

FCC TEST REPORT

REPORT NO.: RF110111E05

MODEL NO.: ARG-0520

FCC ID: VYXWIFI-017

RECEIVED: Jan. 11, 2011

TESTED: Jan. 19 to Apr. 14, 2011

ISSUED: May 09, 2011

APPLICANT: Argtek Communication Inc.

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Table of Contents

RELEASE CONTROL RECORD	4
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	10
3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL	11
3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS	13
3.4 DESCRIPTION OF SUPPORT UNITS.....	14
3.5 CONFIGURATION OF SYSTEM UNDER TEST	15
4. TEST TYPES AND RESULTS	17
4.1 CONDUCTED EMISSION MEASUREMENT	17
4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT	17
4.1.2 TEST INSTRUMENTS.....	17
4.1.3 TEST PROCEDURES	18
4.1.4 DEVIATION FROM TEST STANDARD	18
4.1.5 TEST SETUP	19
4.1.6 EUT OPERATING CONDITIONS	19
4.1.7 TEST RESULTS (WITH PANEL ANTENNA)	20
4.2 RADIATED EMISSION MEASUREMENT	22
4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT	22
4.2.2 TEST INSTRUMENTS.....	23
4.2.3 TEST PROCEDURES	25
4.2.4 DEVIATION FROM TEST STANDARD	25
4.2.5 TEST SETUP	26
4.2.6 EUT OPERATING CONDITIONS	26
4.2.7 TEST RESULTS (WITH DIPOLE ANTENNA)	27
4.2.8 TEST RESULTS (WITH PANEL ANTENNA)	56
4.3 6dB BANDWIDTH MEASUREMENT	85
4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT	85
4.3.2 TEST INSTRUMENTS.....	85
4.3.3 TEST PROCEDURE.....	85
4.3.4 DEVIATION FROM TEST STANDARD	85
4.3.5 TEST SETUP	85
4.3.6 EUT OPERATING CONDITIONS	85
4.3.7 TEST RESULTS	86
4.4 MAXIMUM PEAK OUTPUT POWER	90
4.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT	90
4.4.2 INSTRUMENTS.....	90



4.4.3	TEST PROCEDURES	90
4.4.4	DEVIATION FROM TEST STANDARD	90
4.4.5	TEST SETUP	90
4.4.6	EUT OPERATING CONDITIONS	90
4.4.7	TEST RESULTS	91
4.5	POWER SPECTRAL DENSITY MEASUREMENT	92
4.5.1	LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT	92
4.5.2	TEST INSTRUMENTS	92
4.5.3	TEST PROCEDURE	92
4.5.4	DEVIATION FROM TEST STANDARD	92
4.5.5	TEST SETUP	92
4.5.6	EUT OPERATING CONDITION	92
4.5.7	TEST RESULTS	93
4.6	CONDUCTED OUT-BAND EMISSION MEASUREMENT	97
4.6.1	LIMITS OF CONDUCTED OUT-BAND EMISSION MEASUREMENT	97
4.6.2	TEST INSTRUMENTS	97
4.6.3	TEST PROCEDURE	97
4.6.4	DEVIATION FROM TEST STANDARD	97
4.6.5	EUT OPERATING CONDITION	97
4.6.6	TEST RESULTS	98
5.	INFORMATION ON THE TESTING LABORATORIES	107
6.	APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	108



RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF110111E05	Original release	May 09, 2011

1. CERTIFICATION

PRODUCT: ARGTEK GM5 WLAN 802.11b/g/n USB adapter
BRAND NAME: ARGtek
MODEL NO.: ARG-0520
TEST SAMPLE: ENGINEERING SAMPLE
APPLICANT: Argtek Communication Inc.
TESTED: Jan. 19 to Apr. 14, 2011
STANDARDS: FCC Part 15, Subpart C (Section 15.247)
ANSI C63.4-2003
ANSI C63.10-2009

The above equipment (Model: ARG-0520) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Carol Liao, **DATE:** May 09, 2011
(Carol Liao, Specialist)

APPROVED BY : May Chen, **DATE:** May 09, 2011
(May Chen, 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 -14.20dB at 0.283MHz
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)	Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -0.6dB at 2483.50 MHz & 4824.00MHz
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Conducted Out-Band Emission Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is RP-SMA not a standard connector.

2.1 MEASUREMENT UNCERTAINTY

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

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

Measurement	Value
Conducted emissions	2.45 dB
Radiated emissions (30MHz-1GHz)	3.76 dB
Radiated emissions (1GHz -18GHz)	2.19 dB
Radiated emissions (18GHz -40GHz)	2.55 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	ARGTEK GM5 WLAN 802.11b/g/n USB adapter
MODEL NO.	ARG-0520
FCC ID	VYXWIFI-017
POWER SUPPLY	DC 5V 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 802.11n (20MHz, 800ns GI): 65 / 58.5 / 52 / 39 / 26 / 19.5 / 13 / 6.5Mbps 802.11n (40MHz, 800ns GI): 135 / 121.5 / 108 / 81 / 54 / 40.5 / 27 / 13.5Mbps 802.11n (20MHz, 400ns GI): 72.2 / 65 / 57.8 / 43.3 / 28.9 / 21.7 / 14.4 / 7.2Mbps 802.11n (40MHz, 400ns GI): 150 / 135 / 120 / 90 / 60 / 45 / 30 / 15Mbps
FREQUENCY RANGE	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, 802.11n (20MHz) 7 for 802.11n (40MHz)
MAXIMUM OUTPUT POWER	802.11b: 10.7mW 802.11g: 104.7mW 802.11n (20MHz): 109.6mW 802.11n (40MHz): 77.6mW
ANTENNA TYPE	Please see NOTE
DATA CABLE	USB cable × 1 (Shielded, 1.5m)
I/O PORTS	Mini USB Port
ASSOCIATED DEVICES	NA

NOTE:

1. There is two antennas provided to this EUT, please refer to the following table:

Antenna Gain	Antenna Type	Frequency range (MHz to MHz)	Connector Type
5dBi	Dipole	2400~2500	RP-SMA
7dBi	Panel	2400~2500	RP-SMA

2. The EUT is 1 * 1 spatial SISO (1Tx & 1Rx) without beam forming function.
3. When the EUT operating in 802.11n, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 7.
4. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 DESCRIPTION OF TEST MODES

Eleven channels are provided for 802.11b, 802.11g, 802.11n (20MHz):

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

Seven channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
3	2422MHz	7	2442MHz
4	2427MHz	8	2447MHz
5	2432MHz	9	2452MHz
6	2437MHz		

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE < 1G	RE ≥ 1G	APCM	
A	-	√	√	√	With Dipole Antenna
B	√	√	√	-	With Panel Antenna

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)
802.11n (20MHz)	1 to 11	6	OFDM	BPSK	6.5

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)
802.11n (20MHz)	1 to 11	6	OFDM	BPSK	6.5

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	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

CONDUCTED OUT-BAND EMISSION 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	DBPSK	1
802.11g	1 to 11	1, 11	OFDM	BPSK	6
802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	6.5
802.11n (40MHz)	3 to 9	3, 9	OFDM	BPSK	13.5

ANTENNA PORT CONDUCTED MEASUREMENT:

- ☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- ☒ 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	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
RE ³ 1G	15deg. C, 66%RH, 1024 hPa	120Vac, 60Hz	Frank Liu
RE<1G	14deg. C, 68%RH, 1024 hPa	120Vac, 60Hz	Frank Liu
PLC	24deg. C, 64%RH, 1024 hPa	120Vac, 60Hz	Eric Lee
APCM	25deg. C, 60%RH, 1024 hPa	120Vac, 60Hz	Frank Liu

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart C. (15.247)

ANSI C63.4-2003

ANSI C63.10-2009

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.



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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.

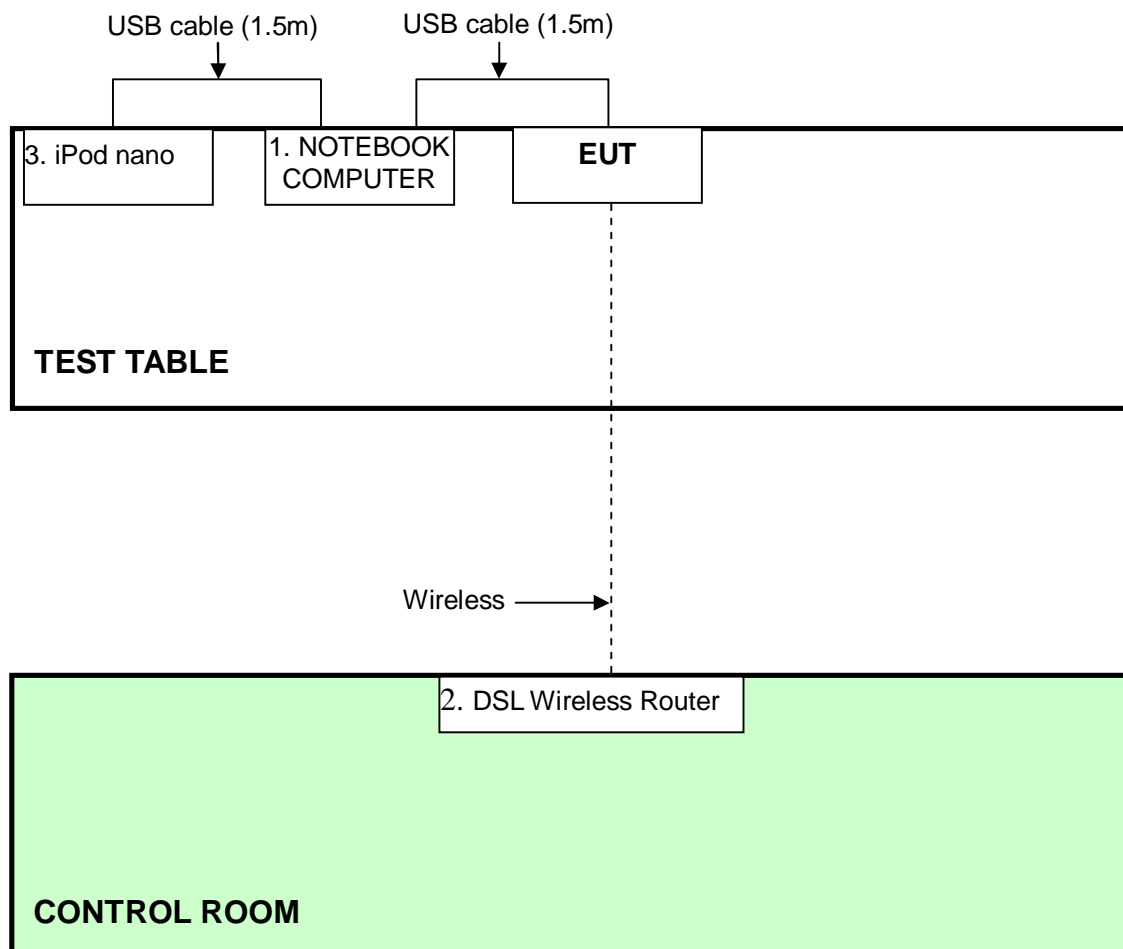
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER (For Conducted)	DELL	PP32LA	HSLB32S	FCC DoC
	NOTEBOOK COMPUTER	DELL	PP19L	CN-OHC416-70 166-5CA-0448	PIW632500516610
2	DSL Wireless Router (For Conducted)	ABOCOM	WR224GR	060500749P	FCC DoC
3	iPod nano 1GB	Apple	A1137	6U6078CDUPR	FCC DoC
4	iPod shuffle (2G bytes)	Apple	MC749TA/A	CC4DN25WDF DM	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	USB Cable, 1.5m, shielded
2	NA
3	1 m shielded cable, terminated with USB connector, w/o core.
4	USB Cable, 0.1m

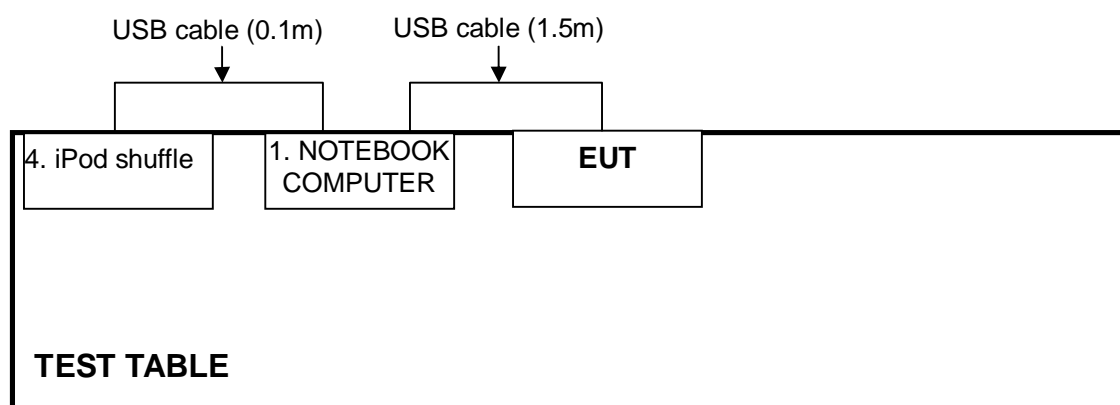
NOTE: All power cords of the above support units are non shielded (1.8m).

3.5 CONFIGURATION OF SYSTEM UNDER TEST

For conducted test:



For other test items:



4. TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

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

4.1.2 TEST INSTRUMENTS

Test date: Jan. 19, 2011

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	100287	Mar. 02, 2010	Mar. 01, 2011
Line-Impedance Stabilization Network (for EUT)	NSLK 8127	8127-523	Sep. 17, 2010	Sep. 16, 2011
Line-Impedance Stabilization Network (for Peripheral)	ENV-216	100072	June 11, 2010	June 10, 2011
RF Cable (JYEBAO)	5DFB	CONCAB-003	Aug. 06, 2010	Aug. 05, 2011
50 ohms Terminator	50	3	Nov. 03, 2010	Nov. 02, 2011
Software	BV ADT_Cond_V7.3.7	NA	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Shielded Room No. A.
3. The VCCI Con A Registration No. is C-817.

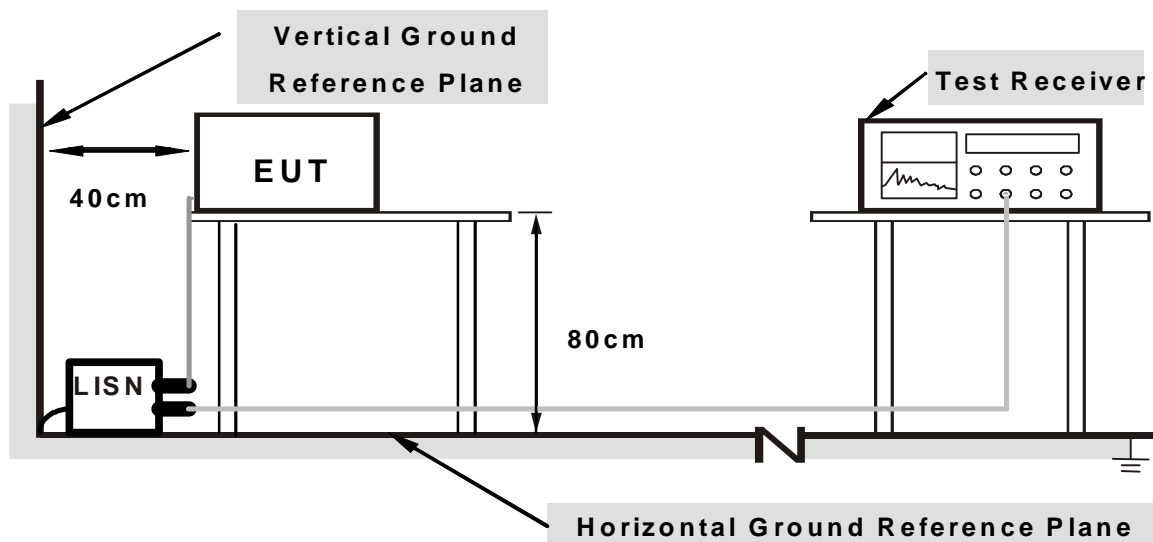
4.1.3 TEST PROCEDURES

- 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) were 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

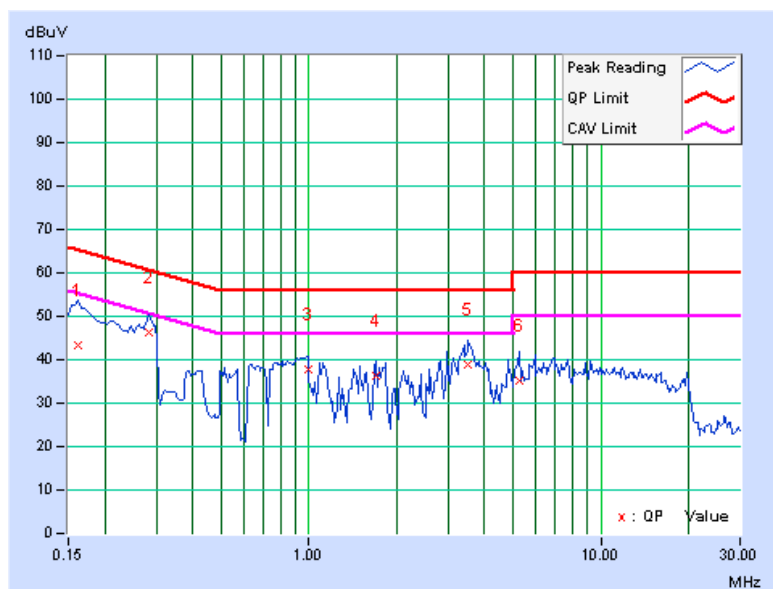
1. Turn on the power of all equipment.
2. Support unit 1 (Notebook Computer) ran a test program “Ping.exe” to enable EUT under transmission/receiving condition continuously via a USB cable and wireless transmission.

4.1.7 TEST RESULTS

PHASE	Line (L)	6dB BANDWIDTH	9 kHz
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	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.36	43.02	-	43.38	-	65.38	55.38	-21.99	-
2	0.283	0.36	46.01	-	46.37	-	60.73	50.73	-14.36	-
3	0.990	0.41	37.37	-	37.78	-	56.00	46.00	-18.22	-
4	1.707	0.45	35.95	-	36.40	-	56.00	46.00	-19.60	-
5	3.523	0.50	38.54	-	39.04	-	56.00	46.00	-16.96	-
6	5.254	0.55	34.62	-	35.17	-	60.00	50.00	-24.83	-

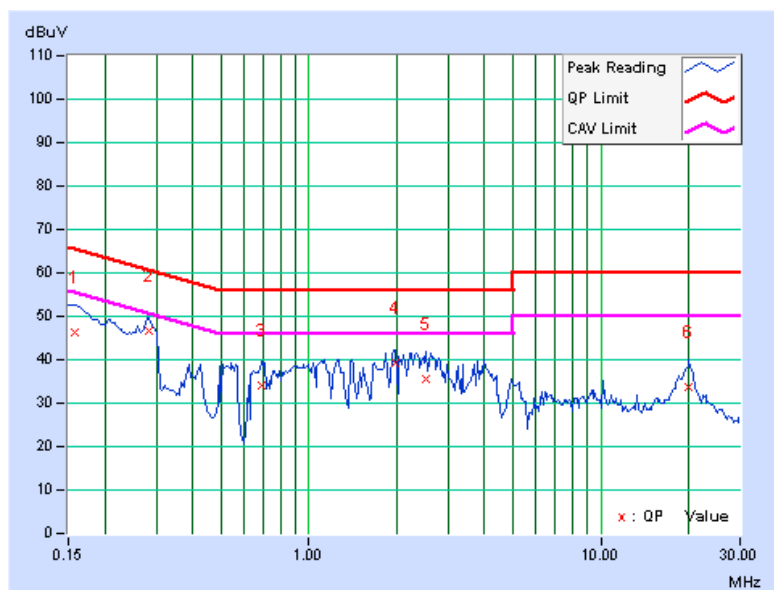
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



PHASE	Neutral (N)	6dB BANDWIDTH	9 kHz
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	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.158	0.10	46.25	-	46.35	-	65.58	55.58	-19.23	-
2	0.283	0.10	46.43	-	46.53	-	60.73	50.73	-14.20	-
3	0.685	0.13	33.93	-	34.06	-	56.00	46.00	-21.94	-
4	1.980	0.20	39.05	-	39.25	-	56.00	46.00	-16.75	-
5	2.523	0.21	35.33	-	35.54	-	56.00	46.00	-20.46	-
6	19.965	1.13	32.67	-	33.80	-	60.00	50.00	-26.20	-

- 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. Section 15.205 restricted bands of operation shall compliance with the limits in Section 15.209.

4.2.2 TEST INSTRUMENTS

For below 1GHz : (Test date: Apr. 14, 2011)

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Agilent Spectrum Analyzer	E4446A	MY48250253	Aug. 23, 2010	Aug. 22, 2011
Agilent Pre-Selector	N9039A	MY46520310	Aug. 23, 2010	Aug. 22, 2011
Agilent Signal Generator	N5181A	MY49060347	July 30, 2010	July 29, 2011
LIG NEX1 Test Receiver	ER-265	L09068005	Oct. 25, 2010	Oct. 24, 2011
Mini-Circuits Pre-Amplifier	ZFL-1000VH2B	AMP-ZFL-04	Nov. 16, 2010	Nov. 15, 2011
Agilent Pre-Amplifier	8449B	3008A02465	Feb. 28, 2011	Feb. 27, 2012
Miteq Pre-Amplifier	AFS33-1800265 0-30-8P-44	881786	NA	NA
SCHWARZBECK Trilog Broadband Antenna	VULB 9168	9168-361	Apr. 28, 2010	Apr. 27, 2011
AISI Horn_Antenna	AIH.8018	000022009111 0	Nov. 22, 2010	Nov. 21, 2011
SCHWARZBECK Horn_Antenna	BBHA 9170	9170-424	Oct. 08, 2010	Oct. 07, 2011
RF CABLE	NA	RF104-205 RF104-207 RF104-202	Dec. 28, 2010	Dec. 27, 2011
RF Cable	NA	CHHCAB_001	NA	NA
Software	ADT_Radiated_ V8.7.05	NA	NA	NA
CT Antenna Tower & Turn Table	NA	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.

3. The test was performed in 966 Chamber No. H.

4. The FCC Site Registration No. is 797305.

5. The CANADA Site Registration No. is IC 7450H-3.

**A D T**

For above 1GHz :

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Agilent Spectrum Analyzer	E4446A	MY48250254	July 14, 2010	July 13, 2011
Agilent Pre-Selector	N9039A	MY46520311	July 14, 2010	July 13, 2011
Agilent Signal Generator	N5181A	MY49060517	July 14, 2010	July 13, 2011
Mini-Circuits Pre-Amplifier	ZFL-1000VH2B	AMP-ZFL-03	Nov. 16, 2010	Nov. 15, 2011
Agilent Pre-Amplifier	8449B	3008A02578	July 05, 2010	July 04, 2011
Miteq Pre-Amplifier	AFS33-1800265 0-30-8P-44	881786	NA	NA
SCHWARZBECK Trilog Broadband Antenna	VULB 9168	9168-360	Apr. 29, 2010	Apr. 28, 2011
AISI Horn_Antenna	AIH.8018	000032009111 0	Nov. 12, 2010	Nov. 11, 2011
SCHWARZBECK Horn_Antenna	BBHA 9170	9170-424	Oct. 08, 2010	Oct. 07, 2011
RF CABLE	NA	RF104-201 RF104-203 RF104-204	Dec. 27, 2010	Dec. 26, 2011
RF Cable	NA	CHGCAB_001	NA	NA
Software	ADT_Radiated_ V8.7.05	NA	NA	NA
CT Antenna Tower & Turn Table	NA	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.

3. The test was performed in 966 Chamber No. G.

4. The FCC Site Registration No. is 966073.

5. The VCCI Site Registration No. is G-137.

6. The CANADA Site Registration No. is IC 7450H-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 3 meters chamber room. 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 height of antenna 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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

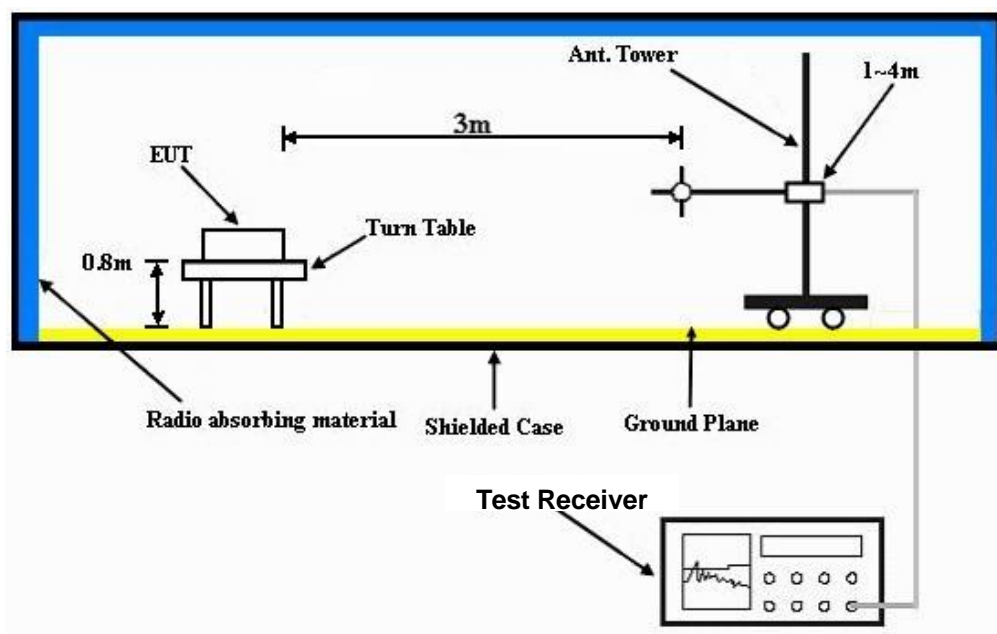
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



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

4.2.6 EUT OPERATING CONDITIONS

1. Turn on the power of all equipment.
2. The support unit 1 (Notebook Computer) ran test program “QA RT3x7x V1.5.6.4.exe” to enable EUT under transmission/receiving condition continuously via one USB cable.

4.2.7 TEST RESULTS (WITH DIPOLE ANTENNA)

BELOW 1GHz WORST-CASE DATA : 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	14deg. C, 68%RH 1024 hPa	TESTED BY	Frank Liu

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	250.86	39.6 QP	46.0	-6.4	1.00 H	69	26.67	12.93
2	432.04	42.3 QP	46.0	-3.7	1.50 H	0	23.76	18.56
3	600.32	38.5 QP	46.0	-7.5	2.00 H	243	16.13	22.36
4	740.54	35.8 QP	46.0	-10.2	1.50 H	100	12.00	23.76
5	799.87	40.2 QP	46.0	-5.8	1.50 H	86	15.34	24.86
6	959.97	35.4 QP	46.0	-10.6	1.00 H	69	8.28	27.12
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	300.00	31.8 QP	46.0	-14.2	1.50 V	89	16.87	14.93
2	400.19	36.7 QP	46.0	-9.3	1.50 V	119	18.84	17.86
3	432.04	39.8 QP	46.0	-6.2	1.00 V	74	21.21	18.56
4	600.32	34.5 QP	46.0	-11.5	1.50 V	360	12.18	22.36
5	799.87	39.5 QP	46.0	-6.6	1.50 V	148	14.59	24.86
6	959.97	34.6 QP	46.0	-11.4	1.50 V	182	7.45	27.12

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

802.11b DSSS MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

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	2390.00	55.9 PK	74.0	-18.1	1.00 H	59	24.24	31.66
2	2390.00	44.1 AV	54.0	-9.9	1.00 H	59	12.44	31.66
3	*2412.00	98.3 PK			1.00 H	62	66.57	31.73
4	*2412.00	88.4 AV			1.00 H	62	56.67	31.73
5	4824.00	53.9 PK	74.0	-20.1	1.06 H	336	14.93	38.97
6	4824.00	50.6 AV	54.0	-3.4	1.06 H	336	11.63	38.97
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	2389.00	56.5 PK	74.0	-17.5	1.00 V	5	24.85	31.65
2	2389.00	44.2 AV	54.0	-9.8	1.00 V	5	12.55	31.65
3	*2412.00	98.3 PK			1.00 V	5	66.57	31.73
4	*2412.00	96.7 AV			1.00 V	5	64.97	31.73
5	4824.00	55.6 PK	74.0	-18.4	1.00 V	245	16.63	38.97
6	4824.00	53.4 AV	54.0	-0.6	1.00 V	245	14.43	38.97

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

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	*2437.00	97.3 PK			1.00 H	57	65.49	31.81
2	*2437.00	88.1 AV			1.00 H	57	56.29	31.81
3	4874.00	53.4 PK	74.0	-20.6	1.03 H	331	14.26	39.14
4	4874.00	50.3 AV	54.0	-3.7	1.03 H	331	11.16	39.14
5	7311.00	50.2 PK	74.0	-23.8	1.03 H	57	3.57	46.63
6	7311.00	39.1 AV	54.0	-14.9	1.03 H	57	-7.53	46.63
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	*2437.00	97.3 PK			1.00 V	7	65.49	31.81
2	*2437.00	95.4 AV			1.00 V	7	63.59	31.81
3	4874.00	55.7 PK	74.0	-18.3	1.00 V	243	16.56	39.14
4	4874.00	53.3 AV	54.0	-0.7	1.00 V	243	14.16	39.14
5	7311.00	50.4 PK	74.0	-23.6	1.00 V	27	3.77	46.63
6	7311.00	39.4 AV	54.0	-14.6	1.00 V	27	-7.23	46.63

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



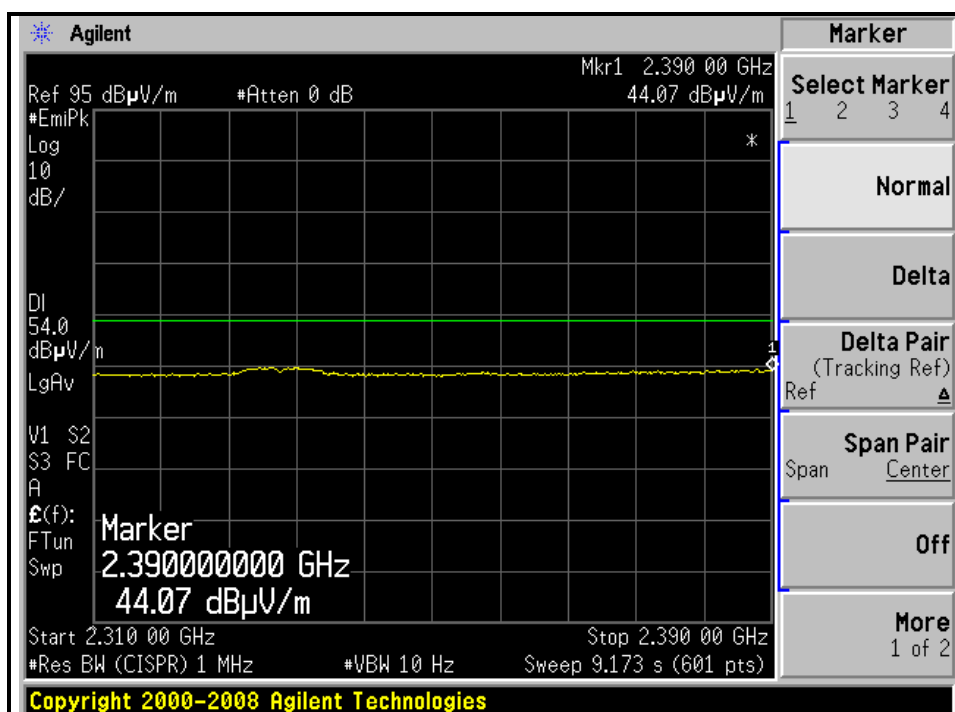
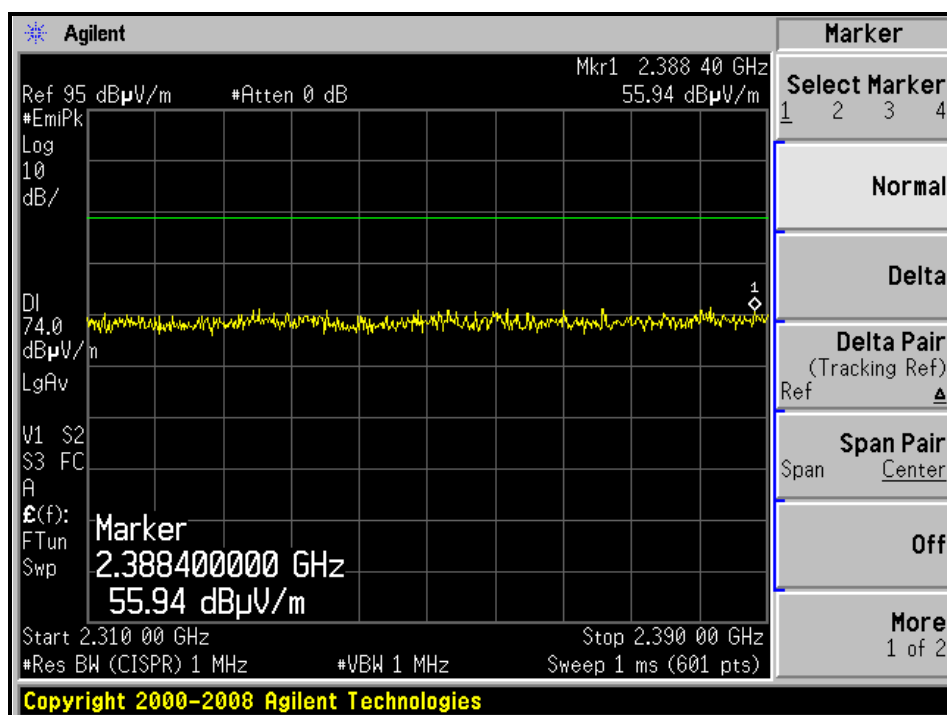
A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

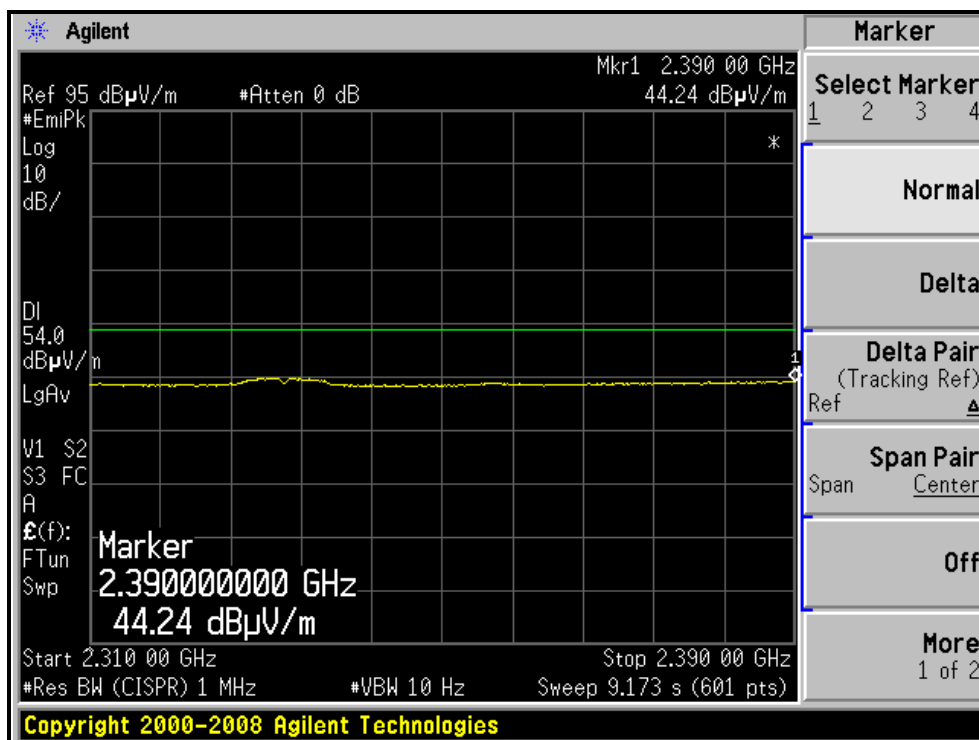
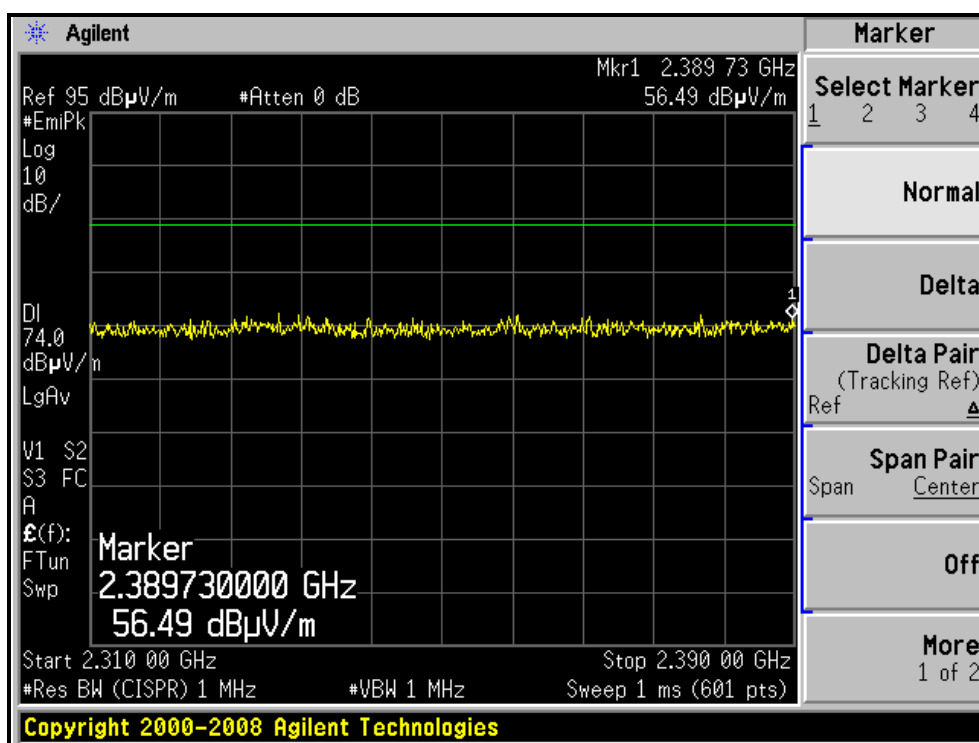
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	96.2 PK			1.00 H	62	64.31	31.89
2	*2462.00	86.3 AV			1.00 H	62	54.41	31.89
3	2483.50	56.7 PK	74.0	-17.3	1.00 H	64	24.73	31.97
4	2483.50	43.7 AV	54.0	-10.3	1.00 H	64	11.73	31.97
5	4924.00	53.2 PK	74.0	-20.8	1.03 H	351	13.89	39.31
6	4924.00	50.1 AV	54.0	-3.9	1.03 H	351	10.79	39.31
7	7386.00	50.7 PK	74.0	-23.3	1.07 H	62	4.10	46.60
8	7386.00	39.4 AV	54.0	-14.6	1.07 H	62	-7.20	46.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	96.2 PK			1.00 V	9	64.31	31.89
2	*2462.00	94.8 AV			1.00 V	9	62.91	31.89
3	2483.50	56.7 PK	74.0	-17.3	1.09 V	163	24.73	31.97
4	2483.50	43.5 AV	54.0	-10.5	1.09 V	163	11.53	31.97
5	4924.00	55.6 PK	74.0	-18.4	1.00 V	244	16.29	39.31
6	4924.00	53.1 AV	54.0	-0.9	1.00 V	244	13.79	39.31
7	7386.00	50.7 PK	74.0	-23.3	1.00 V	62	4.10	46.60
8	7386.00	39.2 AV	54.0	-14.8	1.00 V	62	-7.40	46.60

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

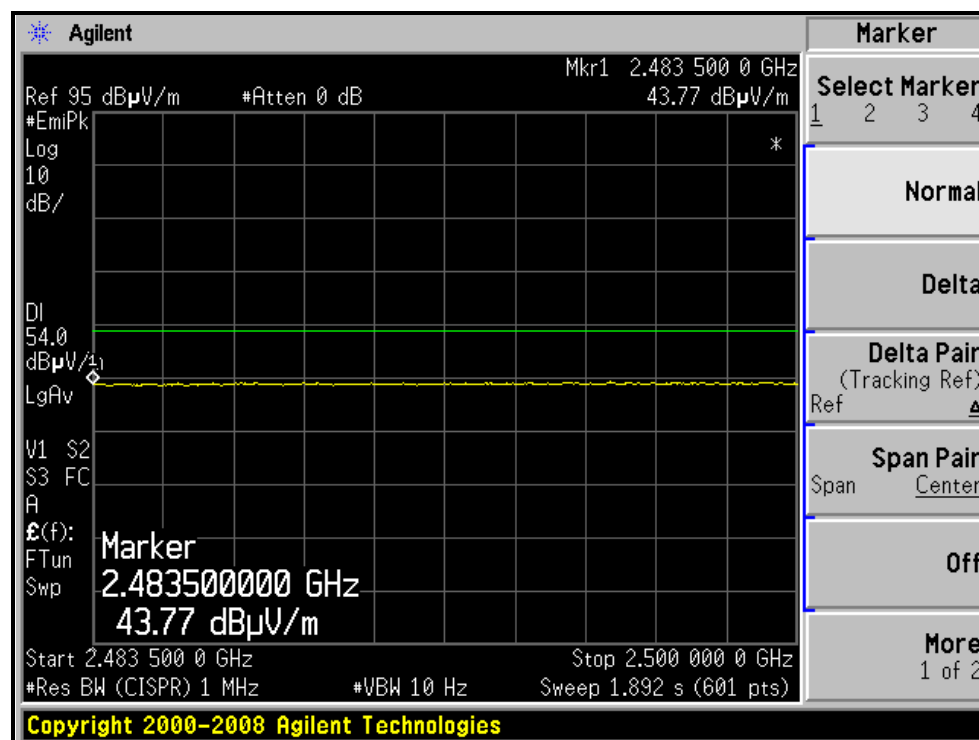
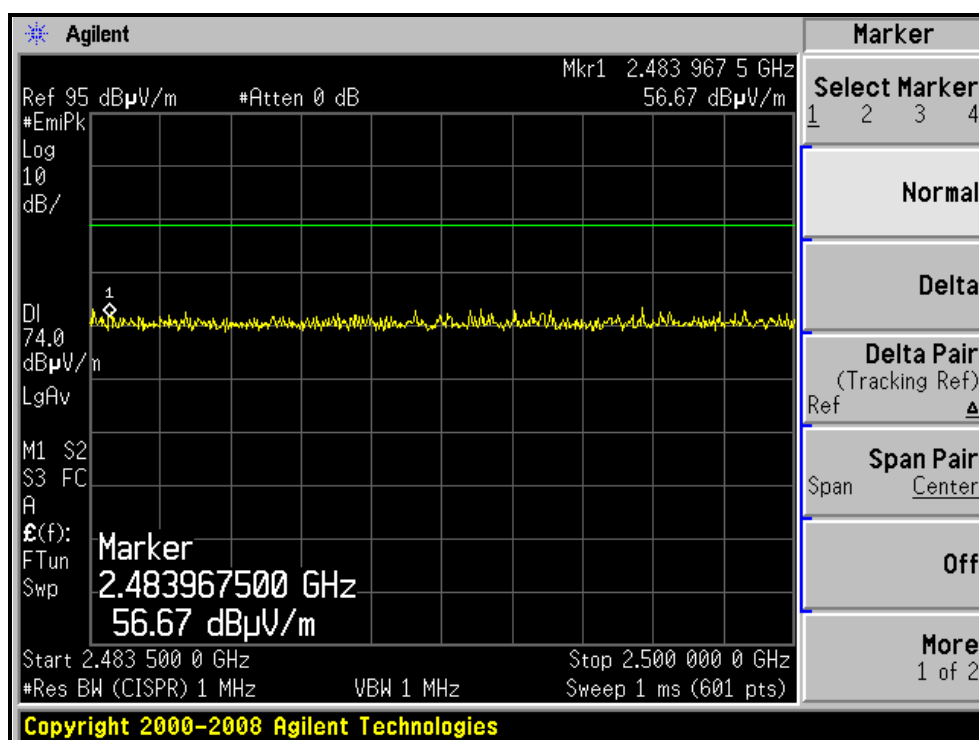
RESTRICTED BANDEDGE (802.11b MODE, CH1, HORIZONTAL)



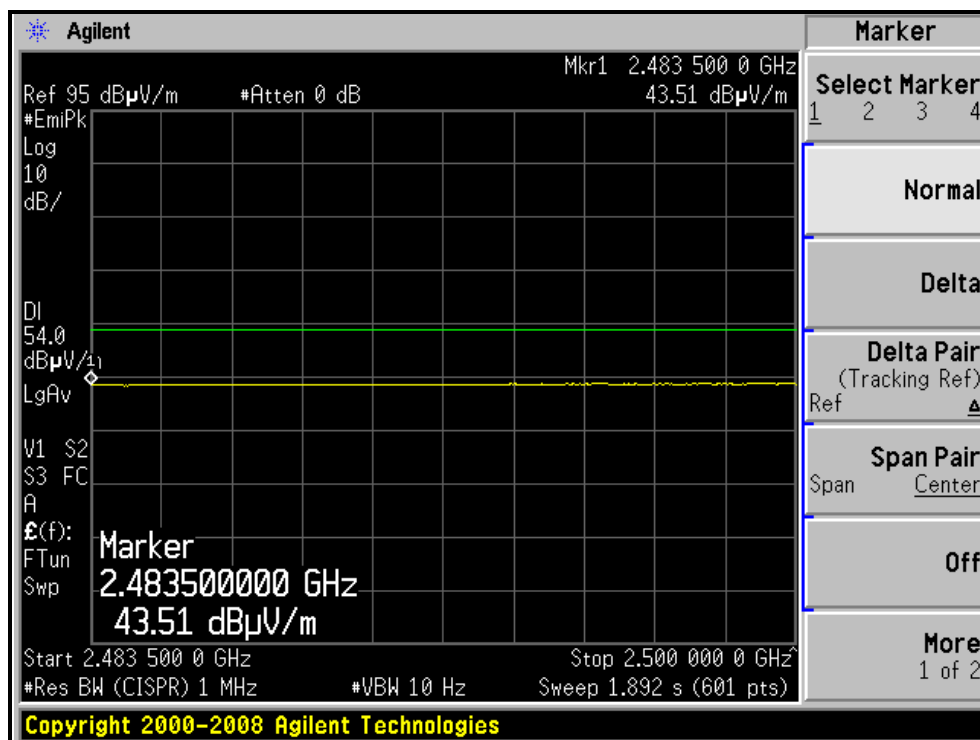
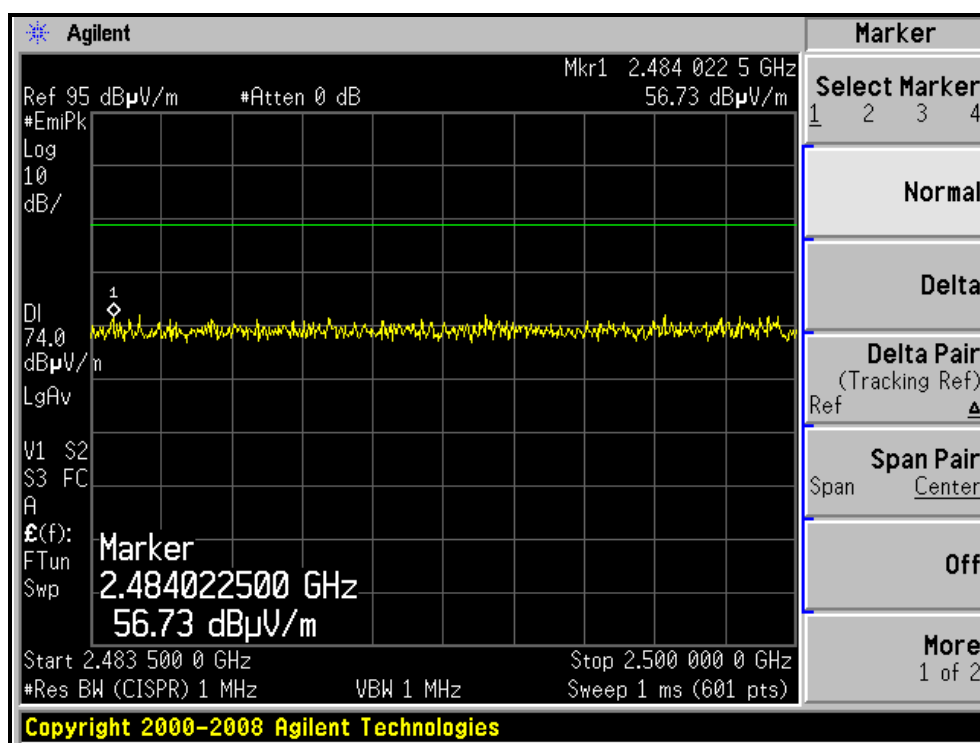
RESTRICTED BANDEDGE (802.11b MODE,CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11b MODE,CH11, HORIZONTAL)



RESTRICTED BANDEDGE (802.11b MODE,CH11, VERTICAL)



802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

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	2390.00	58.0 PK	74.0	-16.0	1.00 H	72	26.34	31.66
2	2390.00	43.9 AV	54.0	-10.1	1.00 H	72	12.24	31.66
3	*2412.00	97.2 PK			1.00 H	64	65.47	31.73
4	*2412.00	87.1 AV			1.00 H	64	55.37	31.73
5	4824.00	58.2 PK	74.0	-15.8	1.04 H	283	19.23	38.97
6	4824.00	44.8 AV	54.0	-9.2	1.04 H	283	5.83	38.97
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	2390.00	66.1 PK	74.0	-7.9	1.09 V	161	34.44	31.66
2	2390.00	50.2 AV	54.0	-3.8	1.09 V	161	18.54	31.66
3	*2412.00	104.3 PK			1.11 V	172	72.57	31.73
4	*2412.00	95.7 AV			1.11 V	172	63.97	31.73
5	4824.00	59.4 PK	74.0	-14.6	1.00 V	243	20.43	38.97
6	4824.00	45.2 AV	54.0	-8.8	1.00 V	243	6.23	38.97

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

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	*2437.00	97.6 PK			1.00 H	69	65.79	31.81
2	*2437.00	87.4 AV			1.00 H	69	55.59	31.81
3	4874.00	60.0 PK	74.0	-14.0	1.06 H	291	20.86	39.14
4	4874.00	49.2 AV	54.0	-4.8	1.06 H	291	10.06	39.14
5	7311.00	50.7 PK	74.0	-23.3	1.02 H	64	4.07	46.63
6	7311.00	39.4 AV	54.0	-14.6	1.02 H	64	-7.23	46.63
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	*2437.00	104.7 PK			1.11 V	164	72.89	31.81
2	*2437.00	95.9 AV			1.11 V	164	64.09	31.81
3	4874.00	62.7 PK	74.0	-11.3	1.13 V	221	23.56	39.14
4	4874.00	50.1 AV	54.0	-3.9	1.13 V	221	10.96	39.14
5	7311.00	50.8 PK	74.0	-23.2	1.00 V	63	4.17	46.63
6	7311.00	39.1 AV	54.0	-14.9	1.00 V	63	-7.53	46.63

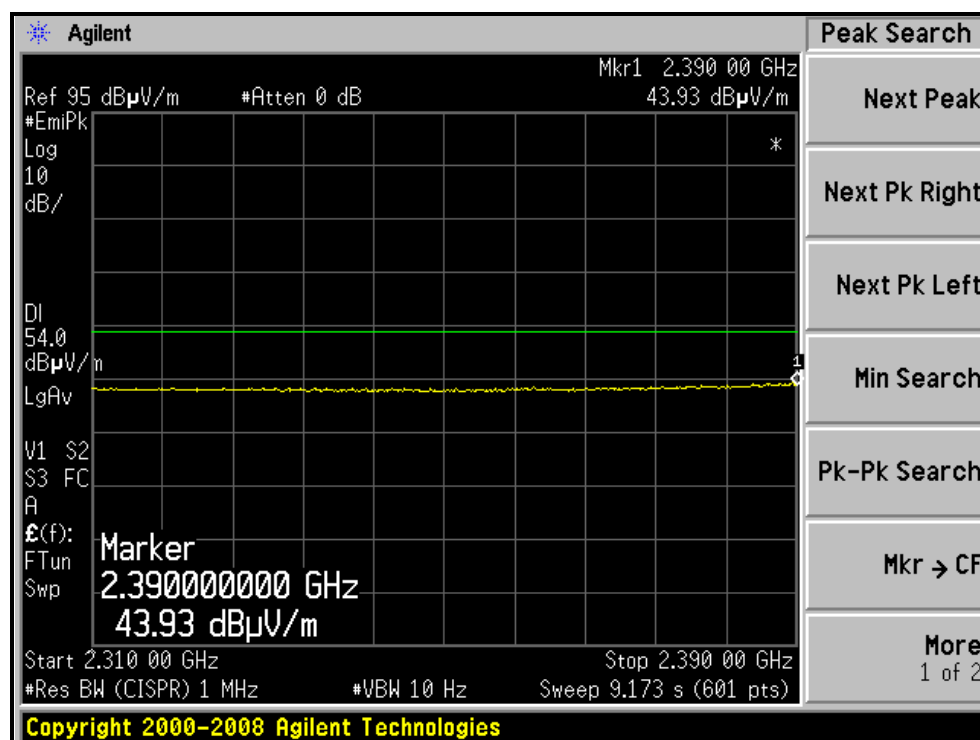
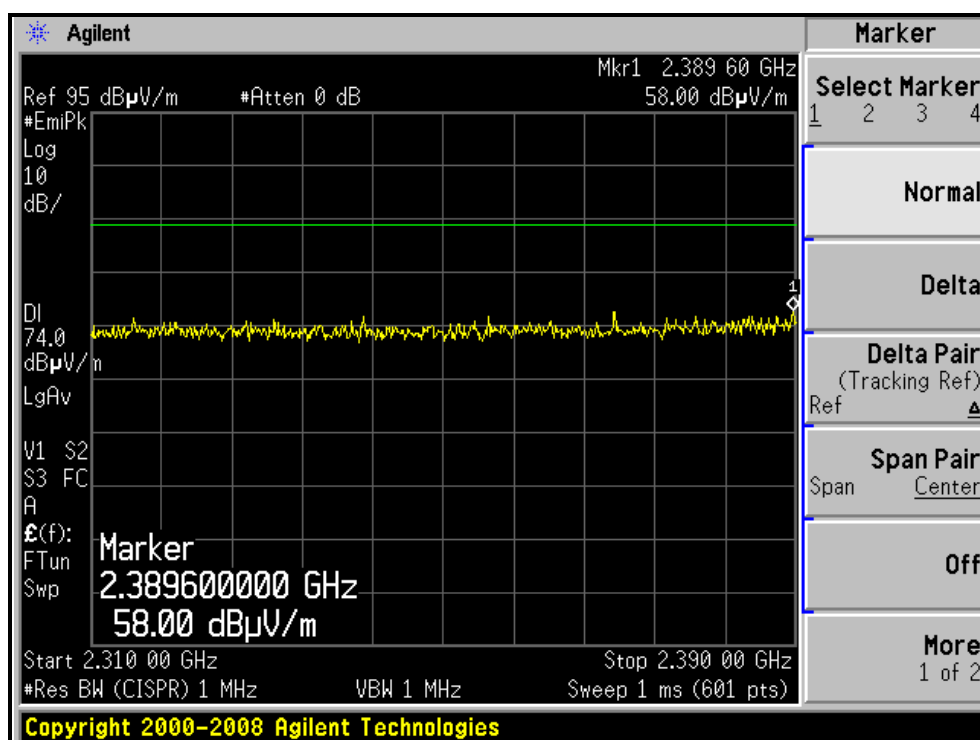
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. “ * ”: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

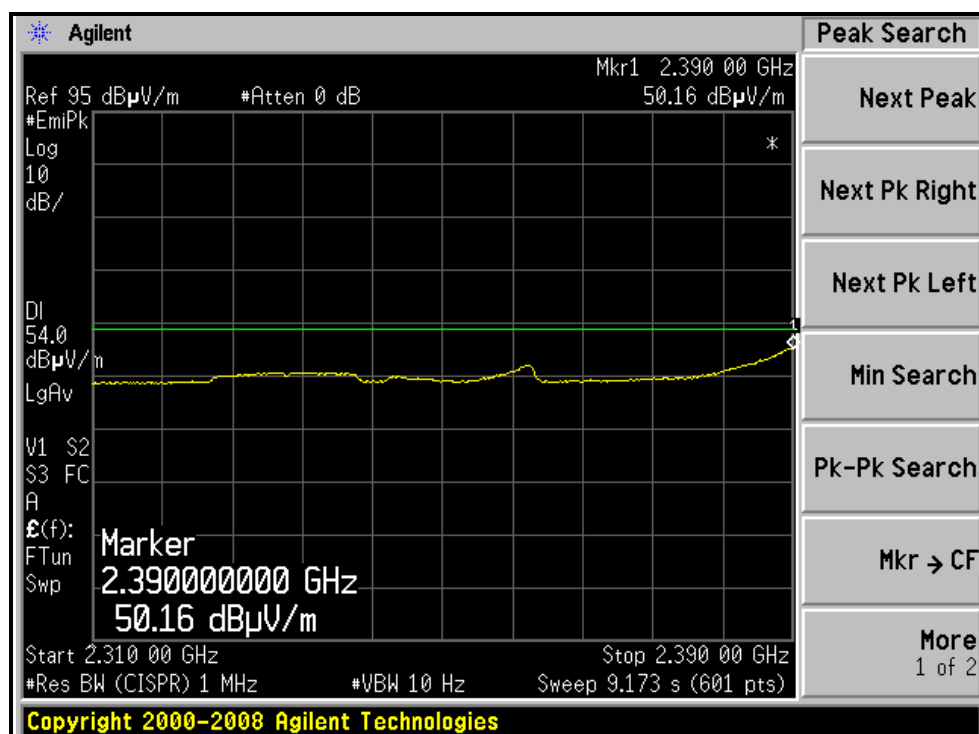
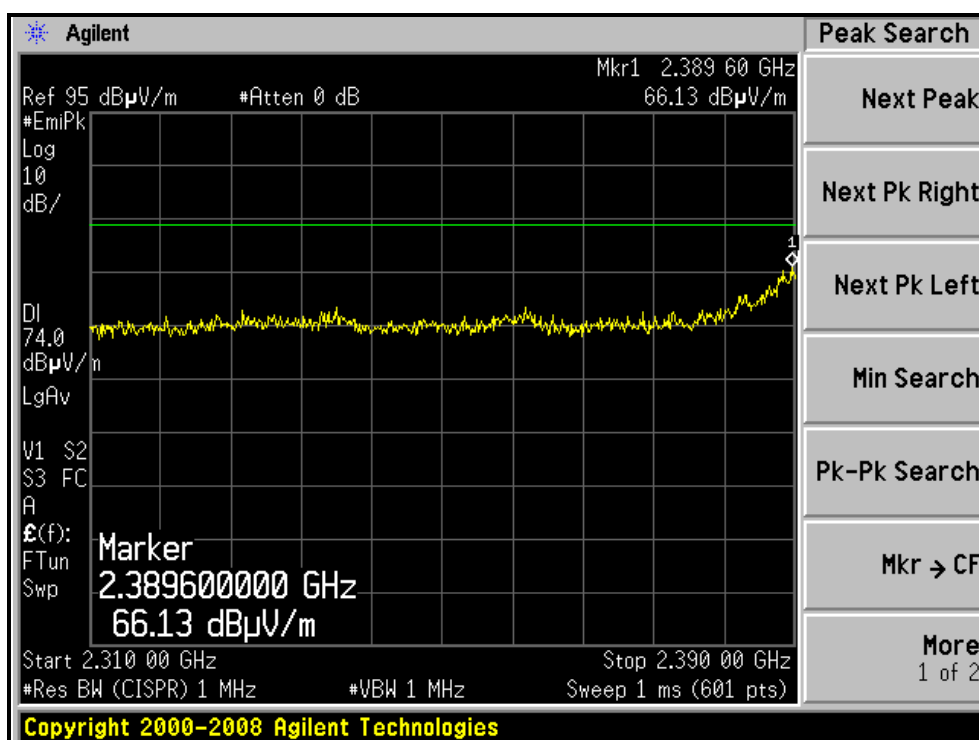
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	97.4 PK			1.00 H	59	65.51	31.89
2	*2462.00	87.2 AV			1.00 H	59	55.31	31.89
3	2483.50	57.7 PK	74.0	-16.3	1.00 H	73	25.73	31.97
4	2483.50	45.5 AV	54.0	-8.5	1.00 H	73	13.53	31.97
5	4924.00	58.1 PK	74.0	-15.9	1.03 H	284	18.79	39.31
6	4924.00	43.2 AV	54.0	-10.8	1.03 H	284	3.89	39.31
7	7386.00	50.2 PK	74.0	-23.8	1.04 H	57	3.60	46.60
8	7386.00	39.1 AV	54.0	-14.9	1.04 H	57	-7.50	46.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	104.5 PK			1.06 V	149	72.61	31.89
2	*2462.00	95.1 AV			1.06 V	149	63.21	31.89
3	2483.50	66.3 PK	74.0	-7.7	1.06 V	149	34.33	31.97
4	2483.50	53.3 AV	54.0	-0.7	1.06 V	149	21.33	31.97
5	4924.00	61.3 PK	74.0	-12.7	1.12 V	257	21.99	39.31
6	4924.00	44.2 AV	54.0	-9.8	1.12 V	257	4.89	39.31
7	7386.00	50.2 PK	74.0	-23.8	1.00 V	62	3.60	46.60
8	7386.00	39.4 AV	54.0	-14.6	1.00 V	62	-7.20	46.60

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

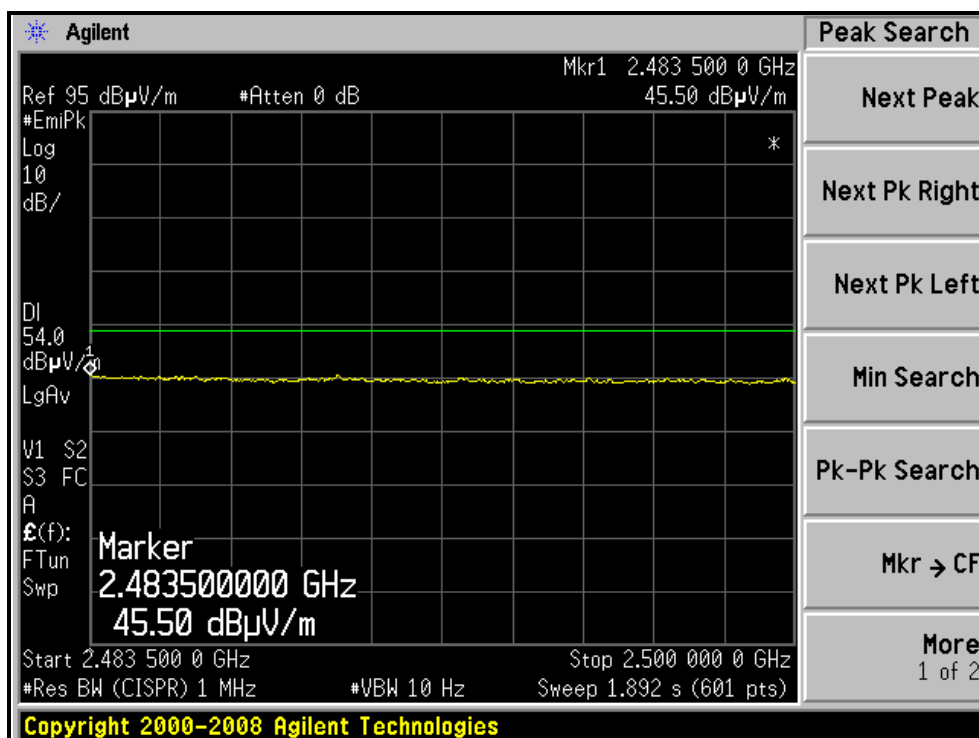
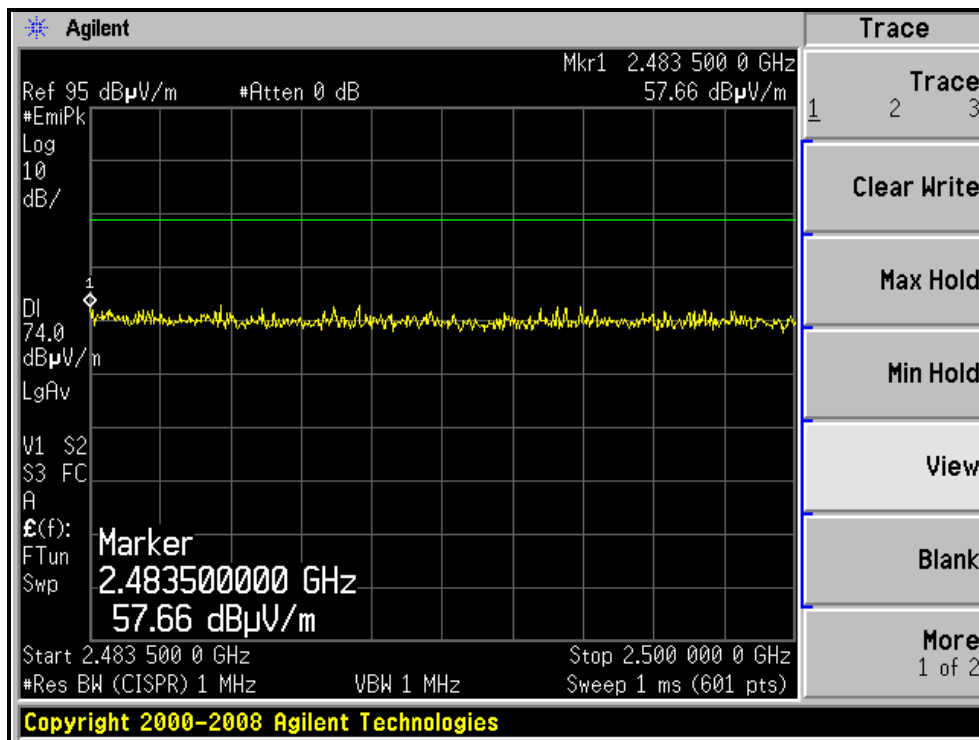
RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)



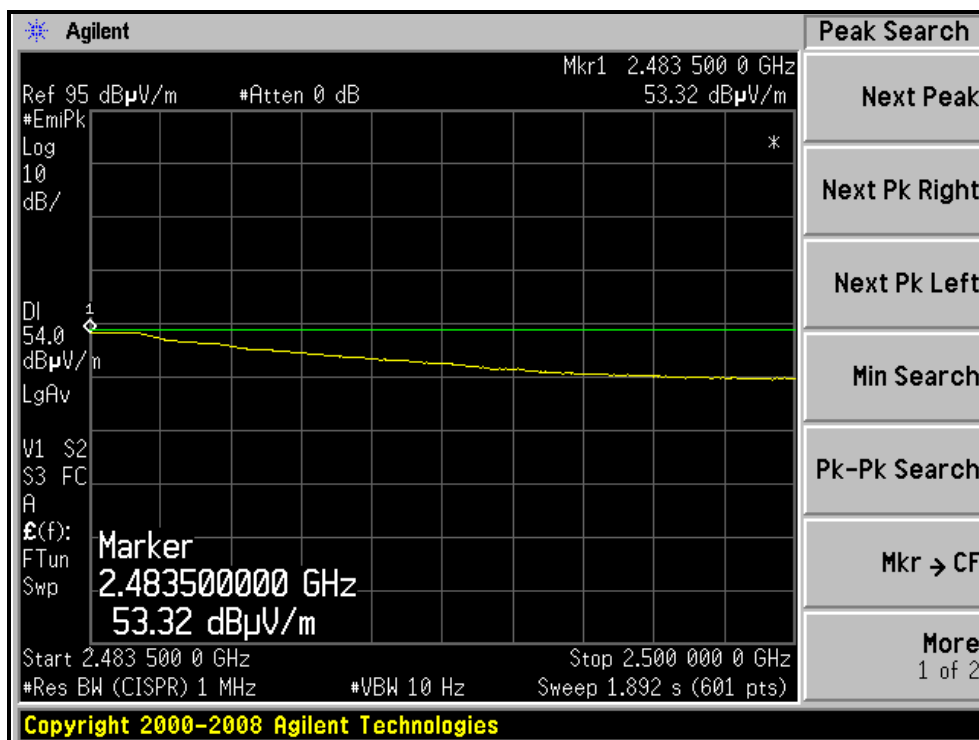
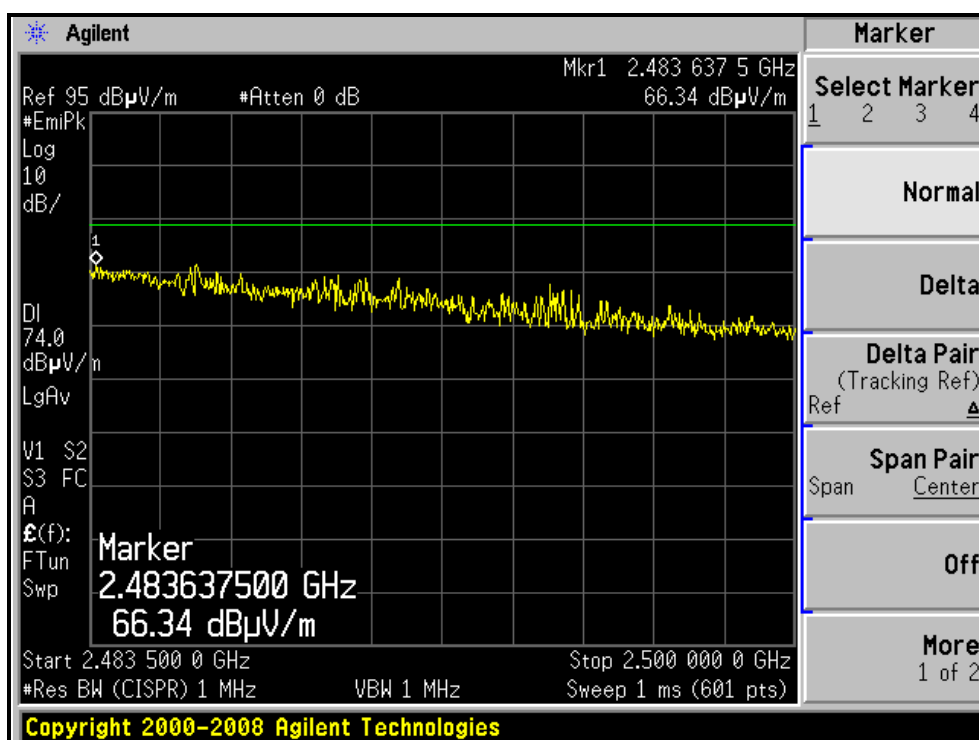
RESTRICTED BANDEDGE (802.11g MODE,CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11g MODE,CH11, HORIZONTAL)



RESTRICTED BANDEDGE (802.11g MODE,CH11, VERTICAL)



802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

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	2390.00	57.6 PK	74.0	-16.4	1.00 H	74	25.94	31.66
2	2390.00	44.9 AV	54.0	-9.1	1.00 H	74	13.24	31.66
3	*2412.00	97.1 PK			1.00 H	74	65.37	31.73
4	*2412.00	87.2 AV			1.00 H	74	55.47	31.73
5	4824.00	58.2 PK	74.0	-15.8	1.02 H	279	19.23	38.97
6	4824.00	44.3 AV	54.0	-9.7	1.02 H	279	5.33	38.97
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	2390.00	67.1 PK	74.0	-6.9	1.11 V	164	35.44	31.66
2	2390.00	51.5 AV	54.0	-2.5	1.11 V	164	19.84	31.66
3	*2412.00	105.3 PK			1.11 V	169	73.57	31.73
4	*2412.00	95.2 AV			1.11 V	169	63.47	31.73
5	4824.00	59.3 PK	74.0	-14.7	1.00 V	257	20.33	38.97
6	4824.00	45.1 AV	54.0	-8.9	1.00 V	257	6.13	38.97

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

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	*2437.00	98.4 PK			1.00 H	62	66.59	31.81
2	*2437.00	88.3 AV			1.00 H	62	56.49	31.81
3	4874.00	63.1 PK	74.0	-10.9	1.04 H	284	23.96	39.14
4	4874.00	49.3 AV	54.0	-4.7	1.04 H	284	10.16	39.14
5	7311.00	50.2 PK	74.0	-23.8	1.06 H	57	3.57	46.63
6	7311.00	39.4 AV	54.0	-14.6	1.06 H	57	-7.23	46.63
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	*2437.00	106.1 PK			1.11 V	154	74.29	31.81
2	*2437.00	96.2 AV			1.11 V	154	64.39	31.81
3	4874.00	62.3 PK	74.0	-11.7	1.00 V	243	23.16	39.14
4	4874.00	48.2 AV	54.0	-5.8	1.00 V	243	9.06	39.14
5	7311.00	50.7 PK	74.0	-23.3	1.00 V	59	4.07	46.63
6	7311.00	39.2 AV	54.0	-14.8	1.00 V	59	-7.43	46.63

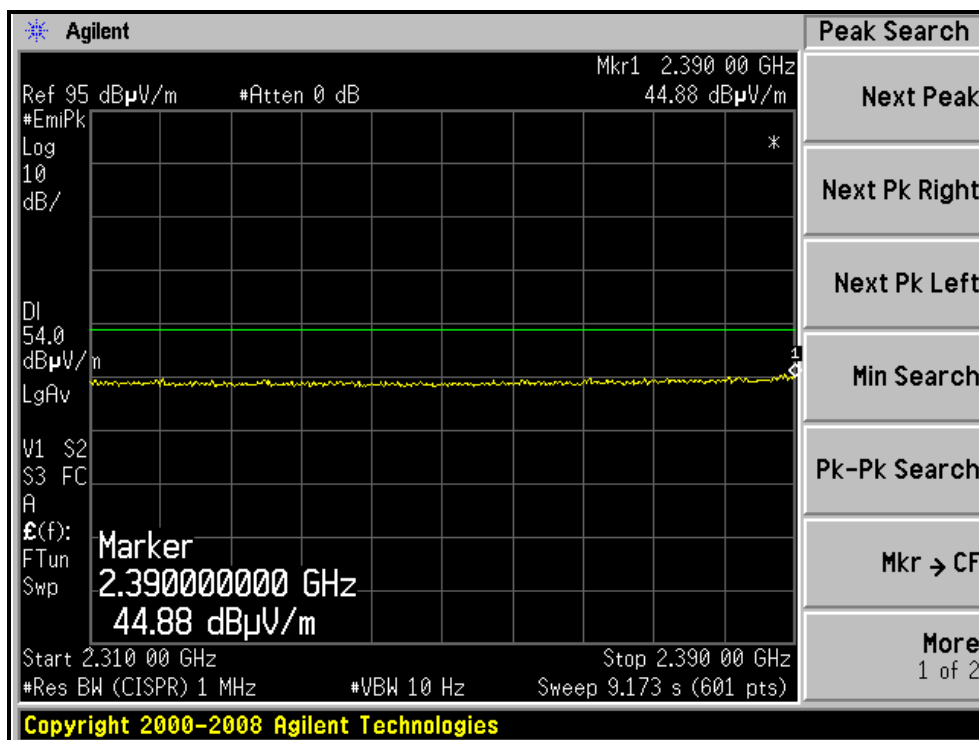
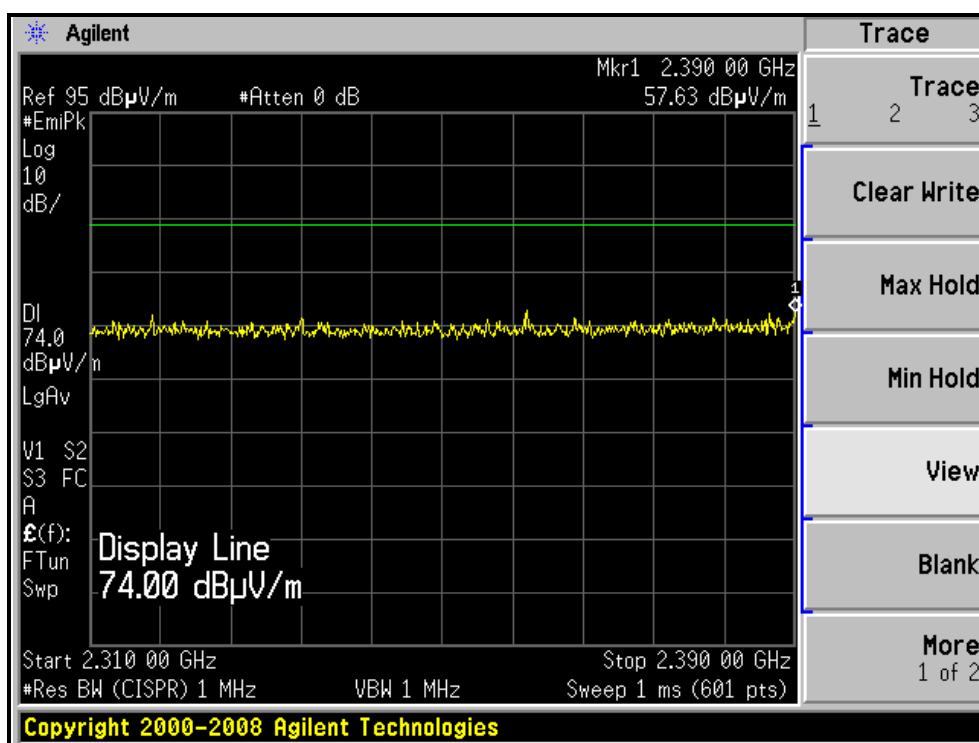
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. “ * ”: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

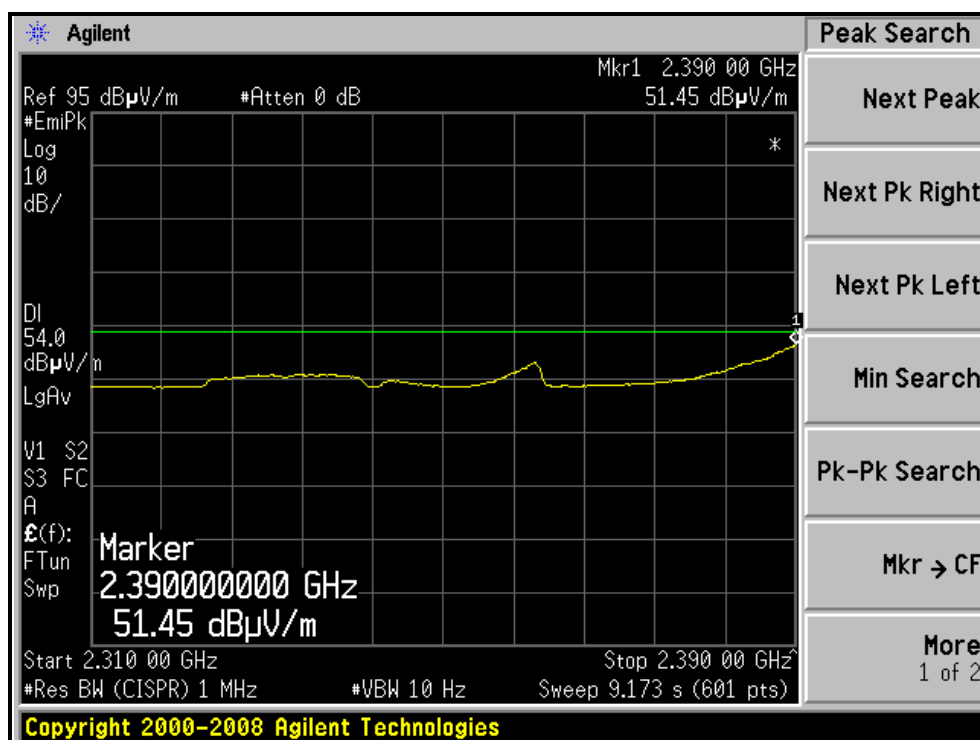
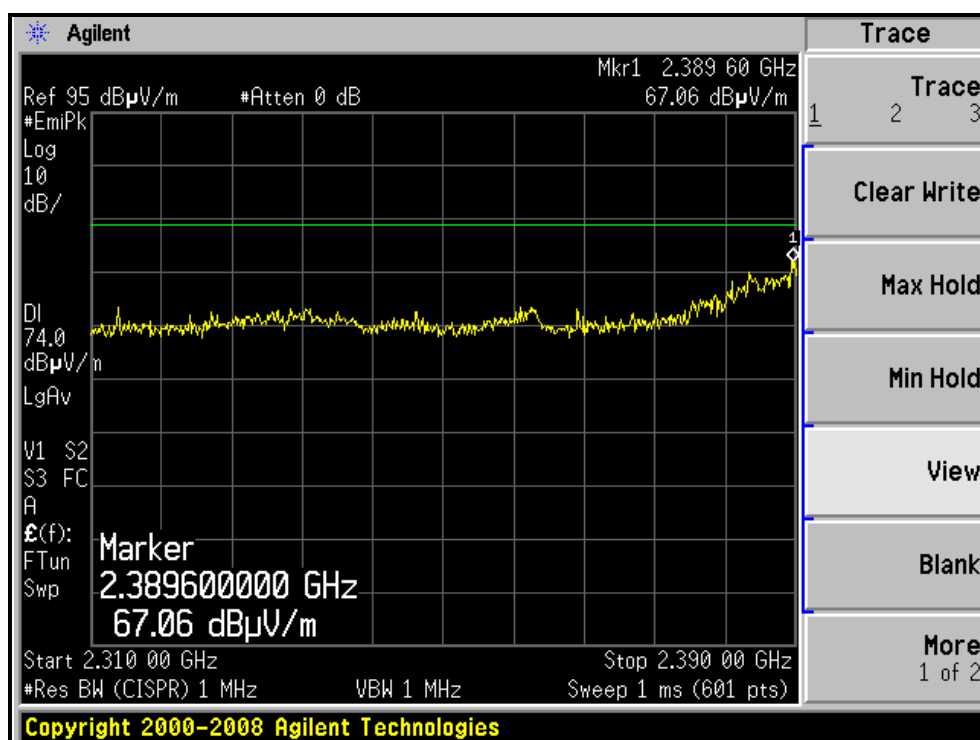
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	97.4 PK			1.00 H	63	65.51	31.89
2	*2462.00	87.3 AV			1.00 H	63	55.41	31.89
3	2483.50	56.6 PK	74.0	-17.4	1.00 H	76	24.63	31.97
4	2483.50	44.8 AV	54.0	-9.2	1.00 H	76	12.83	31.97
5	4924.00	58.0 PK	74.0	-16.0	1.04 H	249	18.69	39.31
6	4924.00	44.1 AV	54.0	-9.9	1.04 H	249	4.79	39.31
7	7386.00	50.7 PK	74.0	-23.3	1.00 H	245	4.10	46.60
8	7386.00	39.4 AV	54.0	-14.6	1.00 H	245	-7.20	46.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	105.7 PK			1.00 V	164	73.81	31.89
2	*2462.00	95.2 AV			1.00 V	164	63.31	31.89
3	2483.50	67.7 PK	74.0	-6.3	1.11 V	174	35.73	31.97
4	2483.50	52.8 AV	54.0	-1.2	1.11 V	174	20.83	31.97
5	4924.00	59.4 PK	74.0	-14.6	1.00 V	251	20.09	39.31
6	4924.00	45.3 AV	54.0	-8.7	1.00 V	251	5.99	39.31
7	7386.00	50.6 PK	74.0	-23.4	1.00 V	62	4.00	46.60
8	7386.00	39.2 AV	54.0	-14.8	1.00 V	62	-7.40	46.60

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

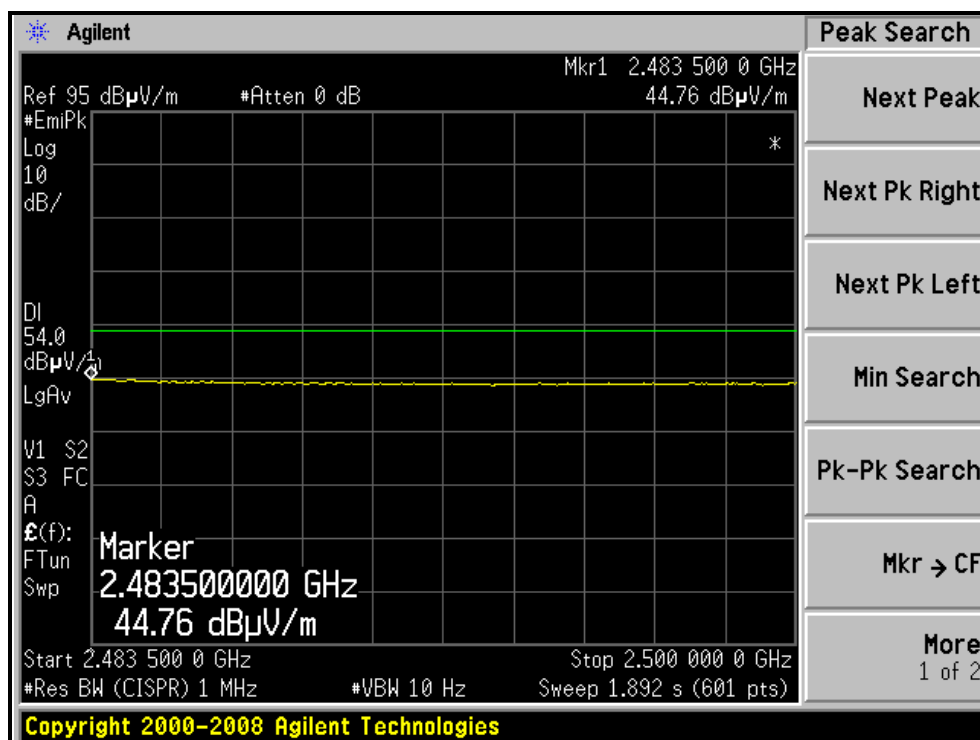
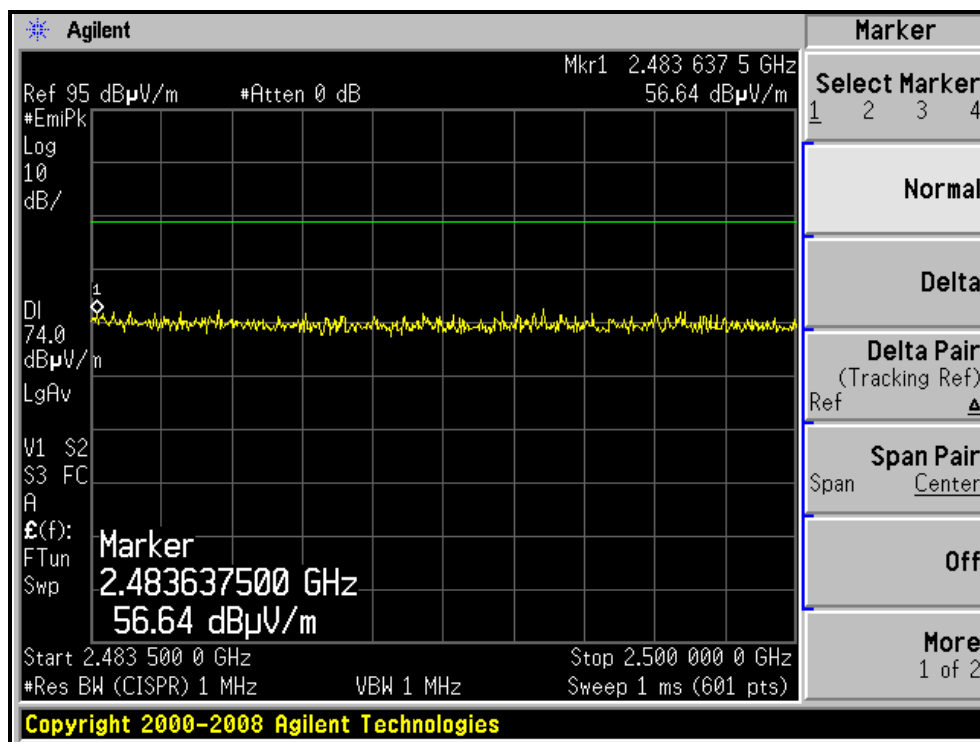
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, HORIZONTAL)



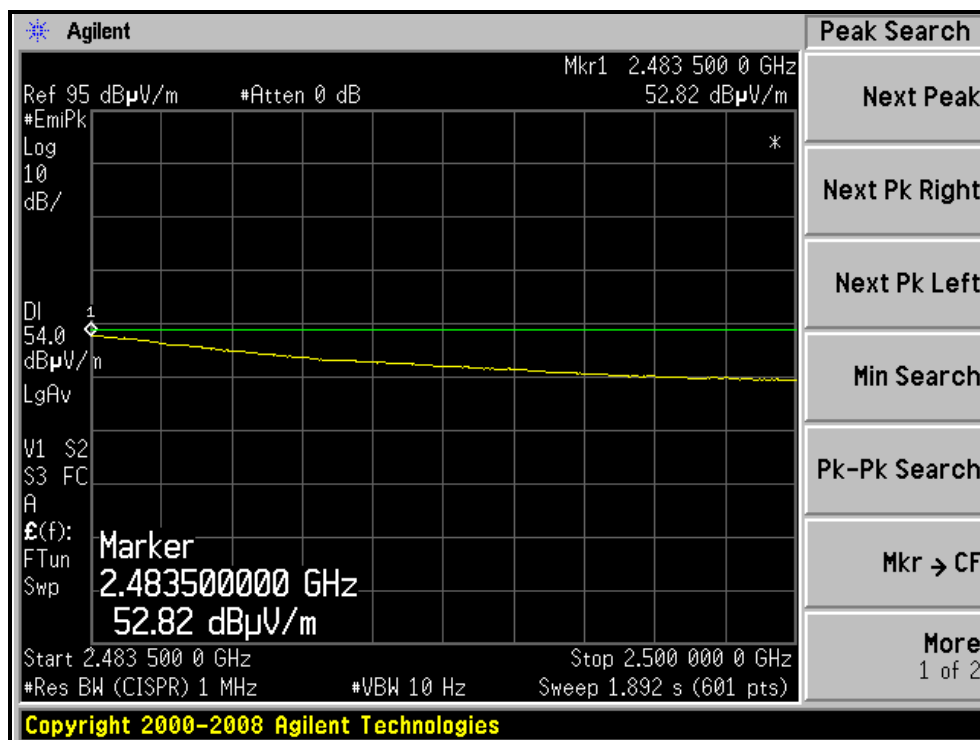
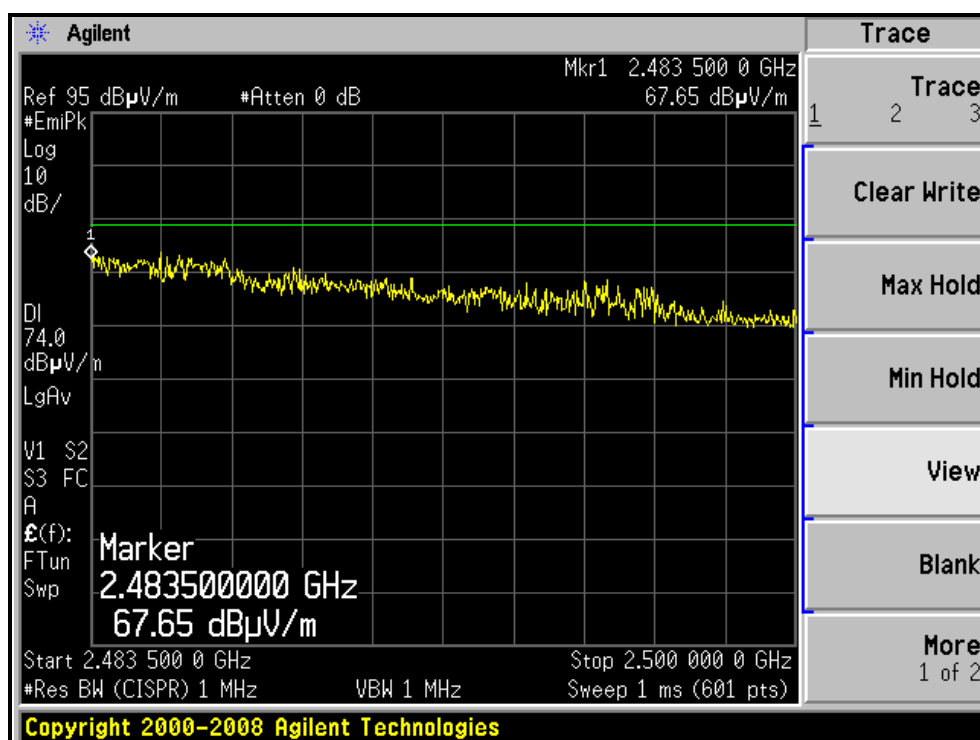
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH11, HORIZONTAL)



RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH11, VERTICAL)



802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

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	2390.00	55.0 PK	74.0	-19.0	1.00 H	70	23.34	31.66
2	2390.00	45.2 AV	54.0	-8.8	1.00 H	70	13.54	31.66
3	*2422.00	89.1 PK			1.00 H	64	57.34	31.76
4	*2422.00	79.3 AV			1.00 H	64	47.54	31.76
5	4844.00	56.7 PK	74.0	-17.3	1.08 H	249	17.66	39.04
6	4844.00	40.6 AV	54.0	-13.4	1.08 H	249	1.56	39.04
7	7266.00	50.4 PK	74.0	-23.6	1.00 H	254	3.73	46.67
8	7266.00	39.1 AV	54.0	-14.9	1.00 H	254	-7.57	46.67
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	2390.00	68.2 PK	74.0	-5.8	1.11 V	149	36.54	31.66
2	2390.00	53.3 AV	54.0	-0.7	1.11 V	149	21.64	31.66
3	*2422.00	97.4 PK			1.14 V	157	65.64	31.76
4	*2422.00	87.2 AV			1.14 V	157	55.44	31.76
5	4844.00	57.3 PK	74.0	-16.7	1.00 V	241	18.26	39.04
6	4844.00	42.1 AV	54.0	-11.9	1.00 V	241	3.06	39.04
7	7266.00	51.2 PK	74.0	-22.8	1.00 V	57	4.53	46.67
8	7266.00	39.8 AV	54.0	-14.2	1.00 V	57	-6.87	46.67

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



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

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	*2437.00	91.9 PK			1.00 H	69	60.09	31.81
2	*2437.00	81.3 AV			1.00 H	69	49.49	31.81
3	4874.00	60.3 PK	74.0	-13.7	1.02 H	273	21.16	39.14
4	4874.00	46.2 AV	54.0	-7.8	1.02 H	273	7.06	39.14
5	7311.00	50.4 PK	74.0	-23.6	1.04 H	62	3.77	46.63
6	7311.00	39.7 AV	54.0	-14.3	1.04 H	62	-6.93	46.63
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	*2437.00	99.3 PK			1.10 V	147	67.49	31.81
2	*2437.00	88.2 AV			1.10 V	147	56.39	31.81
3	4874.00	60.4 PK	74.0	-13.6	1.00 V	251	21.26	39.14
4	4874.00	47.3 AV	54.0	-6.7	1.00 V	251	8.16	39.14
5	7311.00	50.4 PK	74.0	-23.6	1.00 V	69	3.77	46.63
6	7311.00	39.4 AV	54.0	-14.6	1.00 V	69	-7.23	46.63

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



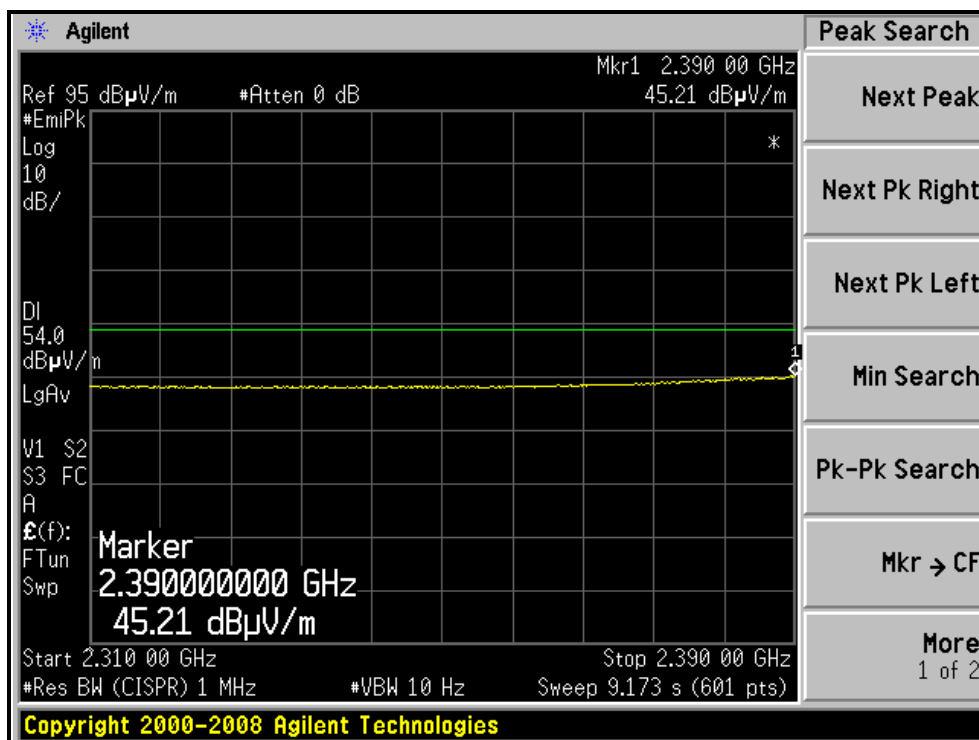
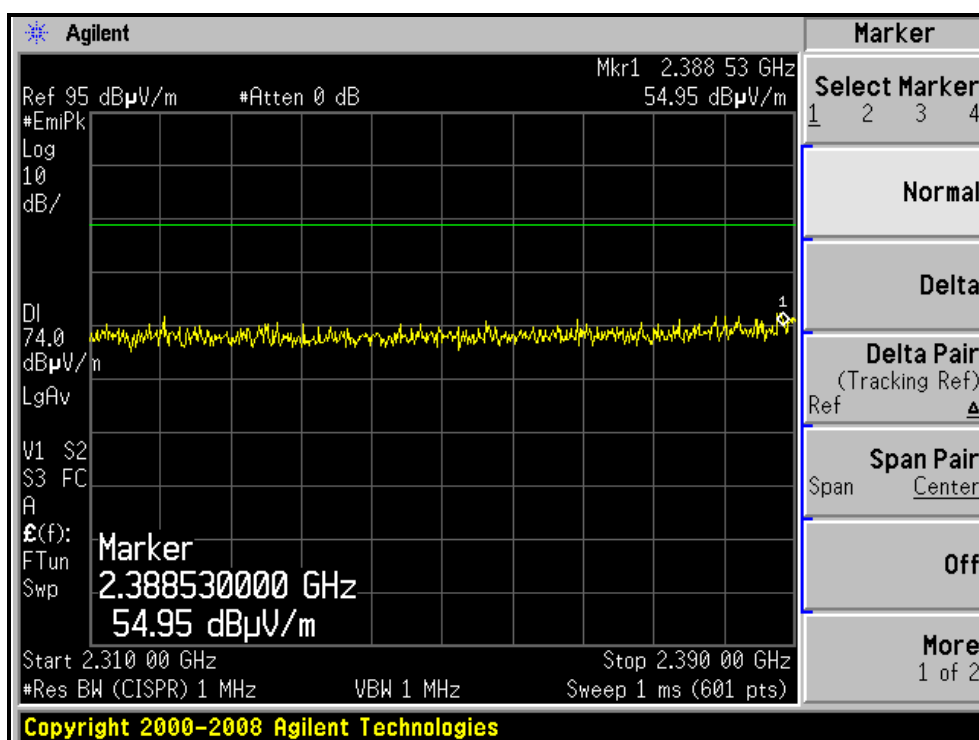
A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

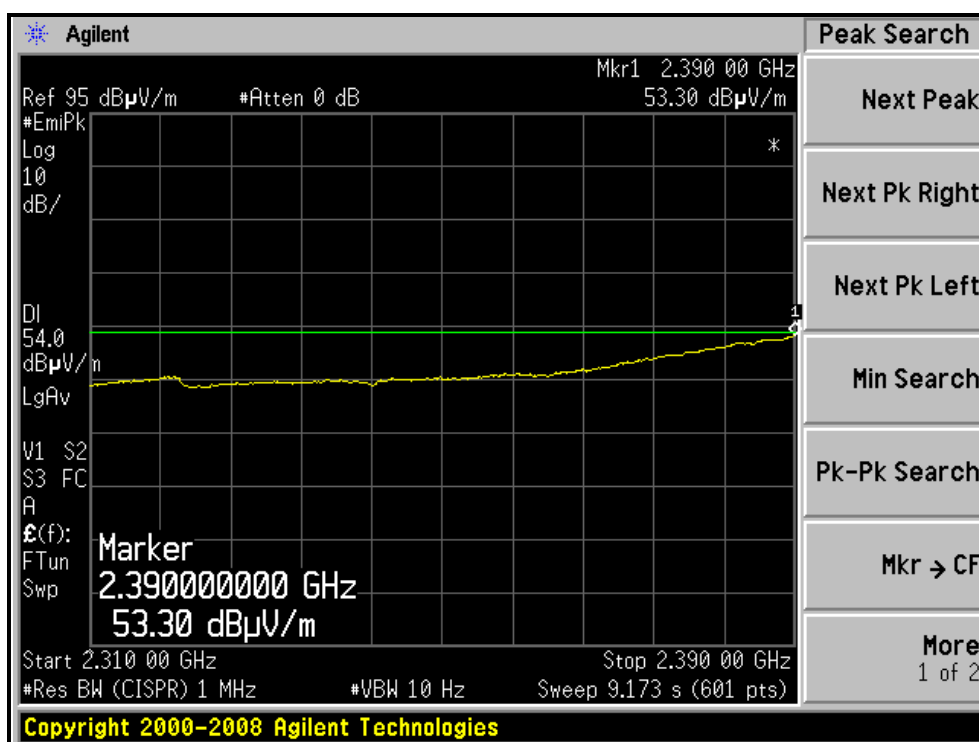
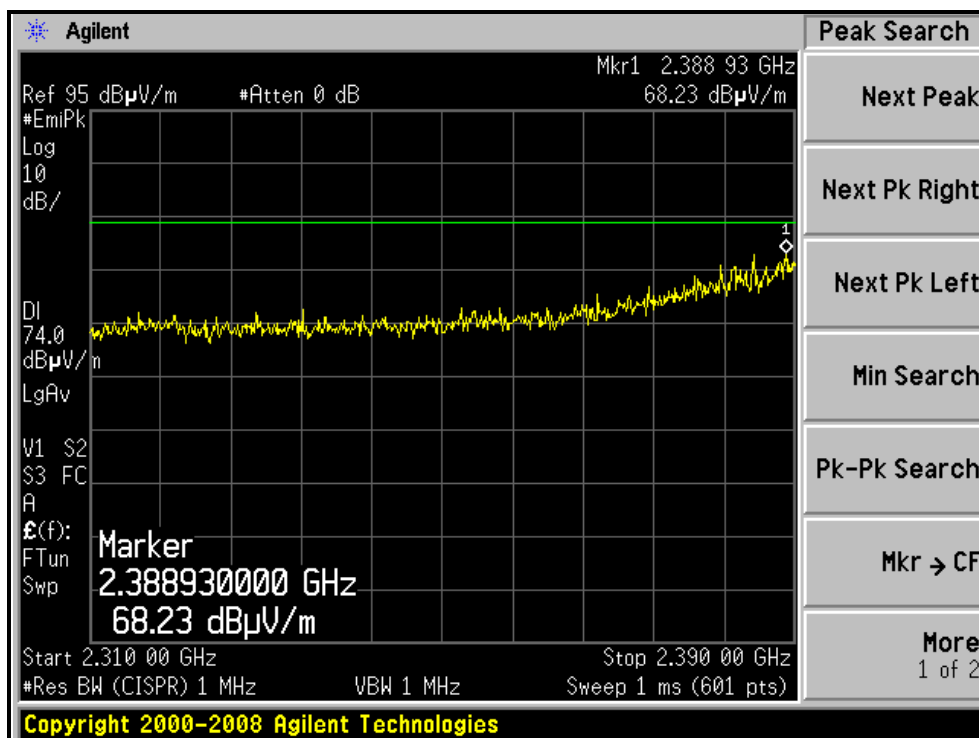
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	87.2 PK			1.00 H	73	55.34	31.86
2	*2452.00	79.0 AV			1.00 H	73	47.14	31.86
3	2483.50	57.8 PK	74.0	-16.2	1.00 H	76	25.83	31.97
4	2483.50	45.8 AV	54.0	-8.2	1.00 H	76	13.83	31.97
5	4904.00	56.2 PK	74.0	-17.8	1.07 H	243	16.96	39.24
6	4904.00	40.2 AV	54.0	-13.8	1.07 H	243	0.96	39.24
7	7356.00	50.4 PK	74.0	-23.6	1.00 H	251	3.79	46.61
8	7356.00	39.2 AV	54.0	-14.8	1.00 H	251	-7.41	46.61
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	*2452.00	97.7 PK			1.10 V	142	65.84	31.86
2	*2452.00	87.3 AV			1.10 V	142	55.44	31.86
3	2483.50	61.4 PK	74.0	-12.6	1.10 V	143	29.43	31.97
4	2483.50	49.9 AV	54.0	-4.1	1.10 V	143	17.93	31.97
5	4904.00	58.1 PK	74.0	-15.9	1.00 V	242	18.86	39.24
6	4904.00	42.1 AV	54.0	-11.9	1.00 V	242	2.86	39.24
7	7356.00	50.9 PK	74.0	-23.1	1.00 V	63	4.29	46.61
8	7356.00	39.7 AV	54.0	-14.3	1.00 V	63	-6.91	46.61

- 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.

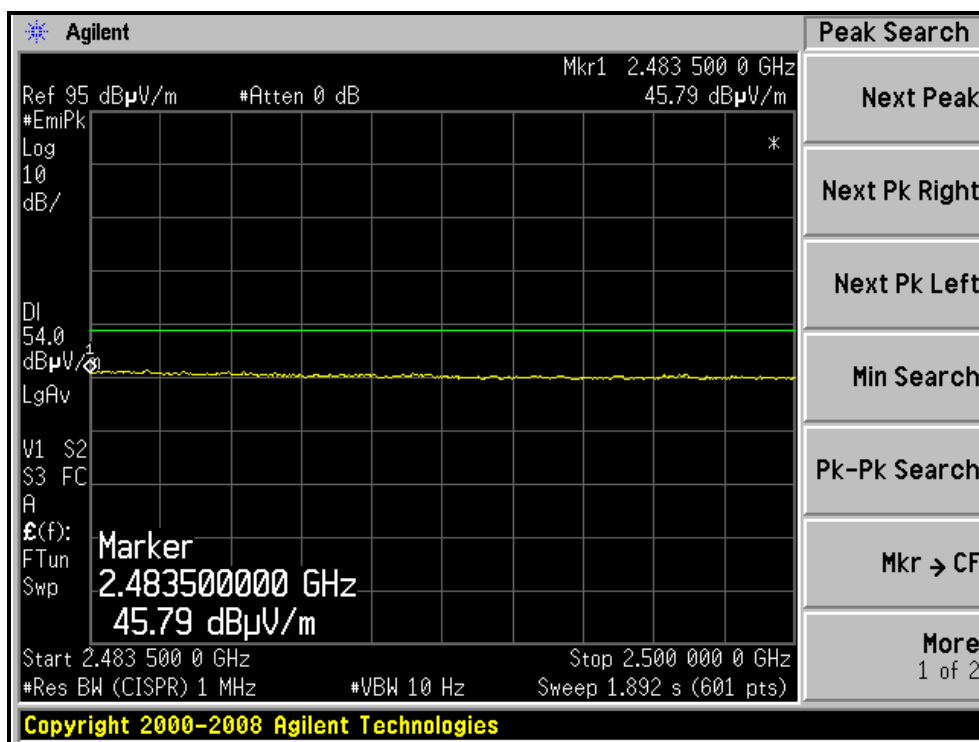
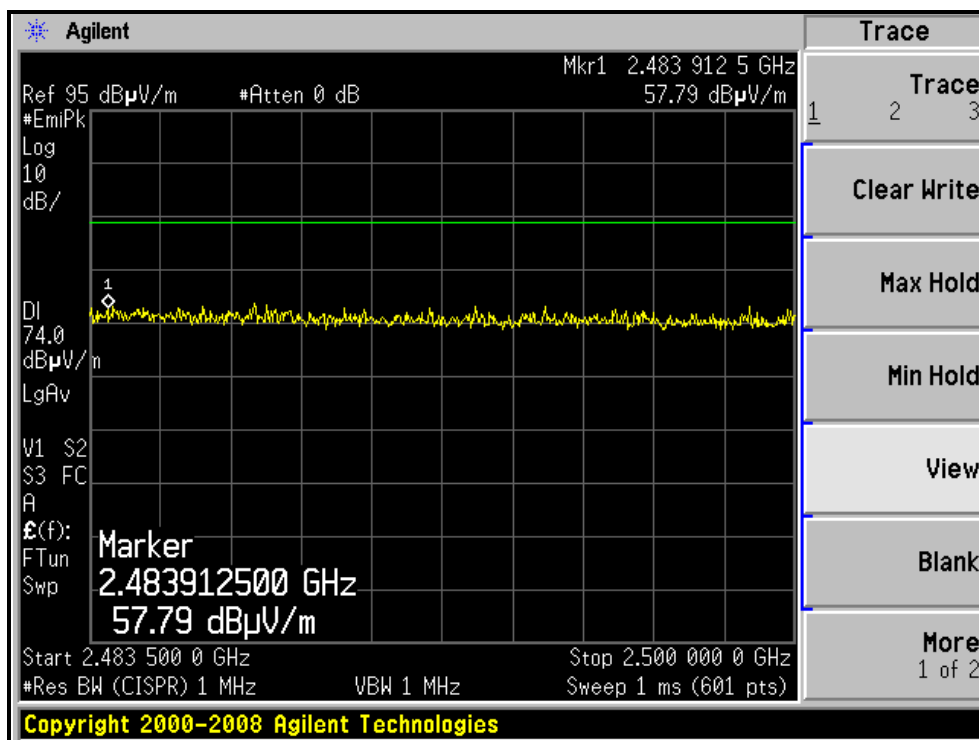
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH3, HORIZONTAL)



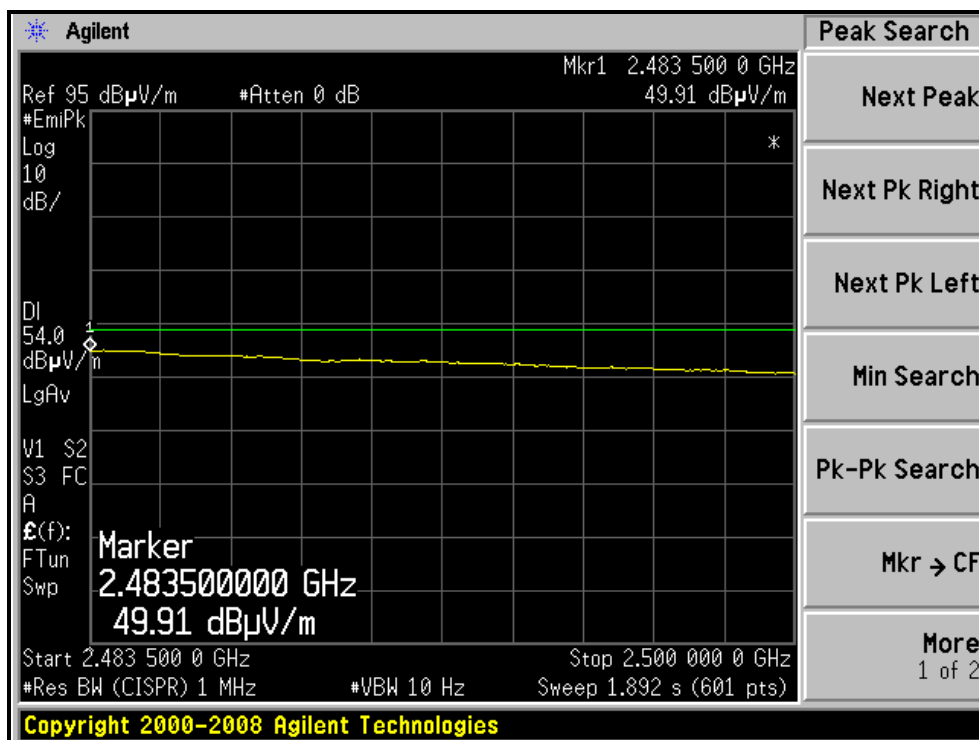
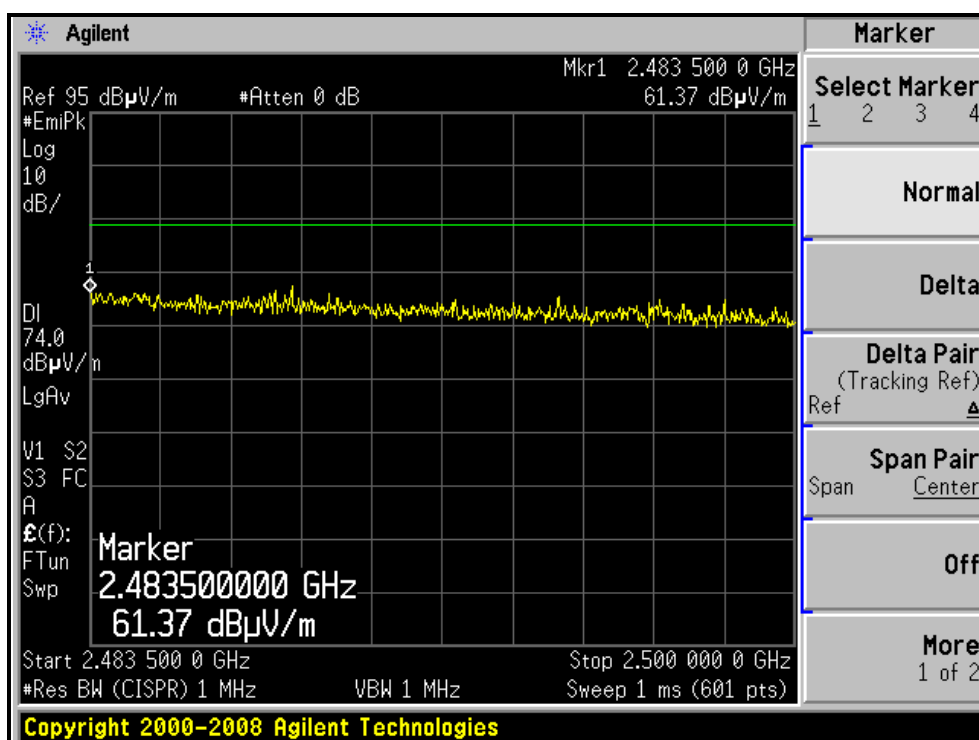
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH3, VERTICAL)



RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH9, HORIZONTAL)



RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH9, VERTICAL)



4.2.8 TEST RESULTS (WITH PANEL ANTENNA)

BELOW 1GHz WORST-CASE DATA : 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	14deg. C, 68%RH 1024 hPa	TESTED BY	Frank Liu

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	226.46	37.2 QP	46.0	-8.8	1.00 H	64	25.12	12.09
2	360.04	36.8 QP	46.0	-9.2	1.00 H	251	20.10	16.70
3	431.33	43.4 QP	46.0	-2.6	2.00 H	360	24.86	18.55
4	600.32	38.4 QP	46.0	-7.6	1.50 H	95	16.08	22.36
5	799.87	40.0 QP	46.0	-6.0	1.00 H	0	15.17	24.86
6	840.13	36.7 QP	46.0	-9.4	1.00 H	334	11.10	25.55
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	34.26	30.3 QP	40.0	-9.7	1.00 V	84	16.77	13.54
2	52.50	30.9 QP	40.0	-9.1	1.50 V	192	17.03	13.86
3	244.94	30.6 QP	46.0	-15.4	2.00 V	22	17.86	12.73
4	432.04	40.1 QP	46.0	-5.9	1.00 V	84	21.58	18.56
5	600.32	35.7 QP	46.0	-10.3	1.00 V	173	13.37	22.36
6	799.87	38.6 QP	46.0	-7.4	1.50 V	130	13.73	24.86

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

802.11b DSSS MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

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	2390.00	57.1 PK	74.0	-16.9	1.16 H	33	25.44	31.66
2	2390.00	43.8 AV	54.0	-10.2	1.16 H	33	12.14	31.66
3	*2412.00	92.8 PK			1.00 H	33	61.07	31.73
4	*2412.00	87.7 AV			1.00 H	33	55.97	31.73
5	4824.00	50.2 PK	74.0	-23.8	1.10 H	292	11.23	38.97
6	4824.00	43.0 AV	54.0	-11.0	1.10 H	292	4.03	38.97
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	2389.00	57.4 PK	74.0	-16.6	1.15 V	200	25.75	31.65
2	2389.00	44.2 AV	54.0	-9.8	1.15 V	200	12.55	31.65
3	*2412.00	98.6 PK			1.15 V	200	66.87	31.73
4	*2412.00	95.5 AV			1.15 V	200	63.77	31.73
5	4824.00	51.4 PK	74.0	-22.6	1.00 V	244	12.43	38.97
6	4824.00	45.7 AV	54.0	-8.3	1.00 V	244	6.73	38.97

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

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	*2437.00	92.1 PK			1.13 H	29	60.29	31.81
2	*2437.00	86.2 AV			1.13 H	29	54.39	31.81
3	4874.00	50.3 PK	74.0	-23.7	1.13 H	294	11.16	39.14
4	4874.00	43.2 AV	54.0	-10.8	1.13 H	294	4.06	39.14
5	7311.00	50.4 PK	74.0	-23.6	1.00 H	257	3.77	46.63
6	7311.00	39.1 AV	54.0	-14.9	1.00 H	257	-7.53	46.63
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	*2437.00	97.2 PK			1.00 V	204	65.39	31.81
2	*2437.00	94.3 AV			1.00 V	204	62.49	31.81
3	4874.00	51.7 PK	74.0	-22.3	1.00 V	244	12.56	39.14
4	4874.00	45.9 AV	54.0	-8.1	1.00 V	244	6.76	39.14
5	7311.00	50.2 PK	74.0	-23.8	1.00 V	153	3.57	46.63
6	7311.00	39.4 AV	54.0	-14.6	1.00 V	153	-7.23	46.63

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.



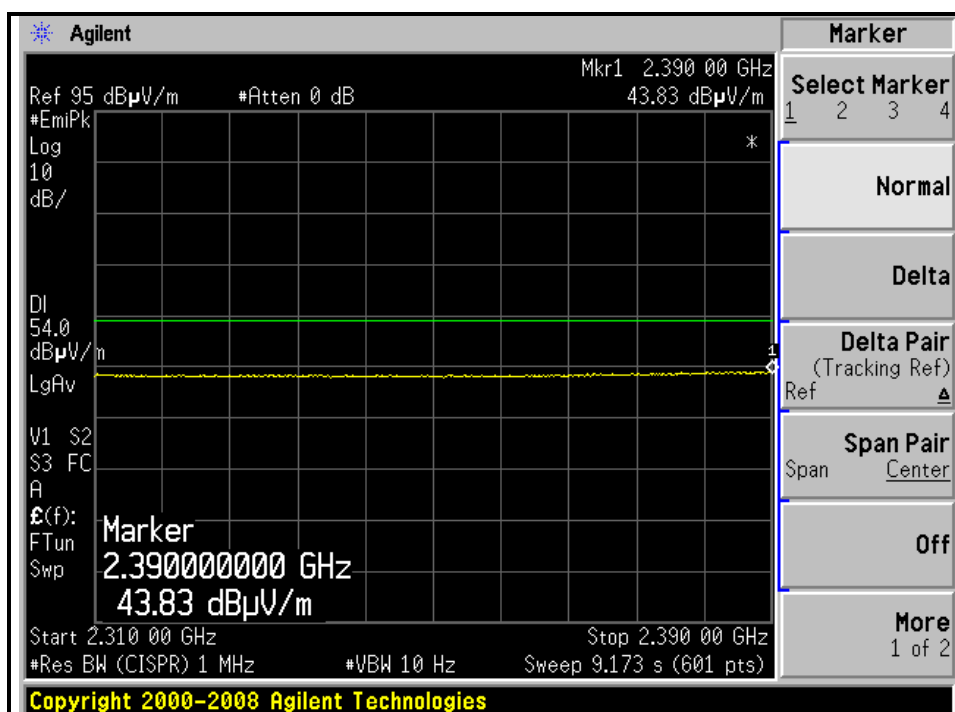
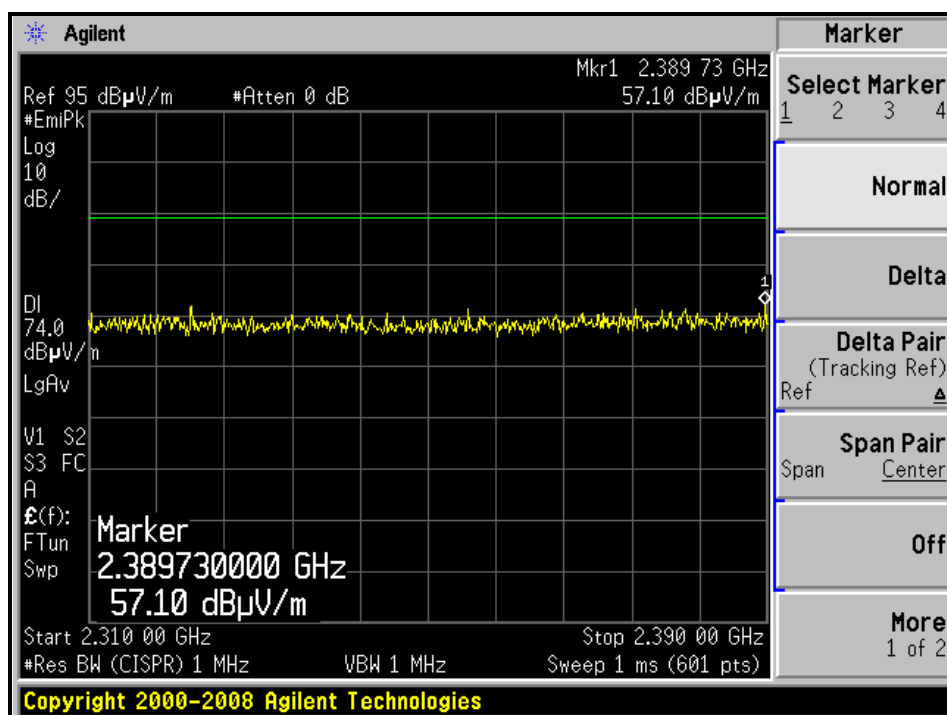
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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

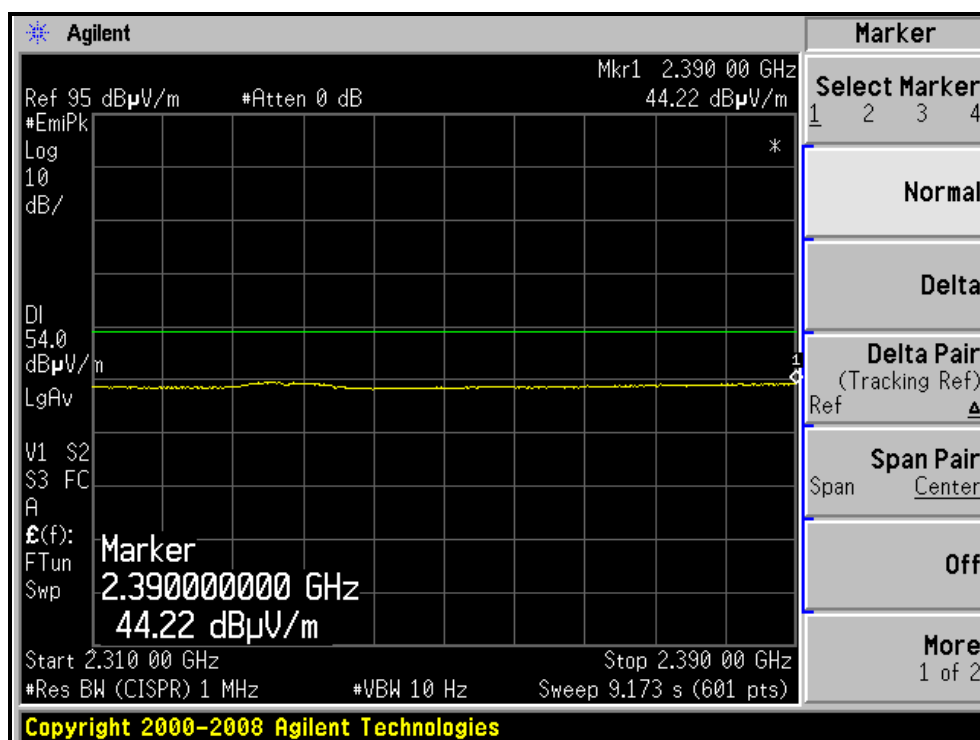
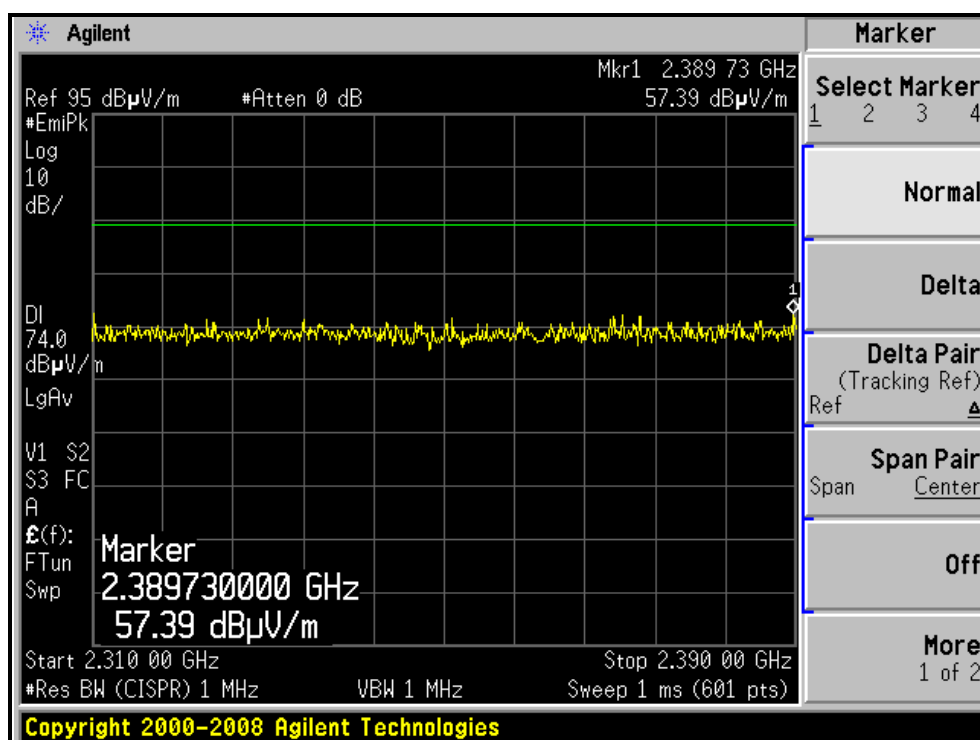
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	90.4 PK			1.16 H	39	58.51	31.89
2	*2462.00	85.3 AV			1.16 H	39	53.41	31.89
3	2483.50	56.6 PK	74.0	-17.4	1.16 H	39	24.63	31.97
4	2483.50	43.6 AV	54.0	-10.4	1.16 H	39	11.63	31.97
5	4924.00	50.4 PK	74.0	-23.6	1.12 H	284	11.09	39.31
6	4924.00	43.1 AV	54.0	-10.9	1.12 H	284	3.79	39.31
7	7386.00	50.8 PK	74.0	-23.2	1.00 H	243	4.20	46.60
8	7386.00	39.9 AV	54.0	-14.1	1.00 H	243	-6.70	46.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	96.7 PK			1.16 V	204	64.81	31.89
2	*2462.00	93.4 AV			1.16 V	204	61.51	31.89
3	2500.00	57.5 PK	74.0	-16.5	1.16 V	201	25.48	32.02
4	2500.00	44.0 AV	54.0	-10.0	1.16 V	201	11.98	32.02
5	4924.00	50.9 PK	74.0	-23.1	1.00 V	243	11.59	39.31
6	4924.00	45.3 AV	54.0	-8.7	1.00 V	243	5.99	39.31
7	7386.00	50.6 PK	74.0	-23.4	1.00 V	151	4.00	46.60
8	7386.00	39.7 AV	54.0	-14.3	1.00 V	151	-6.90	46.60

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

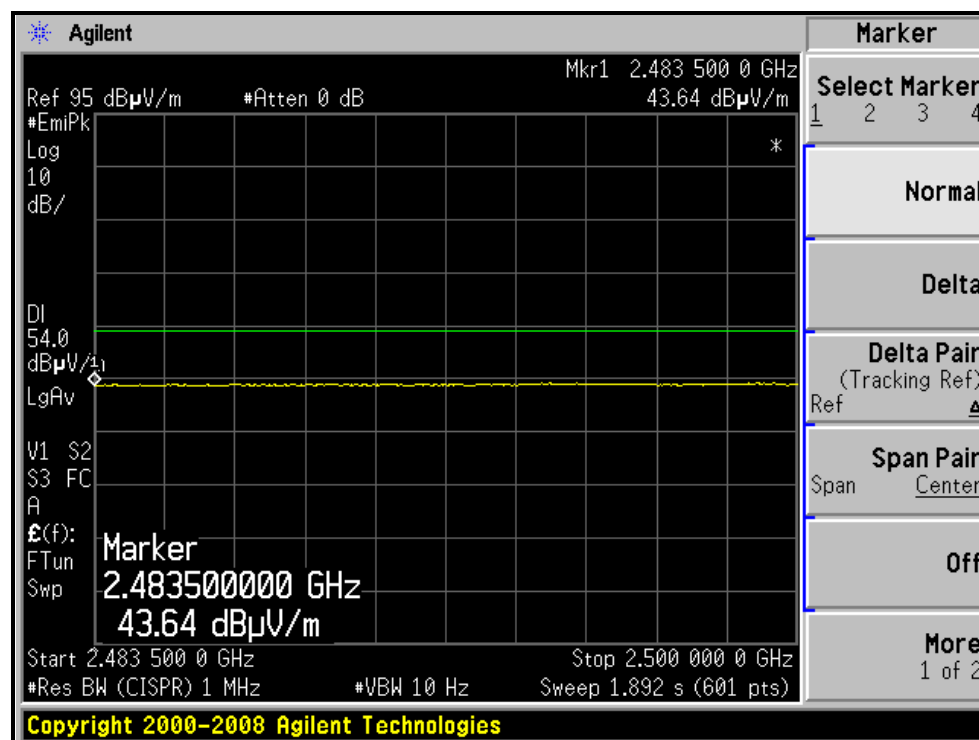
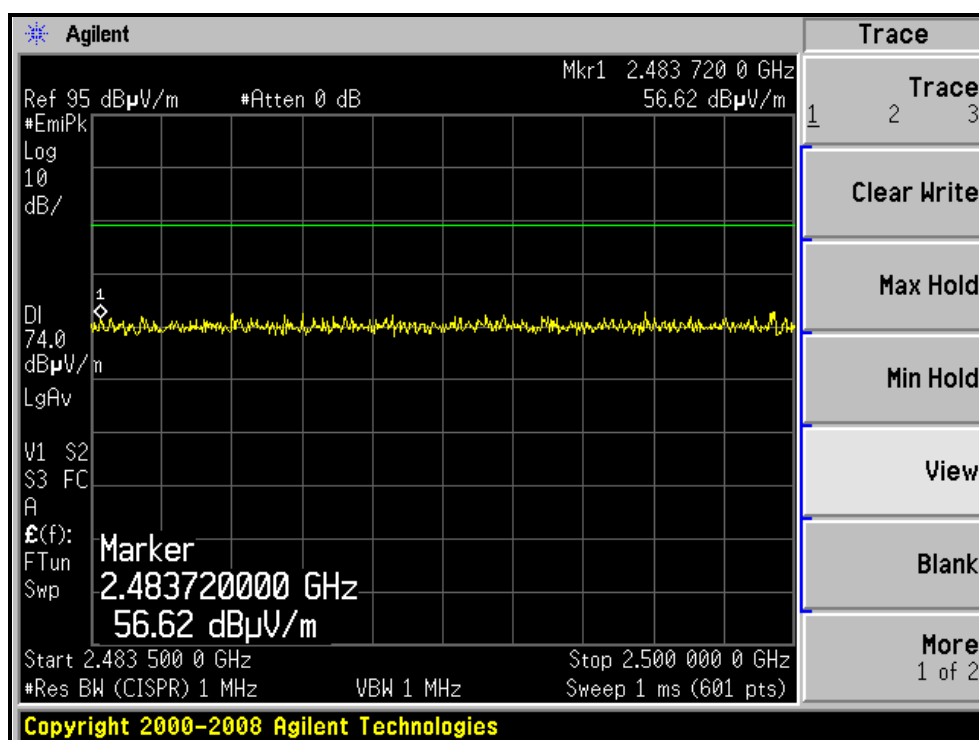
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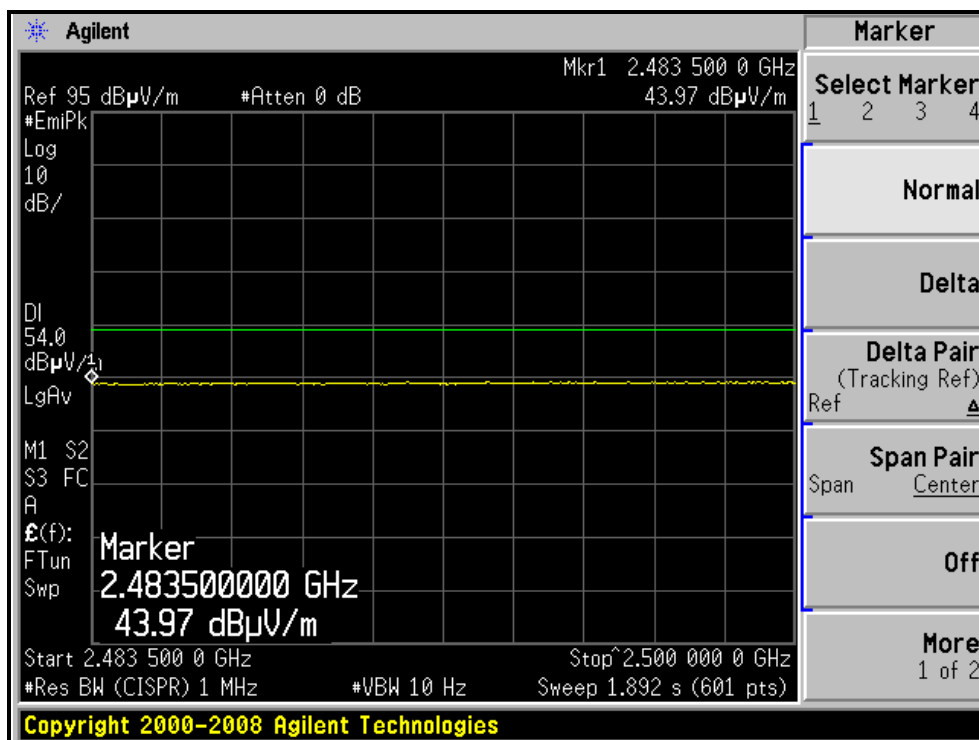
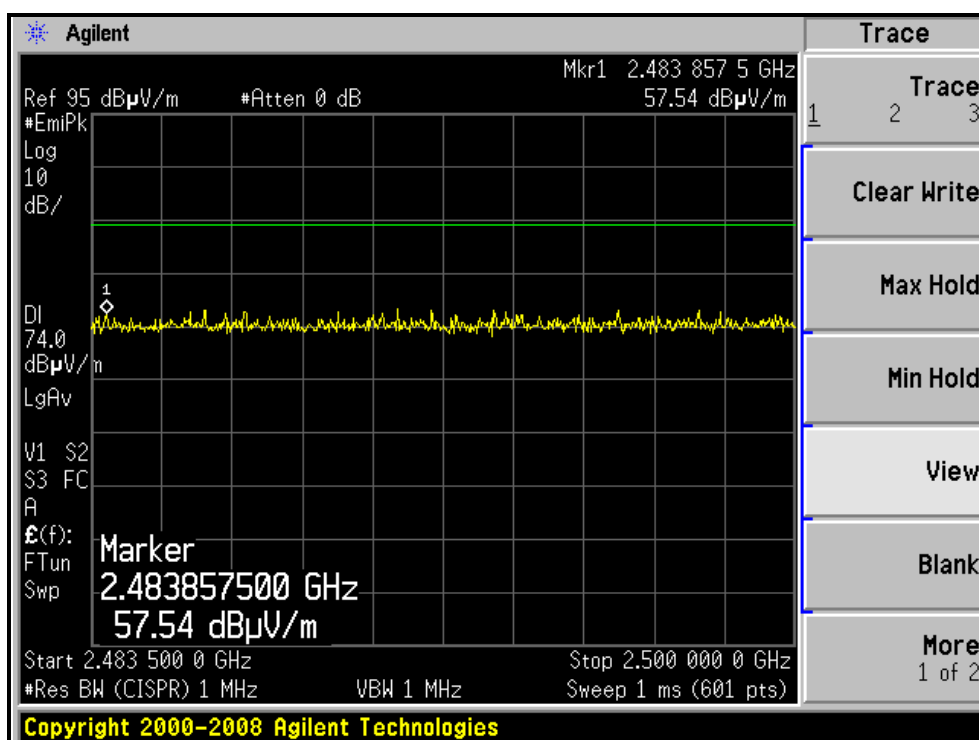
RESTRICTED BANDEDGE (802.11b MODE,CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11b MODE,CH11, HORIZONTAL)



RESTRICTED BANDEDGE (802.11b MODE,CH11, VERTICAL)



802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

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	2390.00	56.0 PK	74.0	-18.0	1.16 H	39	24.34	31.66
2	2390.00	44.5 AV	54.0	-9.5	1.16 H	39	12.74	31.66
3	*2412.00	97.9 PK			1.16 H	34	66.17	31.73
4	*2412.00	88.4 AV			1.16 H	34	56.67	31.73
5	4824.00	48.4 PK	74.0	-25.6	1.10 H	273	9.43	38.97
6	4824.00	42.3 AV	54.0	-11.7	1.10 H	273	3.33	38.97
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	2390.00	67.4 PK	74.0	-6.6	1.14 V	202	35.74	31.66
2	2390.00	53.1 AV	54.0	-0.9	1.14 V	202	21.44	31.66
3	*2412.00	105.6 PK			1.12 V	201	73.87	31.73
4	*2412.00	96.7 AV			1.12 V	201	64.97	31.73
5	4824.00	58.4 PK	74.0	-15.6	1.00 V	243	19.43	38.97
6	4824.00	45.2 AV	54.0	-8.8	1.00 V	243	6.23	38.97

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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

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	*2437.00	98.4 PK			1.13 H	29	66.59	31.81
2	*2437.00	89.3 AV			1.13 H	29	57.49	31.81
3	4874.00	60.1 PK	74.0	-13.9	1.12 H	293	20.96	39.14
4	4874.00	48.0 AV	54.0	-6.0	1.12 H	293	8.86	39.14
5	7311.00	50.4 PK	74.0	-23.6	1.13 H	243	3.77	46.63
6	7311.00	39.1 AV	54.0	-14.9	1.13 H	243	-7.53	46.63
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	*2437.00	106.3 PK			1.13 V	204	74.49	31.81
2	*2437.00	97.4 AV			1.13 V	204	65.59	31.81
3	4874.00	64.0 PK	74.0	-10.0	1.00 V	241	24.86	39.14
4	4874.00	51.9 AV	54.0	-2.1	1.00 V	241	12.76	39.14
5	7311.00	51.2 PK	74.0	-22.8	1.00 V	154	4.57	46.63
6	7311.00	39.8 AV	54.0	-14.2	1.00 V	154	-6.83	46.63

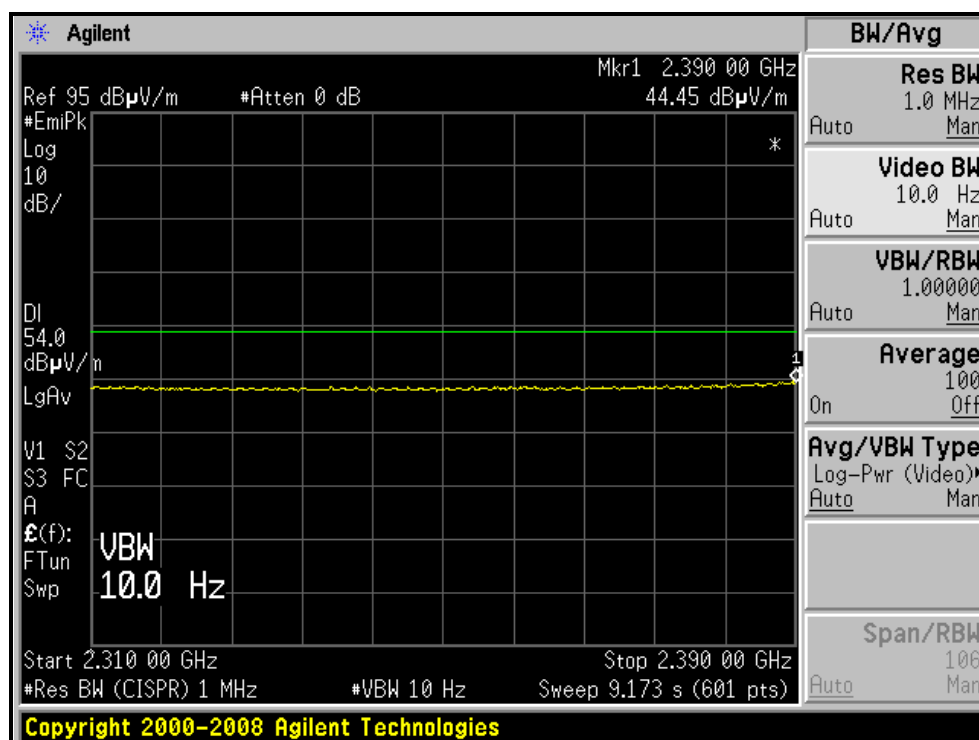
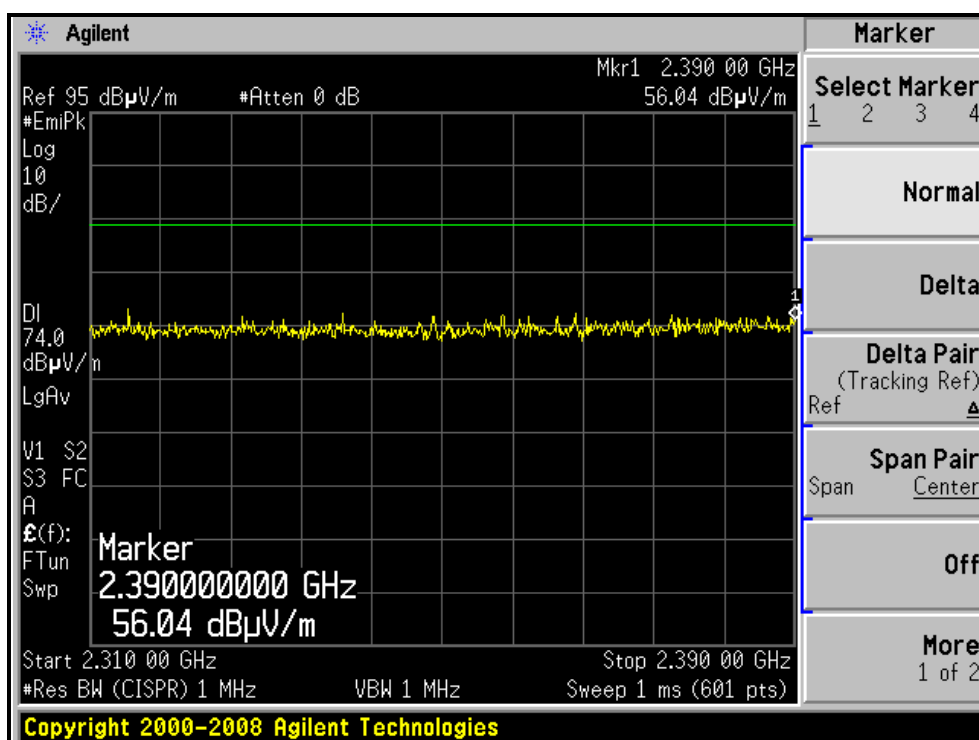
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. “ * ”: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

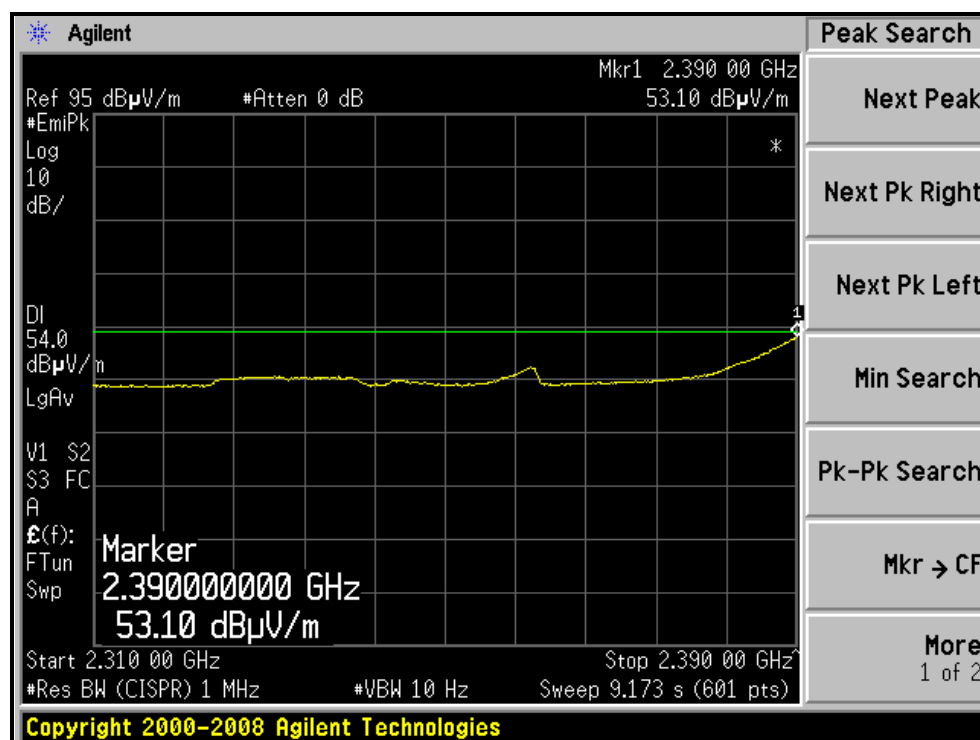
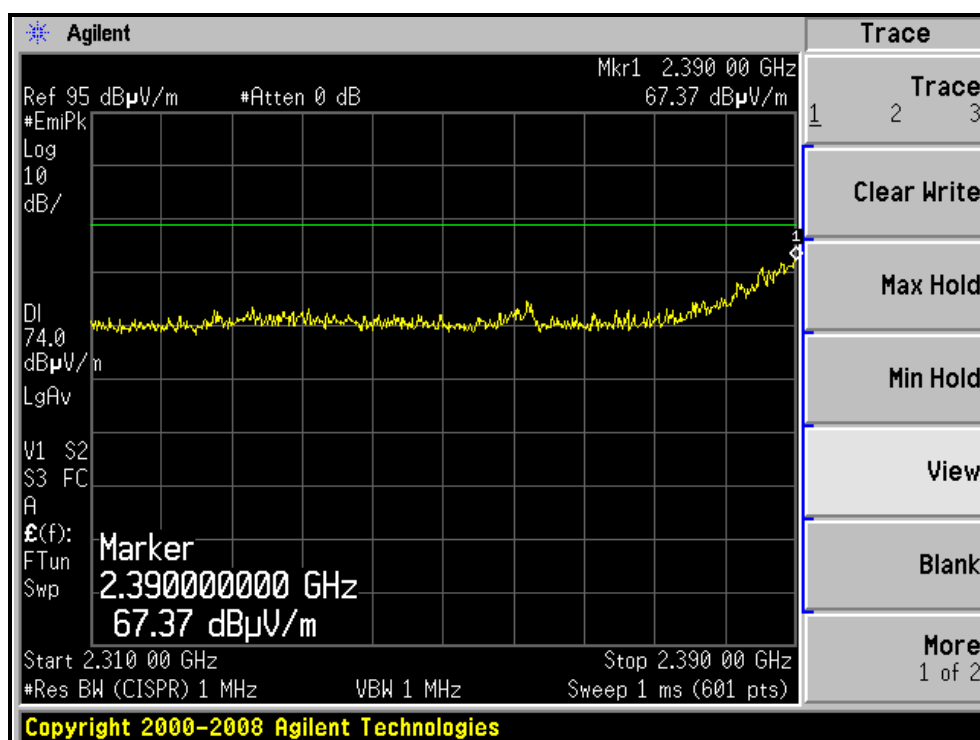
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	95.3 PK			1.16 H	36	63.41	31.89
2	*2462.00	86.2 AV			1.16 H	36	54.31	31.89
3	2483.50	56.2 PK	74.0	-17.8	1.16 H	39	24.23	31.97
4	2483.50	45.1 AV	54.0	-8.9	1.16 H	39	11.13	31.97
5	4924.00	56.2 PK	74.0	-17.8	1.13 H	249	16.89	39.31
6	4924.00	39.1 AV	54.0	-14.9	1.13 H	249	-0.21	39.31
7	7386.00	50.6 PK	74.0	-23.4	1.14 H	257	4.00	46.60
8	7386.00	39.3 AV	54.0	-14.7	1.14 H	257	-7.30	46.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	103.4 PK			1.11 V	197	71.51	31.89
2	*2462.00	94.7 AV			1.11 V	197	62.81	31.89
3	2483.50	68.1 PK	74.0	-5.9	1.10 V	195	36.13	31.97
4	2483.50	52.9 AV	54.0	-1.1	1.10 V	195	20.93	31.97
5	4924.00	58.6 PK	74.0	-15.4	1.00 V	257	19.29	39.31
6	4924.00	45.3 AV	54.0	-8.7	1.00 V	257	5.99	39.31
7	7386.00	50.8 PK	74.0	-23.2	1.00 V	159	4.20	46.60
8	7386.00	39.6 AV	54.0	-14.4	1.00 V	159	-7.00	46.60

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

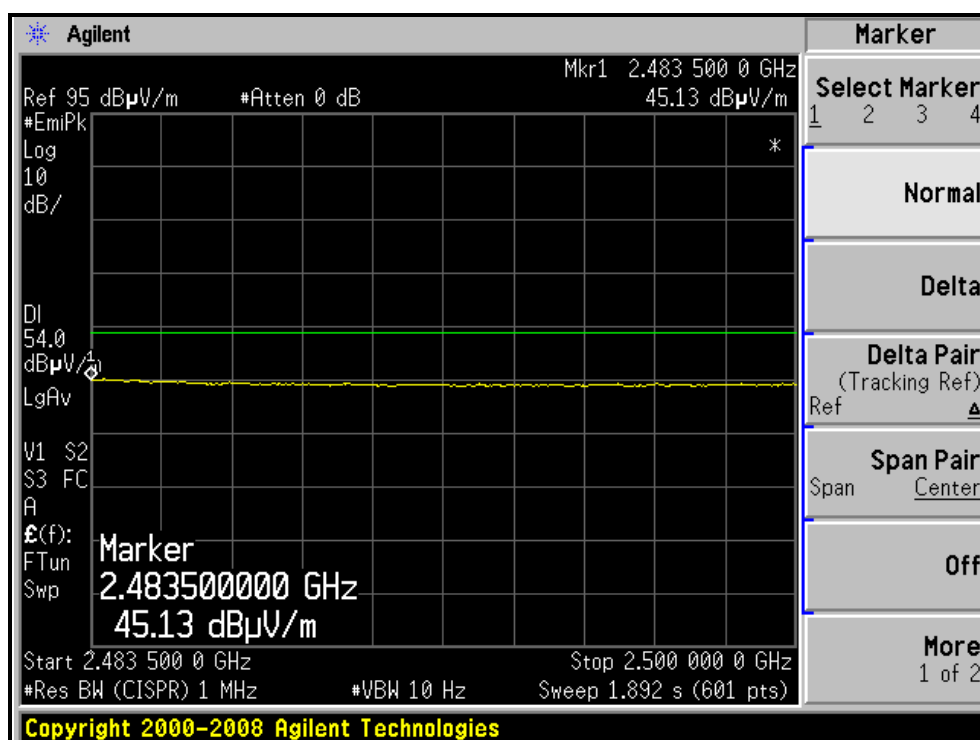
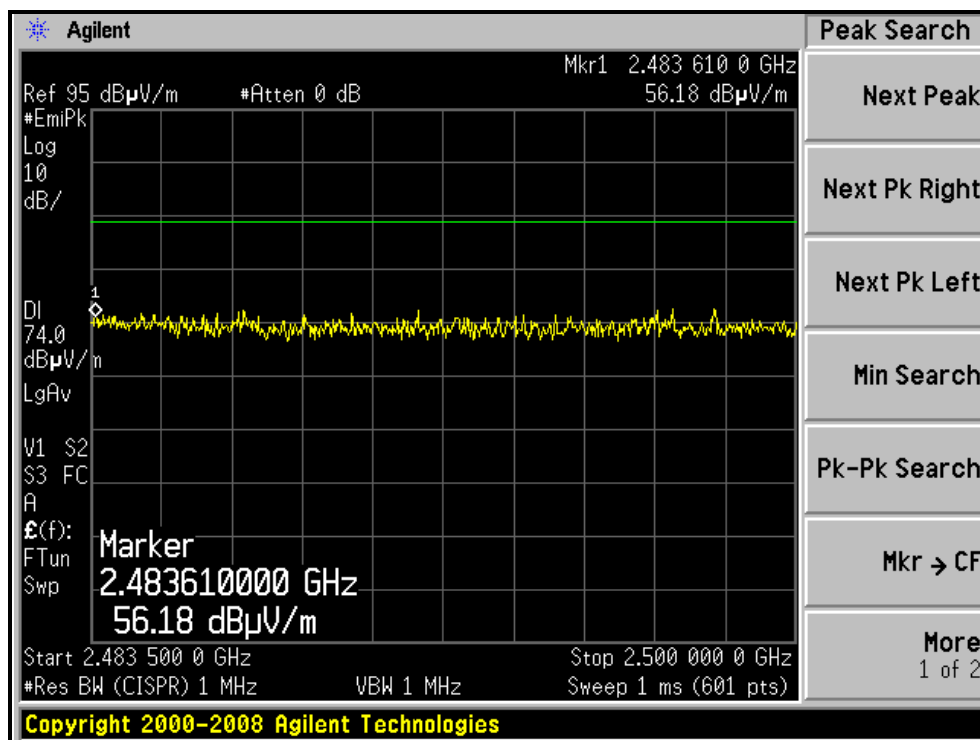
RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)



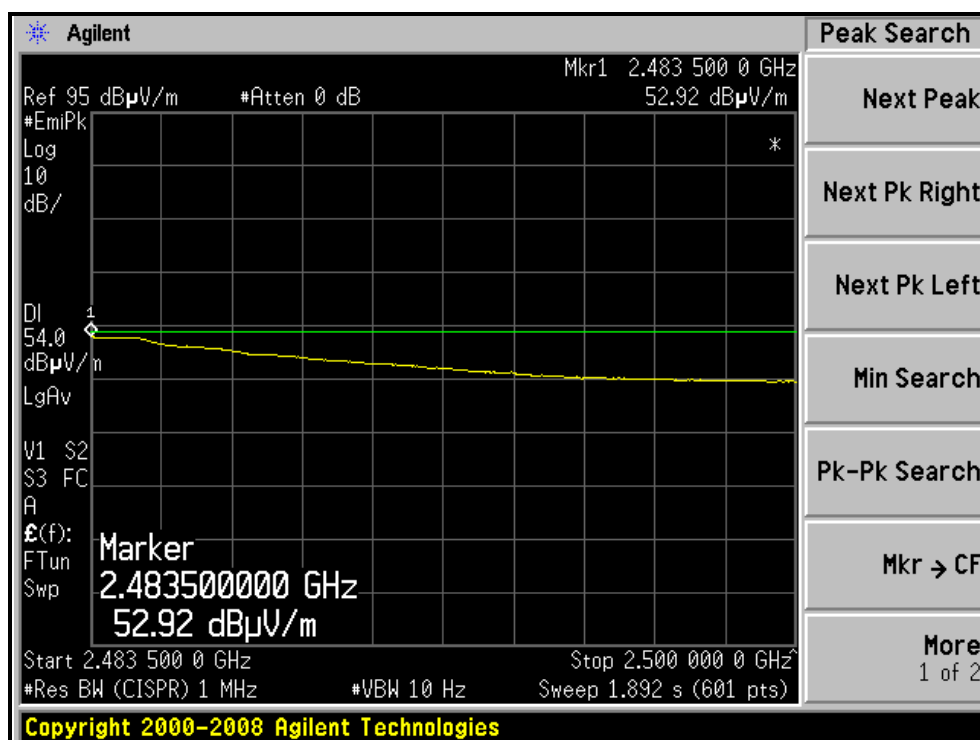
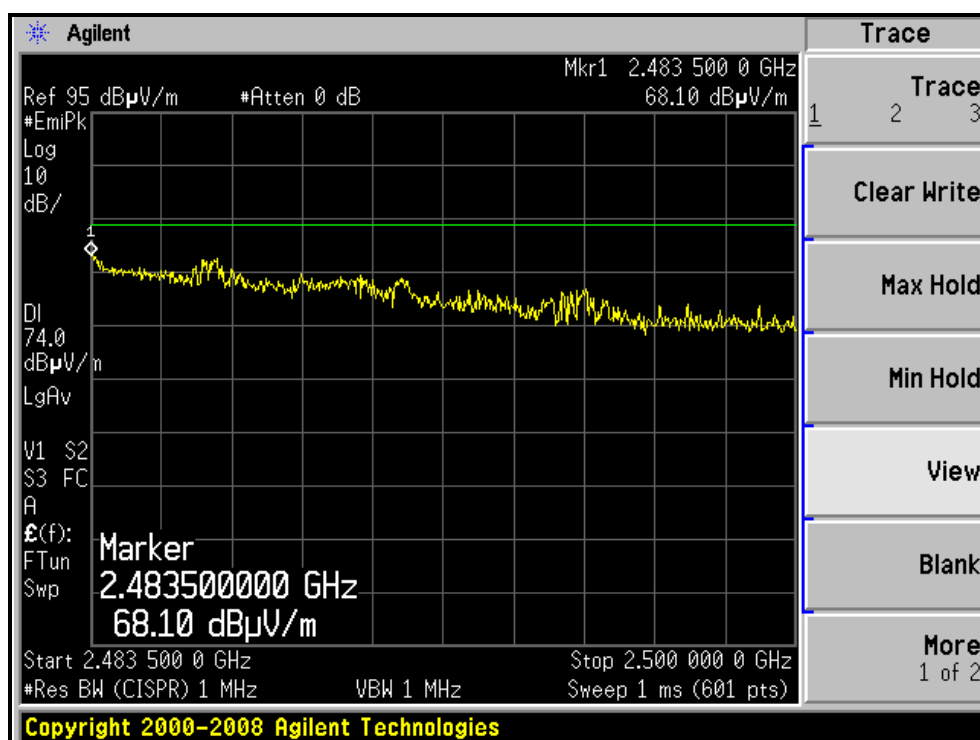
RESTRICTED BANDEDGE (802.11g MODE,CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11g MODE,CH11, HORIZONTAL)



RESTRICTED BANDEDGE (802.11g MODE,CH11, VERTICAL)



802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

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	2390.00	58.0 PK	74.0	-16.0	1.16 H	32	26.34	31.66
2	2390.00	44.3 AV	54.0	-9.7	1.16 H	32	12.64	31.66
3	*2412.00	98.2 PK			1.09 H	36	66.47	31.73
4	*2412.00	88.1 AV			1.09 H	36	56.37	31.73
5	4824.00	56.3 PK	74.0	-17.7	1.12 H	257	17.33	38.97
6	4824.00	39.4 AV	54.0	-14.6	1.12 H	257	0.43	38.97
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	2390.00	67.1 PK	74.0	-6.9	1.11 V	202	35.44	31.66
2	2390.00	51.6 AV	54.0	-2.4	1.11 V	202	19.94	31.66
3	*2412.00	105.7 PK			1.11 V	204	73.97	31.73
4	*2412.00	96.2 AV			1.11 V	204	64.47	31.73
5	4824.00	58.4 PK	74.0	-15.6	1.00 V	254	19.43	38.97
6	4824.00	45.3 AV	54.0	-8.7	1.00 V	254	6.33	38.97

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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

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	*2437.00	98.7 PK			1.12 H	279	66.89	31.81
2	*2437.00	89.3 AV			1.12 H	279	57.49	31.81
3	4874.00	59.6 PK	74.0	-14.4	1.13 H	283	20.46	39.14
4	4874.00	47.7 AV	54.0	-6.3	1.13 H	283	8.56	39.14
5	7311.00	50.3 PK	74.0	-23.7	1.12 H	242	3.67	46.63
6	7311.00	39.3 AV	54.0	-14.7	1.12 H	242	-7.33	46.63
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	*2437.00	107.4 PK			1.00 V	213	75.59	31.81
2	*2437.00	97.3 AV			1.00 V	213	65.49	31.81
3	4874.00	64.3 PK	74.0	-9.7	1.00 V	242	25.16	39.14
4	4874.00	51.4 AV	54.0	-2.6	1.00 V	242	12.26	39.14
5	7311.00	51.3 PK	74.0	-22.7	1.20 V	156	4.67	46.63
6	7311.00	39.4 AV	54.0	-14.6	1.20 V	156	-7.23	46.63

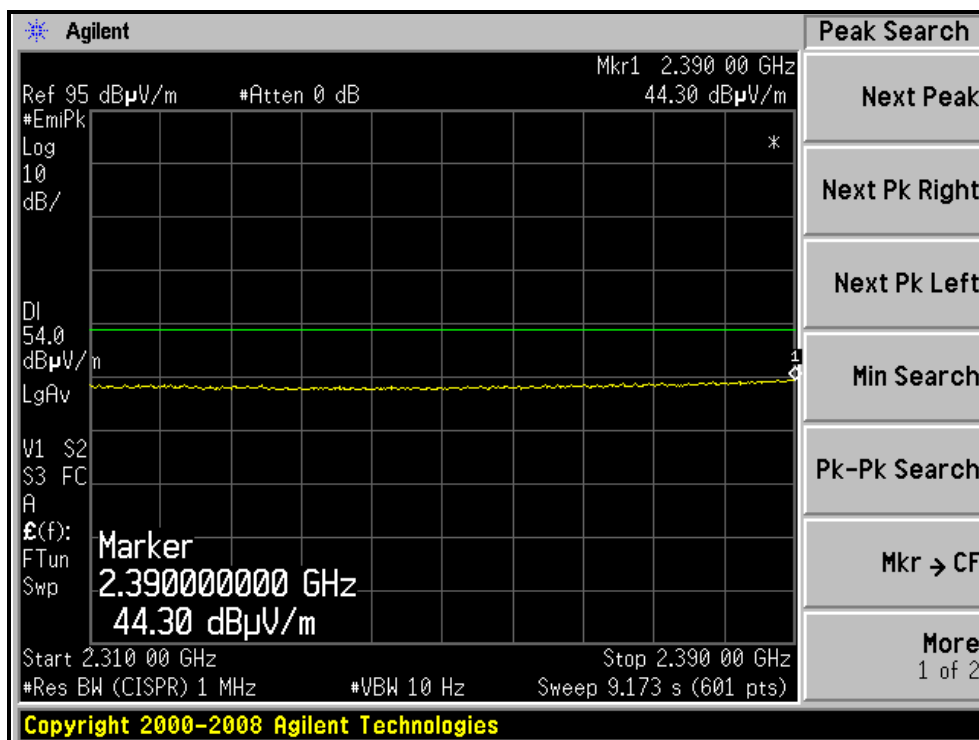
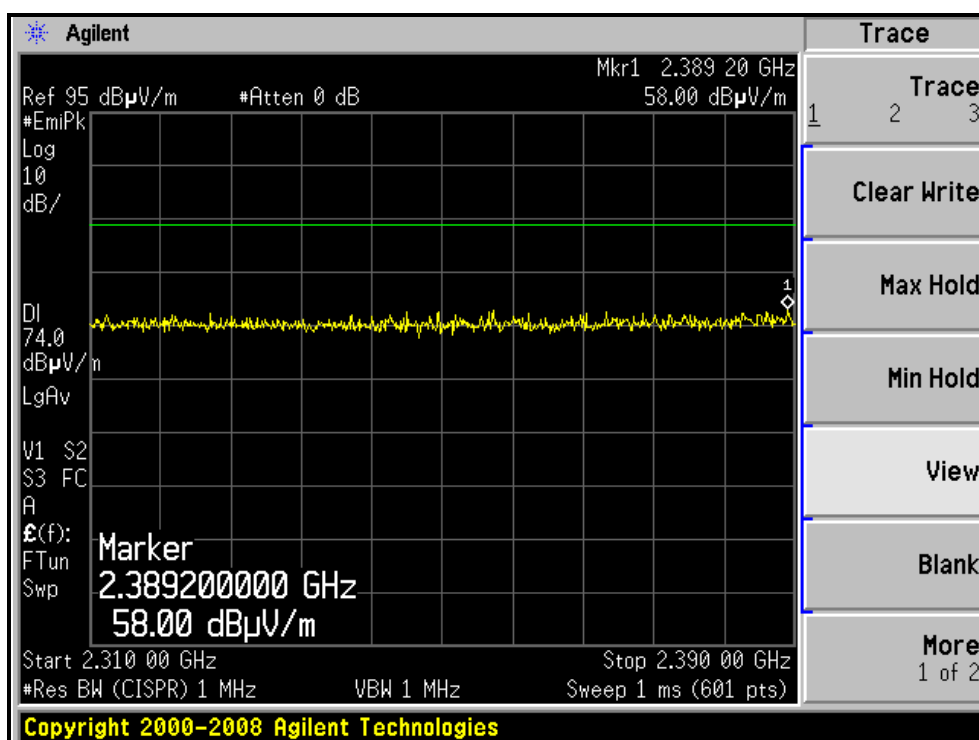
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. “ * ”: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

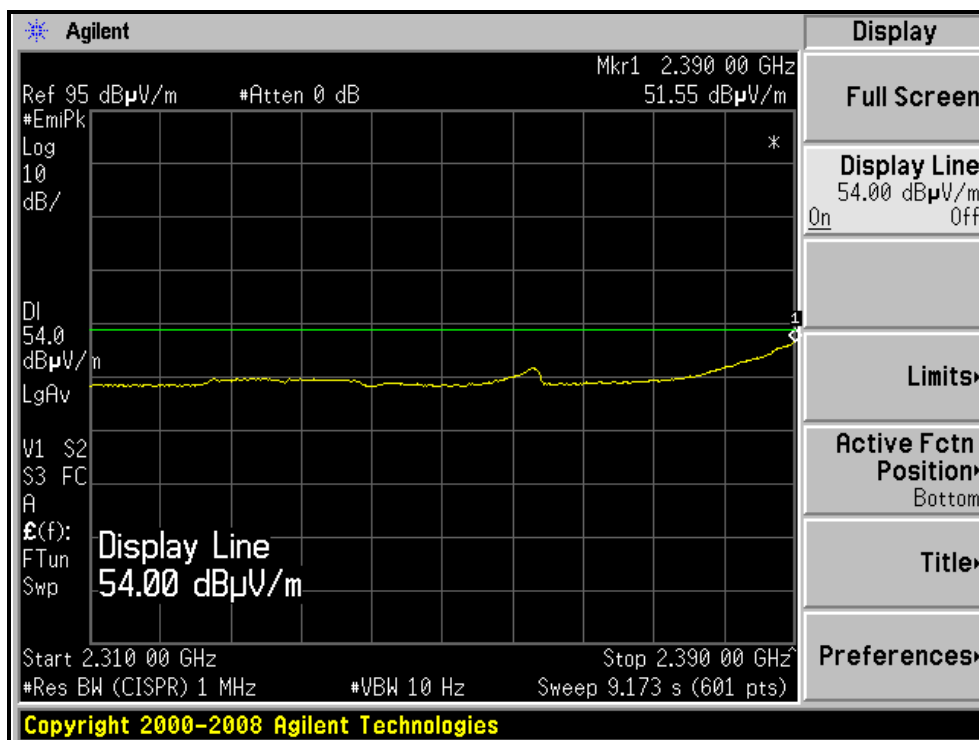
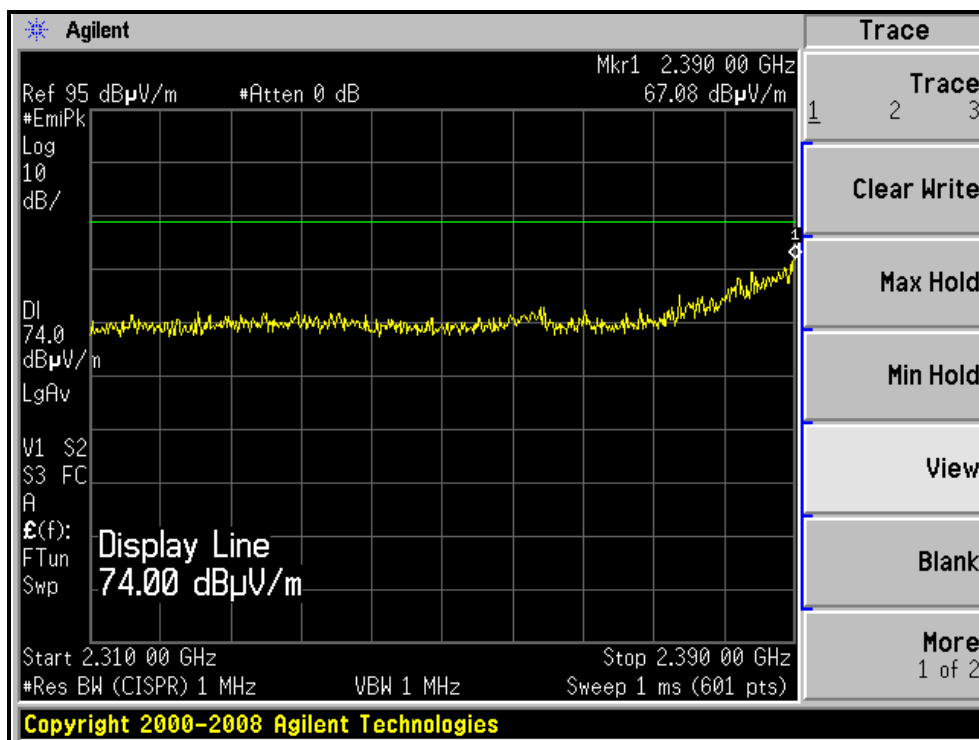
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	96.3 PK			1.04 H	73	64.41	31.89
2	*2462.00	85.7 AV			1.04 H	73	53.81	31.89
3	2483.50	59.1 PK	74.0	-14.9	1.16 H	36	27.03	31.97
4	2483.50	44.8 AV	54.0	-9.2	1.16 H	36	12.83	31.97
5	4924.00	56.1 PK	74.0	-17.9	1.13 H	243	16.79	39.31
6	4924.00	39.2 AV	54.0	-14.8	1.13 H	243	-0.11	39.31
7	7386.00	50.2 PK	74.0	-23.8	1.12 H	254	3.60	46.60
8	7386.00	39.1 AV	54.0	-14.9	1.12 H	254	-7.50	46.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	103.1 PK			1.11 V	192	71.21	31.89
2	*2462.00	94.5 AV			1.11 V	192	62.61	31.89
3	2483.50	68.3 PK	74.0	-5.7	1.11 V	196	36.33	31.97
4	2483.50	53.4 AV	54.0	-0.6	1.11 V	196	21.43	31.97
5	4924.00	58.2 PK	74.0	-15.8	1.00 V	253	18.89	39.31
6	4924.00	45.1 AV	54.0	-8.9	1.00 V	253	5.79	39.31
7	7386.00	50.3 PK	74.0	-23.7	1.00 V	154	3.70	46.60
8	7386.00	39.2 AV	54.0	-14.8	1.00 V	154	-7.40	46.60

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

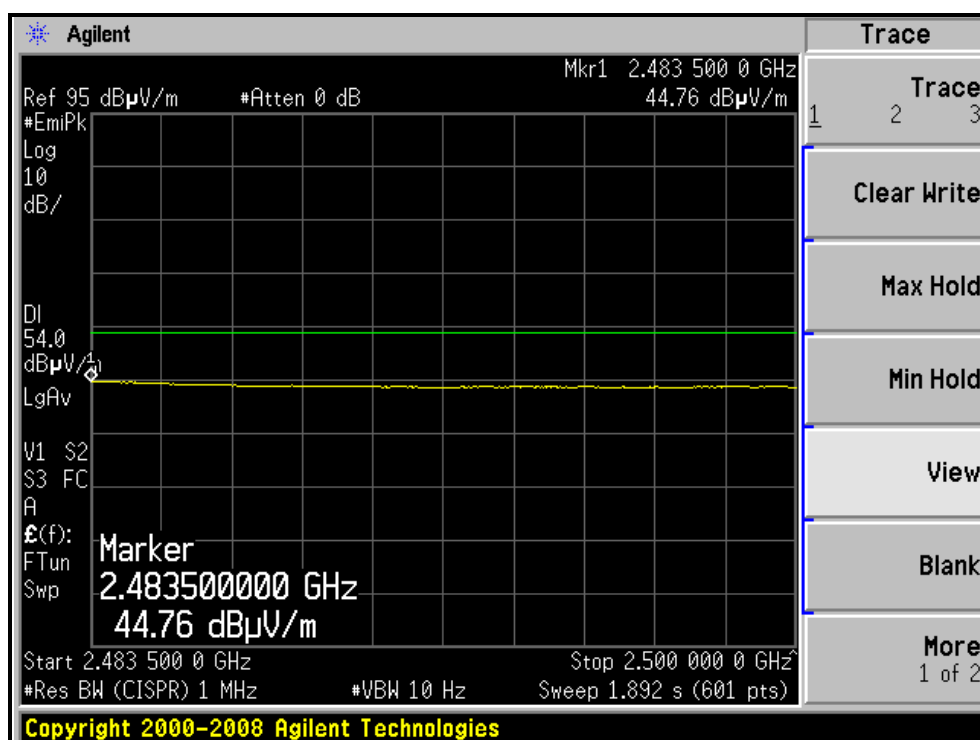
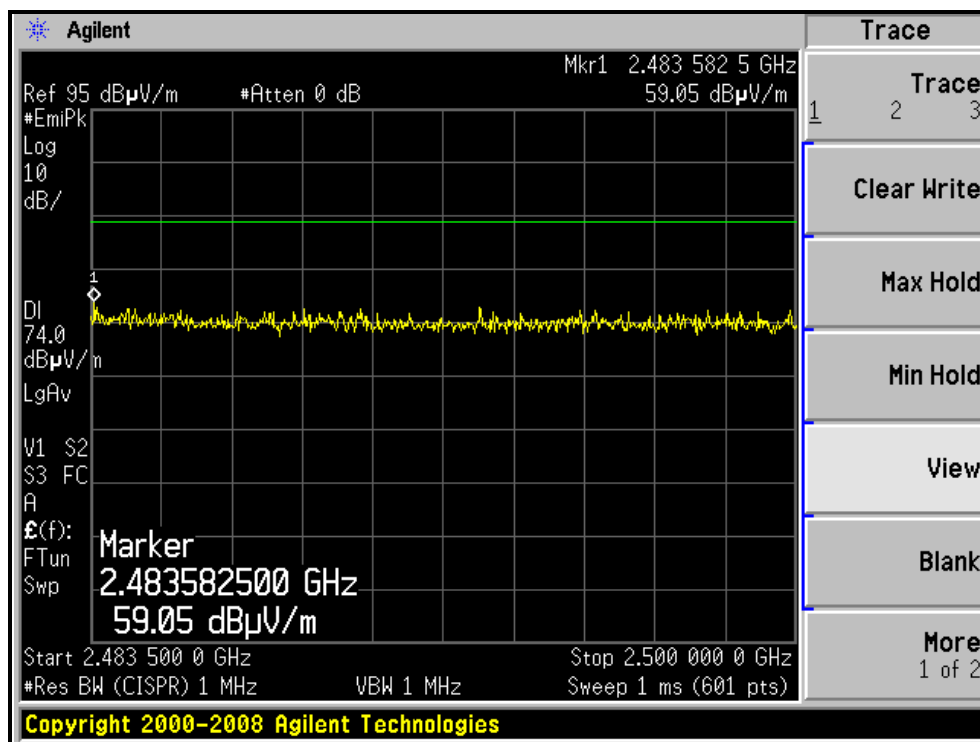
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, HORIZONTAL)



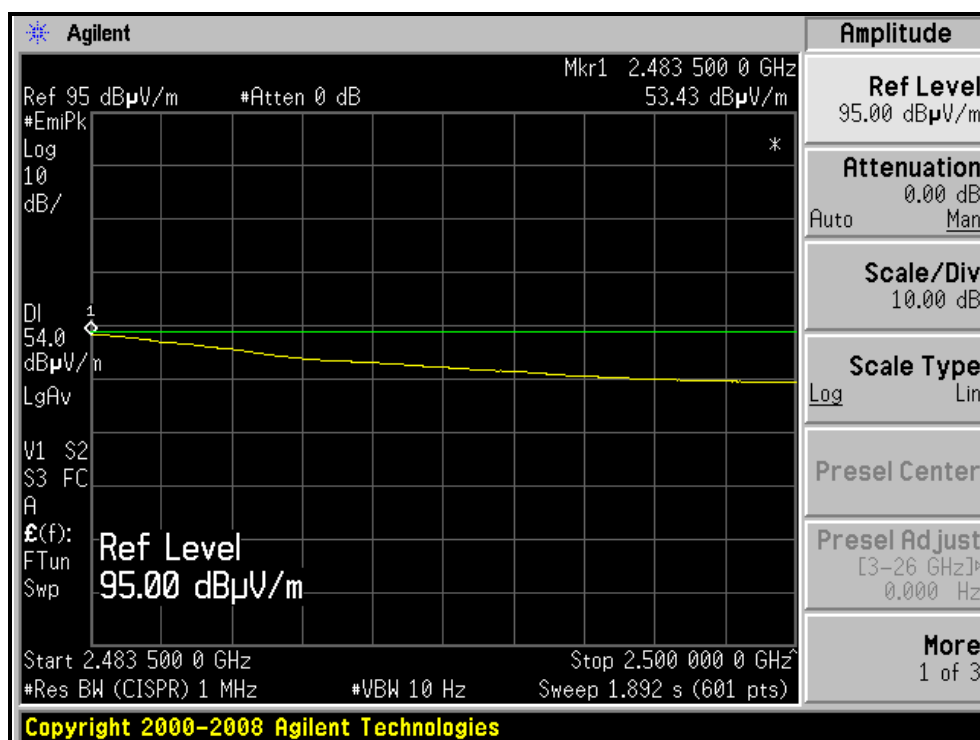
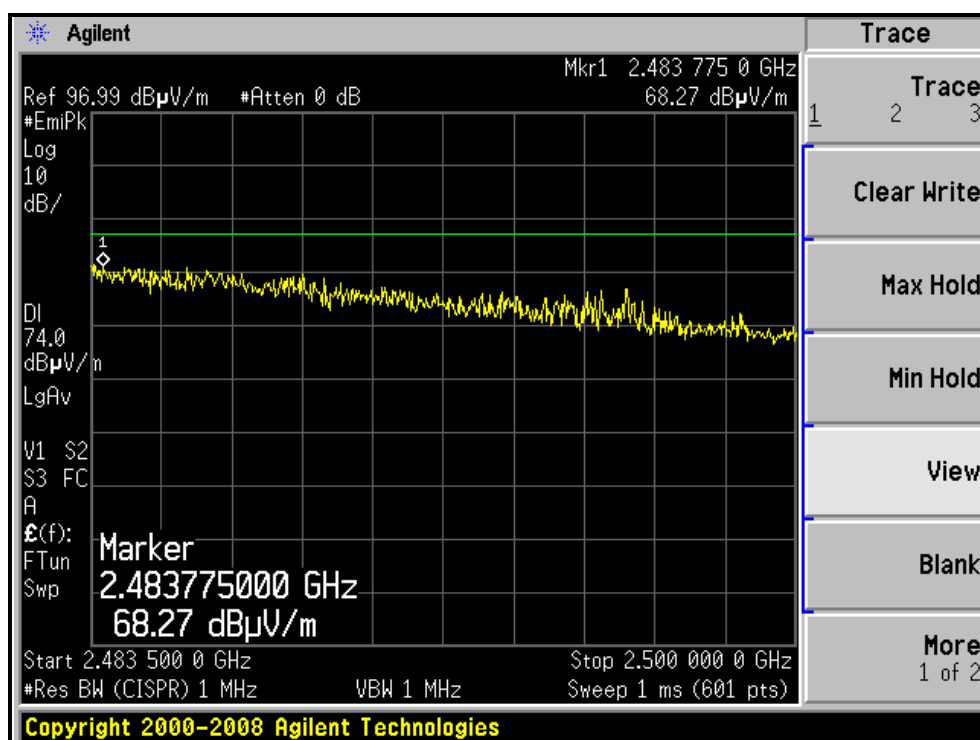
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH11, HORIZONTAL)



RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH11, VERTICAL)



802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

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	2390.00	61.6 PK	74.0	-12.4	1.16 H	43	29.94	31.66
2	2390.00	48.0 AV	54.0	-6.0	1.16 H	43	16.34	31.66
3	*2422.00	93.4 PK			1.16 H	54	61.64	31.76
4	*2422.00	83.5 AV			1.16 H	54	51.74	31.76
5	4844.00	50.3 PK	74.0	-23.7	1.14 H	253	11.26	39.04
6	4844.00	35.2 AV	54.0	-18.8	1.14 H	253	-3.84	39.04
7	7266.00	50.4 PK	74.0	-23.6	1.13 H	253	3.73	46.67
8	7266.00	39.4 AV	54.0	-14.6	1.13 H	253	-7.27	46.67
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	2390.00	65.4 PK	74.0	-8.6	1.15 V	191	33.74	31.66
2	2390.00	52.5 AV	54.0	-1.5	1.15 V	191	20.84	31.66
3	*2422.00	101.2 PK			1.15 V	191	69.44	31.76
4	*2422.00	91.8 AV			1.15 V	191	60.04	31.76
5	4844.00	51.7 PK	74.0	-22.3	1.00 V	243	12.66	39.04
6	4844.00	40.6 AV	54.0	-13.4	1.00 V	243	1.56	39.04
7	7266.00	50.9 PK	74.0	-23.1	1.00 V	152	4.23	46.67
8	7266.00	39.7 AV	54.0	-14.3	1.00 V	152	-6.97	46.67

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

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	*2437.00	94.3 PK			1.13 H	62	62.49	31.81
2	*2437.00	84.5 AV			1.13 H	62	52.69	31.81
3	4874.00	50.7 PK	74.0	-23.3	1.13 H	259	11.56	39.14
4	4874.00	35.9 AV	54.0	-18.1	1.13 H	259	-3.24	39.14
5	7311.00	50.9 PK	74.0	-23.1	1.12 H	241	4.27	46.63
6	7311.00	39.7 AV	54.0	-14.3	1.12 H	241	-6.93	46.63
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	*2437.00	102.8 PK			1.14 V	203	70.99	31.81
2	*2437.00	92.7 AV			1.14 V	203	60.89	31.81
3	4874.00	53.8 PK	74.0	-20.2	1.00 V	249	14.66	39.14
4	4874.00	43.0 AV	54.0	-11.0	1.00 V	249	3.86	39.14
5	7311.00	50.8 PK	74.0	-23.2	1.00 V	154	4.17	46.63
6	7311.00	39.6 AV	54.0	-14.4	1.00 V	154	-7.03	46.63

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



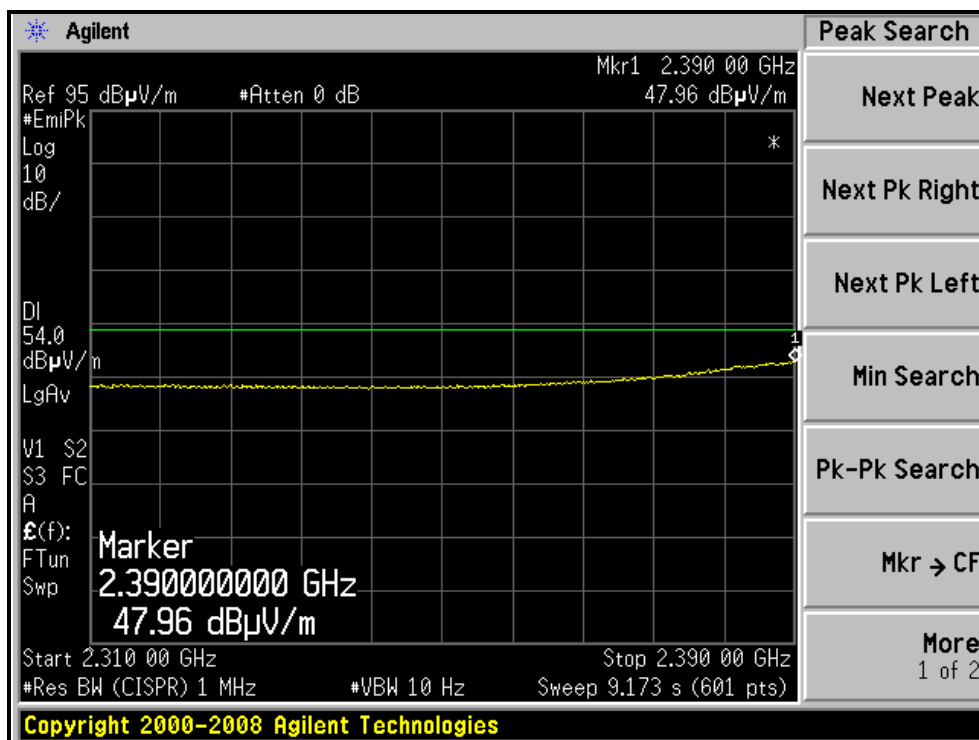
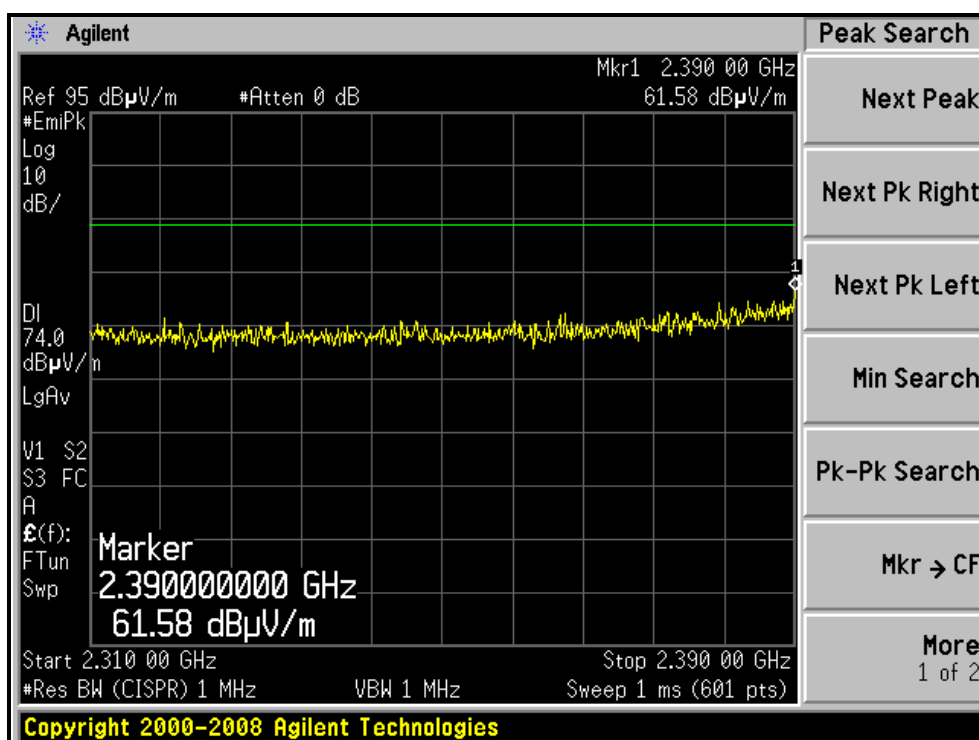
A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120V / 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	15deg. C, 66%RH 1024 hPa	TESTED BY	Frank Liu

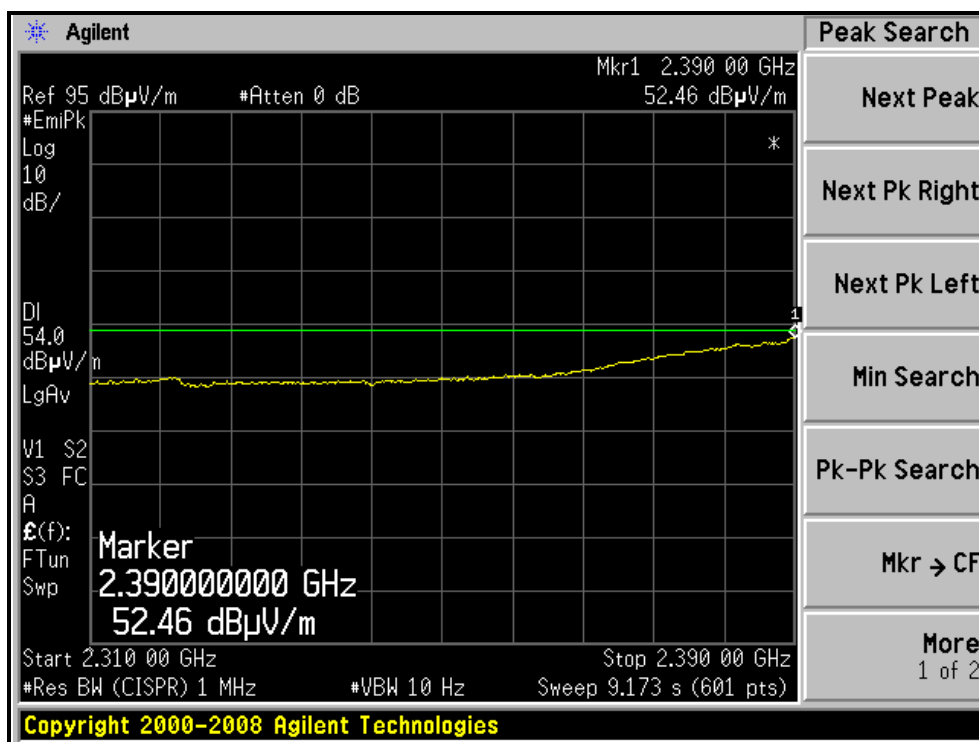
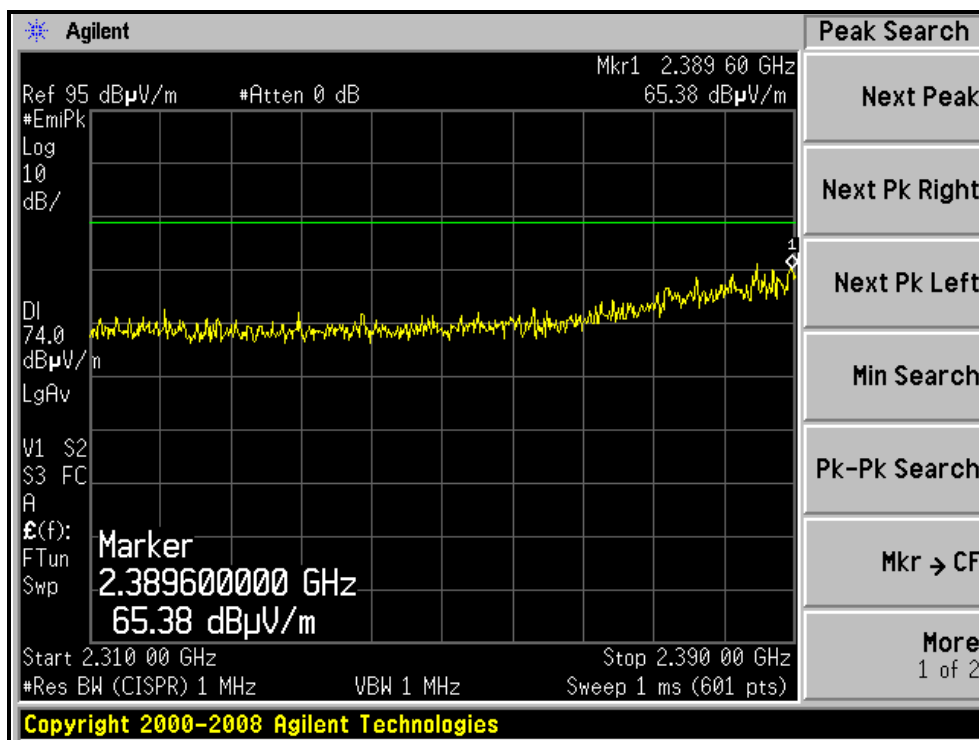
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	92.7 PK			1.14 H	59	60.84	31.86
2	*2452.00	82.3 AV			1.14 H	59	50.44	31.86
3	2483.50	62.4 PK	74.0	-11.6	1.16 H	41	30.43	31.97
4	2483.50	50.0 AV	54.0	-4.0	1.16 H	41	18.03	31.97
5	4904.00	50.2 PK	74.0	-23.8	1.12 H	243	10.96	39.24
6	4904.00	35.1 AV	54.0	-18.9	1.12 H	243	-4.14	39.24
7	7356.00	50.2 PK	74.0	-23.8	1.11 H	233	3.59	46.61
8	7356.00	39.1 AV	54.0	-14.9	1.11 H	233	-7.51	46.61
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	*2452.00	99.1 PK			1.11 V	184	67.24	31.86
2	*2452.00	90.8 AV			1.11 V	184	58.94	31.86
3	2483.50	66.2 PK	74.0	-7.8	1.11 V	194	34.23	31.97
4	2483.50	52.7 AV	54.0	-1.3	1.11 V	194	20.73	31.97
5	4904.00	51.1 PK	74.0	-22.9	1.00 V	249	11.86	39.24
6	4904.00	40.2 AV	54.0	-13.8	1.00 V	249	0.96	39.24
7	7356.00	50.7 PK	74.0	-23.3	1.00 V	153	4.09	46.61
8	7356.00	39.2 AV	54.0	-14.8	1.00 V	153	-7.41	46.61

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.

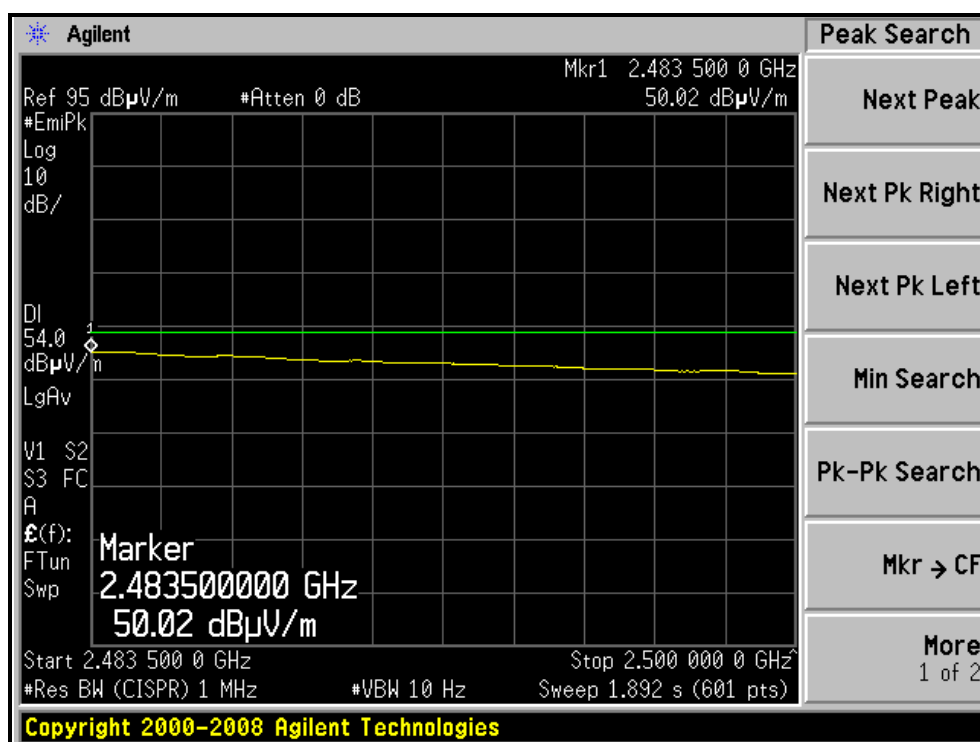
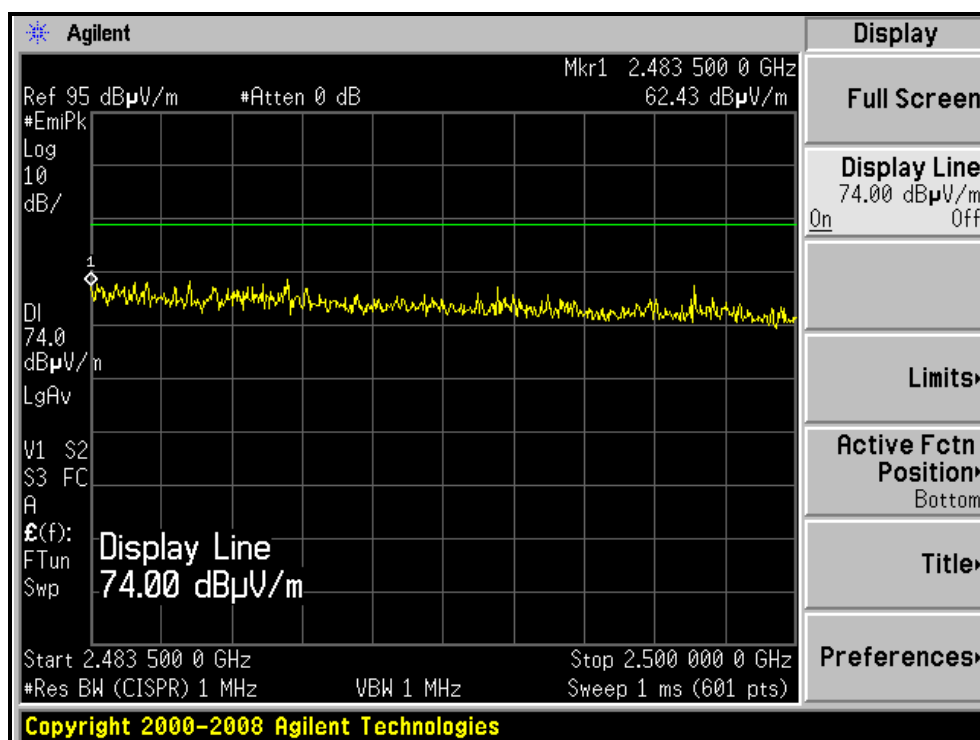
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH3, HORIZONTAL)



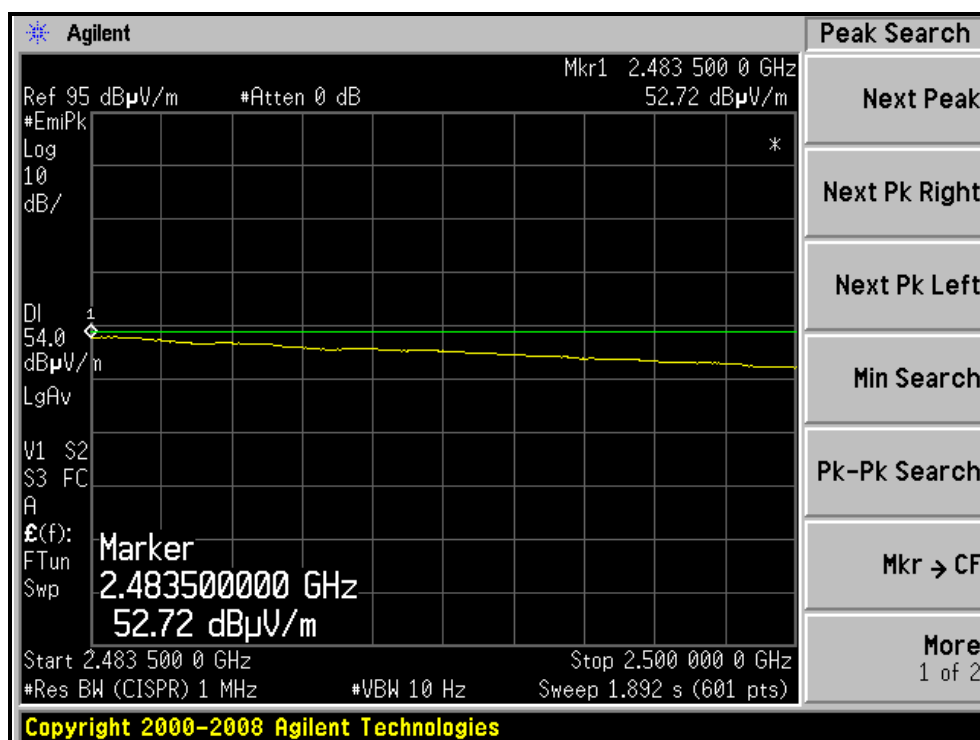
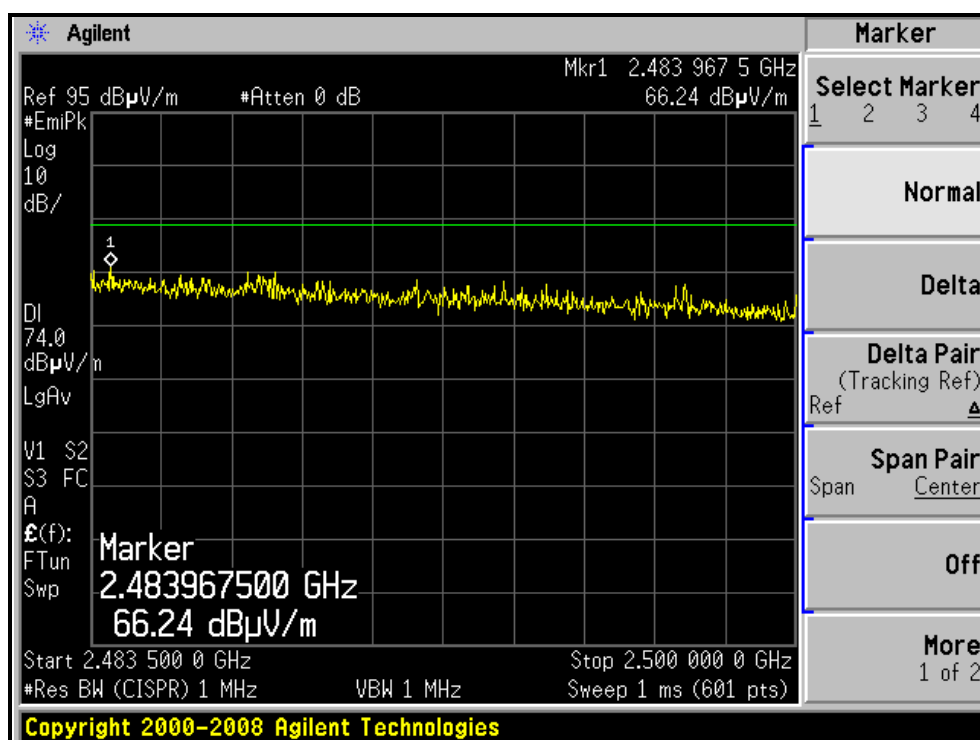
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH3, VERTICAL)



RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH9, HORIZONTAL)



RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH9, VERTICAL)



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 DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP 40	100060	May 17, 2010	May 16, 2011

NOTE:

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

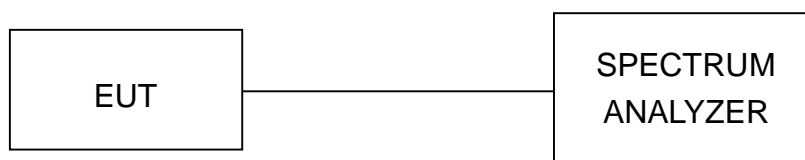
4.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300kHz 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



4.3.6 EUT OPERATING CONDITIONS

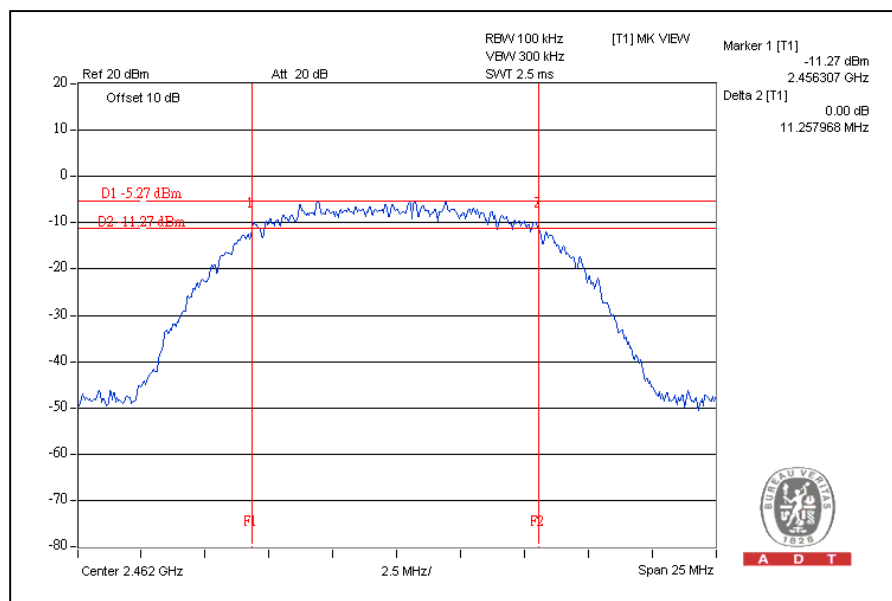
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 TEST RESULTS

802.11b DSSS MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	11.11	0.5	PASS
6	2437	11.23	0.5	PASS
11	2462	11.25	0.5	PASS

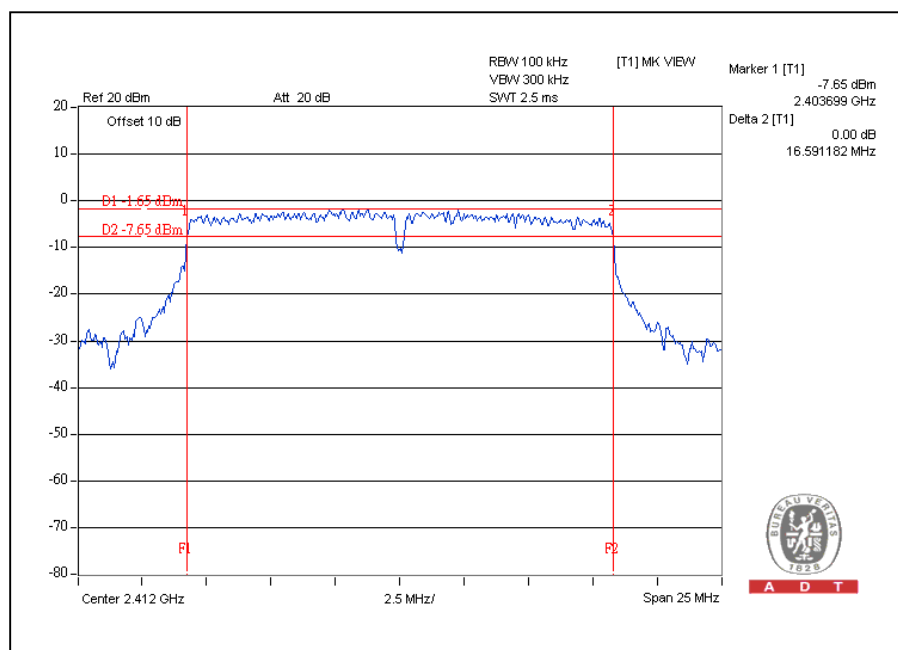
CH11



802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.59	0.5	PASS
6	2437	16.58	0.5	PASS
11	2462	16.59	0.5	PASS

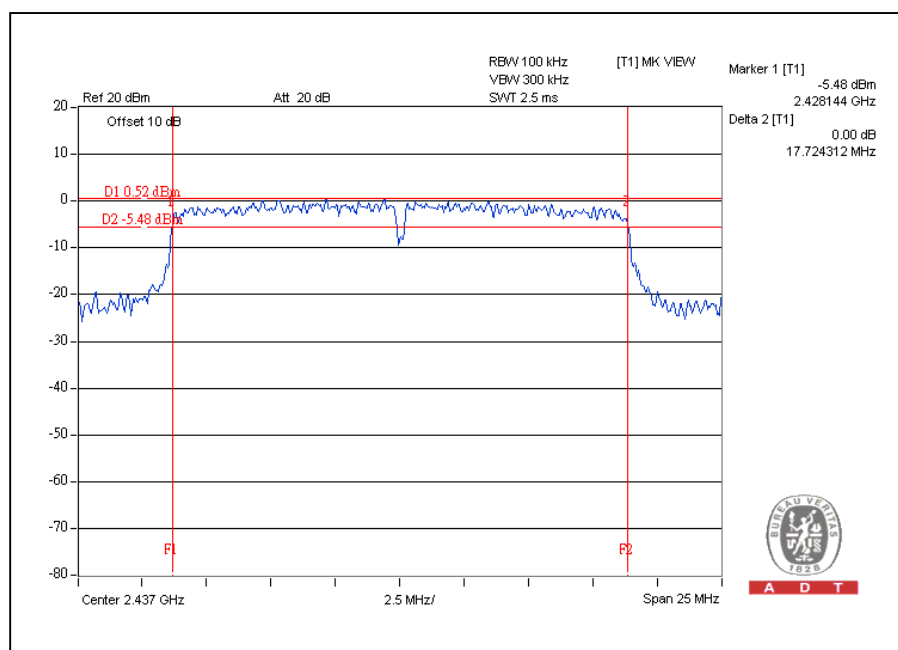
CH1



802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	17.71	0.5	PASS
6	2437	17.72	0.5	PASS
11	2462	17.68	0.5	PASS

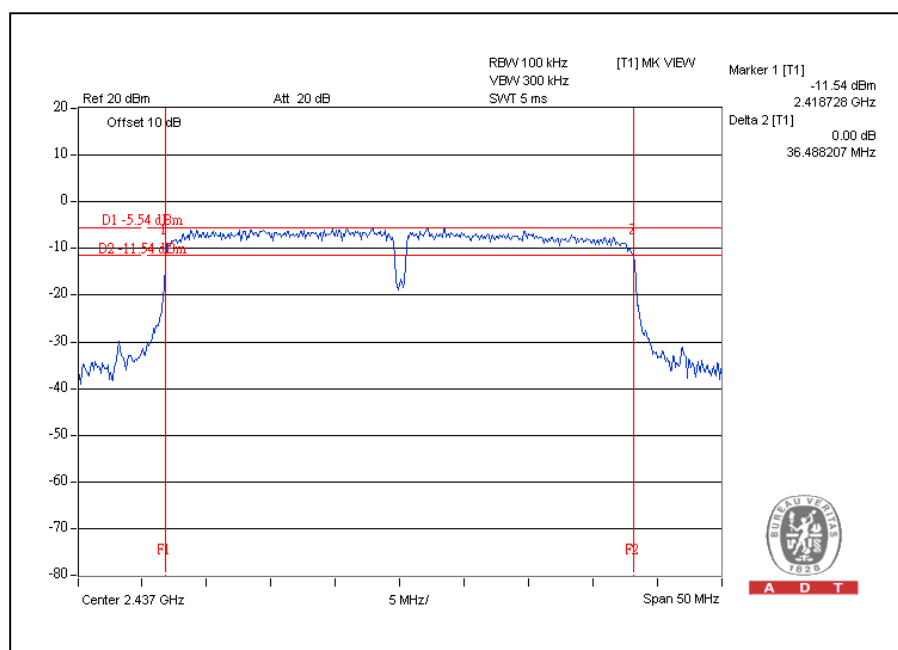
CH6



802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
3	2422	36.46	0.5	PASS
6	2437	36.48	0.5	PASS
9	2452	36.47	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 INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Anritsu Power Meter	ML2495A	0824006	May 04, 2010	May 03, 2011
Pulse Power Sensor	MA2411B	0738172	May 04, 2010	May 03, 2011

NOTE:

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

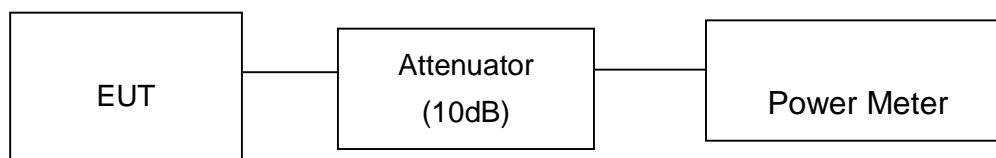
4.4.3 TEST PROCEDURES

1. The transmitter output was connected to the power meter through an attenuator; the bandwidth of the fundamental frequency was measured with the power meter.
2. 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 4.2.6

4.4.7 TEST RESULTS

802.11b DSSS MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	10.7	10.3	30	PASS
6	2437	8.7	9.4	30	PASS
11	2462	7.1	8.5	30	PASS

802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	102.3	20.1	30	PASS
6	2437	104.7	20.2	30	PASS
11	2462	55.0	17.4	30	PASS

802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	93.3	19.7	30	PASS
6	2437	109.6	20.4	30	PASS
11	2462	53.7	17.3	30	PASS

802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
3	2422	70.8	18.5	30	PASS
6	2437	77.6	18.9	30	PASS
9	2452	52.5	17.2	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 DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP 40	100060	May 17, 2010	May 16, 2011

NOTE:

1. 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

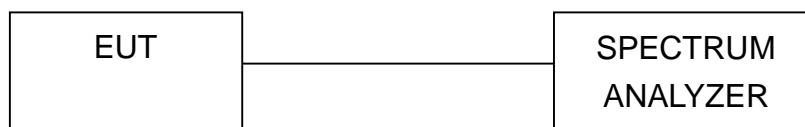
The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

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 CONDITION

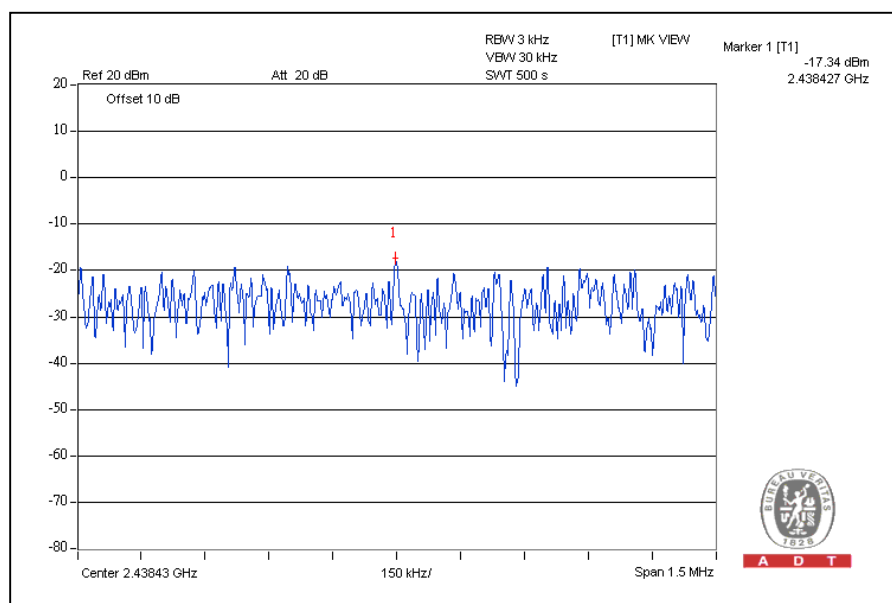
Same as Item 4.2.6

4.5.7 TEST RESULTS

802.11b DSSS MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-19.0	8	PASS
6	2437	-17.3	8	PASS
11	2462	-18.7	8	PASS

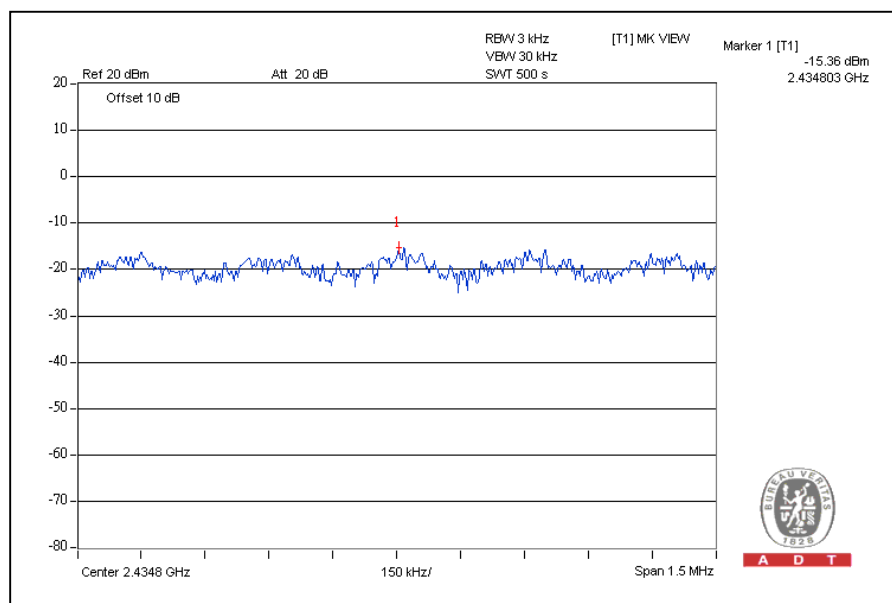
CH6



802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-16.8	8	PASS
6	2437	-15.4	8	PASS
11	2462	-19.8	8	PASS

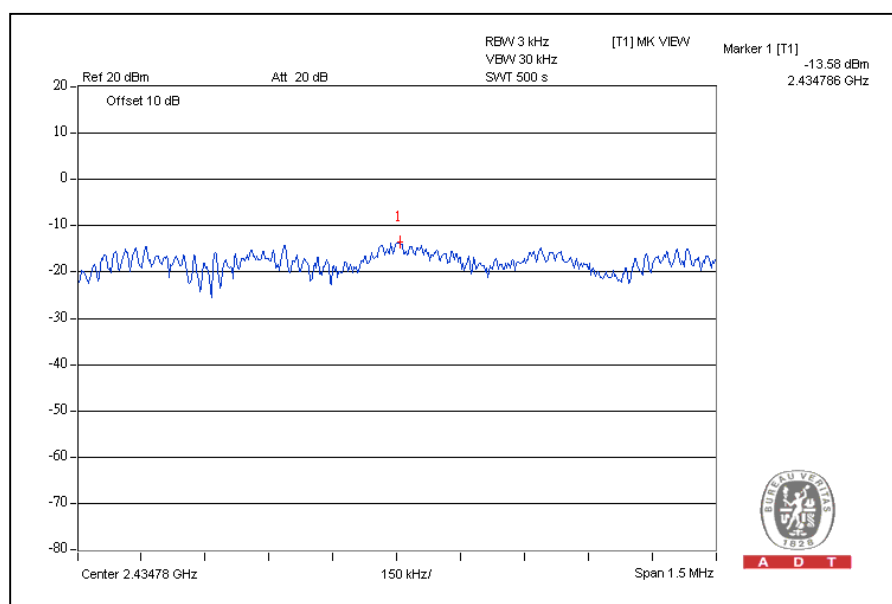
CH6



802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-15.7	8	PASS
6	2437	-13.6	8	PASS
11	2462	-19.2	8	PASS

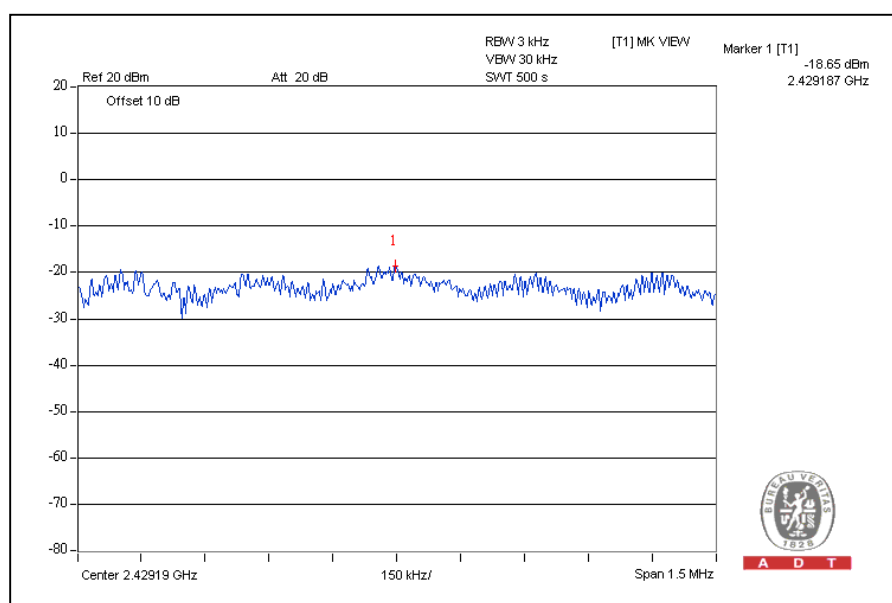
CH6



802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
3	2422	-19.0	8	PASS
6	2437	-18.7	8	PASS
9	2452	-20.6	8	PASS

CH6



4.6 CONDUCTED OUT-BAND EMISSION MEASUREMENT

4.6.1 LIMITS OF CONDUCTED OUT-BAND EMISSION 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 DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP 40	100060	May 17, 2010	May 16, 2011

NOTE:

1. 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 loss cable. Set RBW of spectrum analyzer to 100kHz and VBW of spectrum analyzer to 300kHz with suitable frequency span including 100 MHz or 200 MHz bandwidth from band edge. The band edges were measured and recorded.

The spectrum plots (RBW = 100kHz, VBW = 300kHz) are attached on the following pages.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 EUT OPERATING CONDITION

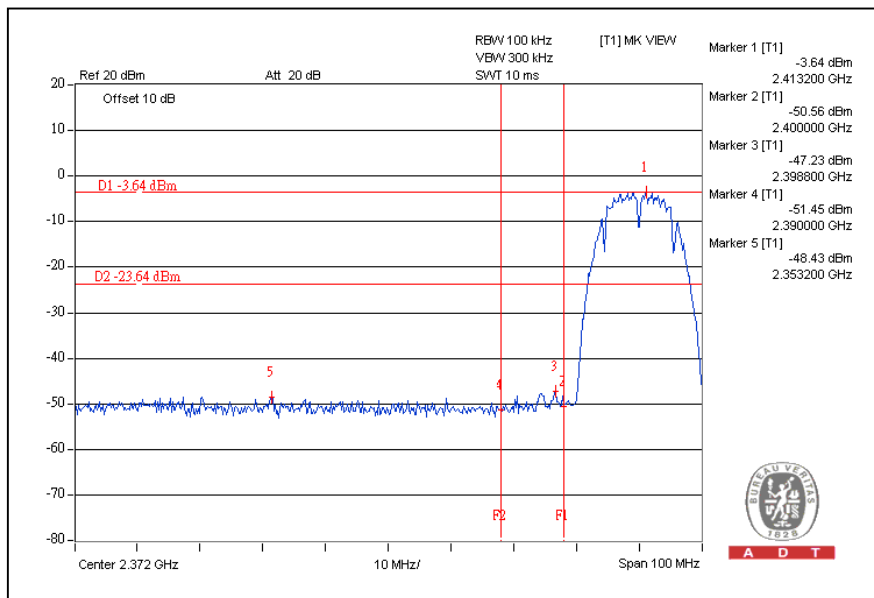
Same as Item 4.2.6

4.6.6 TEST RESULTS

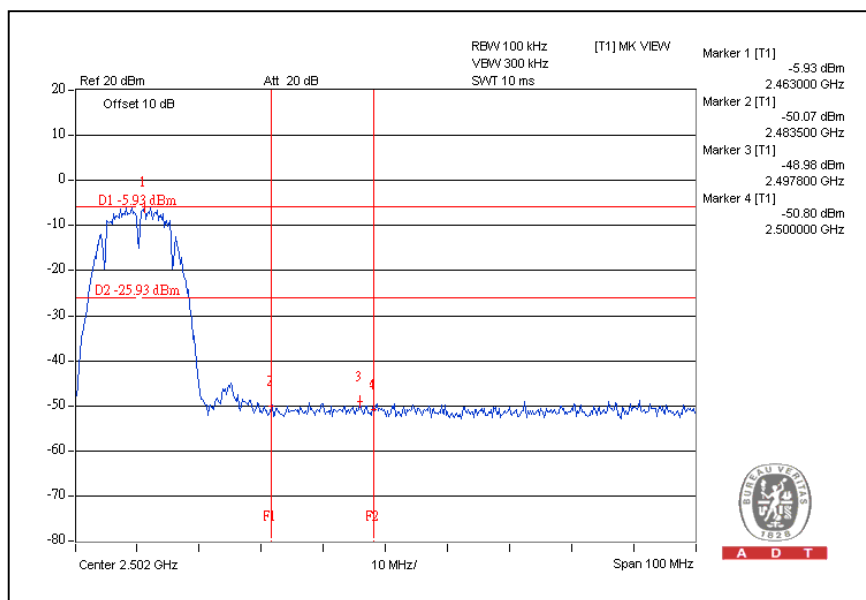
The spectrum plots are attached on the following images. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

802.11b DSSS MODULATION:

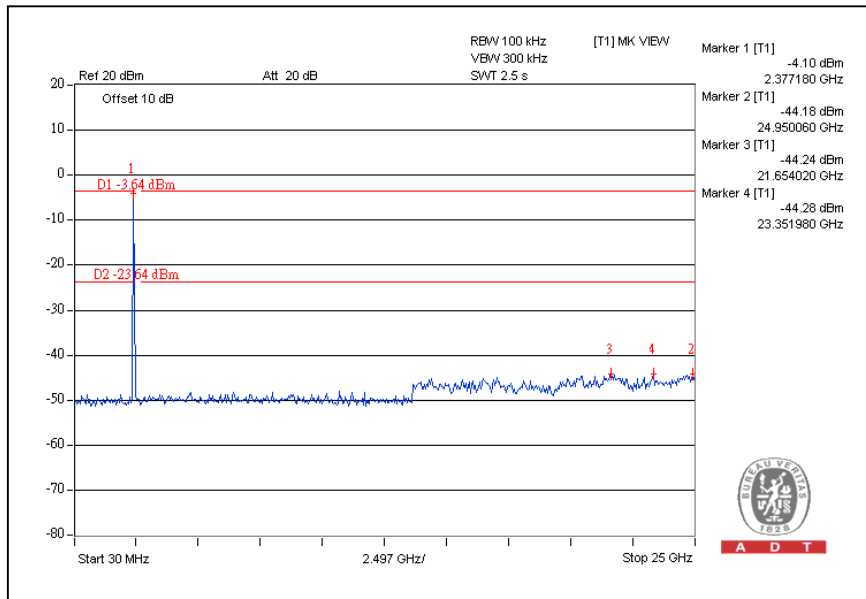
CH1



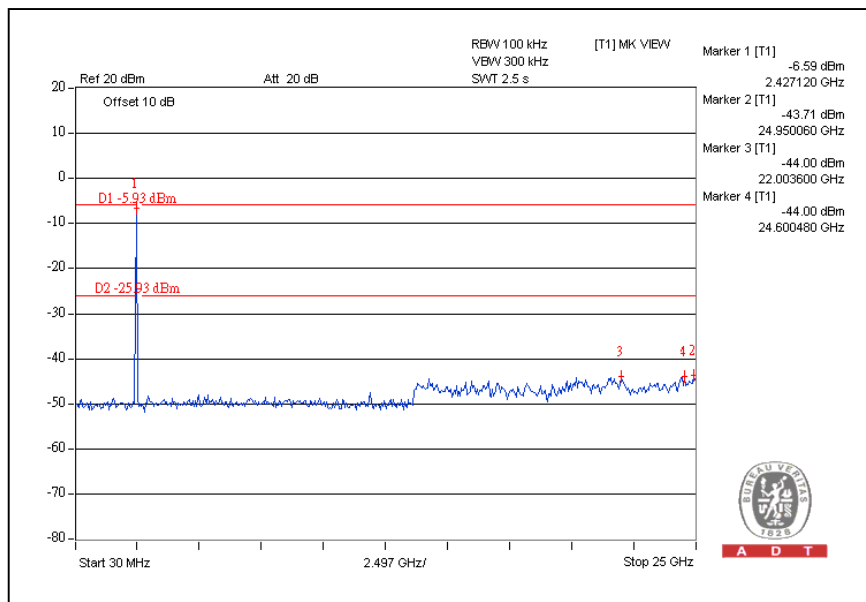
CH11



CH1

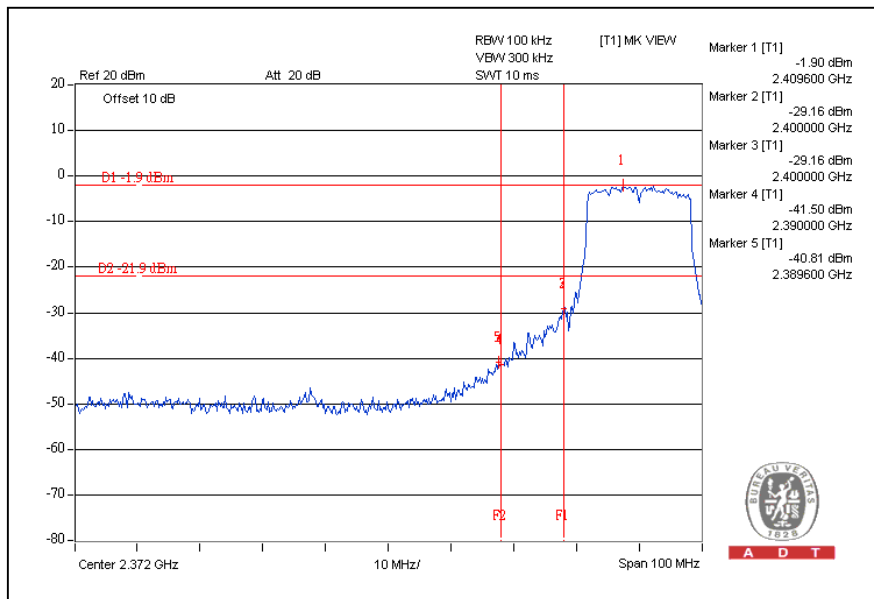


CH11

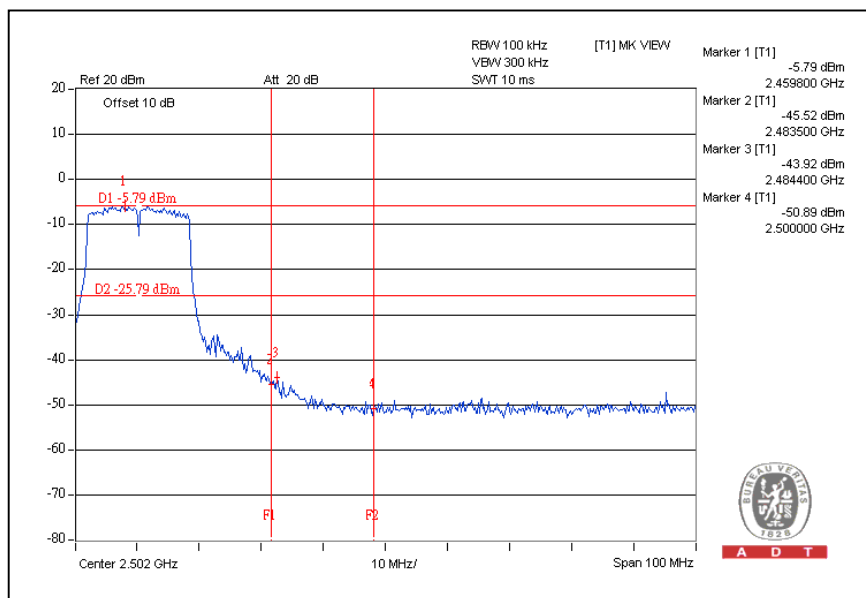


802.11g OFDM MODULATION:

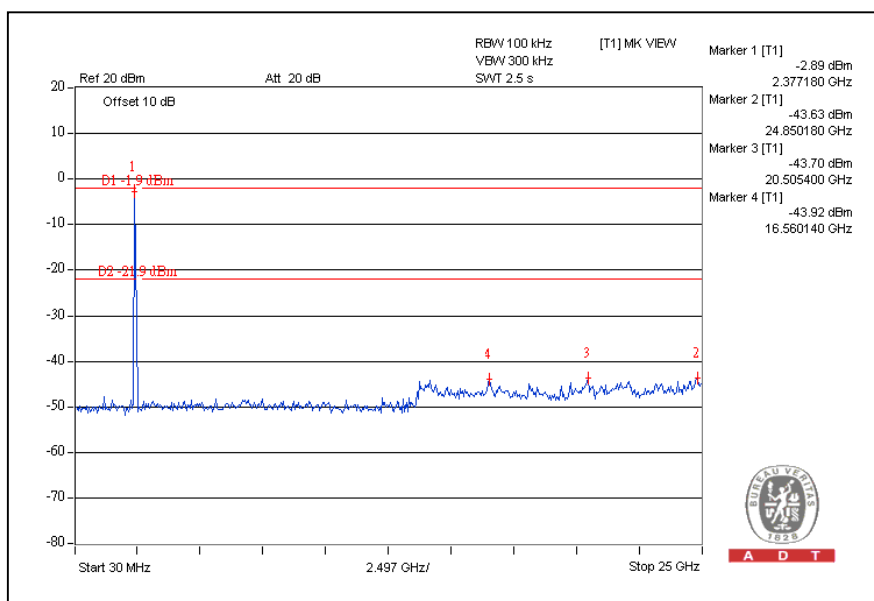
CH1



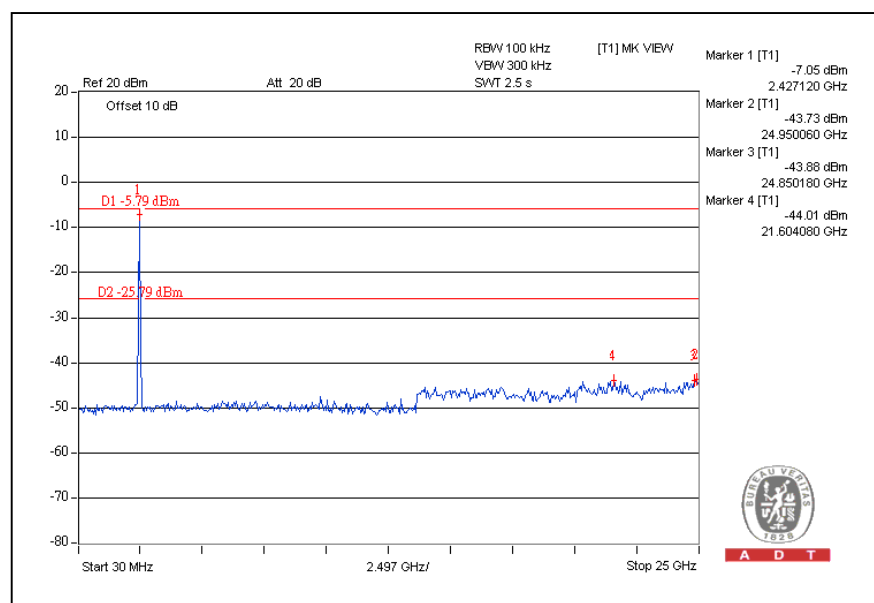
CH11



CH1

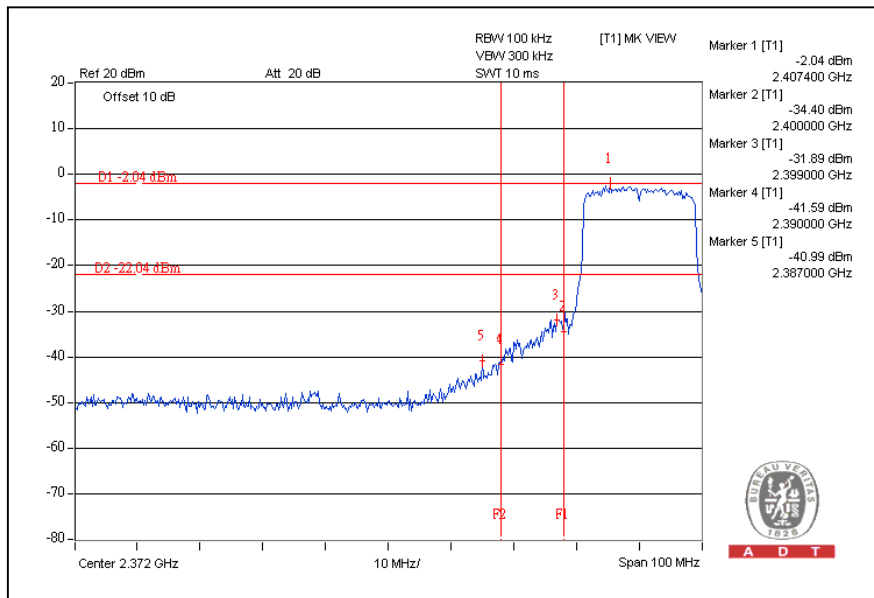


CH11

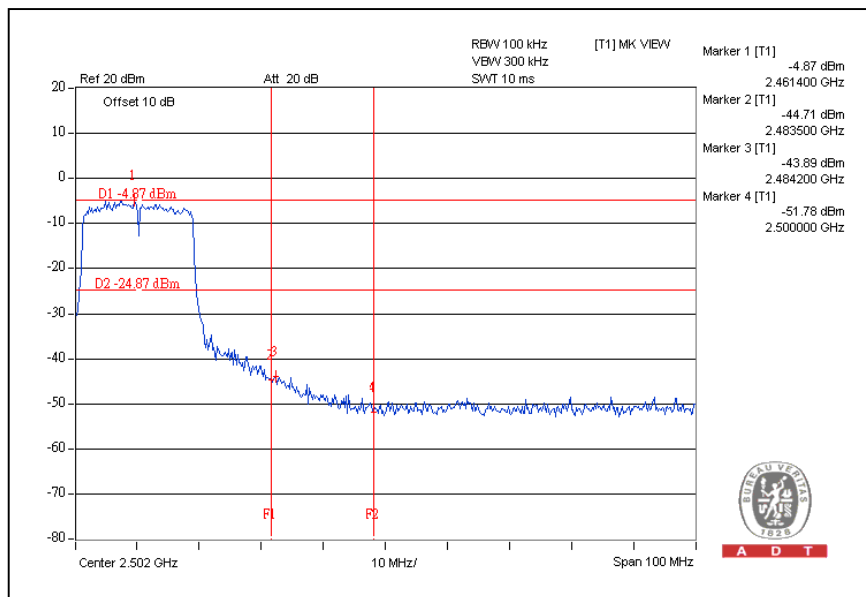


802.11n (20MHz) OFDM MODULATION:

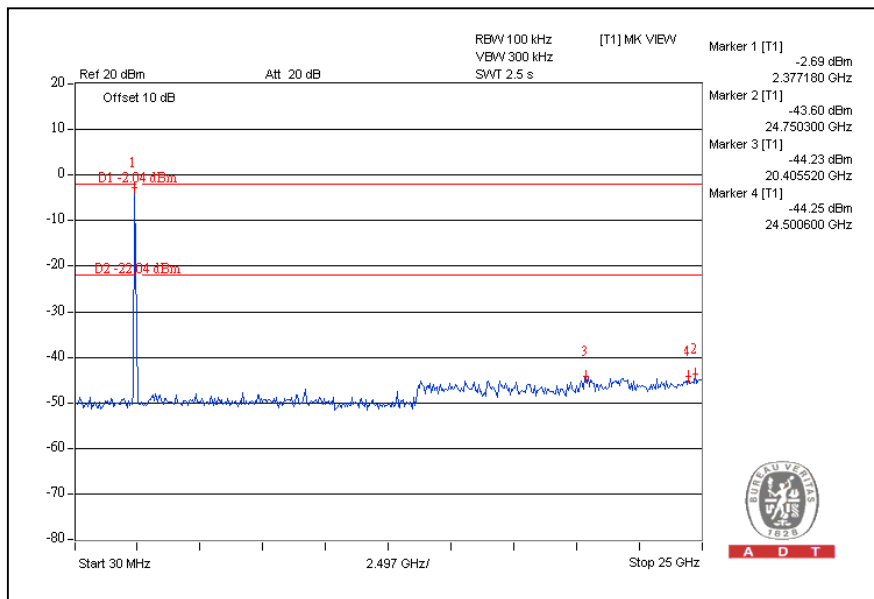
CH1



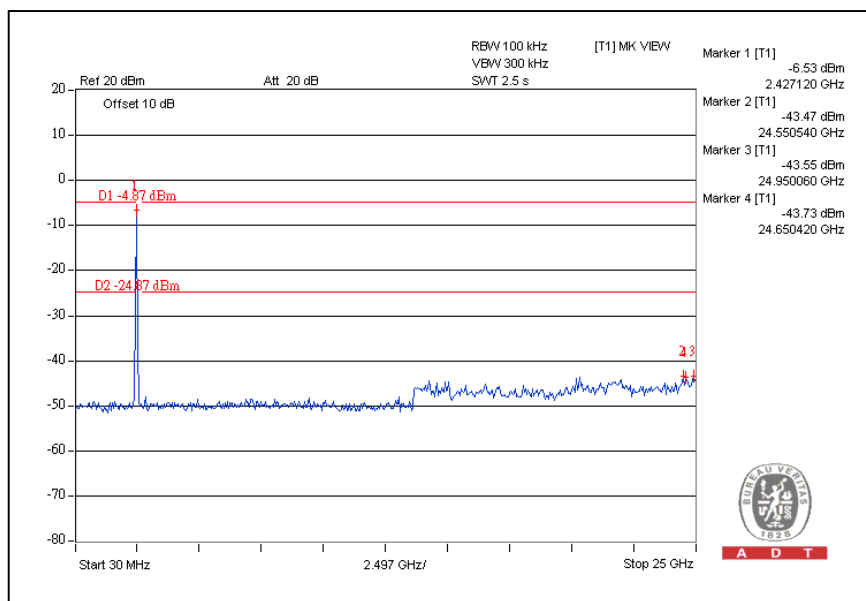
CH11



CH1

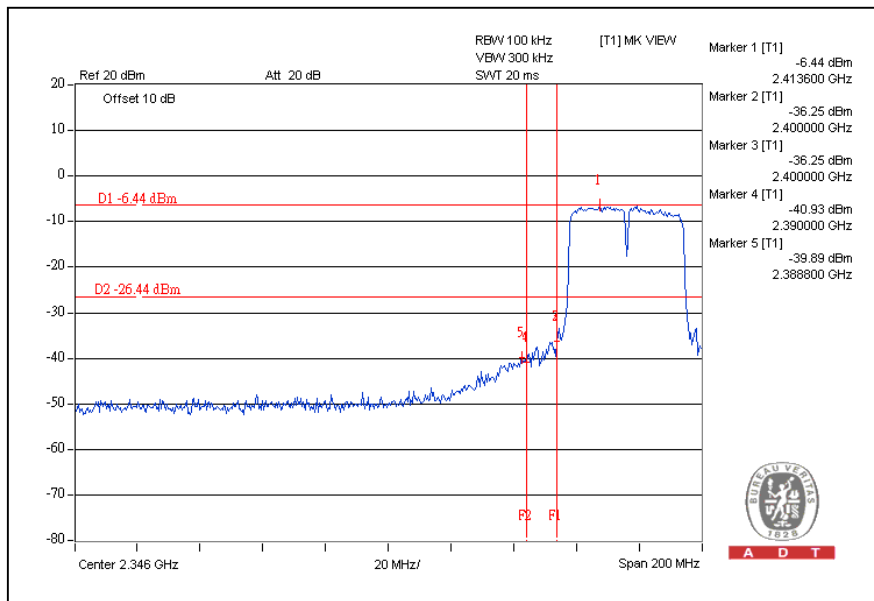


CH11

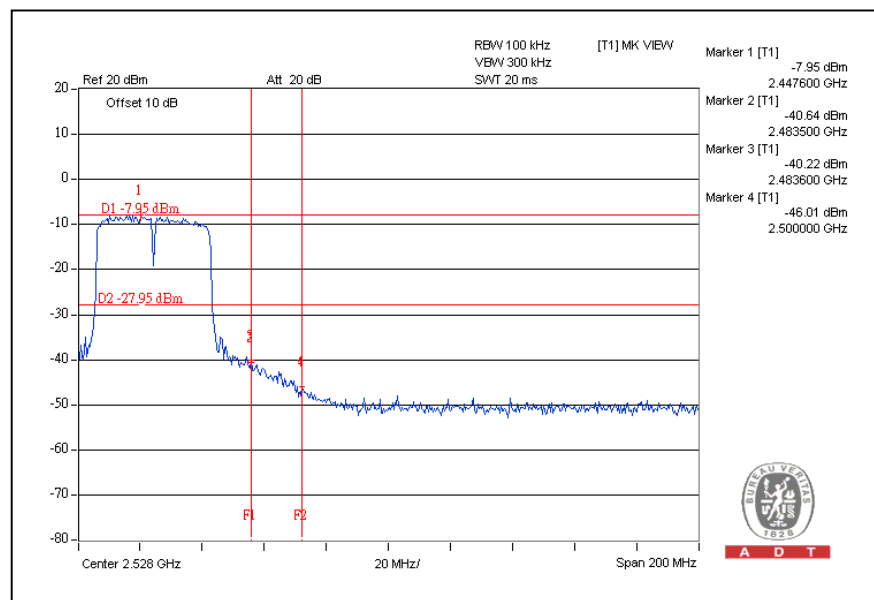


802.11n (40MHz) OFDM MODULATION:

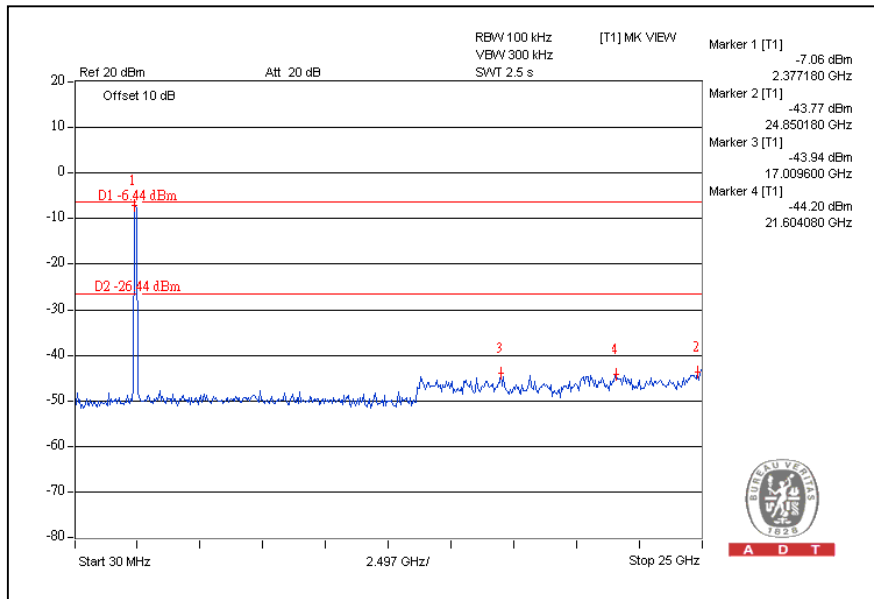
CH3



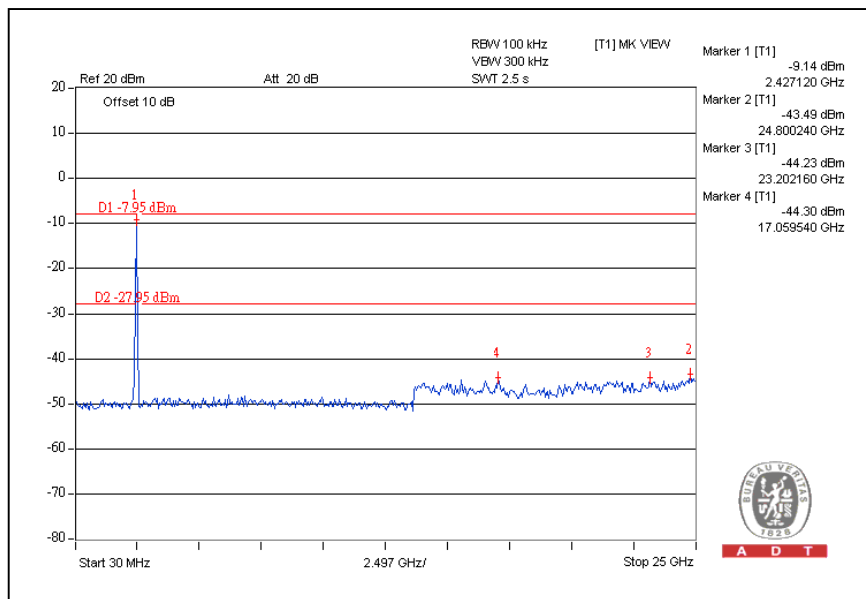
CH9



CH3



CH9



5. INFORMATION ON THE TESTING LABORATORIES

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

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.adt.com.tw/index.5.phtml.

If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:

Tel: 886-2-26052180

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Web Site: www.adt.com.tw

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



A D T

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

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

--- END ---