



FCC TEST REPORT

REPORT NO.: RF940831L06B

MODEL NO.: WET54G ver.3.1

RECEIVED: Jan. 09, 2007

TESTED: Feb. 26 ~ Apr. 02, 2007

ISSUED: Apr. 04, 2007

APPLICANT: Cisco-Linksys LLC

ADDRESS: 121 Theory Drive Irvine, CA 92617 (USA)

ISSUED BY: Advance Data Technology Corporation

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244, Taipei Hsien, Taiwan, R.O.C.

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Shan Hsiang, Taoyuan Hsien 333, Taiwan,
R.O.C.

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1 CERTIFICATION

PRODUCT : Wireless-G Ethernet Bridge
MODEL NO.: WET54G ver.3.1
BRAND: Linksys
APPLICANT : Cisco-Linksys LLC
TESTED: Feb. 26 ~ Apr. 02, 2007
TEST SAMPLE: ENGINEERING SAMPLE
STANDARDS : **FCC Part 15, Subpart C (Section 15.247),**
ANSI C63.4-2003

The above equipment (Model: WET54G ver.3.1) have been tested by **Advance Data Technology Corporation**, 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 : Andrea Hsia , **DATE:** Apr. 04, 2007
Andrea Hsia

TECHNICAL ACCEPTANCE : Long Chen , **DATE:** Apr. 04, 2007
Responsible for RF Long Chen

APPROVED BY : Gary Chang , **DATE:** Apr. 04, 2007
Gary Chang / Supervisor

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
Standard Section	Test Type and Limit	Result	REMARK
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -10.48dB at 24.352MHz.
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit : min. 500kHz	NA	NA
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	NA	NA
15.247(d)	Transmitter Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -1.36dB at 41.57MHz.
15.247(e)	Power Spectral Density Limit: max. 8dBm	NA	NA
15.247(d)	Band Edge Measurement Limit: 20 dB less than the peak value of fundamental frequency	NA	NA

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:

Measurement	Frequency	Uncertainty
Conducted emissions	9kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	3.62 dB
	200MHz ~1000MHz	3.64 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

PRODUCT	Wireless-G Ethernet Bridge
MODEL NO.	WET54G ver.3.1
FCC ID	Q87-WET54GV3
POWER SUPPLY	5.0Vdc from AC adapter 48.0Vdc from POE
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b: 11/5.5/2/1Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps
FREQUENCY RANGE	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11
OUTPUT POWER	50.933mW
ANTENNA TYPE	Dipole antenna with 2dBi gain
DATA CABLE	NA
I/O PORTS	RJ45
ASSOCIATED DEVICES	Adapter

NOTE:

1. This report is issued as a supplementary report of ADT report no.: RF940831L06. This report is prepared for FCC class II permissive change. The differences compared with the original design are adding a new adapter and changing the model name and component (Layout and RF design didn't change). Therefore we re-tested the conduction emission test and radiation emission test and presented in the test report.
2. RF output power is the same as the original test report.
3. The EUT was tested with the following adapter:

BRAND:	Linksys
MODEL:	AD5V/2A-SW
INPUT:	100-120Vac, 60Hz, 0.5A
OUTPUT:	5.0Vdc, 2.0A
POWER LINE:	DC 1.8m non-shielded cable without core

4. 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.
5. 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.

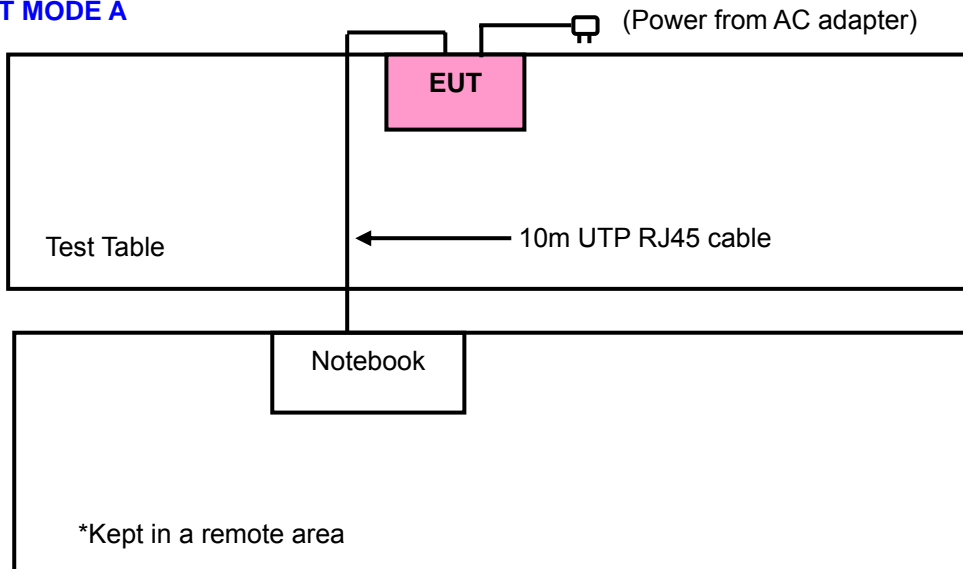
3.2 DESCRIPTION OF TEST MODES

Eleven channels are provided to this EUT.

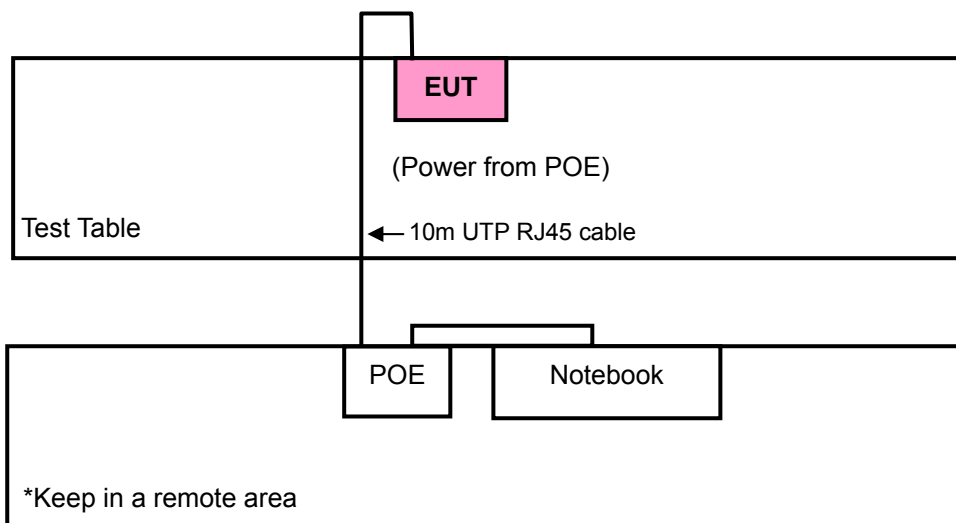
Channel	Frequency	Channel	Frequency
1	2412 MHz	7	2442 MHz
2	2417 MHz	8	2447 MHz
3	2422 MHz	9	2452 MHz
4	2427 MHz	10	2457 MHz
5	2432 MHz	11	2462 MHz
6	2437 MHz		

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST

TEST MODE A



TEST MODE B



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT configure mode	Applicable to			Description
	PLC	RE<1G	RE≥1G	
A	√	√	√	Power from AC Adapter
B	√	√	-	Power from POE

Where **PLC**: Power Line Conducted Emission **RE<1G**: Radiated Emission below 1GHz
RE≥1G: Radiated Emission above 1GHz **APCM**: Antenna Port Conducted Measurement
Note: "-" means no effect.

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	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
B	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6

Radiated Emission Test (Below 1 GHz):

- 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	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A	802.11g	1 to 11	11	OFDM	BPSK	6
B	802.11g	1 to 11	11	OFDM	BPSK	6

Radiated Emission Test (Above 1 GHz):

- 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	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A	802.11b	1 to 11	1, 11	DSSS	DBPSK	1
A	802.11g	1 to 11	1, 11	OFDM	BPSK	6

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)
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	NOTEBOOK COMPUTER	DELL	PP05L	12130898320	E2K24CLNS
2	DC POWER SUPPLY	Topward	6603D	713072	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.0m Shielded cable.

NOTE:

1. All power cords of the above support units are non shielded (1.8m).
2. Item 1 ~ 2 acted as communication partners to transfer data.
3. Item 2 was supplied from client.

4 TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 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.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	100289	Dec. 07, 2007
RF signal cable Woken	5D-FB	Cable-HYC01-01	Jan. 06, 2008
LISN ROHDE & SCHWARZ	ESH3-Z5	100312	Feb. 13, 2008
LISN ROHDE & SCHWARZ	ESH2-Z5	100104	Sep. 14, 2007
Software ADT	ADT_Cond_V3	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.

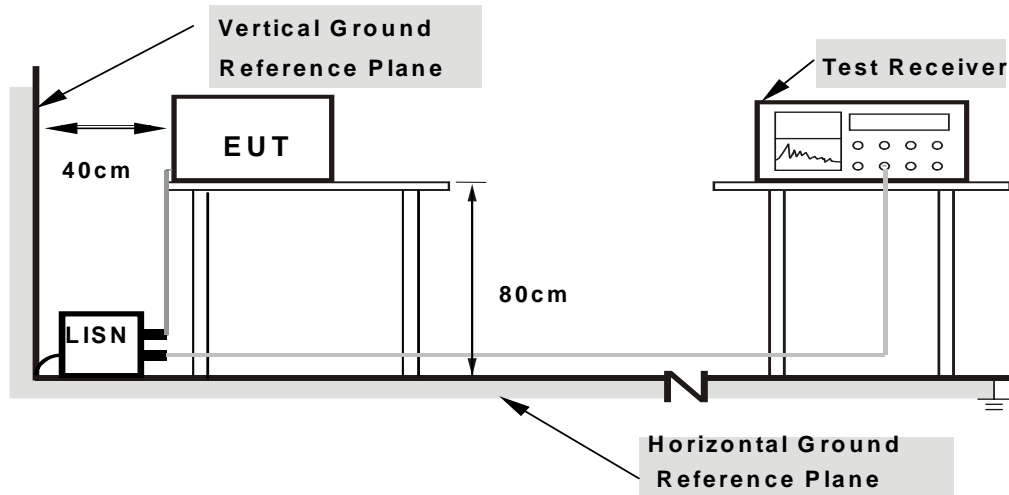
4.1.3 TEST PROCEDURES

- 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.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 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).

4.1.6 EUT OPERATING CONDITIONS

TEST MODE A

- a. Placed the EUT on the testing table.
- b. Prepare a notebook system out of the test table.
- c. The notebook system connected with EUT and run a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
- d. The necessary accessories enable the system in full functions.

TEST MODE B

- a. Placed the EUT on the testing table.
- b. Prepare a notebook system via POE out of the test table.
- c. The notebook system connected with EUT and run a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
- d. The necessary accessories enable the system in full functions.

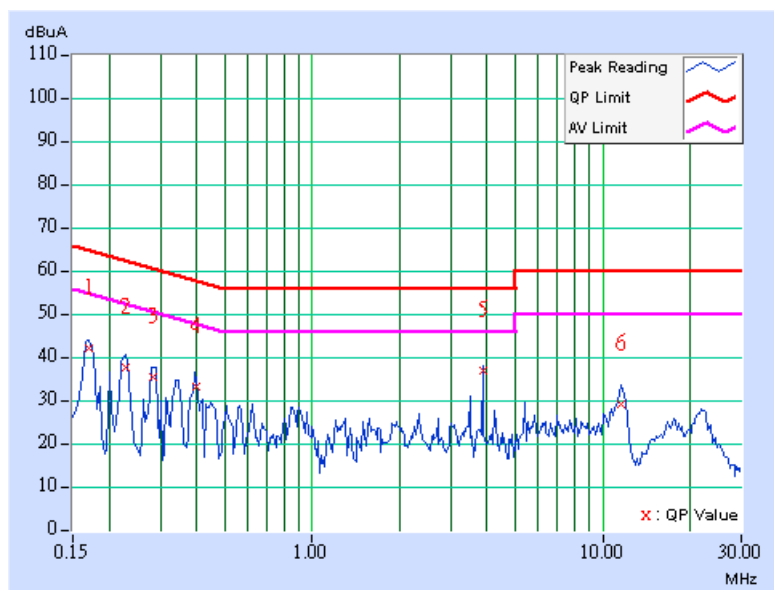
4.1.7 TEST RESULTS

CONDUCTED WORST-CASE DATA

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

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	0.170	0.10	41.79	-	41.89	-	64.98	54.98	-23.09	-
2	0.228	0.10	37.52	-	37.62	-	62.52	52.52	-24.90	-
3	0.284	0.10	35.04	-	35.14	-	60.69	50.69	-25.55	-
4	0.397	0.10	32.87	-	32.97	-	57.91	47.91	-24.94	-
5	3.871	0.28	36.74	-	37.02	-	56.00	46.00	-18.98	-
6	11.512	0.38	29.05	-	29.43	-	60.00	50.00	-30.57	-

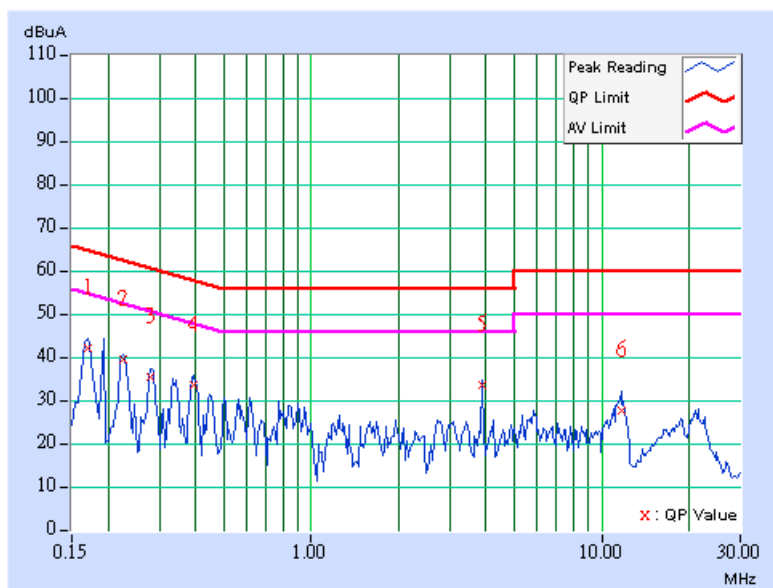
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

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	0.170	0.10	41.65	-	41.75	-	64.98	54.98	-23.23	-
2	0.224	0.10	39.08	-	39.18	-	62.66	52.66	-23.48	-
3	0.279	0.10	34.96	-	35.06	-	60.85	50.85	-25.79	-
4	0.392	0.10	33.18	-	33.28	-	58.02	48.02	-24.74	-
5	3.871	0.28	33.12	-	33.40	-	56.00	46.00	-22.60	-
6	11.652	0.45	27.16	-	27.61	-	60.00	50.00	-32.39	-

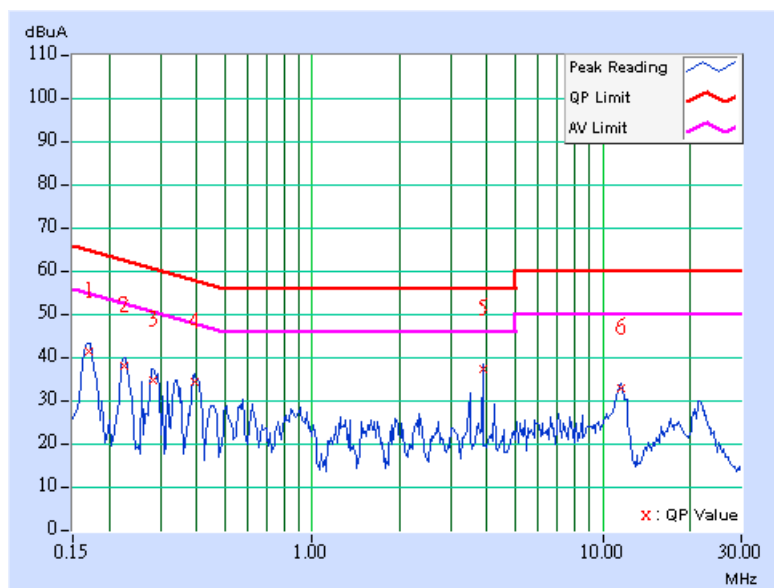
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 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

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	0.170	0.10	40.97	-	41.07	-	64.98	54.98	-23.91	-
2	0.224	0.10	37.85	-	37.95	-	62.66	52.66	-24.71	-
3	0.283	0.10	34.49	-	34.59	-	60.73	50.73	-26.14	-
4	0.392	0.10	34.04	-	34.14	-	58.02	48.02	-23.88	-
5	3.871	0.28	36.90	-	37.18	-	56.00	46.00	-18.82	-
6	11.617	0.38	32.44	-	32.82	-	60.00	50.00	-27.18	-

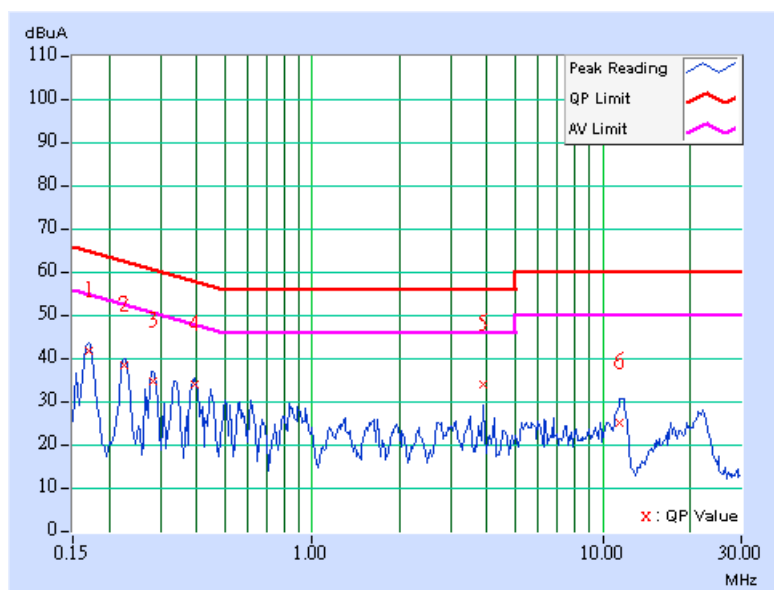
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.170	0.10	41.49	-	41.59	-	64.98	54.98	-23.39	-
2	0.224	0.10	37.93	-	38.03	-	62.66	52.66	-24.63	-
3	0.283	0.10	34.51	-	34.61	-	60.73	50.73	-26.12	-
4	0.392	0.10	33.55	-	33.65	-	58.02	48.02	-24.37	-
5	3.871	0.28	33.51	-	33.79	-	56.00	46.00	-22.21	-
6	11.492	0.44	24.86	-	25.30	-	60.00	50.00	-34.70	-

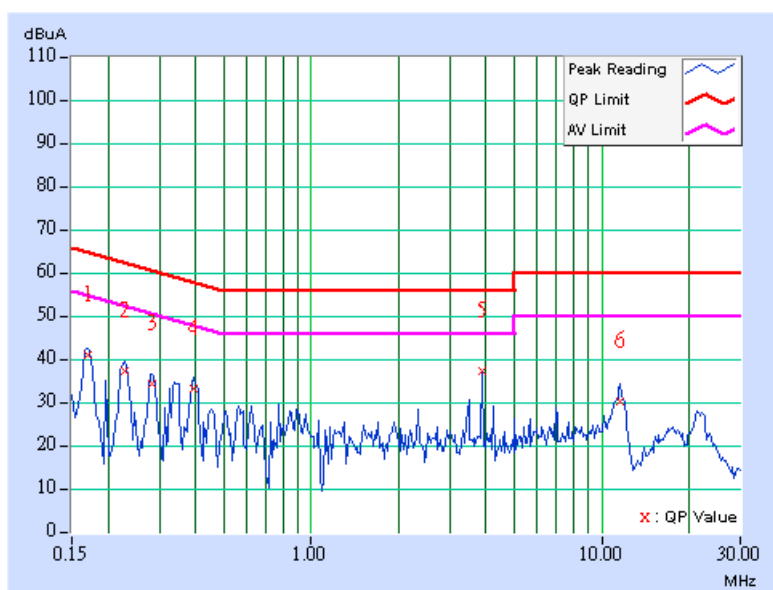
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 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

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	0.170	0.10	40.67	-	40.77	-	64.98	54.98	-24.21	-
2	0.228	0.10	36.87	-	36.97	-	62.52	52.52	-25.55	-
3	0.283	0.10	34.20	-	34.30	-	60.73	50.73	-26.43	-
4	0.395	0.10	32.92	-	33.02	-	57.96	47.96	-24.94	-
5	3.871	0.28	36.94	-	37.22	-	56.00	46.00	-18.78	-
6	11.621	0.38	30.03	-	30.41	-	60.00	50.00	-29.59	-

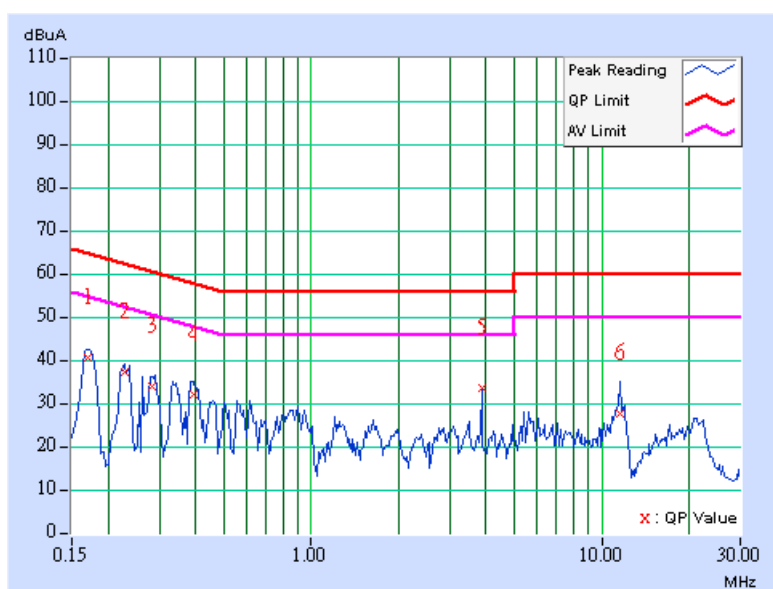
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 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

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	0.170	0.10	40.28	-	40.38	-	64.98	54.98	-24.60	-
2	0.228	0.10	36.91	-	37.01	-	62.52	52.52	-25.51	-
3	0.282	0.10	33.59	-	33.69	-	60.76	50.76	-27.07	-
4	0.395	0.10	31.61	-	31.71	-	57.96	47.96	-26.25	-
5	3.871	0.28	33.26	-	33.54	-	56.00	46.00	-22.46	-
6	11.625	0.45	27.40	-	27.85	-	60.00	50.00	-32.15	-

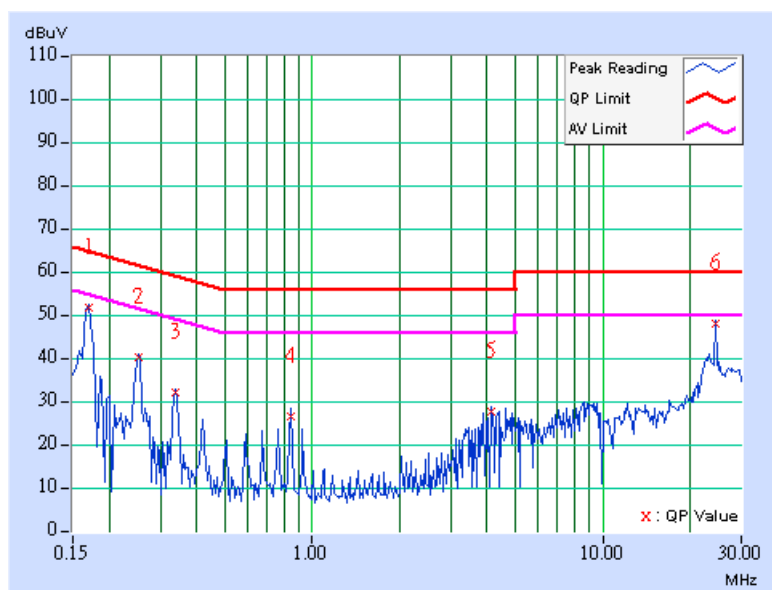
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 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

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	0.170	0.10	51.13	-	51.23	-	64.98	54.98	-13.75	-
2	0.252	0.10	39.71	-	39.81	-	61.71	51.71	-21.90	-
3	0.338	0.10	31.52	-	31.62	-	59.26	49.26	-27.64	-
4	0.841	0.11	25.98	-	26.09	-	56.00	46.00	-29.91	-
5	4.133	0.28	26.88	-	27.16	-	56.00	46.00	-28.84	-
6	24.355	0.79	47.54	-	48.33	-	60.00	50.00	-11.67	-

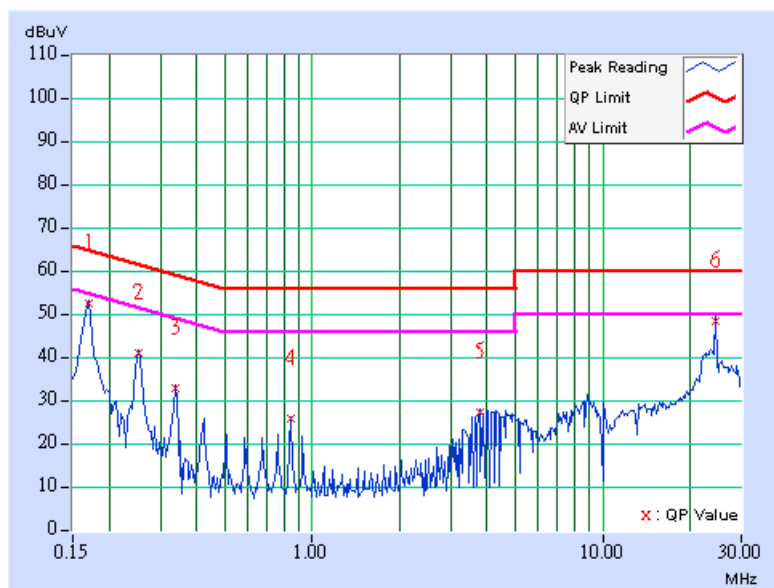
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

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	0.170	0.10	51.83	-	51.93	-	64.98	54.98	-13.05	-
2	0.252	0.10	40.32	-	40.42	-	61.71	51.71	-21.29	-
3	0.338	0.10	32.23	-	32.33	-	59.26	49.26	-26.93	-
4	0.841	0.18	25.06	-	25.24	-	56.00	46.00	-30.76	-
5	3.793	0.27	26.57	-	26.84	-	56.00	46.00	-29.16	-
6	24.355	0.70	47.99	-	48.69	-	60.00	50.00	-11.31	-

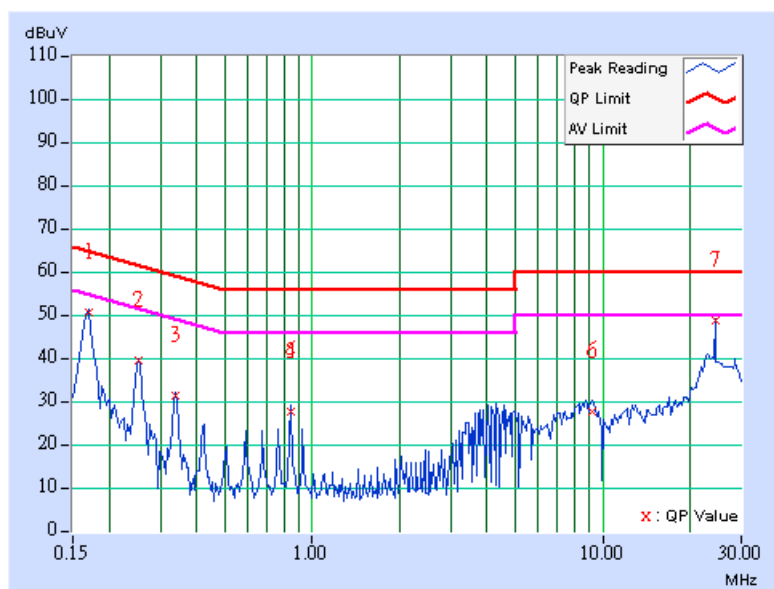
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

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	0.170	0.10	49.93	-	50.03	-	64.98	54.98	-14.95	-
2	0.253	0.10	38.80	-	38.90	-	61.65	51.65	-22.75	-
3	0.338	0.10	30.60	-	30.70	-	59.26	49.26	-28.56	-
4	0.844	0.11	26.95	-	27.06	-	56.00	46.00	-28.94	-
5	0.844	0.11	27.03	-	27.14	-	56.00	46.00	-28.86	-
6	9.195	0.32	27.14	-	27.46	-	60.00	50.00	-32.54	-
7	24.352	0.79	48.05	-	48.84	-	60.00	50.00	-11.16	-

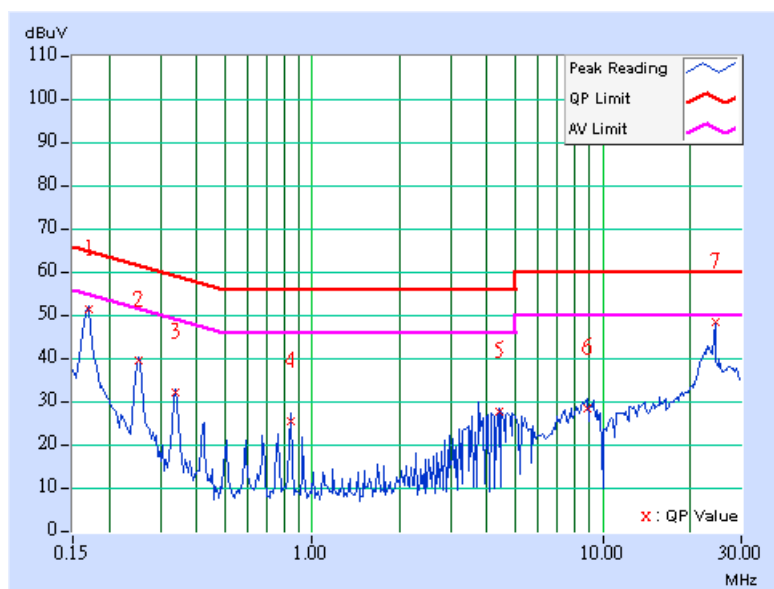
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

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	0.170	0.10	50.65	-	50.75	-	64.98	54.98	-14.23	-
2	0.252	0.10	39.02	-	39.12	-	61.71	51.71	-22.59	-
3	0.338	0.10	31.42	-	31.52	-	59.26	49.26	-27.74	-
4	0.841	0.18	25.04	-	25.22	-	56.00	46.00	-30.78	-
5	4.387	0.29	27.05	-	27.34	-	56.00	46.00	-28.66	-
6	8.855	0.40	27.74	-	28.14	-	60.00	50.00	-31.86	-
7	24.352	0.70	47.70	-	48.40	-	60.00	50.00	-11.60	-

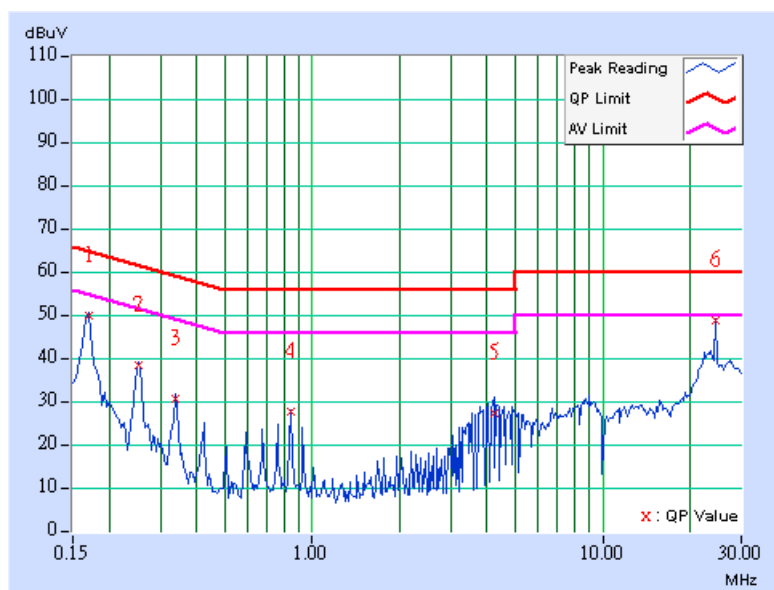
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

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	0.170	0.10	49.29	-	49.39	-	64.98	54.98	-15.59	-
2	0.252	0.10	37.81	-	37.91	-	61.71	51.71	-23.80	-
3	0.338	0.10	30.10	-	30.20	-	59.26	49.26	-29.06	-
4	0.845	0.11	26.97	-	27.08	-	56.00	46.00	-28.92	-
5	4.219	0.28	26.55	-	26.83	-	56.00	46.00	-29.17	-
6	24.352	0.79	47.98	-	48.77	-	60.00	50.00	-11.23	-

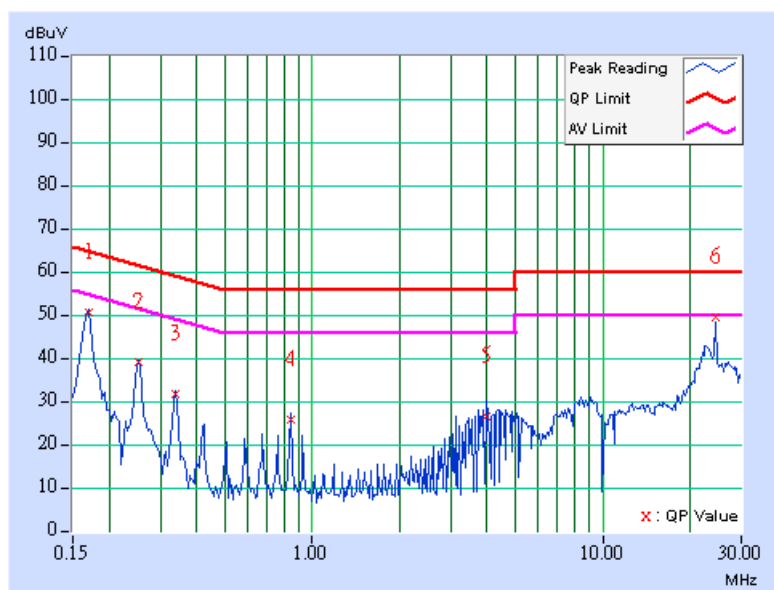
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

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	0.170	0.10	50.09	-	50.19	-	64.98	54.98	-14.79	-
2	0.254	0.10	38.40	-	38.50	-	61.62	51.62	-23.12	-
3	0.338	0.10	31.00	-	31.10	-	59.26	49.26	-28.16	-
4	0.845	0.18	25.09	-	25.27	-	56.00	46.00	-30.73	-
5	3.965	0.28	26.05	-	26.33	-	56.00	46.00	-29.67	-
6	24.352	0.70	48.82	-	49.52	-	60.00	50.00	-10.48	-

- 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.



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 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.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESI7	838496/016	Dec. 29, 2007
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Dec. 01, 2007
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Jan. 04, 2008
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-405	Dec. 18, 2007
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 16, 2008
Preamplifier Agilent	8449B	3008A1960	Oct. 30, 2007
Preamplifier Agilent	8447D	2944A10631	Oct. 30, 2007
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	230128/4	Nov. 14, 2007
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	233233/4	Nov. 14, 2007
Software ADT.	ADT_Radiated_V7.6	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA
Antenna Tower Controller inn-co GmbH	CO2000	019303	NA
Turn Table ADT.	TT100.	TT93021704	NA
Turn Table Controller ADT.	SC100.	SC93021704	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 4.
 3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 4. The IC Site Registration No. is IC3789B-4.

4.2.3 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.

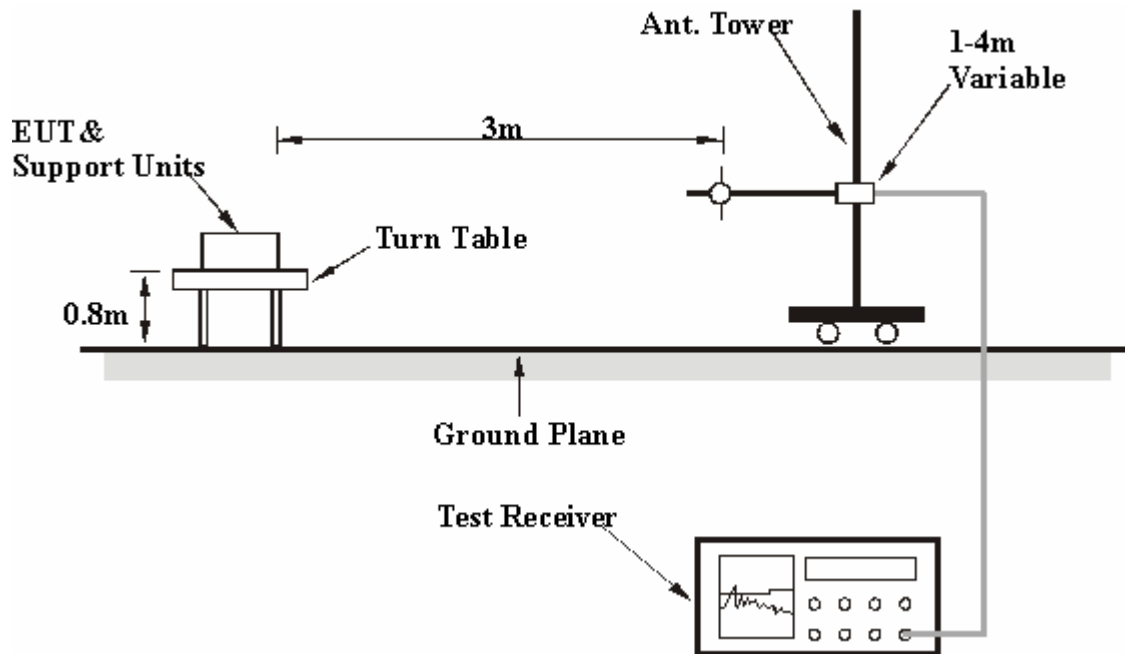
NOTE:

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.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



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

RADIATED WORST-CASE DATA: BELOW 1GHz

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	DETECTOR FUNCTION	Quasi-Peak
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	24deg. C, 63%RH, 991hPa	TEST MODE	A
TESTED BY	Brad Wu		

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	160.17	36.56 QP	43.50	-6.94	1.00 H	85	22.24	14.32
2	278.77	37.11 QP	46.00	-8.89	1.00 H	262	22.81	14.30
3	360.43	38.81 QP	46.00	-7.19	1.00 H	55	22.49	16.32
4	479.03	38.05 QP	46.00	-7.95	1.50 H	187	18.21	19.85
5	640.41	38.32 QP	46.00	-7.68	1.50 H	28	14.27	24.05
6	799.84	37.74 QP	46.00	-8.26	1.00 H	64	11.31	26.43

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	41.57	38.64 QP	40.00	-1.36	1.00 V	37	25.99	12.65
2	84.34	38.31 QP	40.00	-1.69	1.50 V	10	28.23	10.08
3	160.17	39.36 QP	43.50	-4.14	1.00 V	10	25.04	14.32
4	360.43	35.22 QP	46.00	-10.78	1.00 V	79	18.90	16.32
5	440.14	35.43 QP	46.00	-10.57	1.00 V	256	16.84	18.59
6	640.41	36.85 QP	46.00	-9.15	1.00 V	73	12.80	24.05

- 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.



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	DETECTOR FUNCTION	Quasi-Peak
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH, 991hPa	TEST MODE	B
TESTED BY	Brad Wu		

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	249.60	36.13 QP	46.00	-9.87	1.50 H	109	22.44	13.69
2	360.43	34.59 QP	46.00	-11.41	1.00 H	241	18.28	16.32
3	479.03	36.66 QP	46.00	-9.34	1.50 H	199	16.81	19.85
4	550.97	35.60 QP	46.00	-10.40	1.50 H	208	13.76	21.84
5	640.41	38.55 QP	46.00	-7.45	1.50 H	40	14.50	24.05
6	960.00	31.18 QP	46.00	-14.82	1.50 H	25	2.53	28.65

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	160.17	38.05 QP	43.50	-5.45	1.00 V	52	23.73	14.32
2	249.60	37.36 QP	46.00	-8.64	1.50 V	10	23.67	13.69
3	360.43	33.20 QP	46.00	-12.80	1.00 V	163	16.88	16.32
4	479.03	34.56 QP	46.00	-11.44	1.50 V	124	14.71	19.85
5	640.41	34.75 QP	46.00	-11.25	1.00 V	88	10.70	24.05
6	961.21	35.47 QP	54.00	-18.53	1.00 V	256	6.80	28.67

- 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.

802.11b DSSS MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	DETECTOR FUNCTION	Peak(PK) Average (AV)
TRANSFER RATE	1Mbps	ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH, 991hPa
INPUT POWER (SYSTEM)	120Vac, 60 Hz	TEST MODE	A
TESTED BY	Brad Wu		

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	1600.00	45.50 PK	74.00	-28.50	1.00 H	30	15.51	29.99
2	1600.00	39.95 AV	54.00	-14.05	1.00 H	30	9.96	29.99
3	2390.00	49.56 PK	74.00	-24.44	1.00 H	287	17.31	32.25
4	2390.00	38.10 AV	54.00	-15.90	1.00 H	287	5.85	32.25
5	*2412.00	101.39 PK			1.00 H	287	69.05	32.34
6	*2412.00	93.26 AV			1.00 H	287	60.92	32.34
7	4824.00	51.67 PK	74.00	-22.33	1.34 H	62	13.07	38.60
8	4824.00	37.12 AV	54.00	-16.88	1.34 H	62	-1.48	38.60

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	1600.00	48.55 PK	74.00	-25.45	1.02 V	295	18.56	29.99
2	1600.00	45.61 AV	54.00	-8.39	1.02 V	295	15.62	29.99
3	2390.00	59.82 PK	74.00	-14.18	1.31 V	18	27.57	32.25
4	2390.00	48.23 AV	54.00	-5.77	1.31 V	18	15.98	32.25
5	*2412.00	112.60 PK			1.30 V	19	80.26	32.34
6	*2412.00	104.42 AV			1.30 V	19	72.08	32.34
7	4824.00	52.78 PK	74.00	-21.22	1.00 V	12	14.18	38.60
8	4824.00	39.67 AV	54.00	-14.33	1.00 V	12	1.07	38.60

- 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.



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	DETECTOR FUNCTION	Peak(PK) Average (AV)
TRANSFER RATE	1Mbps	ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH, 991hPa
INPUT POWER (SYSTEM)	120Vac, 60 Hz	TEST MODE	A
TESTED BY	Brad Wu		

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	1600.00	45.89 PK	74.00	-28.11	1.05 H	213	15.90	29.99
2	1600.00	40.31 AV	54.00	-13.69	1.05 H	213	10.32	29.99
3	*2462.00	101.65 PK			1.02 H	300	69.12	32.53
4	*2462.00	93.51 AV			1.02 H	300	60.98	32.53
5	2483.50	49.68 PK	74.00	-24.32	1.02 H	300	17.07	32.61
6	2483.50	38.24 AV	54.00	-15.76	1.02 H	300	5.63	32.61
7	4924.00	51.89 PK	74.00	-22.11	1.16 H	52	13.02	38.87
8	4924.00	37.40 AV	54.00	-16.60	1.16 H	52	-1.47	38.87

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	1600.00	48.69 PK	74.00	-25.31	1.15 V	29	18.70	29.99
2	1600.00	45.72 AV	54.00	-8.28	1.15 V	29	15.73	29.99
3	*2462.00	112.82 PK			1.35 V	177	80.29	32.53
4	*2462.00	104.65 AV			1.35 V	177	72.12	32.53
5	2483.50	59.46 PK	74.00	-14.54	1.35 V	177	26.85	32.61
6	2483.50	48.67 AV	54.00	-5.33	1.35 V	177	16.06	32.61
7	4924.00	52.96 PK	74.00	-21.04	1.10 V	215	14.09	38.87
8	4924.00	39.91 AV	54.00	-14.09	1.10 V	215	1.04	38.87

- 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.

802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	DETECTOR FUNCTION	Peak(PK) Average (AV)
TRANSFER RATE	6Mbps	ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH, 991hPa
INPUT POWER (SYSTEM)	120Vac, 60 Hz	TEST MODE	A
TESTED BY	Brad Wu		

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	1600.00	45.86 PK	74.00	-28.14	1.16 H	88	15.87	29.99
2	1600.00	40.15 AV	54.00	-13.85	1.16 H	88	10.16	29.99
3	2390.00	48.21 PK	74.00	-25.79	1.02 H	20	15.96	32.25
4	2390.00	35.30 AV	54.00	-18.70	1.02 H	20	3.05	32.25
5	*2412.00	92.36 PK			1.02 H	20	60.02	32.34
6	*2412.00	82.20 AV			1.02 H	20	49.86	32.34
7	4824.00	51.95 PK	74.00	-22.05	1.19 H	323	13.35	38.60
8	4824.00	37.48 AV	54.00	-16.52	1.19 H	323	-1.12	38.60

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	1600.00	48.69 PK	74.00	-25.31	1.13 V	29	18.70	29.99
2	1600.00	45.72 AV	54.00	-8.28	1.13 V	29	15.73	29.99
3	2390.00	59.63 PK	74.00	-14.37	1.41 V	153	27.38	32.25
4	2390.00	46.59 AV	54.00	-7.41	1.41 V	153	14.34	32.25
5	*2412.00	106.46 PK			1.41 V	153	74.12	32.34
6	*2412.00	96.26 AV			1.41 V	153	63.92	32.34
7	4824.00	52.69 PK	74.00	-21.31	1.13 V	241	14.09	38.60
8	4824.00	39.54 AV	54.00	-14.46	1.13 V	241	0.94	38.60

- 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.



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	DETECTOR FUNCTION	Peak(PK) Average (AV)
TRANSFER RATE	6Mbps	ENVIRONMENTAL CONDITIONS	23deg. C, 63%RH, 991hPa
INPUT POWER (SYSTEM)	120Vac, 60 Hz	TEST MODE	A
TESTED BY	Brad Wu		

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	1600.00	45.99 PK	74.00	-28.01	1.02 H	109	16.00	29.99
2	1600.00	40.32 AV	54.00	-13.68	1.02 H	109	10.33	29.99
3	*2462.00	92.65 PK			1.05 H	24	60.12	32.53
4	*2462.00	82.51 AV			1.05 H	24	49.98	32.53
5	2483.50	48.65 PK	74.00	-25.35	1.05 H	24	16.04	32.61
6	2483.50	35.81 AV	54.00	-18.19	1.05 H	24	3.20	32.61
7	4924.00	51.81 PK	74.00	-22.19	1.16 H	3	12.94	38.87
8	4924.00	37.20 AV	54.00	-16.80	1.16 H	3	-1.67	38.87

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	1600.00	48.86 PK	74.00	-25.14	1.10 V	95	18.87	29.99
2	1600.00	46.03 AV	54.00	-7.97	1.10 V	95	16.04	29.99
3	*2462.00	106.80 PK			1.37 V	178	74.27	32.53
4	*2462.00	96.45 AV			1.37 V	178	63.92	32.53
5	2483.50	59.76 PK	74.00	-14.24	1.37 V	178	27.15	32.61
6	2483.50	48.44 AV	54.00	-5.56	1.37 V	178	15.83	32.61
7	4924.00	52.78 PK	74.00	-21.22	1.12 V	325	13.91	38.87
8	4924.00	39.63 AV	54.00	-14.37	1.12 V	325	0.76	38.87

- 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.



5 PHOTOGRAPHS OF THE TEST CONFIGURATION

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



6 INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., 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, UL, A2LA
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA , CSA
R.O.C.	CNLA, BSMI, NCC
Netherlands	Telefication
Singapore	PSB , 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.



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.