100) = -30.1$ dB.
 - Average value = peak reading + $20\log(\text{duty cycle})$.
 - The limit value of point 1, 4 is defined as per 22.917.



8DPSK + WCDMA1900

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 39 + 9262	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 68%RH 997 hPa	TESTED BY	Lori Chiu

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	*1852.40	115.69 PK			1.33 H	157	85.39	30.30
2	*2441.00	91.06 PK			1.05 H	19	58.65	32.41
3	*2441.00	60.96 AV			1.05 H	19	28.55	32.41
4	3704.80	50.42 PK	82.22	-31.80	1.54 H	206	14.88	35.54
5	4882.00	47.87 PK	74.00	-26.13	1.45 H	67	9.45	38.42
6	4882.00	17.77 AV	54.00	-36.23	1.45 H	67	-20.65	38.42
7	5557.20	47.93 PK	82.22	-34.29	1.28 H	80	8.38	39.55
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	*1852.40	119.34 PK			1.04 V	115	89.04	30.30
2	*2441.00	95.43 PK			1.24 V	151	63.02	32.41
3	*2441.00	65.33 AV			1.24 V	151	32.92	32.41
4	3704.80	50.09 PK	82.22	-32.13	1.33 V	26	14.55	35.54
5	4882.00	47.99 PK	74.00	-26.01	1.00 V	267	9.57	38.42
6	4882.00	17.89 AV	54.00	-36.11	1.00 V	267	-20.53	38.42
7	5557.20	48.11 PK	82.22	-34.11	1.28 V	197	8.56	39.55

- 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.
 5. “ * “: Fundamental frequency.
 6. The DH5 packet was the worse case duty cycle for a transmit dwell time on a channel, based upon bluetooth theory the transmitter is on 0.625 * 5 per 296.25 ms per channel. Therefore, the duty cycle correlation factor be equal to: $20\log(3.125 / 100) = -30.1$ dB.
 7. Average value = peak reading + $20\log(\text{duty cycle})$.
 8. The limit value of point 4, 7 is defined as per 24.238.



A D T

BELOW 1GHz WORST-CASE DATA :
802.11g + GPRS850

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 6 + CH 251	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak Peak (PK)
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH 1002 hPa	TESTED BY	Lori Chiu

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	123.32	35.15 QP	43.50	-8.35	1.00 H	167	23.27	11.88
2	138.82	34.74 QP	43.50	-8.76	1.25 H	330	22.26	12.48
3	166.11	34.58 QP	43.50	-8.92	1.00 H	124	21.33	13.25
4	599.44	37.49 QP	46.00	-8.51	1.50 H	20	15.59	21.90
5	646.37	39.57 QP	46.00	-6.43	1.75 H	168	17.28	22.29
6	799.91	39.70 QP	46.00	-6.30	1.50 H	200	14.38	25.32
7	*848.80	128.26 PK			1.00 H	279	102.64	25.62
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	199.11	32.74 QP	43.50	-10.76	1.25 V	212	22.08	10.66
2	557.97	39.88 QP	46.00	-6.12	1.50 V	167	18.93	20.95
3	599.64	39.33 QP	46.00	-6.67	1.00 V	15	17.43	21.90
4	646.37	39.44 QP	46.00	-6.56	1.00 V	267	17.15	22.29
5	799.76	39.25 QP	46.00	-6.75	1.25 V	167	13.94	25.31
6	*848.80	129.44 PK			1.14 V	40	103.82	25.62
7	900.88	34.84 QP	46.00	-11.16	1.25 V	225	8.72	26.12

- 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.
 5. “ * “: Fundamental frequency.



A D T

802.11g + GPRS1900

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 6 + CH 512	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH 1002 hPa	TESTED BY	Lori Chiu

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	146.63	33.41 QP	43.50	-10.09	1.25 H	105	19.97	13.44
2	166.24	33.63 QP	43.50	-9.87	1.00 H	357	20.39	13.24
3	599.61	37.97 QP	46.00	-8.03	1.00 H	6	16.07	21.90
4	646.30	39.88 QP	46.00	-6.12	1.00 H	100	17.59	22.29
5	799.79	39.48 QP	46.00	-6.52	1.25 H	166	14.17	25.31
6	900.94	35.54 QP	46.00	-10.46	1.50 H	331	9.42	26.12
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	557.73	37.83 QP	46.00	-8.17	1.00 V	54	16.89	20.94
2	584.35	36.44 QP	46.00	-9.56	1.25 V	162	14.89	21.55
3	599.60	38.53 QP	46.00	-7.47	1.00 V	269	16.63	21.90
4	646.31	39.86 QP	46.00	-6.14	1.50 V	177	17.57	22.29
5	799.91	39.26 QP	46.00	-6.74	1.00 V	45	13.94	25.32
6	900.88	36.55 QP	46.00	-9.45	1.75 V	111	10.43	26.12

- 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

802.11g + WCDMA850

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 6 + CH 4132	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak Peak (PK)
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH 1002 hPa	TESTED BY	Lori Chiu

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	167.86	31.28 QP	43.50	-12.22	1.50 H	34	18.17	13.11
2	557.88	34.89 QP	46.00	-11.11	1.00 H	46	13.94	20.95
3	599.61	38.38 QP	46.00	-7.62	1.75 H	244	16.48	21.90
4	646.30	39.83 QP	46.00	-6.17	1.00 H	174	17.54	22.29
5	799.97	39.97 QP	46.00	-6.03	1.00 H	240	14.65	25.32
6	*826.40	122.62 PK			1.04 H	317	97.14	25.48
7	900.87	35.87 QP	46.00	-10.13	1.50 H	104	9.75	26.12
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	148.63	36.43 QP	43.50	-7.07	1.50 V	103	22.71	13.72
2	199.21	35.65 QP	43.50	-7.85	1.25 V	138	25.00	10.65
3	557.55	38.97 QP	46.00	-7.03	1.50 V	258	18.03	20.94
4	599.63	39.85 QP	46.00	-6.15	1.25 V	60	17.95	21.90
5	646.37	39.89 QP	46.00	-6.11	1.50 V	67	17.60	22.29
6	799.90	39.81 QP	46.00	-6.19	1.00 V	164	14.49	25.32
7	*826.40	121.60 PK			1.33 V	64	96.12	25.48

- 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.
 5. “ * “: Fundamental frequency.



A D T

802.11g + WCDMA1900

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 6 + CH 9262	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH 1002 hPa	TESTED BY	Lori Chiu

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	148.58	32.88 QP	43.50	-10.62	1.25 H	120	19.17	13.71
2	557.64	35.87 QP	46.00	-10.13	1.00 H	167	14.93	20.94
3	599.65	36.82 QP	46.00	-9.18	1.75 H	167	14.92	21.90
4	646.33	39.83 QP	46.00	-6.17	1.00 H	1	17.54	22.29
5	799.97	38.46 QP	46.00	-7.54	1.25 H	107	13.14	25.32
6	900.89	35.97 QP	46.00	-10.03	1.50 H	199	9.85	26.12
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	148.64	37.43 QP	43.50	-6.07	1.25 V	107	23.71	13.72
2	557.58	39.93 QP	46.00	-6.07	1.00 V	140	18.99	20.94
3	599.66	37.65 QP	46.00	-8.35	1.00 V	203	15.75	21.90
4	646.33	39.87 QP	46.00	-6.13	1.50 V	46	17.58	22.29
5	799.93	39.84 QP	46.00	-6.16	1.25 V	185	14.52	25.32
6	900.88	35.20 QP	46.00	-10.80	1.25 V	55	9.08	26.12

- 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

8DPSK + GPRS850

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 0 + CH 251	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak Peak (PK)
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH 1002 hPa	TESTED BY	Lori Chiu

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	123.23	35.23 QP	43.50	-8.27	1.50 H	304	23.35	11.88
2	138.78	34.63 QP	43.50	-8.87	1.50 H	226	22.15	12.48
3	166.00	34.67 QP	43.50	-8.83	1.50 H	208	21.42	13.25
4	599.58	37.55 QP	46.00	-8.45	1.25 H	328	15.65	21.90
5	646.24	39.89 QP	46.00	-6.11	1.25 H	280	17.61	22.28
6	799.84	39.32 QP	46.00	-6.68	1.25 H	52	14.00	25.32
7	*848.80	128.19 PK			1.01 H	332	102.57	25.62
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	199.05	32.84 QP	43.50	-10.66	1.00 V	337	22.18	10.67
2	550.97	39.71 QP	46.00	-6.29	1.00 V	307	18.92	20.79
3	599.58	39.26 QP	46.00	-6.74	1.00 V	301	17.36	21.90
4	646.24	39.23 QP	46.00	-6.77	1.50 V	13	16.95	22.28
5	799.84	39.89 QP	46.00	-6.11	1.00 V	265	14.57	25.32
6	*848.80	129.35 PK			1.06 V	25	103.73	25.62
7	900.94	34.79 QP	46.00	-11.21	1.00 V	301	8.67	26.12

- 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.
 5. “ * “: Fundamental frequency.



A D T

8DPSK + GPRS1900

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 0 + CH 512	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH 1002 hPa	TESTED BY	Lori Chiu

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	121.28	32.56 QP	43.50	-10.94	1.75 H	322	20.76	11.80
2	146.56	33.36 QP	43.50	-10.14	1.75 H	235	19.93	13.43
3	166.00	33.87 QP	43.50	-9.63	1.50 H	217	20.61	13.25
4	599.58	37.87 QP	46.00	-8.13	1.50 H	328	15.97	21.90
5	646.24	39.99 QP	46.00	-6.01	1.25 H	277	17.71	22.28
6	799.84	39.48 QP	46.00	-6.52	1.25 H	55	14.16	25.32
7	900.94	35.54 QP	46.00	-10.46	1.50 H	331	9.42	26.12
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	199.05	32.56 QP	43.50	-10.94	1.00 V	349	21.90	10.67
2	550.97	37.75 QP	46.00	-8.25	1.00 V	328	16.96	20.79
3	584.02	36.31 QP	46.00	-9.69	1.00 V	199	14.77	21.54
4	599.58	38.65 QP	46.00	-7.35	1.00 V	319	16.75	21.90
5	646.24	39.96 QP	46.00	-6.04	1.50 V	358	17.68	22.28
6	799.84	39.76 QP	46.00	-6.24	1.00 V	271	14.44	25.32
7	900.94	36.00 QP	46.00	-10.00	1.00 V	307	9.88	26.12

- 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

8DPSK + WCDMA850

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 0 + CH 4132	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak Peak (PK)
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH 1002 hPa	TESTED BY	Lori Chiu

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	167.94	31.13 QP	43.50	-12.37	1.75 H	235	18.02	13.11
2	550.97	34.98 QP	46.00	-11.02	1.50 H	325	14.19	20.79
3	599.58	38.16 QP	46.00	-7.84	1.00 H	322	16.26	21.90
4	646.24	39.93 QP	46.00	-6.07	1.25 H	277	17.65	22.28
5	799.84	39.18 QP	46.00	-6.82	1.00 H	52	13.87	25.32
6	*826.40	122.59 PK			1.01 H	330	97.11	25.48
7	900.94	35.74 QP	46.00	-10.26	2.00 H	328	9.62	26.12
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	148.50	37.41 QP	43.50	-6.09	1.00 V	61	23.71	13.70
2	199.05	35.71 QP	43.50	-7.79	1.00 V	16	25.05	10.67
3	550.97	38.86 QP	46.00	-7.14	1.00 V	319	18.07	20.79
4	599.58	39.65 QP	46.00	-6.35	1.00 V	316	17.75	21.90
5	646.24	39.26 QP	46.00	-6.74	1.75 V	211	16.98	22.28
6	799.84	39.31 QP	46.00	-6.69	1.00 V	268	13.99	25.32
7	*826.40	121.51 PK			1.52 V	160	96.03	25.48
8	904.83	35.86 QP	46.00	-10.14	2.00 V	286	9.71	26.15

- 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.
 5. “ * “: Fundamental frequency.



A D T

8DPSK + WCDMA1900

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 0 + CH 9262	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH 1002 hPa	TESTED BY	Lori Chiu

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	148.50	32.76 QP	43.50	-10.74	1.50 H	19	19.06	13.70
2	550.97	35.71 QP	46.00	-10.29	1.50 H	334	14.93	20.79
3	599.58	36.96 QP	46.00	-9.04	1.50 H	328	15.06	21.90
4	646.24	39.83 QP	46.00	-6.17	1.25 H	271	17.55	22.28
5	799.84	38.35 QP	46.00	-7.65	1.25 H	49	13.03	25.32
6	900.94	35.89 QP	46.00	-10.11	1.75 H	325	9.77	26.12
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	148.50	37.30 QP	43.50	-6.20	1.00 V	37	23.60	13.70
2	550.97	39.86 QP	46.00	-6.14	1.00 V	310	19.08	20.79
3	599.58	37.57 QP	46.00	-8.43	1.25 V	325	15.67	21.90
4	646.24	40.14 QP	46.00	-5.86	1.75 V	217	17.85	22.28
5	799.84	40.04 QP	46.00	-5.96	1.00 V	256	14.72	25.32
6	900.94	35.20 QP	46.00	-10.80	1.00 V	301	9.08	26.12

- 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	100288	Sep. 24, 2009	Sep. 23, 2010
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 31, 2008	Dec. 30, 2009
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Dec. 29, 2008	Dec. 28, 2009
LISN ROHDE & SCHWARZ	ESH3-Z5	100311	Jul. 29, 2009	Jul. 28, 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 2.
 3. The VCCI Site Registration No. is C-2047.

4.2.3 TEST PROCEDURES

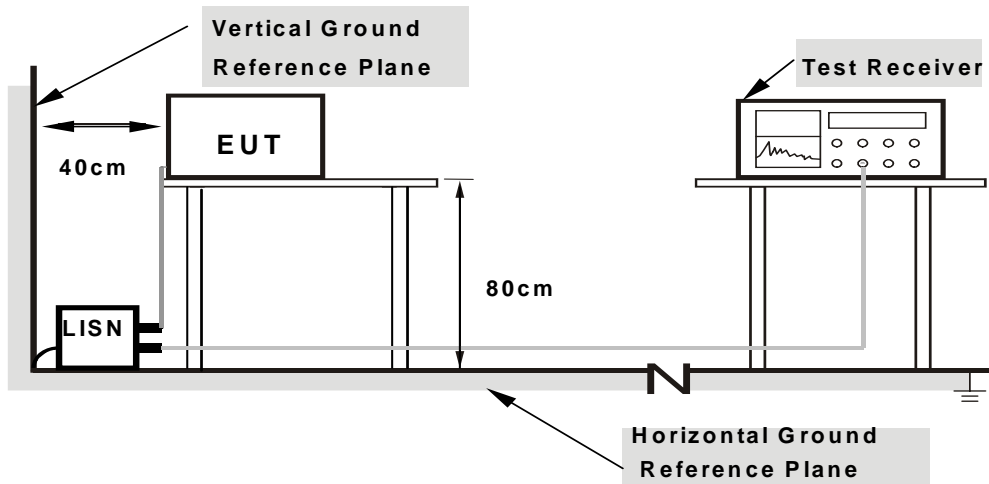
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling 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 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 4.1.6.

4.2.7 TEST RESULTS

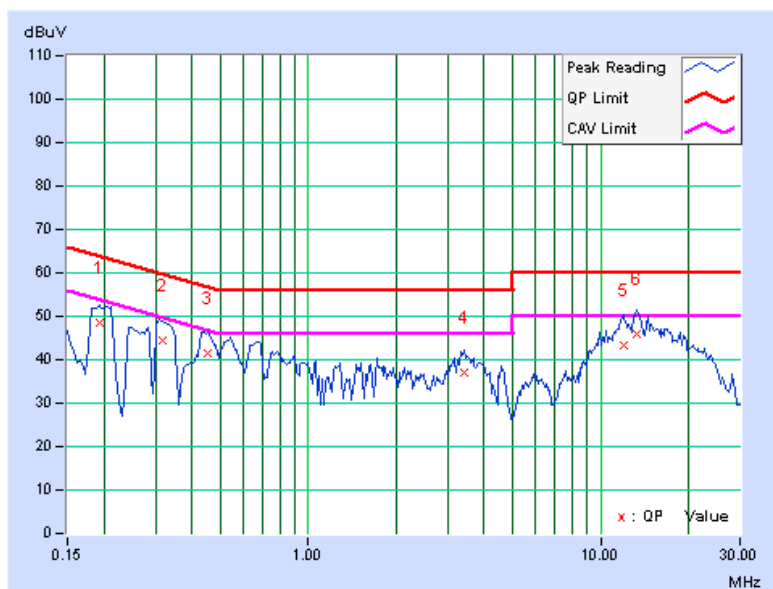
CONDUCTED WORST-CASE DATA:

802.11g + GPRS850

PHASE	Line 1	6dB BANDWIDTH	9kHz
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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	0.193	0.13	48.56	-	48.69	-	63.91	53.91	-15.22	-
2	0.318	0.14	44.44	-	44.58	-	59.76	49.76	-15.18	-
3	0.451	0.14	41.45	-	41.59	-	56.86	46.86	-15.27	-
4	3.430	0.25	36.90	-	37.15	-	56.00	46.00	-18.85	-
5	12.000	0.48	42.76	-	43.24	-	60.00	50.00	-16.76	-
6	13.281	0.51	45.35	-	45.86	-	60.00	50.00	-14.14	-

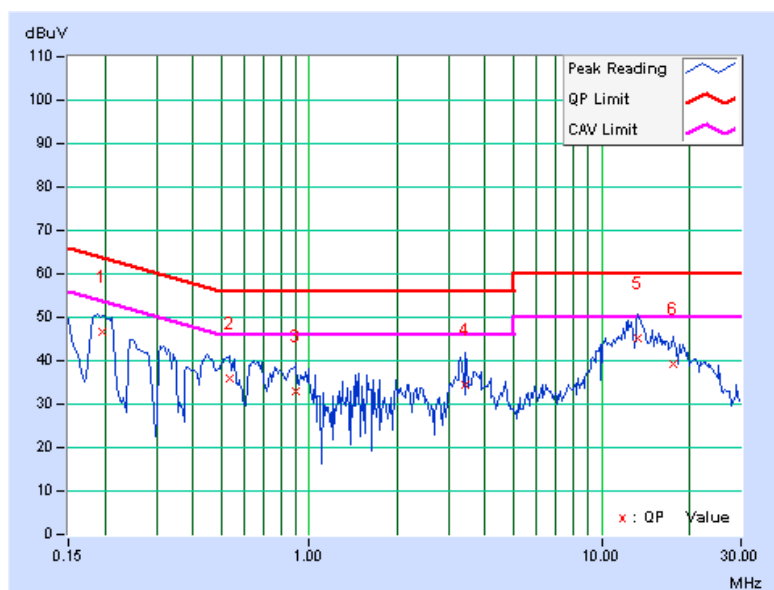
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



PHASE	Line 2	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.197	0.13	46.71	-	46.84	-	63.74	53.74	-16.90	-
2	0.537	0.15	35.86	-	36.01	-	56.00	46.00	-19.99	-
3	0.904	0.17	32.79	-	32.96	-	56.00	46.00	-23.04	-
4	3.422	0.27	34.23	-	34.50	-	56.00	46.00	-21.50	-
5	13.381	0.61	44.75	-	45.36	-	60.00	50.00	-14.64	-
6	17.539	0.74	38.37	-	39.11	-	60.00	50.00	-20.89	-

- 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.

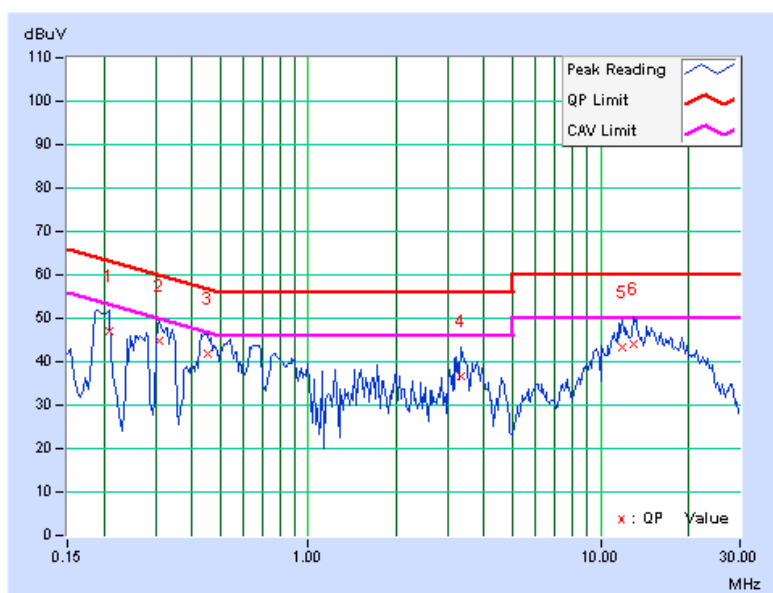


802.11g + GPRS1900

PHASE	Line 1	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.209	0.13	47.03	-	47.16	-	63.26	53.26	-16.10	-
2	0.310	0.14	44.73	-	44.87	-	59.97	49.97	-15.10	-
3	0.455	0.14	41.53	-	41.67	-	56.79	46.79	-15.12	-
4	3.332	0.25	36.56	-	36.81	-	56.00	46.00	-19.19	-
5	11.859	0.48	42.67	-	43.15	-	60.00	50.00	-16.85	-
6	12.957	0.50	43.74	-	44.24	-	60.00	50.00	-15.76	-

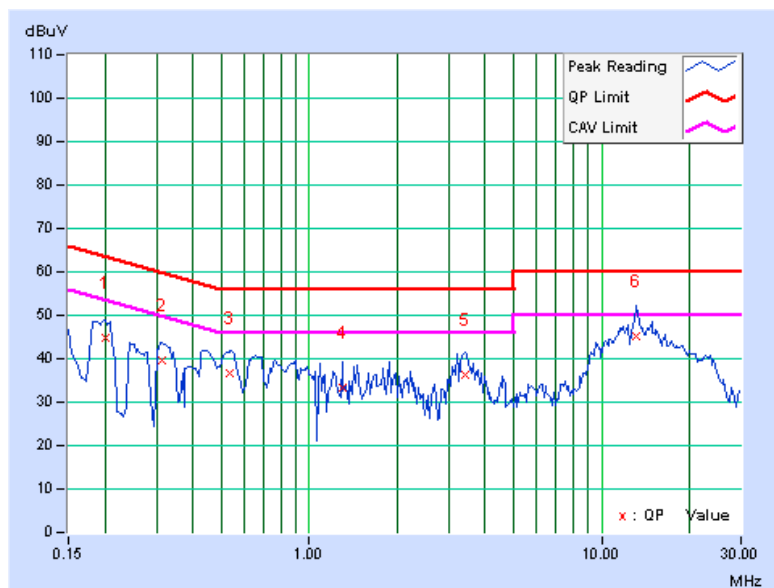
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



PHASE	Line 2	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.201	0.13	44.87	-	45.00	-	63.58	53.58	-18.58	-
2	0.314	0.14	39.55	-	39.69	-	59.86	49.86	-20.17	-
3	0.537	0.15	36.68	-	36.83	-	56.00	46.00	-19.17	-
4	1.293	0.18	33.23	-	33.41	-	56.00	46.00	-22.59	-
5	3.434	0.27	36.01	-	36.28	-	56.00	46.00	-19.72	-
6	13.148	0.60	44.48	-	45.08	-	60.00	50.00	-14.92	-

- 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.

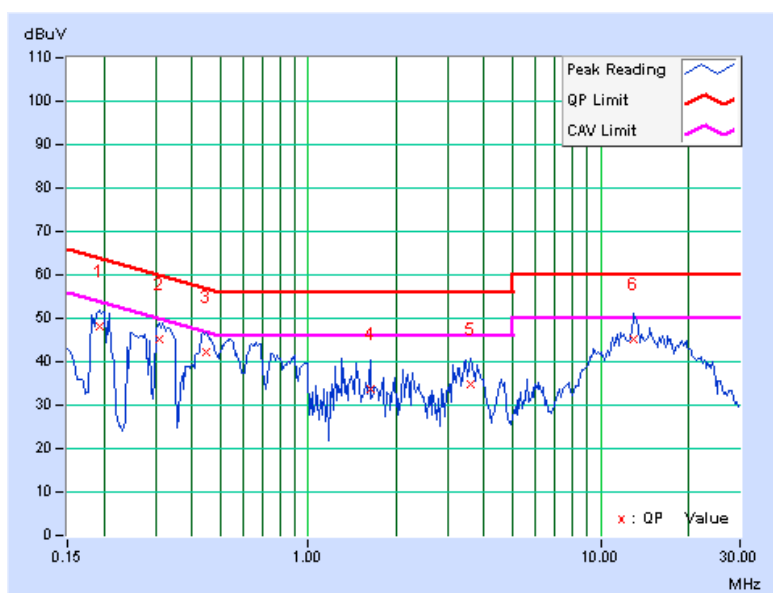


802.11g + WCDMA850

PHASE	Line 1	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.193	0.13	47.96	-	48.09	-	63.91	53.91	-15.82	-
2	0.310	0.14	44.87	-	45.01	-	59.97	49.97	-14.96	-
3	0.447	0.14	41.96	-	42.10	-	56.93	46.93	-14.83	-
4	1.625	0.18	33.51	-	33.69	-	56.00	46.00	-22.31	-
5	3.586	0.26	34.72	-	34.98	-	56.00	46.00	-21.02	-
6	13.051	0.51	44.81	-	45.32	-	60.00	50.00	-14.68	-

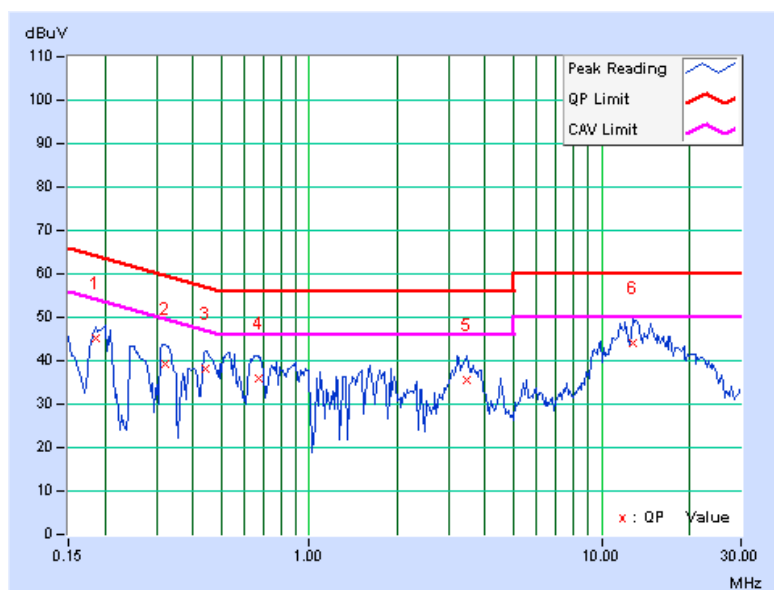
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



PHASE	Line 2	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.13	45.01	-	45.14	-	64.25	54.25	-19.11	-
2	0.322	0.14	39.25	-	39.39	-	59.66	49.66	-20.27	-
3	0.439	0.15	37.82	-	37.97	-	57.08	47.08	-19.11	-
4	0.670	0.16	35.88	-	36.04	-	56.00	46.00	-19.96	-
5	3.469	0.27	35.42	-	35.69	-	56.00	46.00	-20.31	-
6	12.840	0.59	43.53	-	44.12	-	60.00	50.00	-15.88	-

- 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.

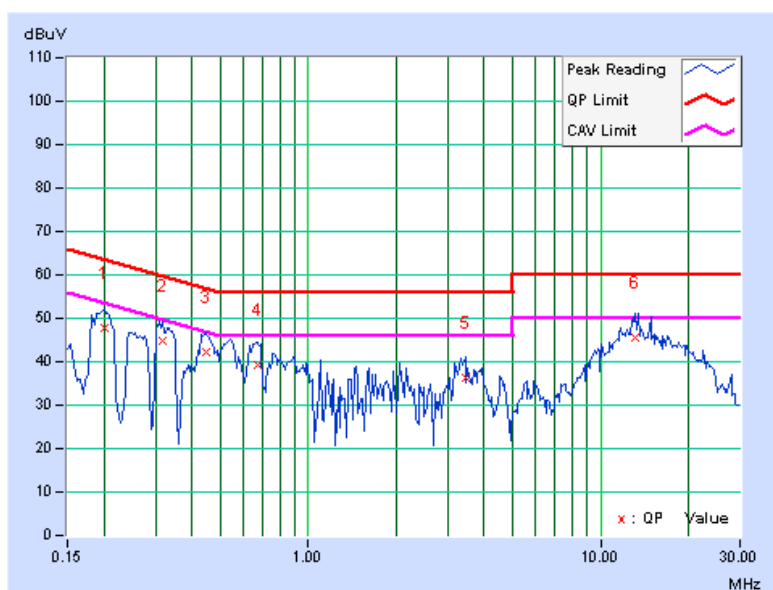


802.11g + WCDMA1900

PHASE	Line 1	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.201	0.13	47.71	-	47.84	-	63.58	53.58	-15.74	-
2	0.318	0.14	44.63	-	44.77	-	59.76	49.76	-14.99	-
3	0.447	0.14	41.96	-	42.10	-	56.93	46.93	-14.83	-
4	0.670	0.15	38.94	-	39.09	-	56.00	46.00	-16.91	-
5	3.441	0.25	35.98	-	36.23	-	56.00	46.00	-19.77	-
6	13.063	0.51	44.91	-	45.42	-	60.00	50.00	-14.58	-

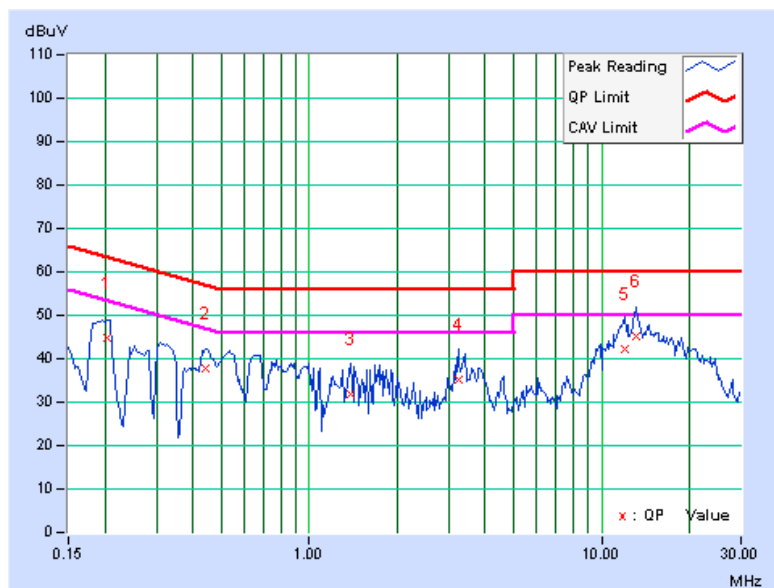
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



PHASE	Line 2	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.205	0.13	44.63	-	44.76	-	63.42	53.42	-18.66	-
2	0.439	0.15	37.64	-	37.79	-	57.08	47.08	-19.29	-
3	1.379	0.18	31.77	-	31.95	-	56.00	46.00	-24.05	-
4	3.230	0.26	34.82	-	35.08	-	56.00	46.00	-20.92	-
5	12.027	0.57	41.78	-	42.35	-	60.00	50.00	-17.65	-
6	13.078	0.60	44.65	-	45.25	-	60.00	50.00	-14.75	-

- 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.

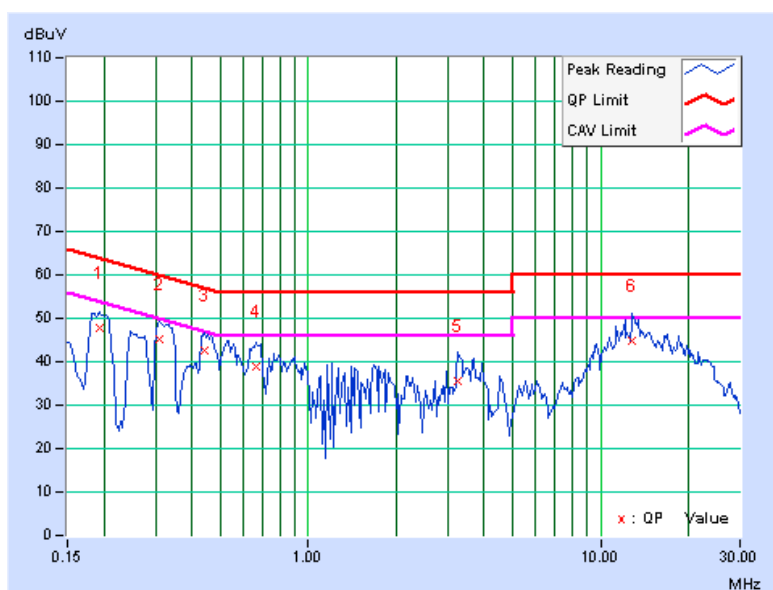


8DPSK + GPRS850

PHASE	Line 1	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.193	0.13	47.57	-	47.70	-	63.91	53.91	-16.21	-
2	0.310	0.14	45.13	-	45.27	-	59.97	49.97	-14.70	-
3	0.439	0.14	42.39	-	42.53	-	57.08	47.08	-14.55	-
4	0.662	0.15	38.88	-	39.03	-	56.00	46.00	-16.97	-
5	3.258	0.25	35.16	-	35.41	-	56.00	46.00	-20.59	-
6	12.883	0.50	44.39	-	44.89	-	60.00	50.00	-15.11	-

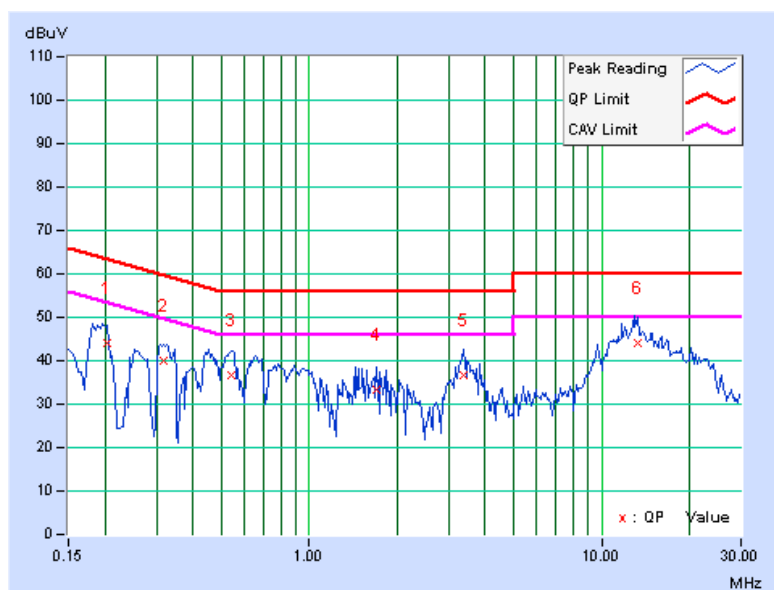
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



PHASE	Line 2	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.205	0.13	43.82	-	43.95	-	63.42	53.42	-19.47	-
2	0.318	0.14	39.73	-	39.87	-	59.76	49.76	-19.89	-
3	0.541	0.15	36.54	-	36.69	-	56.00	46.00	-19.31	-
4	1.707	0.19	33.04	-	33.23	-	56.00	46.00	-22.77	-
5	3.387	0.27	36.37	-	36.64	-	56.00	46.00	-19.36	-
6	13.230	0.61	43.49	-	44.10	-	60.00	50.00	-15.90	-

- 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.

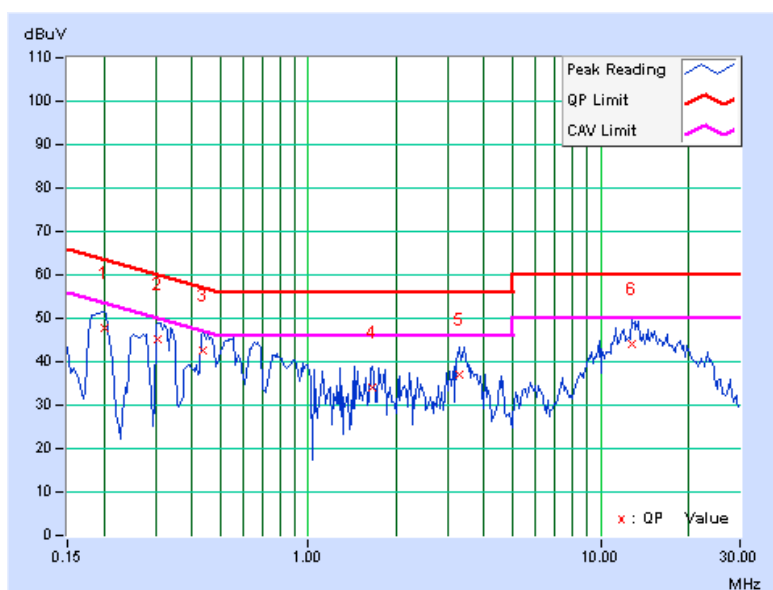


8DPSK + GPRS1900

PHASE	Line 1	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.201	0.13	47.57	-	47.70	-	63.58	53.58	-15.88	-
2	0.306	0.14	45.05	-	45.19	-	60.07	50.07	-14.89	-
3	0.435	0.14	42.39	-	42.53	-	57.15	47.15	-14.62	-
4	1.652	0.18	33.73	-	33.91	-	56.00	46.00	-22.09	-
5	3.301	0.25	36.83	-	37.08	-	56.00	46.00	-18.92	-
6	12.809	0.50	43.73	-	44.23	-	60.00	50.00	-15.77	-

- 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.



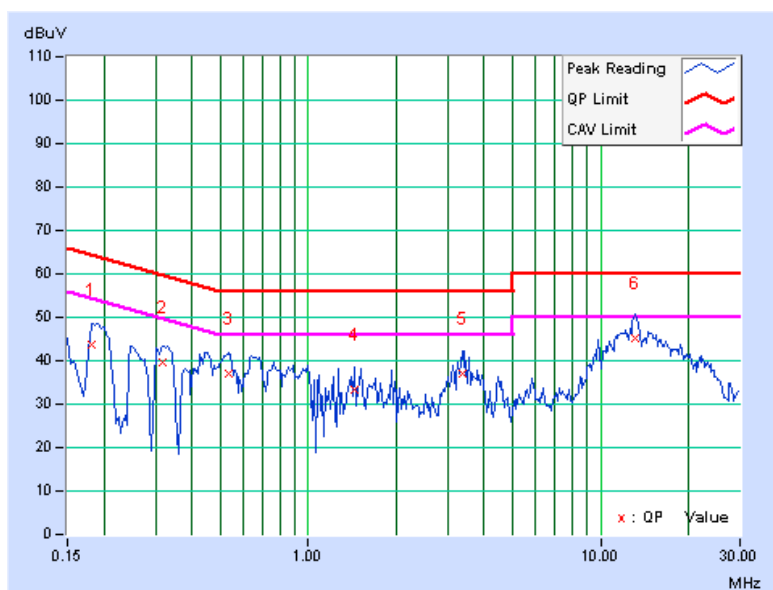


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PHASE	Line 2	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.181	0.13	43.59	-	43.72	-	64.43	54.43	-20.71	-
2	0.318	0.14	39.53	-	39.67	-	59.76	49.76	-20.09	-
3	0.537	0.15	37.00	-	37.15	-	56.00	46.00	-18.85	-
4	1.434	0.18	33.07	-	33.25	-	56.00	46.00	-22.75	-
5	3.355	0.27	36.59	-	36.86	-	56.00	46.00	-19.14	-
6	13.094	0.60	44.47	-	45.07	-	60.00	50.00	-14.93	-

- 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.

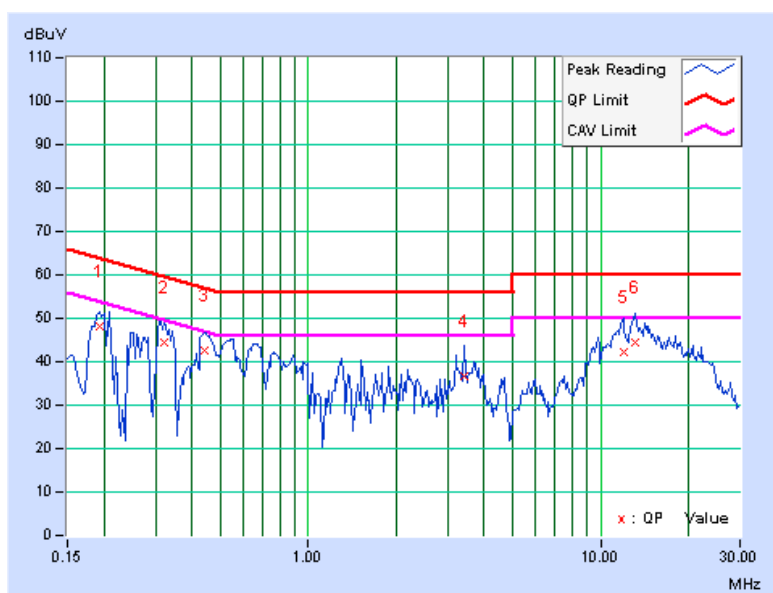


8DPSK + WCDMA850

PHASE	Line 1	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.193	0.13	47.84	-	47.97	-	63.91	53.91	-15.94	-
2	0.322	0.14	44.41	-	44.55	-	59.66	49.66	-15.11	-
3	0.439	0.14	42.41	-	42.55	-	57.08	47.08	-14.53	-
4	3.402	0.25	36.33	-	36.58	-	56.00	46.00	-19.42	-
5	12.016	0.48	41.61	-	42.09	-	60.00	50.00	-17.91	-
6	13.078	0.51	43.90	-	44.41	-	60.00	50.00	-15.59	-

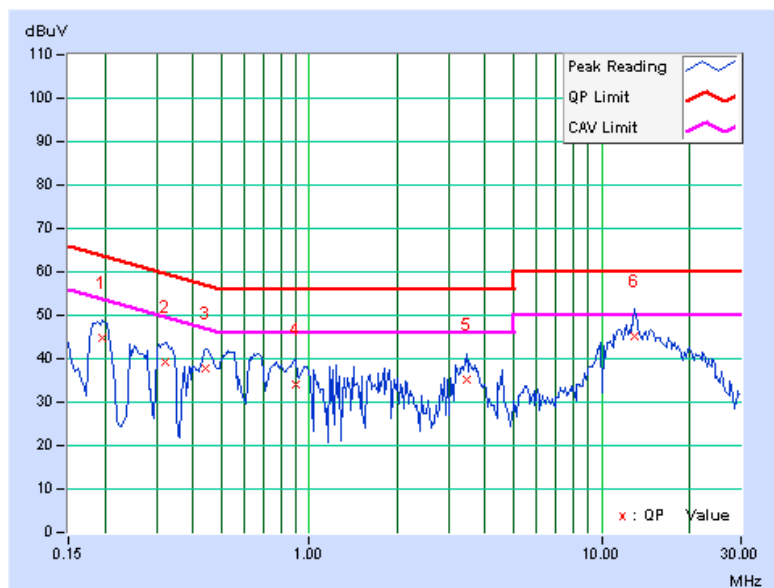
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



PHASE	Line 2	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.197	0.13	44.57	-	44.70	-	63.74	53.74	-19.04	-
2	0.322	0.14	39.25	-	39.39	-	59.66	49.66	-20.27	-
3	0.439	0.15	37.78	-	37.93	-	57.08	47.08	-19.15	-
4	0.900	0.17	33.90	-	34.07	-	56.00	46.00	-21.93	-
5	3.445	0.27	35.06	-	35.33	-	56.00	46.00	-20.67	-
6	12.988	0.60	44.63	-	45.23	-	60.00	50.00	-14.77	-

- 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.

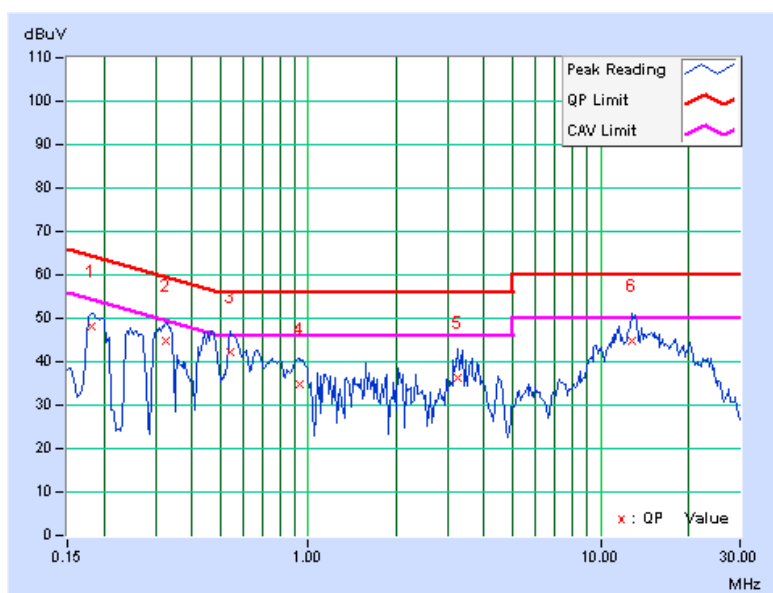


8DPSK + WCDMA1900

PHASE	Line 1	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.181	0.13	48.13	-	48.26	-	64.43	54.43	-16.17	-
2	0.326	0.14	44.66	-	44.80	-	59.56	49.56	-14.76	-
3	0.541	0.15	42.11	-	42.26	-	56.00	46.00	-13.74	-
4	0.931	0.17	34.80	-	34.97	-	56.00	46.00	-21.03	-
5	3.262	0.25	35.99	-	36.24	-	56.00	46.00	-19.76	-
6	12.844	0.50	44.32	-	44.82	-	60.00	50.00	-15.18	-

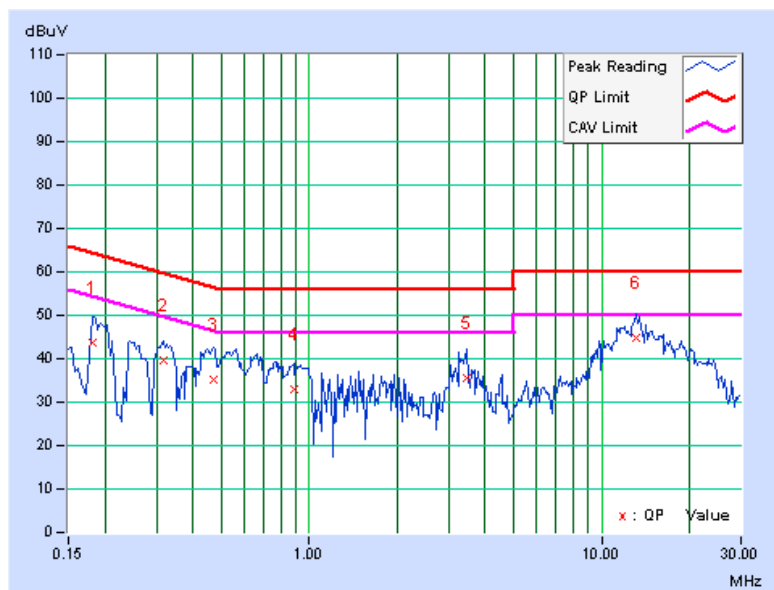
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



PHASE	Line 2	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.181	0.13	43.45	-	43.58	-	64.43	54.43	-20.85	-
2	0.318	0.14	39.61	-	39.75	-	59.76	49.76	-20.01	-
3	0.470	0.15	35.11	-	35.26	-	56.51	46.51	-21.25	-
4	0.884	0.17	32.89	-	33.06	-	56.00	46.00	-22.94	-
5	3.445	0.27	35.41	-	35.68	-	56.00	46.00	-20.32	-
6	13.195	0.61	44.20	-	44.81	-	60.00	50.00	-15.19	-

- 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.



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 by the following approval agencies according to ISO/IEC 17025.

USA	FCC, NVLAP
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA , CSA
R.O.C.	TAF, BSMI, NCC
Netherlands	Telefication
Singapore	GOST-ASIA(MOU)
Russia	CERTIS(MOU)

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.

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 ---