



FCC TEST REPORT

REPORT NO.: RF940818L04

MODEL NO.: AV10

RECEIVED: Aug. 16, 2005

TESTED: Aug. 16 ~ 20, 2005

ISSUED: Aug. 25, 2005

APPLICANT: D-Link Corporation

ADDRESS: 17595 Mt. Herrmann, Fountain Valley,
California, U.S.A.

ISSUED BY: Advance Data Technology Corporation

LAB ADDRESS: 47 14th Lin, Chiapau Tsun, Linko, Taipei,
Taiwan, R.O.C.

TEST LOCATION: No. 19, Hwa Ya 2nd Rd., Kueishan, Taoyuan,
Taiwan, R.O.C.

This test report consists of 133 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product endorsement by CNLA, A2LA or any government agencies. The test results in the report only apply to the tested sample.





TABLE OF CONTENTS

1.	CERTIFICATION.....	5
2.	SUMMARY OF TEST RESULTS.....	6
2.1	MEASUREMENT UNCERTAINTY	7
3.	GENERAL INFORMATION	8
3.1	GENERAL DESCRIPTION OF EUT	8
3.2	DESCRIPTION OF TEST MODES	9
3.2.1	CONFIGURATION OF SYSTEM UNDER TEST	10
3.2.2	TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL	11
3.3	GENERAL DESCRIPTION OF APPLIED STANDARDS	15
3.4	DESCRIPTION OF SUPPORT UNITS.....	15
4.	TEST TYPES AND RESULTS (For Single Chain (TX))	15
4.1	CONDUCTED EMISSION MEASUREMENT	16
4.1.1	LIMITS OF CONDUCTED EMISSION MEASUREMENT	16
4.1.2	TEST INSTRUMENTS.....	16
4.1.3	TEST PROCEDURES	17
4.1.4	DEVIATION FROM TEST STANDARD	17
4.1.5	TEST SETUP	18
4.1.6	EUT OPERATING CONDITIONS.....	18
4.1.7	TEST RESULTS	19
4.2	RADIATED EMISSION MEASUREMENT	26
4.2.1	LIMITS OF RADIATED EMISSION MEASUREMENT	27
4.2.2	TEST INSTRUMENTS.....	28
4.2.3	TEST PROCEDURES	29
4.2.4	DEVIATION FROM TEST STANDARD	30
4.2.5	TEST SETUP	30
4.2.6	EUT OPERATING CONDITIONS.....	30
4.2.7	TEST RESULTS	31
4.3	6dB BANDWIDTH MEASUREMENT	41
4.3.1	LIMITS OF 6dB BANDWIDTH MEASUREMENT	41
4.3.2	TEST INSTRUMENTS.....	41
4.3.3	TEST PROCEDURE.....	42
4.3.4	DEVIATION FROM TEST STANDARD	42
4.3.5	TEST SETUP	42
4.3.6	EUT OPERATING CONDITIONS.....	42
4.3.7	TEST RESULTS	43
4.4	MAXIMUM PEAK OUTPUT POWER.....	51
4.4.1	LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT	51
4.4.2	TEST INSTRUMENTS.....	51
4.4.3	TEST PROCEDURES	52
4.4.4	DEVIATION FROM TEST STANDARD	52
4.4.5	TEST SETUP	52
4.4.6	EUT OPERATING CONDITIONS.....	52
4.4.7	TEST RESULTS	53



4.5	POWER SPECTRAL DENSITY MEASUREMENT	55
4.5.1	LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT.....	55
4.5.2	TEST INSTRUMENTS.....	55
4.5.3	TEST PROCEDURE.....	56
4.5.4	DEVIATION FROM TEST STANDARD	56
4.5.5	TEST SETUP	56
4.5.6	EUT OPERATING CONDITIONS.....	56
4.5.7	TEST RESULTS	57
4.6	BAND EDGES MEASUREMENT.....	65
4.6.1	LIMITS OF BAND EDGES MEASUREMENT	65
4.6.2	TEST INSTRUMENTS.....	65
4.6.3	TEST PROCEDURE.....	65
4.6.4	DEVIATION FROM TEST STANDARD	65
4.6.5	EUT OPERATING CONDITION	65
4.6.6	TEST RESULTS	66
5.	TEST TYPES AND RESULTS (For Dual Chain (TX)).....	78
5.1	CONDUCTED EMISSION MEASUREMENT	78
5.1.1	LIMITS OF CONDUCTED EMISSION MEASUREMENT	78
5.1.2	TEST INSTRUMENTS.....	78
5.1.3	TEST PROCEDURES	79
5.1.4	DEVIATION FROM TEST STANDARD	79
5.1.5	TEST SETUP	80
5.1.6	EUT OPERATING CONDITIONS.....	80
5.1.7	TEST RESULTS	81
5.2	RADIATED EMISSION MEASUREMENT	89
5.2.1	LIMITS OF RADIATED EMISSION MEASUREMENT	89
5.2.2	TEST INSTRUMENTS.....	90
5.2.3	TEST PROCEDURES	91
5.2.4	DEVIATION FROM TEST STANDARD	92
5.2.5	TEST SETUP	92
5.2.6	EUT OPERATING CONDITIONS.....	92
5.2.7	TEST RESULTS	93
5.3	6dB BANDWIDTH MEASUREMENT	101
5.3.1	LIMITS OF 6dB BANDWIDTH MEASUREMENT	101
5.3.2	TEST INSTRUMENTS.....	101
5.3.3	TEST PROCEDURE.....	102
5.3.4	DEVIATION FROM TEST STANDARD	102
5.3.5	TEST SETUP	102
5.3.6	EUT OPERATING CONDITIONS.....	102
5.3.7	TEST RESULTS	103
5.4	MAXIMUM PEAK OUTPUT POWER.....	109
5.4.1	LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT	109
5.4.2	TEST INSTRUMENTS.....	109
5.4.3	TEST PROCEDURES	110
5.4.4	DEVIATION FROM TEST STANDARD	110



5.4.5 TEST SETUP 110

5.4.6 EUT OPERATING CONDITIONS..... 110

5.4.7 TEST RESULTS 111

5.5 POWER SPECTRAL DENSITY MEASUREMENT 112

5.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT 112

5.5.2 TEST INSTRUMENTS 112

5.5.3 TEST PROCEDURE 113

5.5.4 DEVIATION FROM TEST STANDARD 113

5.5.5 TEST SETUP 113

5.5.6 EUT OPERATING CONDITIONS 113

5.5.7 TEST RESULTS 114

5.6 BAND EDGES MEASUREMENT 120

5.6.1 LIMITS OF BAND EDGES MEASUREMENT 120

5.6.2 TEST INSTRUMENTS 120

5.6.3 TEST PROCEDURE 121

5.6.4 DEVIATION FROM TEST STANDARD 121

5.6.5 EUT OPERATING CONDITION 121

5.6.6 TEST RESULTS 122

5.7 ANTENNA REQUIREMENT 130

5.7.1 STANDARD APPLICABLE 130

5.7.2 ANTENNA CONNECTED CONSTRUCTION 130

6. PHOTOGRAPHS OF THE TEST CONFIGURATION 131

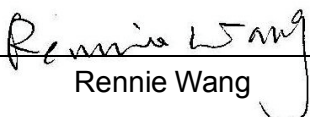
7. INFORMATION ON THE TESTING LABORATORIES 133



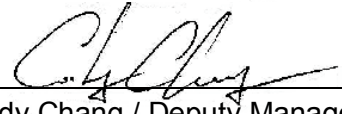
1. CERTIFICATION

PRODUCT: High Speed Wireless Network Adapter
MODEL NO.: AV10
BRAND: D-Link
APPLICANT: D-Link Corporation
TESTED: Aug. 16 ~ 20, 2005
TEST SAMPLE: ENGINEERING SAMPLE
STANDARDS: FCC Part 15, Subpart C (Section 15.247),
ANSI C63.4-2003

The above equipment has 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 :  , **DATE:** Aug. 25, 2005
Rennie Wang

TECHNICAL ACCEPTANCE :  , **DATE:** Aug. 25, 2005
Responsible for RF Gary Chang

APPROVED BY :  , **DATE:** Aug. 25, 2005
Cody Chang / Deputy Manager

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 -16.43dB at 0.189MHz.
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit : min. 500kHz	PASS	Meet the requirement of limit.
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit.
15.247(d)	Transmitter Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -1.67dB at 2320.00MHz.
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Band Edge Measurement Limit: 20 dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.

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	3.73 dB
	200MHz ~ 1000MHz	3.74 dB
	1GHz ~ 18GHz	2.20 dB
	18GHz ~ 40GHz	1.88 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	High Speed Wireless Network Adapter
MODEL NO.	AV10
POWER SUPPLY	3.3Vdc from host equipment
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 (Turbo mode: up to 108Mbps)
FREQUENCY RANGE	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11 for Normal mode / 1 for Turbo mode
MAXIMUM OUTPUT POWER (SINGAL CHAIN)	57.280mW
MAXIMUM OUTPUT POWER (DUAL CHAIN)	40.981mW
ANTENNA TYPE	Dipole antenna with 2.3197dBi gain
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

1. The EUT incorporates a basic beam forming capability. Physically, the card provides two complete transmit and receive chains.
2. The EUT can operate in a single chain configuration (only the chain 0 transceiver is operational) or dual chain configuration (both chain 0 and chain 1 transceivers are operational).
3. When the EUT is in the 802.11b mode, it is always in the single chain configuration.
4. When the EUT is operating in the 802.11g mode, it can operate in either configuration. Switching between the single and dual chain configurations is accomplished electronically, with no hardware changes required.
5. The EUT complies with IEEE 802.11g standards and backwards compatible with IEEE 802.11b products.
6. The EUT operates in the 2.4GHz frequency spectrum with throughput of up to 54Mbps.
7. This EUT is capable of providing data rates of up to 108 Mbps in Turbo mode depending upon reception quality.
8. 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

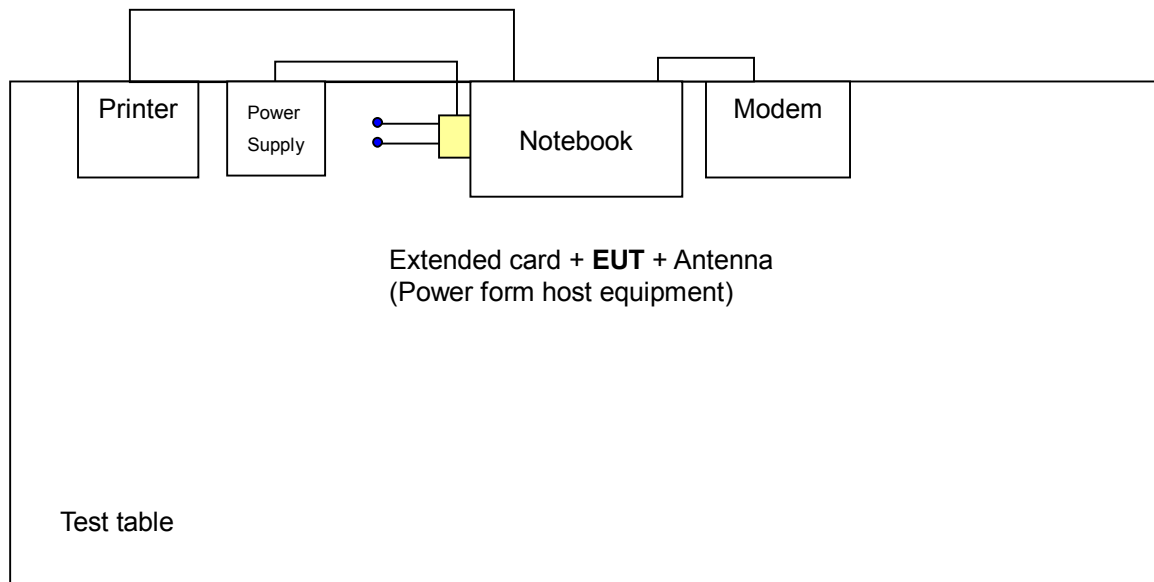
For 802.11b/g: Eleven channels are provided to this EUT for normal mode.

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		

For 802.11g: One channel is provided to this EUT for turbo mode.

CHANNEL	FREQUENCY
6	2437 MHz

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST





3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

FOR SINGLE CHAIN (TX):

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE<1G	RE≥1G	APCM	
-	√	√	√	√	-

Where **PLC:** Power Line Conducted Emission **RE<1G:** Radiated Emission below 1GHz
RE≥1G: Radiated Emission above 1GHz **APCM:** Antenna Port Conducted Measurement

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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	11	DSSS	BPSK	1
802.11g	1 to 11	11	OFDM	BPSK	6
802.11g turbo	6	6	OFDM	BPSK	12



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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	BPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11g turbo	6	6	OFDM	BPSK	12

BANDEDGE MEASUREMENT:

- 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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 11	DSSS	BPSK	1
802.11g	1 to 11	1, 11	OFDM	BPSK	6
802.11g turbo	6	6	OFDM	BPSK	12

ANTENNA PORT CONDUCTED MEASUREMENT:

- 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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	BPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11g turbo	6	6	OFDM	BPSK	12



FOR DUAL CHAIN (TX):

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE<1G	RE≥1G	APCM	
-	√	√	√	√	-

Where **PLC:** Power Line Conducted Emission **RE<1G:** Radiated Emission below 1GHz
RE≥1G: Radiated Emission above 1GHz **APCM:** Antenna Port Conducted Measurement

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, chain 1 phase (0° ~ 360°) 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	DATA RATE (Mbps)	CHAIN 1 PHASE
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	0°

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, chain 1 phase (0° ~ 360°) 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	DATA RATE (Mbps)	CHAIN 1 PHASE
802.11g	1 to 11	11	OFDM	BPSK	6	0°
802.11g turbo	6	6	OFDM	BPSK	12	0°



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, chain 1 phase (0° ~ 360°) 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	DATA RATE (Mbps)	CHAIN 1 PHASE
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	0°
802.11g turbo	6	6	OFDM	BPSK	12	0°

BANDEDGE MEASUREMENT:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, chain 1 phase (0° ~ 360°) 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	DATA RATE (Mbps)	CHAIN 1 PHASE
802.11g	1 to 11	1, 11	OFDM	BPSK	6	0°
802.11g turbo	6	6	OFDM	BPSK	12	0°

ANTENNA PORT CONDUCTED MEASUREMENT:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, chain 1 phase (0° ~ 360°) 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	DATA RATE (Mbps)	CHAIN 1 PHASE
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	0°
802.11g turbo	6	6	OFDM	BPSK	12	0°



3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a High Speed Wireless Network Adapter. 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	16484462992	E2K24CLNS
2	PRINTER	EPSON	LQ-300+	DCGY054147	FCC DoC Approved
3	MODEM	ACEEX	1414V/3	0401008269	IFAXDM1414
4	DC POWER SUPPLY	TOPWARD	TF-6306A	727263	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.2m shielded cable
3	1.2m shielded cable
4	NA

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



4. TEST TYPES AND RESULTS (FOR SINGLE CHAIN (TX))

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	100288	Nov. 06, 2005
RF signal cable Woken	5D-FB	Cable-HyC02-01	Jan. 09, 2006
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Jan. 20, 2006
LISN ROHDE & SCHWARZ	ESH3-Z5	100311	Jan. 20, 2006
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 3.
 3. The VCCI Site Registration No. is C-2047.



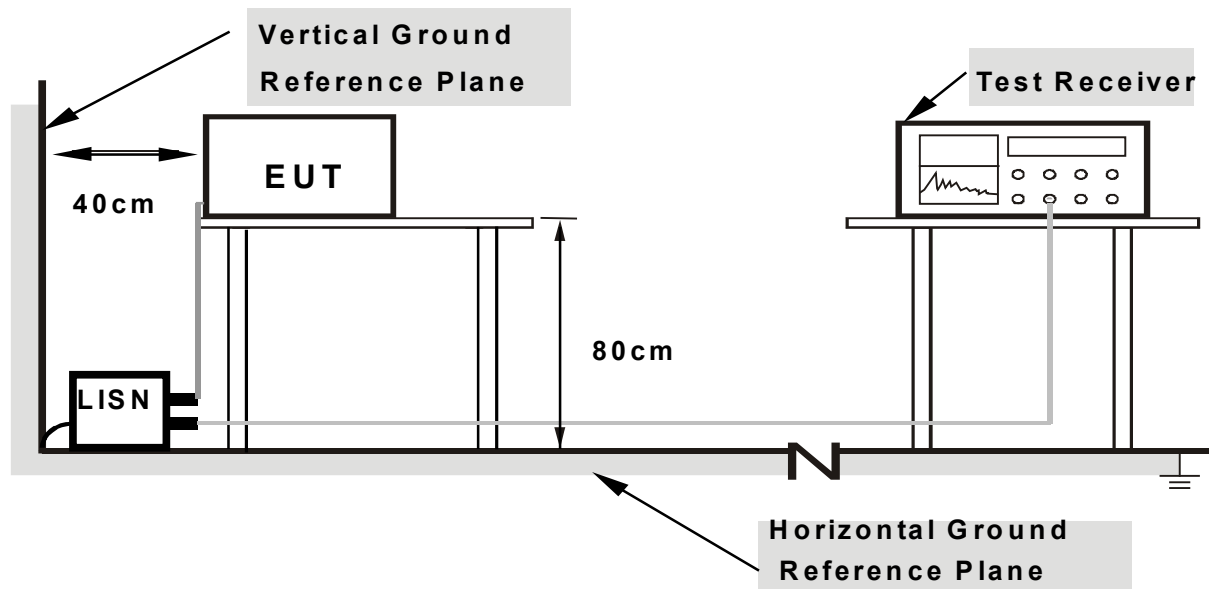
4.1.3 TEST PROCEDURES

- 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 related item – Photographs of the Test Configuration.

4.1.6 EUT OPERATING CONDITIONS

- a. Connected the EUT to notebook via the extended card and placed on a testing table.
- b. The notebook ran a test program (provided by manufacturer) to enable EUT under transmission/receiving condition continuously at specific channel frequency.
- c. The notebook sent "H" messages to its screen.
- d. The notebook show "H" messages to modem.
- e. The notebook sent "H" messages to printer and the printer prints them on paper.
- f. Repeated item c ~e.



4.1.7 TEST RESULTS

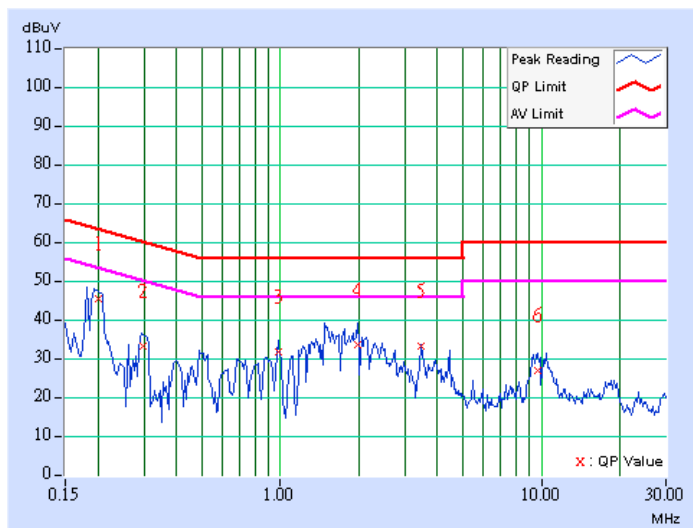
CONDUCTED WORST CASE DATA

802.11g OFDM MODULATION_NORMAL MODE

EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	PHASE	Line 1
CHANNEL	Channel 1	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Long Chen		

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	0.201	0.11	45.04	-	45.15	-	63.59	53.59	-18.44	-
2	0.297	0.11	32.80	-	32.91	-	60.32	50.32	-27.41	-
3	0.985	0.23	31.53	-	31.76	-	56.00	46.00	-24.24	-
4	1.977	0.25	33.33	-	33.58	-	56.00	46.00	-22.42	-
5	3.461	0.28	32.89	-	33.17	-	56.00	46.00	-22.83	-
6	9.645	0.43	26.75	-	27.18	-	60.00	50.00	-32.82	-

- 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.

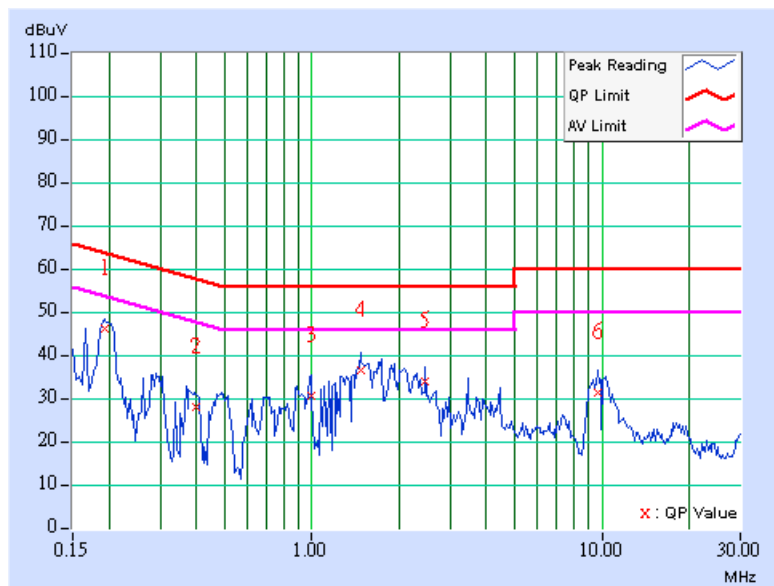




EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	PHASE	Line 2
CHANNEL	Channel 1	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Long Chen		

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	0.11	45.93	-	46.04	-	63.91	53.91	-17.87	-
2	0.398	0.12	27.78	-	27.90	-	57.90	47.90	-30.00	-
3	0.990	0.23	30.06	-	30.29	-	56.00	46.00	-25.71	-
4	1.475	0.24	36.09	-	36.33	-	56.00	46.00	-19.67	-
5	2.463	0.26	33.44	-	33.70	-	56.00	46.00	-22.30	-
6	9.648	0.53	30.79	-	31.32	-	60.00	50.00	-28.68	-

- 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.

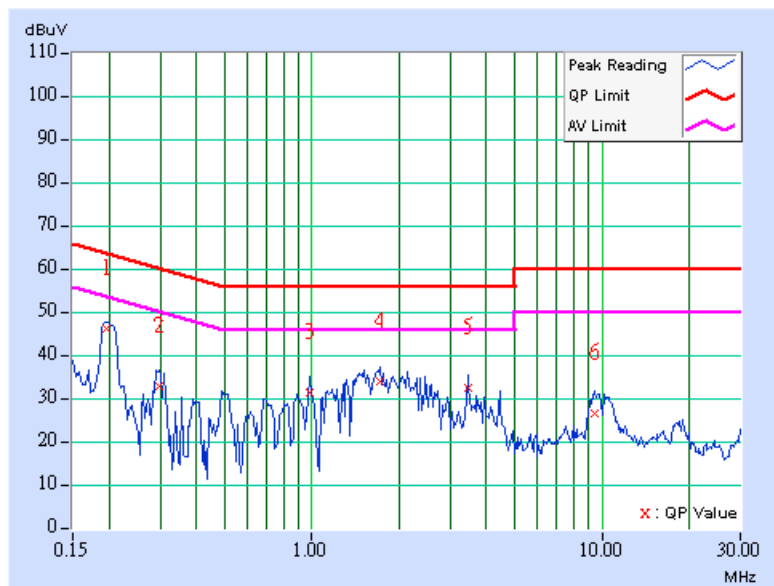




EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	PHASE	Line 1
CHANNEL	Channel 6	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Long Chen		

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	0.197	0.11	45.73	-	45.84	-	63.74	53.74	-17.90	-
2	0.298	0.11	32.62	-	32.73	-	60.29	50.29	-27.55	-
3	0.982	0.23	31.17	-	31.40	-	56.00	46.00	-24.60	-
4	1.711	0.24	33.63	-	33.87	-	56.00	46.00	-22.13	-
5	3.457	0.28	32.31	-	32.59	-	56.00	46.00	-23.41	-
6	9.465	0.43	26.10	-	26.53	-	60.00	50.00	-33.47	-

- 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.

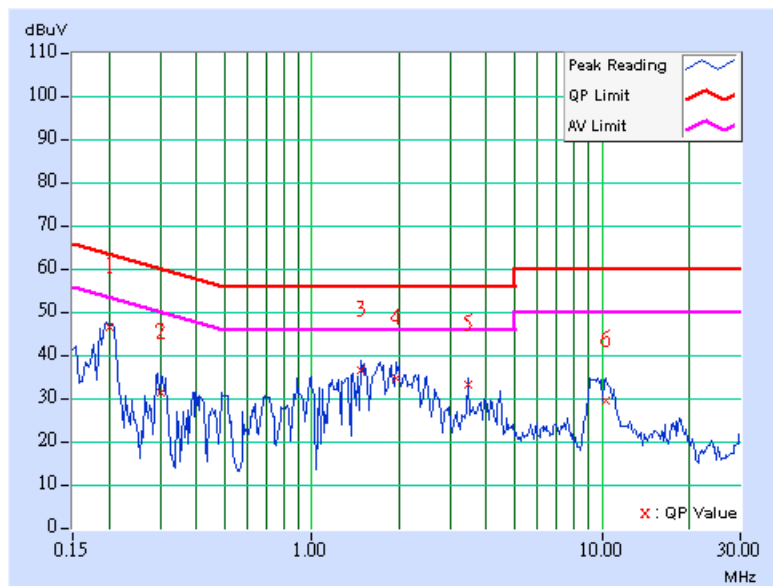




EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	PHASE	Line 2
CHANNEL	Channel 6	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Long Chen		

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	0.201	0.11	46.15	-	46.26	-	63.58	53.58	-17.32	-
2	0.300	0.11	30.94	-	31.05	-	60.25	50.25	-29.19	-
3	1.477	0.24	36.09	-	36.33	-	56.00	46.00	-19.67	-
4	1.957	0.25	34.37	-	34.62	-	56.00	46.00	-21.38	-
5	3.457	0.28	32.61	-	32.89	-	56.00	46.00	-23.11	-
6	10.363	0.55	29.12	-	29.67	-	60.00	50.00	-30.33	-

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

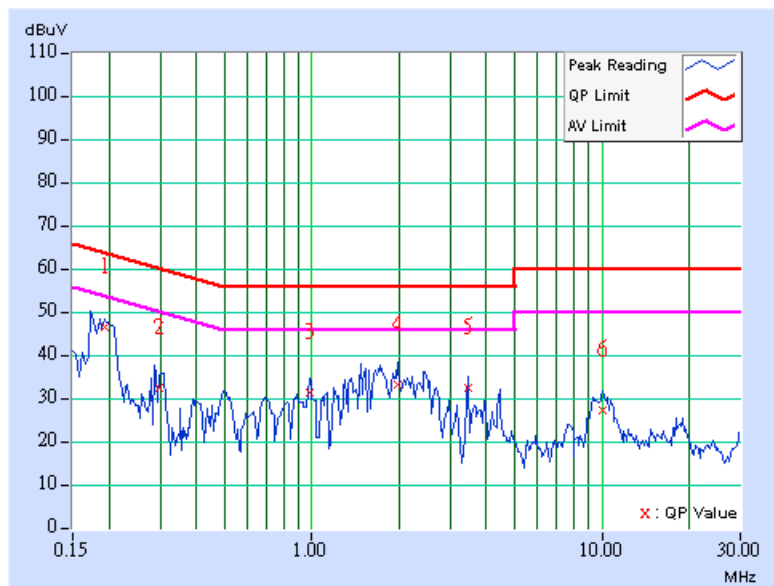




EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	PHASE	Line 1
CHANNEL	Channel 11	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Long Chen		

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	0.11	46.21	-	46.32	-	63.91	53.91	-17.59	-
2	0.298	0.11	32.10	-	32.21	-	60.29	50.29	-28.08	-
3	0.982	0.23	30.97	-	31.20	-	56.00	46.00	-24.80	-
4	1.969	0.25	32.83	-	33.08	-	56.00	46.00	-22.92	-
5	3.455	0.28	32.27	-	32.55	-	56.00	46.00	-23.45	-
6	10.059	0.44	26.86	-	27.30	-	60.00	50.00	-32.70	-

- 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.

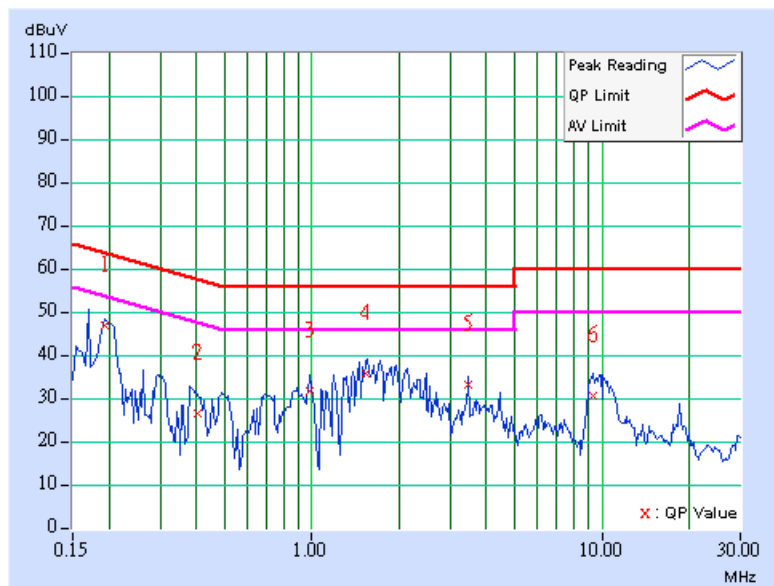




EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	PHASE	Line 2
CHANNEL	Channel 11	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Long Chen		

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	0.11	46.41	-	46.52	-	63.91	53.91	-17.39	-
2	0.402	0.12	26.31	-	26.43	-	57.81	47.81	-31.38	-
3	0.986	0.23	31.30	-	31.53	-	56.00	46.00	-24.47	-
4	1.543	0.24	35.29	-	35.53	-	56.00	46.00	-20.47	-
5	3.459	0.28	32.81	-	33.09	-	56.00	46.00	-22.91	-
6	9.322	0.51	30.37	-	30.88	-	60.00	50.00	-29.12	-

- 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.



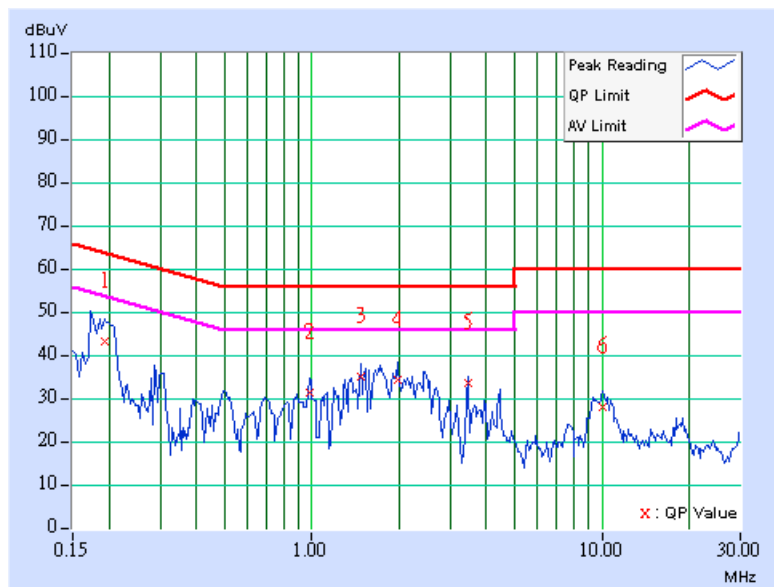


802.11g OFDM MODULATION_TURBO MODE

EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	PHASE	Line 1
CHANNEL	Channel 6	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH, 991hPa
TRANSFER RATE	12Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Long Chen		

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	0.11	42.92	-	43.03	-	63.91
2	0.979	0.23	31.17	-	31.40	-	56.00	46.00	-24.60	-
3	1.473	0.24	34.91	-	35.15	-	56.00	46.00	-20.85	-
4	1.969	0.25	33.83	-	34.08	-	56.00	46.00	-21.92	-
5	3.455	0.28	33.27	-	33.55	-	56.00	46.00	-22.45	-
6	10.059	0.44	27.86	-	28.30	-	60.00	50.00	-31.70	-

- 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.

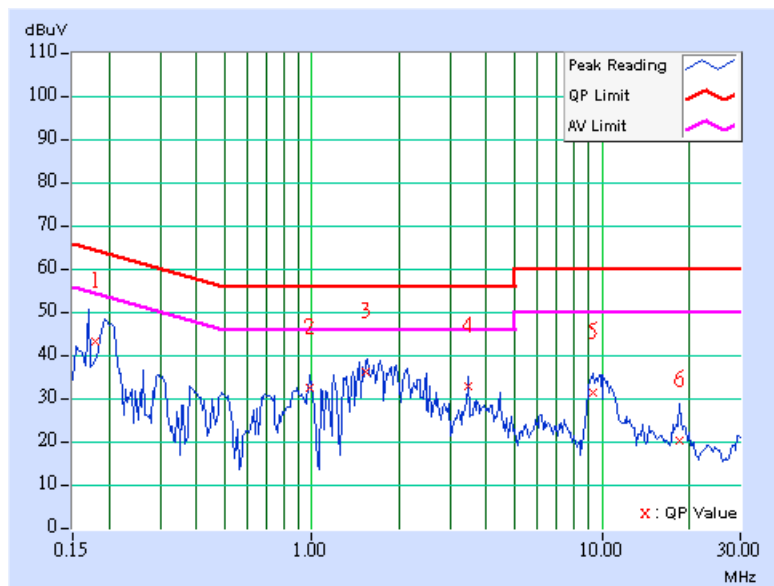




EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	PHASE	Line 2
CHANNEL	Channel 6	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH, 991hPa
TRANSFER RATE	12Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Long Chen		

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	0.178	0.11	42.50	-	42.61	-	64.57	54.57	-21.96	-
2	0.986	0.23	31.86	-	32.09	-	56.00	46.00	-23.91	-
3	1.543	0.24	35.56	-	35.80	-	56.00	46.00	-20.20	-
4	3.459	0.28	32.26	-	32.54	-	56.00	46.00	-23.46	-
5	9.322	0.51	30.55	-	31.06	-	60.00	50.00	-28.94	-
6	18.570	0.89	19.36	-	20.25	-	60.00	50.00	-39.75	-

- 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.





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	ESIB7	100188	Dec. 19, 2005
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Nov. 21, 2005
BILOG Antenna SCHWARZBECK	VULB9168	9168-157	Jan. 22, 2006
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-407	Jan. 16, 2006
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA 9170241	Feb. 23, 2006
Preamplifier Agilent	8449B	3008A01961	Nov. 09, 2005
Preamplifier Agilent	8447D	2944A10629	Nov. 09, 2005
RF signal cable HUBER+SUHNER	SUCOFLEX 104	218182/4	Feb. 17, 2006
RF signal cable HUBER+SUHNER	SUCOFLEX 104	218194/4	Feb. 17, 2006
Software ADT.	ADT_Radiated_V5.14	NA	NA
Antenna Tower ADT.	AT100	AT93021702	NA
Turn Table ADT.	TT100.	TT93021702	NA
Controller ADT.	SC100.	SC93021702	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 1.
 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 IC4924-2.



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

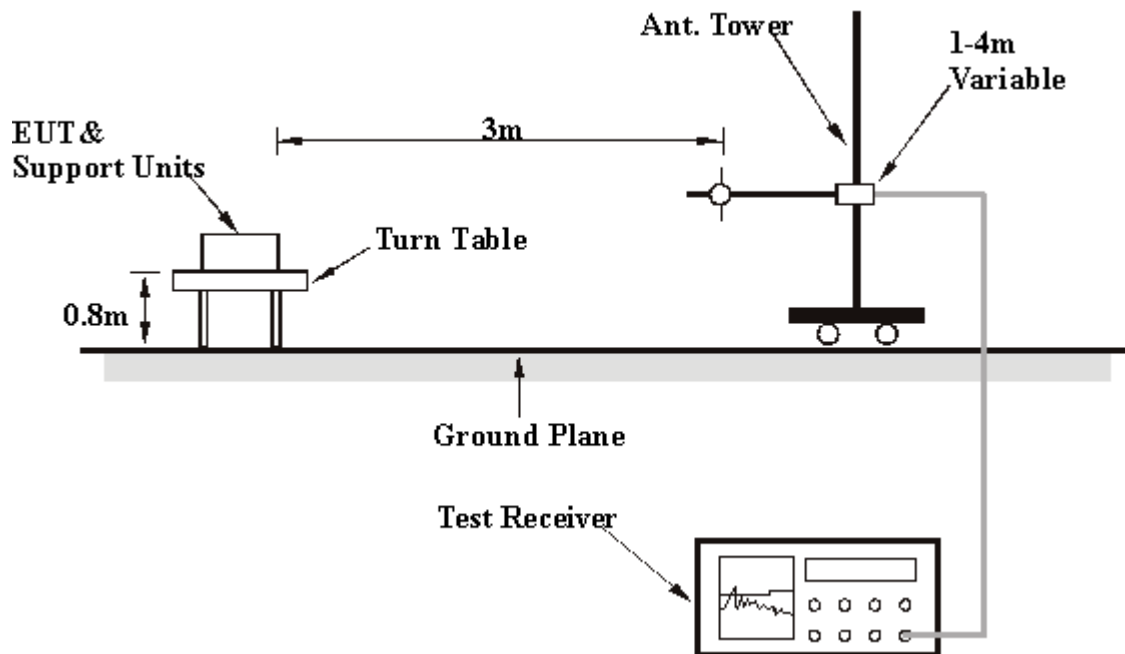
NOTE:

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 and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1kHz 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 related item – Photographs of the Test Configuration.

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6



4.2.7 TEST RESULTS

RADIATED WORST CASE DATA

EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	Below 1000MHz
CHANNEL	Channel 11	DETECTOR FUNCTION	Quasi-Peak
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	1Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	99.98	38.86 QP	43.50	-4.64	2.00 H	10	28.11	10.74
2	133.03	41.76 QP	43.50	-1.74	1.50 H	343	28.04	13.72
3	166.07	41.56 QP	43.50	-1.94	1.50 H	13	27.49	14.07
4	199.12	41.36 QP	43.50	-2.14	1.50 H	10	30.16	11.20
5	232.16	35.36 QP	46.00	-10.64	1.50 H	313	22.95	12.41
6	265.21	33.89 QP	46.00	-12.11	1.00 H	325	20.45	13.45
7	333.25	34.41 QP	46.00	-11.59	1.00 H	355	19.33	15.08
8	733.69	33.14 QP	46.00	-12.86	1.00 H	295	10.11	23.03
9	799.78	32.50 QP	46.00	-13.50	1.00 H	145	8.80	23.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	31.94	25.37 QP	40.00	-14.63	1.50 V	295	11.69	13.68
2	99.98	29.42 QP	43.50	-14.08	2.50 V	103	18.67	10.74
3	133.03	33.82 QP	43.50	-9.68	2.50 V	106	20.10	13.72
4	166.07	32.51 QP	43.50	-10.99	2.00 V	103	18.44	14.07
5	199.12	35.43 QP	43.50	-8.07	2.00 V	295	24.23	11.20
6	531.52	32.89 QP	46.00	-13.11	1.00 V	37	13.66	19.23
7	729.80	31.41 QP	46.00	-14.59	1.50 V	316	8.47	22.94
8	931.96	31.04 QP	46.00	-14.96	1.00 V	313	5.61	25.43

- 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	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	1 ~ 25GHz
CHANNEL	Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	1Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

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	2016.00	46.48 PK	82.66	-36.18	1.24 H	205	16.14	30.34
1	2016.00	42.35 AV	75.73	-33.38	1.24 H	205	12.01	30.34
2	2320.00	57.84 PK	74.00	-16.16	1.04 H	256	26.11	31.73
2	2320.00	46.76 AV	54.00	-7.24	1.04 H	256	15.03	31.73
3	2386.00	56.72 PK	74.00	-17.28	1.00 H	258	24.70	32.02
3	2386.00	47.50 AV	54.00	-6.50	1.00 H	258	15.48	32.02
4	*2412.00	102.66 PK			1.00 H	258	70.53	32.13
4	*2412.00	95.73 AV			1.00 H	258	63.60	32.13
5	4824.00	54.14 PK	74.00	-19.86	1.04 H	115	15.94	38.20
5	4824.00	47.21 AV	54.00	-6.79	1.04 H	115	9.01	38.20

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	2016.00	51.91 PK	91.10	-39.19	1.27 V	67	21.57	30.34
1	2016.00	49.00 AV	83.08	-34.08	1.27 V	67	18.66	30.34
2	2320.00	59.76 PK	74.00	-14.24	1.12 V	108	28.03	31.73
2	2320.00	50.22 AV	54.00	-3.78	1.12 V	108	18.49	31.73
3	2390.00	60.14 PK	74.00	-13.86	1.16 V	8	28.10	32.04
3	2390.00	51.37 AV	54.00	-2.63	1.16 V	8	19.33	32.04
4	*2412.00	111.10 PK			1.16 V	8	78.97	32.13
4	*2412.00	103.08 AV			1.16 V	8	70.95	32.13
5	4824.00	55.10 PK	74.00	-18.90	1.15 V	271	16.90	38.20
5	4824.00	49.50 AV	54.00	-4.50	1.15 V	271	11.30	38.20

- 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	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	1 ~ 25GHz
CHANNEL	Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	1Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

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	2016.00	45.04 PK	81.31	-36.27	1.35 H	218	14.70	30.34
1	2016.00	41.70 AV	73.64	-31.94	1.35 H	218	11.36	30.34
2	2320.00	56.70 PK	74.00	-17.30	1.08 H	45	24.97	31.73
2	2320.00	46.30 AV	54.00	-7.70	1.08 H	45	14.57	31.73
3	*2437.00	101.31 PK			1.46 H	282	69.06	32.25
3	*2437.00	93.64 AV			1.46 H	282	61.39	32.25
4	4874.00	53.10 PK	74.00	-20.90	1.13 H	291	14.78	38.32
4	4874.00	45.80 AV	54.00	-8.20	1.13 H	291	7.48	38.32

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	2016.00	51.12 PK	91.98	-40.86	1.30 V	18	20.78	30.34
1	2016.00	48.68 AV	84.94	-36.26	1.30 V	18	18.34	30.34
2	2320.00	60.83 PK	74.00	-13.17	1.25 V	7	29.10	31.73
2	2320.00	48.72 AV	54.00	-5.28	1.25 V	7	16.99	31.73
3	*2437.00	111.98 PK			1.16 V	354	79.73	32.25
3	*2437.00	104.94 AV			1.16 V	354	72.69	32.25
4	4874.00	55.81 PK	74.00	-18.19	1.10 V	360	17.49	38.32
4	4874.00	49.25 AV	54.00	-4.75	1.10 V	360	10.93	38.32

- 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	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	1 ~ 25GHz
CHANNEL	Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	1Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

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	2016.00	43.49 PK	81.41	-37.92	1.00 H	4	13.15	30.34
1	2016.00	40.10 AV	74.14	-34.04	1.00 H	4	9.76	30.34
2	2320.00	57.33 PK	74.00	-16.67	1.32 H	220	25.60	31.73
2	2320.00	46.55 AV	54.00	-7.45	1.32 H	220	14.82	31.73
3	*2462.00	101.41 PK			1.43 H	68	69.05	32.36
3	*2462.00	94.14 AV			1.43 H	68	61.78	32.36
4	2483.50	55.45 PK	74.00	-18.55	1.43 H	68	22.99	32.46
4	2483.50	45.76 AV	54.00	-8.24	1.43 H	68	13.30	32.46
5	4924.00	52.22 PK	74.00	-21.78	1.11 H	281	13.76	38.46
5	4924.00	44.90 AV	54.00	-9.10	1.11 H	281	6.44	38.46

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	2016.00	50.55 PK	92.01	-41.46	1.30 V	360	20.21	30.34
1	2016.00	49.41 AV	84.44	-35.03	1.30 V	360	19.07	30.34
2	2320.00	58.63 PK	74.00	-15.37	1.37 V	208	26.90	31.73
2	2320.00	50.16 AV	54.00	-3.84	1.37 V	208	18.43	31.73
3	*2462.00	112.01 PK			1.01 V	47	79.65	32.36
3	*2462.00	104.44 AV			1.01 V	47	72.08	32.36
4	2483.50	55.95 PK	74.00	-18.05	1.01 V	47	23.49	32.46
4	2483.50	49.24 AV	54.00	-4.76	1.01 V	47	16.78	32.46
5	4924.00	54.62 PK	74.00	-19.38	1.26 V	37	16.16	38.46
5	4924.00	47.91 AV	54.00	-6.09	1.26 V	37	9.45	38.46

- 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_NORMAL MODE

EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	1 ~ 25GHz
CHANNEL	Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

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	2016.00	44.34 PK	81.15	-36.81	1.27 H	198	14.00	30.34
1	2016.00	39.63 AV	71.88	-32.25	1.27 H	198	9.29	30.34
2	2360.00	55.79 PK	74.00	-18.21	1.15 H	328	23.89	31.90
2	2360.00	45.77 AV	54.00	-8.23	1.15 H	328	13.87	31.90
3	2390.00	60.14 PK	74.00	-13.86	1.13 H	355	28.10	32.04
3	2390.00	48.11 AV	54.00	-5.89	1.13 H	355	16.07	32.04
4	*2412.00	101.15 PK			1.13 H	355	69.02	32.13
4	*2412.00	91.88 AV			1.13 H	355	59.75	32.13
5	4824.00	48.50 PK	74.00	-25.50	1.20 H	114	10.30	38.20
5	4824.00	35.53 AV	54.00	-18.47	1.20 H	114	-2.67	38.20

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	2016.00	49.10 PK	90.08	-40.98	1.00 V	358	18.76	30.34
1	2016.00	47.40 AV	80.59	-33.19	1.00 V	358	17.06	30.34
2	2320.00	60.33 PK	74.00	-13.67	1.13 V	217	28.60	31.73
2	2320.00	50.37 AV	54.00	-3.63	1.13 V	217	18.64	31.73
3	2360.00	64.50 PK	74.00	-9.50	1.13 V	217	32.60	31.90
3	2360.00	48.99 AV	54.00	-5.01	1.13 V	217	17.09	31.90
4	2390.00	70.89 PK	74.00	-3.11	1.10 V	217	38.85	32.04
4	2390.00	51.94 AV	54.00	-2.06	1.10 V	217	19.90	32.04
5	*2412.00	110.08 PK			1.10 V	217	77.95	32.13
5	*2412.00	100.59 AV			1.10 V	217	68.46	32.13
6	4824.00	49.93 PK	74.00	-24.07	1.19 V	32	11.73	38.20
6	4824.00	37.23 AV	54.00	-16.77	1.19 V	32	-0.97	38.20

- 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	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	1 ~ 25GHz
CHANNEL	Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

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	2016.00	44.09 PK	80.73	-36.64	1.04 H	188	13.75	30.34
1	2016.00	40.74 AV	71.36	-30.62	1.04 H	188	10.40	30.34
2	2320.00	59.46 PK	74.00	-14.54	1.00 H	240	27.73	31.73
2	2320.00	47.89 AV	54.00	-6.11	1.00 H	240	16.16	31.73
3	2360.00	57.78 PK	74.00	-16.22	1.00 H	239	25.88	31.90
3	2360.00	46.12 AV	54.00	-7.88	1.00 H	239	14.22	31.90
4	*2437.00	100.73 PK			1.06 H	29	68.48	32.25
4	*2437.00	91.36 AV			1.06 H	29	59.11	32.25
5	4874.00	48.65 PK	74.00	-25.35	1.09 H	128	10.33	38.32
5	4874.00	35.64 AV	54.00	-18.36	1.09 H	128	-2.68	38.32

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	2016.00	49.13 PK	89.74	-40.61	1.04 V	1	18.79	30.34
1	2016.00	47.05 AV	79.33	-32.28	1.04 V	1	16.71	30.34
2	2280.00	52.17 PK	74.00	-21.83	1.43 V	214	20.61	31.56
2	2280.00	44.65 AV	54.00	-9.35	1.43 V	214	13.09	31.56
3	2320.00	59.72 PK	74.00	-14.28	1.13 V	218	27.99	31.73
3	2320.00	50.09 AV	54.00	-3.91	1.13 V	218	18.36	31.73
4	2360.00	58.32 PK	74.00	-15.68	1.13 V	3	26.42	31.90
4	2360.00	48.62 AV	54.00	-5.38	1.13 V	3	16.72	31.90
5	*2437.00	109.74 PK			1.29 V	34	77.49	32.25
5	*2437.00	99.33 AV			1.29 V	34	67.08	32.25
6	4874.00	49.62 PK	74.00	-24.38	1.07 V	360	11.30	38.32
6	4874.00	36.74 AV	54.00	-17.26	1.07 V	360	-1.58	38.32

- 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	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	1 ~ 25GHz
CHANNEL	Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

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	2016.00	45.01 PK	79.51	-34.50	1.26 H	202	14.67	30.34
1	2016.00	40.74 AV	79.79	-39.05	1.26 H	202	10.40	30.34
2	2320.00	59.32 PK	74.00	-14.68	1.01 H	239	27.59	31.73
2	2320.00	47.80 AV	54.00	-6.20	1.01 H	239	16.07	31.73
3	2360.00	57.37 PK	74.00	-16.63	1.00 H	231	25.47	31.90
3	2360.00	45.91 AV	54.00	-8.09	1.00 H	231	14.01	31.90
4	*2462.00	99.51 PK			1.35 H	1	67.15	32.36
4	*2462.00	89.79 AV			1.35 H	1	57.43	32.36
5	2483.50	55.37 PK	74.00	-18.63	1.35 H	1	22.91	32.46
5	2483.50	46.12 AV	54.00	-7.88	1.35 H	1	13.66	32.46

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	2016.00	50.10 PK	90.38	-40.28	1.00 V	68	19.76	30.34
1	2016.00	47.88 AV	80.20	-32.32	1.00 V	68	17.54	30.34
2	2280.00	58.37 PK	74.00	-15.63	1.20 V	15	26.81	31.56
2	2280.00	47.28 AV	54.00	-6.72	1.20 V	15	15.72	31.56
3	2320.00	60.73 PK	74.00	-13.27	1.14 V	216	29.00	31.73
3	2320.00	50.63 AV	54.00	-3.37	1.14 V	216	18.90	31.73
4	2360.00	59.89 PK	74.00	-14.11	1.13 V	213	27.99	31.90
4	2360.00	48.82 AV	54.00	-5.18	1.13 V	213	16.92	31.90
5	*2462.00	110.38 PK			1.00 V	50	78.02	32.36
5	*2462.00	100.20 AV			1.00 V	50	67.84	32.36
6	2483.50	67.09 PK	74.00	-6.91	1.00 V	50	34.63	32.46
6	2483.50	50.84 AV	54.00	-3.16	1.00 V	50	18.38	32.46

- 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_TURBO MODE

EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	Below 1000MHz
CHANNEL	Channel 6	DETECTOR FUNCTION	Quasi-Peak
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	12Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	99.98	39.58 QP	43.50	-3.92	2.50 H	213	28.84	10.74
2	133.33	41.52 QP	43.50	-1.98	2.00 H	288	27.78	13.74
3	166.17	41.23 QP	43.50	-2.27	1.75 H	360	27.17	14.06
4	200.11	41.62 QP	43.50	-1.88	1.50 H	147	30.49	11.13
5	232.16	35.53 QP	46.00	-10.47	1.50 H	319	23.12	12.41
6	267.20	34.28 QP	46.00	-11.72	1.50 H	247	20.75	13.53
7	331.30	34.20 QP	46.00	-11.80	1.00 H	358	19.16	15.04
8	404.44	34.20 QP	46.00	-11.80	2.00 H	154	17.45	16.75
9	457.66	29.87 QP	46.00	-16.13	1.50 H	256	11.85	18.01
10	533.47	30.30 QP	46.00	-15.70	1.50 H	79	11.03	19.27
11	665.65	31.53 QP	46.00	-14.47	2.00 H	169	9.73	21.79
12	720.08	31.67 QP	46.00	-14.33	1.00 H	145	8.95	22.72
13	800.11	34.58 QP	46.00	-11.42	1.00 H	247	10.88	23.70
14	996.11	27.99 QP	54.00	-26.01	1.00 H	256	2.33	25.66

- 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	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	Below 1000MHz
CHANNEL	Channel 6	DETECTOR FUNCTION	Quasi-Peak
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	12Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

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	32.54	28.44 QP	40.00	-11.56	1.00 V	278	14.66	13.78
2	65.42	28.40 QP	40.00	-11.60	1.25 V	300	15.55	12.85
3	111.64	32.25 QP	43.50	-11.25	1.00 V	211	20.31	11.94
4	166.14	32.18 QP	43.50	-11.32	2.00 V	147	18.12	14.06
5	199.12	29.03 QP	43.50	-14.47	1.00 V	76	17.83	11.20
6	292.42	27.09 QP	46.00	-18.91	1.50 V	352	12.87	14.22
7	342.50	32.48 QP	46.00	-13.52	1.50 V	287	17.19	15.29
8	465.43	31.09 QP	46.00	-14.91	1.00 V	343	12.97	18.12
9	533.47	28.81 QP	46.00	-17.19	1.00 V	316	9.53	19.27
10	735.50	35.20 QP	46.00	-10.80	1.50 V	307	12.12	23.08
11	863.93	31.44 QP	46.00	-14.56	1.00 V	265	7.04	24.40
12	994.17	30.42 QP	54.00	-23.58	1.00 V	343	4.76	25.66

- 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	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	1 ~ 25GHz
CHANNEL	Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	12Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

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	2016.00	46.70 PK	77.80	-31.10	1.35 H	16	16.36	30.34
1	2016.00	43.61 AV	68.86	-25.25	1.35 H	16	13.27	30.34
2	2390.00	54.13 PK	74.00	-19.87	1.45 H	281	22.09	32.04
2	2390.00	45.50 AV	54.00	-8.50	1.45 H	281	13.46	32.04
3	*2437.00	97.80 PK			1.45 H	281	65.55	32.25
3	*2437.00	88.86 AV			1.45 H	281	56.61	32.25
4	2483.50	54.06 PK	74.00	-19.94	1.45 H	281	21.60	32.46
4	2483.50	45.94 AV	54.00	-8.06	1.45 H	281	13.48	32.46
5	4874.00	46.29 PK	74.00	-27.71	1.17 H	1	7.97	38.32
5	4874.00	35.22 AV	54.00	-18.78	1.17 H	1	-3.10	38.32

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	2016.00	50.82 PK	89.20	-38.38	1.00 V	133	20.48	30.34
1	2016.00	49.53 AV	79.38	-29.85	1.00 V	133	19.19	30.34
2	2320.00	61.13 PK	74.00	-12.87	1.12 V	109	29.40	31.73
2	2320.00	49.55 AV	54.00	-4.45	1.12 V	109	17.82	31.73
3	2390.00	63.74 PK	74.00	-10.26	1.27 V	100	31.70	32.04
3	2390.00	50.59 AV	54.00	-3.41	1.27 V	100	18.55	32.04
4	*2437.00	109.20 PK			1.27 V	100	76.95	32.25
4	*2437.00	99.38 AV			1.27 V	100	67.13	32.25
5	2483.50	58.50 PK	74.00	-15.50	1.27 V	100	26.04	32.46
5	2483.50	49.33 AV	54.00	-4.67	1.27 V	100	16.87	32.46
6	4874.00	49.18 PK	74.00	-24.82	1.17 V	80	10.86	38.32
6	4874.00	37.50 AV	54.00	-16.50	1.17 V	80	-0.82	38.32

- 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.



4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

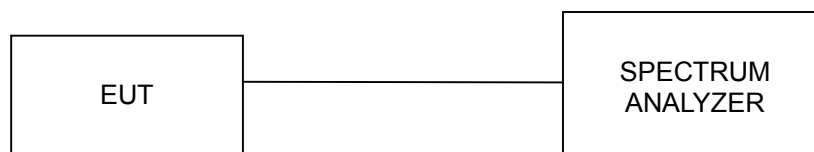
4.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100 kHz RBW and 100kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation

4.3.5 TEST SETUP



For the actual test configuration, please refer to the related Item – Photographs of the Test Configuration.

4.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.



4.3.7 TEST RESULTS

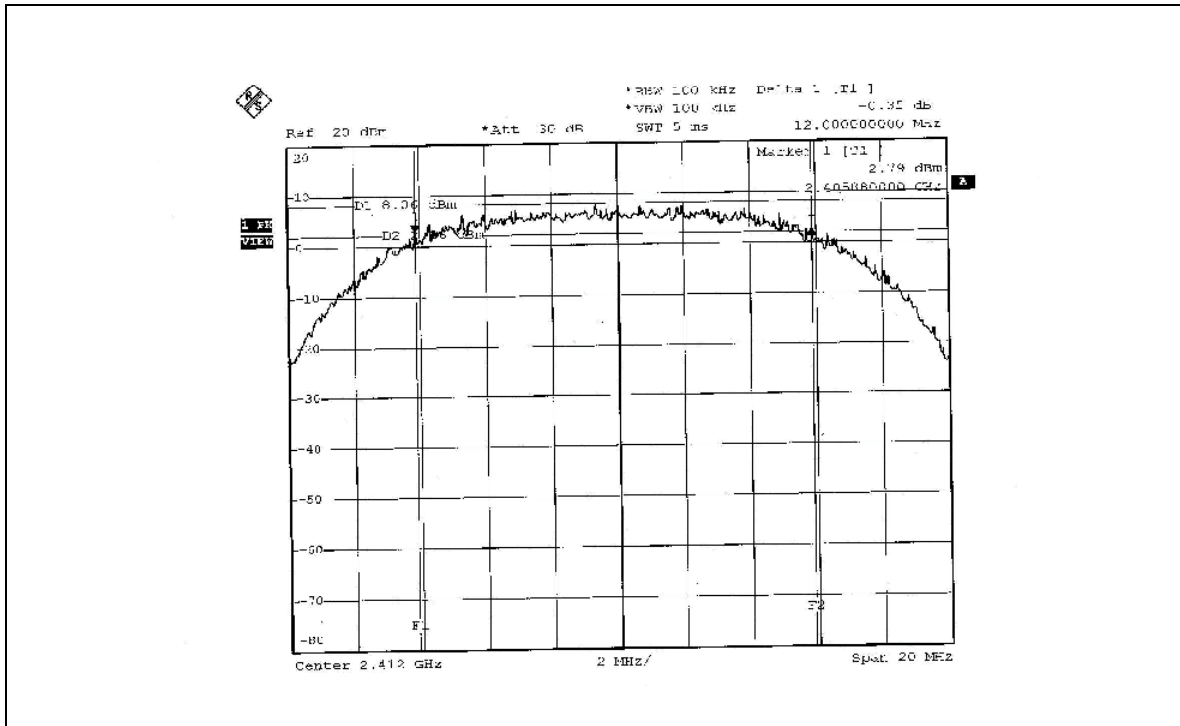
802.11b DSSS MODULATION

EUT	High Speed Wireless Network Adapter	MODEL	AV10
MODULATION TYPE	BPSK	TRANSFER RATE	1Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TESTED BY	Match Tsui		

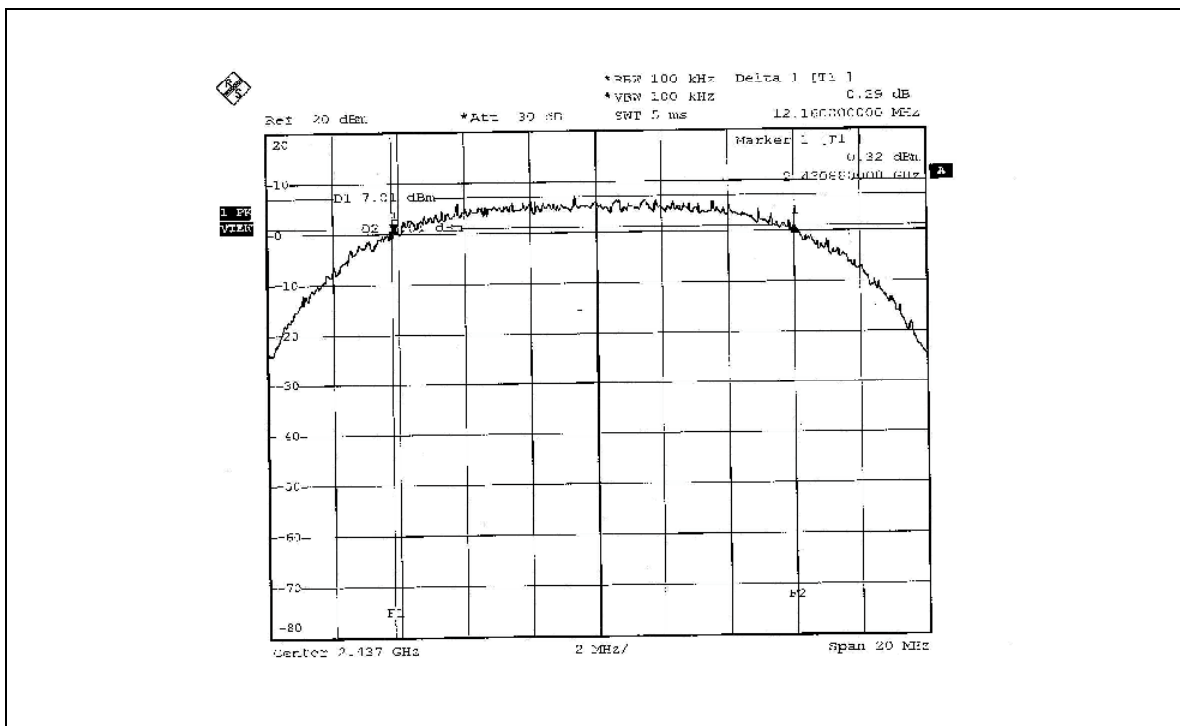
CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	12.00	0.5	PASS
6	2437	12.16	0.5	PASS
11	2462	11.96	0.5	PASS



CH1

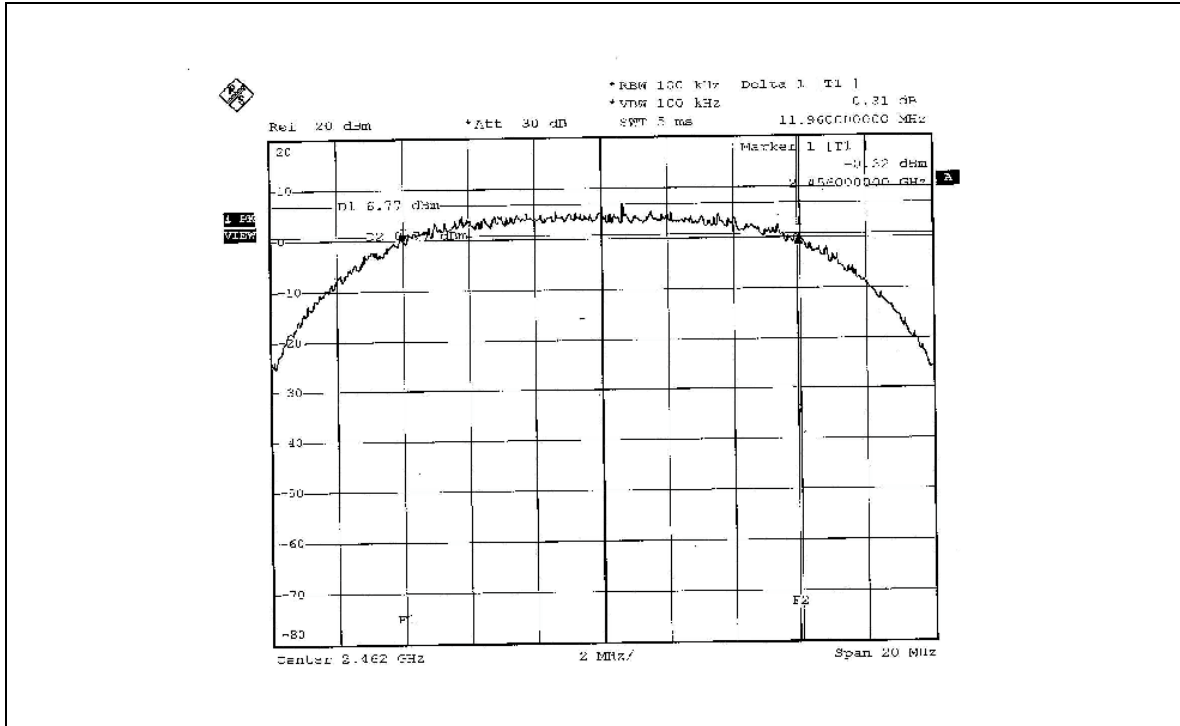


CH6





CH11





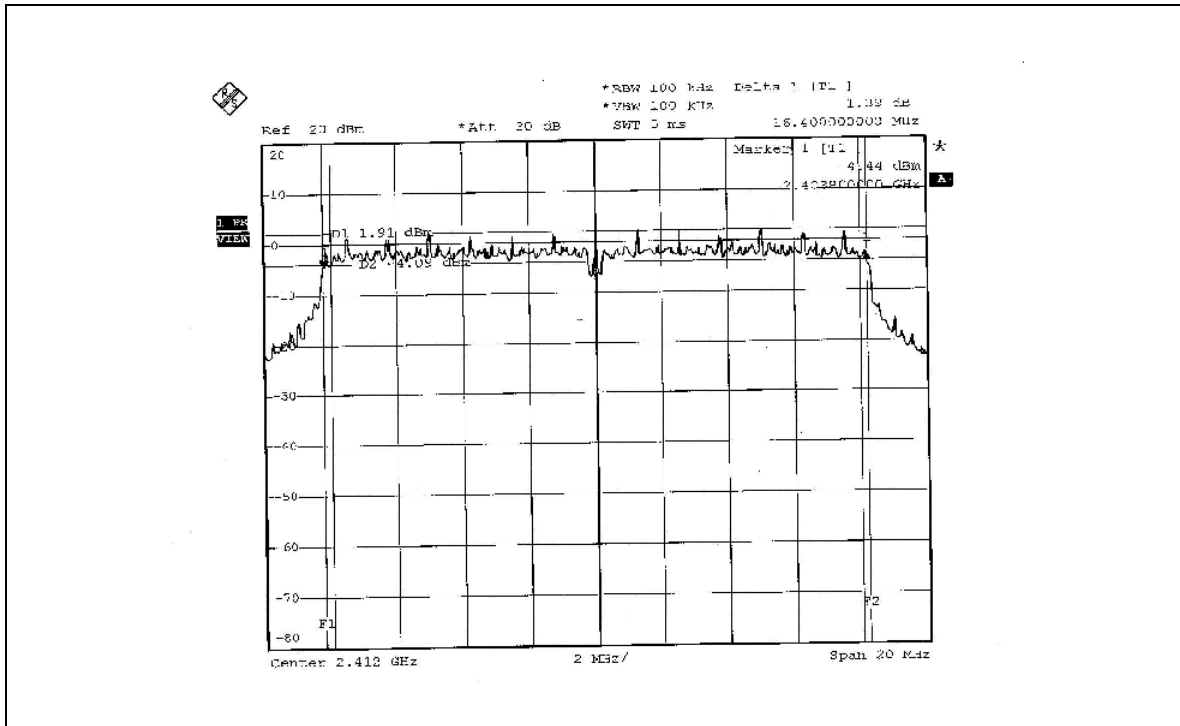
802.11g OFDM MODULATION_NORMAL MODE

EUT	High Speed Wireless Network Adapter	MODEL	AV10
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TESTED BY	Match Tsui		

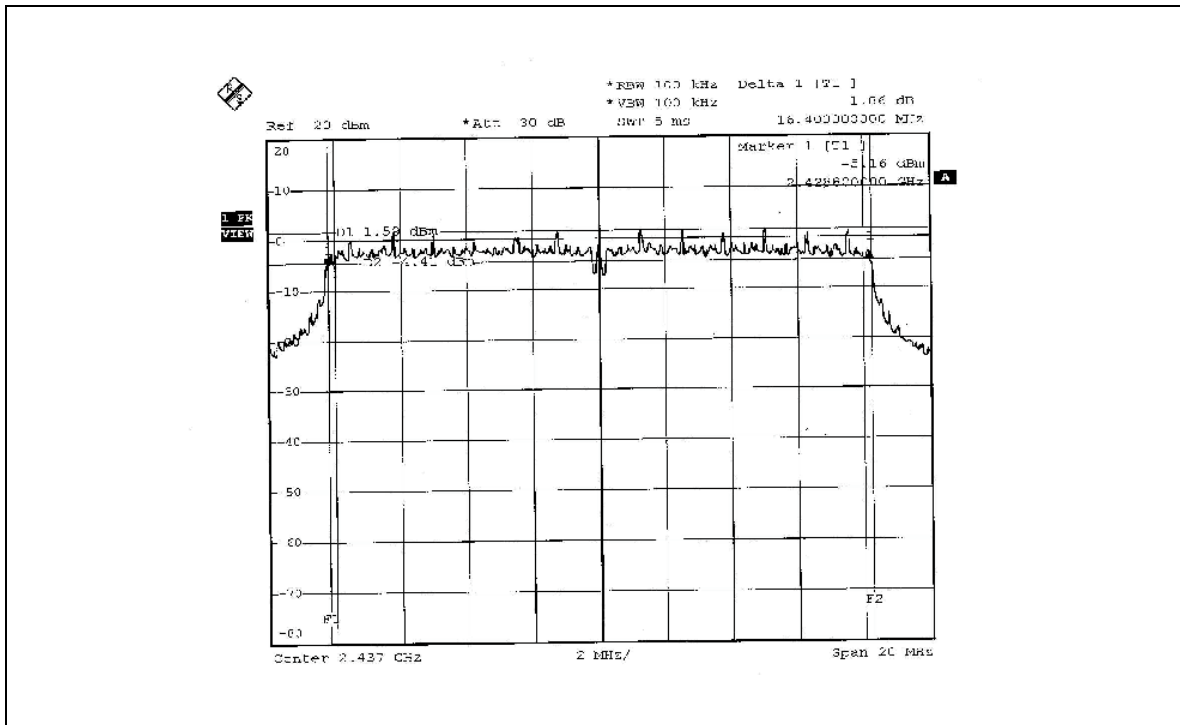
CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	16.40	0.5	PASS
6	2437	16.40	0.5	PASS
11	2462	16.40	0.5	PASS



CH1

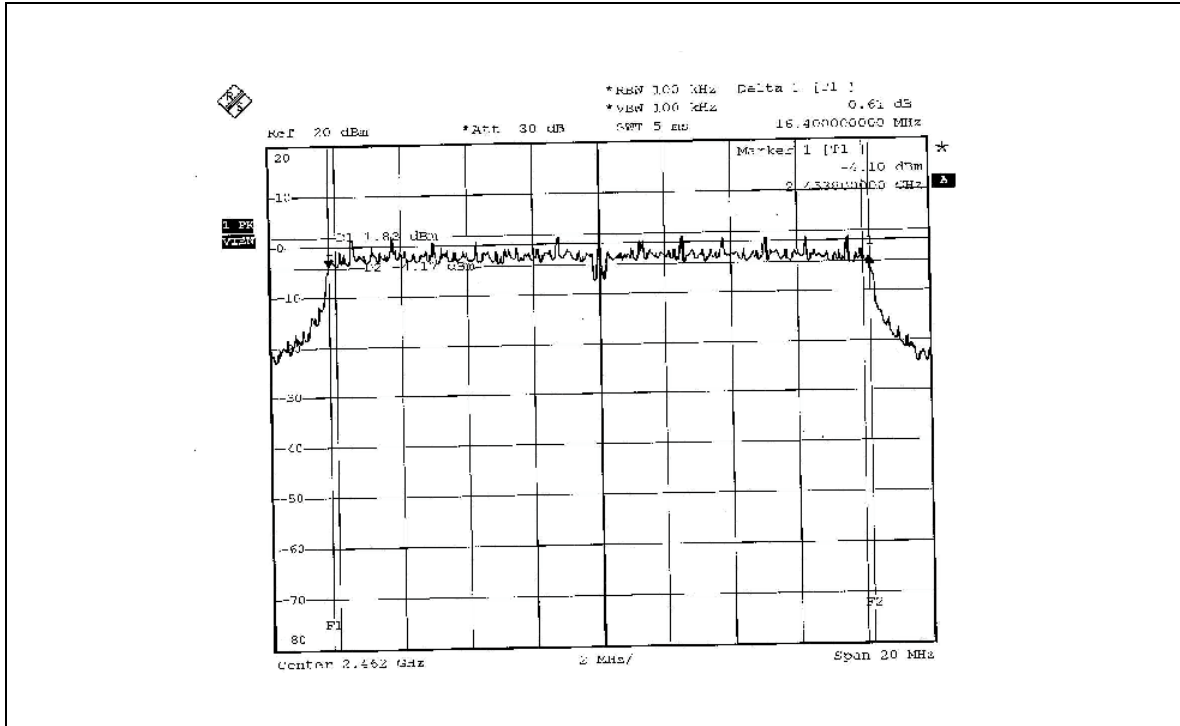


CH6





CH11





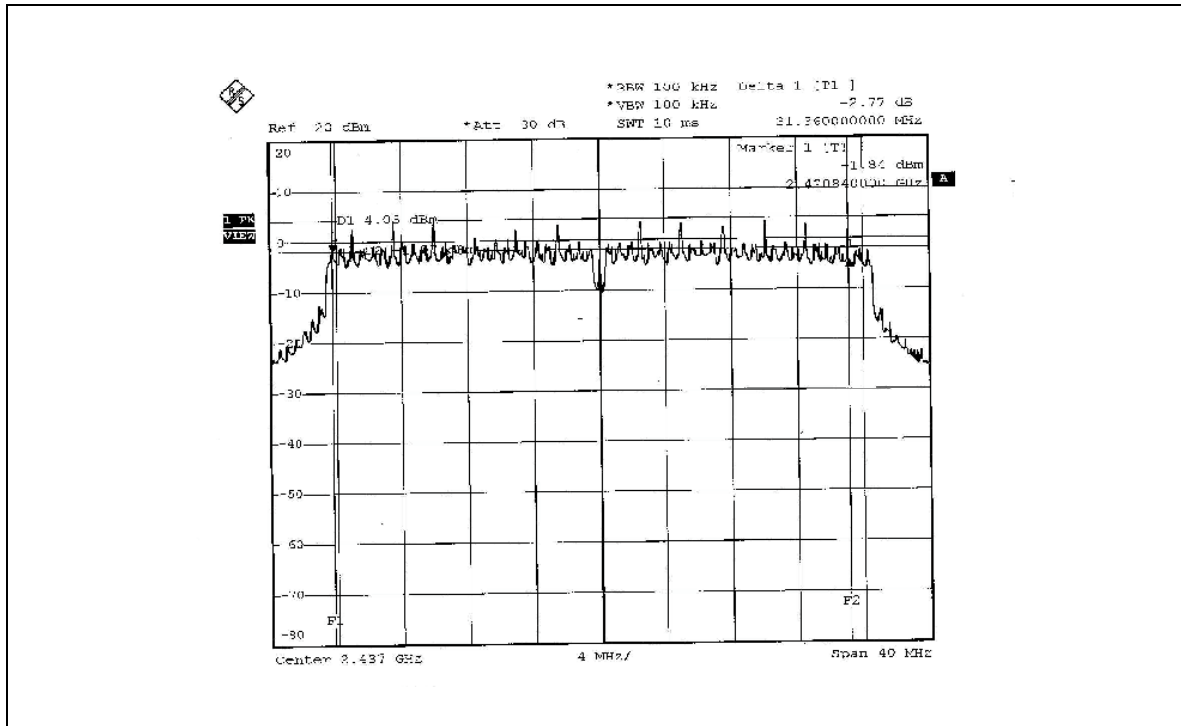
802.11g OFDM MODULATION_TURBO MODE

EUT	High Speed Wireless Network Adapter	MODEL	AV10
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
6	2437	31.36	0.5	PASS



CH6





4.4 MAXIMUM PEAK OUTPUT POWER

4.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

4.4.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006
AGILENT SIGNAL GENERATOR	E8257C	MY43320668	Dec. 06, 2005
TEKTRONIX OSCILLOSCOPE	TDS 220	C019167	Feb. 01, 2006
NARDA DETECTOR	4503A	FSCM99899	NA

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.



4.4.3 TEST PROCEDURES

1. A detector was used on the output port of the EUT. An oscilloscope was used to peak the response of the detector.
2. Replaced the EUT by the signal generator. The center frequency of the S.G was adjusted to the center frequency of the measured channel.
3. Adjusted the power to have the same peak reading on oscilloscope. Record the power level.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation

4.4.5 TEST SETUP



4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6



4.4.7 TEST RESULTS

802.11b DSSS MODULATION

EUT	High Speed Wireless Network Adapter	MODEL	AV10
MODULATION TYPE	BPSK	TRANSFER RATE	1Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	57.280	17.58	30	PASS
6	2437	57.148	17.57	30	PASS
11	2462	56.885	17.55	30	PASS



802.11g OFDM MODULATION_NORMAL MODE

EUT	High Speed Wireless Network Adapter	MODEL	AV10
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	51.404	17.11	30	PASS
6	2437	51.168	17.09	30	PASS
11	2462	51.050	17.08	30	PASS

802.11g OFDM MODULATION_TURBO MODE

EUT	High Speed Wireless Network Adapter	MODEL	AV10
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
6	2437	50.466	17.03	30	PASS



4.5 POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.



4.5.3 TEST PROCEDURE

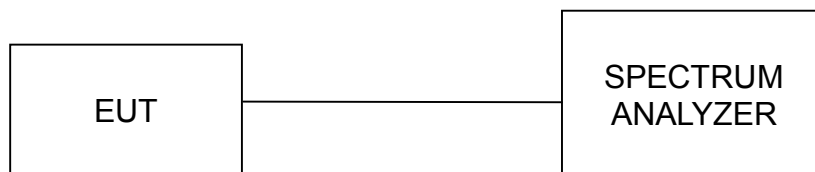
The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time=span/3kHz. The power spectral density was measured and recorded.

The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITIONS

Same as 4.3.6



4.5.7 TEST RESULTS

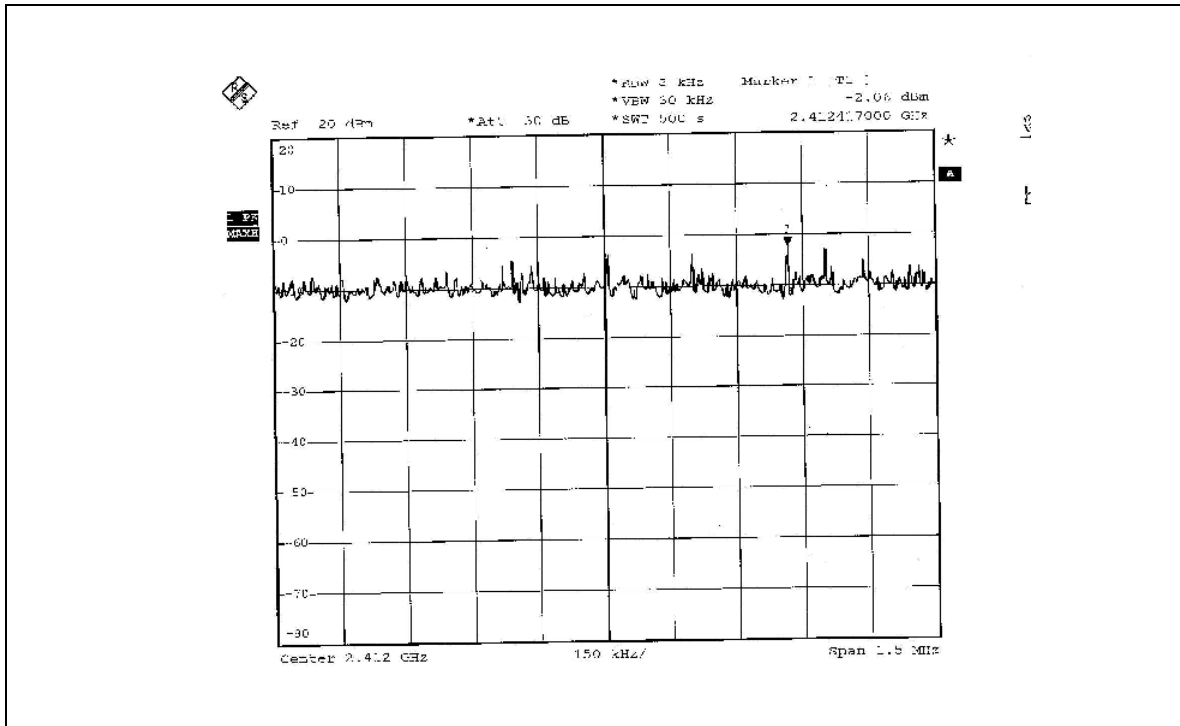
802.11b DSSS MODULATION

EUT	High Speed Wireless Network Adapter	MODEL	AV10
MODULATION TYPE	BPSK	TRANSFER RATE	1Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg. C, 43%RH, 991hPa
TESTED BY	Match Tsui		

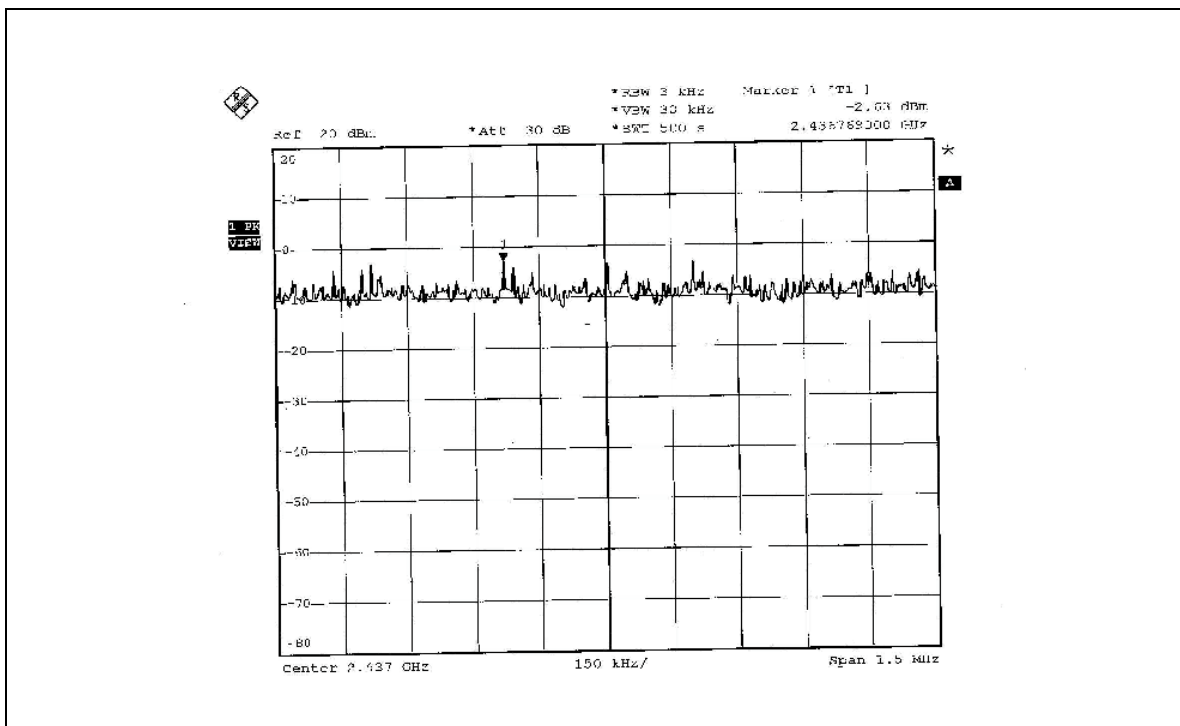
CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-2.06	8	PASS
6	2437	-2.63	8	PASS
11	2462	-2.41	8	PASS



CH1

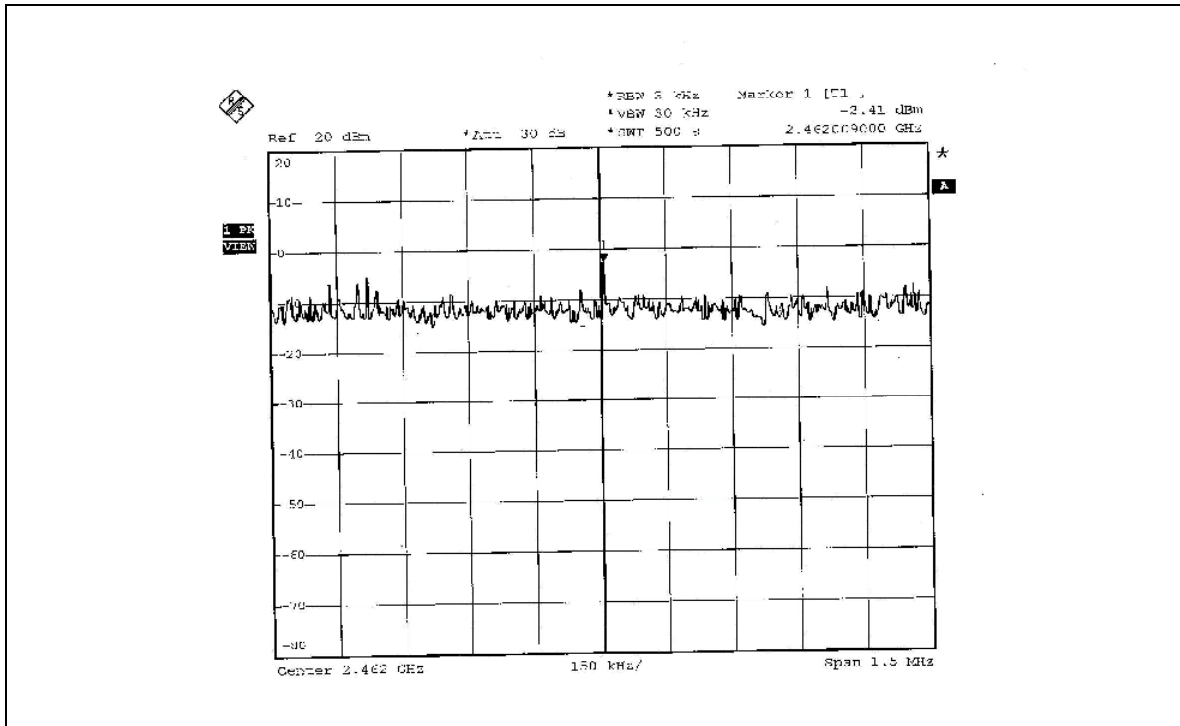


CH6





CH11





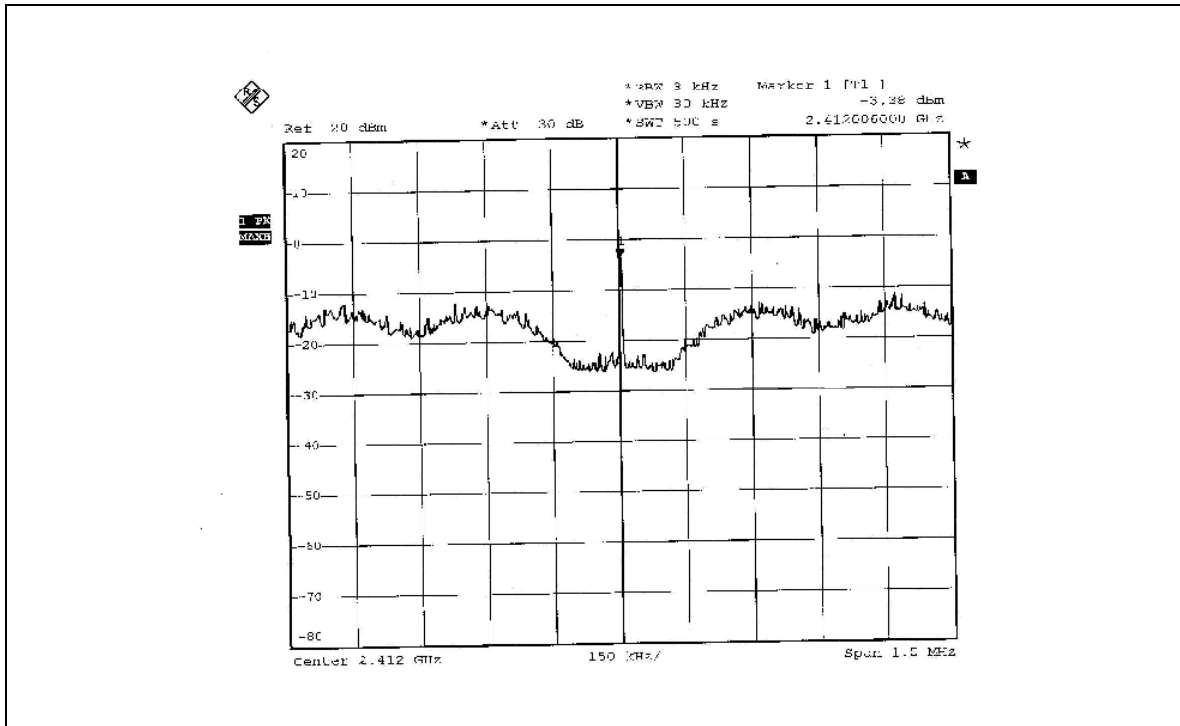
802.11g OFDM MODULATION_NORMAL MODE

EUT	High Speed Wireless Network Adapter	MODEL	AV10
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TESTED BY	Match Tsui		

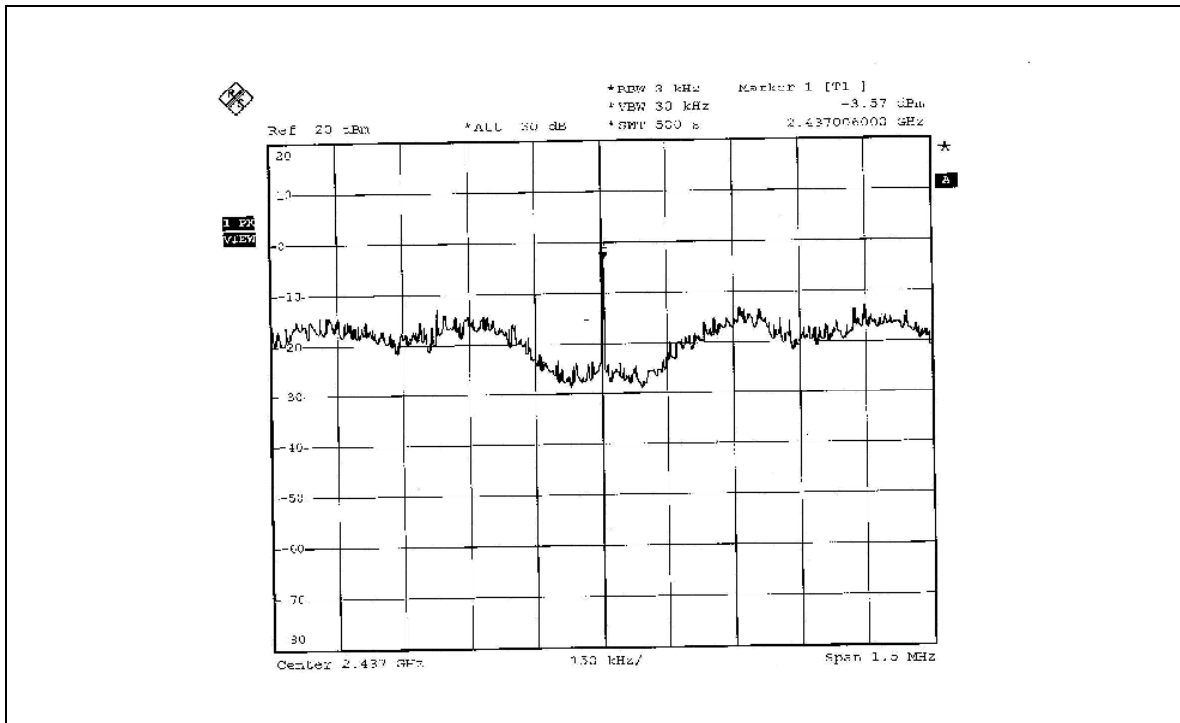
CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-3.38	8	PASS
6	2437	-3.57	8	PASS
11	2462	-3.38	8	PASS



CH1

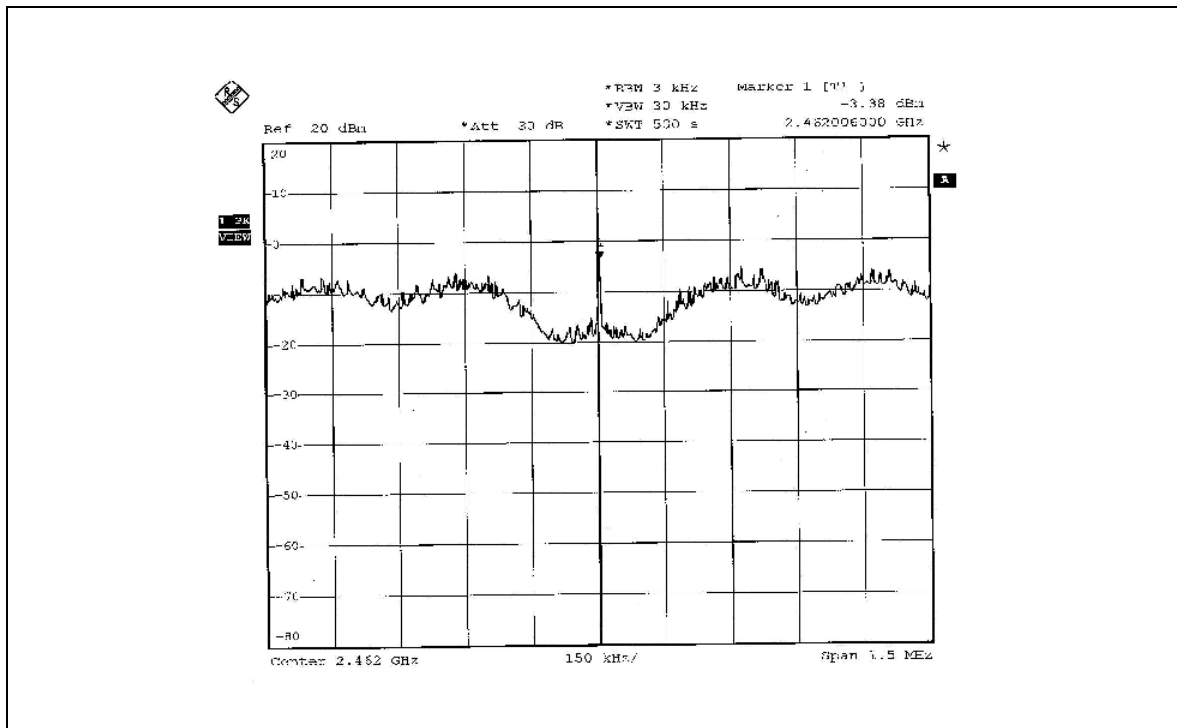


CH6





CH11





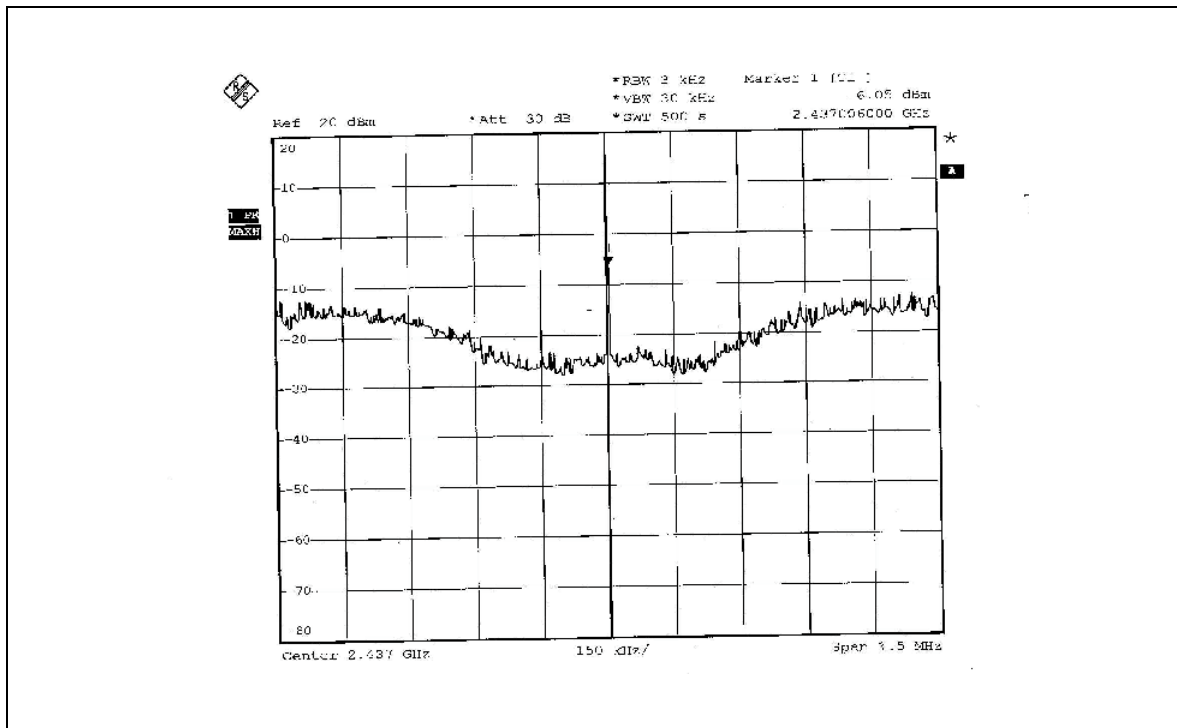
802.11g OFDM MODULATION_TURBO MODE

EUT	High Speed Wireless Network Adapter	MODEL	AV10
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
6	2437	-6.05	8	PASS



CH6





4.6 BAND EDGES MEASUREMENT

4.6.1 LIMITS OF BAND EDGES MEASUREMENT

Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.6.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

The spectrum plots (Peak RBW=VBW=100kHz; Average RBW=1MHz, VBW=1kHz) are attached on the following pages.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 EUT OPERATING CONDITION

Same as Item 4.3.6



4.6.6 TEST RESULTS

The spectrum plots are attached on the following 18 images. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

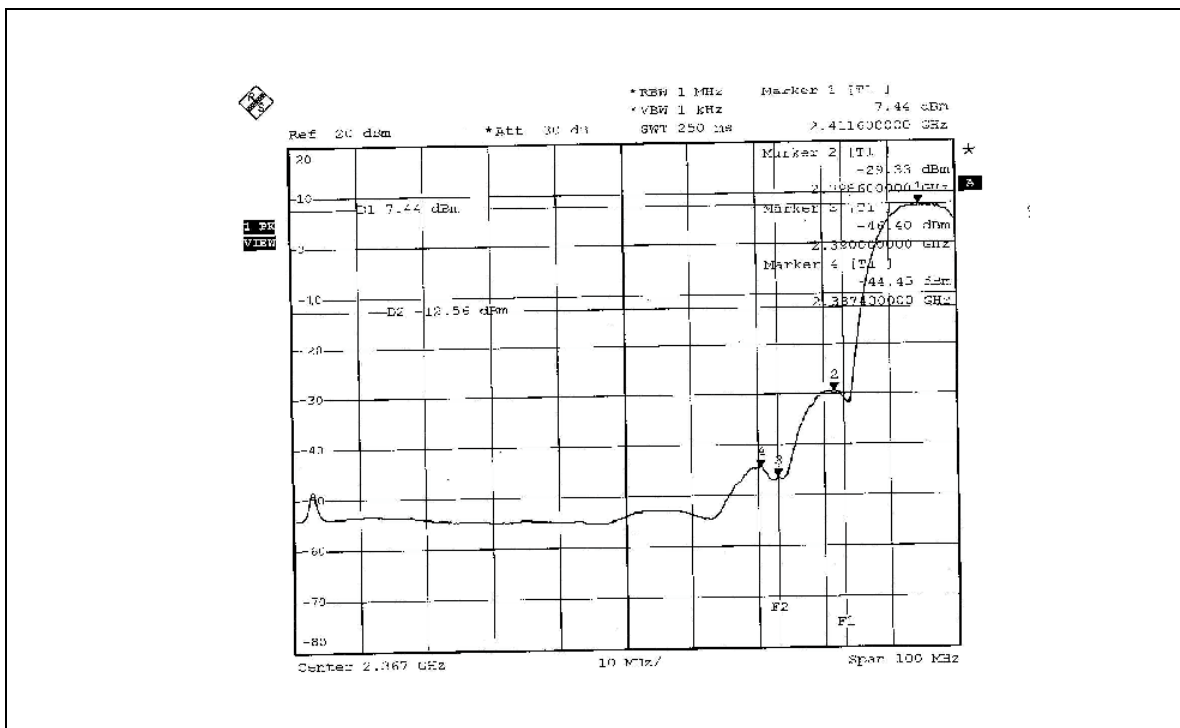
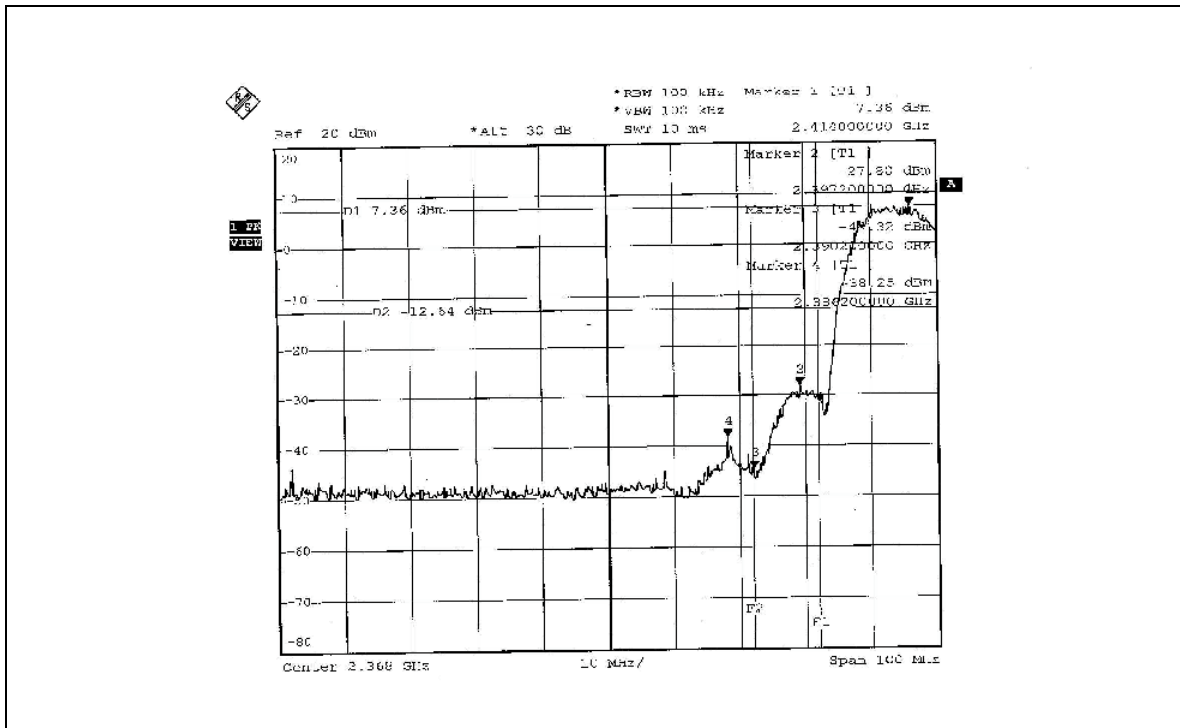
802.11b DSSS MODULATION

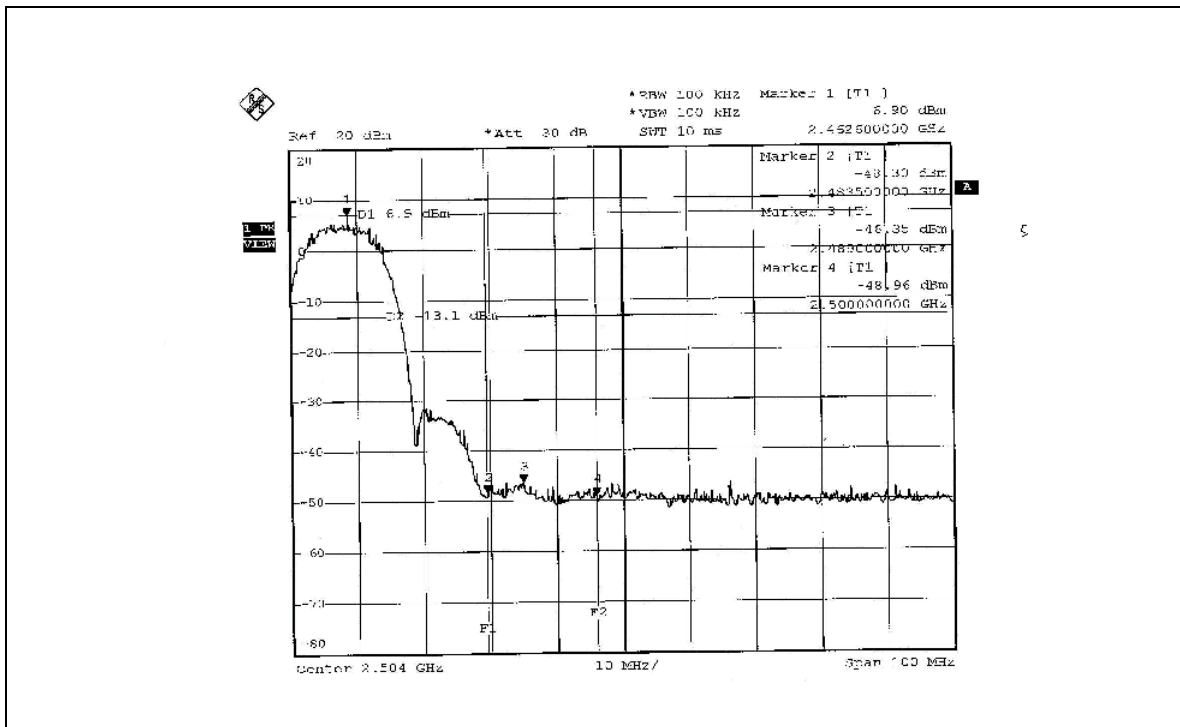
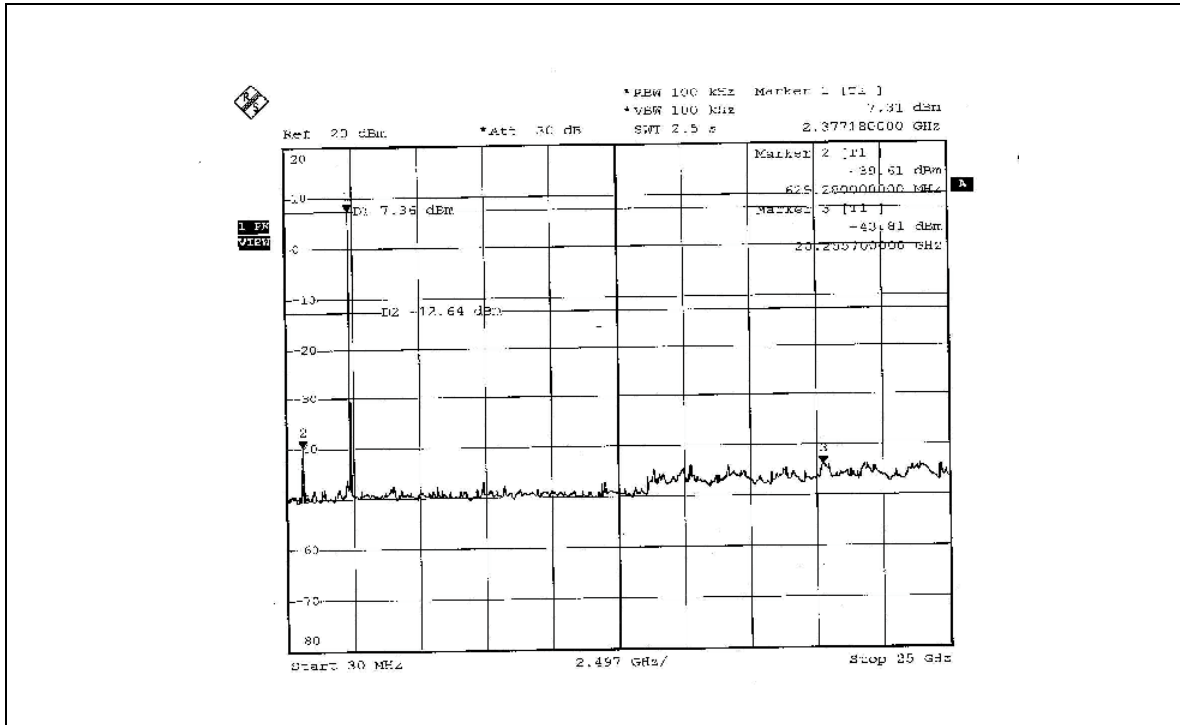
NOTE 1: The band edge emission plot on page 67 shows 45.61dBc between carrier maximum power and local maximum emission in restrict band (2.3862GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 111.10dBuV/m (Peak), so the maximum field strength in restrict band is $111.10 - 45.61 = 65.49$ dBuV/m, which is under 74dBuV/m limit.

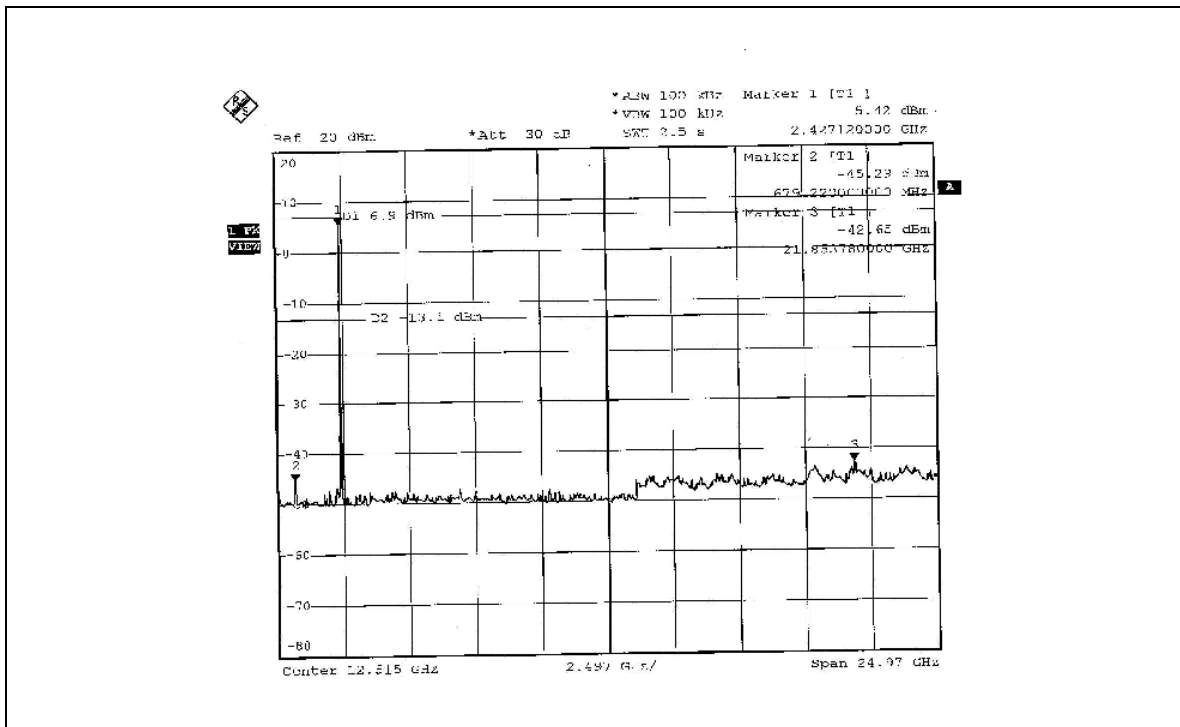
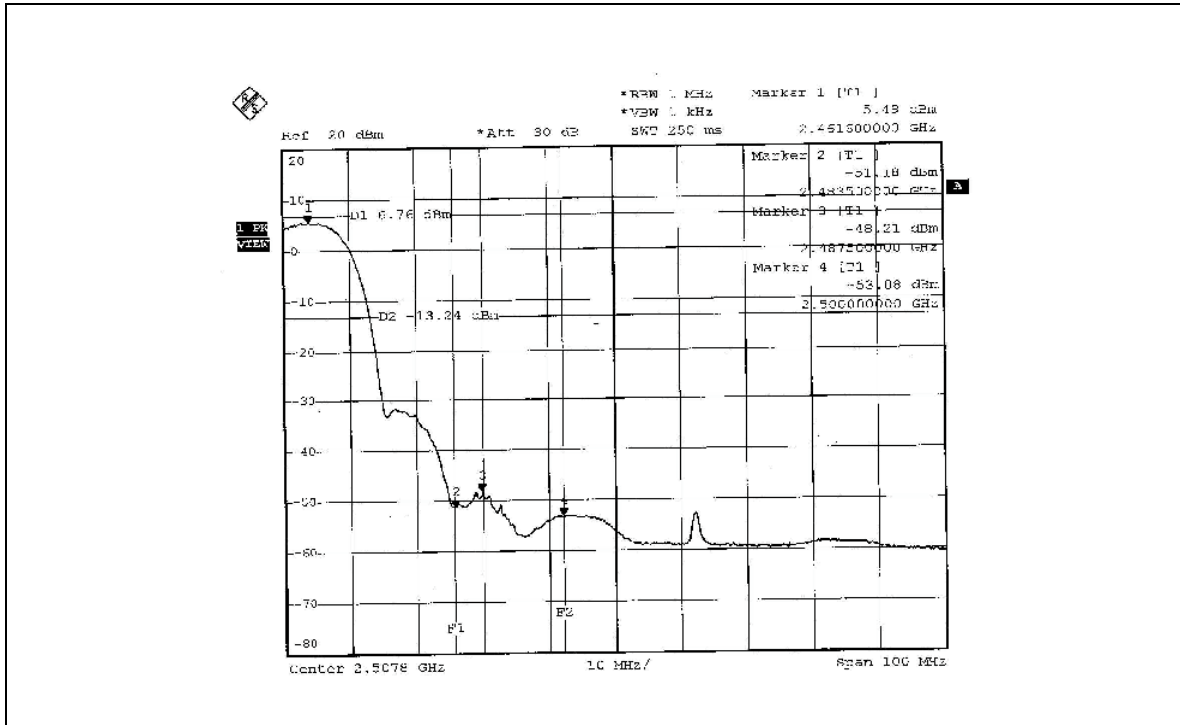
The band edge emission plot on page 67 shows 51.89dBc between carrier maximum power and local maximum emission in restrict band (2.3874GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 103.08dBuV/m (Average), so the maximum field strength in restrict band is $103.08 - 51.89 = 51.19$ dBuV/m, which is under 54dBuV/m limit.

NOTE 2: The band edge emission plot on page 68 shows 53.25dBc between carrier maximum power and local maximum emission in restrict band (2.4890GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 112.01dBuV/m (Peak), so the maximum field strength in restrict band is $112.01 - 53.25 = 58.76$ dBuV/m, which is under 74dBuV/m limit.

The band edge emission plot on page 69 shows 53.70dBc between carrier maximum power and local maximum emission in restrict band (2.4875GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 104.44dBuV/m (Average), so the maximum field strength in restrict band is $104.44 - 53.70 = 50.74$ dBuV/m, which is under 54dBuV/m limit.









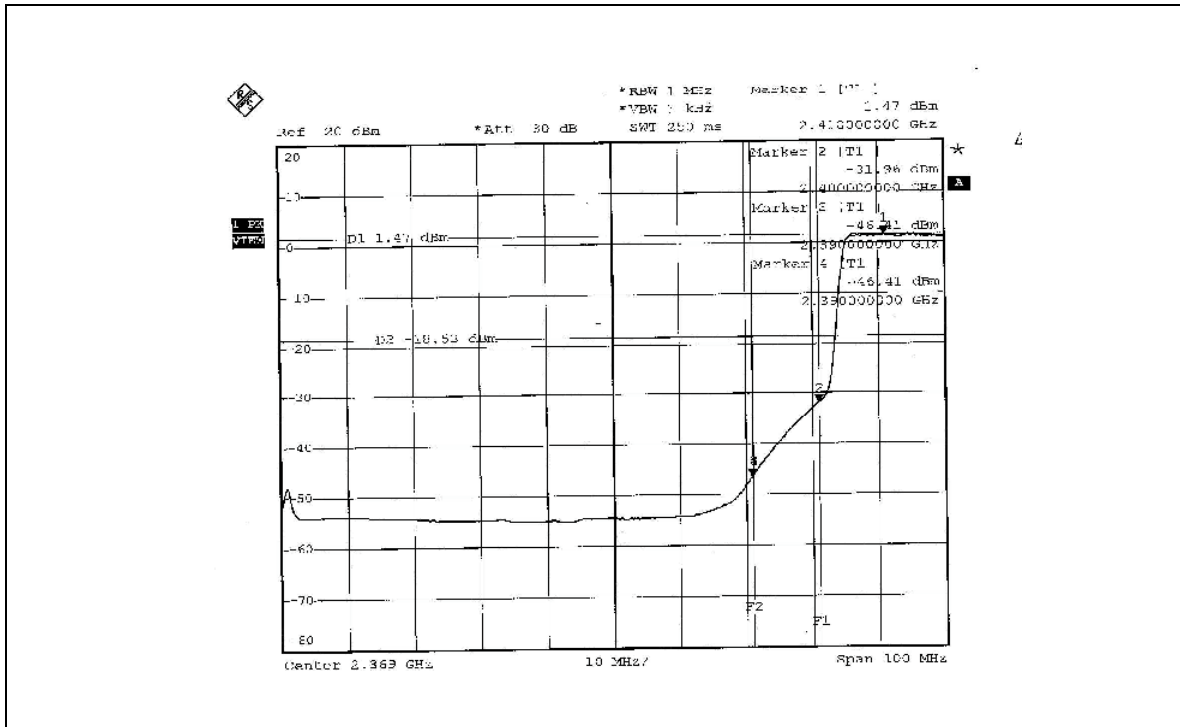
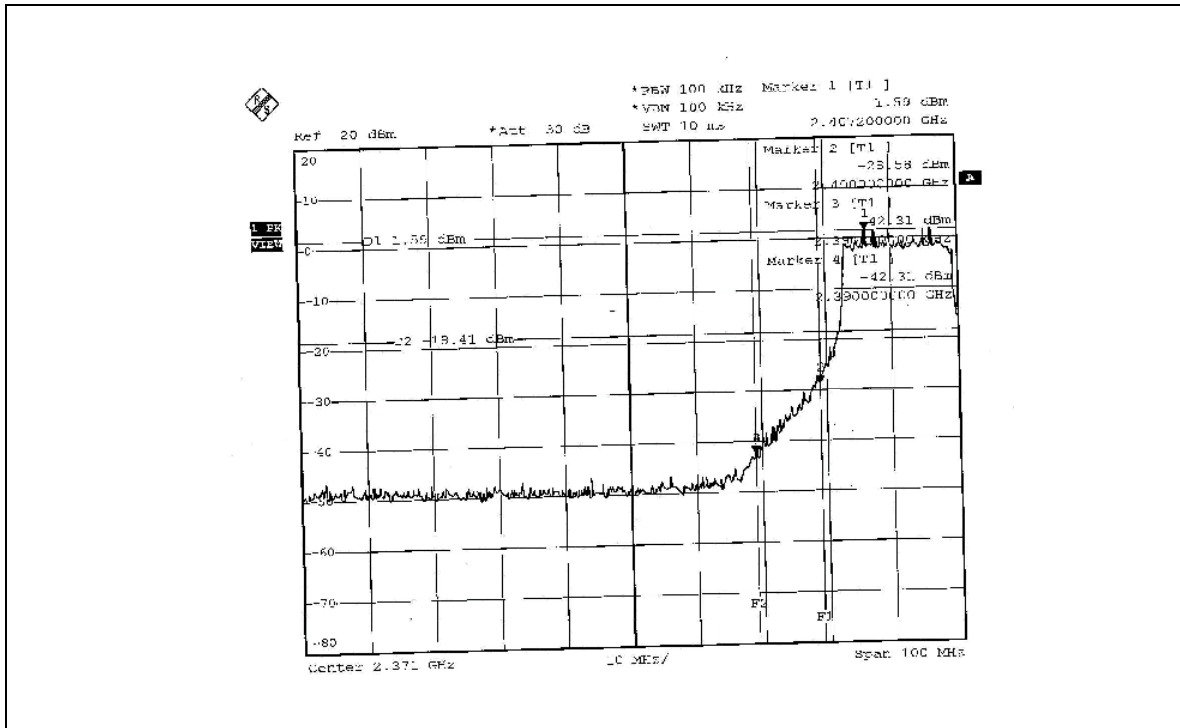
802.11g OFDM MODULATION

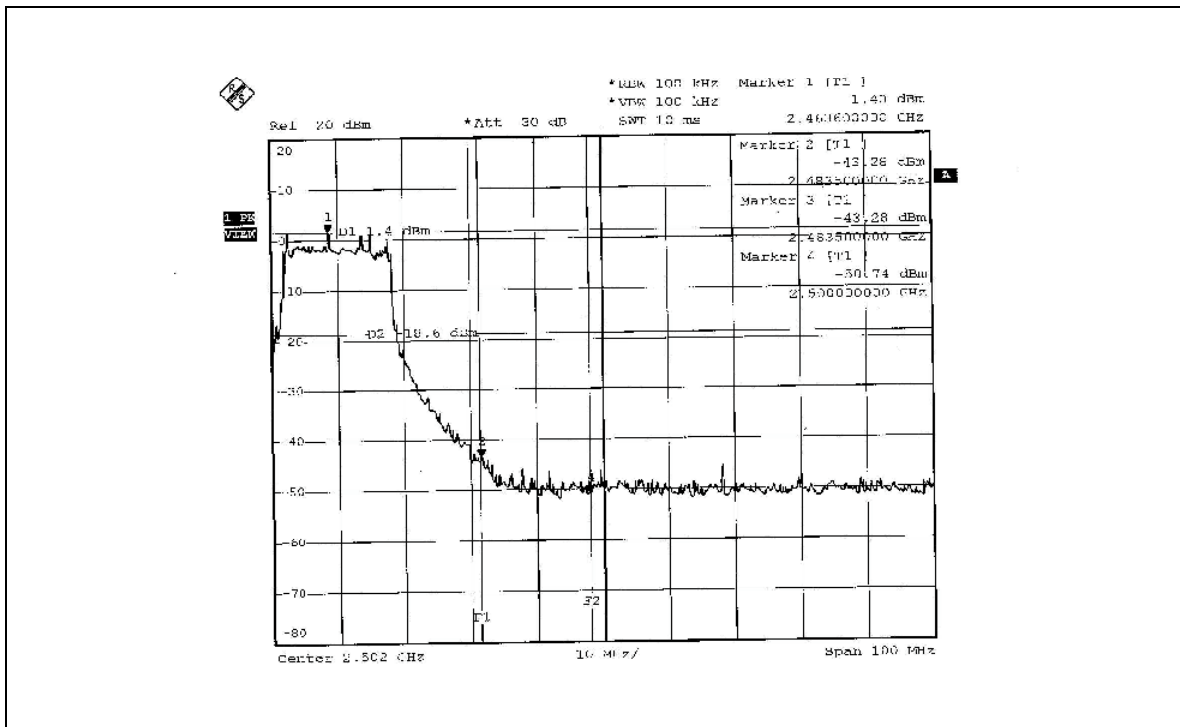
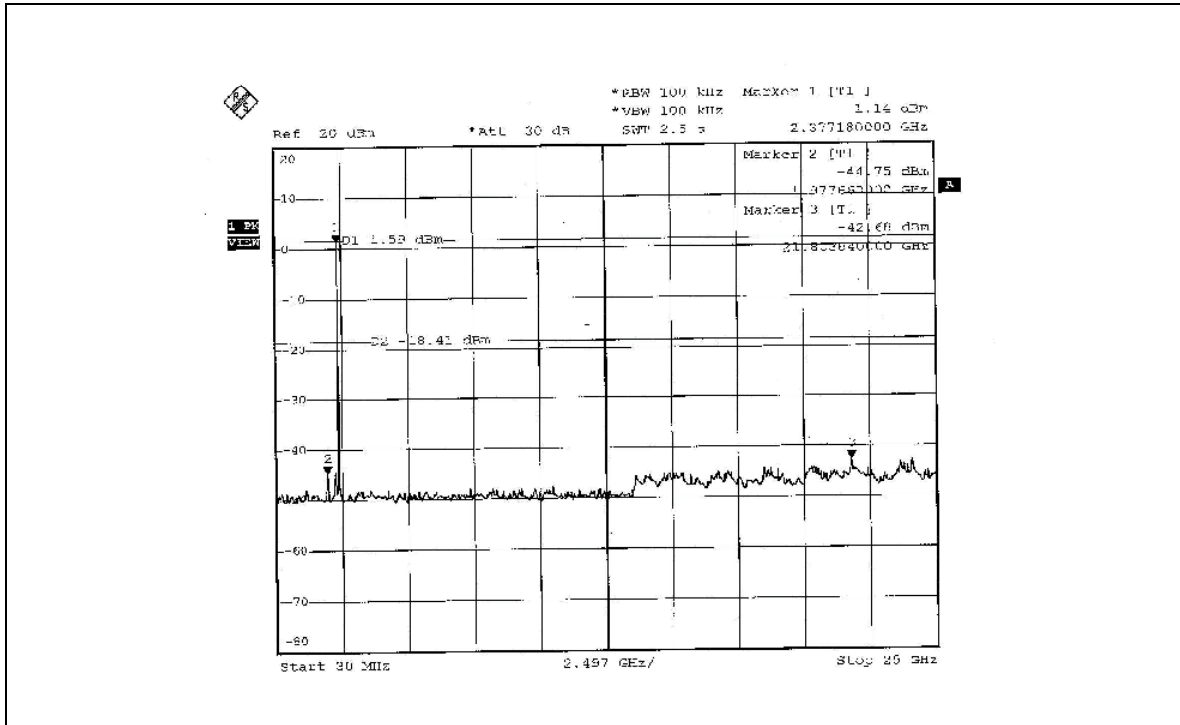
NOTE 1: The band edge emission plot on page 71 shows 43.90dBc between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 110.08dBuV/m (Peak), so the maximum field strength in restrict band is $110.08 - 43.90 = 66.18$ dBuV/m, which is under 74dBuV/m limit.

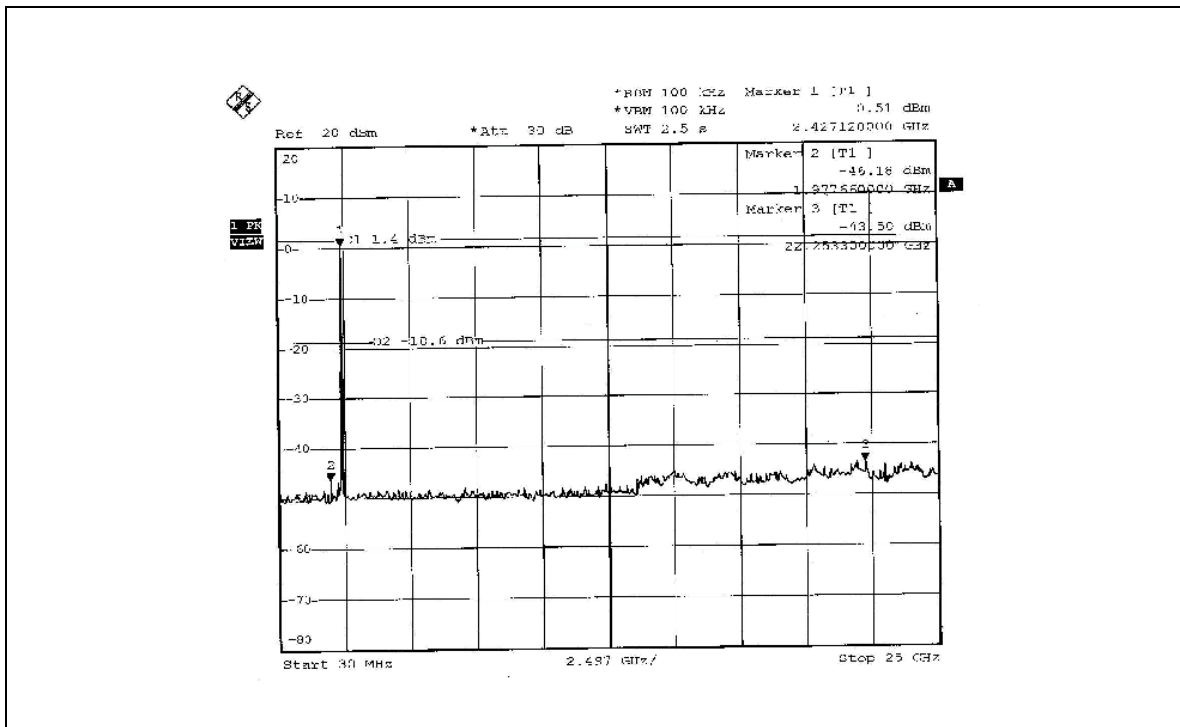
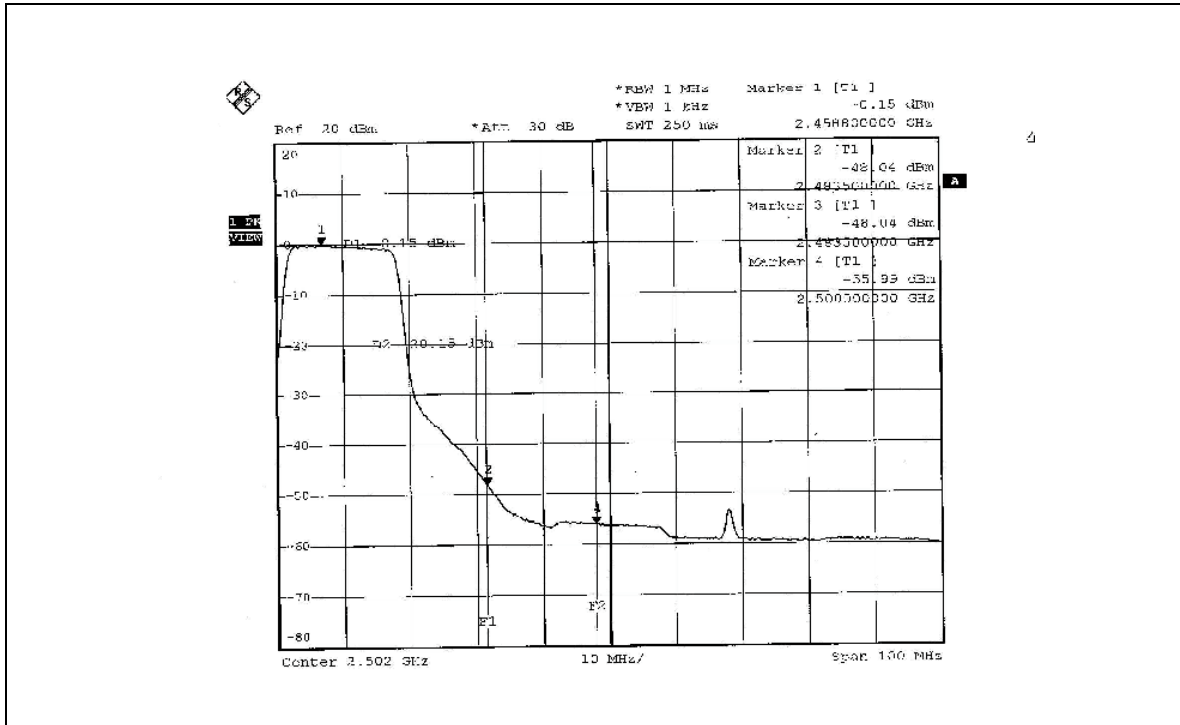
The band edge emission plot on page 71 shows 47.88dBc between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 100.59dBuV/m (Average), so the maximum field strength in restrict band is $100.59 - 47.88 = 52.71$ dBuV/m, which is under 54dBuV/m limit.

NOTE 2: The band edge emission plot on page 72 shows 44.68dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 110.38dBuV/m (Peak), so the maximum field strength in restrict band is $110.38 - 44.68 = 65.70$ dBuV/m, which is under 74dBuV/m limit.

The band edge emission plot on page 73 shows 47.89dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 100.20dBuV/m (Average), so the maximum field strength in restrict band is $100.20 - 47.89 = 52.31$ dBuV/m, which is under 54dBuV/m limit.









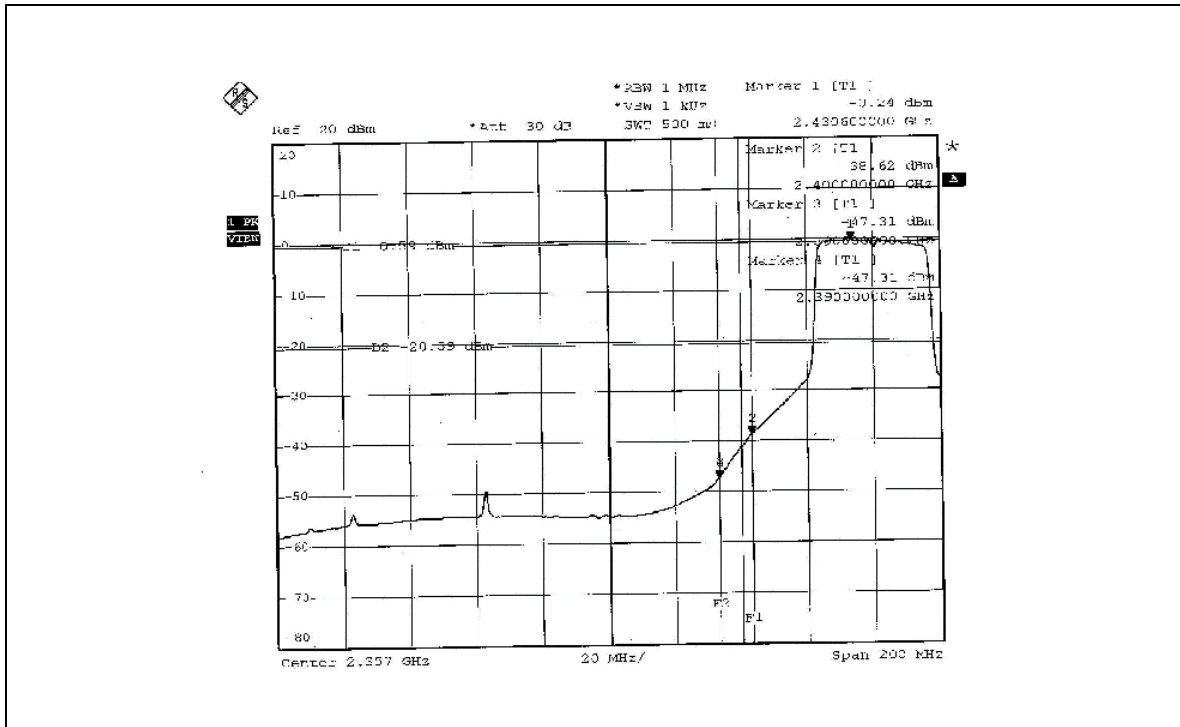
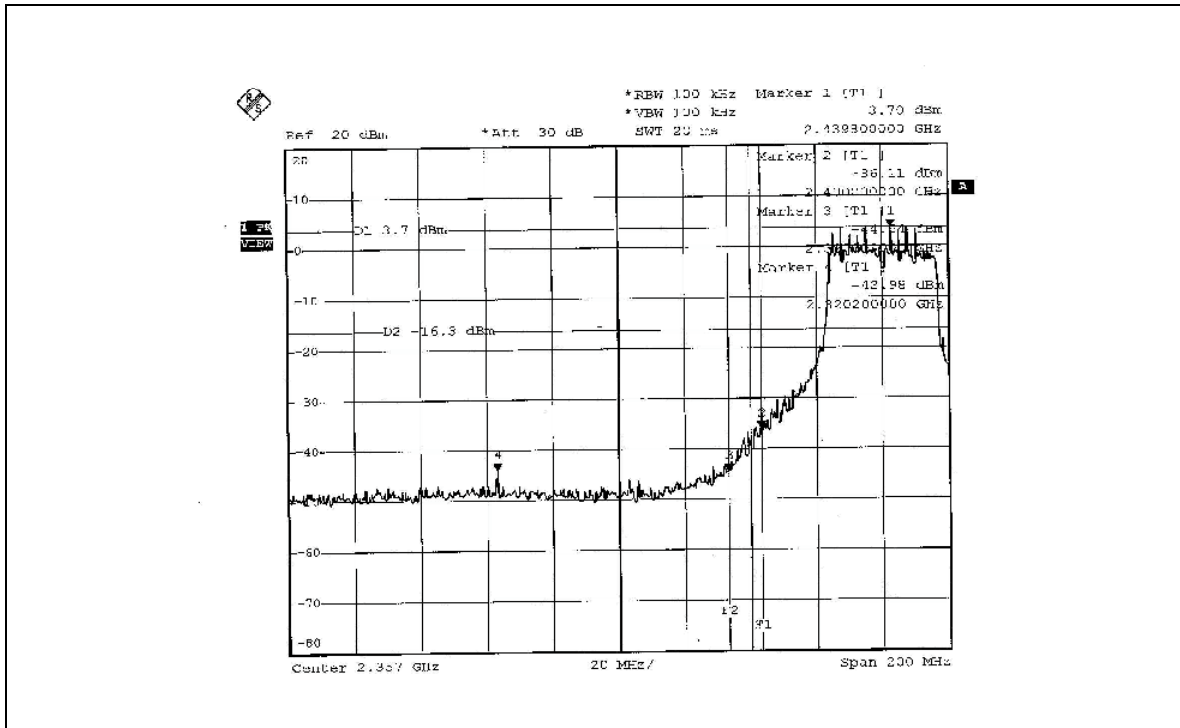
802.11g OFDM MODULATION_TURBO

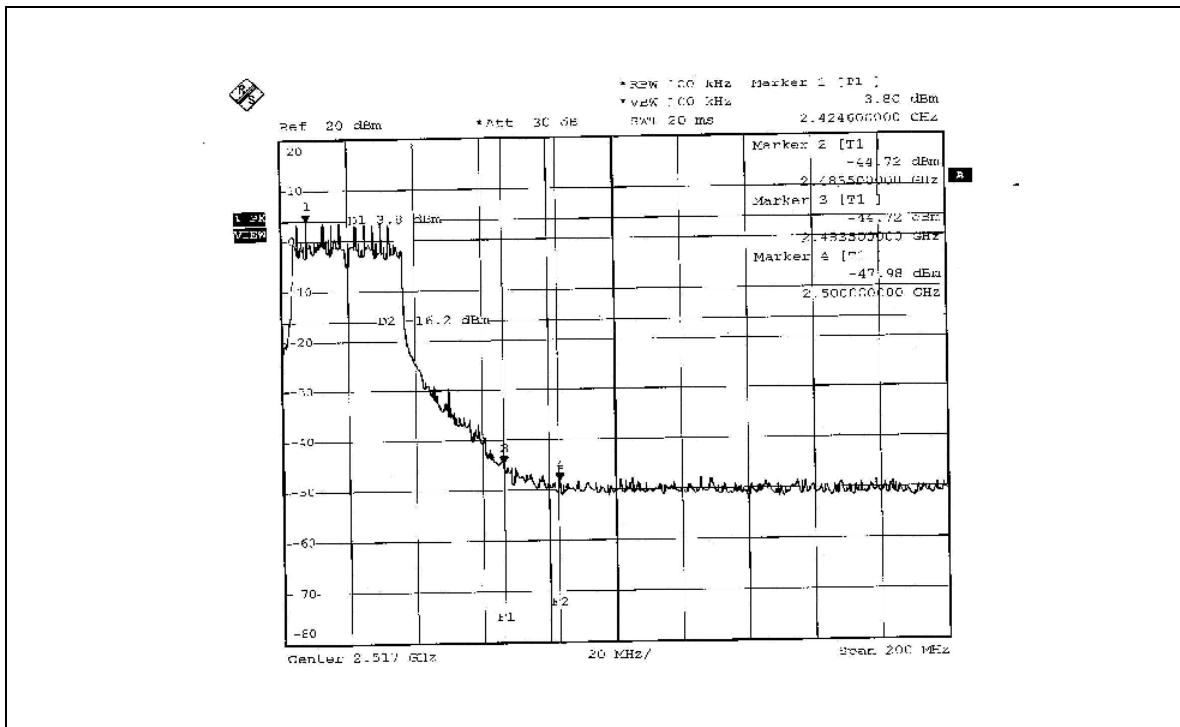
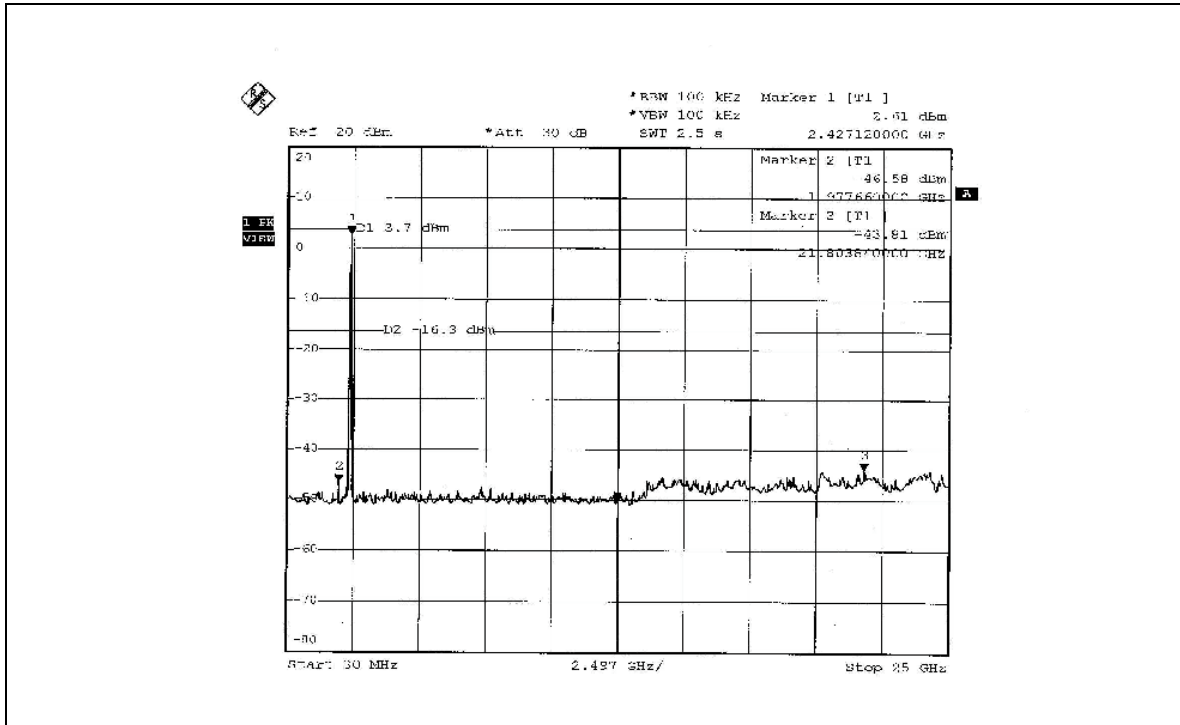
NOTE 1: The band edge emission plot on page 75 shows 47.68dBc between carrier maximum power and local maximum emission in restrict band (2.3202GHz). The emission of carrier strength list in the test result of channel 6 at the item 4.2.7 is 109.20dBuV/m (Peak), so the maximum field strength in restrict band is $109.20 - 47.68 = 61.52$ dBuV/m, which is under 74dBuV/m limit.

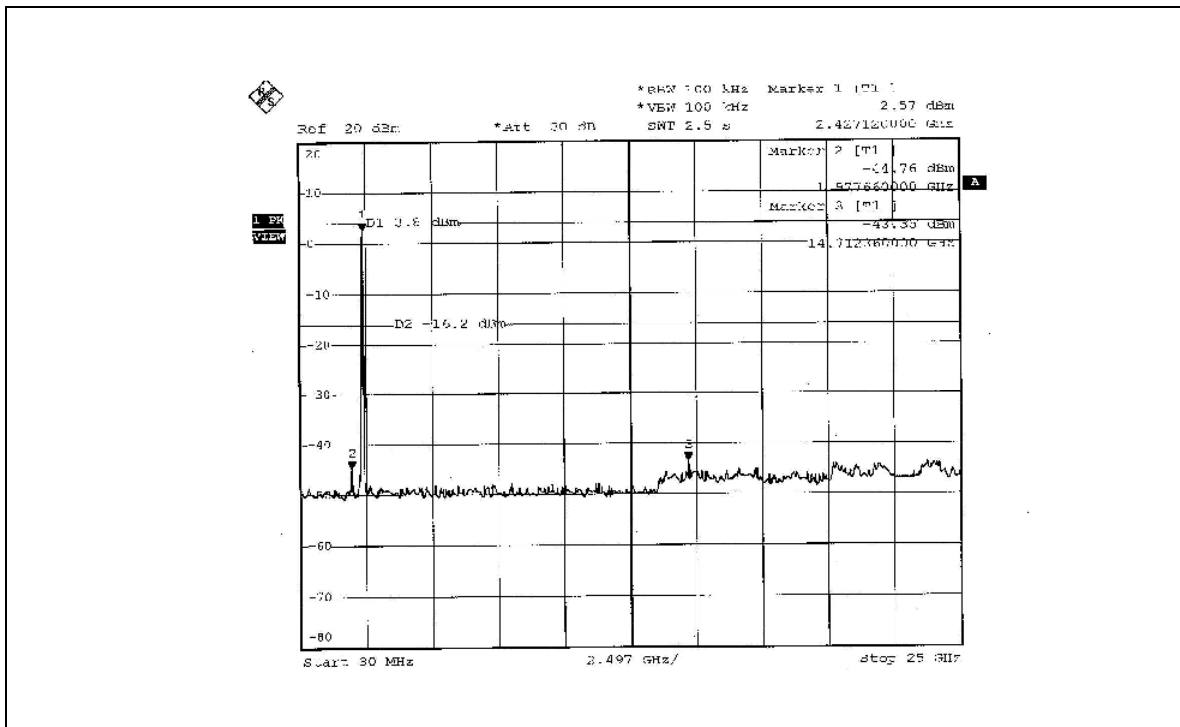
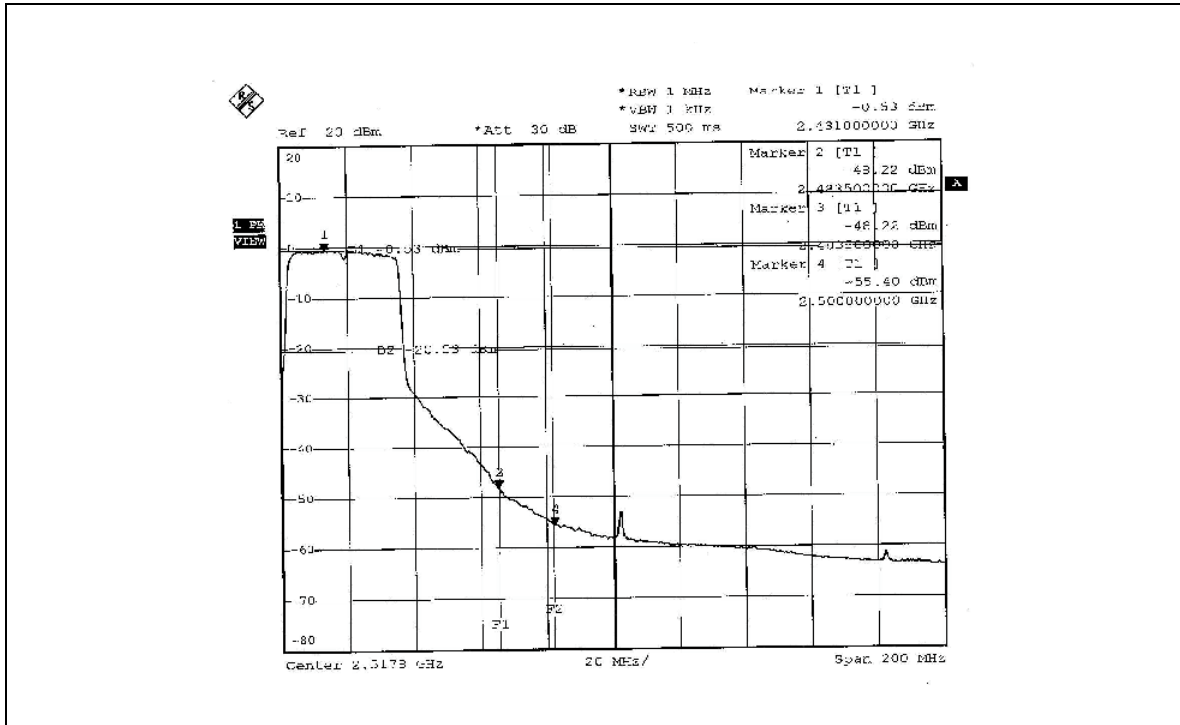
The band edge emission plot on page 75 shows 47.07dBc between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 6 at the item 4.2.7 is 99.38dBuV/m (Average), so the maximum field strength in restrict band is $99.38 - 47.07 = 52.31$ dBuV/m, which is under 54dBuV/m limit.

NOTE 2: The band edge emission plot on page 76 shows 48.52dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 6 at the item 4.2.7 is 109.20dBuV/m (Peak), so the maximum field strength in restrict band is $109.20 - 48.52 = 60.68$ dBuV/m, which is under 74dBuV/m limit.

The band edge emission plot on page 77 shows 47.69dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 6 at the item 4.2.7 is 99.38dBuV/m (Average), so the maximum field strength in restrict band is $99.38 - 47.69 = 51.69$ dBuV/m, which is under 54dBuV/m limit.









5. TEST TYPES AND RESULTS (For Dual CHAIN (TX))

5.1 CONDUCTED EMISSION MEASUREMENT

5.1.1 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.

5.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Nov. 06, 2005
RF signal cable Woken	5D-FB	Cable-HyC02-01	Jan. 09, 2006
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Jan. 20, 2006
LISN ROHDE & SCHWARZ	ESH3-Z5	100311	Jan. 20, 2006
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 3.
 3. The VCCI Site Registration No. is C-2047.



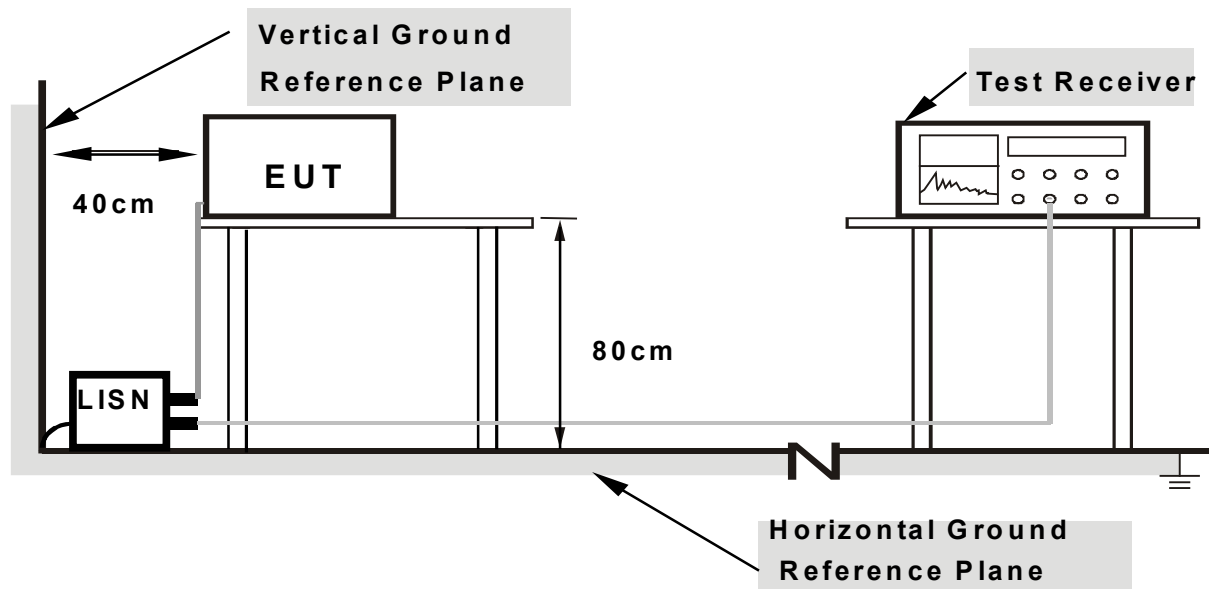
5.1.3 TEST PROCEDURES

- 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.

5.1.4 DEVIATION FROM TEST STANDARD

No deviation

5.1.5 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 related item – Photographs of the Test Configuration.

5.1.6 EUT OPERATING CONDITIONS

- Connected the EUT to notebook via the extended card and placed on a testing table.
- The notebook ran a test program (provided by manufacturer) to enable EUT under transmission/receiving condition continuously at specific channel frequency.
- The notebook show “H” messages on its screen.
- The notebook show “H” messages to modem.
- The notebook sent "H" messages to printer and the printer prints them on paper.
- Repeated item c ~e.



5.1.7 TEST RESULTS

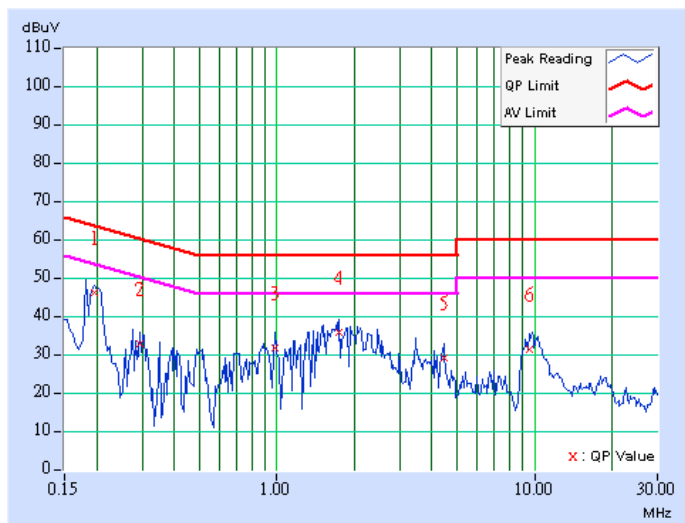
CONDUCTED WORST CASE DATA

802.11g OFDM MODULATION_NORMAL MODE

EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	PHASE	Line 1
CHANNEL	Channel 1	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Long Chen		

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	0.11	45.91	-	46.02	-	63.74
2	0.295	0.11	32.64	-	32.75	-	60.40	50.40	-27.64	-
3	0.986	0.23	31.27	-	31.50	-	56.00	46.00	-24.50	-
4	1.742	0.24	35.61	-	35.85	-	56.00	46.00	-20.15	-
5	4.445	0.30	28.91	-	29.21	-	56.00	46.00	-26.79	-
6	9.543	0.43	31.11	-	31.54	-	60.00	50.00	-28.46	-

- 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.

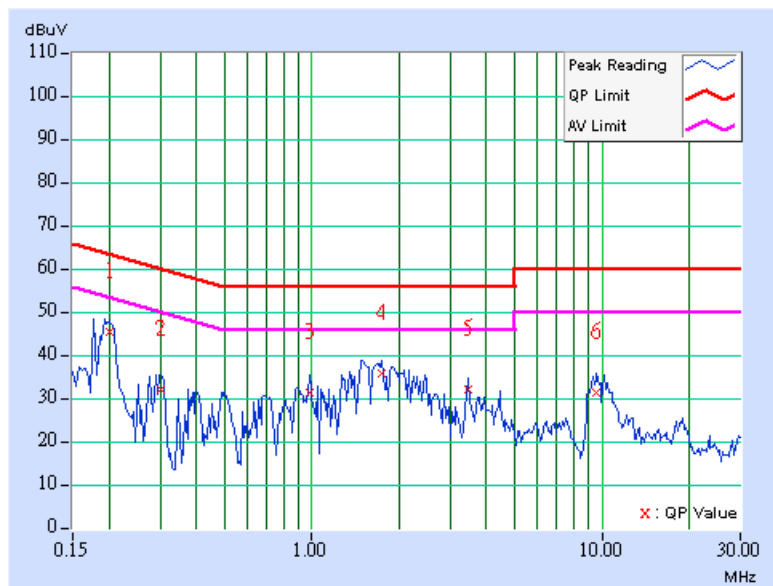




EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	PHASE	Line 2
CHANNEL	Channel 1	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Long Chen		

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	0.201	0.11	45.20	-	45.31	-	63.58	53.58	-18.27	-
2	0.302	0.12	31.77	-	31.89	-	60.18	50.18	-28.29	-
3	0.986	0.23	31.11	-	31.34	-	56.00	46.00	-24.66	-
4	1.750	0.25	35.44	-	35.69	-	56.00	46.00	-20.31	-
5	3.453	0.28	31.80	-	32.08	-	56.00	46.00	-23.92	-
6	9.609	0.52	30.91	-	31.43	-	60.00	50.00	-28.57	-

- 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.

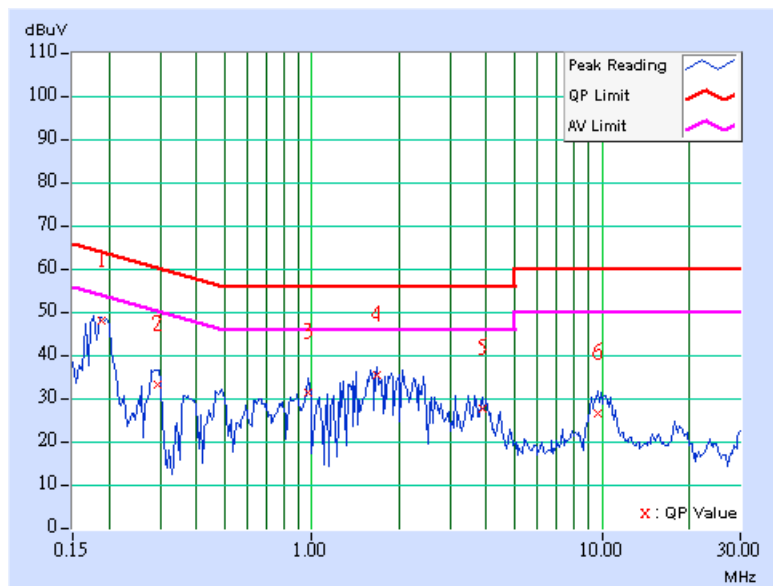




EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	PHASE	Line 1
CHANNEL	Channel 6	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Long Chen		

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	0.189	0.11	47.54	-	47.65	-	64.08	54.08	-16.43	-
2	0.295	0.11	33.00	-	33.11	-	60.40	50.40	-27.28	-
3	0.974	0.23	31.20	-	31.43	-	56.00	46.00	-24.57	-
4	1.684	0.24	34.98	-	35.22	-	56.00	46.00	-20.78	-
5	3.871	0.29	27.33	-	27.62	-	56.00	46.00	-28.38	-
6	9.641	0.43	26.41	-	26.84	-	60.00	50.00	-33.16	-

- 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.

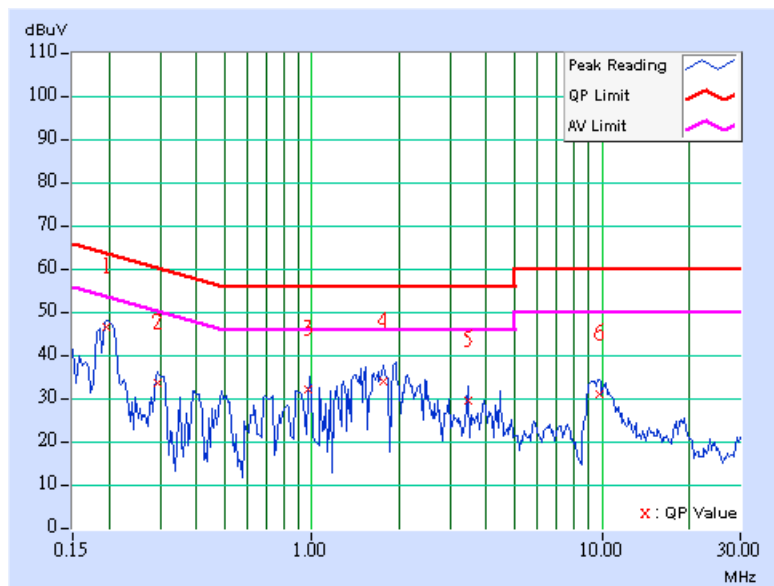




EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	PHASE	Line 2
CHANNEL	Channel 6	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Long Chen		

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	0.197	0.11	46.17	-	46.28	-	63.74	53.74	-17.46	-
2	0.295	0.11	33.07	-	33.18	-	60.40	50.40	-27.21	-
3	0.975	0.23	31.65	-	31.88	-	56.00	46.00	-24.12	-
4	1.754	0.25	33.49	-	33.74	-	56.00	46.00	-22.26	-
5	3.445	0.28	29.25	-	29.53	-	56.00	46.00	-26.47	-
6	9.762	0.53	30.61	-	31.14	-	60.00	50.00	-28.86	-

- 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.

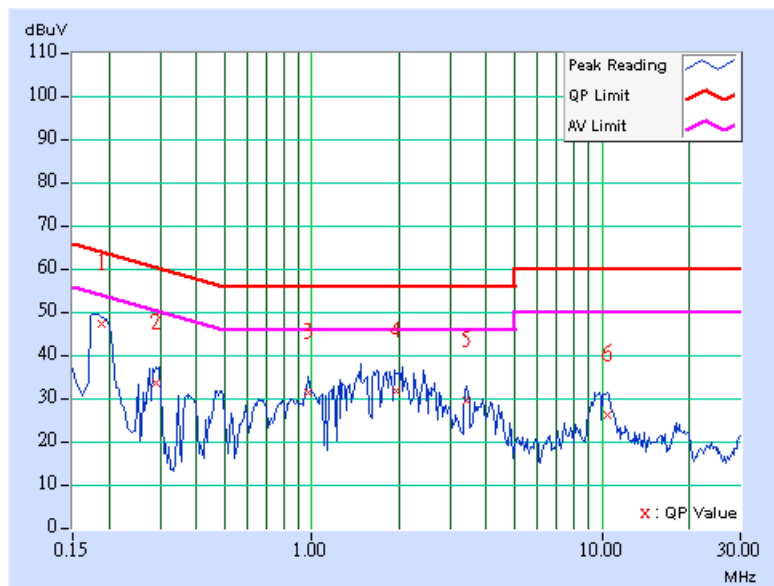




EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	PHASE	Line 1
CHANNEL	Channel 11	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Long Chen		

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	0.189	0.11	46.90	-	47.01	-	64.08	54.08	-17.07	-
2	0.291	0.11	33.24	-	33.35	-	60.51	50.51	-27.15	-
3	0.974	0.23	31.21	-	31.44	-	56.00	46.00	-24.56	-
4	1.949	0.25	31.45	-	31.70	-	56.00	46.00	-24.30	-
5	3.434	0.28	29.01	-	29.29	-	56.00	46.00	-26.71	-
6	10.469	0.45	25.77	-	26.22	-	60.00	50.00	-33.78	-

- 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.

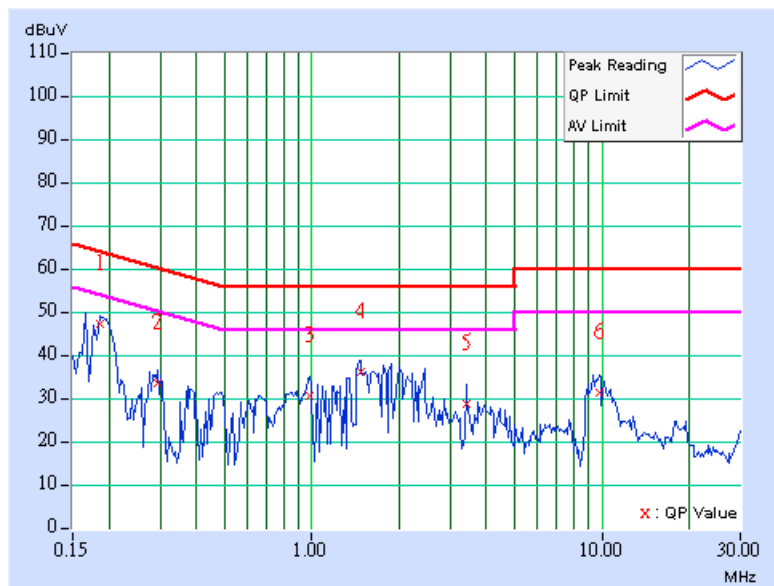




EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	PHASE	Line 2
CHANNEL	Channel 11	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Long Chen		

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	0.185	0.11	46.70	-	46.81	-	64.25	54.25	-17.44	-
2	0.295	0.11	33.17	-	33.28	-	60.40	50.40	-27.11	-
3	0.982	0.23	30.21	-	30.44	-	56.00	46.00	-25.56	-
4	1.480	0.24	35.78	-	36.02	-	56.00	46.00	-19.98	-
5	3.410	0.28	28.38	-	28.66	-	56.00	46.00	-27.34	-
6	9.824	0.53	30.88	-	31.41	-	60.00	50.00	-28.59	-

- 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.



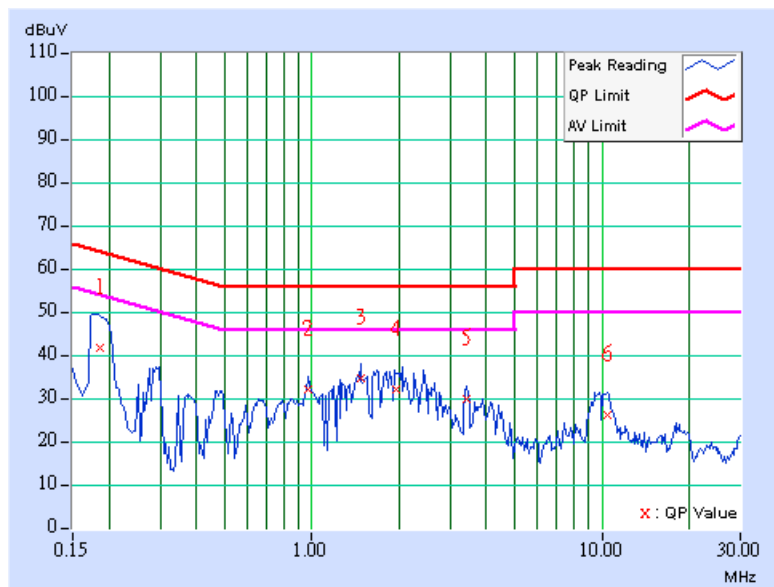


802.11g OFDM MODULATION_TURBO MODE

EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	PHASE	Line 1
CHANNEL	Channel 6	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH, 991hPa
TRANSFER RATE	12Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Long Chen		

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	0.11	41.41	-	41.52	-	64.25
2	0.974	0.23	31.65	-	31.88	-	56.00	46.00	-24.12	-
3	1.480	0.24	34.42	-	34.66	-	56.00	46.00	-21.34	-
4	1.949	0.25	31.91	-	32.16	-	56.00	46.00	-23.84	-
5	3.434	0.28	29.52	-	29.80	-	56.00	46.00	-26.20	-
6	10.469	0.45	25.70	-	26.15	-	60.00	50.00	-33.85	-

- 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.

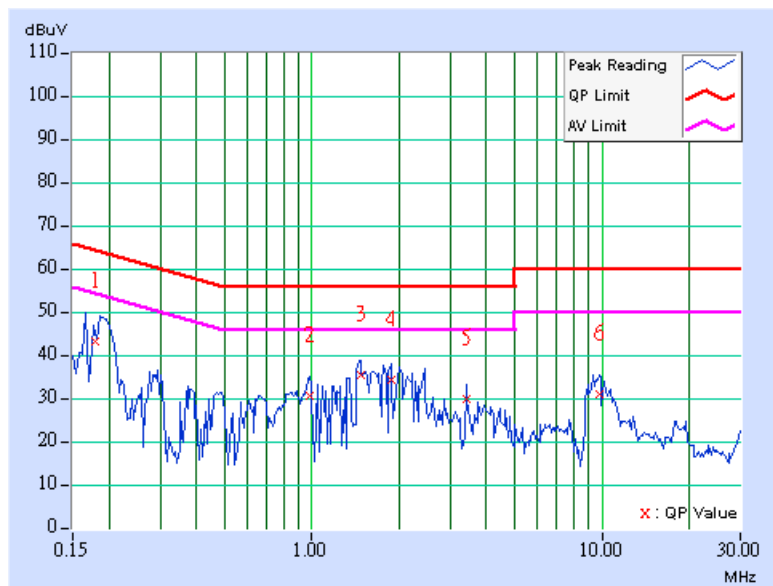




EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	PHASE	Line 2
CHANNEL	Channel 6	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH, 991hPa
TRANSFER RATE	12Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Long Chen		

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	0.179	0.11	42.96	-	43.07	-	64.51	54.51	-21.45	-
2	0.982	0.23	30.21	-	30.44	-	56.00	46.00	-25.56	-
3	1.480	0.24	34.98	-	35.22	-	56.00	46.00	-20.78	-
4	1.875	0.25	33.88	-	34.13	-	56.00	46.00	-21.87	-
5	3.410	0.28	29.38	-	29.66	-	56.00	46.00	-26.34	-
6	9.824	0.53	30.58	-	31.11	-	60.00	50.00	-28.89	-

- 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.





5.2 RADIATED EMISSION MEASUREMENT

5.2.1 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.



5.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESIB7	100188	Dec. 19, 2005
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Nov. 21, 2005
BILOG Antenna SCHWARZBECK	VULB9168	9168-157	Jan. 22, 2006
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-407	Jan. 16, 2006
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA 9170241	Feb. 23, 2006
Preamplifier Agilent	8449B	3008A01961	Nov. 09, 2005
Preamplifier Agilent	8447D	2944A10629	Nov. 09, 2005
RF signal cable HUBER+SUHNER	SUCOFLEX 104	218182/4	Feb. 17, 2006
RF signal cable HUBER+SUHNER	SUCOFLEX 104	218194/4	Feb. 17, 2006
Software ADT.	ADT_Radiated_V5.14	NA	NA
Antenna Tower ADT.	AT100	AT93021702	NA
Turn Table ADT.	TT100.	TT93021702	NA
Controller ADT.	SC100.	SC93021702	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 1.
 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 IC4924-2.



5.2.3 TEST PROCEDURES

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

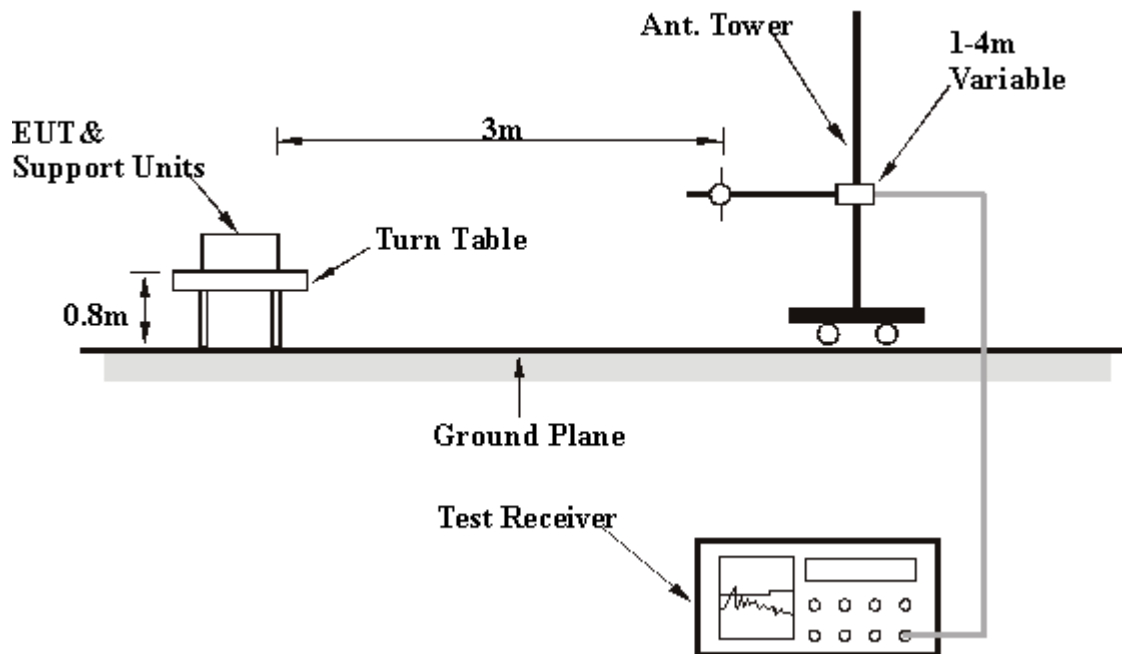
NOTE:

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 and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1kHz for Average detection (AV) at frequency above 1GHz.

5.2.4 DEVIATION FROM TEST STANDARD

No deviation

5.2.5 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

5.2.6 EUT OPERATING CONDITIONS

For finding the maximum radiated emission under this dual chain operation mode. The beam-forming coefficients has been adjusted to swing 30 degrees each step and pre-scans reveal that the maximum radiated emission is independent of the beam-forming coefficients, and hence the all dual chain operation is measured under the condition that both chains are output at same phase.



5.2.7 TEST RESULTS

RADIATED WORST CASE DATA

802.11g OFDM MODULATION_NORMAL MODE

EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	Below 1000MHz
CHANNEL	Channel 11	DETECTOR FUNCTION	Quasi-Peak
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	99.98	39.88 QP	43.50	-3.62	2.00 H	4	29.13	10.74
2	133.03	41.64 QP	43.50	-1.86	2.00 H	355	27.92	13.72
3	166.07	41.55 QP	43.50	-1.95	1.75 H	349	27.48	14.07
4	199.12	41.56 QP	43.50	-1.94	1.75 H	346	30.36	11.20
5	232.16	37.00 QP	46.00	-9.00	1.75 H	322	24.59	12.41
6	267.15	32.33 QP	46.00	-13.67	1.00 H	334	18.80	13.53
7	300.20	31.28 QP	46.00	-14.72	1.00 H	136	16.95	14.33
8	333.25	33.62 QP	46.00	-12.38	1.00 H	1	18.54	15.08
9	665.65	31.14 QP	46.00	-14.86	1.00 H	172	9.34	21.79
10	733.69	33.37 QP	46.00	-12.63	1.00 H	301	10.33	23.03
11	799.78	31.65 QP	46.00	-14.35	1.00 H	139	7.95	23.70
12	863.93	31.88 QP	46.00	-14.12	1.75 H	208	7.49	24.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	68.88	27.05 QP	40.00	-12.95	1.00 V	331	14.58	12.46
2	109.70	31.92 QP	43.50	-11.58	1.00 V	217	20.18	11.74
3	166.07	31.67 QP	43.50	-11.83	1.00 V	49	17.60	14.07
4	199.12	33.46 QP	43.50	-10.04	1.25 V	97	22.26	11.20
5	319.64	31.07 QP	46.00	-14.93	1.50 V	349	16.30	14.77
6	364.35	31.77 QP	46.00	-14.23	1.25 V	340	15.97	15.80
7	861.98	31.36 QP	46.00	-14.64	1.25 V	343	7.01	24.36

- 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	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	1 ~ 25GHz
CHANNEL	Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

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	2016.00	48.52 PK	82.96	-34.44	1.00 H	7	18.18	30.34
1	2016.00	45.39 AV	74.26	-28.87	1.00 H	7	15.05	30.34
2	2360.00	57.73 PK	74.00	-16.27	1.10 H	211	25.83	31.90
2	2360.00	48.52 AV	54.00	-5.48	1.10 H	211	16.62	31.90
3	*2412.00	102.96 PK			1.38 H	205	70.83	32.13
3	*2412.00	94.26 AV			1.38 H	205	62.13	32.13
4	4824.00	49.72 PK	74.00	-24.28	1.00 H	271	11.52	38.20
4	4824.00	37.70 AV	54.00	-16.30	1.00 H	271	-0.50	38.20

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	2016.00	54.20 PK	91.44	-37.24	1.01 V	17	23.86	30.34
1	2016.00	52.45 AV	81.03	-28.58	1.01 V	17	22.11	30.34
2	2292.00	60.82 PK	74.00	-13.18	1.33 V	69	29.21	31.61
2	2292.00	50.87 AV	54.00	-3.13	1.33 V	69	19.26	31.61
3	2320.00	61.81 PK	74.00	-12.19	1.33 V	69	30.08	31.73
3	2320.00	52.28 AV	54.00	-1.72	1.33 V	69	20.55	31.73
4	2360.00	61.72 PK	74.00	-12.28	1.33 V	69	29.82	31.90
4	2360.00	52.26 AV	54.00	-1.74	1.33 V	69	20.36	31.90
5	*2412.00	111.44 PK			1.33 V	69	79.31	32.13
5	*2412.00	101.03 AV			1.33 V	69	68.90	32.13
6	4824.00	51.56 PK	74.00	-22.44	1.08 V	29	13.36	38.20
6	4824.00	38.87 AV	54.00	-15.13	1.08 V	29	0.67	38.20

- 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	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	1 ~ 25GHz
CHANNEL	Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

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	2016.00	48.91 PK	81.11	-32.20	1.11 H	328	18.57	30.34
1	2016.00	46.28 AV	72.17	-25.89	1.11 H	328	15.94	30.34
2	2360.00	57.98 PK	74.00	-16.02	1.10 H	349	26.08	31.90
2	2360.00	47.74 AV	54.00	-6.26	1.10 H	349	15.84	31.90
3	*2437.00	101.11 PK			1.04 H	346	68.86	32.25
3	*2437.00	92.17 AV			1.04 H	346	59.92	32.25
4	4874.00	47.60 PK	74.00	-26.40	1.02 H	1	9.28	38.32
4	4874.00	35.21 AV	54.00	-18.79	1.02 H	1	-3.11	38.32

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	2016.00	55.39 PK	91.91	-36.52	1.31 V	62	25.05	30.34
1	2016.00	54.04 AV	81.21	-27.17	1.31 V	62	23.70	30.34
2	2320.00	61.89 PK	74.00	-12.11	1.33 V	60	30.16	31.73
2	2320.00	52.33 AV	54.00	-1.67	1.33 V	60	20.60	31.73
3	2360.00	62.26 PK	74.00	-11.74	1.33 V	60	30.36	31.90
3	2360.00	52.31 AV	54.00	-1.69	1.33 V	60	20.41	31.90
4	*2437.00	111.91 PK			1.33 V	60	79.66	32.25
4	*2437.00	101.21 AV			1.33 V	60	68.96	32.25
5	4874.00	48.26 PK	74.00	-25.74	1.15 V	302	9.94	38.32
5	4874.00	36.10 AV	54.00	-17.90	1.15 V	302	-2.22	38.32

- 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	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	1 ~ 25GHz
CHANNEL	Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

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	2016.00	48.63 PK	82.85	-34.22	1.02 H	10	18.29	30.34
1	2016.00	45.82 AV	74.35	-28.53	1.02 H	10	15.48	30.34
2	2360.00	58.44 PK	74.00	-15.56	1.11 H	287	26.54	31.90
2	2360.00	48.72 AV	54.00	-5.28	1.11 H	287	16.82	31.90
3	*2462.00	102.85 PK			1.40 H	210	70.49	32.36
3	*2462.00	94.35 AV			1.40 H	210	61.99	32.36
4	2483.50	56.54 PK	74.00	-17.46	1.40 H	210	24.08	32.46
4	2483.50	45.36 AV	54.00	-8.64	1.40 H	210	12.90	32.46
5	4924.00	50.32 PK	74.00	-23.68	1.04 H	236	11.86	38.46
5	4924.00	38.36 AV	54.00	-15.64	1.04 H	236	-0.10	38.46

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	2016.00	54.35 PK	91.11	-36.76	1.00 V	25	24.01	30.34
1	2016.00	52.51 AV	80.53	-28.02	1.00 V	25	22.17	30.34
2	2320.00	62.39 PK	74.00	-11.61	1.31 V	75	30.66	31.73
2	2320.00	52.27 AV	54.00	-1.73	1.31 V	75	20.54	31.73
3	2360.00	60.86 PK	74.00	-13.14	1.31 V	75	28.96	31.90
3	2360.00	52.14 AV	54.00	-1.86	1.31 V	75	20.24	31.90
4	*2462.00	111.11 PK			1.31 V	75	78.75	32.36
4	*2462.00	100.53 AV			1.31 V	75	68.17	32.36
5	2483.50	60.75 PK	74.00	-13.25	1.31 V	75	28.29	32.46
5	2483.50	49.21 AV	54.00	-4.79	1.31 V	75	16.75	32.46
6	4924.00	46.79 PK	74.00	-27.21	1.04 V	23	8.33	38.46
6	4924.00	36.09 AV	54.00	-17.91	1.04 V	23	-2.37	38.46

- 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_TURBO MODE

EUT	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	Below 1000MHz
CHANNEL	Channel 6	DETECTOR FUNCTION	Quasi-Peak
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	12Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

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	100.01	40.10 QP	43.50	-3.40	2.00 H	202	29.35	10.75
2	112.40	38.40 QP	43.50	-5.10	1.50 H	200	26.38	12.02
3	133.13	41.11 QP	43.50	-2.39	1.75 H	210	27.38	13.73
4	166.78	41.42 QP	43.50	-2.08	1.75 H	300	27.42	14.00
5	200.07	41.17 QP	43.50	-2.33	1.50 H	217	30.04	11.13
6	232.16	34.97 QP	46.00	-11.03	1.50 H	337	22.55	12.41
7	266.47	34.28 QP	46.00	-11.72	1.25 H	300	20.78	13.50
8	331.30	34.43 QP	46.00	-11.57	1.00 H	355	19.39	15.04
9	449.88	28.79 QP	46.00	-17.21	1.50 H	262	10.88	17.91
10	519.86	29.97 QP	46.00	-16.03	1.50 H	232	10.98	18.99
11	599.56	29.76 QP	46.00	-16.24	1.50 H	124	8.87	20.88
12	730.07	33.71 QP	46.00	-12.29	1.00 H	157	10.76	22.95
13	799.78	31.44 QP	46.00	-14.56	1.00 H	157	7.74	23.70
14	868.81	32.47 QP	46.00	-13.53	1.50 H	178	7.98	24.49

- 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	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	Below 1000MHz
CHANNEL	Channel 6	DETECTOR FUNCTION	Quasi-Peak
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	12Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	31.94	25.37 QP	40.00	-14.63	1.50 V	295	11.69	13.68
2	100.11	30.48 QP	43.50	-13.02	2.00 V	177	19.72	10.76
3	133.18	34.20 QP	43.50	-9.30	2.50 V	350	20.47	13.73
4	166.20	33.20 QP	43.50	-10.30	2.00 V	187	19.15	14.05
5	199.12	35.43 QP	43.50	-8.07	2.00 V	295	24.23	11.20
6	267.15	28.65 QP	46.00	-17.35	2.00 V	94	15.12	13.53
7	360.46	30.89 QP	46.00	-15.11	1.00 V	352	15.19	15.71
8	531.52	32.89 QP	46.00	-13.11	1.00 V	37	13.66	19.23
9	671.48	28.37 QP	46.00	-17.63	1.00 V	250	6.49	21.87
10	730.20	32.07 QP	46.00	-13.93	1.75 V	300	9.12	22.95
11	863.93	29.97 QP	46.00	-16.03	1.00 V	262	5.58	24.40
12	932.22	32.82 QP	46.00	-13.18	1.25 V	34	7.39	25.43

- 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	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	1 ~ 25GHz
CHANNEL	Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	12Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

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	2016.00	45.03 PK	79.13	-34.10	1.00 H	178	14.69	30.34
1	2016.00	42.05 AV	68.97	-26.92	1.00 H	178	11.71	30.34
2	2320.00	57.24 PK	74.00	-16.76	1.11 H	293	25.51	31.73
2	2320.00	47.74 AV	54.00	-6.26	1.11 H	293	16.01	31.73
3	2360.00	56.43 PK	74.00	-17.57	1.26 H	295	24.53	31.90
3	2360.00	46.37 AV	54.00	-7.63	1.26 H	295	14.47	31.90
4	2390.00	54.41 PK	74.00	-19.59	1.26 H	295	22.37	32.04
4	2390.00	46.01 AV	54.00	-7.99	1.26 H	295	13.97	32.04
5	*2437.00	99.13 PK			1.26 H	295	66.88	32.25
5	*2437.00	88.97 AV			1.26 H	295	56.72	32.25
6	4874.00	47.07 PK	74.00	-26.93	1.41 H	181	8.75	38.32
6	4874.00	34.94 AV	54.00	-19.06	1.41 H	181	-3.38	38.32

- 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	High Speed Wireless Network Adapter	MEASUREMENT DETAIL	
MODEL	AV10	FREQUENCY RANGE	1 ~ 25GHz
CHANNEL	Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TRANSFER RATE	12Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Match Tsui		

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	2016.00	50.68 PK	90.49	-39.81	1.53 V	360	20.34	30.34
1	2016.00	48.76 AV	79.41	-30.65	1.53 V	360	18.42	30.34
2	2280.00	59.77 PK	74.00	-14.23	1.00 V	340	28.21	31.56
2	2280.00	47.46 AV	54.00	-6.54	1.00 V	340	15.90	31.56
3	2320.00	61.64 PK	74.00	-12.36	1.34 V	106	29.91	31.73
3	2320.00	51.28 AV	54.00	-2.72	1.34 V	106	19.55	31.73
4	2360.00	62.18 PK	74.00	-11.82	1.03 V	53	30.28	31.90
4	2360.00	52.29 AV	54.00	-1.71	1.03 V	53	20.39	31.90
5	*2437.00	110.49 PK			1.03 V	53	78.24	32.25
5	*2437.00	99.41 AV			1.03 V	53	67.16	32.25
6	2483.50	58.92 PK	74.00	-15.08	1.03 V	53	26.46	32.46
6	2483.50	49.21 AV	54.00	-4.79	1.03 V	53	16.75	32.46
7	4874.00	51.29 PK	74.00	-22.71	1.09 V	58	12.97	38.32
7	4874.00	37.41 AV	54.00	-16.59	1.09 V	58	-0.91	38.32

- 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.



5.3 6dB BANDWIDTH MEASUREMENT

5.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

5.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

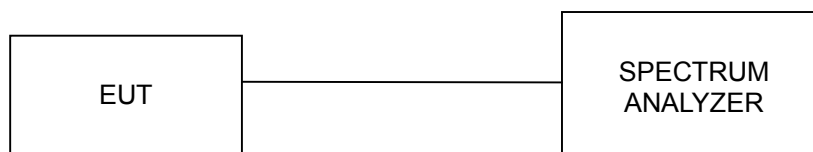
5.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100 kHz RBW and 100kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

5.3.4 DEVIATION FROM TEST STANDARD

No deviation

5.3.5 TEST SETUP



For the actual test configuration, please refer to the related Item – Photographs of the Test Configuration.

5.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.



5. 3.7 TEST RESULTS

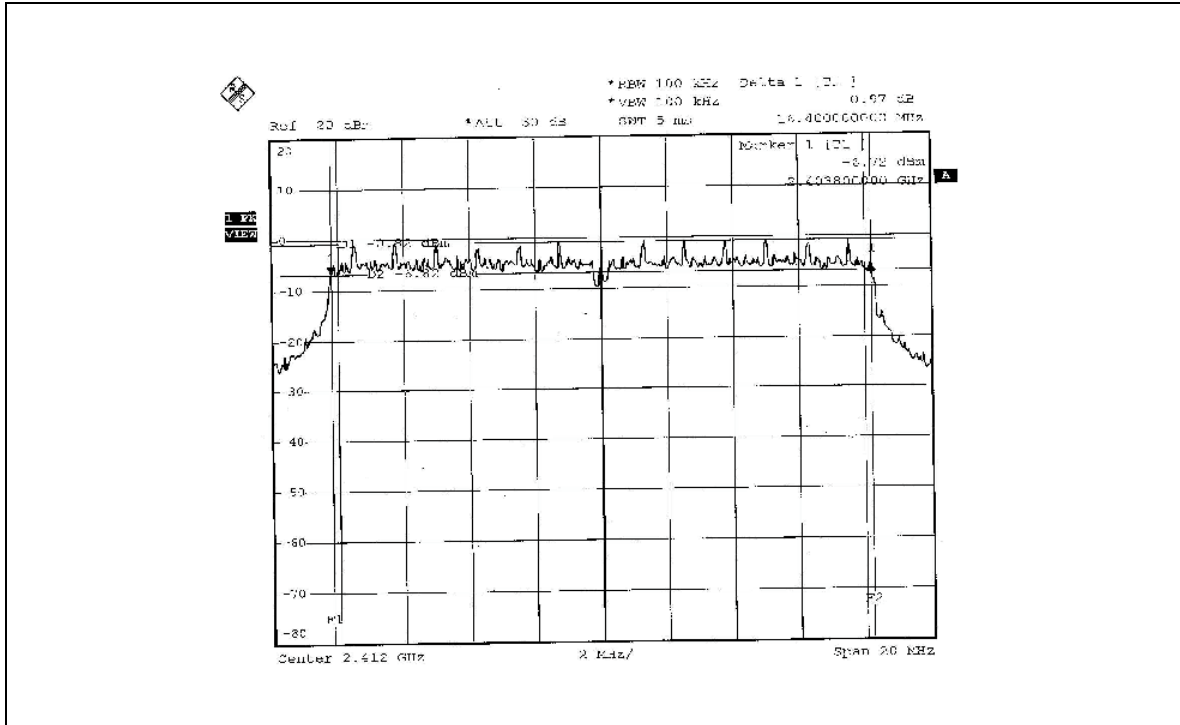
802.11g OFDM MODULATION_NORMAL MODE

EUT	High Speed Wireless Network Adapter	MODEL	AV10
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TESTED BY	Match Tsui		

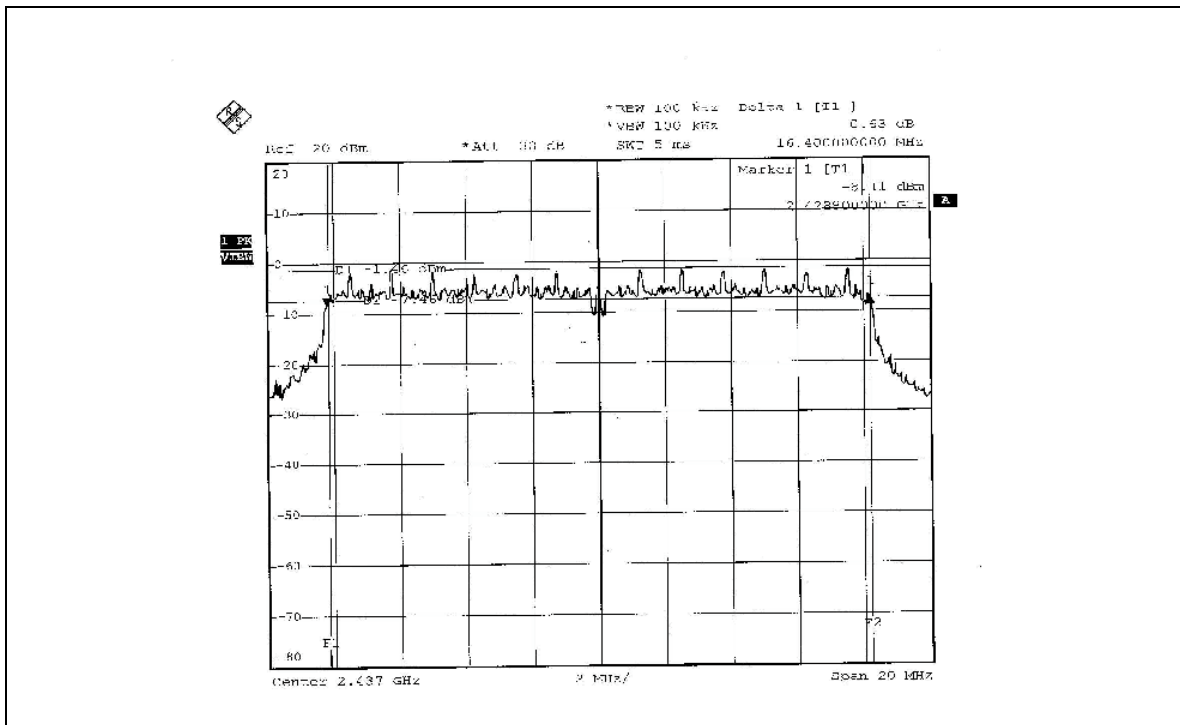
CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS/FAIL
		CHAIN 0	CHAIN 1		
1	2412	16.40	16.40	0.5	PASS
6	2437	16.40	16.40	0.5	PASS
11	2462	16.40	16.40	0.5	PASS



FOR CHAIN 0:
CH1

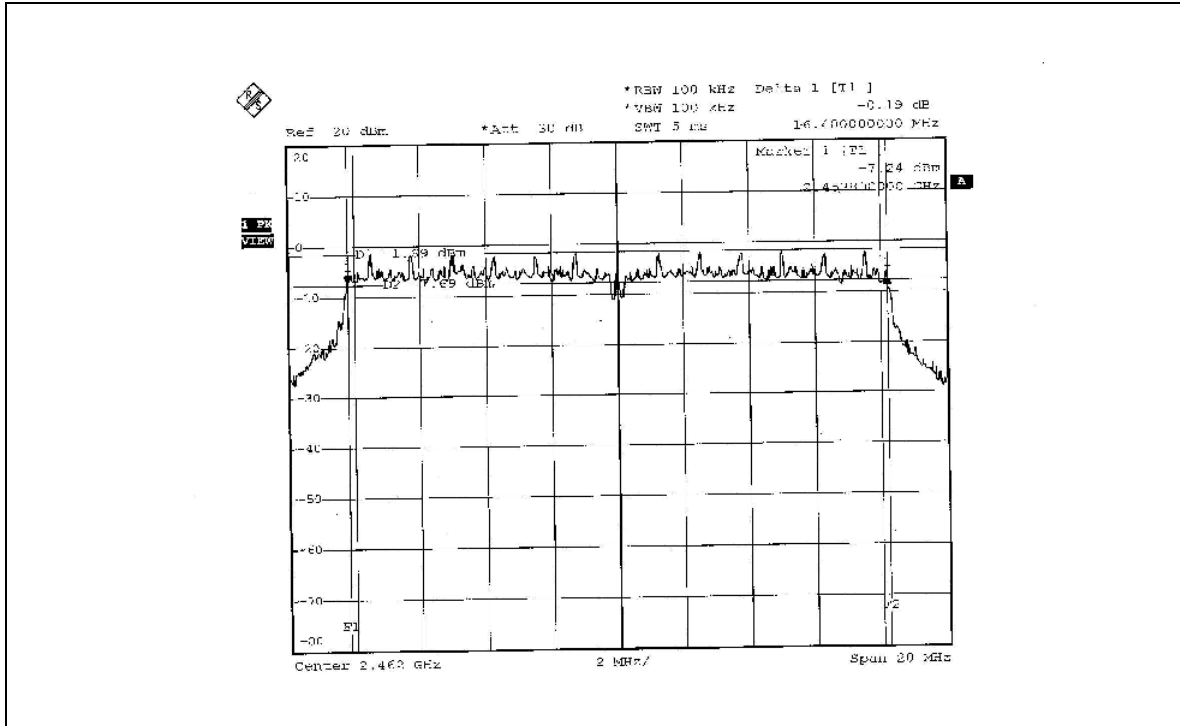


CH6



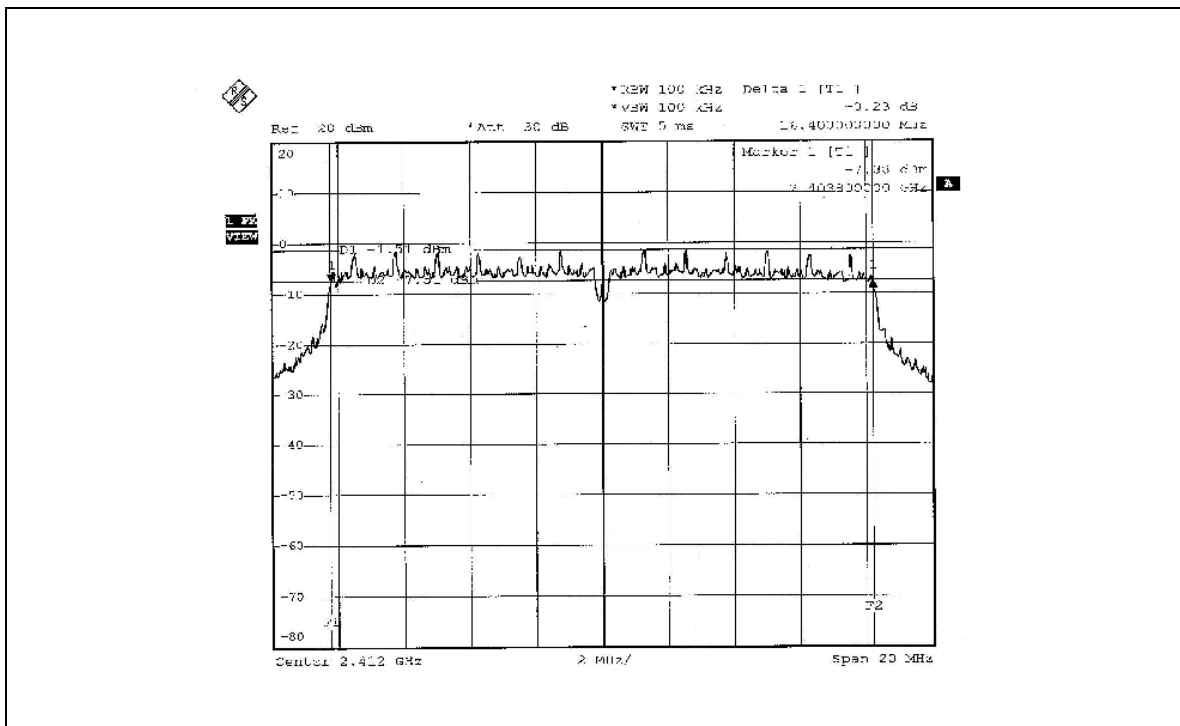


CH11



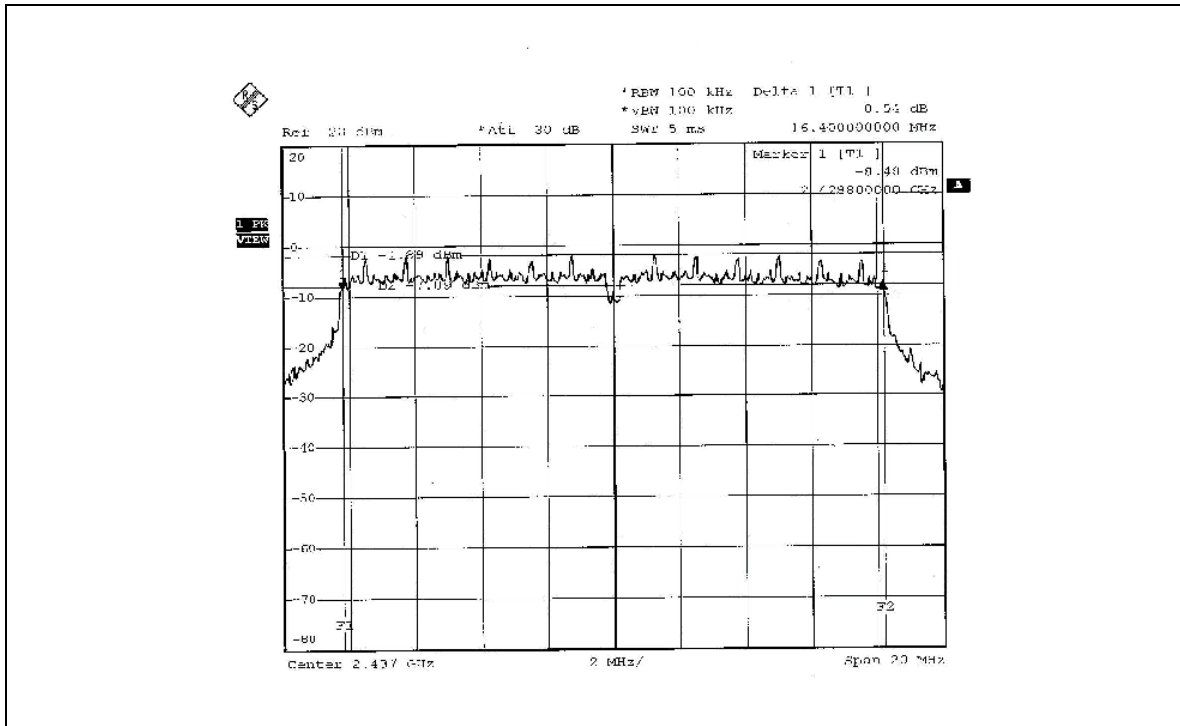
FOR CHAIN 1:

CH1

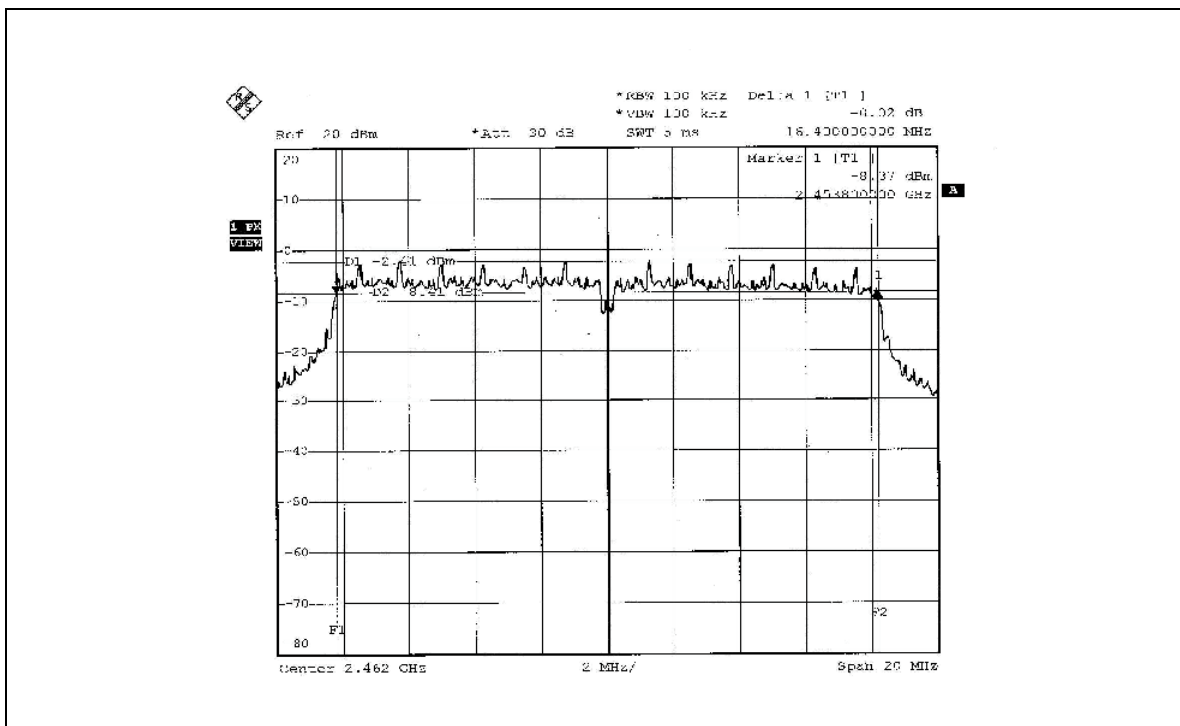




CH6



CH11





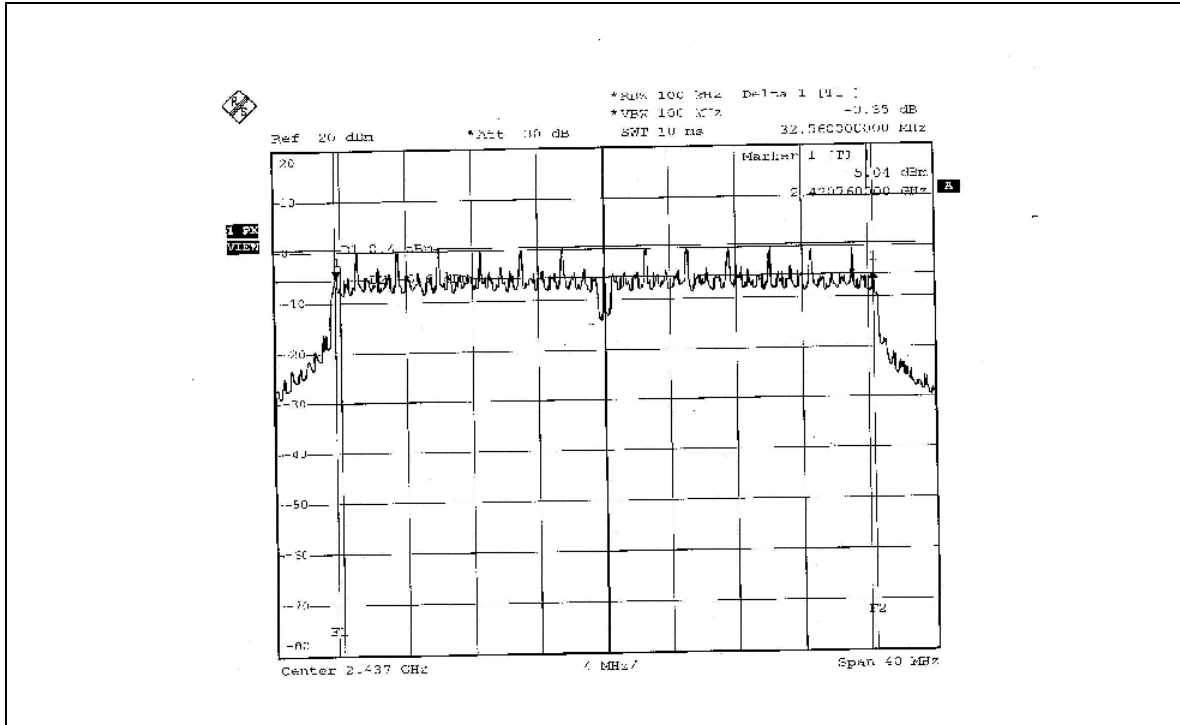
802.11g OFDM MODULATION_TURBO MODE

EUT	High Speed Wireless Network Adapter	MODEL	AV10
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TESTED BY	Match Tsui		

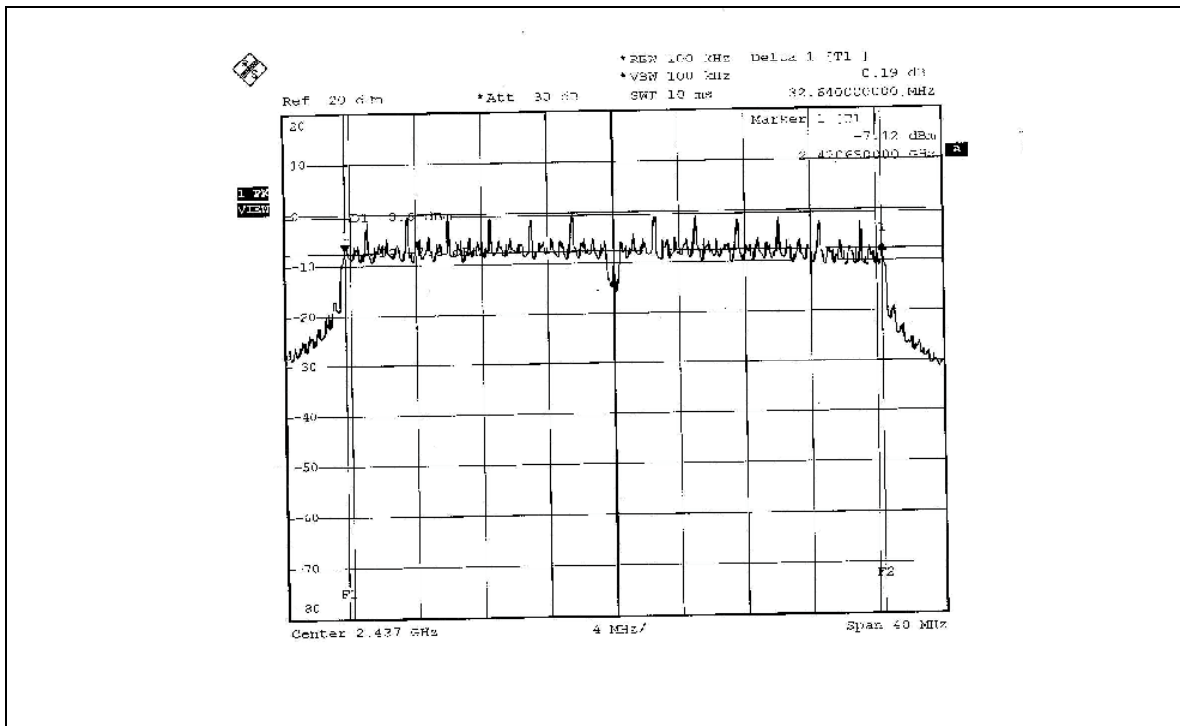
CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS/FAIL
		CHAIN 0	CHAIN 1		
6	2437	32.56	32.64	0.5	PASS



FOR CHAIN 0:
CH6



FOR CHAIN 1:
CH6





5.4 MAXIMUM PEAK OUTPUT POWER

5.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

5.4.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006
AGILENT SIGNAL GENERATOR	E8257C	MY43320668	Dec. 06, 2005
TEKTRONIX OSCILLOSCOPE	TDS 220	C019167	Feb. 01, 2006
NARDA DETECTOR	4503A	FSCM99899	NA

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.



5.4.3 TEST PROCEDURES

1. A detector was used on the output port of the EUT. An oscilloscope was used to peak the response of the detector.
2. Replaced the EUT by the signal generator. The center frequency of the S.G was adjusted to the center frequency of the measured channel.
3. Adjusted the power to have the same peak reading on oscilloscope. Record the power level.

5.4.4 DEVIATION FROM TEST STANDARD

No deviation

5.4.5 TEST SETUP



5.4.6 EUT OPERATING CONDITIONS

Same as Item 5.3.6

5.4.7 TEST RESULTS

802.11g OFDM MODULATION_NORMAL MODE

EUT	High Speed Wireless Network Adapter	MODEL	AV10
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)		PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
1	2412	20.749	19.999	13.17	13.01	40.748	16.10	30	PASS
6	2437	20.654	20.045	13.15	13.02	40.699	16.10	30	PASS
11	2462	20.797	20.184	13.18	13.05	40.981	16.13	30	PASS

802.11g OFDM MODULATION_TURBO MODE

EUT	High Speed Wireless Network Adapter	MODEL	AV10
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)		PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
6	2437	20.464	20.230	13.11	13.06	40.695	16.10	30	PASS



5.5 POWER SPECTRAL DENSITY MEASUREMENT

5.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

5.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

5.5.3 TEST PROCEDURE

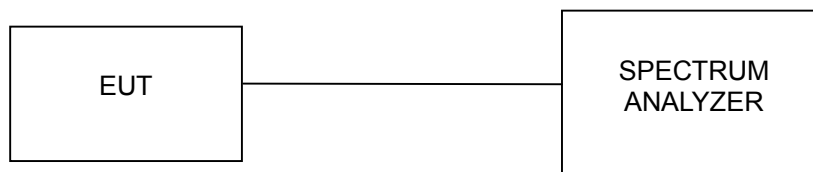
The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time=span/3kHz. The power spectral density was measured and recorded.

The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.

5.5.4 DEVIATION FROM TEST STANDARD

No deviation

5.5.5 TEST SETUP



5.5.6 EUT OPERATING CONDITIONS

Same as 4.3.6



5.5.7 TEST RESULTS

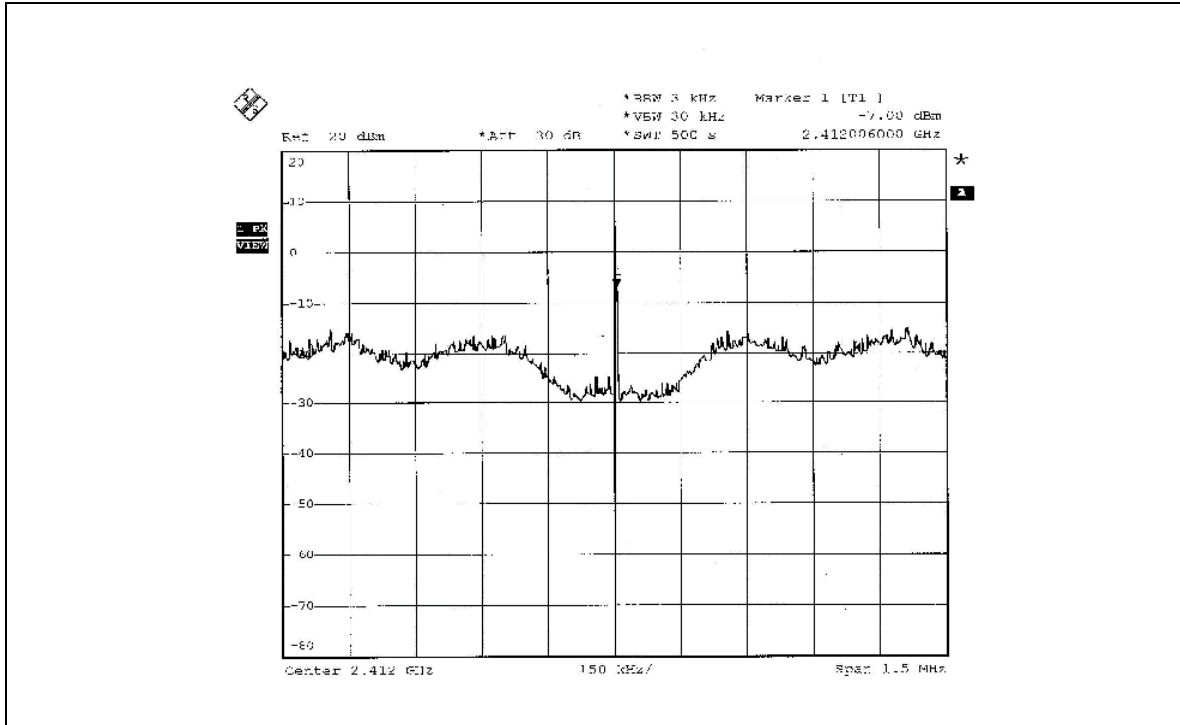
802.11g OFDM MODULATION_NORMAL MODE

EUT	High Speed Wireless Network Adapter	MODEL	AV10
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TESTED BY	Match Tsui		

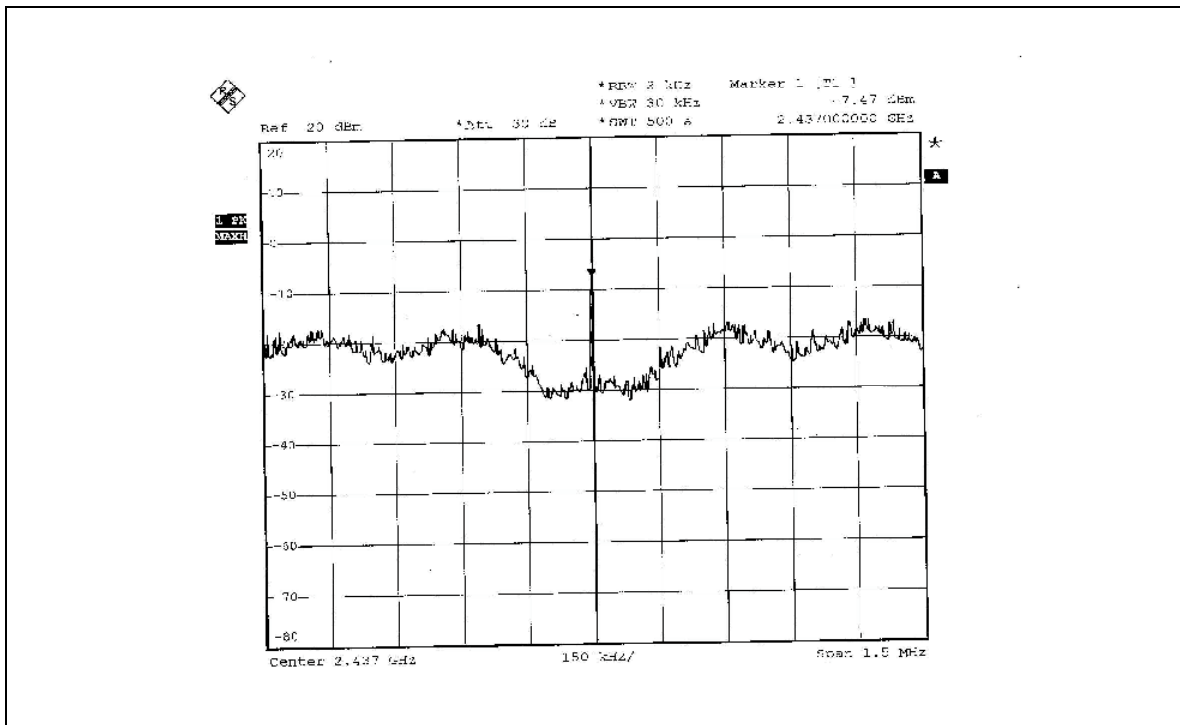
CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)		MAXIMUM LIMIT (dBm)	PASS/FAIL
		CHAIN 0	CHAIN 1		
1	2412	-7.00	-13.63	8	PASS
6	2437	-7.47	-13.92	8	PASS
11	2462	-7.53	-13.70	8	PASS



FOR CHAIN 0:
CH1

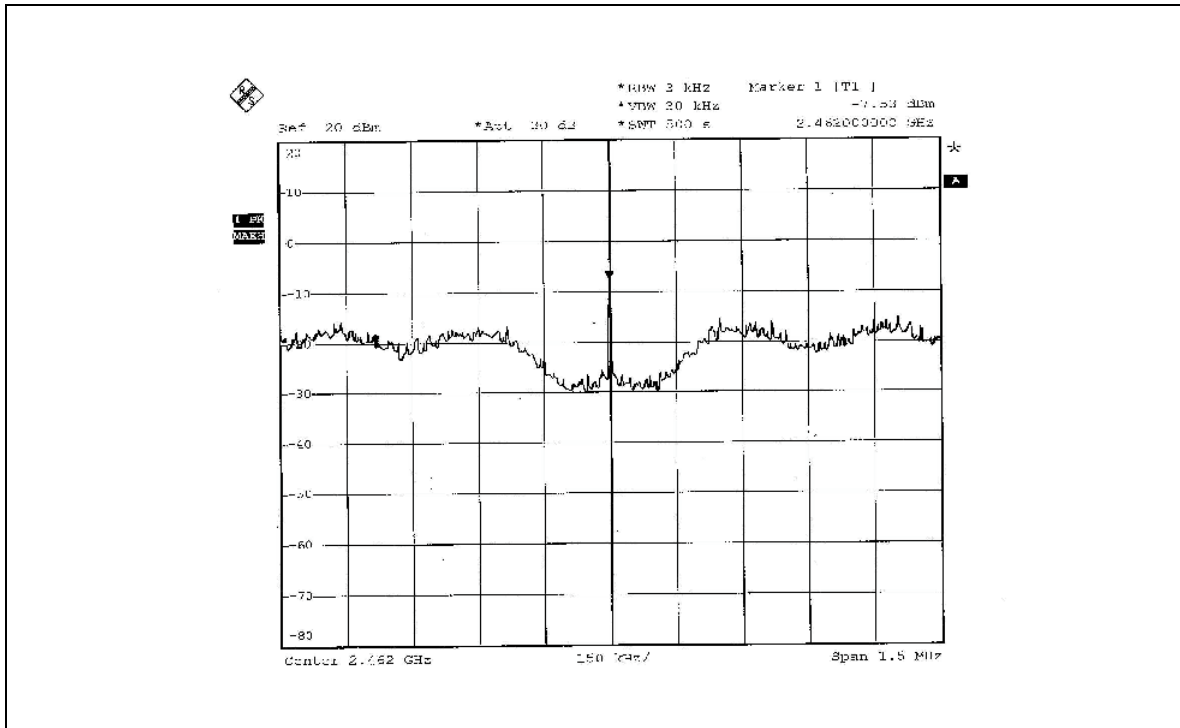


CH6



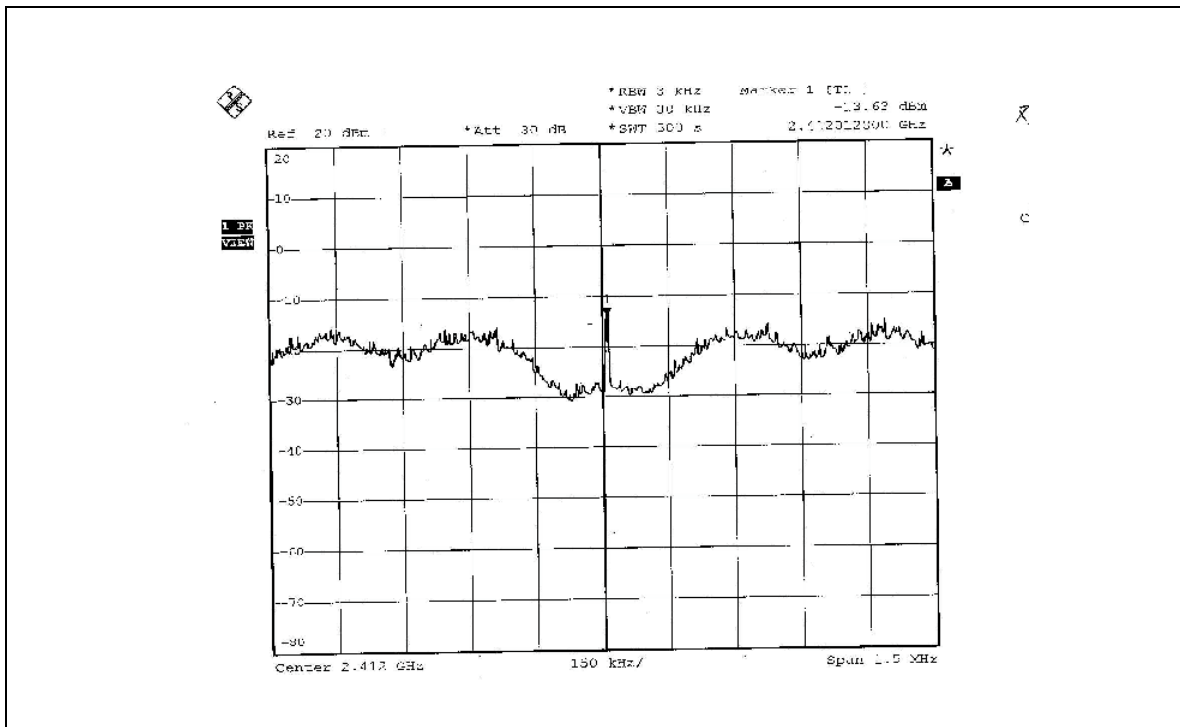


CH11



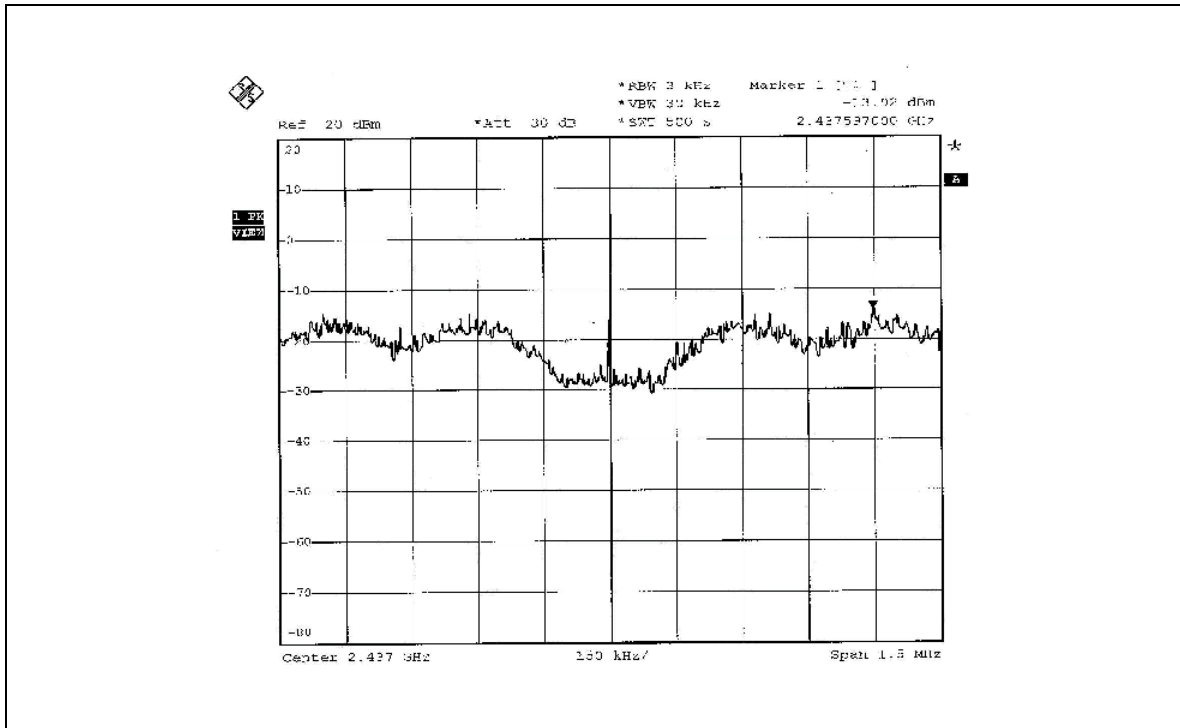
FOR CHAIN 1:

CH1

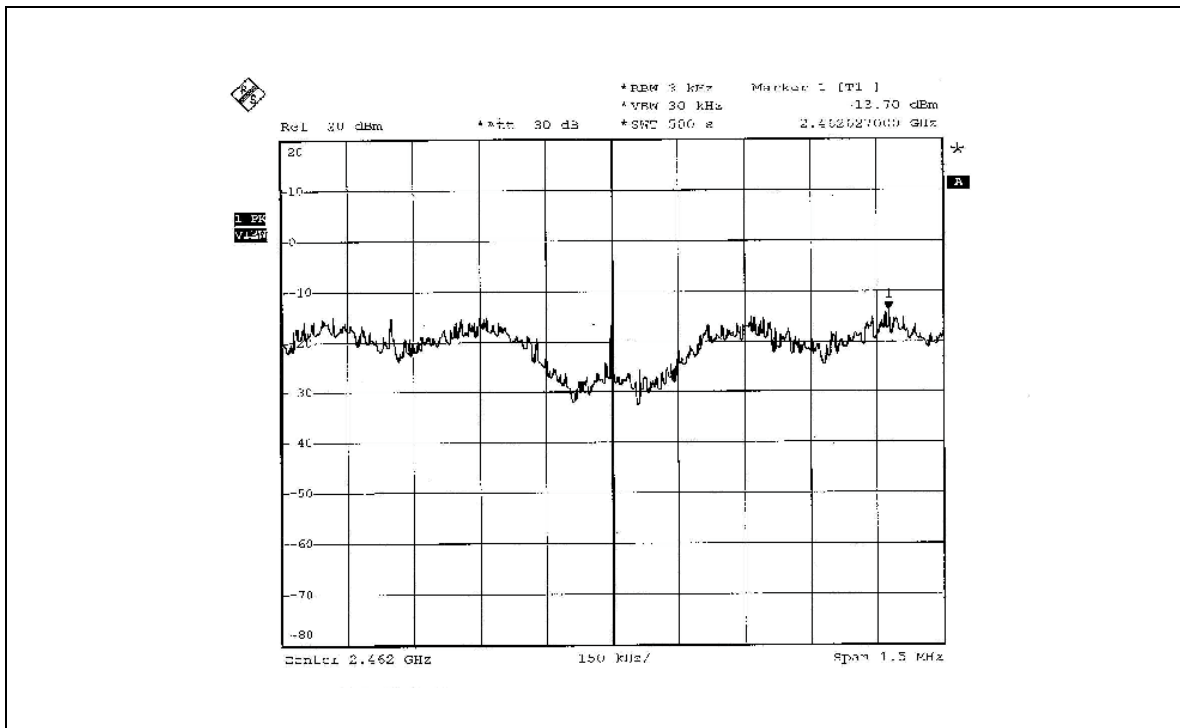




CH6



CH11





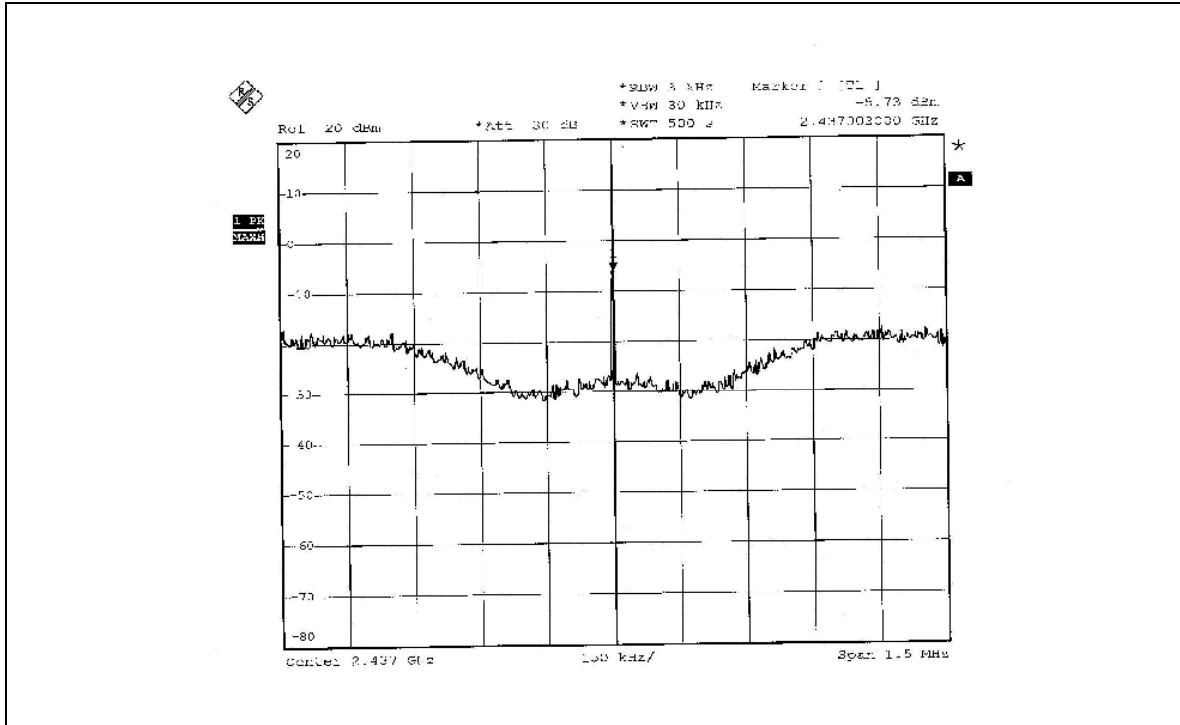
802.11g OFDM MODULATION_TURBO MODE

EUT	High Speed Wireless Network Adapter	MODEL	AV10
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg. C, 64%RH, 991hPa
TESTED BY	Match Tsui		

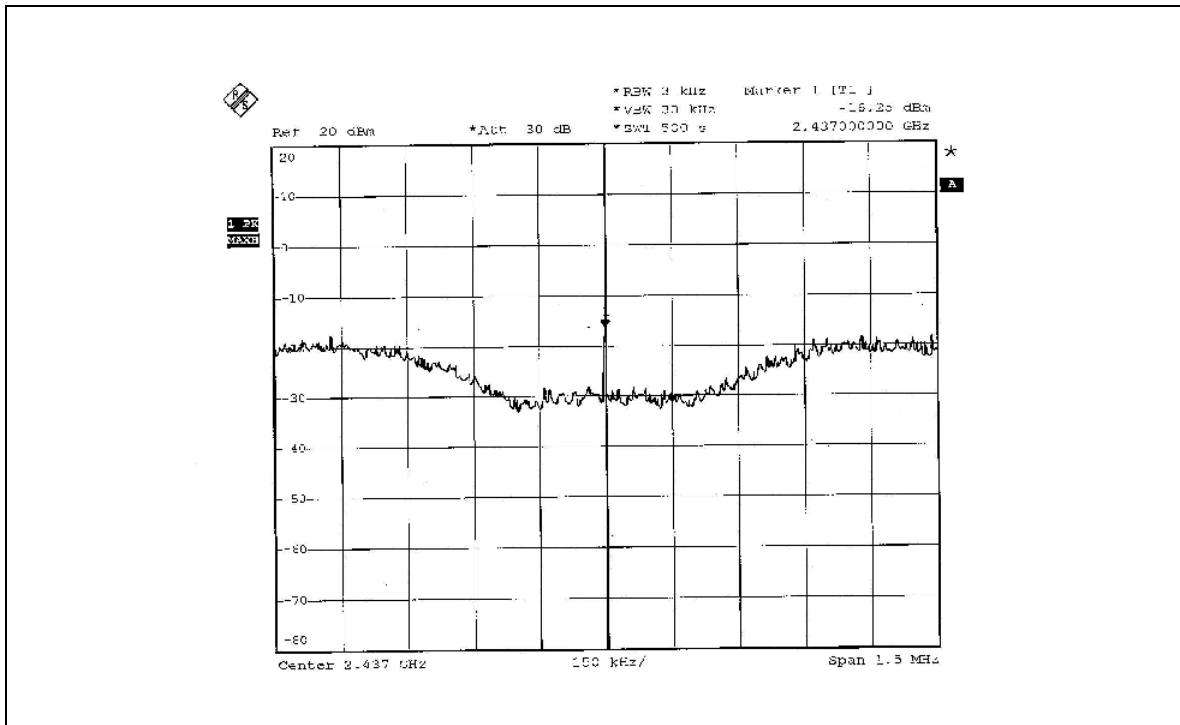
CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)		MAXIMUM LIMIT (dBm)	PASS/FAIL
		CHAIN 0	CHAIN 1		
6	2437	-5.73	-16.25	8	PASS



FOR CHAIN 0:
CH6



FOR CHAIN 1:
CH6





5.6 BAND EDGES MEASUREMENT

5.6.1 LIMITS OF BAND EDGES MEASUREMENT

Below -20 dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

5.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.



5.6.3 TEST PROCEDURE

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

The spectrum plots (Peak RBW = VBW = 100kHz; Average RBW = 1MHz, VBW = 1kHz)

NOTE: The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1kHz for Average detection (AV) at frequency above 1GHz.

5.6.4 DEVIATION FROM TEST STANDARD

No deviation

5.6.5 EUT OPERATING CONDITION

Same as Item 4.3.6



5.6.6 TEST RESULTS

The spectrum plots are attached on the following 18 images. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

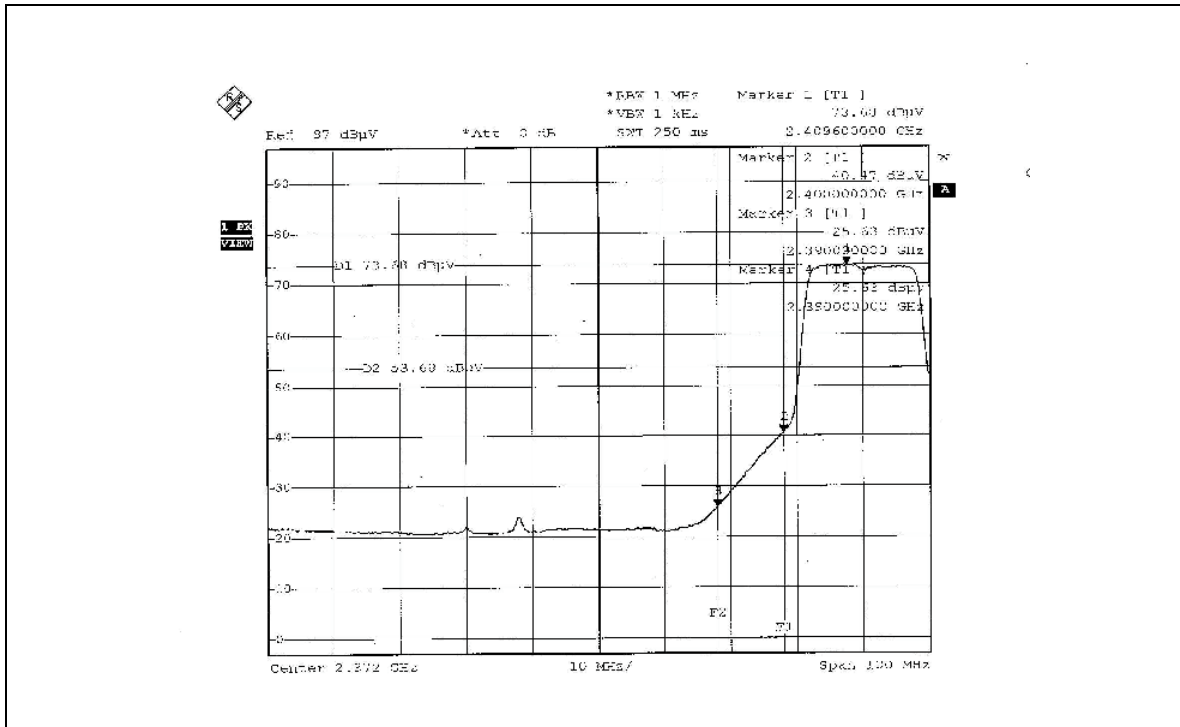
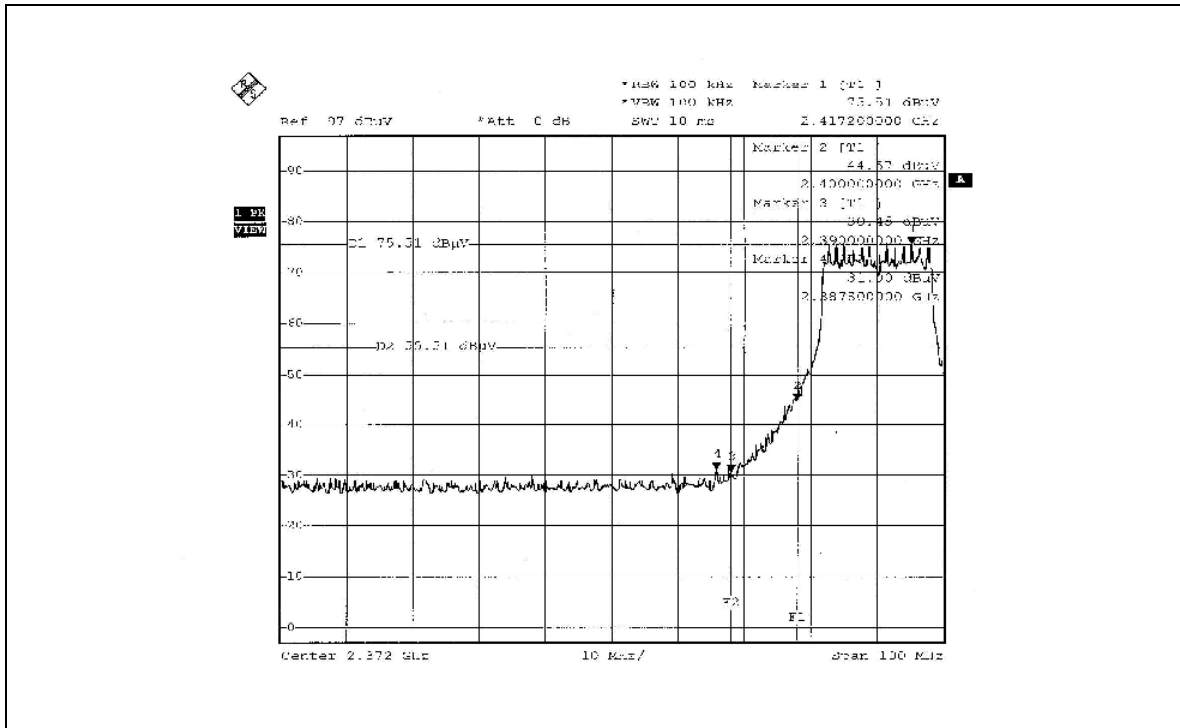
802.11g OFDM MODULATION_NORMAL MODE

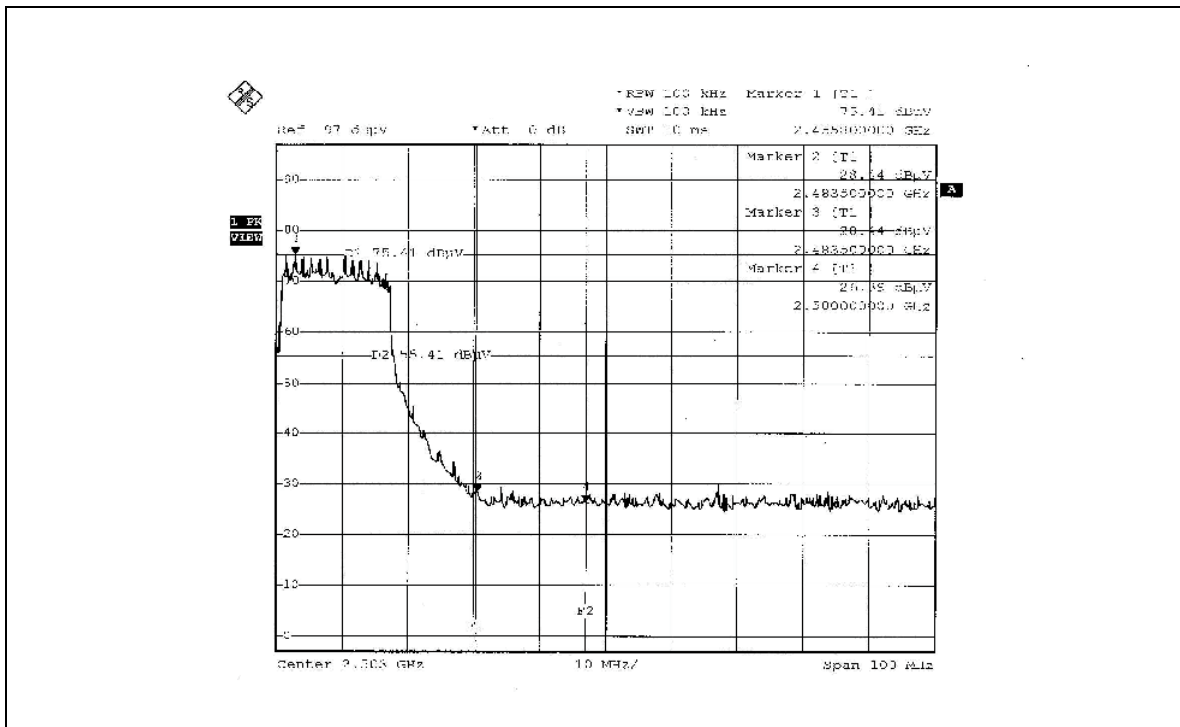
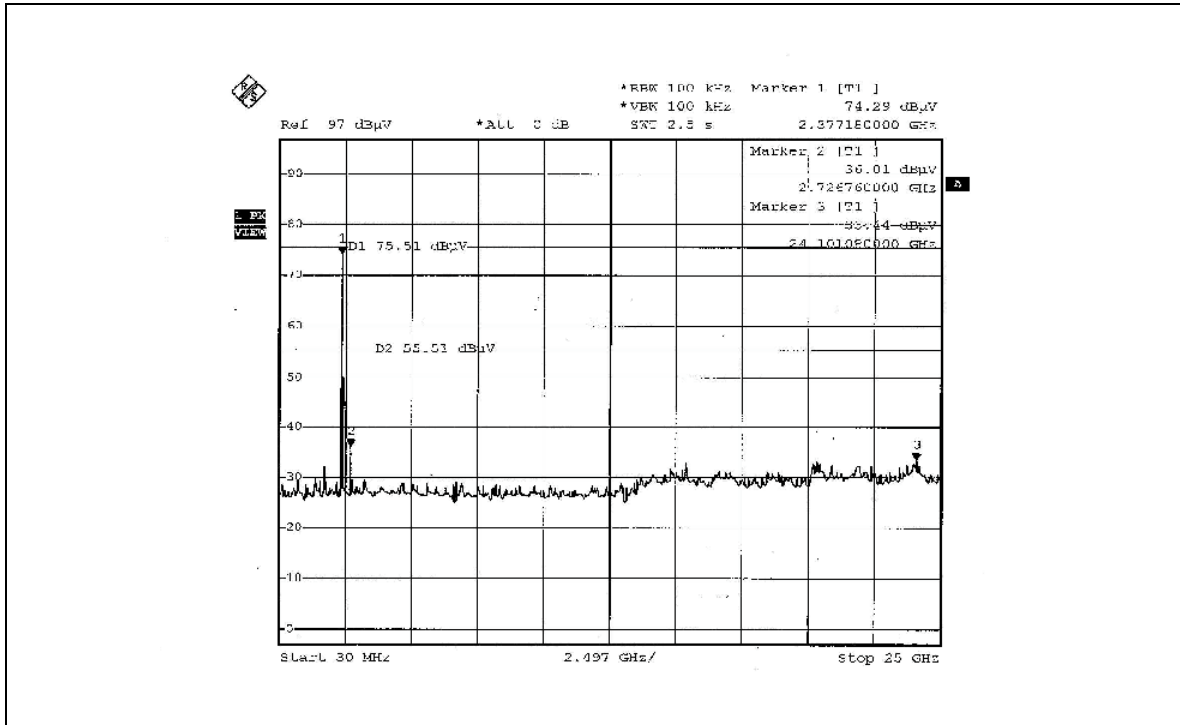
NOTE 1: The band edge emission plot on page 123 shows 44.51dBc between carrier maximum power and local maximum emission in restrict band (2.3878GHz). The emission of carrier strength list in the test result of channel 1 at the item 5.2.7 is 111.44dBuV/m (Peak), so the maximum field strength in restrict band is $111.44 - 44.51 = 66.93$ dBuV/m, which is under 74dBuV/m limit.

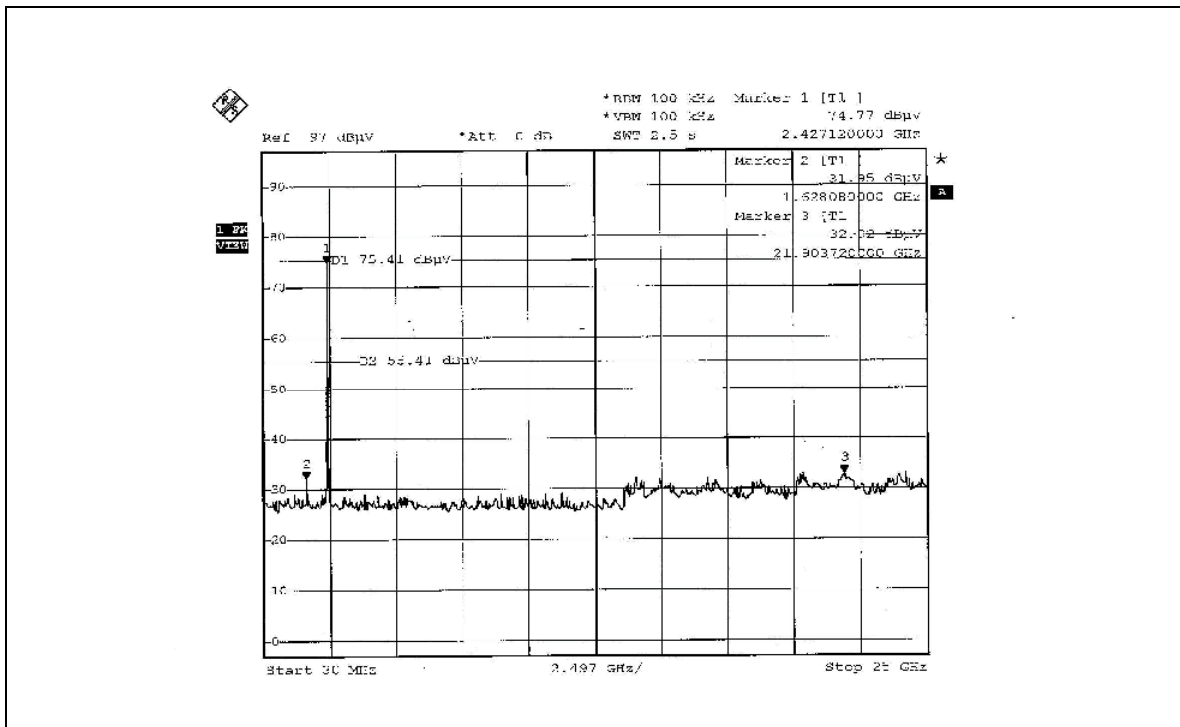
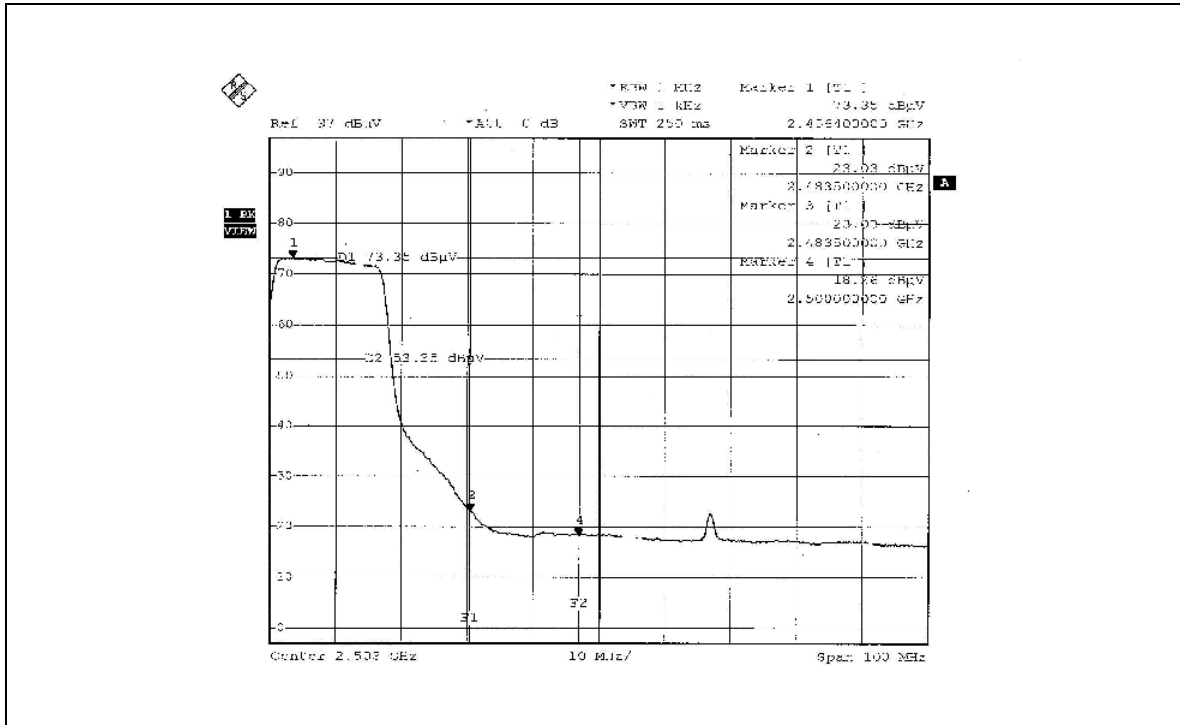
The band edge emission plot on page 123 shows 48.05dBc between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 5.2.7 is 101.03dBuV/m (Average), so the maximum field strength in restrict band is $101.03 - 48.05 = 52.98$ dBuV/m, which is under 54dBuV/m limit.

NOTE 2: The band edge emission plot on page 124 shows 49.02dBc between carrier maximum power and local maximum emission in restrict band (2.5000GHz). The emission of carrier strength list in the test result of channel 11 at the item 5.2.7 is 111.11dBuV/m (Peak), so the maximum field strength in restrict band is $111.11 - 49.02 = 62.09$ dBuV/m, which is under 74dBuV/m limit.

The band edge emission plot on page 125 shows 50.32dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 5.2.7 is 100.53dBuV/m (Average), so the maximum field strength in restrict band is $100.53 - 50.32 = 50.21$ dBuV/m, which is under 54dBuV/m limit.









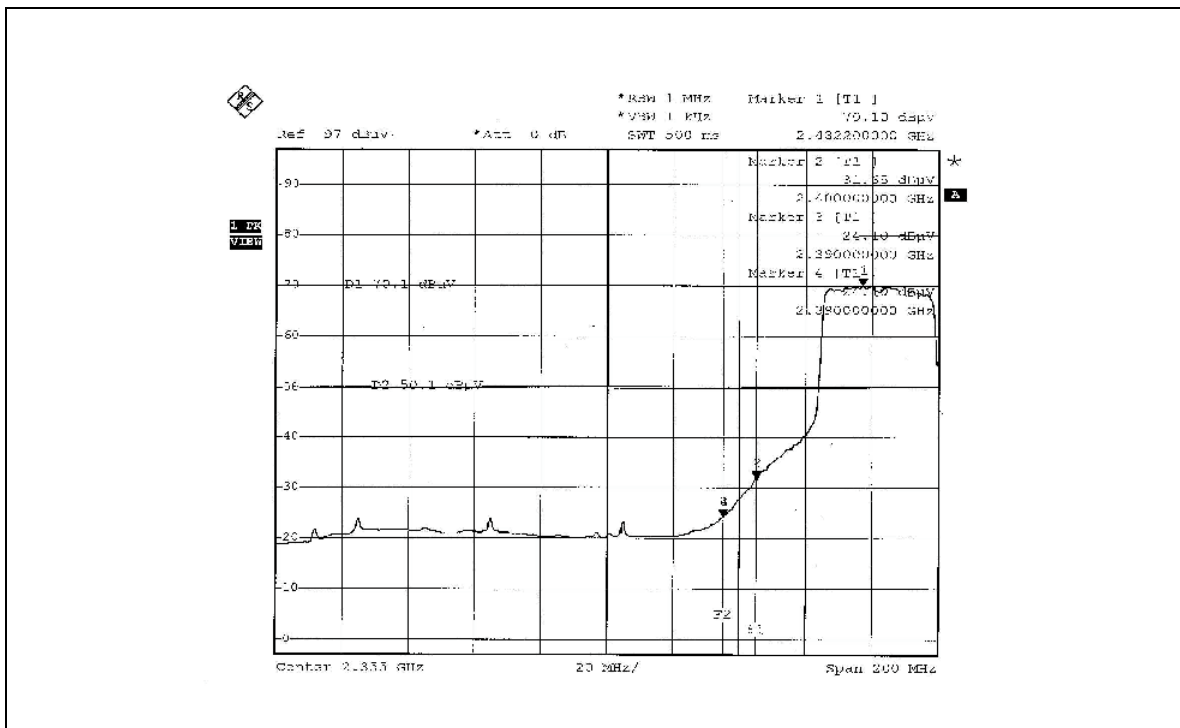
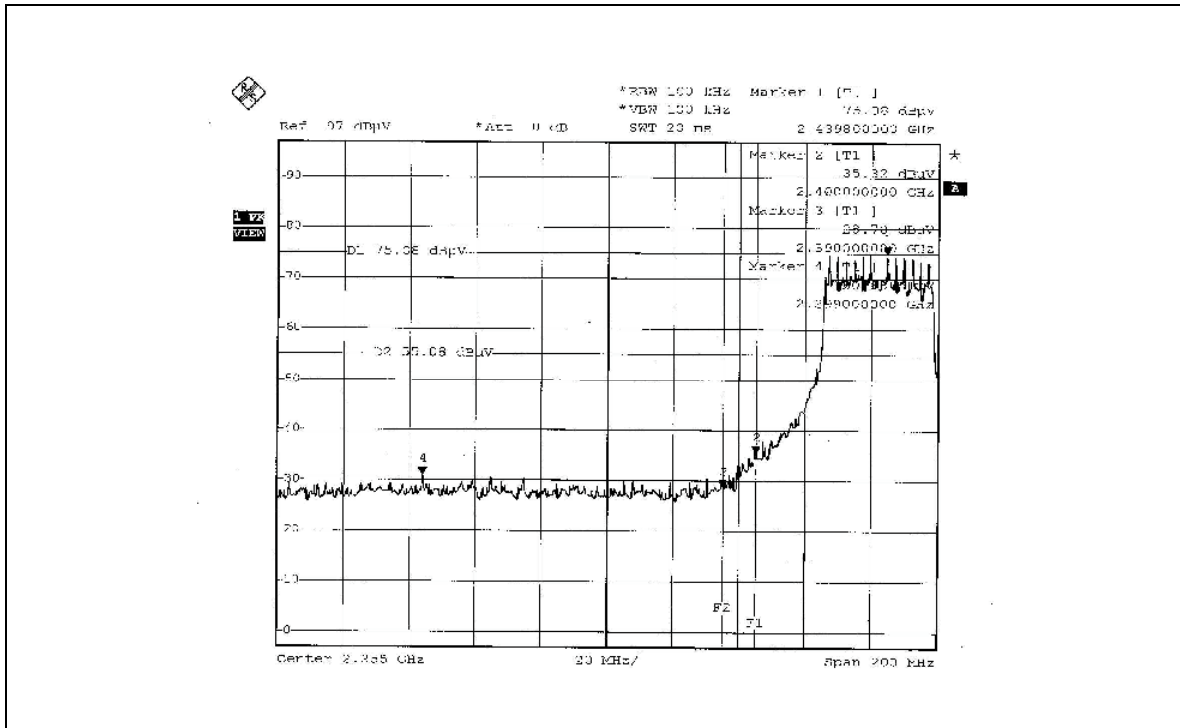
802.11g OFDM MODULATION_TURBO MODE

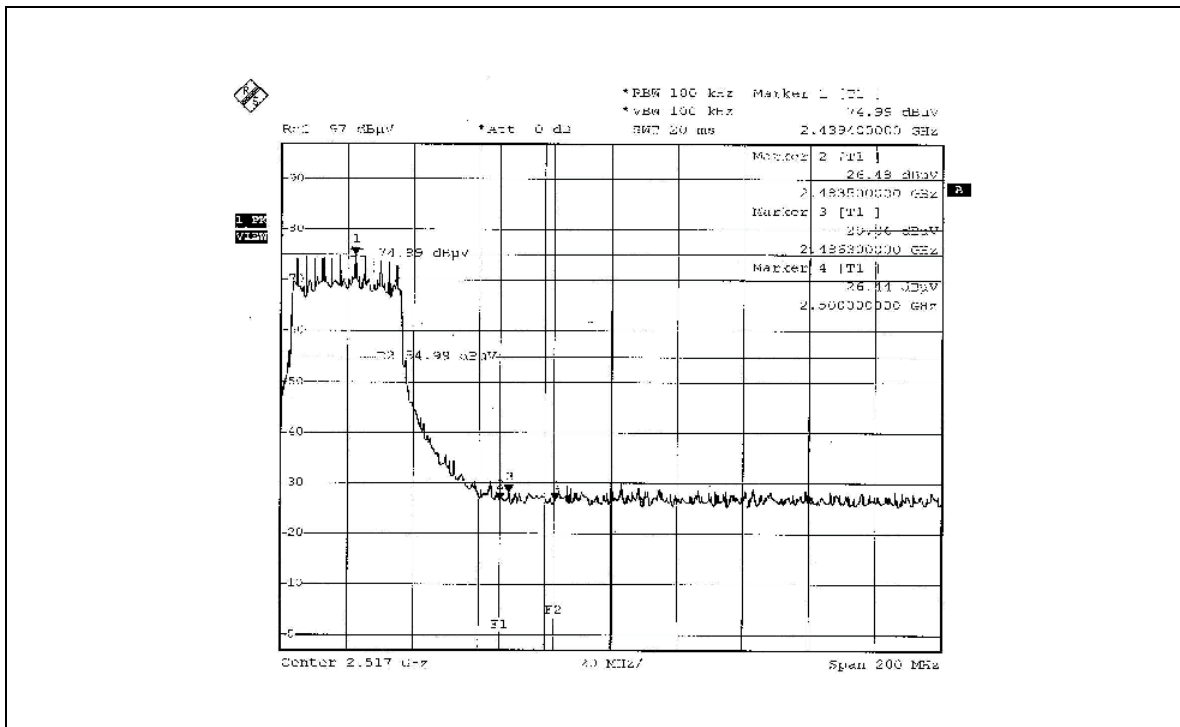
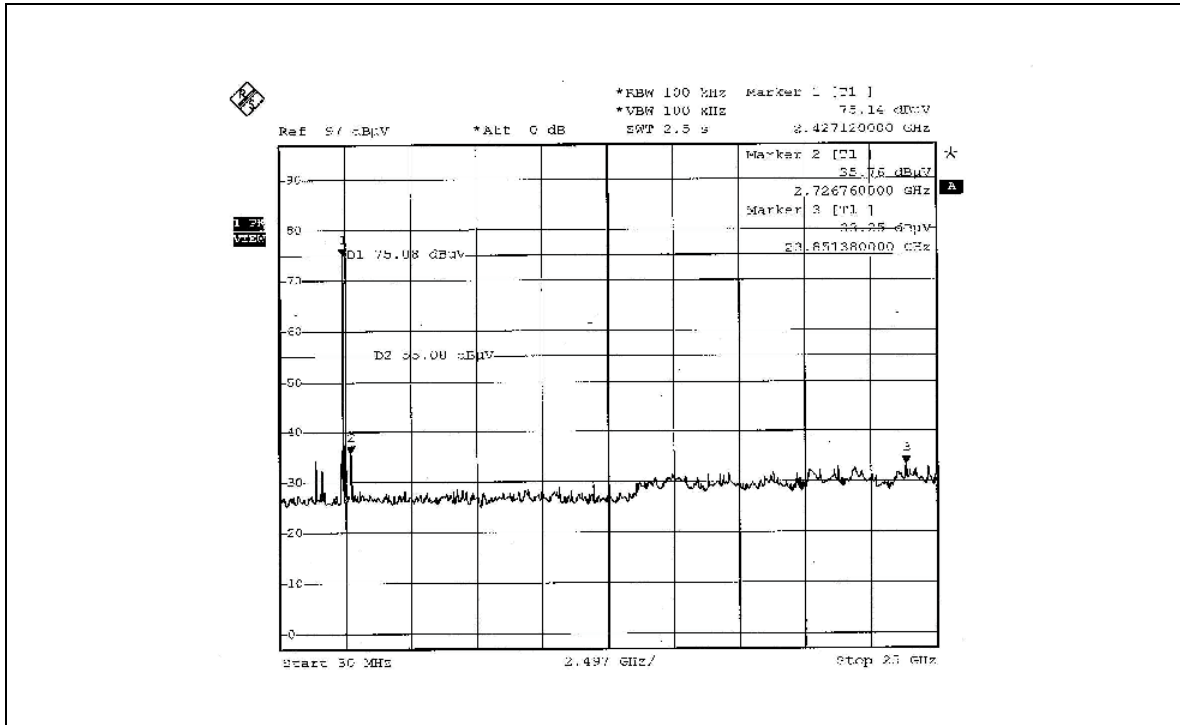
NOTE 1: The band edge emission plot on page 127 shows 46.38dBc between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 6 at the item 5.2.7 is 110.49dBuV/m (Peak), so the maximum field strength in restrict band is $110.49 - 46.38 = 64.11$ dBuV/m, which is under 74dBuV/m limit.

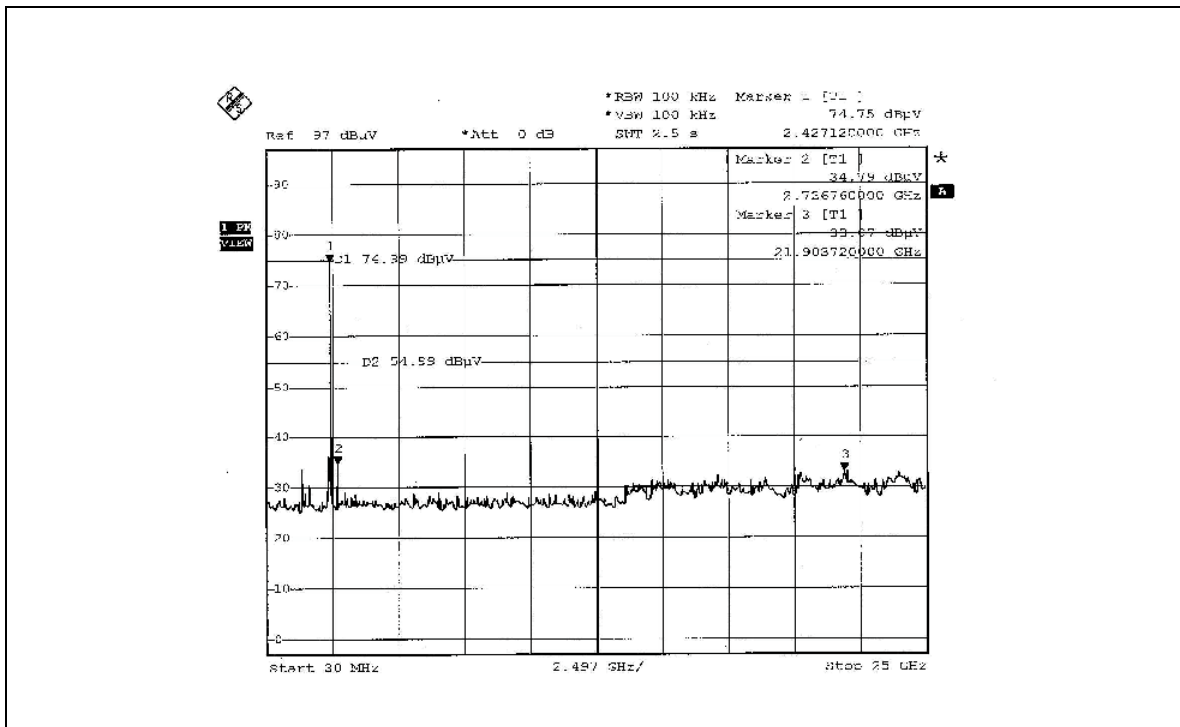
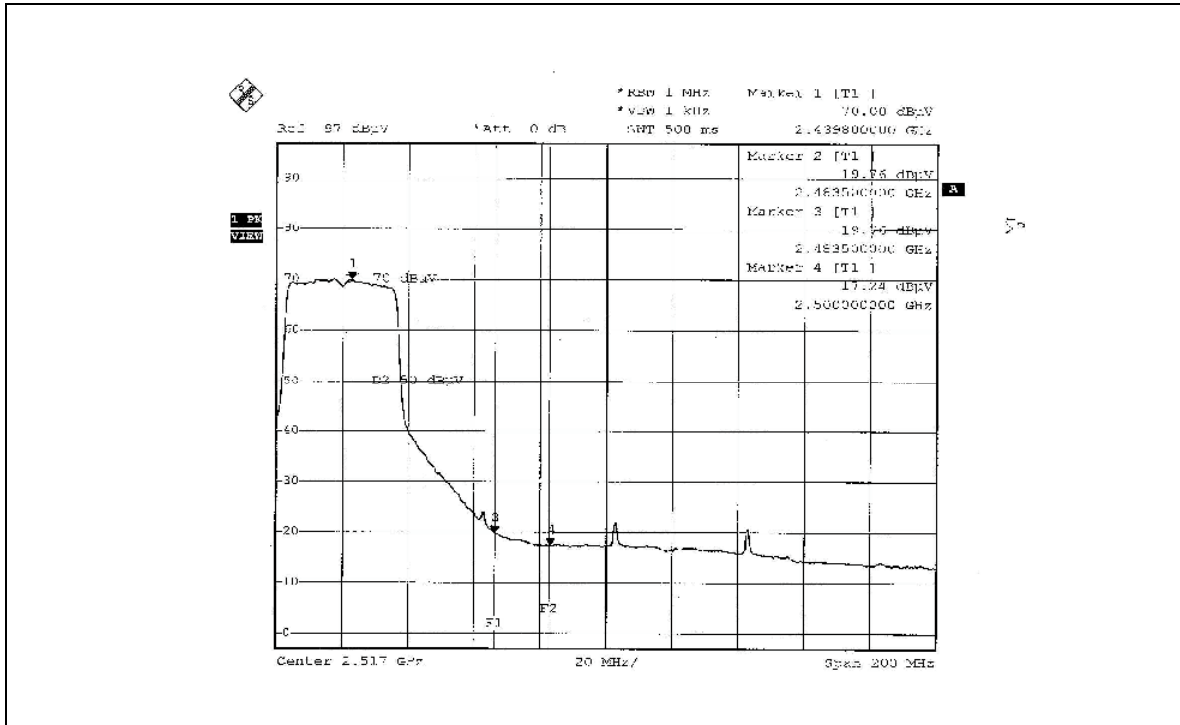
The band edge emission plot on page 127 shows 46.00dBc between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 6 at the item 5.2.7 is 99.41dBuV/m (Average), so the maximum field strength in restrict band is $99.41 - 46.00 = 53.41$ dBuV/m, which is under 54dBuV/m limit.

NOTE 2: The band edge emission plot on page 128 shows 46.93dBc between carrier maximum power and local maximum emission in restrict band (2.4863GHz). The emission of carrier strength list in the test result of channel 6 at the item 5.2.7 is 110.49dBuV/m (Peak), so the maximum field strength in restrict band is $110.49 - 46.93 = 63.56$ dBuV/m, which is under 74dBuV/m limit.

The band edge emission plot on page 129 shows 50.24dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 6 at the item 5.2.7 is 99.41dBuV/m (Average), so the maximum field strength in restrict band is $99.41 - 50.24 = 49.17$ dBuV/m, which is under 54dBuV/m limit.









5.7 ANTENNA REQUIREMENT

5.7.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

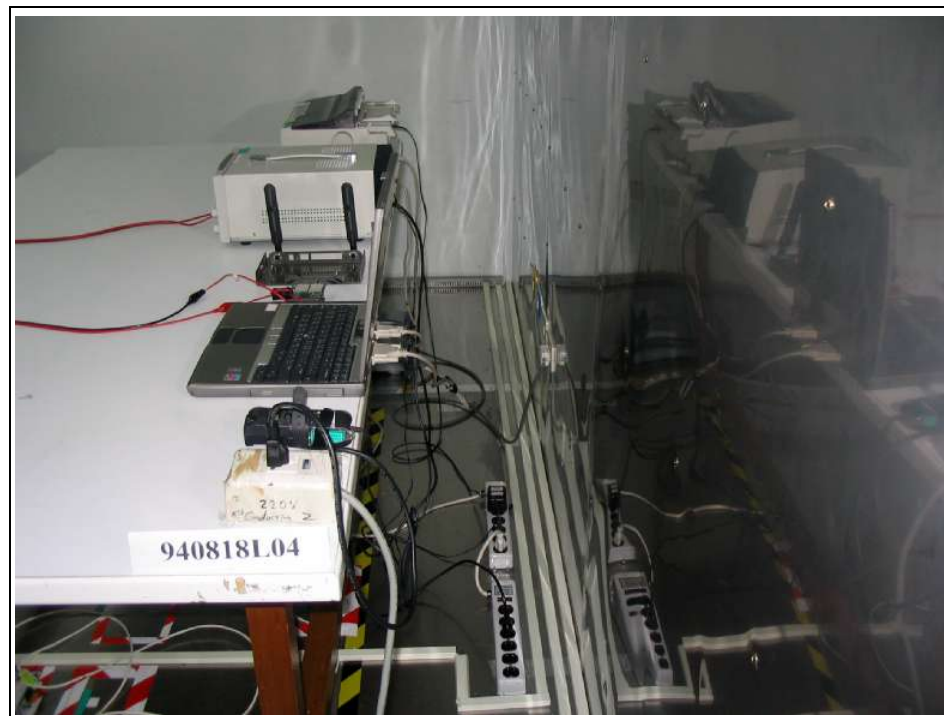
And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

5.7.2 ANTENNA CONNECTED CONSTRUCTION

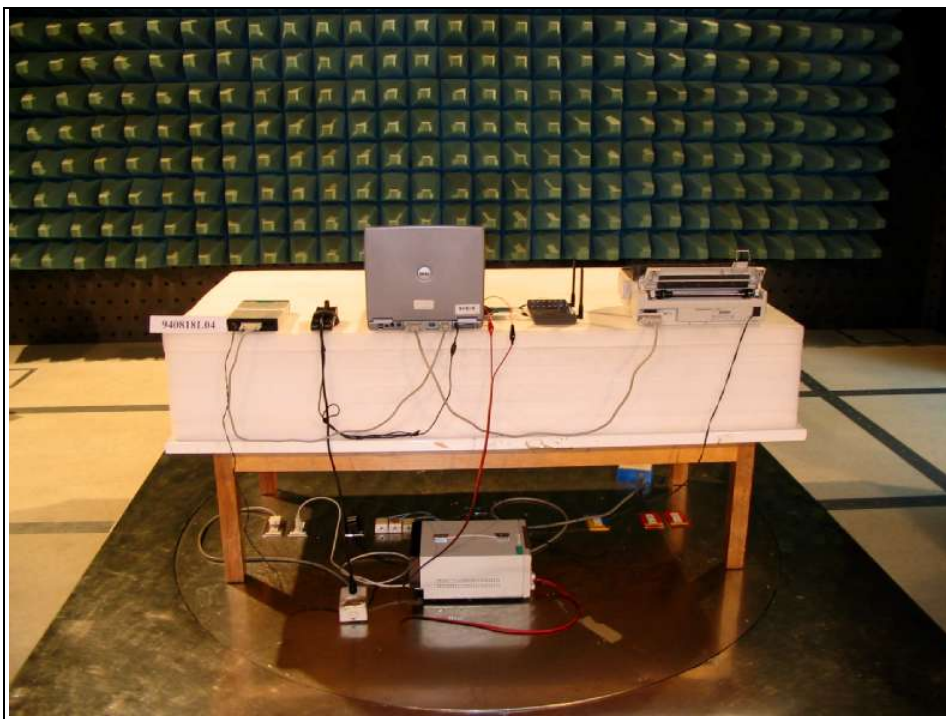
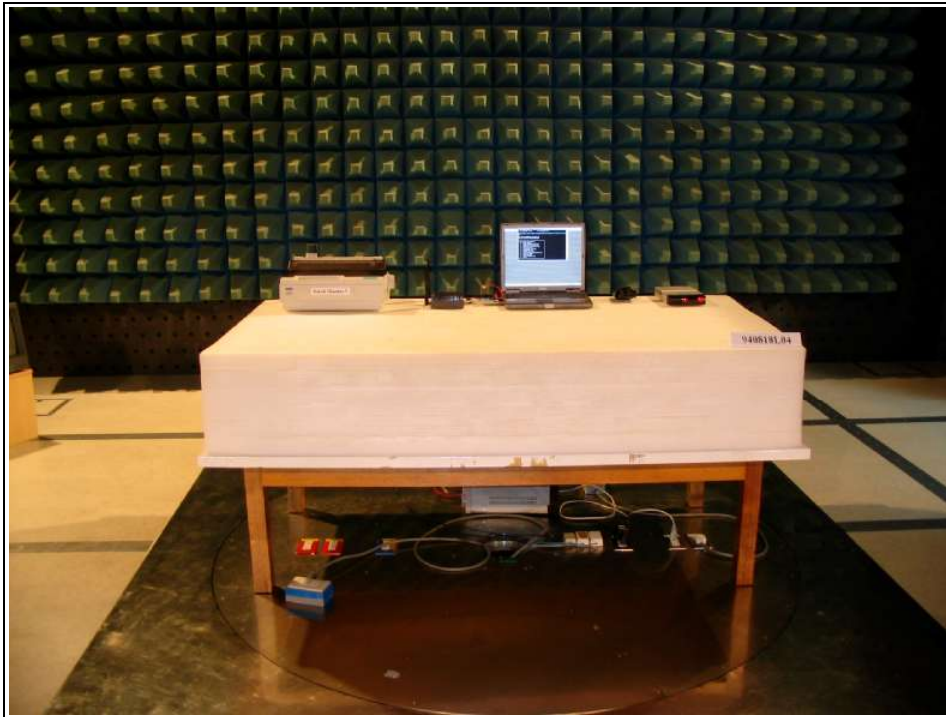
The antenna type used in this product is Dipole antenna with UFL connector. The maximum Gain of this antenna is only 2.3197dBi.

6. PHOTOGRAPHS OF THE TEST CONFIGURATION

CONDUCTED EMISSION TEST



RADIATED EMISSION TEST





7. 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, NVLAP, UL, A2LA
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA , CSA
R.O.C.	CNLA, BSMI, DGT
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: 886-2-26052943

Hsin Chu EMC/RF Lab:

Tel: 886-3-5935343

Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety/Telecom Lab: Linko RF Lab.

Tel: 886-3-3183232

Fax: 886-3-3185050

Tel: 886-3-3270910

Fax: 886-3-3270892

Web Site: www.adt.com.tw

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