FCC TEST REPORT

REPORT NO.:	RF981230H01T
MODEL NO.:	RTL8188CE
FCC ID:	XU8RTL8188CE
RECEIVED:	Dec. 31, 2009
TESTED:	Jan. 18 to 21, 2010, June 23 to 24, 2010 and July 05 to 14, 2010
ISSUED:	May 31, 2011
APPLICANT:	TRENDNET, Inc.
ADDRESS:	20675 Manhattan Place, Torrance, CA90501
ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
LAB ADDRESS:	No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan
TEST LOCATION (1):	No. 81-1, Lu Liao Keng, 9th Ling,Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan
TEST LOCATION (2):	No.49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan

Table of Contents

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF981230H01T	Original release	May 31, 2011

1. CERTIFICATION

PRODUCT:	WIRELESS N Mini Card
BRAND NAME:	TRENDnet
MODEL NO.:	RTL8188CE
TEST SAMPLE:	PROTOTYPE
TESTED:	Jan. 18 to 21, 2010(For Sample 1 with PIFA antenna), June 23 to 24, 2010 (For Sample 1 with Dipole antenna) and July 05 to 14, 2010 (For Sample 2)
APPLICANT:	TRENDNET, Inc.
STANDARDS:	FCC Part 15, Subpart C (Section 15.247) ANSI C63.4-2003

The above equipment (Model: RTL8188CE) 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 : _____, **DATE:** May 31, 2011
(Midoli Peng, Specialist)

APPROVED BY : _____, **DATE:** May 31, 2011
(May Chen, Deputy Manager)

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

For 802.11b & g, 2412~2462MHz Band

APPLIED STANDARD: FCC Part 15, Subpart C (Section 15.247)			
Standard Section	**Test Type and Limit**	**Result**	**Remark**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is –14.19dB at 0.158MHz
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 –1.7dB at 2483.5MHz
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 IPEX 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) –Site C	3.94 dB
Radiated emissions (1GHz -18GHz) –Site C	2.49 dB
Radiated emissions (18GHz -40GHz) - Site C	2.70 dB
Radiated emissions (30MHz-1GHz) – Chamber H	3.30 dB
Radiated emissions (1GHz -18GHz) – Chamber H	2.19 dB
Radiated emissions (18GHz -40GHz) – Chamber H	2.56 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	WIRELESS N Mini Card
MODEL NO.	RTL8188CE
FCC ID	XU8RTL8188CE
POWER SUPPLY	DC 3.3V 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
OPRTAING FREQUENCY	2412 ~ 2462MHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, 802.11n (20MHz) 7 for 802.11n (40MHz)
MAXIMUM OUTPUT POWER	802.11b: 70.8mW 802.11g: 288.4mW 802.11n (20MHz): 281.8mW 802.11n (40MHz): 195.0mW
ANTENNA TYPE	Please see note 3
ANTENNA CONNECTOR	Please see note 3
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

1. The EUT has two samples which are identical to each other in all aspects except for the following table:

Sample	Difference
Sample 1 (Version 0)	**PCIe Interface (miniCard) :** -populate R12, R13, R14, R15, C17 -discard R9, R10, C19
Sample 2 (Version 1)	**USB Interface (miniCard) :** -populate R9, R10, C19 -discard R12, R13, R14, R15, C17

2. The EUT has two different types could be chose and please refer the below table:

Brand	Model Name	Type
TRENDnet	RTL8188CE	One antenna connector
		Two antenna connectors

3. The below antennas provided to this EUT, please refer to the following table:

No.	Brand	Model	Antenna type	Gain (dBi) with & w/o cable loss	Cable loss (dB)	Connector type
1	wistron	DQ661500301(Main) DQ661500301(Aux)	PIFA	3.45 3.14	NA	I-PEX
2	Quanta Computer Inc	37LX6AATP00 (Tx1) 37LX6AATP00 (Tx2)	PIFA	1.8 -0.3	-1.40 -2.02	I-PEX
3	Quanta Computer Inc	37LX7AATP00 (Tx1) 37LX7AATP00 (Tx2)	PIFA	0.3 1.7	-1.44 -1.79	I-PEX
4	Quanta Computer Inc	3ASP8AATP20 (Tx1) 3ASP8AATP20 (Tx2)	PIFA	1.0 0.2	-1.36 -1.95	SPD
5	ACON	25.90675.001 (Rx) 25.90676.001 (Tx)	PIFA	-0.39 0.64	NA	U.FL
6	WNC	25.90669.001 (Rx) 25.90670.001 (Tx)	PIFA	-1.53 1.32	NA	I-PEX
7	NISSEI ELECTRIC CO., LTD	3209970 (Rx) 3210002 (Tx)	PIFA	1.88 1.26	NA	U.FL
8	ACON	25.90598.001 (Rx) 25.90597.001 (Tx)	PIFA	1.17 1.04	NA	I-PEX
9	WNC	25.90587.001 (Rx) 25.90586.001 (Tx)	PIFA	1.94 0.59	NA	I-PEX
10	ACON	25.90653.001 (Rx) 25.90654.001 (Tx)	PIFA	-0.42 -0.13	NA	I-PEX
11	WNC	25.90649.001 (Rx) 25.90650.001 (Tx)	PIFA	-0.52 0.31	NA	I-PEX
12	Foxconn	024-01F0-2242 (Rx) 024-01F0-2243 (Tx)	PIFA	1.16 -0.88	NA	SGX0003-02
13	NISSEI ELECTRIC CO., LTD	3176658 (Rx) 3176674 (Tx)	PIFA	-0.83 -0.61	NA	U.FL
14	Foxconn	WDAN-L1WK1001-DF (Rx) WDAN-L1WK1002-DF (Tx)	PIFA	1.71 1.43	NA	FOXCONN
15	Hitachi	HMT14-MAIN (Rx) HMT14-AUX (Tx)	PIFA	1.82 1.54	NA	U.FL
16	ACON	25.90700.001 (Rx) 25.90702.001 (Tx)	PIFA	-1.21 1.27	NA	I-PEX
17	ACON	25.90800.001 (Rx) 25.90802.001 (Tx)	PIFA	1.37 1.21	NA	U.FL
18	ACON	APM6P-700033 (Rx) APM6P-700034 (Tx)	PIFA	-0.96 -0.86	NA	I-PEX
19	Amphenol Taiwan Corporation	14G152168231LV (Rx) 14G152168131LV (Tx)	PIFA	-1.85 -1.60	NA	I-PEX
20	ACON	APM6P-700027 (Rx) APM6P-700029 (Tx)	PIFA	-1.32 -0.23	NA	I-PEX
21	TYCO	2023940-1 (Rx) 2023944-1 (Tx)	PIFA	-2.39 1.52	NA	U.FL
22	ACON	APM6P-700028 (Rx) APM6P-700030 (Tx)	PIFA	-1.16 -0.74	NA	I-PEX
23	Tyco Holding (Bermuda) VII Ltd.	2023946-1 (Rx) 2023950-1 (Tx)	PIFA	-0.58 -0.11	NA	U.FL

No.	Brand	Model	Antenna type	Gain (dBi) with & w/o cable loss	Cable loss (dB)	Connector type
24	Amphenol SAA	LX-0980-11-000-R (Rx) LX-0983-11-000-R (Tx)	PIFA	1.61 1.57	NA	20351-111R-37
25	NISSEI ELECTRIC CO., LTD	3172525 (Rx) 3172566 (Tx)	PIFA	1.35 1.99	NA	U.FL
26	Amphenol	LX0970-11-000-R (Rx) LX0968-11-000-R (Tx)	PIFA	1.47 1.68	NA	U.FL
27	FOXCONN	WDAN-L1ML3001-DF (Rx) WDAN-L1ML3002-DF (Tx)	PIFA	-0.40 1.10	NA	SGX0003-02
28	NISSEI ELECTRIC CO., LTD	3172467 (Rx) 3172509 (Tx)	PIFA	0.54 1.80	NA	U.FL
29	Quanta	DQ6GC200100 (Rx) DQ6GC200200 (Tx)	PIFA	0.1 -0.4	NA	I-PEX
30	Quanta	DQ6GC300100 (Rx) DQ6GC300200 (Tx)	PIFA	-1.3 0.7	NA	I-PEX
31	QUANTA	QADCPS1_WL_M (Rx) QADCPS1_WL_A (Tx)	PIFA	-0.5 -1.4	NA	I-PEX
32	Quanta Computer Inc	QADCFL3 WL M (Rx) QADCFL3 WL A (Tx)	PIFA	-0.1 -0.1	NA	I-PEX
33	ACON	25.90929.001 (Rx) 25.90930.001 (Tx)	PIFA	-0.04 1.16	NA	U.FL
34	Ethertronics, Inc.	25.90934.001 (Rx) 25.90935.001 (Tx)	PIFA	0.60 -0.59	NA	U.FL
35	WNC	25.90919.001 (Rx) 25.90920.001 (Tx)	PIFA	0.87 -0.93	NA	I-PEX
36	Amphenol	C-1334-11-000-26 (Rx) C-1335-11-000-26 (Tx)	PIFA	-0.37 -2.64	NA	U.FL
37	WNC	25.90979.001 (Rx) 25.90980.001 (Tx)	PIFA	0.77 0.74	NA	I-PEX
38	WNC	81.EEO15.001 (Main) 81.EEO15.002 (Aux)	PIFA	1.52 1.72	1.86 2.03	I-PEX
39	WNC	81.EHD15.003 (Main) 81.EHD15.002 (Aux)	PIFA	0.94 -0.77	1.39 1.71	I-PEX
40	WNC	81.EHD15.005 (Tx1) 81.EHD15.004 (Tx2)	PIFA	0.95 -1.51	1.07 1.61	I-PEX
41	WNC	81.EHD15.004 (Main) 81.EHD15.006 (Aux)	PIFA	-1.51 -0.49	1.61 1.82	I-PEX
42	WNC	81.EHD15.004 (Main) 81.EHD15.007 (Aux)	PIFA	-1.51 -0.09	1.61 1.60	I-PEX
43	WNC	81.EHD15.G09 (Tx1) 81.EHD15.G10 (Tx2)	PIFA	-0.31 -1.21	1.08 1.39	I-PEX
44	HON HAI	WDAN-M1WC1001-DF (Main) WDAN-M1MM1001-DF (Aux)	PIFA	-0.28 -1.24	-1.407 1.99	SGX0003-02
45	Amphenol KAE Co., Ltd	SS-03-03-099 (Main) SS-03-03-100 (Aux)	PIFA	0.77 -0.90	1.59 1.76	MHC-231(KAE)
46	HON HAI	WDAN-M1WC1001-DF (Main) WDAN-M1BN1001-DF (Aux)	PIFA	-0.28 -0.14	-1.407 2.30	SGX0003-02
47	HON HAI	WDAN-M1NY1001-DF (Main)	PIFA	0.56	-0.054	SGX0001-00

No.	Brand	Model	Antenna type	Gain (dBi) with & w/o cable loss	Cable loss (dB)	Connector type
48	HON HAI	WDAN-M1PB1001-DF (Tx1) WDAN-M1PB1002-DF (Tx2)	PIFA	0.54 -1.40	0.99 1.36	SGX0003-02
49	HON HAI	WDAN-M1SN1002-DF (Main) WDAN-M1SN1001-DF (Aux)	PIFA	0.93 -0.53	-1.357 -1.727	SGX0003-02
50	HON HAI	WDAN-M1OS1001-DF (Main) WDAN-M1OS1002-DF (Aux)	PIFA	0.13 -0.13	-1.871 -2.072	SGX0003-02
51	HON HAI	WDAN-M1WC1002-DF (Main) WDAN-M1WC1001-DF (Aux)	PIFA	0.18 -0.28	-0.866 -1.407	SGX0003-02
52	Hitachi	HFT40 (Tx1) HFT40 (Tx2)	PIFA	0.58 1.12	1.42 2.12	IPEX
53	Hitachi	HFT60 (Tx1) HFT60(Tx2)	PIFA	-1.65 -0.92	1.48 2.18	IPEX
54	WNC	WNC001 (Main) WNC001(Aux)	PIFA	-1.10 1.76	1.17 1.17	IPEX
55	WNC	WNC002 (Main) WNC002 (Aux)	PIFA	-0.37 -0.21	2.28 2.12	IPEX
56	Tyco Holding (Bermuda) VII Ltd.	TBN001 (Main) TBN001 (Aux)	PIFA	3.45 2.41	1.45 2.13	I.P.X
57	Tyco Holding (Bermuda) VII Ltd.	TBN003 (Main) TBN003 (Aux)	PIFA	-1.11 -1.11	1.84 2.16	I.P.X
58	Hitachi	HBY07 (Tx1) HBY07 (Tx2)	PIFA	2.19 -0.33	0.95 0.95	IPEX
59	Hitachi	HBY051 (Tx1) HBY051 (Tx2)	PIFA	2.91 2.82	0.95 0.95	IPEX
60	Hitachi	HBY052 (Tx1) HBY052 (Tx2)	PIFA	0.27 0.02	0.95 0.95	IPEX
61	Hitachi	HBY061 (Tx1) HBY061 (Tx2)	PIFA	1.30 2.42	0.95 0.95	IPEX
62	Hitachi	HBY062 (Tx1) HBY062 (Tx2)	PIFA	-1.04 -1.19	0.95 0.95	IPEX
63	Hitachi	HFT65 (Tx1) HFT65 (Tx2)	PIFA	-1.74 1.16	0.95 0.95	IPEX
64	Hitachi	HCT01 (Main) HCT01 (Aux)	PIFA	0.87 1.94	0.89 0.89	IPEX or HRS
65	FOXCONN	WDAN-TQ (Tx1) WDAN-TQ (Tx2)	PIFA	-0.43 -0.7	2.5 2.5	SGX0001-00
66	tyco	TBN005 TBN006	PIFA	2.09 3.40	NA	IPEX
67	WNC	WNC004 (Main) WNC004 (Aux)	PIFA	2.40 1.50	1.53 1.92	IPEX
68	Tyco Holding (Bermuda) VII Ltd.	TBN008 (Tx1) TBN008 (Tx2)	PIFA	-0.10 -0.92	1.85 2.66	Technova
69	TYCO	TBN008 (Tx1) TBN008 (Tx2)	PIFA	0.47 0.06	1.81 1.60	IPEX
70	Tyco	TBN008 (Tx1) TBN008 (Tx2)	PIFA	-2.60 -0.26	2.34 2.13	IPEX
71	Tyco	TBN007 (Tx1) TBN007 (Tx2)	PIFA	1.98 1.97	-0.97 -0.97	U.F.L

No.	Brand	Model	Antenna type	Gain (dBi) with & w/o cable loss	Cable loss (dB)	Connector type
72	SmartApproach Co., Ltd	03-FR021-016 (Tx1) 03-FR021-016 (Tx2)	PIFA	2.32 0.49	1.03 1.11	IPEX
73	WNC	81XCAE15.G07 (Main) 81XCAE15.G08 (Aux)	PIFA	-3.20 '-2.99	NA	IPEX
74	ACON	AMP8P-700130 (Main) AMP8P-700131 (Aux)	PIFA	1.89 -2.13	NA	IPEX
75	WNC	WNC005 (Main) WNC005 (Aux)	PIFA	-2.76 -3.64	1.86 2.54	IPEX
76	WHAYU	MSA-00005A (Main) MSA-00005A (Aux)	PIFA	-2.12 -2.49	-1.55 -2.16	Tnov
77	WNC	WNC003 (Main) WNC003 (Aux)	PIFA	0.52 1.07	1.49 2.13	IPEX
78	Hitachi	HFS23	PIFA	-0.8	0.89	IPEX or HRS
79	Hitachi	HFS40	PIFA	0.64	0.89	IPEX or HRS
80	Tyco Electronic AMPKK	TBN004 (Main) TBN004 (Aux)	PIFA	0.28 -0.83	0.98 0.98	U.FL
81	Well Green	SKM11WMPB01+C (Tx1) SKM11WMPB02+D (Tx2)	PIFA	-1.70 -3.05	-1.41 -1.11	IPEX
82	Favortron CO.,LTD (FVC)	N01001165001 (Tx1) N01001165001 (Tx2)	PIFA	1.15 0.98	-2.38 -2.34	IPEX
83	Favortron CO.,LTD (FVC)	N01001177001 (Tx1) N01001177001 (Tx2)	PIFA	0.83 1.62	-2.6 -2.73	IPEX
84	Favortron CO.,LTD (FVC)	N01001175001 (Tx1) N01001176001 (Tx2)	PIFA	2.58 1.65	-3.55 -2.42	IPEX
85	Favortron CO.,LTD (FVC)	N01001080001 (Tx1) N01001080001 (Tx2)	PIFA	1.06 1.46	-2.03 -2.07	IPEX
86	Smart Approach Co., Ltd.	03-FR021-026 (Tx1) 03-FR021-026 (Tx2)	PIFA	1.51 1.56	1.26 1.69	IPEX
87	Smart Approach Co., Ltd.	03-FR021-020 (Tx1) 03-FR021-020 (Tx2)	PIFA	1.66 1.83	1.27 1.28	IPEX
88	ACON	AMP8P-700167 (Tx1) AMP8P-700167 (Tx2)	PIFA	1.47 0.35	0.71 1.13	IPEX, MHF, HRS, U.FL
89	Smart Approach Co., Ltd.	SE-0730G-ECM11 (Tx1) SE-0730G-ECM11 (Tx2)	PIFA	2.51 -0.51	1.18 1.85	IPEX, EP
90	WNC	81.EKJ15.G22 (Main) 81.EKJ15.G22 (Aux)	PIFA	-0.21 2.19	1.51 2.24	IPEX
91	Amphenol Taiwan Corporation	FL5130-11-002-C (Tx1) FL5130-11-003-C (Tx2)	PIFA	0.30 -0.20	1.33 1.72	IPEX, Technova
92	YAGEO	B2885050G00003 (Tx1) B2885050G00003 (Tx2)	PIFA	1.17 -0.85	1.00 1.30	Hirose, U.FL-LP, equivalent
93	Quanta	QADCFL3_WL_M (Main) QADCFL3_WL_A (Aux)	PIFA	-0.1 -0.1	NA	IPEX
94	Hitachi	HFT60 (Tx1) HFT60 (Tx2) *peak gain, cable loss & cable length are different with antenna no. 53.	PIFA	2.97 0.90	0.32 0.32	IPEX or HRS
95	WONDERFUL HI-TECH CO., LTD.	A6P1WFI0100A1 (Main) A6P1WFI0100A1 (Aux)	Dipole	1.76 1.76	NA	MHF

No.	Brand	Model	Antenna type	Gain (dBi) with & w/o cable loss	Cable loss (dB)	Connector type
96	Auden	220265-09 (Tx1) 220265-09 (Tx2)	PIFA	-0.36 -0.53	1.57 1.08	U.FL
97	WNC	81XCAE15.G13 (Main) 81XCAE15.G14 (Aux)	PIFA	3.18 2.84	0.83 0.92	IPEX
98	Smart Approach Co., Ltd.	SE-042C0-ECL30 (Tx1) SE-042D0-ECL30 (Tx2)	PIFA	0.90 2.75	0.51 0.51	IPEX, EP
99	WNC	81.EJZ15.G52 (Main) 81.EJZ15.G52 (Aux)	PIFA	-1.08 -0.62	2.22 3.03	Ipex
100	WNC	81.EJT15.GJC (Main) 81.EJT15.GJC (Aux)	PIFA	-0.58 -1.26	2.20 3.01	IPEX
101	WNC	81.EJT15.GGW (Main) 81.EJT15.GGW (Aux)	PIFA	0.52 0.77	2.40 3.25	IPEX
102	WNC	81.EJZ15.G53 (Main) 81.EJZ15.G53 (Aux)	PIFA	-0.78 -2.14	2.45 3.24	IPEX
103	Ethertronics Inc.	5002011-1 (TX1) 5002012-1 (TX2)	PIFA	0.12 -3.87	NA	Technova
104	Ethertronics Inc.	5010011-1 (TX1) 5010012-1 (TX2)	PIFA	-1.76 -2.61	NA	Technova
105	QUANTA	AN-070-G(R) (TX1) AN-070-G(L) (TX2)	PIFA	-0.7 -1.9	-2.1 -3	IPEX
106	QUANTA	AN-070-G(R) (TX1) AN-070-G(L) (TX2)	PIFA	-0.3 -1.9	-2.1 -3	IPEX
107	Quanta	AN-120-F(R) (TX1) AN-120-F(L) (TX2)	PIFA	-0.4 -0.3	-2.1 -3	IPEX
108	Quanta	AN-120-F(R) (TX1) AN-120-F(L) (TX2)	PIFA	-1.8 -4.4	-2.1 -3	IPEX
109	Ethertronics Inc.	5002015-1 (TX1) 5002016-1 (TX2)	PIFA	0.76 0.59	NA	Technova
110	Ethertronics Inc.	5010015-1 (TX1) 5010016-1 (TX2)	PIFA	-0.84 -2.07	NA	Technova
111	WNC	25.90A0S.001 (Main) 25.90A0R.001 (Aux)	PIFA	-0.22 -0.74	1.55 2.05	IPEX
112	Dail Fong	AN-PF010008 (Main) AN-PF010007 (Aux)	PIFA	1.79 1.49	0.58 1.05	IPX
113	KimWell	R064018R (Main) R064019R (Aux)	PIFA	1.7 1.42	0.6 1.1	IPX
114	WGT	43R-A14001-0300 (Main) 43R-A14001-0310 (Aux)	PIFA	0.73 0.72	NA	IPEX
115	JEM	43R-A15001-0200 (Main) 43R-A15001-0210 (Aux)	PIFA	1.32 0.56	NA	IPEX
116	SPEEDTECH	43R-A15001-0100 (Main) 43R-A15001-0110 (Aux)	PIFA	2.99 0.35	NA	IPEX
117	WGT	43R-A15001-0300 (Main) 43R-A15001-0310 (Aux)	PIFA	1.54 -0.15	NA	IPEX
118	WGT	43R-B13001-0300 (Main) 43R-B14001-0310 (Aux)	PIFA	-1.49 -0.69	NA	IPEX
119	JEM	43R-DB1401-0200 (Main) 43R-B13001-0220 (Aux)	PIFA	0.20 2.23	NA	IPEX
120	WGT	43R-B14001-0300 (Main)	PIFA	0.85	NA	IPEX
121	JEM	43R-DB1401-0200 (Main) 43R-DA1801-0200 (Aux)	PIFA	3.10 2.98	NA	IPEX
122	WGT	43R-DA1801-0300 (Main) 43R-DA1801-0310 (Aux)	PIFA	1.56 2.23	NA	IPEX

No.	Brand	Model	Antenna type	Gain (dBi) with & w/o cable loss	Cable loss (dB)	Connector type
123	JEM	43R-XS3501-0200 (Main) 43R-XS3501-0210 (Aux)	PIFA	-0.05 1.17	NA	IPEX
124	SPEEDTECH	43R-XS3501-0100 (Main) 43R-XS3501-0110 (Aux)	PIFA	1.12 1.62	NA	IPEX
125	WGT	43R-B14001-0300 (Main) 43R-B14001-0310 (Aux)	PIFA	1.06 0.85	NA	IPEX
126	Hitachi Cable	HBY17 (Tx1) HBY17 (Tx2)	PIFA	-0.36 0.97	0.99 0.99	IPEX
127	Tyco Electronic Japan G.K.	TBN009 (Tx1) TBN009 (Tx2)	PIFA	0.22 0.33	0.96 0.95	U.FL
128	Tyco Electronic Japan G.K.	TBN010 (Tx1) TBN010 (Tx2)	PIFA	1.68 1.45	0.96 0.95	U.FL
129	Aristotle	RFA-29-P86-L RFA-29-P86-R	PIFA	3.4 3.4	NA	IPEX
130	Aristotle	RFA-02-P24-70-305-L RFA-02-P24-70B-340-R	PIFA	0.88 0.88	NA	IPEX
131	Smart-Approach	SE-056A0-ECLB5 (Tx1) SE-056B0-ECLB5 (Tx2)	PIFA	0.29 0.37	1.63 2.67	IPX, EP
132	Smart-Approach	SE-084BC-ECCM1 (Tx1) SE-084CD-ECCM1 (Tx2)	PIFA	2.51 1.67	1.36 2.19	IPX
133	Smart-Approach	SE-088AC-ECBL1 (Main) SE-088BD-ECBL1 (Aux)	PIFA	1.87 1.69	1.80 3.46	IPX
134	Whayu	C923-520027-A (Main) C435-520021-A (Aux)	PIFA	0.20 -2.31	1.95 2.89	IPEX
135	WNC	81.EE215.G53 (Tx1) 81.EE215.G54 (Tx2)	PIFA	-2.03 -0.96	1.82 2.86	IPEX
136	YAGEO	CAN43130WLCO03171 (Tx1) CAN43130WLCO03172 (Tx2)	PIFA	-1.55 -2.13	1.33 2.20	Hirose, U.FL-LP, IPEX, MHF
137	Speed	720700300110	PIFA	1.09	NA	IPEX, MHF
138	JEM	43R-A15001-0220(Main) 43R-A15001-0230 (Aux)	PIFA	1.89 0.01	NA	IPEX
139	WGT	43R-A15001-0320 (Main) 43R-A15001-0330 (Aux)	PIFA	1.17 0.85	NA	IPEX
140	South Star	WF06 (L) WF06 (R)	PIFA	3.12 2.71	NA	IPEX
141	South Star	WIFI-L WIFI-R	PIFA	2.96 2.79	NA	IPEX
142	Hispeed	G-EJ-0028 (Main) G-EJ-0027 (Aux)	PIFA	3.02 1.8	NA	IPEX
143	ZTX	ZTX-A162-S10000-00 ZTX-A162-S10000-01	PIFA	1.66 1.82	NA	IPEX
144	Smart Approach	SE-001BC-ECLA0 (Main) SE-002AD-ECLA0 (Aux)	PIFA	1.17 -1.81	1.4 1.59	IPX
145	Foxconn	WDAN-HMCH1401-DH/79010T000-600-G (Tx1) WDAN-HMCH1402-DH/79010SY00-600-G (Tx2)	PIFA	-0.99 -0.09	1.05 1.82	IPEX
146	Yageo	CAN43130WIFO04921/79010SQ00-011-G (Tx1) CAN43130WIFO04922/79010SR00-011-G (Tx2)	PIFA	0.23 1.53	1.08 1.88	Hirose, U.FL-LP, IPEX, MHF

No.	Brand	Model	Antenna type	Gain (dBi) with & w/o cable loss	Cable loss (dB)	Connector type
147	WHAYU	C107-520757-A/79010T100-12S-G (Tx1) C107-520756-A/79010SS00-12S-G (Tx2)	PIFA	-0.18 2.58	1.30 1.30	IPEX
148	Foxconn	WDAN-HMCH1501-DH/79010SW00-600-G (Tx1) WDAN-HMCH1502-DH/79010SV00-600-G (Tx2)	PIFA	-0.35 0.38	1.22 2.03	IPEX
149	WNC	25.90A1E.001 (Main) 25.90A1F.001 (Aux)	PIFA	1.89 -0.90	-1.85 -1.84	IPEX
150	Yageo	25.90A1E.011 (Main) 25.90A1F.011 (Aux)	PIFA	1.94 1.78	1.95 2.04	U.FL
151	WNC	25.91370.021 (Main) 25.91371.021 (Aux)	PIFA	0.51 0.58	1.40 1.73	IPEX
152	Yageo	25.91370.011 (Main) 25.91371.011 (Aux)	PIFA	1.06 0.16	1.36 2.00	U.FL
153	Quanta	DQ6GC200100 (Main) DQ6GC200200 (Aux)	PIFA	0.1 -0.4	NA	IPEX
154	Tyco	25.90A4C.021 (Main) 25.90A4D.021 (Aux)	PIFA	0.06 0.18	1.55 1.60	U.FL
155	WNC	25.90A4C.001 (Main) 25.90A4D.001 (Aux)	PIFA	1.52 -0.60	1.83 1.84	U.FL
156	YAGEO	25.90A4C.011 (Main) 25.90A4D.011 (Aux)	PIFA	0.93 -0.17	1.64 1.65	U.FL
157	ACON	25.90929.001 (Main) 25.90930.001 (Aux)	PIFA	-0.04 1.16	NA	IPEX, Hirose, U.FL-LP
158	Ethertronics Inc.	25.90934.001 (Main) 25.90935.001 (Aux)	PIFA	0.60 -0.59	NA	U.FL
159	WNC	25.90919.001 (Main) 25.90920.001 (Aux)	PIFA	0.87 -0.93	NA	IPEX
160	Tyco	25.90A2G.021 (Main) 25.90A2H.021 (Aux)	PIFA	-0.38 1.04	1.49 1.59	IPEX
161	WNC	25.90A2G.001 (Main) 25.90A2H.001 (Aux)	PIFA	1.23 0.29	1.65 1.74	IPEX
162	YAGEO	25.90A2G.011 (Main) 25.90A2H.011 (Aux)	PIFA	0.48 -1.37	1.50 1.60	U.FL
163	Amphenol	C-2238-11-000-26 (Main) C-2239-11-000-26 (Aux)	PIFA	-1.31 -3.09	0.92 1.08	U.FL
164	Amphenol	C-1952-11-000-26 (Main) C-1953-11-000-26 (Aux)	PIFA	0.35 -1.20	0.92 1.08	U.FL
165	Foxconn	WDAN-LFNZ3001-DH (Main) WDAN-LFNZ3002-DH (Aux)	PIFA ; Coupling Type Inverted F Antenna	1.14 0.61	1.03 1.12	IPEX
166	Tyco	1556219-1 (Main) 1556220-1 (Aux)	PIFA	0.64 -0.92	1.24 1.98	IPEX
167	ACON	APP8P-700189 (Main) APP8P-700190 (Aux)	PIFA	2.00 0.13	1.36 1.98	IPEX, MHF, U.FL-LP
168	ACON	APP8P-700191 (Main) APP8P-700192 (Aux)	PIFA	2.00 0.13	1.36 1.98	IPEX, MHF, U.FL-LP

No.	Brand	Model	Antenna type	Gain (dBi) with & w/o cable loss	Cable loss (dB)	Connector type
169	Tyco	1556216-1 (Main) 1556215-1 (Aux)	PIFA	0.64 -0.92	1.24 1.98	IPEX
170	Quanta	DQ6GC300100 (Main) DQ6GC300200 (Aux)	PIFA	-1.3 0.7	NA	IPEX
171	Amphenol	C-2381-11-000-26 (Main) C-2382-11-000-26 (Aux)	PIFA	-1.54 -2.93	1.09 1.28	U.FL
172	Foxconn	WDAN-LWSN3001-DH (Main) WDAN-LWSN3002-DH (Aux)	PIFA ; Coupling Type Inverted F Antenna	0.87 0.49	1.40 1.43	IPEX
173	Quanta	DQ622026000 (Tx1) DQ622026000 (Tx2)	PIFA	-1.1 -2.8	-1.8 -2.5	IPEX
174	Quanta	3XTW9AA0000-1 (Tx1) 3XTW9AA0000-2 (Tx2)	PIFA	-2.3 -2.3	-1.8 -2.3	U.FL
175	Smart Approach	SE-00100-EQQUC (Main) SE-00100-EQQUC (Aux)	PIFA	0.15 1.12	0.94 1.77	IPEX
176	Wellshine	7KLQUT-AN020 (Tx1) 7KLQUT-AN020 (Tx2)	PIFA Stamping	0.11 1.17	1.74 0.95	IPEX
177	JEM	IA-100193 (Main) IA-100194 (Aux)	PIFA	1.27 -1.27	1.56 2.36	IPEX
178	ACON	APP8P-700236 (Main) APP8P-700237 (Aux)	PIFA	0.64 1.94	1.26 1.44	IPEX
179	ACON	APP6P-700549 (Main) APP6P-700550 (Aux)	PIFA	1.99 1.41	1.26 1.44	IPEX
180	Smart Approach	SE-ECLA0-001 (Main) SE-ECLA0-002 (Aux)	PIFA	0.57 -1.84	1.37 1.55	IPEX
181	ACON	AMP8P-700186 (Main) AMP8P-700187 (Aux)	PIFA	1.96 1.91	1.58 2.29	IPEX, U.FL, MHF
182	Amphenol	FL5202-11-001-C (Tx1) FL5202-11-001-C (Tx2)	PIFA	-1.41 -0.77	1.38 1.88	U.FL
183	Amphenol	IV5233-15-003-C (Tx1) IV5233-15-002-C (Tx2)	PIFA	0.54 -0.53	1.56 2.37	GBE
184	Amphenol	IV5218-11-002-C (Tx1) IV5218-11-001-C (Tx2)	PIFA	0.55 0.31	1.36 2.23	U.FL
185	Amphenol	FX5170-15-004-C (Tx1) FX5170-15-001-C (Tx2)	PIFA	0.76 -2.11	0.80 1.62	IPEX, Technova
186	HON HAI	WDAN-HMEDW005-DH (Tx1) WDAN-HMEDW005-DH (Rx2)	PIFA	-1.85 1.33	0.67 1.34	IPEX
187	WNC	6036B0086802 (Tx1) 6036B0087102 (Tx2)	PIFA	-1.30 -0.49	1.09 1.36	U.FL
188	WNC	6036B0088203 (Main) 6036B0088303 (Aux)	PIFA	0.50 0.12	1.83 2.25	U.FL
189	WNC	6036B0088203 (Main) 6036B0088303 (Aux)	PIFA	1.21 -0.07	1.83 2.25	U.FL
190	WNC	6036B0087303 (Main) 6036B0087203 (Aux)	PIFA	2.34 1.28	1.76 2.45	U.FL
191	WNC	6036B0091201 (Main) 6036B0091401 (Aux)	PIFA	-1.11 -0.95	1.85 2.71	U.FL
192	YAGEO	CAN43130LIIN03863 (Tx1) CAN43130LIIN03864 (Tx2)	PIFA	-2.69 -1.09	1.04 1.78	Technova

No.	Brand	Model	Antenna type	Gain (dBi) with & w/o cable loss	Cable loss (dB)	Connector type
193	YAGEO	6036B0091202 (Tx1) 6036B0091402 (Tx2)	PIFA	0.80 0.25	1.30 1.98	Technova
194	YAGEO	CAN43130LIIN03841 (Tx1) CAN43130LIIN03842 (Tx2)	PIFA	1.46 0.95	1.22 2.03	Technova
195	YAGEO	6036B0088401 (Tx1) 6036B0088501 (Tx2)	PIFA	0.61 0.71	1.90 2.40	Technova
196	ACON	APP8P-700186 (Main) APP8P-700185 (Aux)	PIFA	1.84 0.07	0.81 1.12	I-PEX-MHF, U.FL, Technova
197	ACON	APP8P-700188 (Main) APP8P-700187 (Aux)	PIFA	1.84 0.07	0.81 1.12	I-PEX-MHF, U.FL, Technova
198	WHAYU	C435-520042-A (Main) C435-520045-A (Aux)	PIFA	1.91 1.88	1.11 1.85	Technova
199	WHAYU	C435-520044-A (Main) C435-520043-A (Aux)	PIFA	1.96 1.97	1.11 1.85	Technova
200	ACON	AMP6P (Tx1) AMP6P (Tx2)	PIFA	0.00 1.89	0.86 0.86	I-PEX, Hirose, U.FL-L(P)
201	Foxconn	WDAN-T1AM1001-DH (Tx1) WDAN-T1AM1002-DH (Tx2)	PIFA	2.58 1.39	0.91 0.91	IPEX
202	Quanata	AS-070-F (Tx1) AS-070-F (Tx2)	PIFA	-0.5 -1.9	-1.6 -3	IPEX
203	ACON	DQ60APM6P02(APM6P-700091) (Main) DQ60APM6P02(APM6P-700091) (Aux)	PIFA	-0.7 -0.29	1.81 2.52	IPX, Hirose, Technova, MHF
204	ACON	DQ60APM6P03(APM6P-700092) (Main) DQ60APM6P03(APM6P-700092) (Aux)	PIFA	-0.6 -1.02	2.02 2.73	IPX, Hirose, Technova, MHF
205	Whayu	C1491-520003-A (Main) C1491-520004-A (Aux)	PIFA	2.17 0.20	NA	Technova
206	ACON	ACTA-02 (Tx1) ACTA-02 (Tx2)	PIFA	1.86 1.96	1.63 2.05	I-PEX-MHF, MHF, U.FL-LP
207	ACON	ACTA-01 (Tx1) ACTA-01 (Tx2)	PIFA	1.19 0.46	1.63 2.05	IPEX, MHF, U.FL-LP
208	ACON	APP8P-700180 (TX1) APP8P-700180 (TX2)	PIFA	-0.96 0.22	1.32 1.76	I-PEX-MHF, U.FL-L(P)
209	ACON	APP8P-700182(TX1) APP8P-700181(TX2)	PIFA	2.62 2.80	0.99 0.94	I-PEX-MHF , U.FL-L(P)
210	Quanta Computer Inc	NM1_AN-090-H/I (TX1) NM1_AN-090-H/I (TX2)	PIFA	-1.9 -1.5	-0.96 -2.21	SPD
211	Quanta	DQ643130W13(TX1) DQ643130W13(TX2)	PIFA	-0.49 -2.30	0.69 1.23	Technova, compatible, HL
212	WNC	HPMH-B3035050G00011(Tx1) HPMH-B3035050G00011(Tx2)	PIFA	0.20 1.97	2.11 1.92	U.FL

From the above antennas, the worst cases were found in No. 1 & No. 95.
Therefore only the test data of the mode was recorded in this report individually.

4. The EUT was pre-tested under the following modes:

Test Mode	Description
Mode A	miniCard with one antenna connector
Mode B	**miniCard with two antenna connectors**

Mode B, the worse case one, was chosen for final test.

5. For radiated test item: The antenna(PIFA antenna) of EUT was pre-tested under the following modes:

Test Mode	Description
Mode C	X-Y Plane
Mode D	Y-Z Plane
Mode E	**Z-X Plane**

Mode E, the worse case one, was chosen for final test.

6. According to above note 4&5, the EUT was pre-tested under the following modes:

Test Mode	Description
Mode F	miniCard with two antenna connectors <Sample 1> with PIFA antenna
Mode G	miniCard with two antenna connectors <Sample 1> with Dipole antenna
Mode H	miniCard with two antenna connectors <Sample 2> with PIFA antenna
Mode I	miniCard with two antenna connectors < Sample 2 > with Dipole antenna

For radiated test (below 1GHz), the worst cases were found in **Mode F** and **Mode G**. And then for radiated test (above 1GHz) , the worst cases were found in **Mode G** and **Mode H**. Therefore only the test data of the modes were recorded in this report individually.

7. The EUT incorporates a SISO function with 802.11n.
8. The EUT is 1 * 1 spatial SISO without beam forming function.
9. The EUT complies with 802.11n standards and backwards compatible with 802.11b, 802.11g products.
10. The EUT, operates in the 2.4GHz frequency range, lets you connect IEEE 802.11g or IEEE 802.11b and 802.11n technique devices to the network.
11. The above EUT information was declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

Operated in 2400 ~ 2483.5MHz band:

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
1	2422MHz	5	2442MHz
2	2427MHz	6	2447MHz
3	2432MHz	7	2452MHz
4	2437MHz		

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE < 1G	RE ³ 1G	APCM	
1	√	√		√	miniCard with two antenna connectors <Sample 1> with PIFA antenna
2	-	√	√		miniCard with two antenna connectors <Sample 1> with Dipole antenna
3	-		√		miniCard with two antenna connectors <Sample 2> with PIFA antenna

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

RE ³ 1G: Radiated Emission above 1GHz **APCM:** Antenna Port Conducted Measurement

ANTENNA COMBINATION MODE:

COMBINATION MODE	OPERATION MODE	TX CHAIN(0)	TX CHAIN(1)
A	802.11 b	√	
B	802.11 b		√
C	802.11 g	√	
D	802.11 g		√
E	802.11n(20MHz) for MCS0~7	√	
F	802.11n(20MHz) for MCS0~7		√
G	802.11n(40MHz) for MCS0~7	√	
H	802.11n(40MHz) for MCS0~7		√

Note:
1. The above information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.
2. Mode A, C, E, G the worst modes, were selected as representative mode for the report.

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)	COMBINATION & CONFIGURE MODE
802.11g	1 to 11	6	OFDM	BPSK	6	1 / C

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	MODULATIO N TYPE	DATA RATE (Mbps)	COMBINATION & CONFIGURE MODE
802.11g	1 to 11	6	OFDM	BPSK	6	1, 2 / C

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	MODULATIO N TYPE	DATA RATE (Mbps)	COMBINATION & CONFIGURE MODE
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1	2, 3 / A
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	2, 3 / C
802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5	2, 3 / E
802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	13.5	2, 3 / G

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)	COMBINATION & CONFIGURE MODE
802.11b	1 to 11	1, 11	DSSS	DBPSK	1	1 / A
802.11g	1 to 11	1, 11	OFDM	BPSK	6	1 / C
802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	6.5	1 / E
802.11n (40MHz)	1 to 7	1, 7	OFDM	BPSK	13.5	1 / G

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)	COMBINATION & CONFIGURE MODE
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1	1 / A
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	1 / C
802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5	1 / E
802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	13.5	1 / G

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
RE≥1G	25deg. C, 66%RH, 1021 hPa	120Vac, 60Hz	Frank Liu / Phoenix Huang
RE<1G	25deg. C, 66%RH, 1021 hPa	120Vac, 60Hz	Frank Liu / Phoenix Huang
PLC	23deg. C, 56%RH, 1021 hPa	120Vac, 60Hz	Leo Peng
APCM	25deg. C, 60%RH, 1021 hPa	120Vac, 60Hz	Phoenix Huang

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart C. (15.247)
ANSI C63.4-2003

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

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

3.4 DESCRIPTION OF SUPPORT UNITS

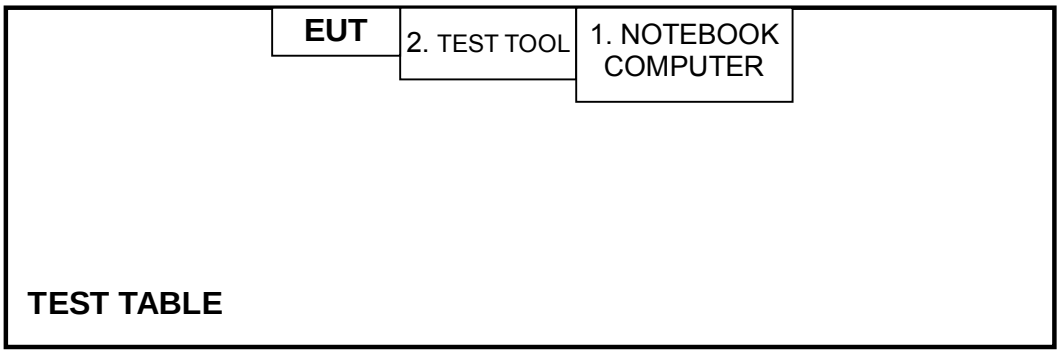
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP18L	6976685584	FCC DoC
2	TEST TOOL	TRENDnet	NA	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	NA

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

3.5 CONFIGURATION OF SYSTEM UNDER TEST



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)	
0.15-0.5 0.5-5 5-30	Quasi-peak	Average
	66 to 56 56 60	56 to 46 46 50

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

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	100287	Mar. 05, 2009	Mar. 04, 2010
Line-Impedance Stabilization Network (for EUT)	NSLK 8127	8127-523	Sep. 23,2009	Sep. 22, 2010
Line-Impedance Stabilization Network (for Peripheral)	KNW-407	8-1395-12	May 04, 2009	May 03, 2010
RF Cable (JYEBAO)	5DFB	COACAB-001	Dec. 14, 2009	Dec. 13, 2010
50 ohms Terminator	50	3	Oct. 28, 2009	Oct. 27, 2010
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.

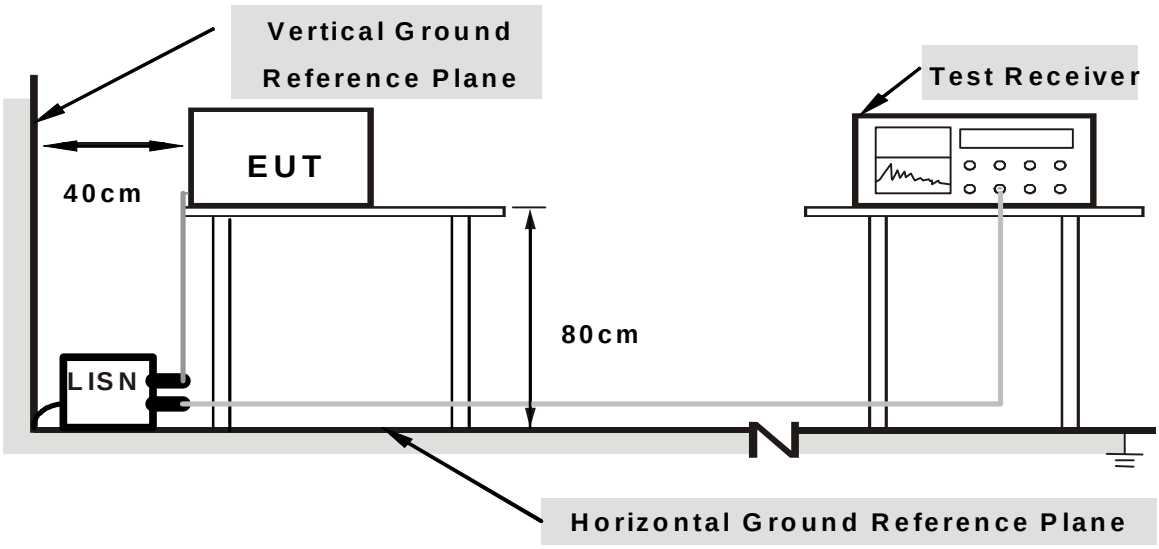
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

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. Plug the EUT into the support unit 1 (Notebook Computer) which placed on a testing table.
2. The communication partner run test program “TRENDnet 11n Single Chip 92C PCIE WLAN MP Diagnostic Program 0.0008.0105.2010” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

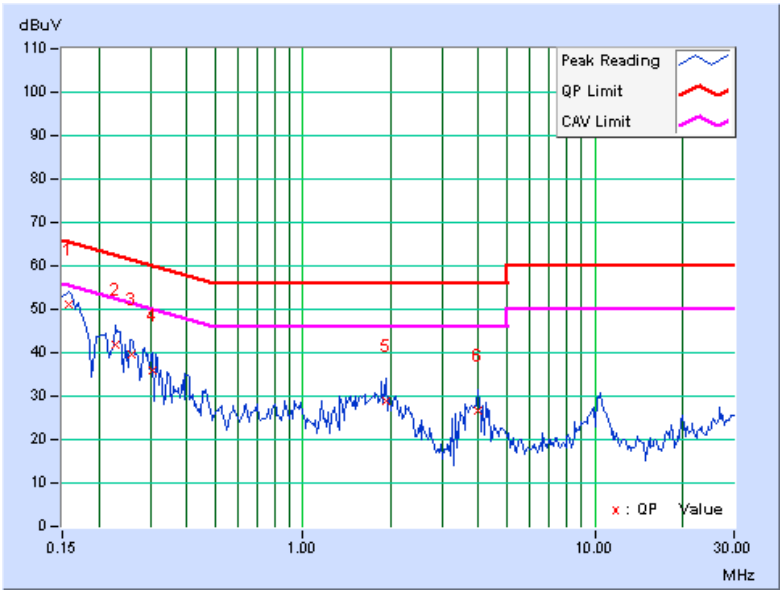
4.1.7 TEST RESULTS

802.11g OFDM MODULATION:

PHASE	Line (L)	6dB BANDWIDTH	9 kHz

	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	0.04	51.24	-	51.28	-	65.58	55.58	-14.30	-
2	0.229	0.04	41.71	-	41.75	-	62.49	52.49	-20.74	-
3	0.259	0.05	39.67	-	39.72	-	61.45	51.45	-21.74	-
4	0.306	0.05	35.73	-	35.78	-	60.07	50.07	-24.29	-
5	1.930	0.12	28.85	-	28.97	-	56.00	46.00	-27.03	-
6	3.961	0.20	26.38	-	26.58	-	56.00	46.00	-29.42	-

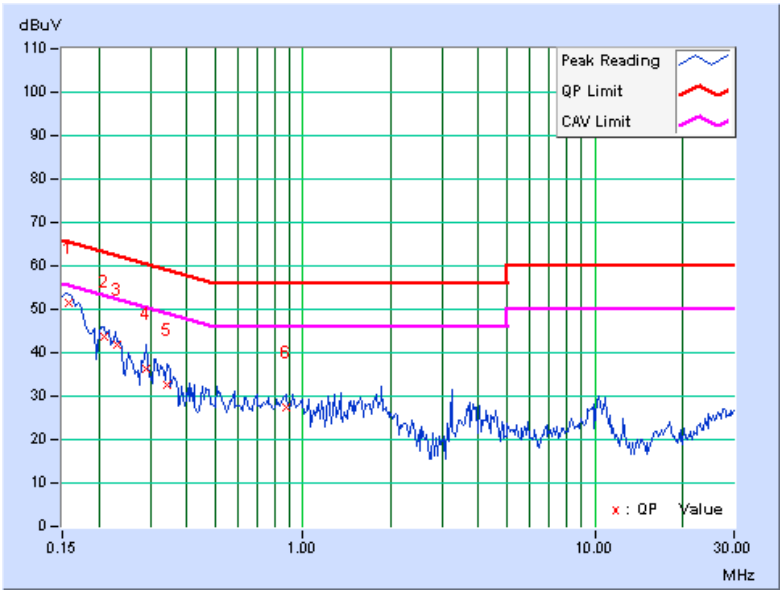
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



PHASE	Neutral (N)	6dB BANDWIDTH	9 kHz

	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**	**0.05**	**51.34**	**-**	**51.39**	**-**	**65.58**	**55.58**	**-14.19**	**-**
2	0.209	0.05	43.65	-	43.70	-	63.26	53.26	-19.56	-
3	0.230	0.05	41.67	-	41.72	-	62.44	52.44	-20.72	-
4	0.291	0.06	36.41	-	36.47	-	60.51	50.51	-24.04	-
5	0.341	0.06	32.39	-	32.45	-	59.17	49.17	-26.71	-
6	0.873	0.09	27.44	-	27.53	-	56.00	46.00	-28.47	-

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



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.2.2 TEST INSTRUMENTS

For mode 1 : Sample 1 <PIFA antenna>

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ Spectrum Analyzer	FSP40	100036	Apr. 03 , 2009	Apr. 02 , 2010
Agilent PSA Spectrum Analyzer	E4446A	MY46180622	Apr. 24 , 2009	Apr. 23 , 2010
HP Pre_Amplifier	8449B	3008A01923	Nov. 02, 2009	Nov. 01, 2010
ROHDE & SCHWARZ Test Receiver	ESCS30	847124/029	Aug. 28, 2009	Aug. 28, 2010
SCHWARZBECK TRILOG Broadband Antenna	VULB 9168	138	April 29, 2009	April 28, 2010
Schwarzbeck Horn_Antenna	BBHA9120	D124	Dec. 18, 2009	Dec. 17, 2010
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 23, 2009	Jan. 22, 2010
RF Switches	EMH-011	08009	Sep. 26, 2009	Sep. 25, 2010
RF CABLE (Chaintek)	Sucoflex 106	28077	Aug. 14, 2009	Aug. 13, 2010
RF Cable	8D	STCCAB-001	Sep. 26, 2009	Sep. 25, 2010
Software	ADT_Radiated_ V7.6.15.9.2	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, HP preamplifier (model: 8449B) and Spectrum Analyzer (model: FSP40) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in Open Site No. C.
4. The FCC Site Registration No. is 656396.
5. The VCCI Site Registration No. is R-1626.
6. The CANADA Site Registration No. is IC 7450G-3.

For mode 2 : Sample 1 <Dipole antenna>

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Agilent Spectrum Analyzer	E4446A	MY48250254	Aug. 03, 2009	Aug. 02, 2010
Agilent Pre-Selector	N9039A	MY46520310	Aug. 18, 2009	Aug. 17, 2010
Agilent Signal Generator	N5181A	MY49060347	July 18, 2009	July 17, 2010
LIG NEX1 Test Receiver	ER-265	L09068005	Aug. 31, 2009	Aug. 30, 2010
Mini-Circuits Pre-Amplifier	ZFL-1000VH2B	AMP-ZFL-04	Nov. 18, 2009	Nov. 17, 2010
Agilent Pre-Amplifier	8449B	3008A02465	Mar. 01, 2010	Feb. 28, 2011
Miteq Pre-Amplifier	AFS33-18002650-30-8P-44	881786	NA	NA
SCHWARZBECK Trilog Broadband Antenna	VULB 9168	9168-361	Sep. 30, 2009	Sep. 29, 2010
AISI Horn_Antenna	AIH.8018	0000220091110	Nov. 16, 2009	Nov. 15, 2010
SCHWARZBECK Horn_Antenna	BBHA 9170	9170-424	Sep. 30, 2009	Sep. 29, 2010
RF CABLE	NA	RF104-205 RF104-207 RF104-208	Dec. 24, 2009	Dec. 23, 2010
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.

For mode 3 : Sample 2<PIFA antenna>

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ Spectrum Analyzer	FSP40	100036	Dec. 18, 2009	Dec. 17, 2010
Agilent PSA Spectrum Analyzer	E4446A	MY46180622	May 12 , 2010	May 11 , 2011
HP Pre_Amplifier	8449B	300801923	Nov. 02, 2009	Nov. 01, 2010
ROHDE & SCHWARZ Test Receiver	ESCS30	847124/029	Aug. 28, 2009	Aug. 27, 2010
SCHWARZBECK TRILOG Broadband Antenna	VULB 9168	138	Apr. 28, 2010	Apr. 27, 2011
Schwarzbeck Horn_Antenna	BBHA9120	D124	Dec. 18, 2009	Dec. 17, 2010
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 22, 2010	Jan. 21, 2011
RF Switches	EMH-011	1001	NA	NA
RF CABLE (Chaintek)	Sucoflex 106	28077	Aug. 14, 2009	Aug. 13, 2010
RF Cable	8DFB	STCCAB-30M-1GHz	NA	NA
Software	ADT_Radiated_V7.6.15.9.2	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) and Spectrum Analyzer (model: FSP40) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in Open Site No. C.
4. The FCC Site Registration No. is 656396.
5. The VCCI Site Registration No. is R-1626.
6. The CANADA Site Registration No. is IC 7450G-3.

4.2.3 TEST PROCEDURES

For mode 1 : For Sample 1 <PIFA antenna> / For mode 3 : Sample 2<PIFA antenna>

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE:

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

For mode 2 : For Sample 1 <Dipole antenna>

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meters Semi-anechoic 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 can be varied from one meter to four meters, the height of adjustment depends on the EUT height and the antenna 3dB beamwidth both, detect 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 and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.

NOTE:

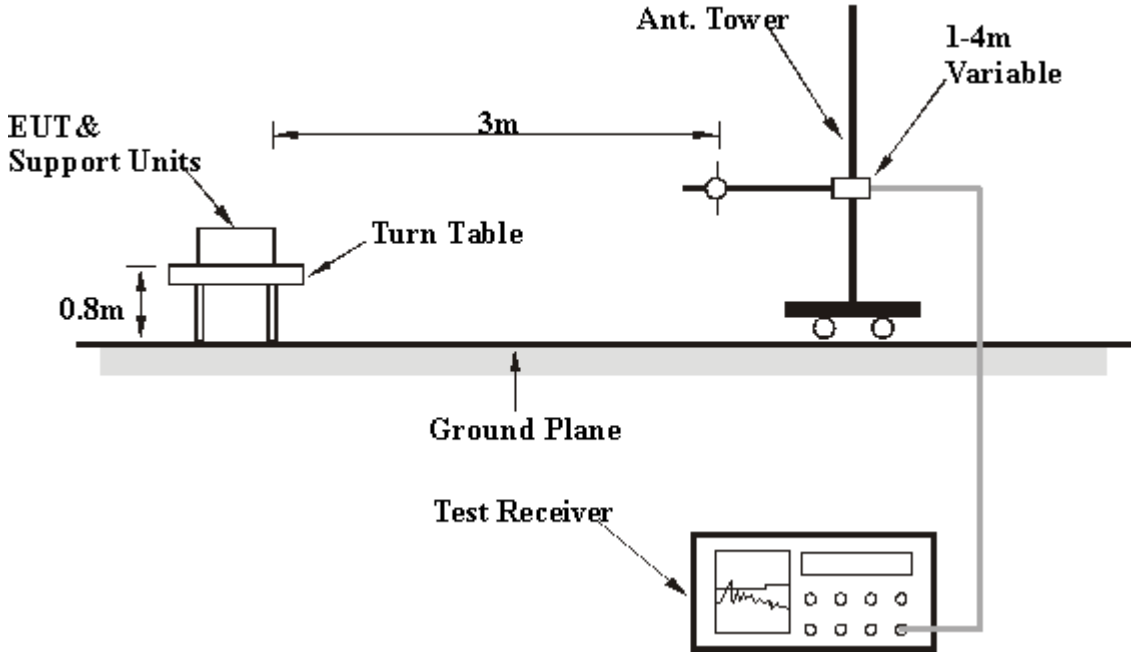
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK)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

4.2.4 DEVIATION FROM TEST STANDARD

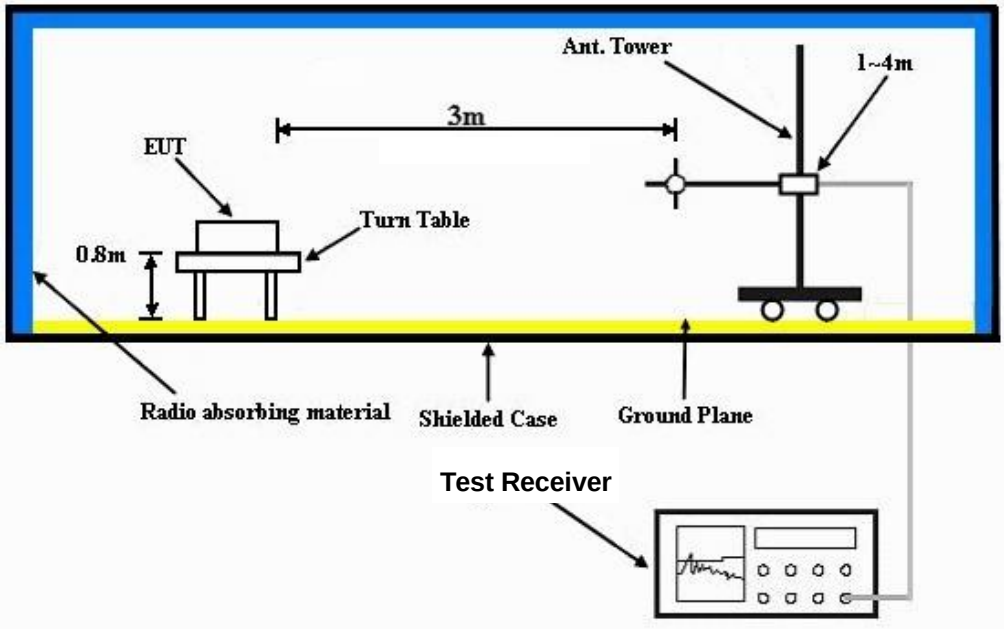
No deviation

4.2.5 TEST SETUP

For mode 1 : For Sample 1 <PIFA antenna> / For mode 3 : Sample 2<PIFA antenna>



For mode 2 : For Sample 1 <Dipole antenna>



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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6

4.2.7 TEST RESULTS (BELOW 1GHz - Sample 1, PIFA ANTENNA)

802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	15deg. C, 60%RH 1021 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	158.03	25.6 QP	43.5	-17.9	1.37 H	93	10.71	14.88
2	233.13	33.8 QP	46.0	-12.2	1.01 H	109	20.73	13.08
3	298.72	37.0 QP	46.0	-9.0	1.00 H	11	21.03	15.95
4	398.28	38.4 QP	46.0	-7.6	1.12 H	282	19.88	18.50
5	796.67	33.7 QP	46.0	-12.3	1.12 H	108	7.15	26.57
6	896.67	31.8 QP	46.0	-14.2	1.12 H	357	3.70	28.13
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	79.98	26.7 QP	40.0	-13.3	1.00 V	0	16.28	10.42
2	212.92	28.9 QP	43.5	-14.6	1.00 V	147	16.52	12.34
3	300.00	28.4 QP	46.0	-17.6	1.00 V	94	12.41	16.01
4	390.19	31.5 QP	46.0	-14.5	1.00 V	358	13.18	18.29
5	897.00	33.2 QP	46.0	-12.8	1.14 V	294	5.03	28.14
6	996.50	34.8 QP	54.0	-19.2	1.00 V	165	5.79	29.01

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

4.2.8 TEST RESULTS (BELOW 1GHz - Sample 1, DIPOLE ANTENNA)

802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24deg. C, 69%RH 1012 hPa	TESTED BY	Eric Lee

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	88.38	36.6 QP	43.50	-6.9	1.75 H	0	26.95	9.67
2	106.50	36.3 QP	43.50	-7.2	1.50 H	286	25.38	10.88
3	142.03	40.1 QP	43.50	-3.4	2.00 H	276	25.92	14.19
4	221.25	42.7 QP	46.00	-3.3	2.50 H	192	30.75	11.95
5	431.33	40.6 QP	46.00	-5.4	2.00 H	73	21.96	18.63
6	566.45	40.3 QP	46.00	-5.7	1.50 H	360	18.52	21.74
7	597.13	39.3 QP	46.00	-6.7	1.50 H	28	16.79	22.47
8	829.47	39.7 QP	46.00	-6.3	1.50 H	232	14.08	25.60
9	847.23	39.5 QP	46.00	-6.5	1.50 H	293	13.65	25.87
10	912.01	35.8 QP	46.00	-10.2	1.50 H	71	9.03	26.74
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	106.62	35.7 QP	43.50	-7.8	1.50 V	217	24.81	10.89
2	142.15	39.7 QP	43.50	-3.9	2.50 V	0	25.45	14.20
3	162.40	35.4 QP	43.50	-8.1	2.00 V	360	21.26	14.17
4	176.61	39.6 QP	43.50	-3.9	2.00 V	0	26.26	13.34
5	199.11	36.0 QP	43.50	-7.5	1.50 V	232	24.68	11.28
6	243.63	36.2 QP	46.00	-9.8	2.25 V	319	23.49	12.73
7	298.58	38.6 QP	46.00	-7.4	1.25 V	111	23.76	14.85
8	762.92	35.1 QP	46.00	-10.9	1.75 V	109	10.63	24.50
9	832.67	40.1 QP	46.00	-5.9	1.25 V	104	14.49	25.65
10	899.81	42.9 QP	46.00	-3.1	1.50 V	104	16.24	26.66

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

4.2.9 TEST RESULTS (ABOVE 1GHz - Sample 1, DIPOLE ANTENNA)

802.11b DSSS MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 69%RH 1012 hPa	TESTED BY	Eric Lee

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	2386.40	56.0 PK	74.00	-18.0	1.00 H	73	24.80	31.20
2	2386.40	44.3 AV	54.00	-9.7	1.00 H	73	13.10	31.20
3	*2412.00	98.9 PK			1.00 H	73	67.63	31.27
4	*2412.00	96.8 AV			1.00 H	73	65.53	31.27
5	4824.00	50.6 PK	74.00	-23.4	1.34 H	261	11.18	39.42
6	4824.00	43.7 AV	54.00	-10.3	1.34 H	261	4.28	39.42
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2372.80	56.5 PK	74.00	-17.5	1.00 V	110	25.33	31.17
2	2372.80	45.7 AV	54.00	-8.3	1.00 V	110	14.53	31.17
3	*2412.00	104.1 PK			1.71 V	111	72.83	31.27
4	*2412.00	102.2 AV			1.71 V	111	70.93	31.27
5	4824.00	52.5 PK	74.00	-21.5	1.00 V	293	13.08	39.42
6	4824.00	49.5 AV	54.00	-4.5	1.00 V	293	10.08	39.42

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 69%RH 1012 hPa	TESTED BY	Eric Lee

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	98.9 PK			1.01 H	79	67.56	31.34
2	*2437.00	96.7 AV			1.01 H	79	65.36	31.34
3	4874.00	49.2 PK	74.00	-24.8	1.33 H	261	9.58	39.62
4	4874.00	42.6 AV	54.00	-11.4	1.33 H	261	2.98	39.62
5	7311.00	51.7 PK	74.00	-22.3	1.04 H	341	7.60	44.10
6	7311.00	42.1 AV	54.00	-11.9	1.04 H	341	-2.00	44.10
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	104.5 PK			1.69 V	108	73.16	31.34
2	*2437.00	102.9 AV			1.69 V	108	71.56	31.34
3	4874.00	51.5 PK	74.00	-22.5	1.00 V	292	11.88	39.62
4	4874.00	48.5 AV	54.00	-5.5	1.00 V	292	8.88	39.62
5	7311.00	57.0 PK	74.00	-17.0	1.42 V	166	12.90	44.10
6	7311.00	50.7 AV	54.00	-3.3	1.42 V	166	6.60	44.10

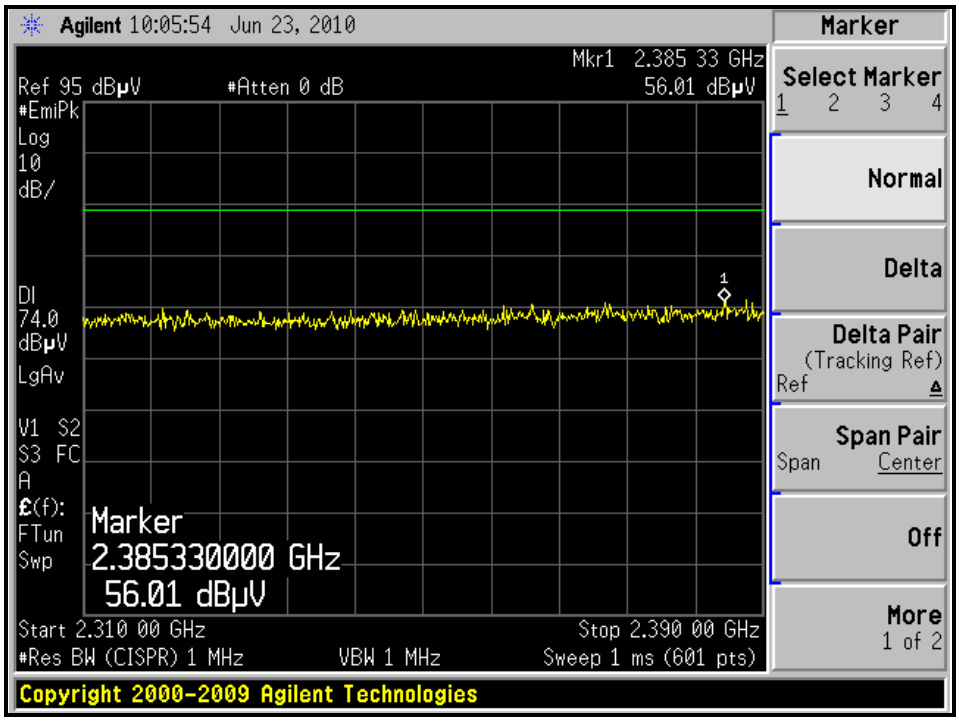
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

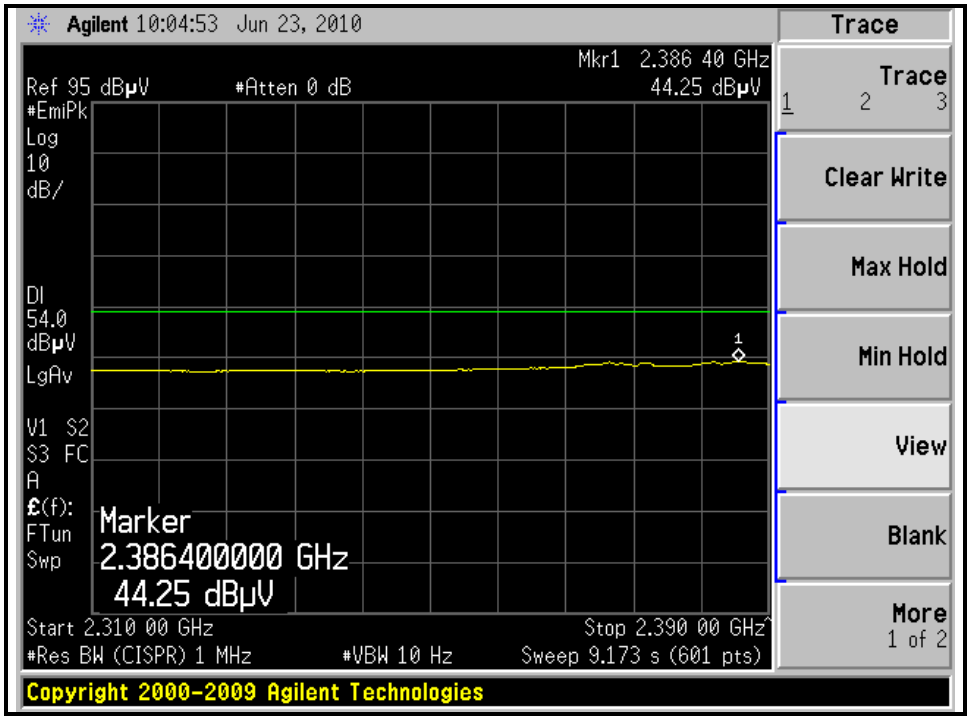
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 69%RH 1012 hPa	TESTED BY	Eric Lee

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	99.0 PK			1.01 H	84	67.60	31.40
2	*2462.00	96.4 AV			1.01 H	84	65.00	31.40
3	2490.70	56.9 PK	74.00	-17.1	1.02 H	59	25.42	31.48
4	2490.70	44.4 AV	54.00	-9.6	1.02 H	59	12.92	31.48
5	4924.00	50.7 PK	74.00	-23.3	1.31 H	271	10.88	39.82
6	4924.00	43.4 AV	54.00	-10.6	1.31 H	271	3.58	39.82
7	7386.00	51.9 PK	74.00	-22.1	1.05 H	330	7.72	44.18
8	7386.00	42.9 AV	54.00	-11.1	1.05 H	330	-1.28	44.18
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	104.2 PK			1.70 V	111	72.80	31.40
2	*2462.00	102.6 AV			1.70 V	111	71.20	31.40
3	2487.70	57.6 PK	74.00	-16.4	1.71 V	110	26.13	31.47
4	2487.70	47.5 AV	54.00	-6.5	1.71 V	110	16.03	31.47
5	4924.00	52.6 PK	74.00	-21.4	1.01 V	299	12.78	39.82
6	4924.00	49.9 AV	54.00	-4.1	1.01 V	299	10.08	39.82
7	7386.00	56.9 PK	74.00	-17.1	1.44 V	180	12.72	44.18
8	7386.00	50.9 AV	54.00	-3.1	1.44 V	180	6.72	44.18

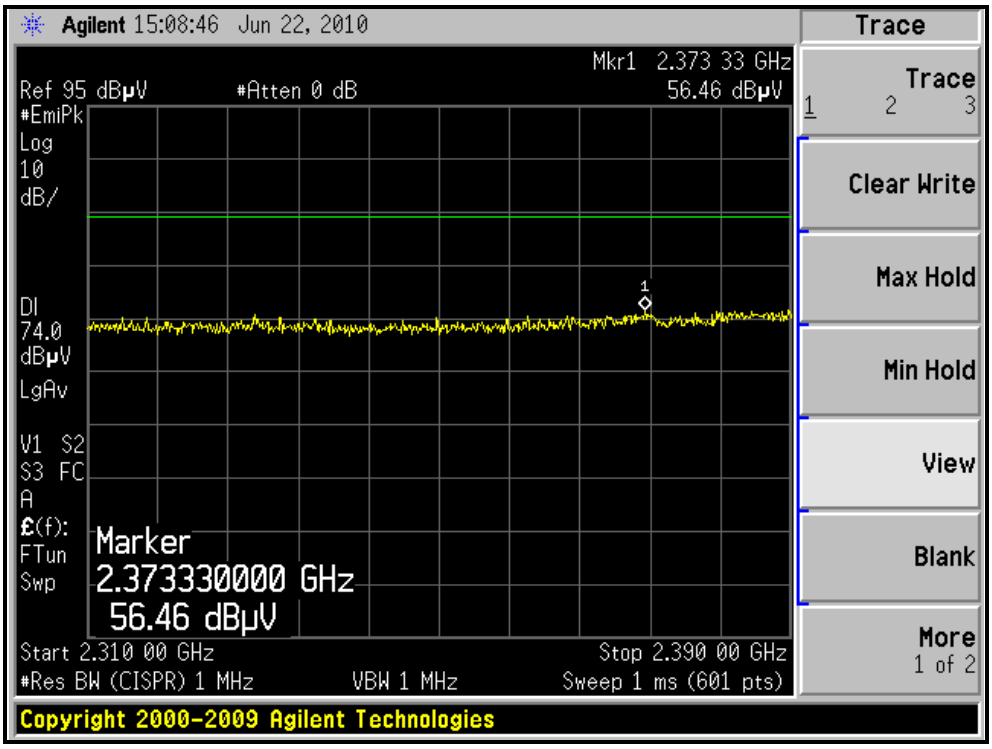
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

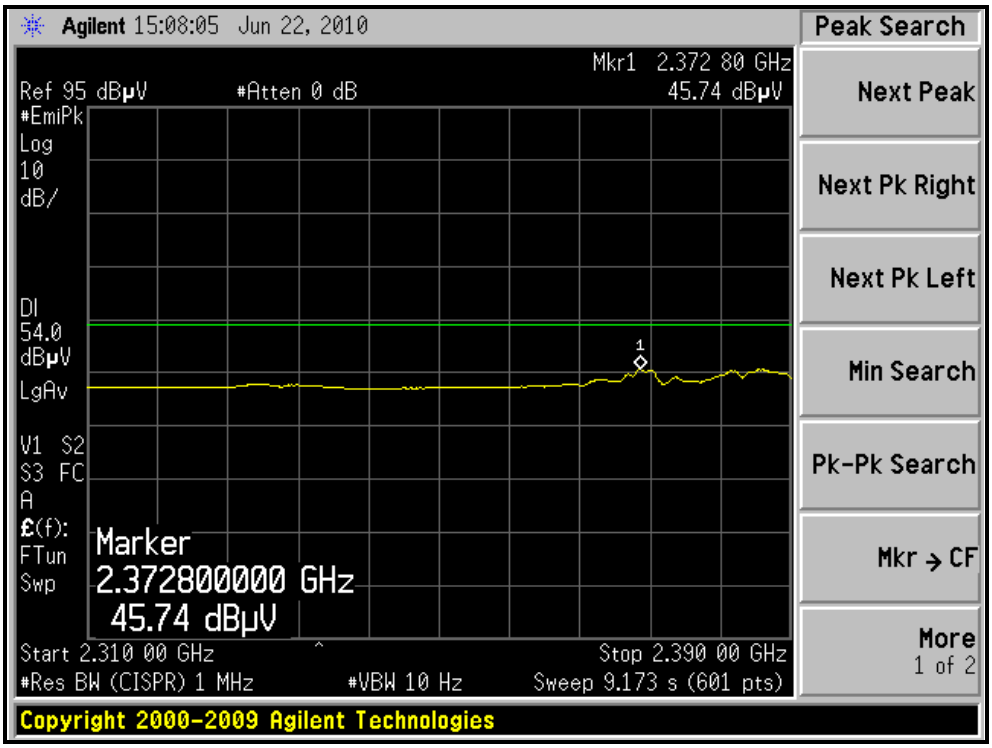
RESTRICTED BANDEDGE (802.11b MODE,CH1, HORIZONTAL)





RESTRICTED BANDEDGE (802.11b MODE,CH1, VERTICAL)





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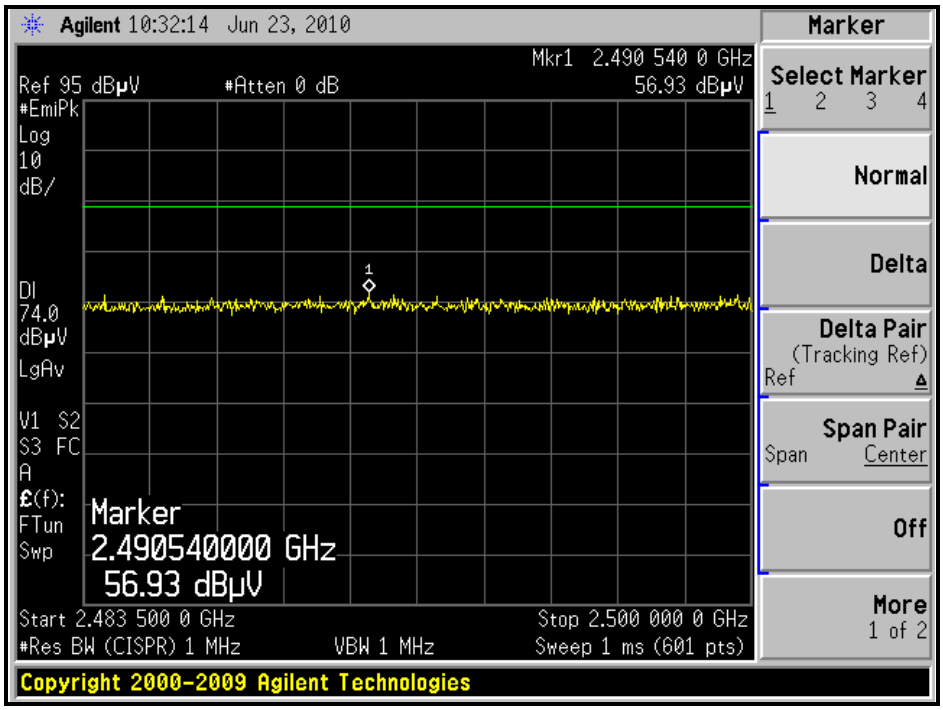
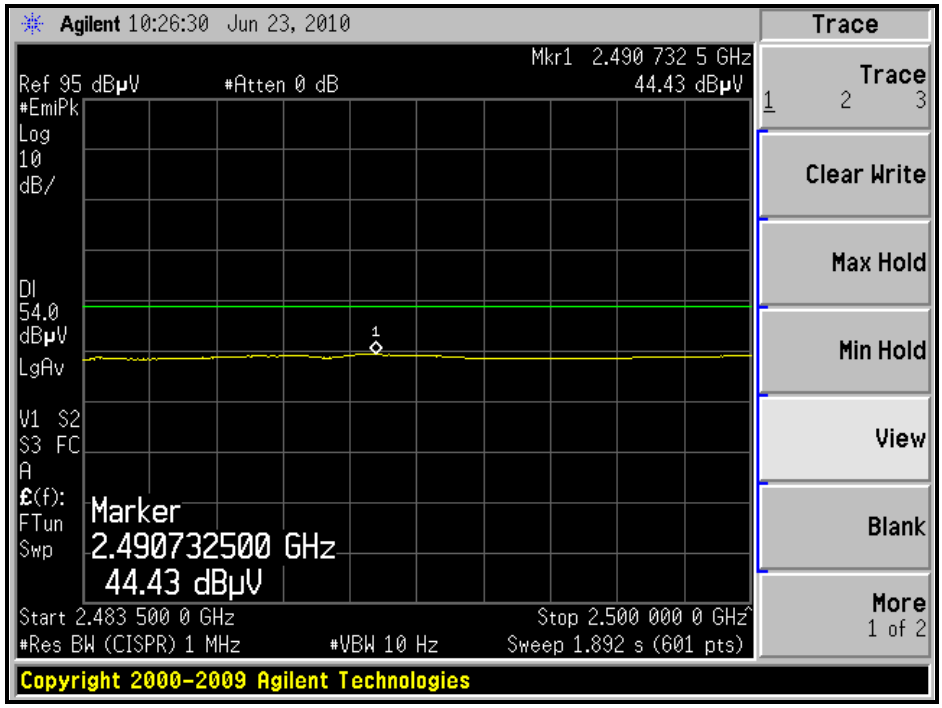
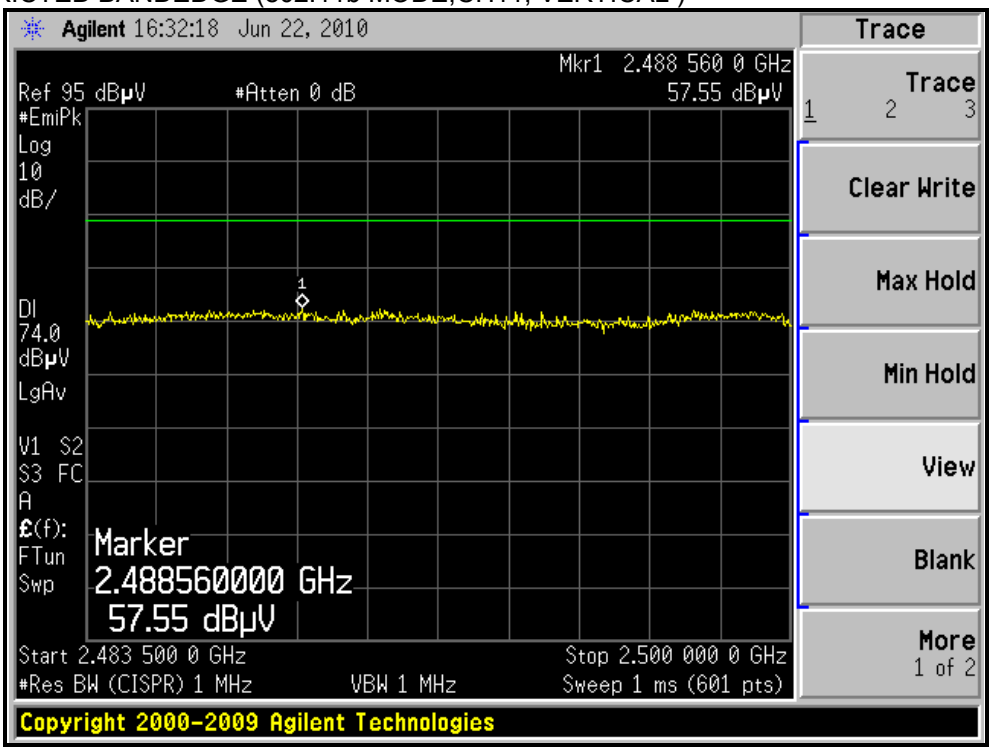
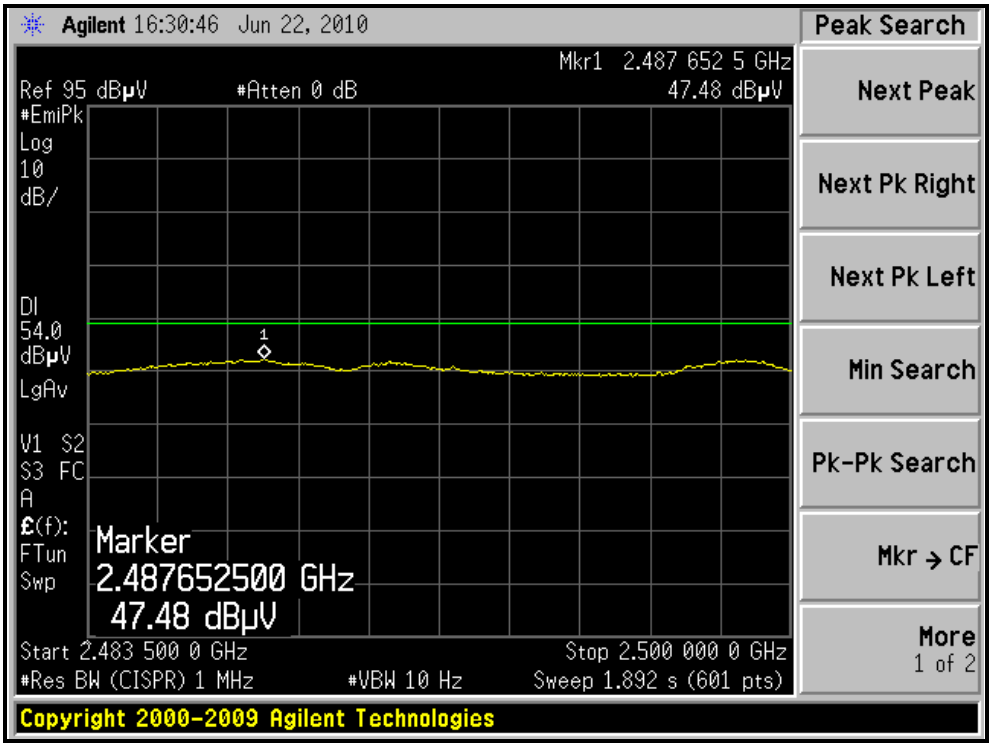




RESTRICTED BANDEDGE (802.11b MODE,CH11, VERTICAL)





802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 69%RH 1012 hPa	TESTED BY	Eric Lee

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	62.1 PK	74.00	-11.9	1.01 H	80	30.89	31.21
2	2390.00	48.4 AV	54.00	-5.6	1.01 H	80	17.19	31.21
3	*2412.00	100.8 PK			1.00 H	72	69.53	31.27
4	*2412.00	91.2 AV			1.00 H	72	59.93	31.27
5	4824.00	45.3 PK	74.00	-28.7	1.01 H	1	5.88	39.42
6	4824.00	34.3 AV	54.00	-19.7	1.01 H	1	-5.12	39.42
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	65.7 PK	74.00	-8.3	1.69 V	111	34.49	31.21
2	2390.00	49.2 AV	54.00	-4.8	1.69 V	111	17.99	31.21
3	*2412.00	105.8 PK			1.00 V	110	74.53	31.27
4	*2412.00	96.8 AV			1.00 V	110	65.53	31.27
5	4824.00	48.0 PK	74.00	-26.0	1.00 V	293	8.58	39.42
6	4824.00	36.9 AV	54.00	-17.1	1.00 V	293	-2.52	39.42

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 69%RH 1012 hPa	TESTED BY	Eric Lee

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	102.9 PK			1.01 H	44	71.56	31.34
2	*2437.00	93.9 AV			1.01 H	44	62.56	31.34
3	4874.00	45.6 PK	74.00	-28.4	1.09 H	28	5.98	39.62
4	4874.00	34.2 AV	54.00	-19.8	1.09 H	28	-5.42	39.62
5	7311.00	50.8 PK	74.00	-23.2	1.20 H	100	6.70	44.10
6	7311.00	37.8 AV	54.00	-16.2	1.20 H	100	-6.30	44.10
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	109.5 PK			1.71 V	115	78.16	31.34
2	*2437.00	99.9 AV			1.71 V	115	68.56	31.34
3	4874.00	48.1 PK	74.00	-25.9	1.71 V	115	8.48	39.62
4	4874.00	37.0 AV	54.00	-17.0	1.71 V	115	-2.62	39.62
5	7311.00	51.4 PK	74.00	-22.6	1.56 V	15	7.30	44.10
6	7311.00	38.5 AV	54.00	-15.5	1.56 V	15	-5.60	44.10

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 69%RH 1012 hPa	TESTED BY	Eric Lee

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	101.5 PK			1.01 H	88	70.10	31.40
2	*2462.00	92.4 AV			1.01 H	88	61.00	31.40
3	2483.80	59.0 PK	74.00	-15.0	1.00 H	71	27.54	31.46
4	2483.80	46.1 AV	54.00	-7.9	1.00 H	71	14.64	31.46
5	4924.00	45.5 PK	74.00	-28.5	1.05 H	2	5.68	39.82
6	4924.00	34.5 AV	54.00	-19.5	1.05 H	2	-5.32	39.82
7	7386.00	50.9 PK	74.00	-23.1	1.14 H	69	6.72	44.18
8	7386.00	37.9 AV	54.00	-16.1	1.14 H	69	-6.28	44.18
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	106.1 PK			1.71 V	111	74.70	31.40
2	*2462.00	97.1 AV			1.71 V	111	65.70	31.40
3	2483.50	63.1 PK	74.00	-10.9	1.71 V	110	31.64	31.46
4	2483.50	48.2 AV	54.00	-5.8	1.71 V	110	16.74	31.46
5	4924.00	47.9 PK	74.00	-26.1	1.01 V	270	8.08	39.82
6	4924.00	37.2 AV	54.00	-16.8	1.01 V	270	-2.62	39.82
7	7386.00	51.5 PK	74.00	-22.5	1.61 V	29	7.32	44.18
8	7386.00	38.3 AV	54.00	-15.7	1.61 V	29	-5.88	44.18

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

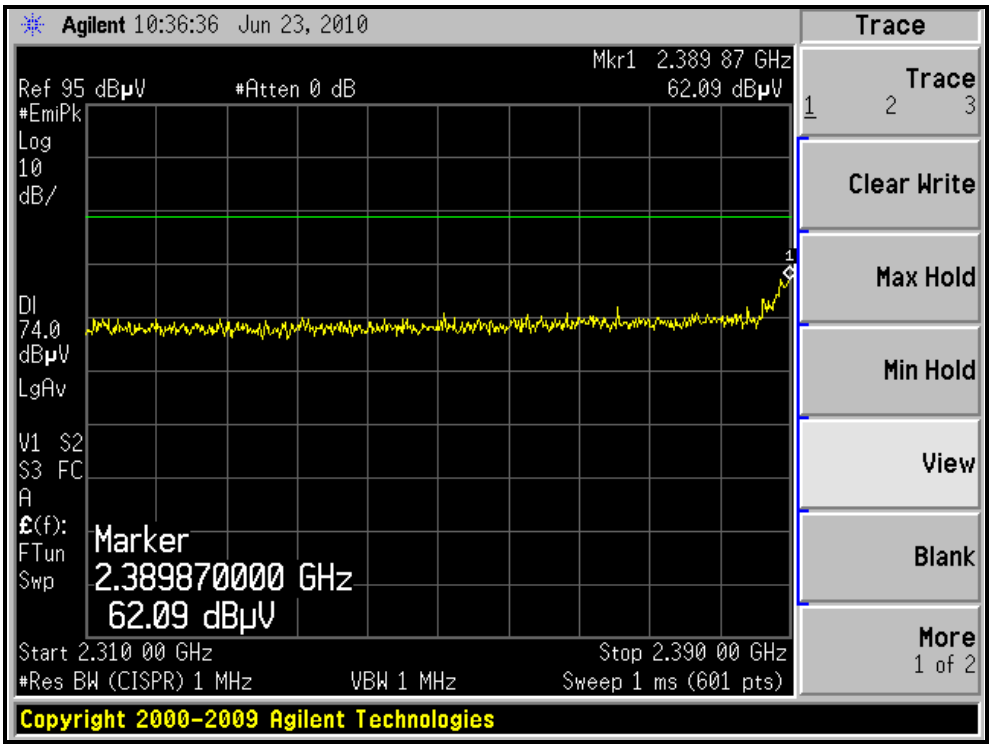
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

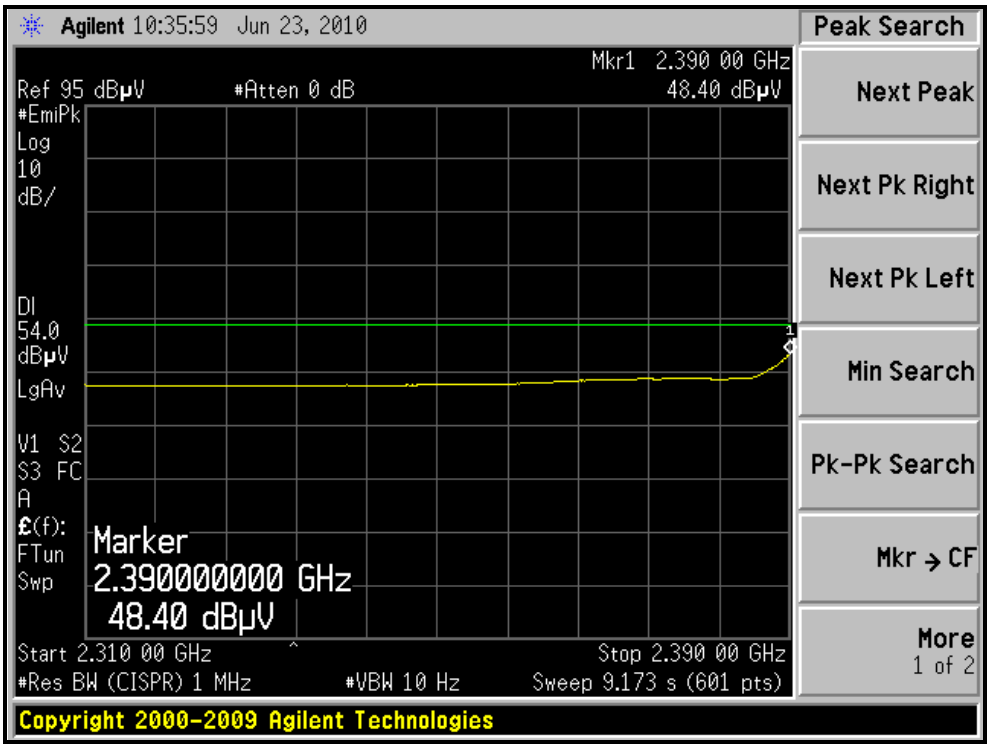
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

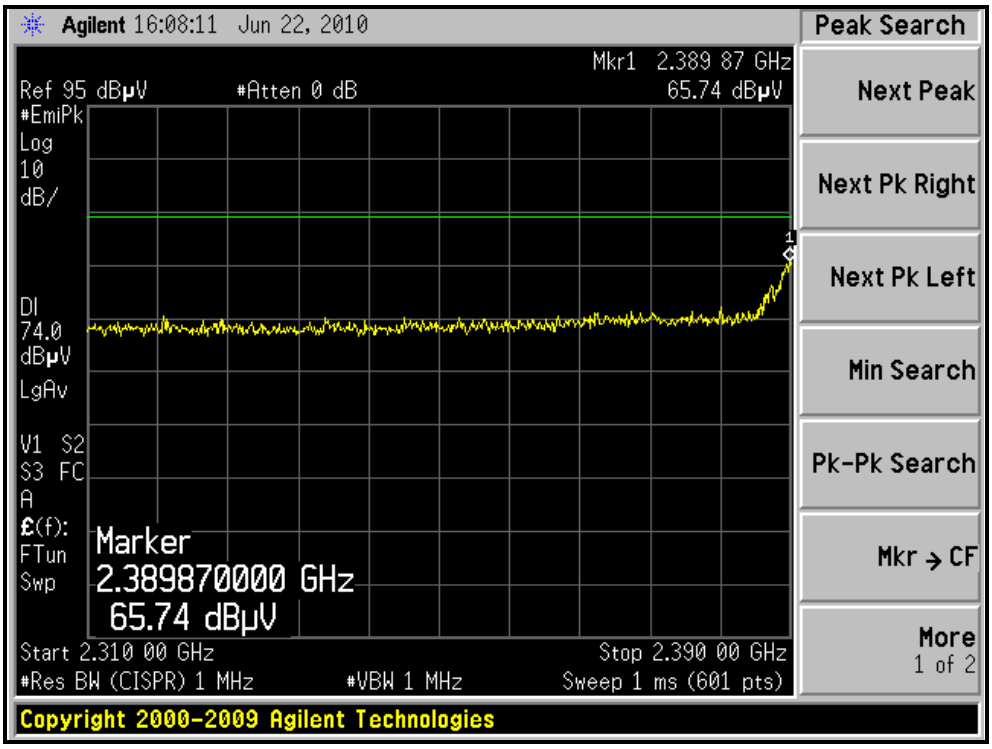
5. " * ": Fundamental frequency.

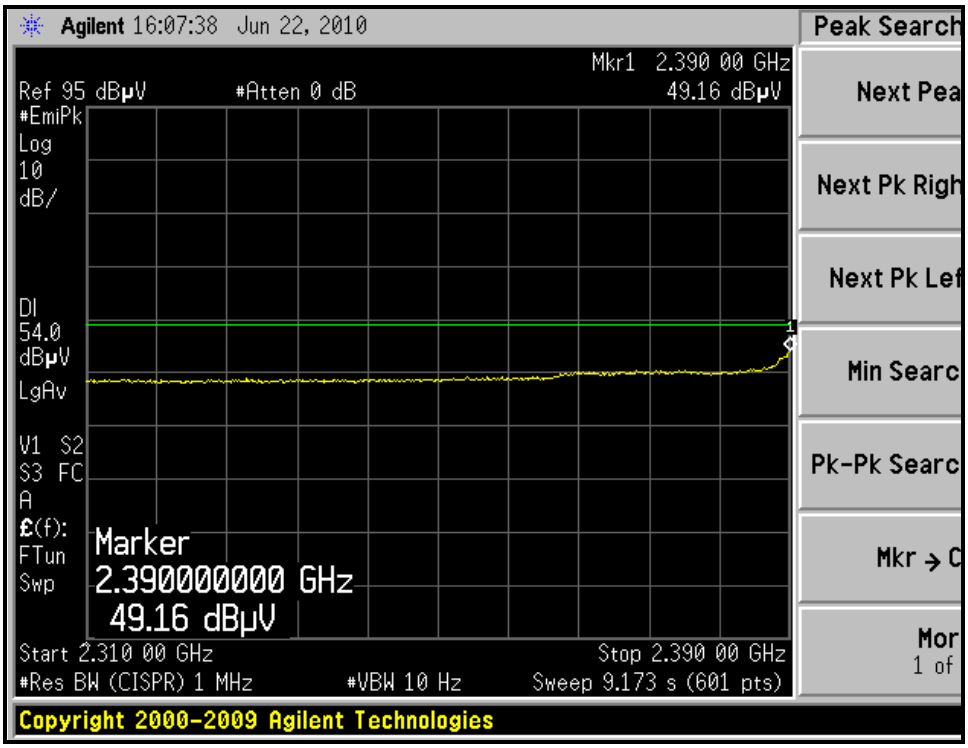
RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)



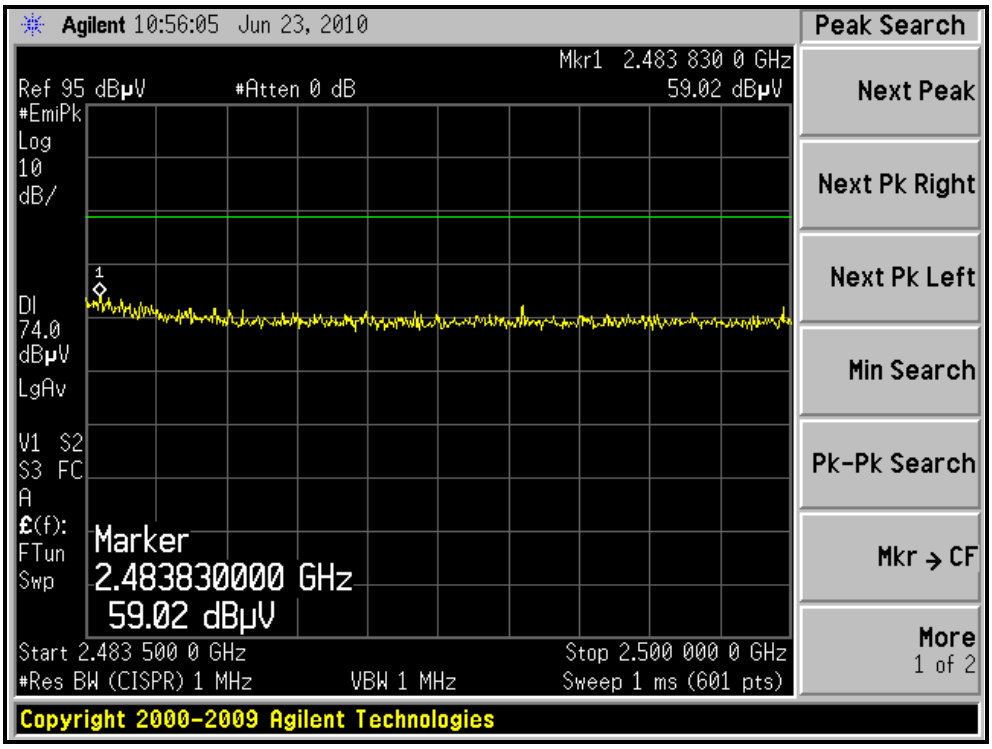


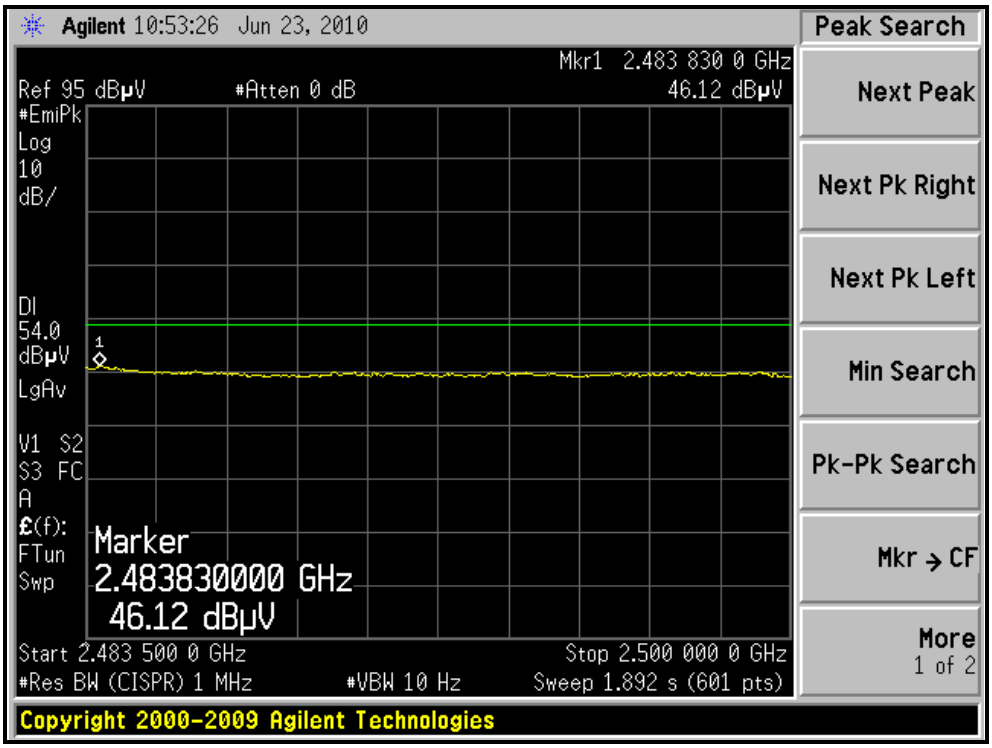
RESTRICTED BANDEDGE (802.11g MODE,CH1, VERTICAL)



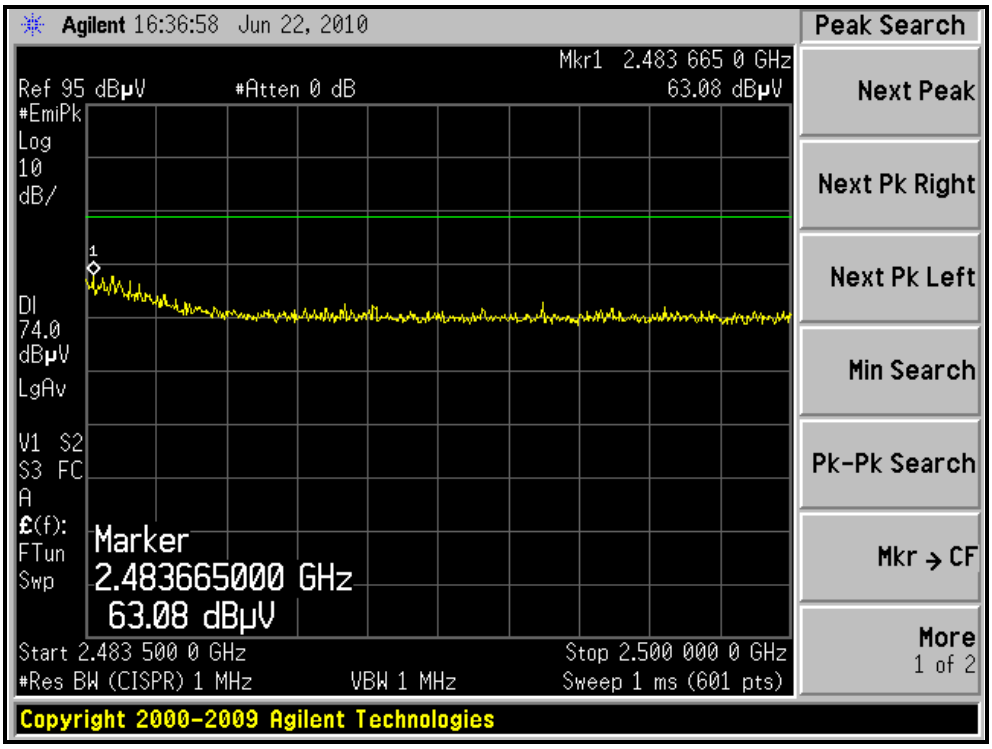


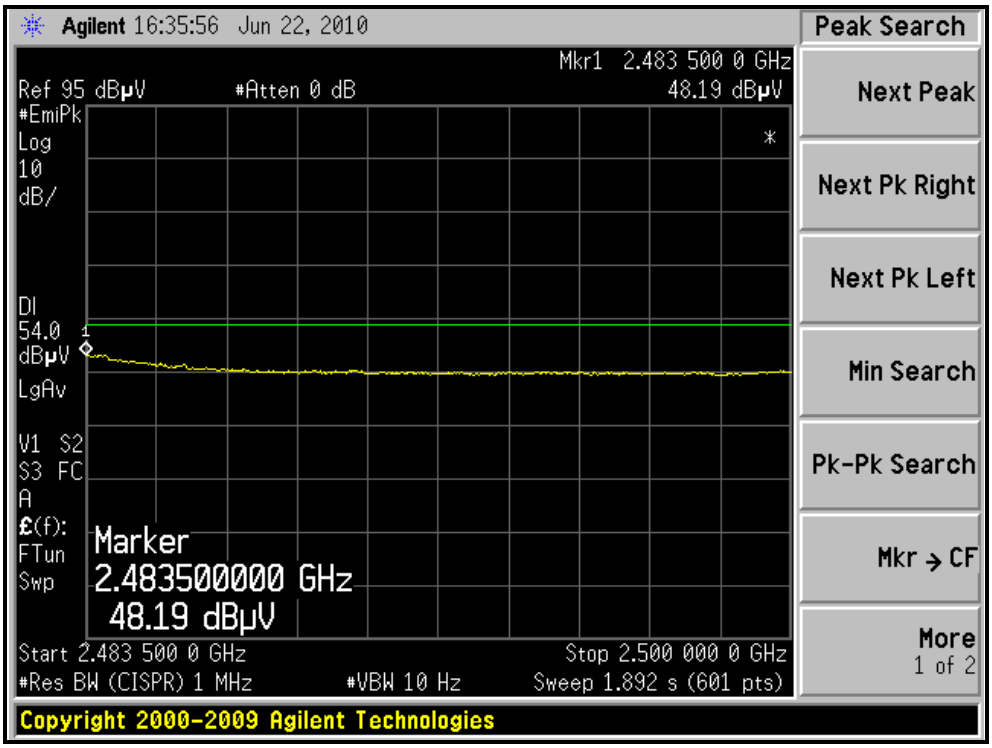
RESTRICTED BANDEDGE (802.11g MODE,CH11, HORIZONTAL)





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)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 69%RH 1012 hPa	TESTED BY	Eric Lee

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	62.0 PK	74.00	-12.0	1.00 H	81	30.79	31.21
2	2390.00	46.0 AV	54.00	-8.0	1.00 H	81	14.79	31.21
3	*2412.00	99.6 PK			1.01 H	73	68.33	31.27
4	*2412.00	89.7 AV			1.01 H	73	58.43	31.27
5	4824.00	44.9 PK	74.00	-29.1	1.02 H	8	5.48	39.42
6	4824.00	34.2 AV	54.00	-19.8	1.02 H	8	-5.22	39.42
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	63.4 PK	74.00	-10.6	1.69 V	110	32.19	31.21
2	2390.00	48.6 AV	54.00	-5.4	1.69 V	110	17.39	31.21
3	*2412.00	104.3 PK			1.70 V	111	73.03	31.27
4	*2412.00	94.8 AV			1.70 V	111	63.53	31.27
5	4824.00	47.4 PK	74.00	-26.6	1.01 V	299	7.98	39.42
6	4824.00	36.1 AV	54.00	-17.9	1.01 V	299	-3.32	39.42

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 69%RH 1012 hPa	TESTED BY	Eric Lee

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	103.9 PK			1.01 H	69	72.56	31.34
2	*2437.00	94.3 AV			1.01 H	69	62.96	31.34
3	4874.00	44.7 PK	74.00	-29.3	1.12 H	69	5.08	39.62
4	4874.00	34.2 AV	54.00	-19.8	1.12 H	69	-5.42	39.62
5	7311.00	50.9 PK	74.00	-23.1	1.10 H	98	6.80	44.10
6	7311.00	37.8 AV	54.00	-16.2	1.10 H	98	-6.30	44.10
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	108.8 PK			1.69 V	115	77.46	31.34
2	*2437.00	99.7 AV			1.69 V	115	68.36	31.34
3	4874.00	47.5 PK	74.00	-26.5	1.01 V	304	7.88	39.62
4	4874.00	35.9 AV	54.00	-18.1	1.01 V	304	-3.72	39.62
5	7311.00	51.1 PK	74.00	-22.9	1.44 V	20	7.00	44.10
6	7311.00	38.0 AV	54.00	-16.0	1.44 V	20	-6.10	44.10

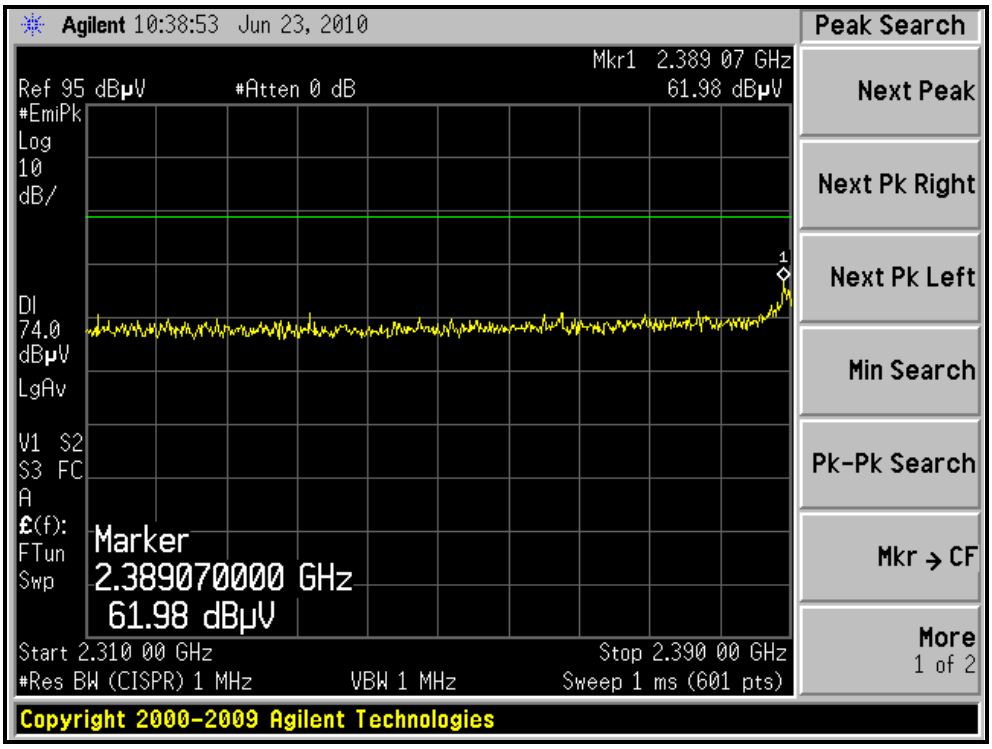
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

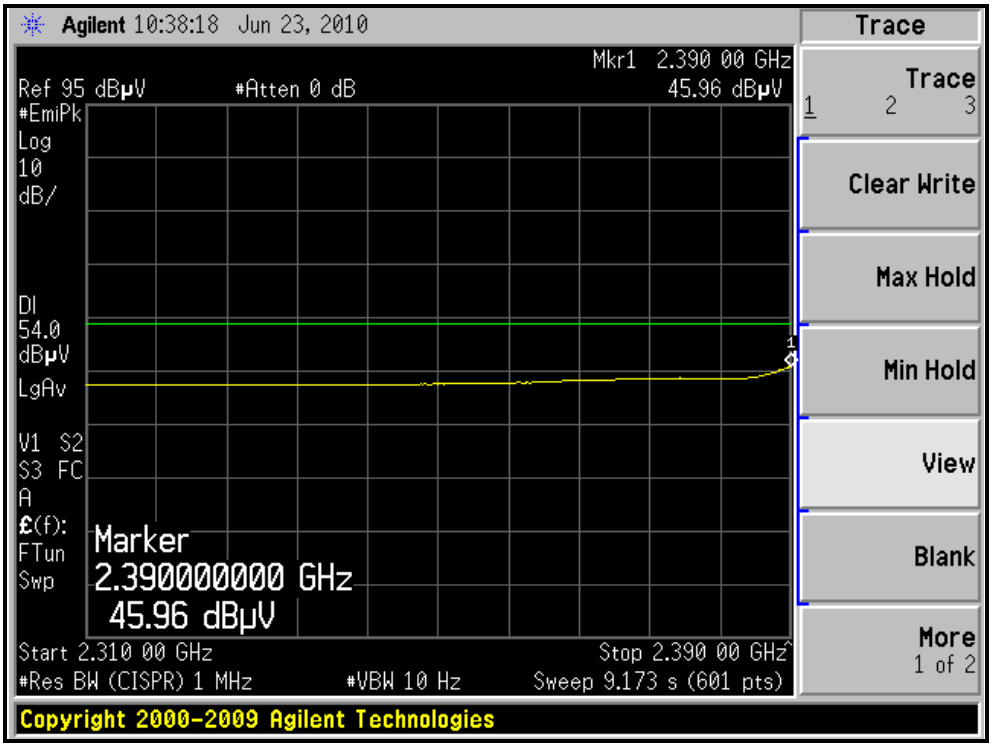
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 69%RH 1012 hPa	TESTED BY	Eric Lee

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	109.1 PK			1.01 H	71	77.70	31.40
2	*2462.00	89.8 AV			1.01 H	71	58.40	31.40
3	2483.50	60.3 PK	74.00	-13.7	1.01 H	68	28.84	31.46
4	2483.50	44.5 AV	54.00	-9.5	1.01 H	68	13.04	31.46
5	4924.00	44.6 PK	74.00	-29.4	1.10 H	30	4.78	39.82
6	4924.00	34.1 AV	54.00	-19.9	1.10 H	30	-5.72	39.82
7	7386.00	50.2 PK	74.00	-23.8	1.11 H	100	6.02	44.18
8	7386.00	37.5 AV	54.00	-16.5	1.11 H	100	-6.68	44.18
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	106.1 PK			1.71 V	111	74.70	31.40
2	*2462.00	97.1 AV			1.71 V	111	65.70	31.40
3	2483.70	63.1 PK	74.00	-10.9	1.71 V	110	31.64	31.46
4	2483.70	48.2 AV	54.00	-5.8	1.71 V	110	16.74	31.46
5	4924.00	47.9 PK	74.00	-26.1	1.01 V	270	8.08	39.82
6	4924.00	37.2 AV	54.00	-16.8	1.01 V	270	-2.62	39.82
7	7386.00	51.5 PK	74.00	-22.5	1.61 V	29	7.32	44.18
8	7386.00	38.3 AV	54.00	-15.7	1.61 V	29	-5.88	44.18

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)





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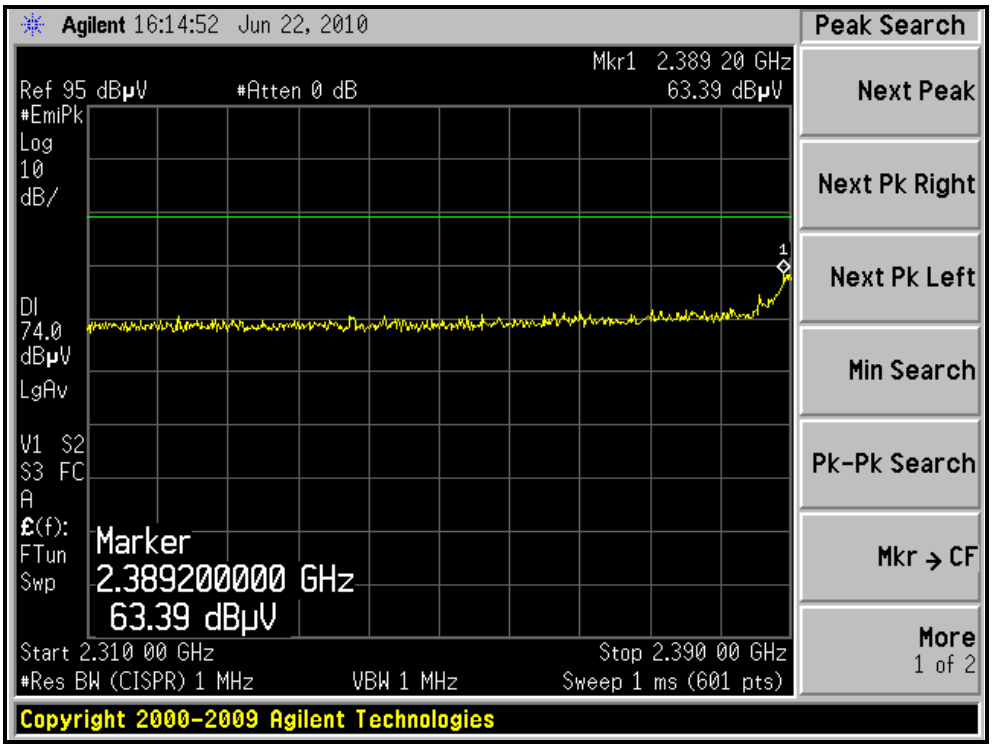

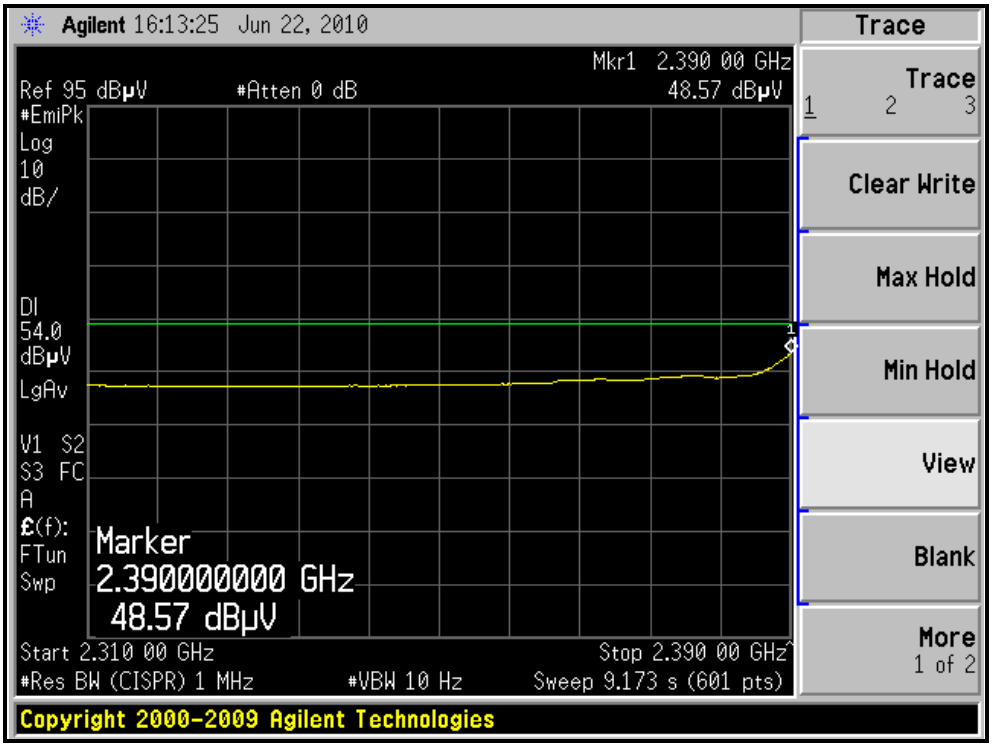

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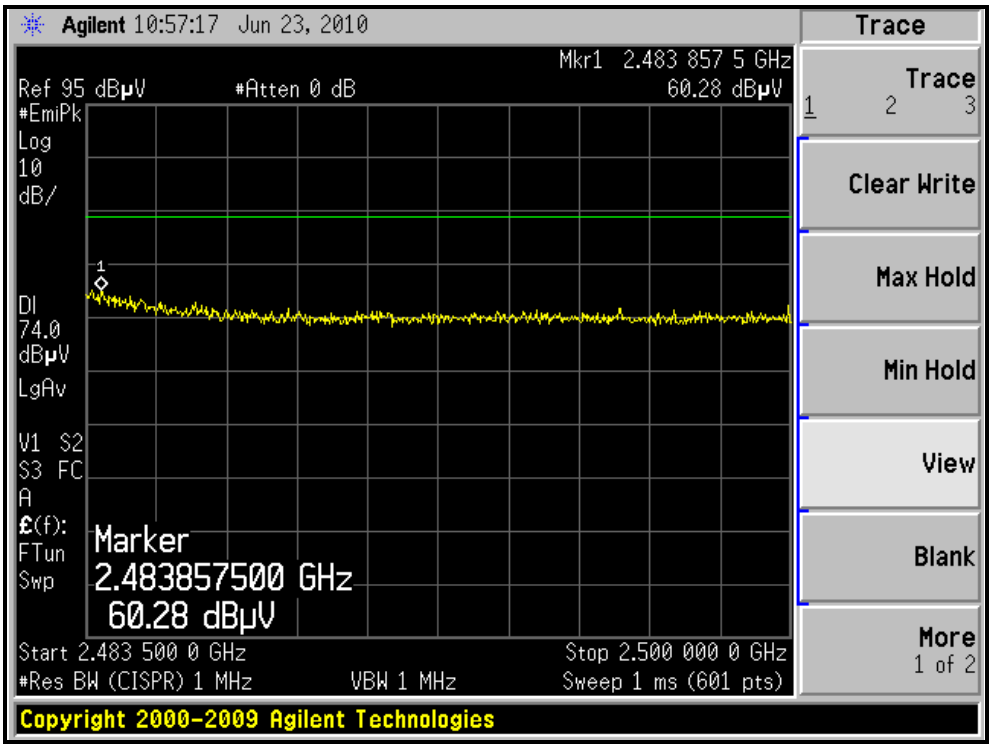

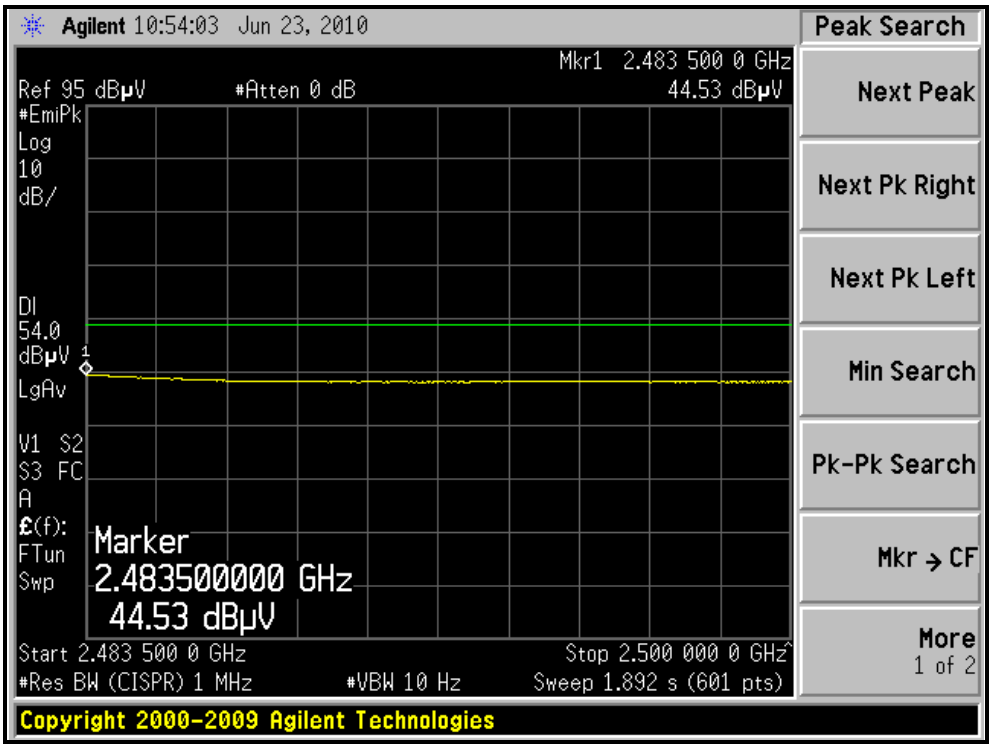

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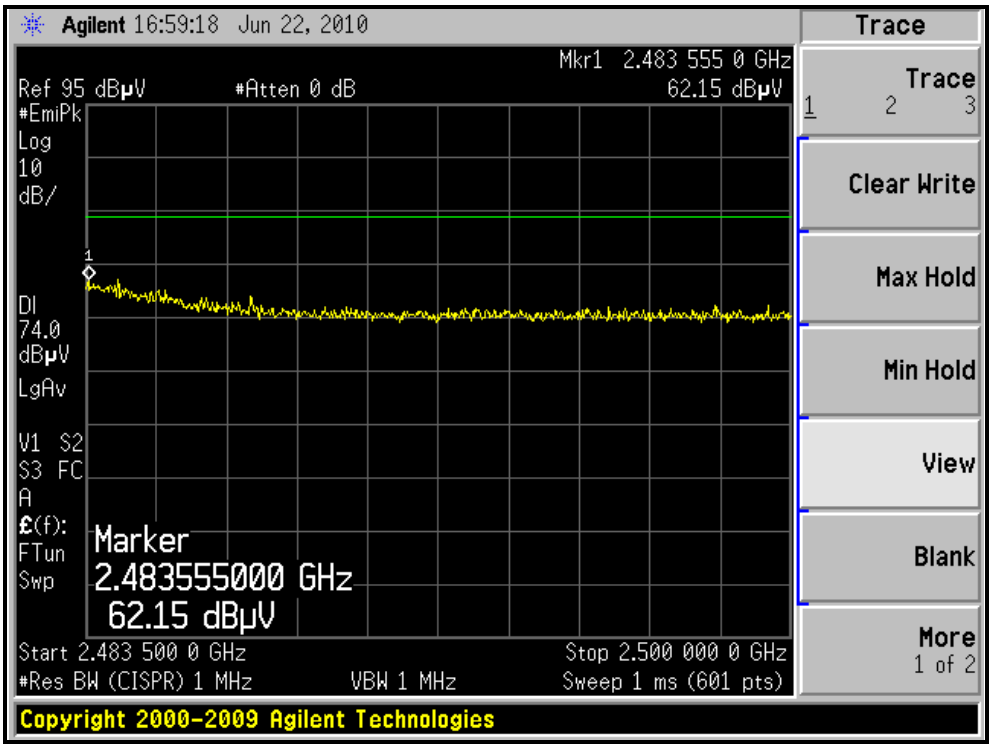
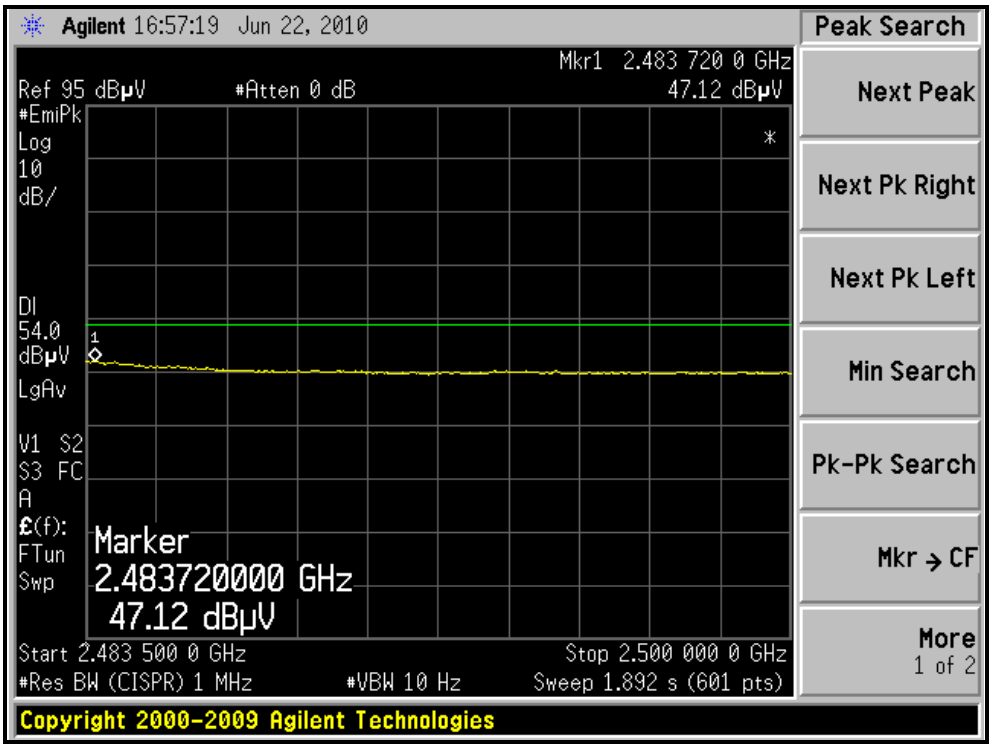




802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 69%RH 1012 hPa	TESTED BY	Eric Lee

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	61.5 PK	74.00	-12.5	1.01 H	72	30.29	31.21
2	2390.00	48.2 AV	54.00	-5.8	1.01 H	72	16.99	31.21
3	*2422.00	94.7 PK			1.00 H	69	63.40	31.30
4	*2422.00	85.8 AV			1.00 H	69	54.50	31.30
5	4844.00	45.2 PK	74.00	-28.8	1.08 H	20	5.70	39.50
6	4844.00	34.2 AV	54.00	-19.8	1.08 H	20	-5.30	39.50
7	7266.00	50.6 PK	74.00	-23.4	1.20 H	114	6.54	44.06
8	7266.00	37.5 AV	54.00	-16.5	1.20 H	114	-6.56	44.06
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	2388.90	64.7 PK	74.00	-9.3	1.70 V	112	33.49	31.21
2	2388.90	50.1 AV	54.00	-3.9	1.70 V	112	18.89	31.21
3	*2422.00	100.5 PK			1.71 V	110	69.20	31.30
4	*2422.00	90.9 AV			1.71 V	110	59.60	31.30
5	4844.00	48.5 PK	74.00	-25.5	1.02 V	301	9.00	39.50
6	4844.00	37.3 AV	54.00	-16.7	1.02 V	301	-2.20	39.50
7	7266.00	51.7 PK	74.00	-22.3	1.69 V	28	7.64	44.06
8	7266.00	38.8 AV	54.00	-15.2	1.69 V	28	-5.26	44.06

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 4	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 69%RH 1012 hPa	TESTED BY	Eric Lee

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	97.9 PK			1.01 H	84	66.56	31.34
2	*2437.00	88.4 AV			1.01 H	84	57.06	31.34
3	4874.00	45.4 PK	74.00	-28.6	1.10 H	30	5.78	39.62
4	4874.00	34.3 AV	54.00	-19.7	1.10 H	30	-5.32	39.62
5	7311.00	50.7 PK	74.00	-23.3	1.19 H	105	6.60	44.10
6	7311.00	37.8 AV	54.00	-16.2	1.19 H	105	-6.30	44.10
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	103.8 PK			1.71 V	113	72.46	31.34
2	*2437.00	93.9 AV			1.71 V	113	62.56	31.34
3	4874.00	48.4 PK	74.00	-25.6	1.01 V	300	8.78	39.62
4	4874.00	39.2 AV	54.00	-14.8	1.01 V	300	-0.42	39.62
5	7311.00	51.6 PK	74.00	-22.4	1.71 V	20	7.50	44.10
6	7311.00	38.6 AV	54.00	-15.4	1.71 V	20	-5.50	44.10

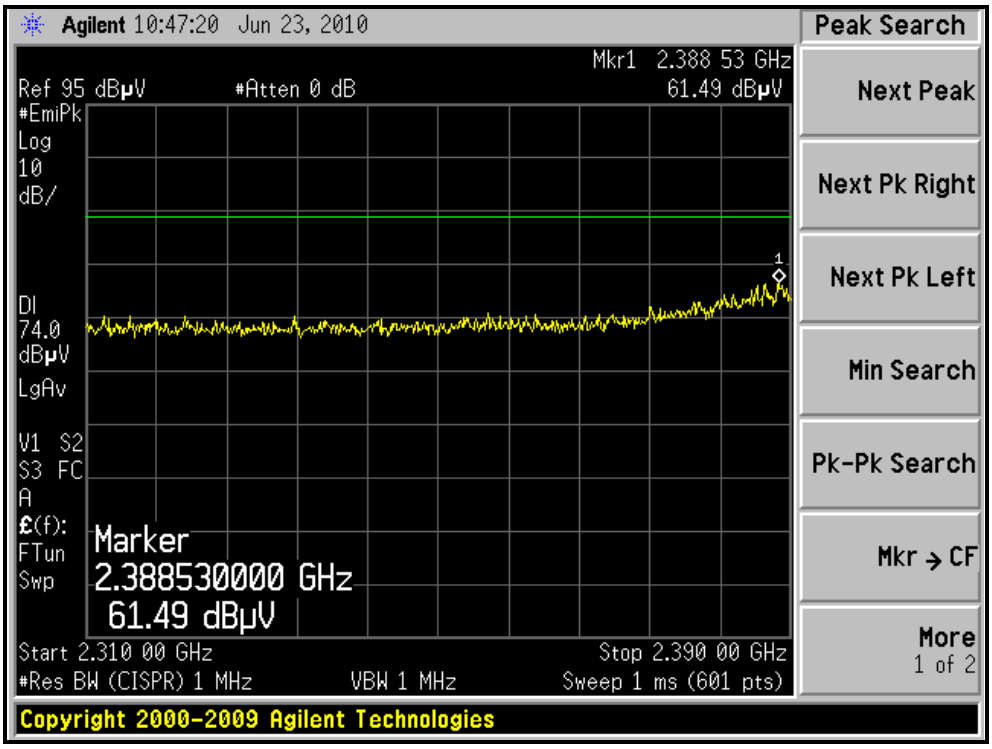
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

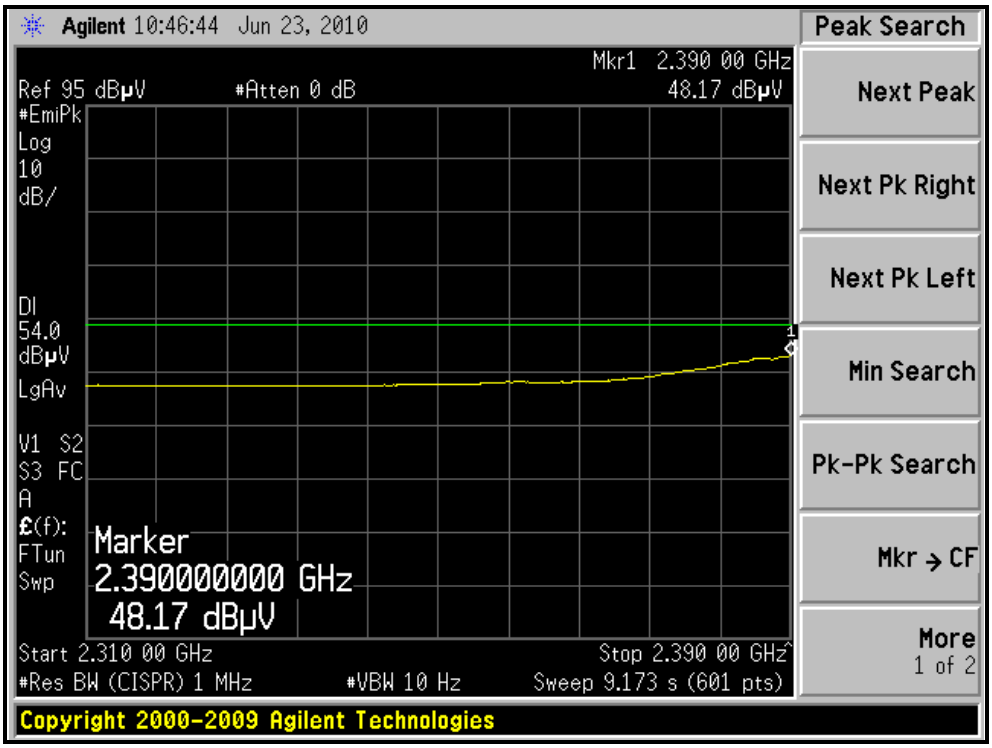
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 69%RH 1012 hPa	TESTED BY	Eric Lee

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	94.9 PK			1.01 H	68	63.52	31.38
2	*2452.00	85.4 AV			1.01 H	68	54.02	31.38
3	2483.50	58.8 PK	74.00	-15.2	1.00 H	71	27.34	31.46
4	2483.50	44.8 AV	54.00	-9.2	1.00 H	71	13.34	31.46
5	4904.00	45.4 PK	74.00	-28.6	1.06 H	3	5.66	39.74
6	4904.00	34.4 AV	54.00	-19.6	1.06 H	3	-5.34	39.74
7	7356.00	50.8 PK	74.00	-23.2	1.13 H	71	6.65	44.15
8	7356.00	37.8 AV	54.00	-16.2	1.13 H	71	-6.35	44.15
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	100.2 PK			1.72 V	110	68.82	31.38
2	*2452.00	90.8 AV			1.72 V	110	59.42	31.38
3	2483.50	63.3 PK	74.00	-10.7	1.70 V	109	31.84	31.46
4	2483.50	47.9 AV	54.00	-6.1	1.70 V	109	16.44	31.46
5	4904.00	48.1 PK	74.00	-25.9	1.05 V	288	8.36	39.74
6	4904.00	37.4 AV	54.00	-16.6	1.05 V	288	-2.34	39.74
7	7356.00	51.6 PK	74.00	-22.4	1.70 V	35	7.45	44.15
8	7356.00	38.9 AV	54.00	-15.1	1.70 V	35	-5.25	44.15

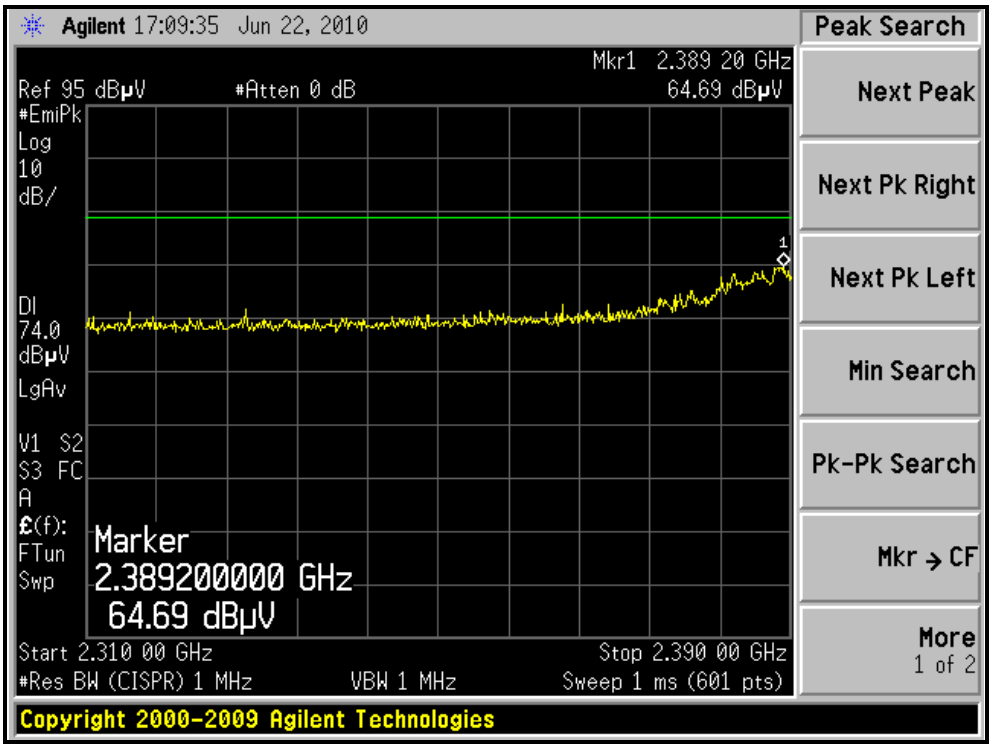
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

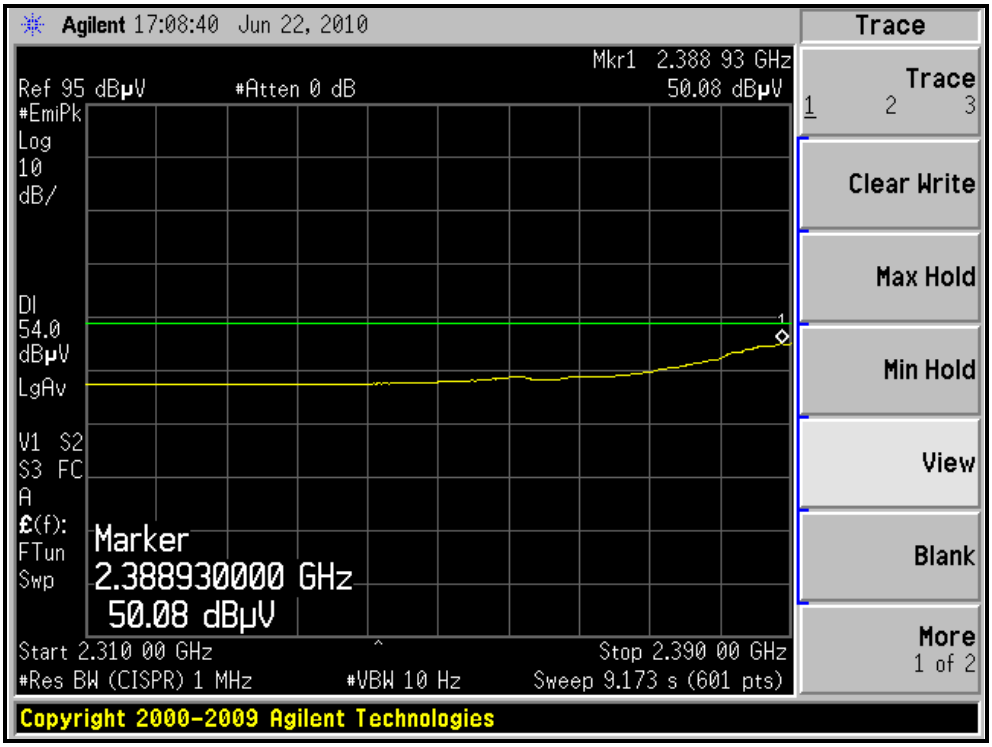
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH1, HORIZONTAL)



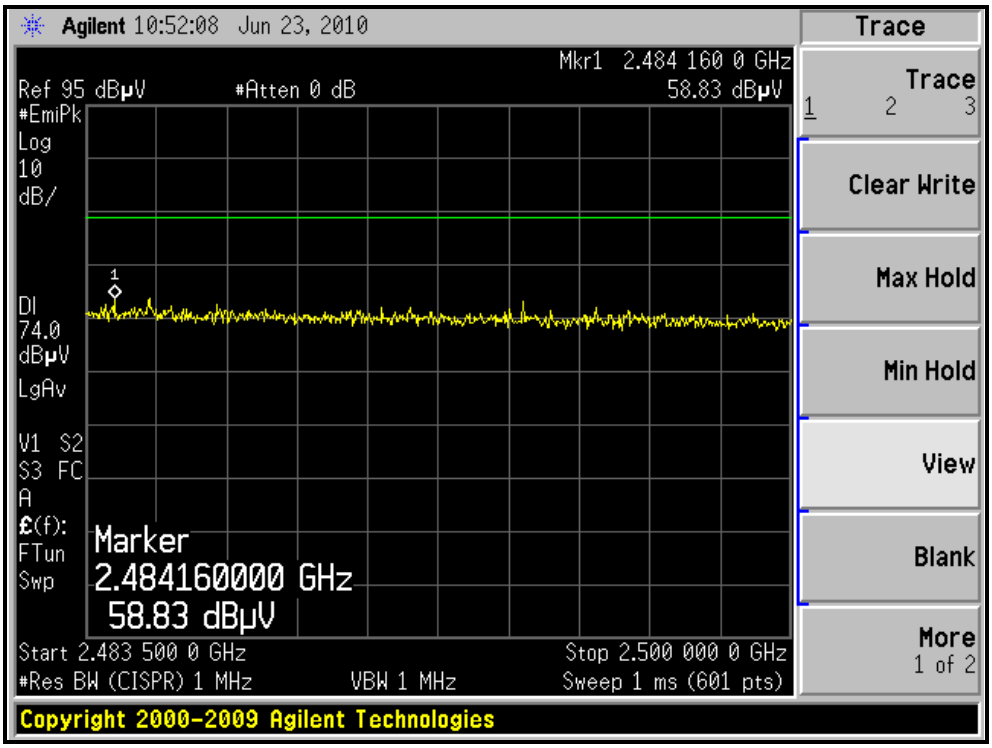


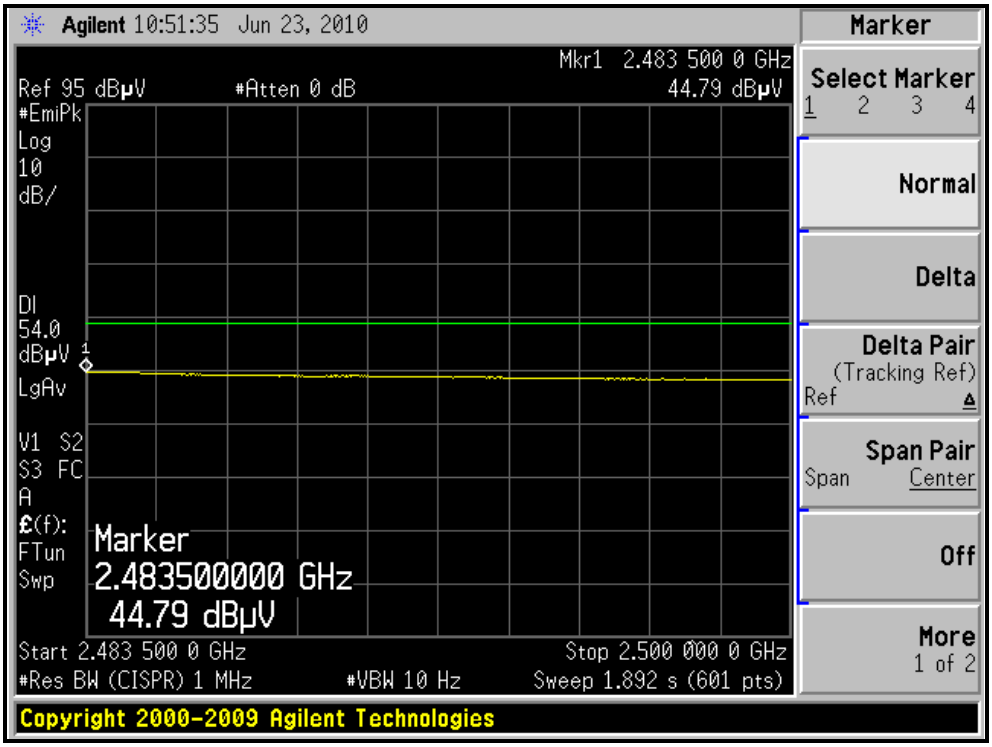
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH1, VERTICAL)



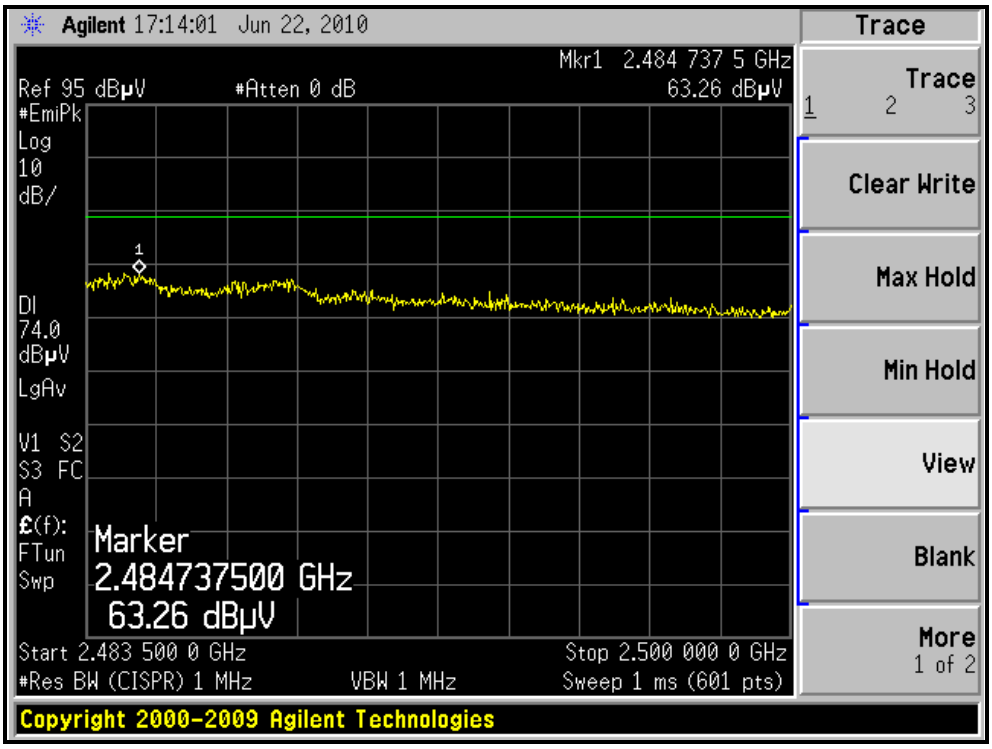


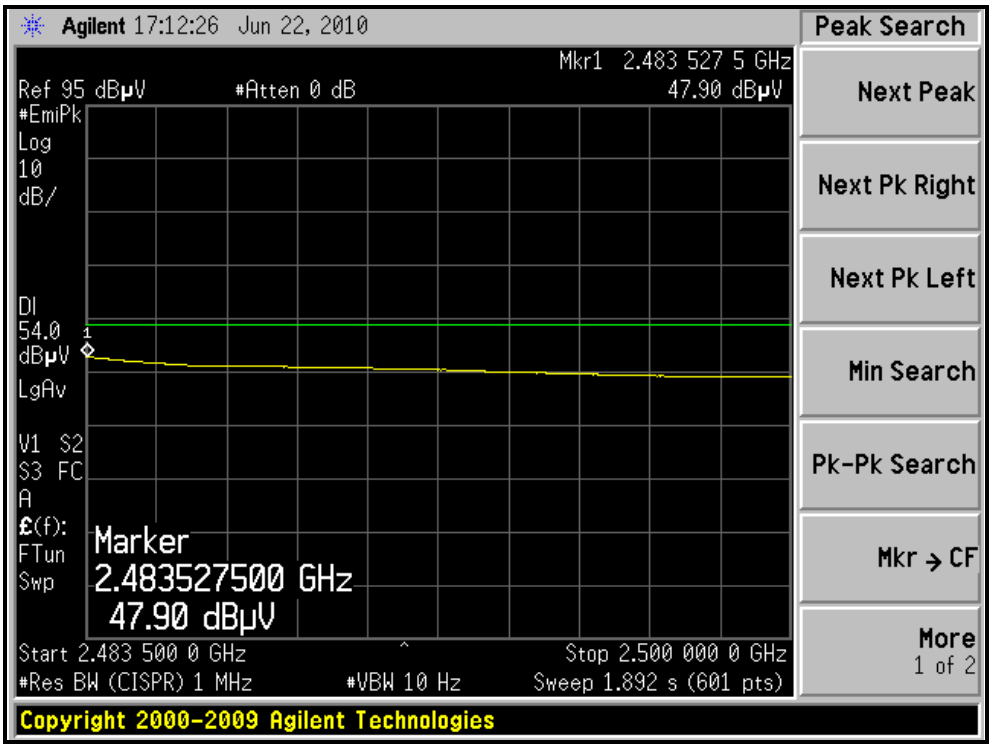
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH7, HORIZONTAL)





RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH7, VERTICAL)





4.2.10 TEST RESULTS (ABOVE 1GHz - Sample 2, PIFA ANTENNA)

802.11b DSSS MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 62%RH 1021 hPa	TESTED BY	Phoenix Huang

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	2370.27	55.0 PK	74.0	-19.0	1.58 H	147	25.02	29.98
2	2370.27	44.3 AV	54.0	-9.7	1.58 H	147	14.32	29.98
3	*2412.00	104.6 PK			1.48 H	146	74.45	30.15
4	*2412.00	102.1 AV			1.48 H	146	71.95	30.15
5	4824.00	46.9 PK	74.0	-27.1	1.24 H	2	11.47	35.43
6	4824.00	42.2 AV	54.0	-11.8	1.24 H	2	6.77	35.43
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	53.9 PK	74.0	-20.1	1.04 V	5	23.80	30.10
2	2390.00	41.5 AV	54.0	-12.5	1.04 V	5	11.40	30.10
3	*2412.00	97.4 PK			1.04 V	5	67.30	30.10
4	*2412.00	94.2 AV			1.04 V	5	64.10	30.10
5	4824.00	48.1 PK	74.0	-25.9	1.34 V	320	12.70	35.40
6	4824.00	43.7 AV	54.0	-10.3	1.34 V	320	8.30	35.40

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)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 62%RH 1021 hPa	TESTED BY	Phoenix Huang

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	107.1 PK			1.47 H	5	76.86	30.24
2	*2437.00	104.9 AV			1.47 H	5	74.66	30.24
3	4874.00	53.0 PK	74.0	-21.0	1.20 H	348	17.48	35.52
4	4874.00	50.1 AV	54.0	-3.9	1.20 H	348	14.58	35.52
5	7311.00	54.5 PK	74.0	-19.5	1.76 H	138	12.54	41.96
6	7311.00	48.7 AV	54.0	-5.3	1.76 H	138	6.74	41.96
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	96.8 PK			1.00 V	239	66.56	30.24
2	*2437.00	93.8 AV			1.00 V	239	63.56	30.24
3	4874.00	52.3 PK	74.0	-21.7	1.44 V	162	16.78	35.52
4	4874.00	48.8 AV	54.0	-5.2	1.44 V	162	13.28	35.52
5	7311.00	56.2 PK	74.0	-17.8	1.20 V	19	14.24	41.96
6	7311.00	50.9 AV	54.0	-3.1	1.20 V	19	8.94	41.96

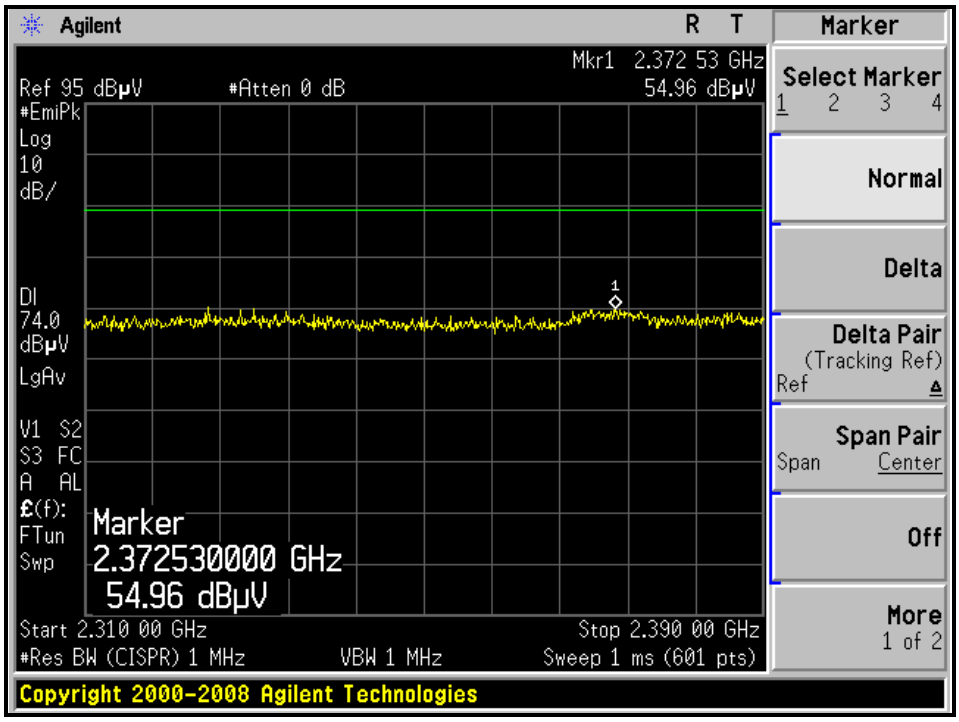
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

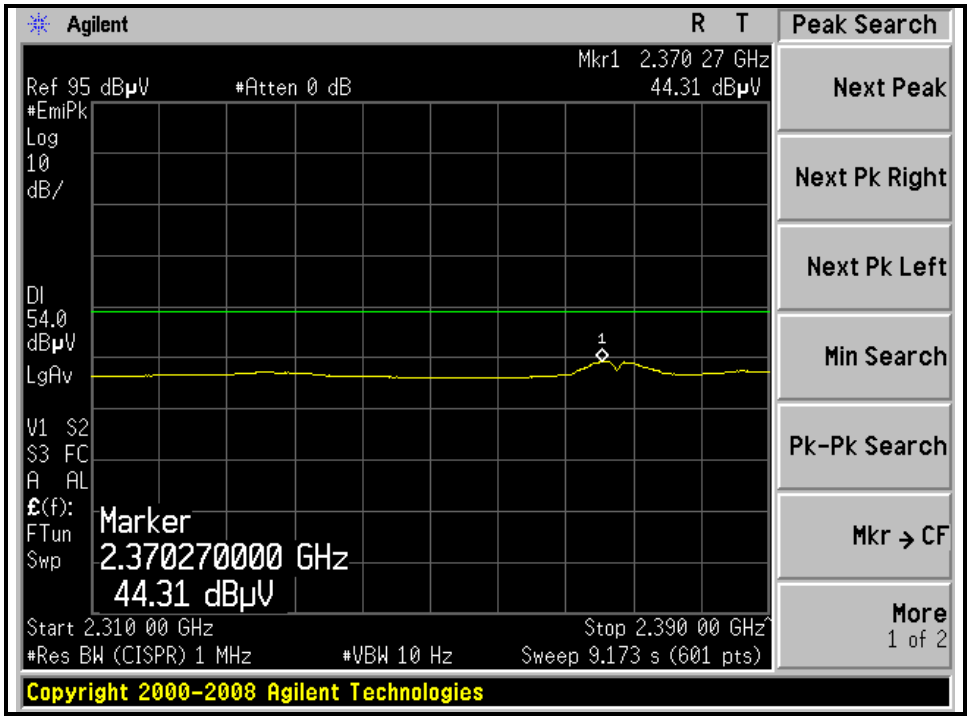
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 62%RH 1021 hPa	TESTED BY	Phoenix Huang

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	106.9 PK			1.45 H	327	76.60	30.30
2	*2462.00	104.7 AV			1.45 H	327	74.40	30.30
3	2487.70	58.3 PK	74.0	-15.7	1.47 H	337	27.90	30.40
4	2487.70	49.8 AV	54.0	-4.2	1.47 H	337	19.40	30.40
5	4924.00	49.3 PK	74.0	-24.7	1.56 H	126	13.70	35.60
6	4924.00	45.3 AV	54.0	-8.7	1.56 H	126	9.70	35.60
7	7386.00	52.7 PK	74.0	-21.3	1.53 H	138	10.60	42.10
8	7386.00	44.7 AV	54.0	-9.3	1.53 H	138	2.60	42.10
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	99.1 PK			1.41 V	342	68.76	30.34
2	*2462.00	96.4 AV			1.41 V	342	66.06	30.34
3	2488.15	56.4 PK	74.0	-17.6	1.33 V	68	25.96	30.44
4	2488.15	43.4 AV	54.0	-10.6	1.33 V	68	12.96	30.44
5	4924.00	48.9 PK	74.0	-25.1	1.07 V	55	13.28	35.62
6	4924.00	44.5 AV	54.0	-9.5	1.07 V	55	8.88	35.62
7	7386.00	52.1 PK	74.0	-21.9	1.02 V	55	10.00	42.10
8	7386.00	45.4 AV	54.0	-8.6	1.02 V	55	3.30	42.10

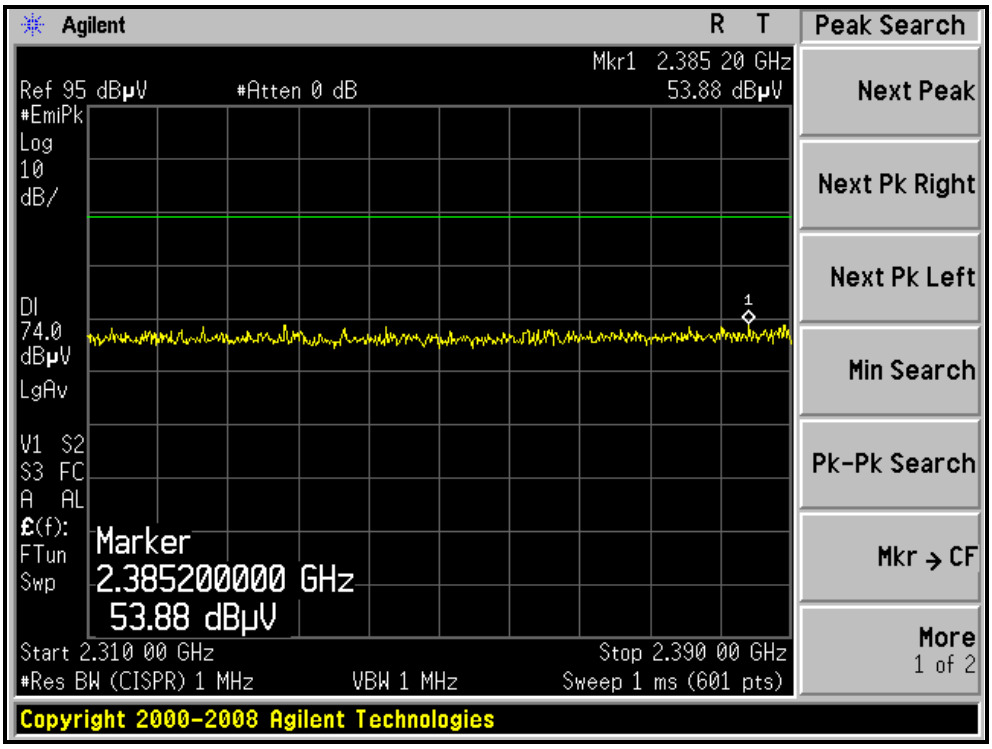
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

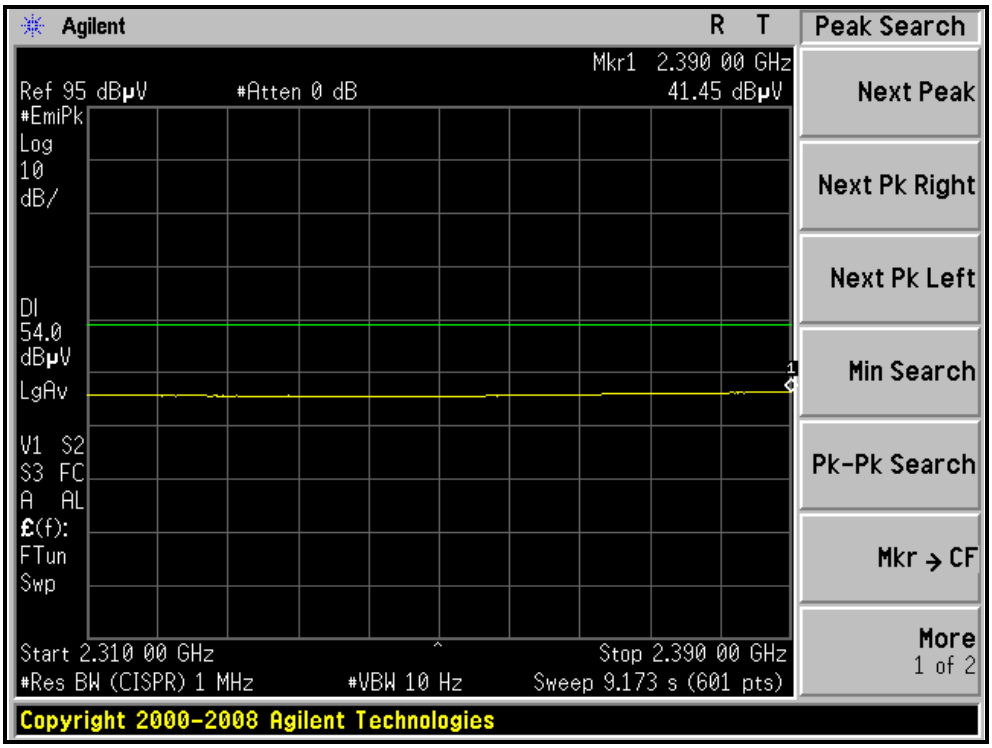
RESTRICTED BANDEDGE (802.11b MODE,CH1, HORIZONTAL)



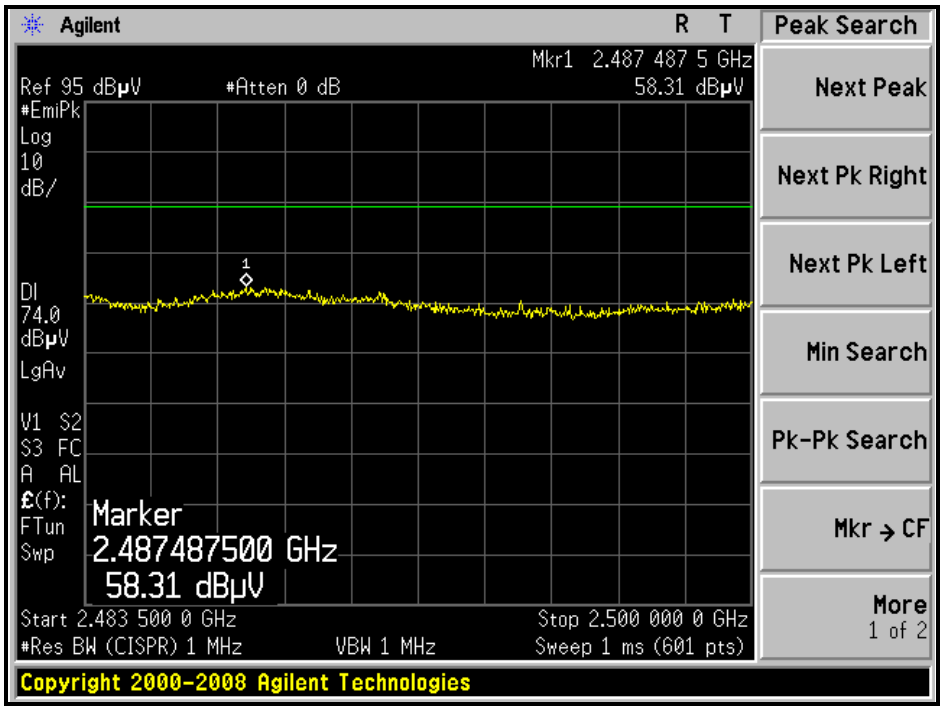


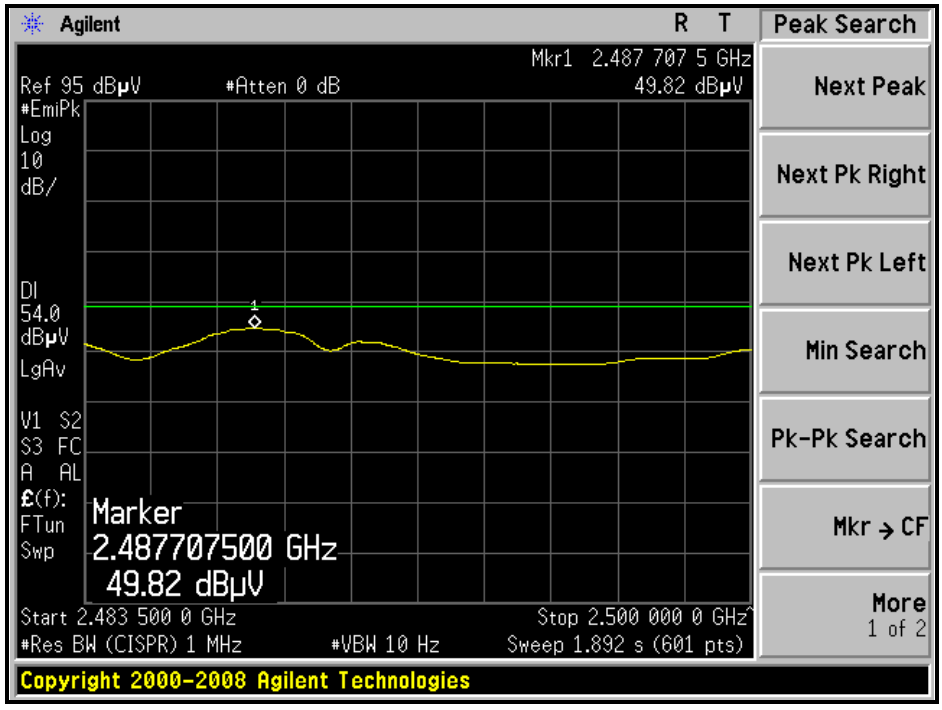
RESTRICTED BANDEDGE (802.11b MODE,CH1, VERTICAL)



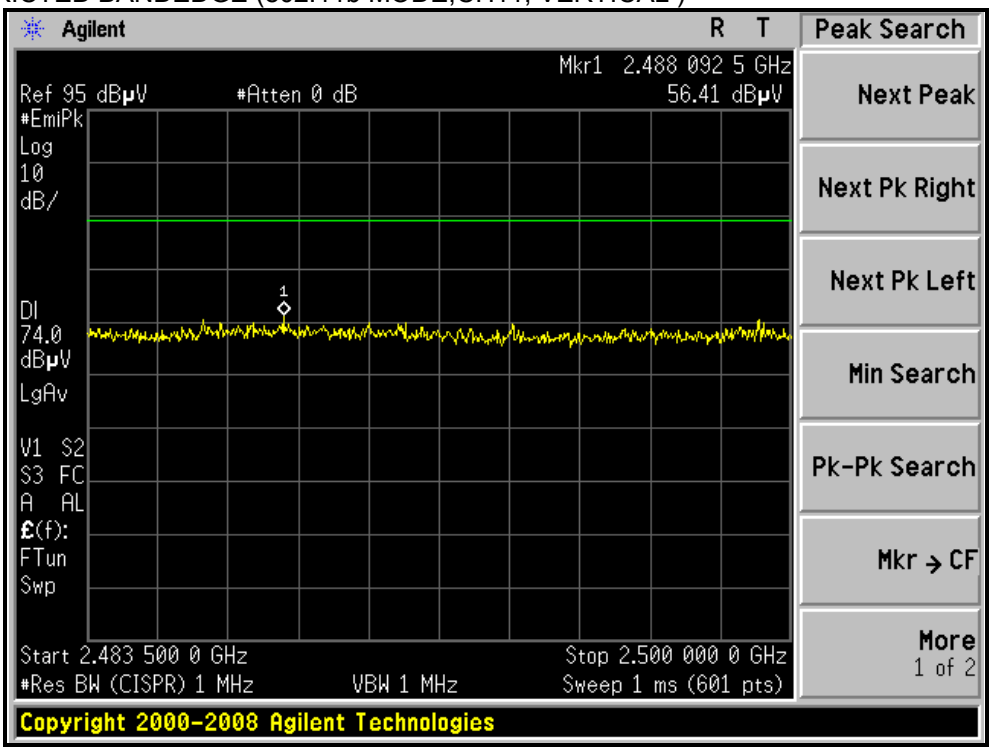


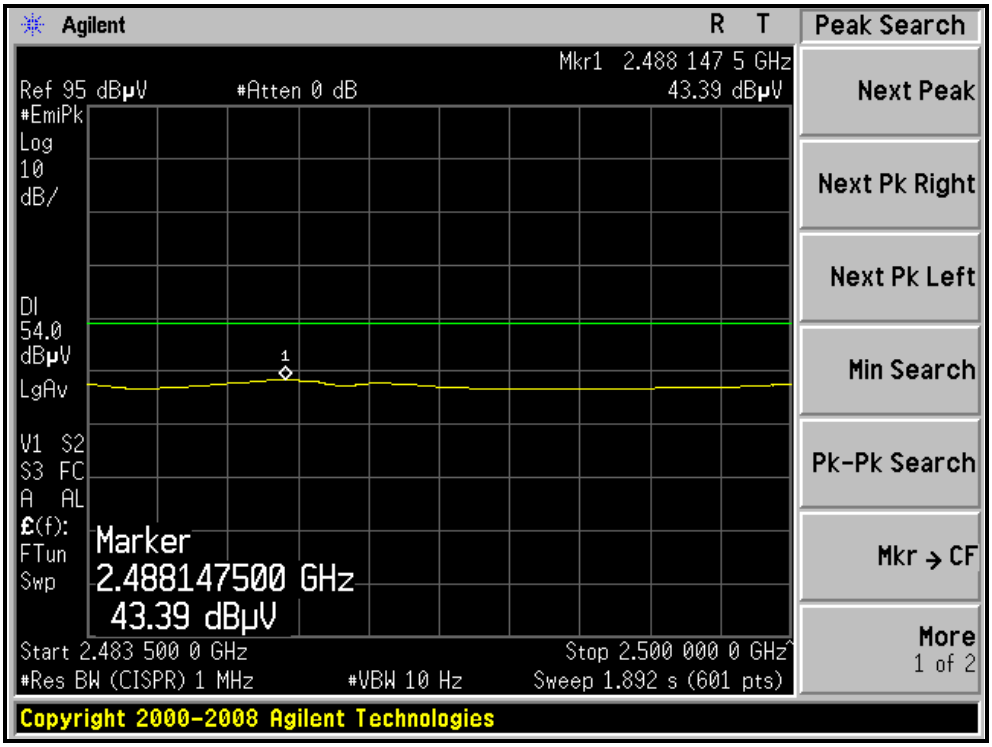
RESTRICTED BANDEDGE (802.11b MODE,CH11, HORIZONTAL)





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)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 62%RH 1021 hPa	TESTED BY	Phoenix Huang

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	57.4 PK	74.0	-16.6	1.60 H	345	27.30	30.10
2	2390.00	44.7 AV	54.0	-9.3	1.60 H	345	14.60	30.10
3	*2412.00	106.6 PK			1.56 H	350	76.50	30.10
4	*2412.00	97.8 AV			1.56 H	350	67.70	30.10
5	4824.00	44.2 PK	74.0	-29.8	1.00 H	124	8.80	35.40
6	4824.00	31.8 AV	54.0	-22.2	1.00 H	124	-3.60	35.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	53.7 PK	74.0	-20.3	1.00 V	162	23.60	30.10
2	2390.00	41.8 AV	54.0	-12.2	1.00 V	162	11.70	30.10
3	*2412.00	96.2 PK			1.00 V	161	66.10	30.10
4	*2412.00	85.6 AV			1.00 V	161	55.50	30.10
5	4824.00	43.8 PK	74.0	-30.2	1.55 V	241	8.40	35.40
6	4824.00	31.0 AV	54.0	-23.0	1.55 V	241	-4.40	35.40

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)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 62%RH 1021 hPa	TESTED BY	Phoenix Huang

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	110.9 PK			1.50 H	146	80.70	30.20
2	*2437.00	101.4 AV			1.50 H	146	71.20	30.20
3	2483.50	60.1 PK	74.0	-13.9	1.71 H	146	29.70	30.40
4	2483.50	46.2 AV	54.0	-7.8	1.71 H	146	15.80	30.40
5	4874.00	54.5 PK	74.0	-19.5	1.32 H	327	19.00	35.50
6	4874.00	41.3 AV	54.0	-12.7	1.32 H	327	5.80	35.50
7	7311.00	62.1 PK	74.0	-11.9	1.01 H	324	20.10	42.00
8	7311.00	49.7 AV	54.0	-4.3	1.01 H	324	7.70	42.00
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	102.5 PK			1.39 V	69	72.30	30.20
2	*2437.00	93.3 AV			1.39 V	69	63.10	30.20
3	4874.00	54.3 PK	74.0	-19.7	1.12 V	347	18.80	35.50
4	4874.00	42.3 AV	54.0	-11.7	1.12 V	347	6.80	35.50
5	7311.00	60.0 PK	74.0	-14.0	1.00 V	79	18.00	42.00
6	7311.00	48.2 AV	54.0	-5.8	1.00 V	79	6.20	42.00

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)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 62%RH 1021 hPa	TESTED BY	Phoenix Huang

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	107.3 PK			1.47 H	346	77.00	30.30
2	*2462.00	98.0 AV			1.47 H	346	67.70	30.30
3	2483.50	65.7 PK	74.0	-8.3	1.45 H	344	35.30	30.40
4	2483.50	51.8 AV	54.0	-2.2	1.45 H	344	21.40	30.40
5	4924.00	46.3 PK	74.0	-27.7	1.18 H	82	10.70	35.60
6	4924.00	33.3 AV	54.0	-20.7	1.18 H	82	-2.30	35.60
7	7386.00	52.1 PK	74.0	-21.9	1.07 H	290	10.00	42.10
8	7386.00	39.1 AV	54.0	-14.9	1.07 H	290	-3.00	42.10
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	97.9 PK			1.34 V	244	67.60	30.30
2	*2462.00	88.3 AV			1.34 V	244	58.00	30.30
3	2483.50	59.2 PK	74.0	-14.8	1.33 V	249	28.80	30.40
4	2483.50	43.2 AV	54.0	-10.8	1.33 V	249	12.80	30.40
5	4924.00	42.3 PK	74.0	-31.7	1.24 V	137	6.70	35.60
6	4924.00	30.8 AV	54.0	-23.2	1.24 V	137	-4.80	35.60
7	7386.00	49.1 PK	74.0	-24.9	1.50 V	107	7.00	42.10
8	7386.00	36.2 AV	54.0	-17.8	1.50 V	107	-5.90	42.10

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

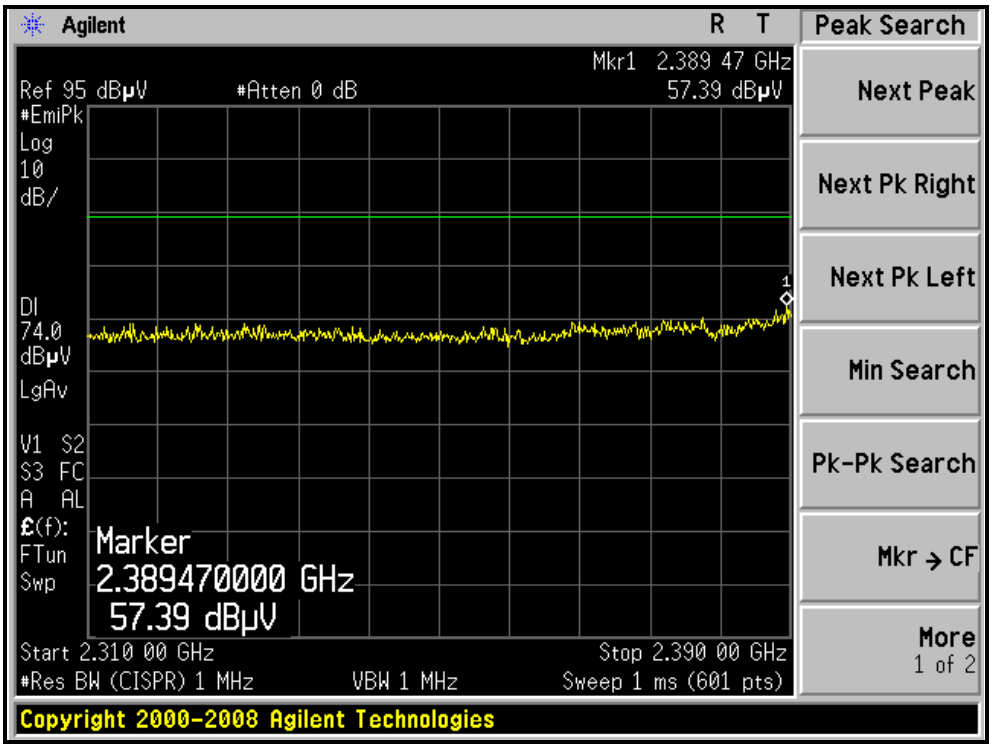
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

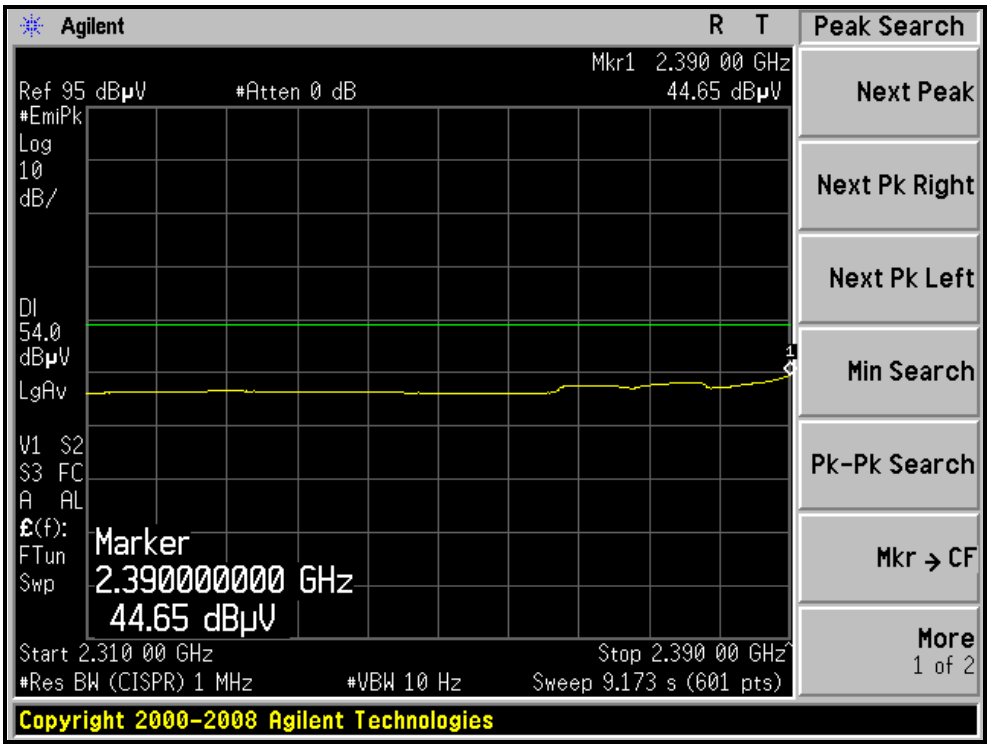
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

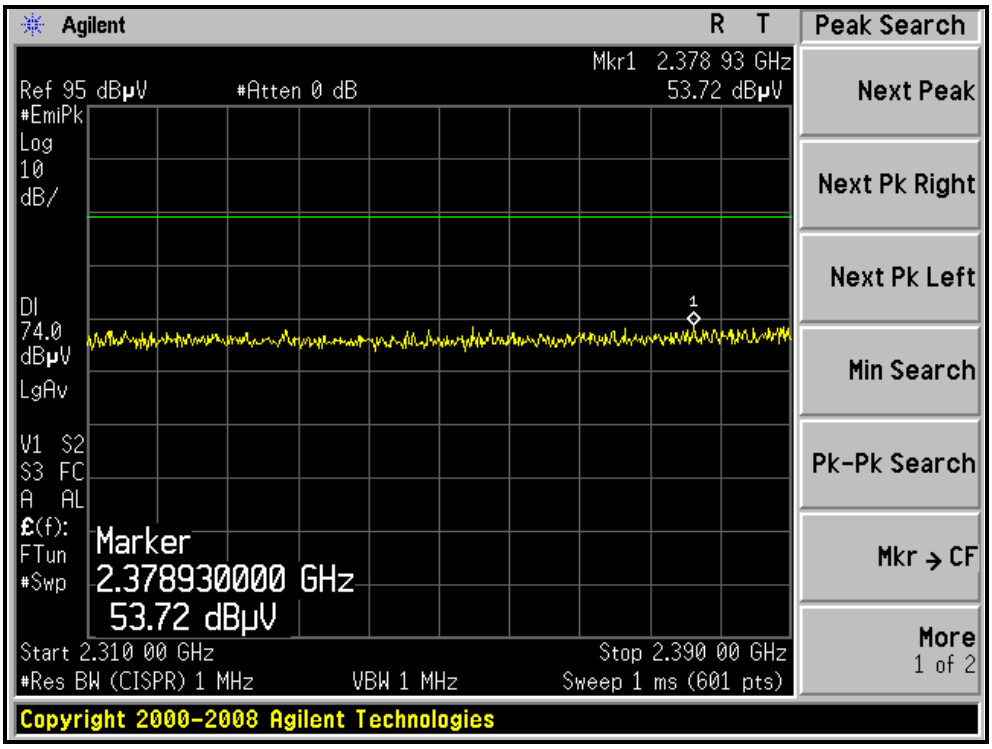
5. " * ": Fundamental frequency.

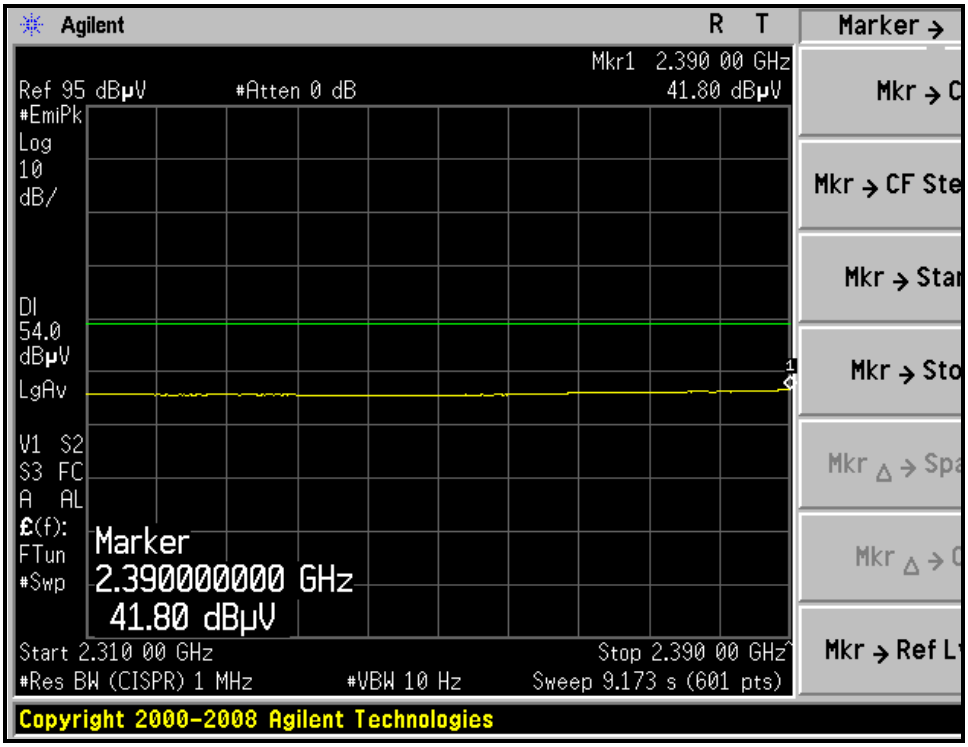
RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)



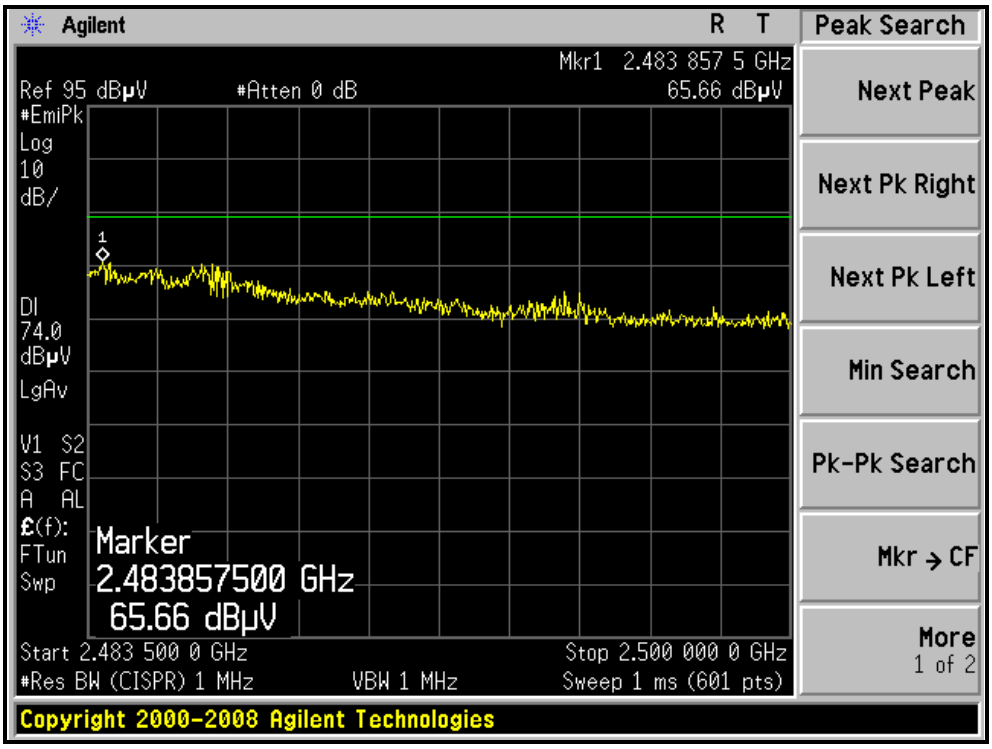


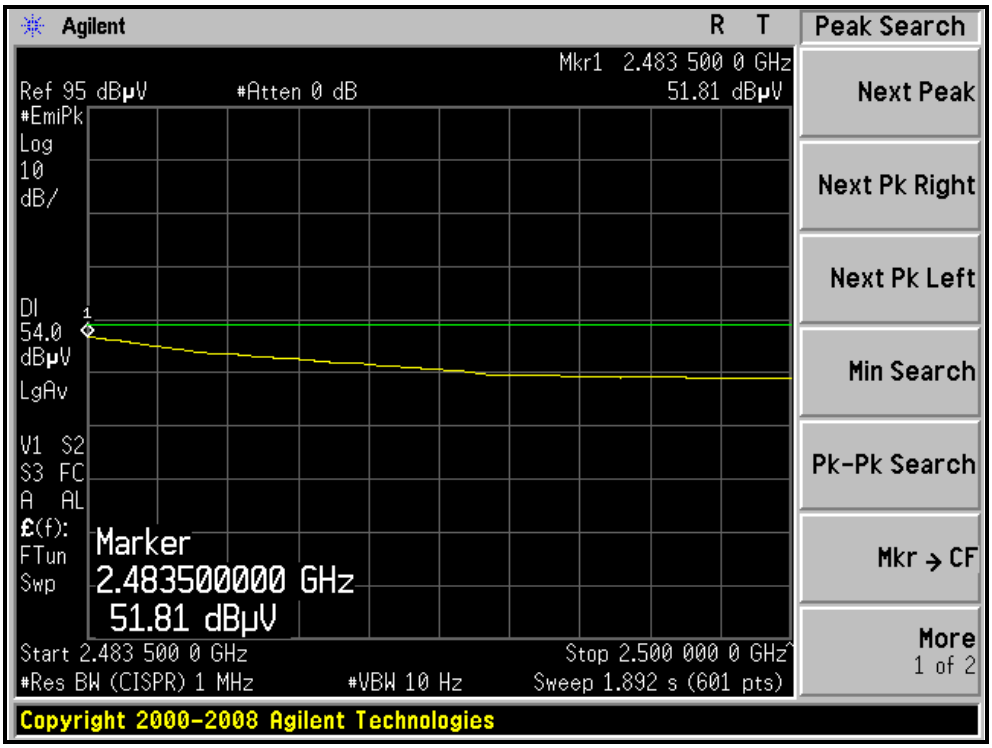
RESTRICTED BANDEDGE (802.11g MODE,CH1, VERTICAL)



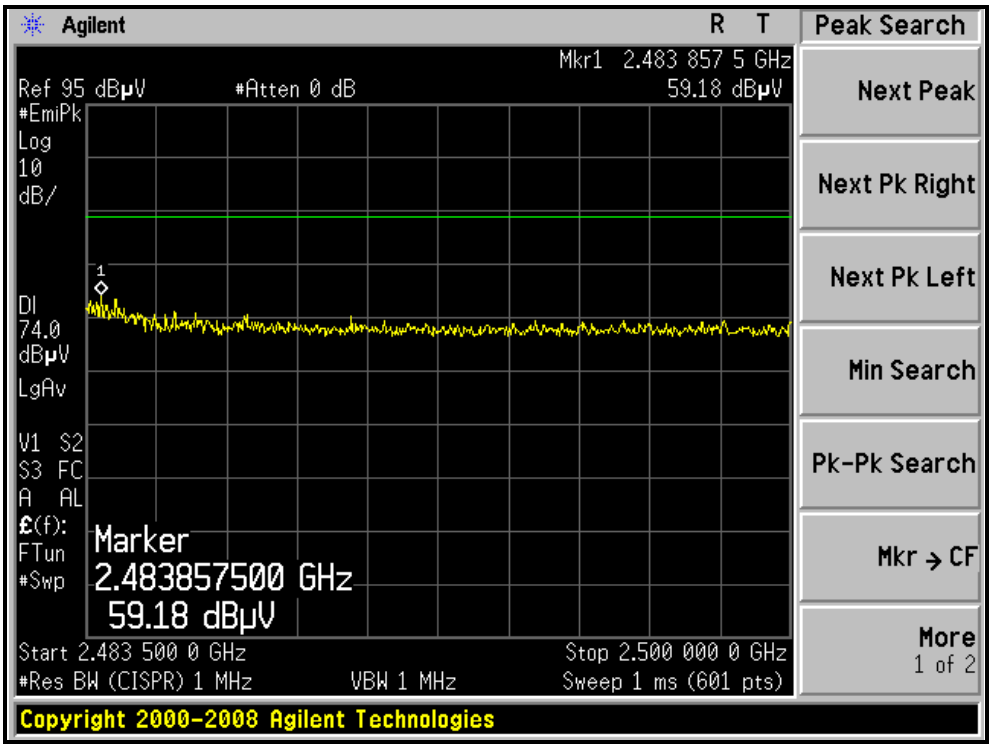


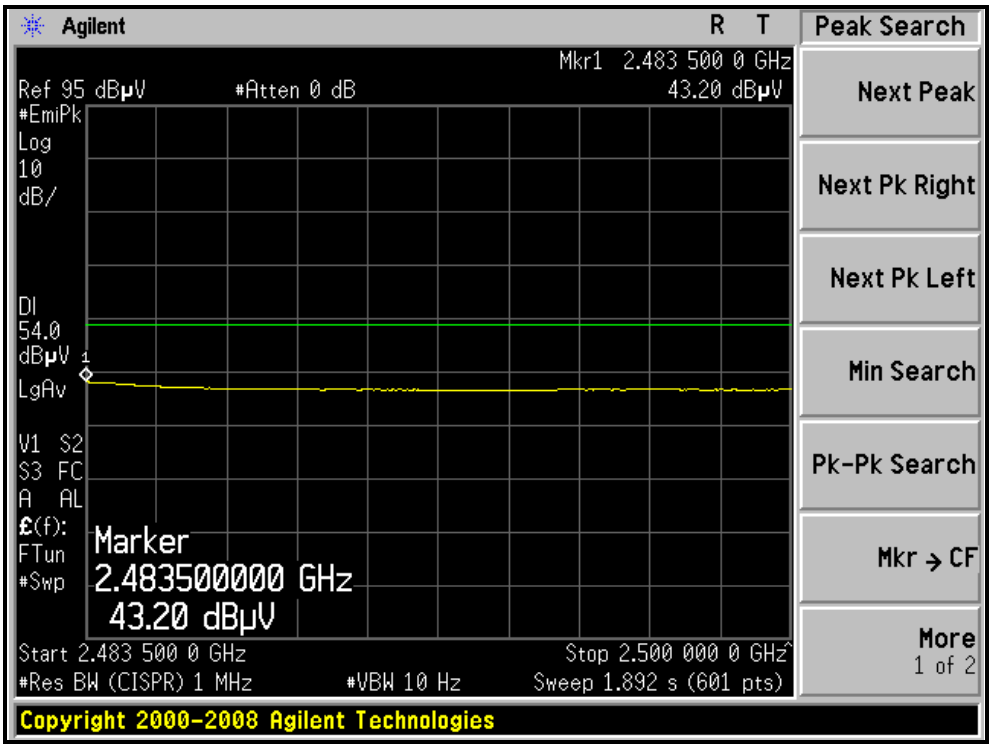
RESTRICTED BANDEDGE (802.11g MODE,CH11, HORIZONTAL)





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)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 62%RH 1021 hPa	TESTED BY	Phoenix Huang

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	55.8 PK	74.0	-18.2	1.57 H	192	25.70	30.10
2	2390.00	43.3 AV	54.0	-10.7	1.57 H	192	13.20	30.10
3	*2412.00	104.7 PK			1.56 H	346	74.60	30.10
4	*2412.00	95.9 AV			1.56 H	346	65.80	30.10
5	4824.00	44.2 PK	74.0	-29.8	1.22 H	360	8.80	35.40
6	4824.00	33.3 AV	54.0	-20.7	1.22 H	360	-2.10	35.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	54.7 PK	74.0	-19.3	1.00 V	160	24.60	30.10
2	2390.00	41.7 AV	54.0	-12.3	1.00 V	160	11.60	30.10
3	*2412.00	92.9 PK			1.00 V	159	62.80	30.10
4	*2412.00	83.0 AV			1.00 V	159	52.90	30.10
5	4824.00	41.6 PK	74.0	-32.4	1.07 V	284	6.20	35.40
6	4824.00	30.1 AV	54.0	-23.9	1.07 V	284	-5.30	35.40

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)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 62%RH 1021 hPa	TESTED BY	Phoenix Huang

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	111.8 PK			1.59 H	19	81.60	30.20
2	*2437.00	101.1 AV			1.59 H	19	70.90	30.20
3	2483.50	61.9 PK	74.0	-12.1	1.58 H	20	31.50	30.40
4	2483.50	44.2 AV	54.0	-9.8	1.58 H	20	13.80	30.40
5	4874.00	45.7 PK	74.0	-28.3	1.31 H	160	10.20	35.50
6	4874.00	32.1 AV	54.0	-21.9	1.31 H	160	-3.40	35.50
7	7311.00	54.3 PK	74.0	-19.7	1.30 H	322	12.30	42.00
8	7311.00	39.6 AV	54.0	-14.4	1.30 H	322	-2.40	42.00
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	102.5 PK			1.28 V	153	72.30	30.20
2	*2437.00	91.7 AV			1.28 V	153	61.50	30.20
3	4874.00	44.7 PK	74.0	-29.3	1.74 V	347	9.20	35.50
4	4874.00	31.6 AV	54.0	-22.4	1.74 V	347	-3.90	35.50
5	7311.00	57.9 PK	74.0	-16.1	1.57 V	74	15.90	42.00
6	7311.00	43.2 AV	54.0	-10.8	1.57 V	74	1.20	42.00

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)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 62%RH 1021 hPa	TESTED BY	Phoenix Huang

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	106.5 PK			1.47 H	350	76.20	30.30
2	*2462.00	97.1 AV			1.47 H	350	66.80	30.30
3	2483.50	66.9 PK	74.0	-7.1	1.48 H	345	36.50	30.40
4	2483.50	51.3 AV	54.0	-2.7	1.48 H	345	20.90	30.40
5	4924.00	43.6 PK	74.0	-30.4	1.54 H	241	8.00	35.60
6	4924.00	31.3 AV	54.0	-22.7	1.54 H	241	-4.30	35.60
7	7386.00	52.4 PK	74.0	-21.6	1.41 H	37	10.30	42.10
8	7386.00	38.6 AV	54.0	-15.4	1.41 H	37	-3.50	42.10
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	97.7 PK			1.34 V	249	67.40	30.30
2	*2462.00	87.8 AV			1.34 V	249	57.50	30.30
3	2483.50	59.3 PK	74.0	-14.7	1.34 V	249	28.90	30.40
4	2483.50	43.2 AV	54.0	-10.8	1.34 V	249	12.80	30.40
5	4924.00	41.8 PK	74.0	-32.2	1.46 V	188	6.20	35.60
6	4924.00	30.2 AV	54.0	-23.8	1.46 V	188	-5.40	35.60
7	7386.00	50.8 PK	74.0	-23.2	1.57 V	237	8.70	42.10
8	7386.00	37.1 AV	54.0	-16.9	1.57 V	237	-5.00	42.10

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

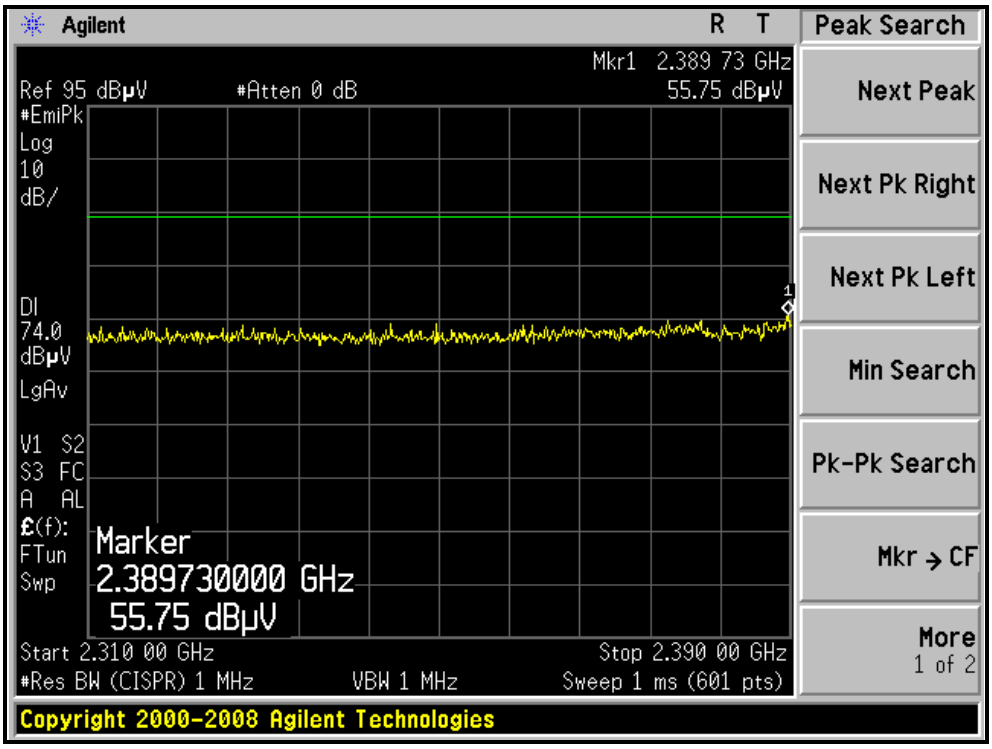
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

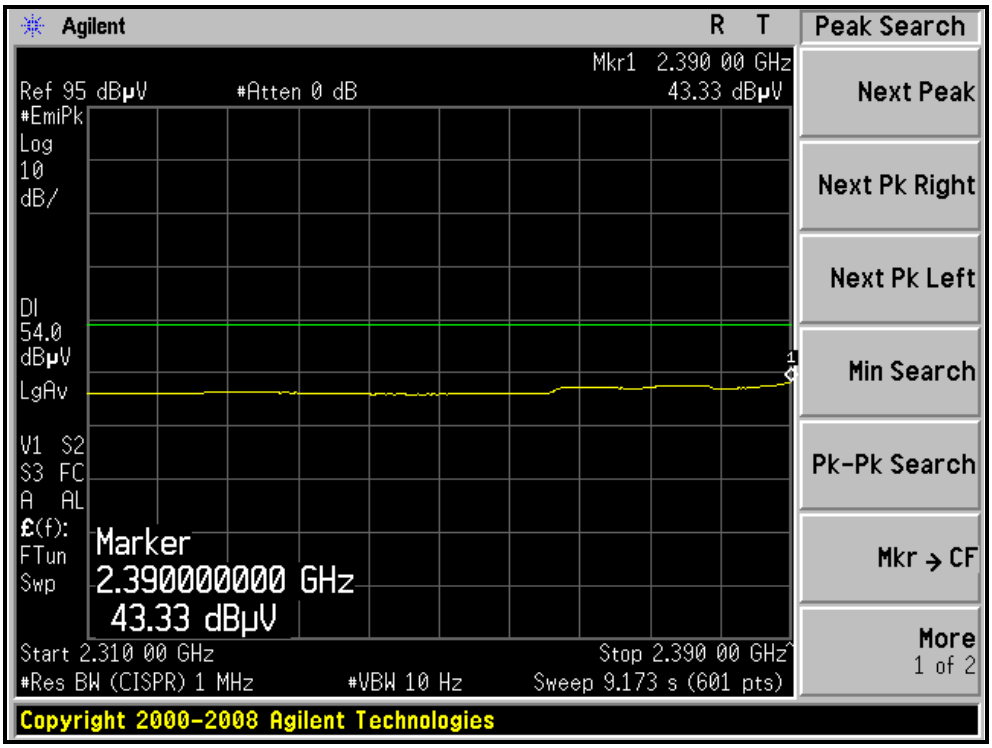
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

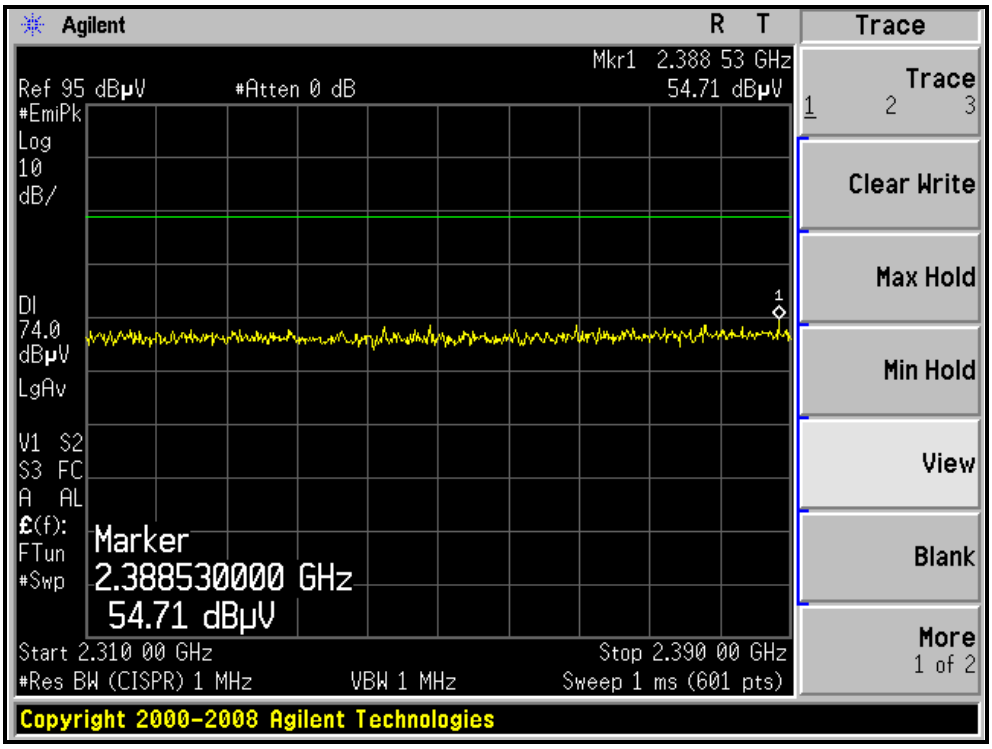
5. " * ": Fundamental frequency.

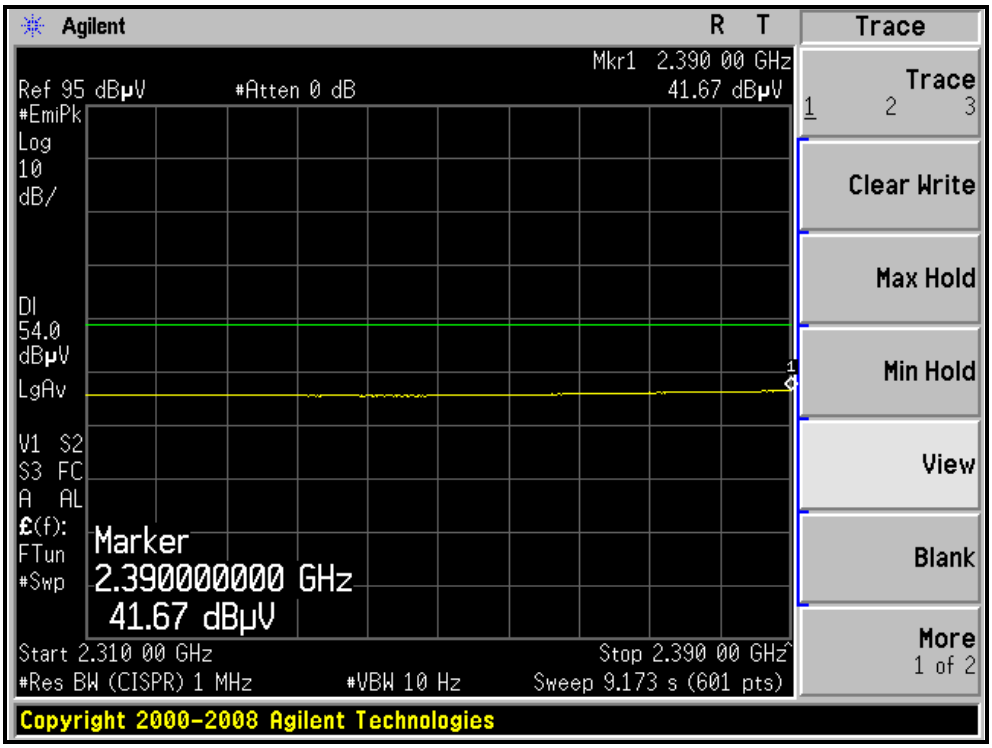
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, HORIZONTAL)



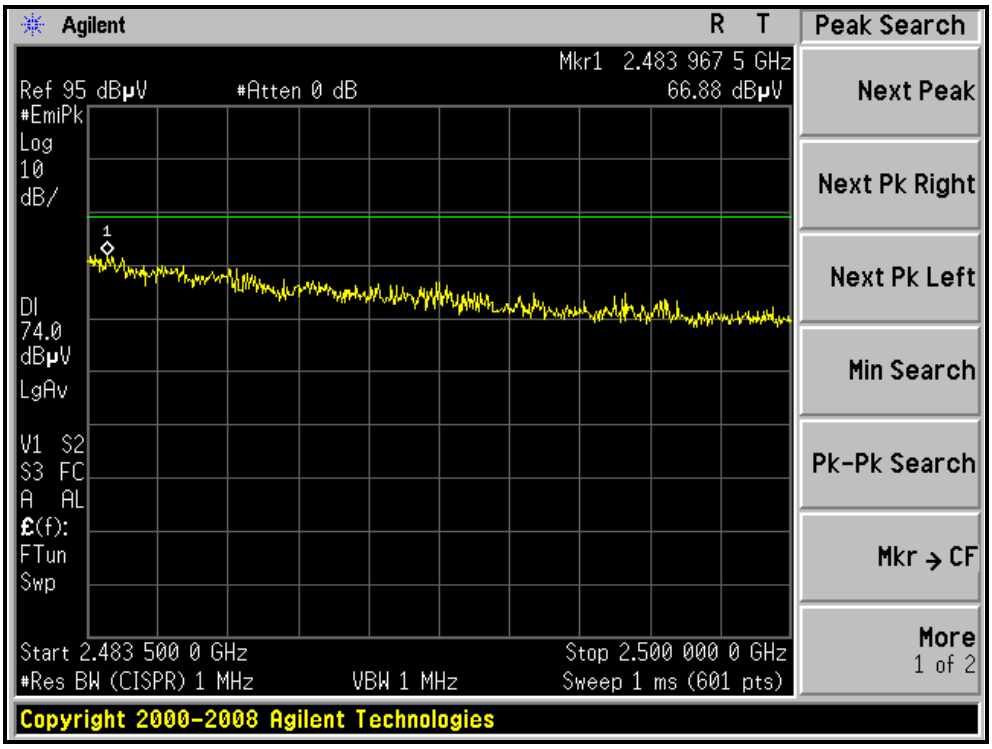


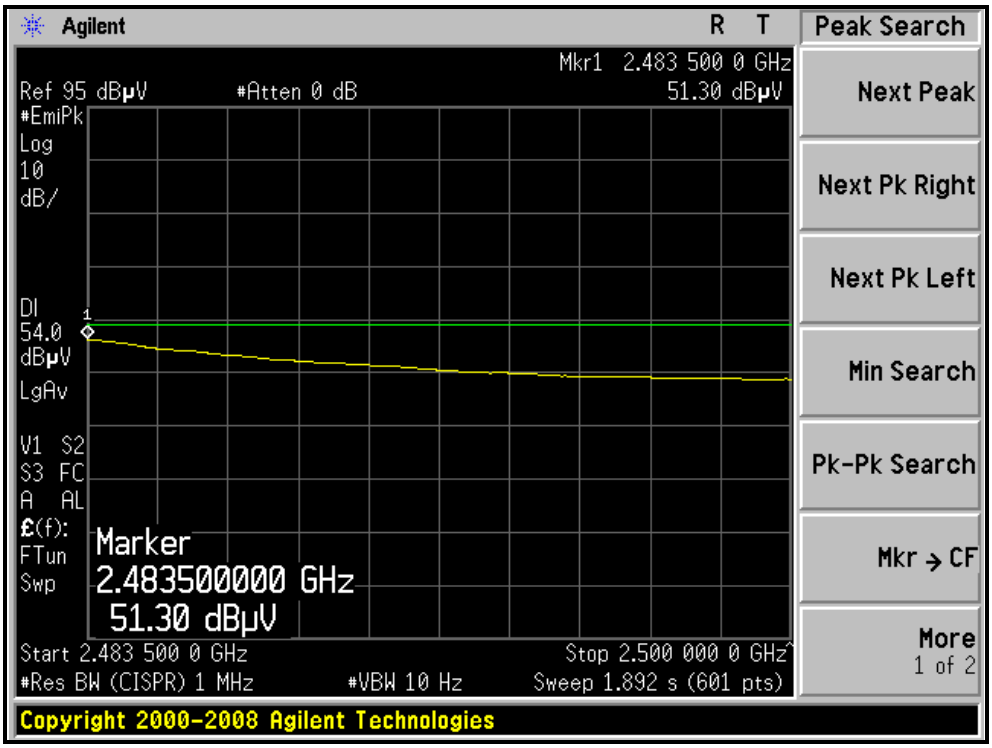
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH1, VERTICAL)



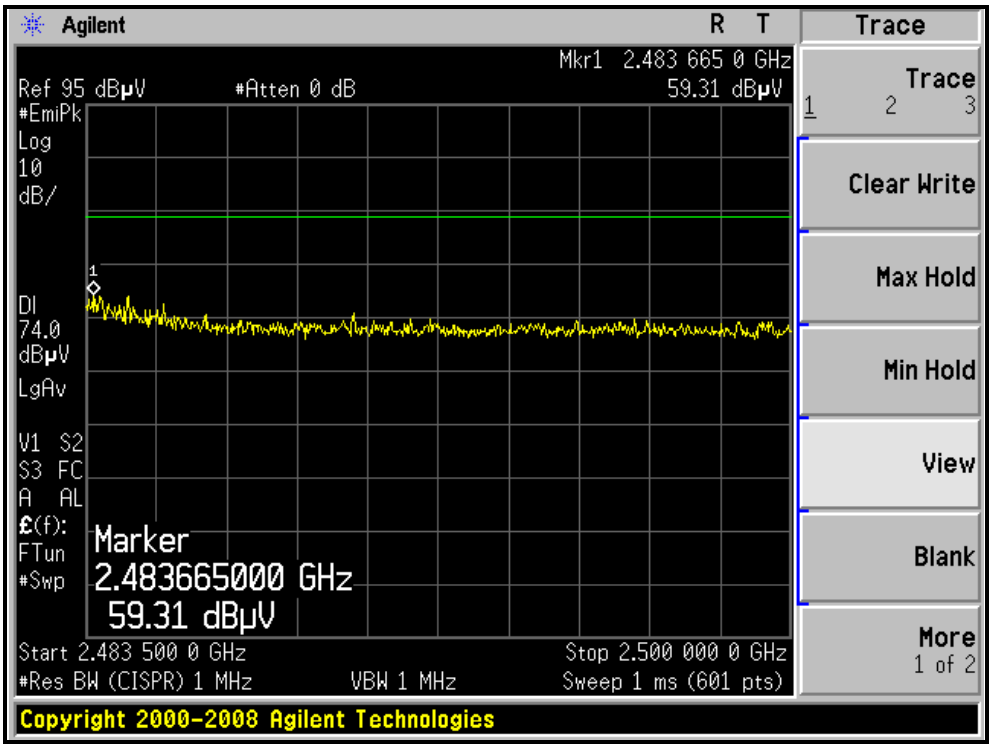


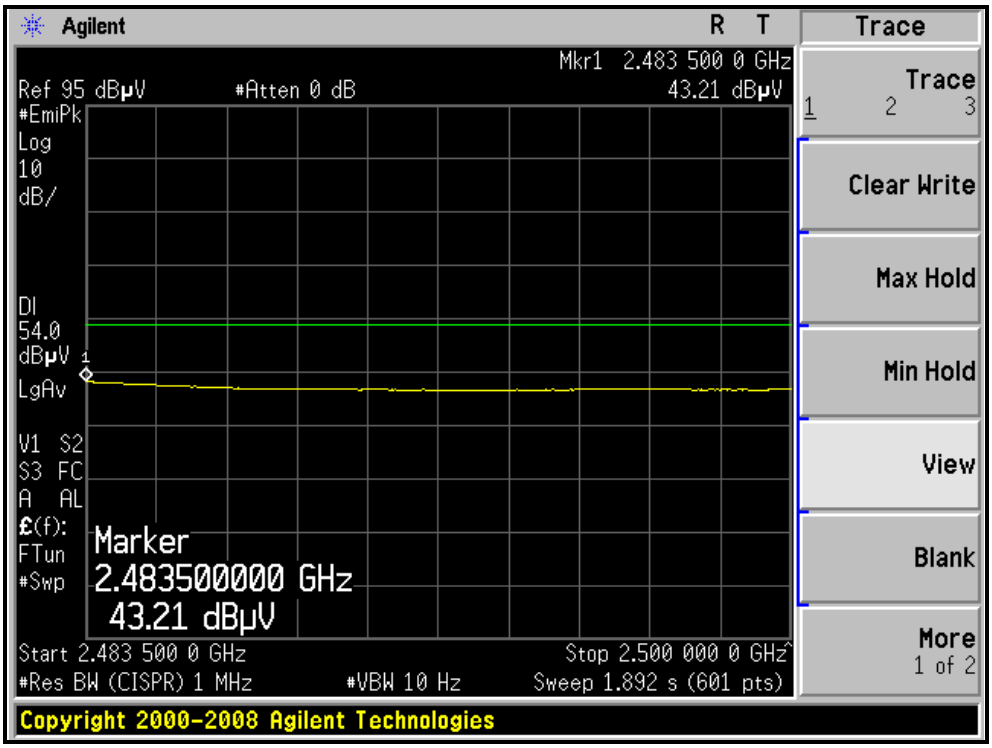
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH11, HORIZONTAL)





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





802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 62%RH 1021 hPa	TESTED BY	Phoenix Huang

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	2388.93	59.3 PK	74.0	-14.7	1.76 H	343	29.20	30.10
2	2388.93	45.6 AV	54.0	-8.4	1.76 H	343	15.50	30.10
3	*2422.00	101.5 PK			1.79 H	343	71.30	30.20
4	*2422.00	92.6 AV			1.79 H	343	62.40	30.20
5	4844.00	41.9 PK	74.0	-32.1	1.50 H	124	6.40	35.50
6	4844.00	29.8 AV	54.0	-24.2	1.50 H	124	-5.70	35.50
7	7266.00	49.3 PK	74.0	-24.7	1.22 H	29	7.40	41.90
8	7266.00	36.1 AV	54.0	-17.9	1.22 H	29	-5.80	41.90
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	2388.93	55.6 PK	74.0	-18.4	1.00 V	159	25.50	30.10
2	2388.93	41.8 AV	54.0	-12.2	1.00 V	159	11.70	30.10
3	*2422.00	90.6 PK			1.00 V	159	60.40	30.20
4	*2422.00	79.5 AV			1.00 V	159	49.30	30.20
5	4844.00	41.7 PK	74.0	-32.3	1.39 V	248	6.20	35.50
6	4844.00	23.9 AV	54.0	-30.1	1.39 V	248	-11.60	35.50
7	7266.00	49.1 PK	74.0	-24.9	1.44 V	180	7.20	41.90
8	7266.00	36.2 AV	54.0	-17.8	1.44 V	180	-5.70	41.90

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 62%RH 1021 hPa	TESTED BY	Phoenix Huang

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	105.6 PK			1.62 H	25	75.40	30.20
2	*2437.00	94.1 AV			1.62 H	25	63.90	30.20
3	2483.50	70.0 PK	74.0	-4.0	1.63 H	26	39.60	30.40
4	2483.50	46.3 AV	54.0	-7.7	1.63 H	26	15.90	30.40
5	4874.00	42.1 PK	74.0	-31.9	1.38 H	244	6.60	35.50
6	4874.00	30.1 AV	54.0	-23.9	1.38 H	244	-5.40	35.50
7	7311.00	50.3 PK	74.0	-23.7	1.41 H	179	8.30	42.00
8	7311.00	36.2 AV	54.0	-17.8	1.41 H	179	-5.80	42.00
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	95.7 PK			1.31 V	251	65.50	30.20
2	*2437.00	84.5 AV			1.31 V	251	54.30	30.20
3	4874.00	41.2 PK	74.0	-32.8	1.53 V	261	5.70	35.50
4	4874.00	30.1 AV	54.0	-23.9	1.53 V	261	-5.40	35.50
5	7311.00	49.4 PK	74.0	-24.6	1.24 V	27	7.40	42.00
6	7311.00	36.6 AV	54.0	-17.4	1.24 V	27	-5.40	42.00

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.

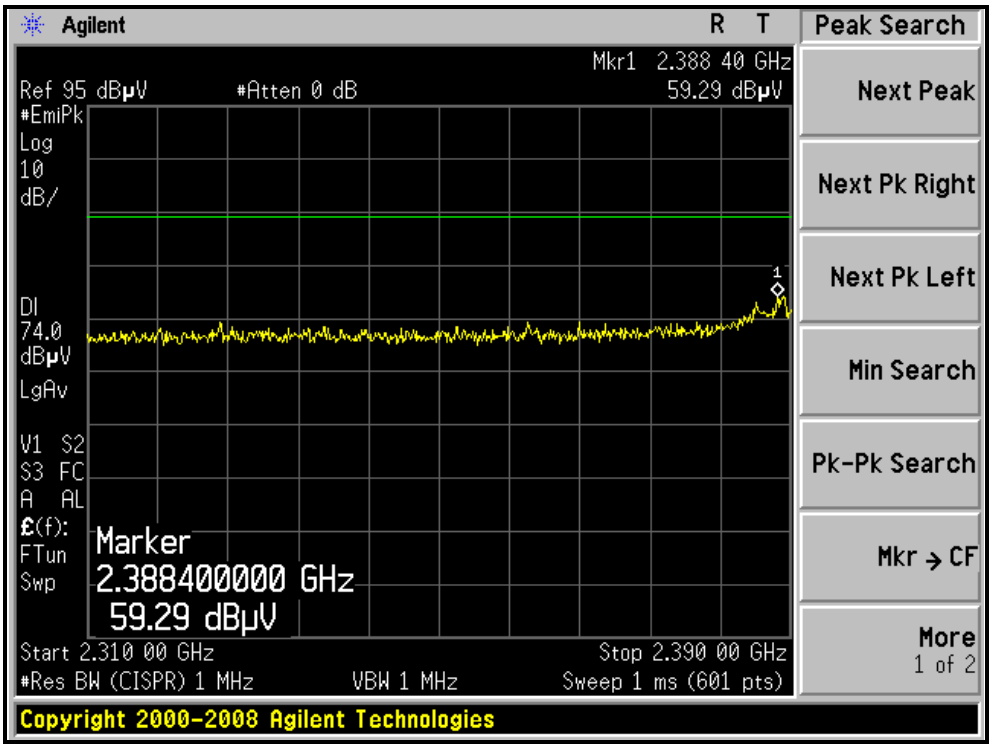
5. " * ": Fundamental frequency.

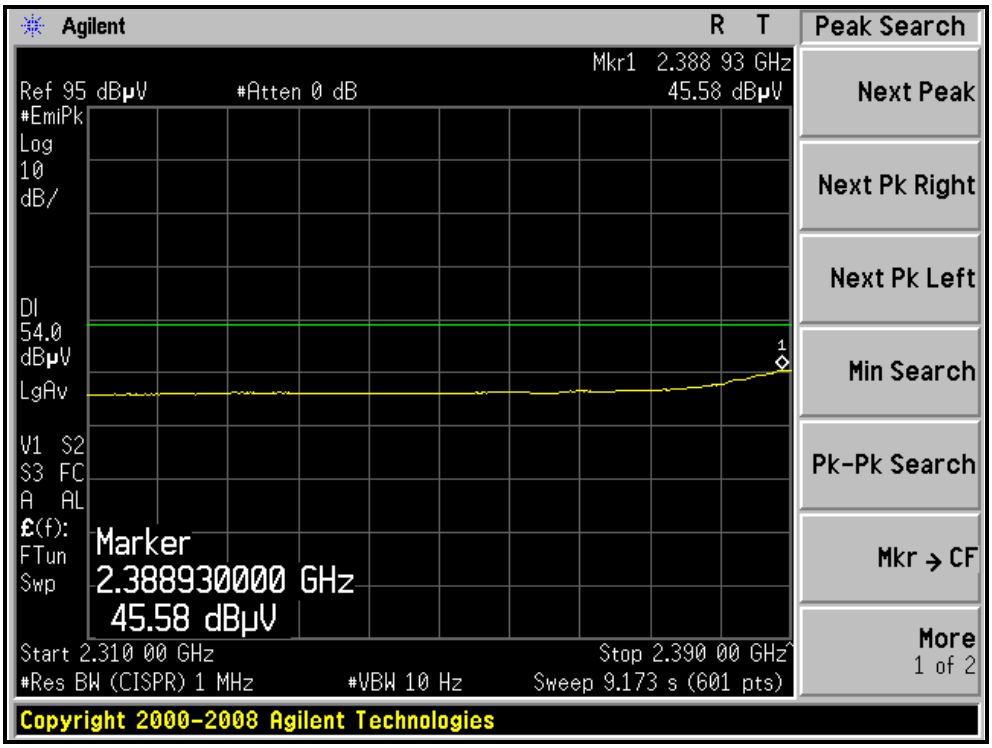
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 62%RH 1021 hPa	TESTED BY	Phoenix Huang

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	103.1 PK			1.47 H	347	72.80	30.30
2	*2452.00	93.7 AV			1.47 H	347	63.40	30.30
3	2483.50	68.6 PK	74.0	-5.4	1.48 H	345	38.20	30.40
4	**2483.50**	**52.3 AV**	**54.0**	**-1.7**	**1.48 H**	**345**	**21.90**	**30.40**
5	4904.00	42.3 PK	74.0	-31.7	1.51 H	102	6.70	35.60
6	4904.00	29.9 AV	54.0	-24.1	1.51 H	102	-5.70	35.60
7	7356.00	49.8 PK	74.0	-24.2	1.24 H	33	7.80	42.00
8	7356.00	36.4 AV	54.0	-17.6	1.24 H	33	-5.60	42.00
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	93.1 PK			1.51 V	158	62.80	30.30
2	*2452.00	83.2 AV			1.51 V	158	52.90	30.30
3	2483.50	57.2 PK	74.0	-16.8	1.51 V	157	26.80	30.40
4	2483.50	42.3 AV	54.0	-11.7	1.51 V	157	11.90	30.40
5	4904.00	41.9 PK	74.0	-32.1	1.38 V	253	6.30	35.60
6	4904.00	29.8 AV	54.0	-24.2	1.38 V	253	-5.80	35.60
7	7356.00	50.3 PK	74.0	-23.7	1.47 V	170	8.30	42.00
8	7356.00	36.9 AV	54.0	-17.1	1.47 V	170	-5.10	42.00

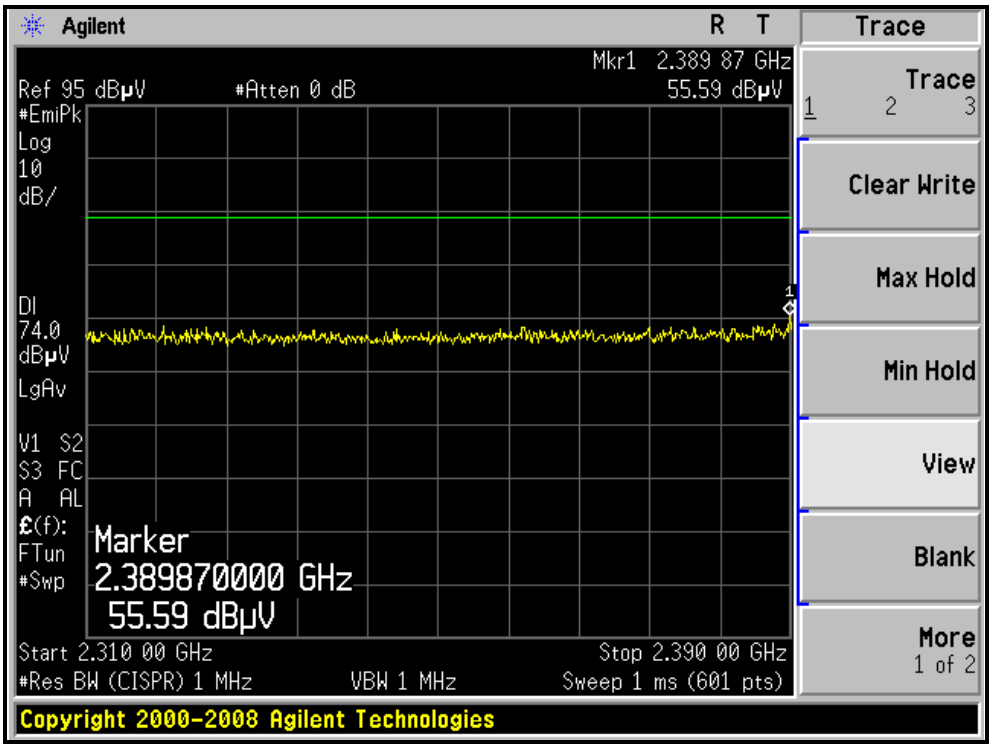
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

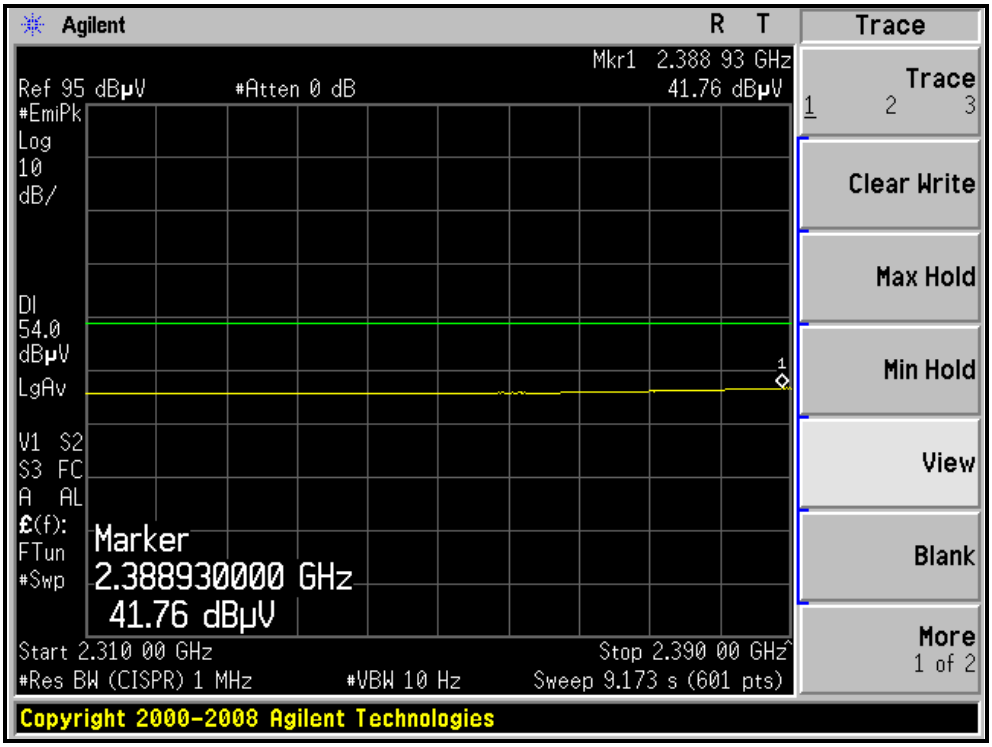
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH1, HORIZONTAL)



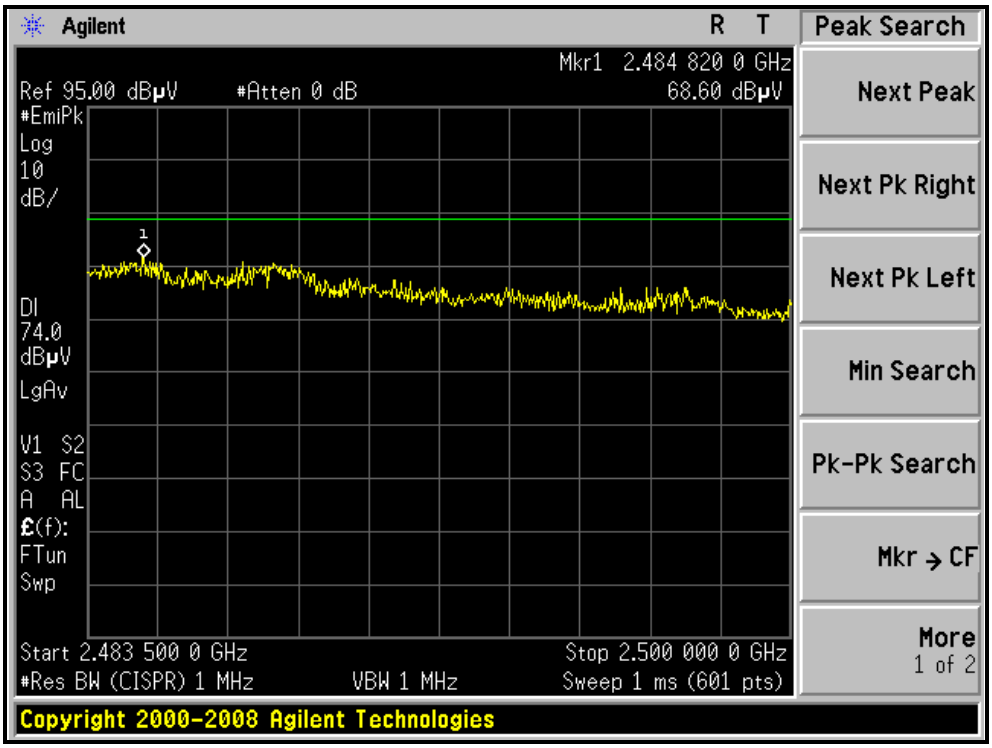


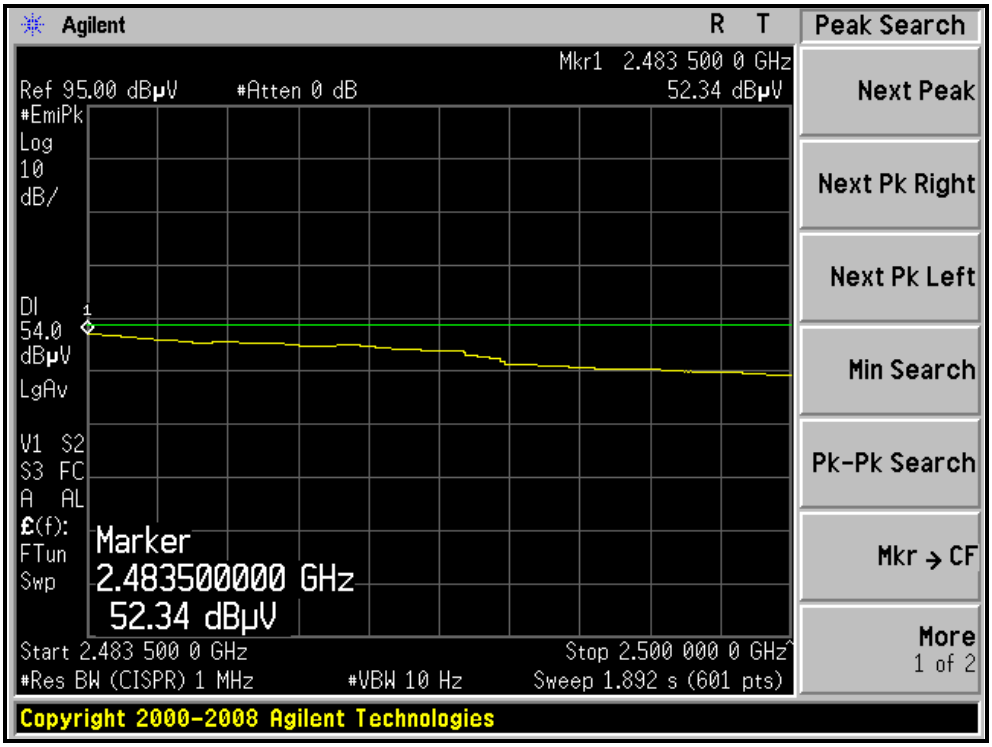
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH1, VERTICAL)



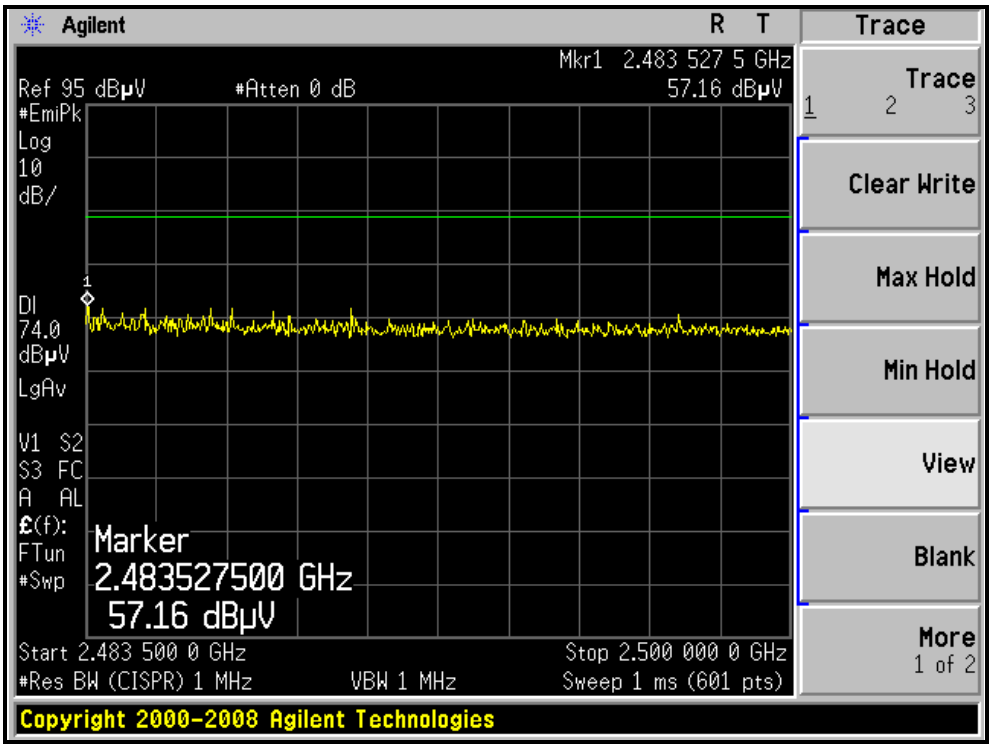


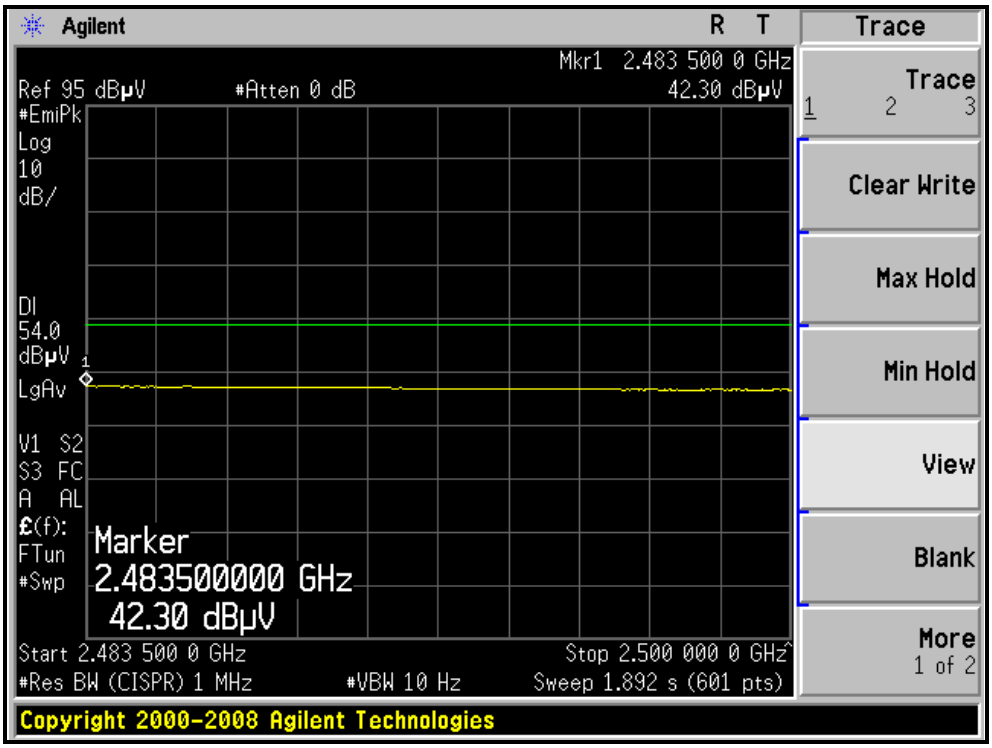
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH7, HORIZONTAL)





RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH7, 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	FSP40	100037	Aug. 03, 2009	Aug. 02, 2010

NOTE:

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

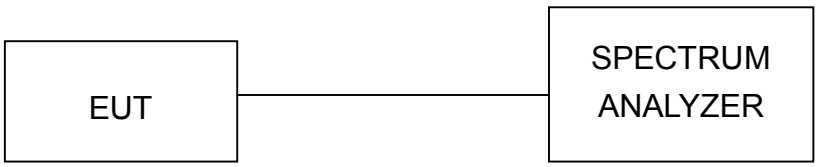
4.3.3 TEST PROCEDURE

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 100kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation

4.3.5 TEST SETUP



4.3.6 EUT OPERATING CONDITIONS

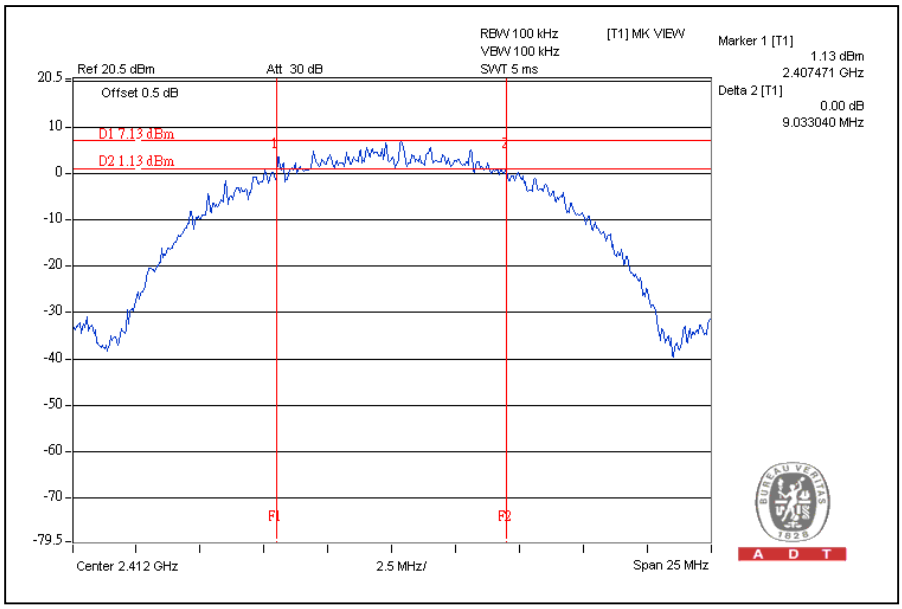
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 TEST RESULTS

802.11b DSSS MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	9.03	0.5	PASS
6	2437	8.70	0.5	PASS
11	2462	8.93	0.5	PASS

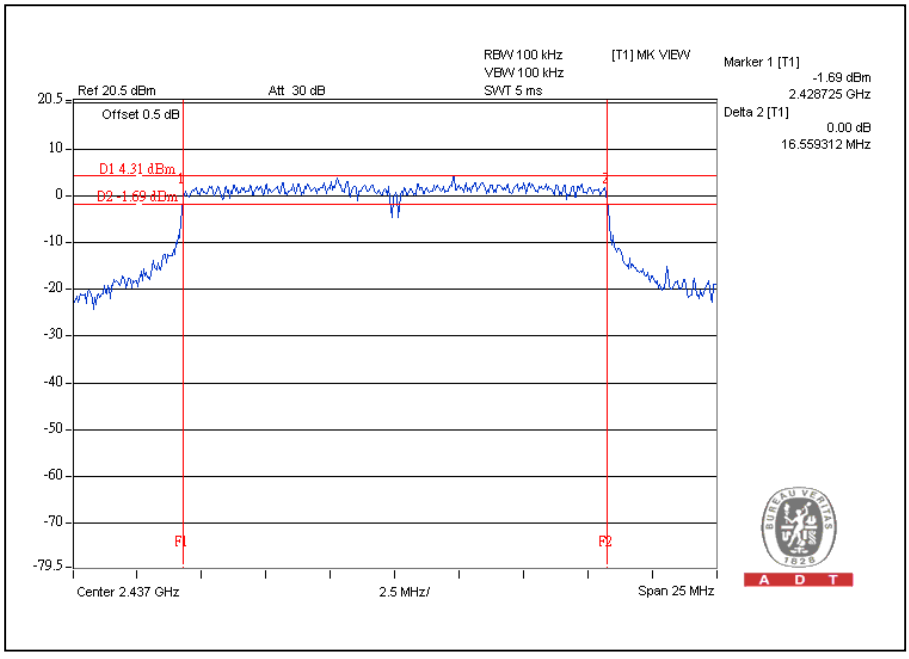
CH1



802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.55	0.5	PASS
6	2437	16.55	0.5	PASS
11	2462	16.55	0.5	PASS

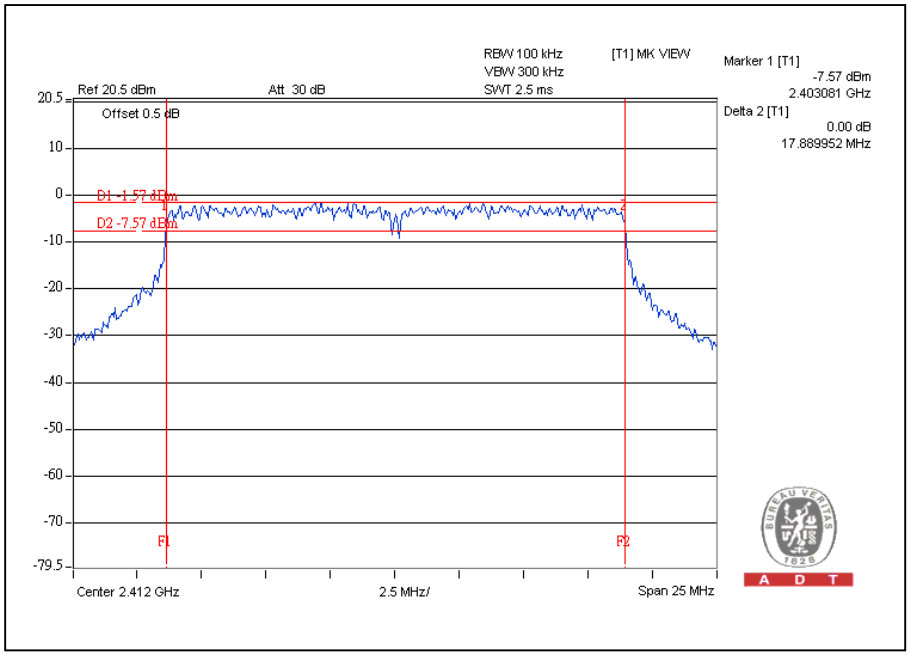
CH6



802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	17.88	0.5	PASS
6	2437	17.86	0.5	PASS
11	2462	17.87	0.5	PASS

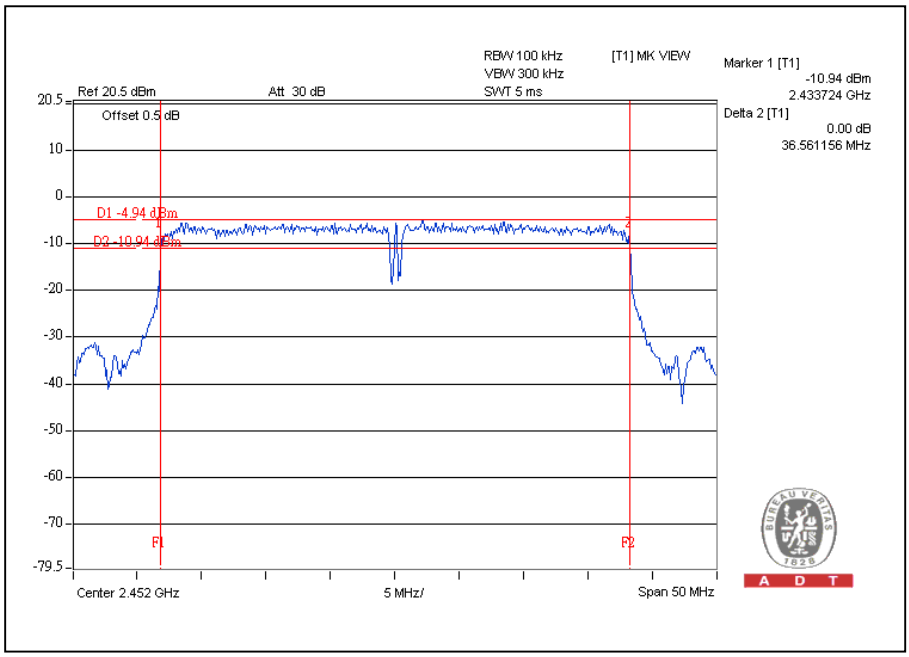
CH1



802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2422	36.56	0.5	PASS
4	2437	36.52	0.5	PASS
7	2452	36.56	0.5	PASS

CH7



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	April 25, 2009	April 24, 2010
Pulse Power Sensor	MA2411B	0738172	April 25, 2009	April 24, 2010

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

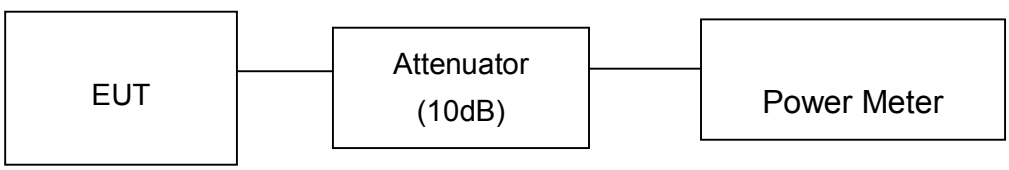
4.4.3 TEST PROCEDURES

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 4.3.6

4.4.7 TEST RESULTS

802.11b DSSS MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER OUTPUT (mW)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	18.1	64.6	30	PASS
6	2437	18.5	70.8	30	PASS
11	2462	18.4	69.2	30	PASS

802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER OUTPUT (mW)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	23.5	223.9	30	PASS
6	2437	24.6	288.4	30	PASS
11	2462	22.3	169.8	30	PASS

802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER OUTPUT (mW)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	22.3	169.8	30	PASS
6	2437	24.5	281.8	30	PASS
11	2462	22.1	162.2	30	PASS

802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER OUTPUT (mW)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2422	21.6	144.5	30	PASS
4	2437	22.8	190.5	30	PASS
7	2452	21.6	144.5	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	FSP40	100037	Aug. 03, 2009	Aug. 02, 2010

NOTE:

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

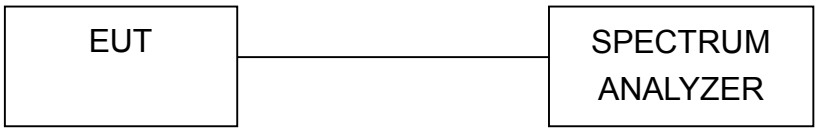
4.5.3 TEST PROCEDURE

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

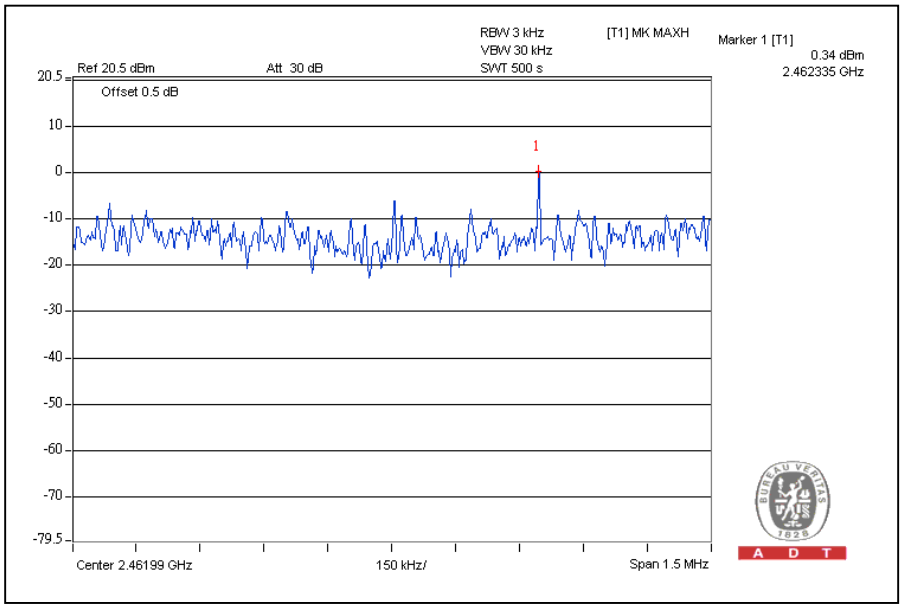
Same as Item 4.3.6

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	-7.7	8	PASS
6	2437	-5.3	8	PASS
11	2462	0.3	8	PASS

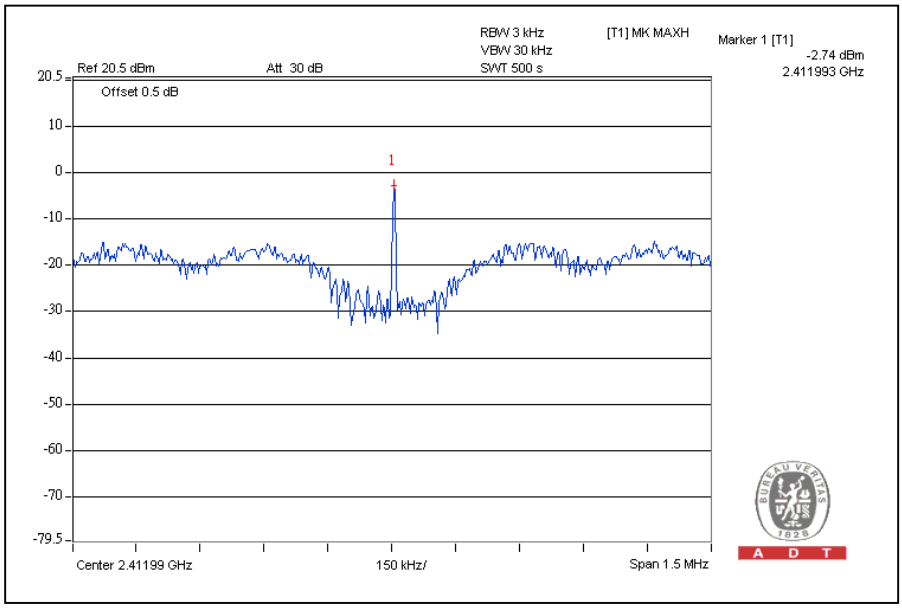
CH11



802.11g OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-2.7	8	PASS
6	2437	-3.2	8	PASS
11	2462	-6.7	8	PASS

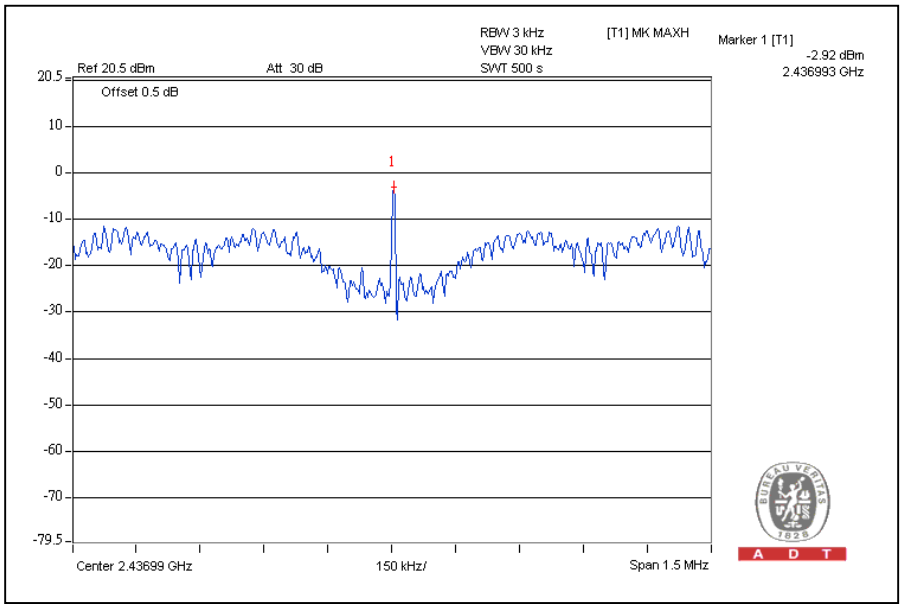
CH1



802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-6.9	8	PASS
6	2437	-2.9	8	PASS
11	2462	-6.7	8	PASS

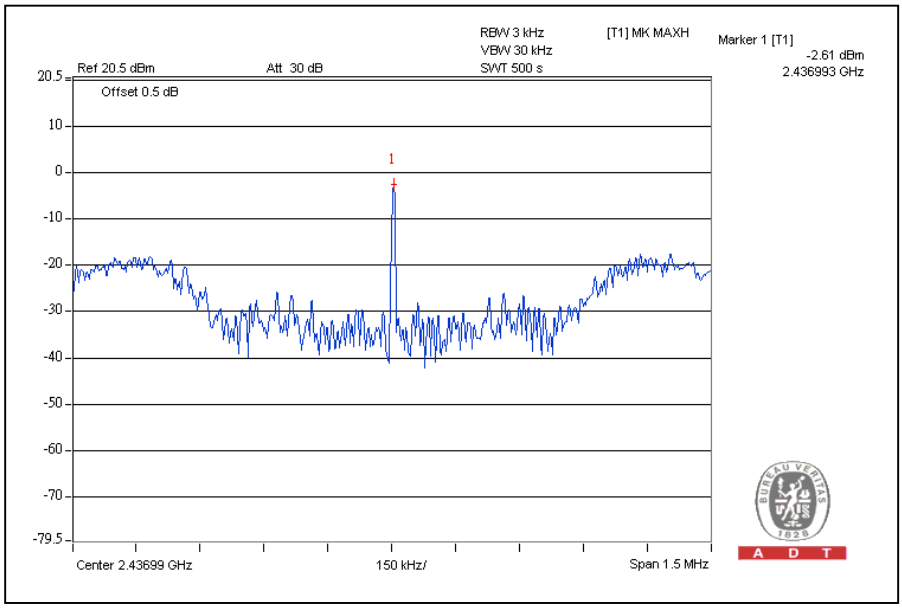
CH6



802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2422	-6.5	8	PASS
4	2437	-2.6	8	PASS
7	2452	-6.5	8	PASS

CH4



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	FSP40	100037	Aug. 03, 2009	Aug. 02, 2010

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 lose cable. Set RBW of spectrum analyzer to 100kHz and VBW of spectrum analyzer to 300kHz with suitable frequency span including 100 MHz bandwidth from band edge. The band edges was 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

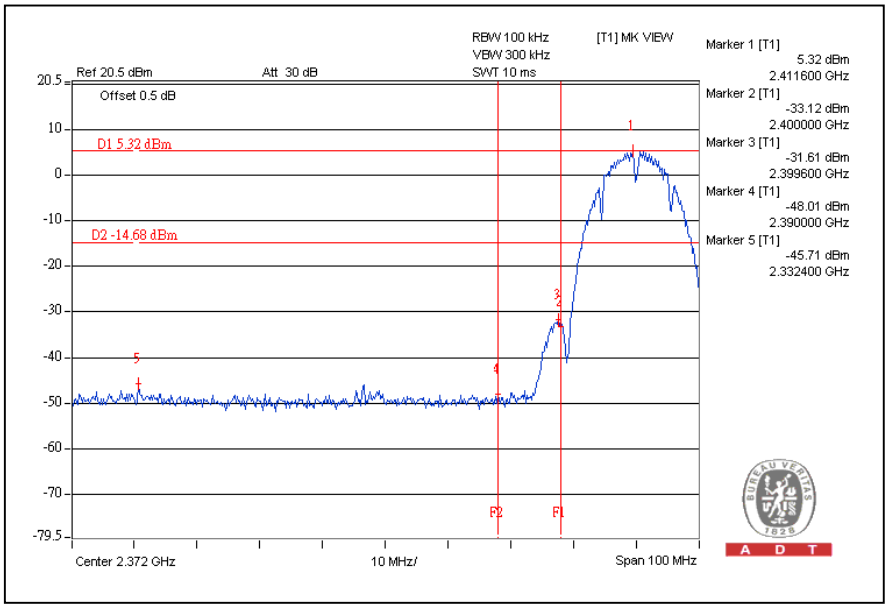
Same as Item 4.3.6

4.6.6 TEST RESULTS

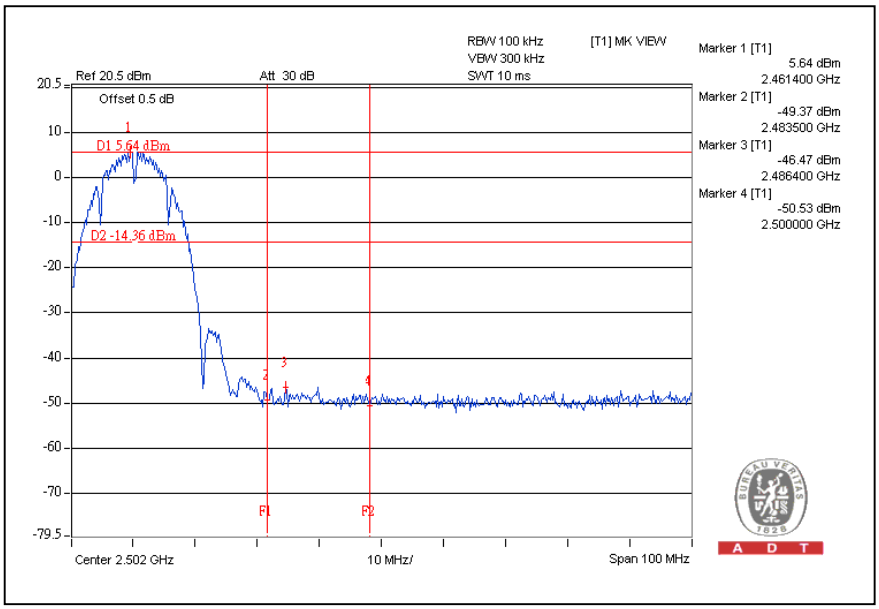
The spectrum plots are attached on the following images. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

802.11b DSSS MODULATION:

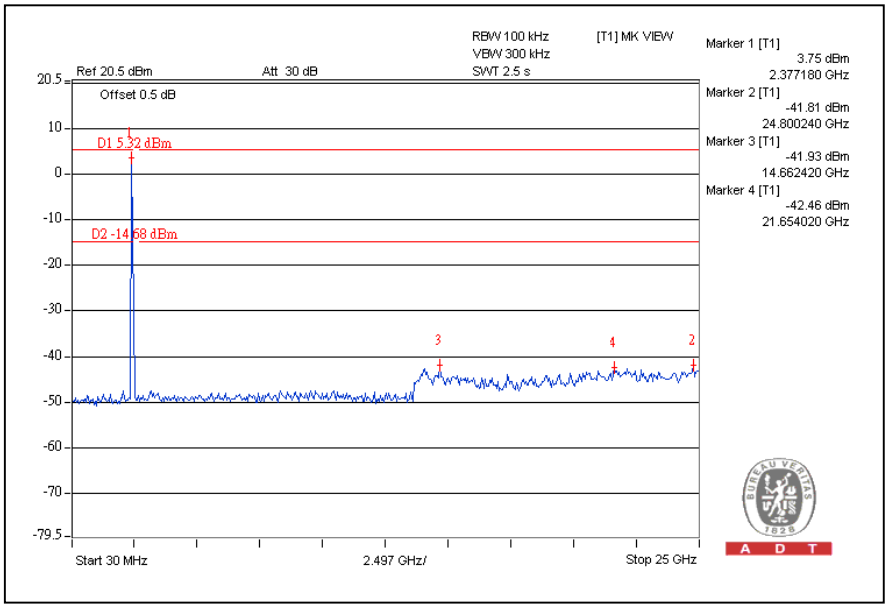
CH1



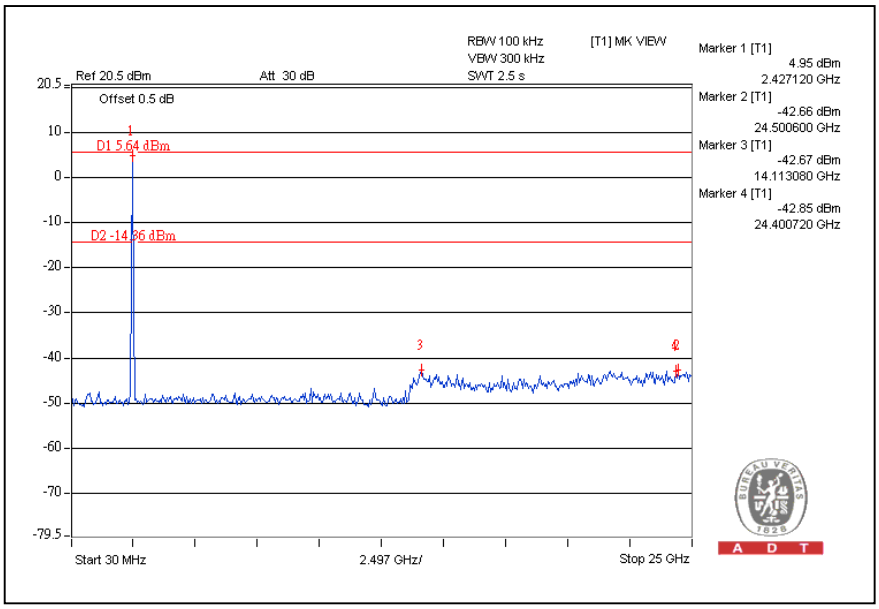
CH11



CH1

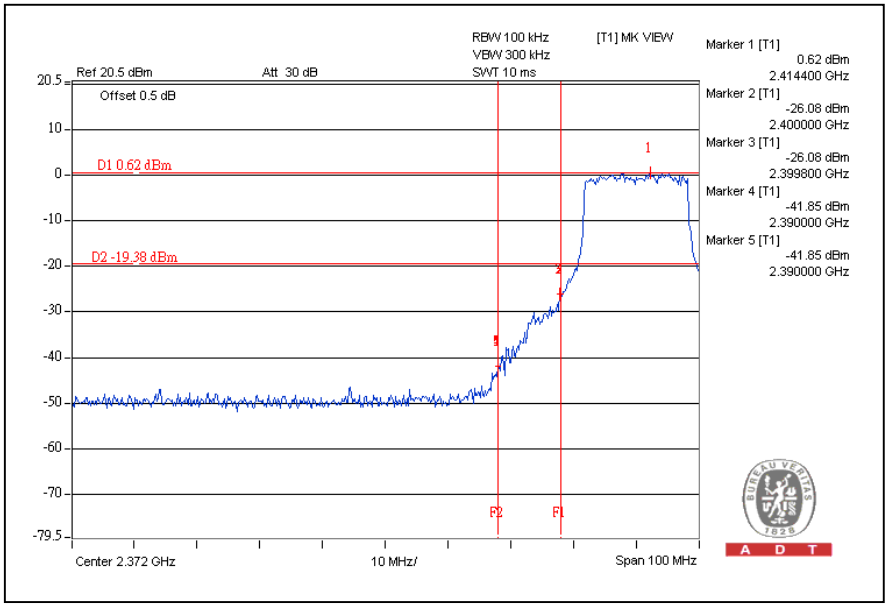

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20.5 dBm
Att 30 dB
Offset 0.5 dB
D1 5.32 dBm
D2 -14.68 dBm
Marker 1 [T1]
3.75 dBm
2.377180 GHz
Marker 2 [T1]
-41.81 dBm
24.800240 GHz
Marker 3 [T1]
-41.93 dBm
14.662420 GHz
Marker 4 [T1]
-42.46 dBm
21.654020 GHz
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Start 30 MHz
2.497 GHz/
Stop 25 GHz

CH11

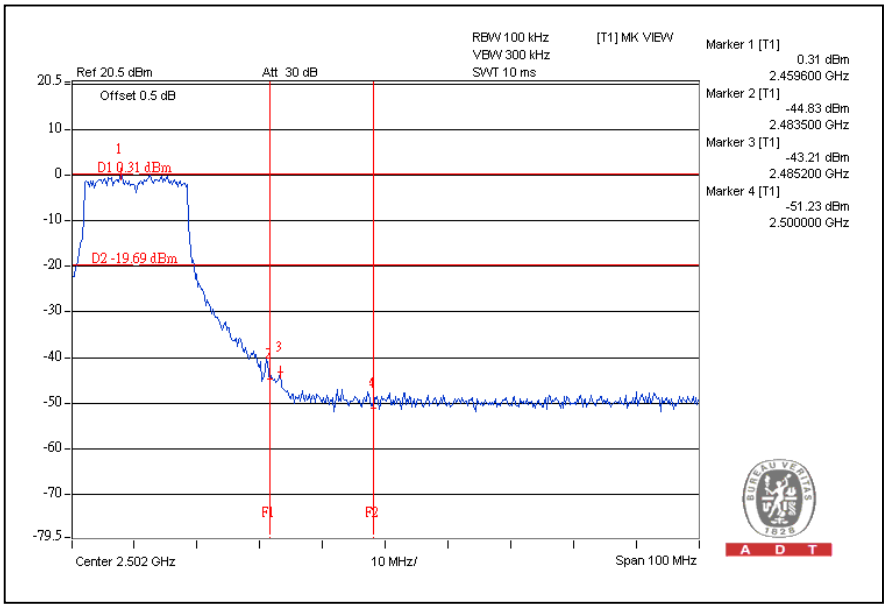

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20.5 dBm
Att 30 dB
Offset 0.5 dB
D1 5.64 dBm
D2 -14.36 dBm
Marker 1 [T1]
4.95 dBm
2.427120 GHz
Marker 2 [T1]
-42.66 dBm
24.500600 GHz
Marker 3 [T1]
-42.67 dBm
14.113080 GHz
Marker 4 [T1]
-42.85 dBm
24.400720 GHz
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Start 30 MHz
2.497 GHz/
Stop 25 GHz

802.11g OFDM MODULATION:

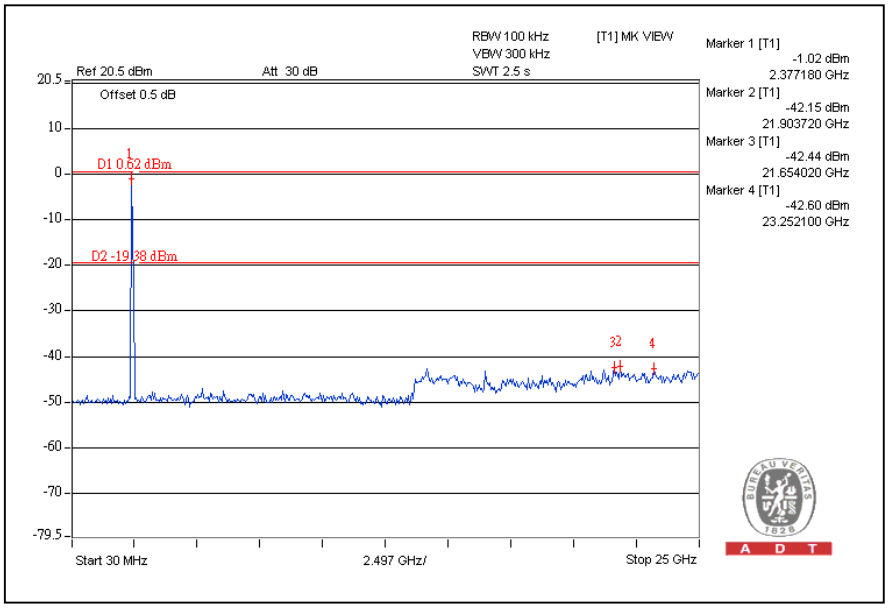
CH1



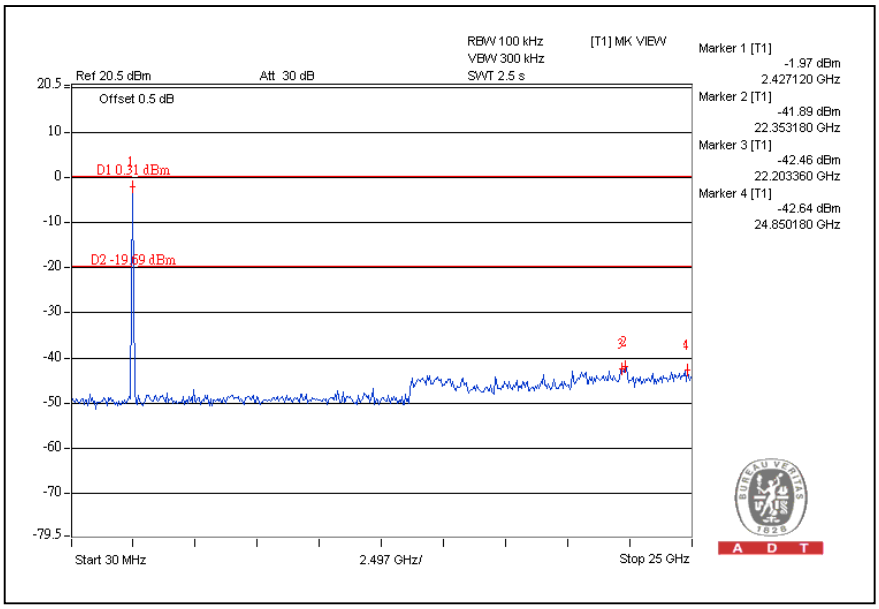
CH11



CH1

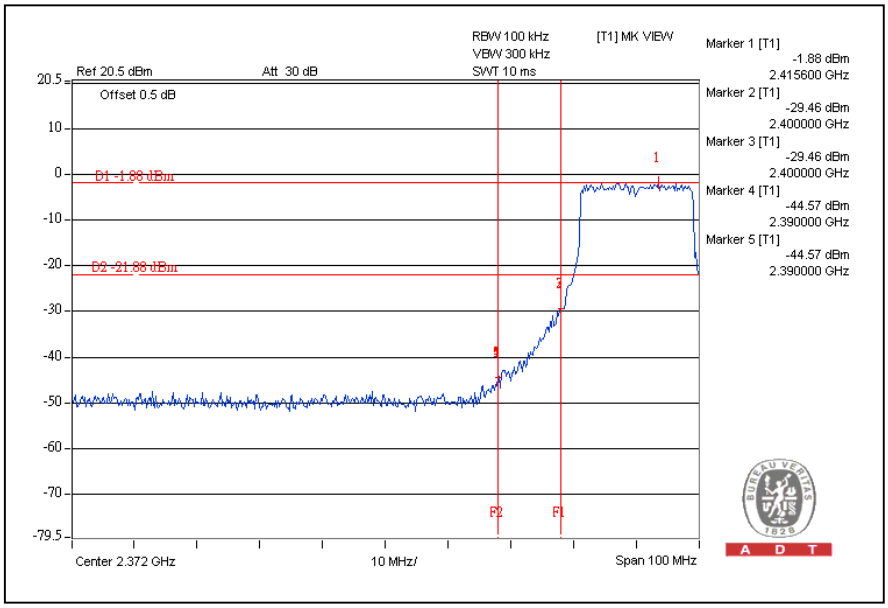

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20.5 dBm
Att 30 dB
Offset 0.5 dB
D1 0.62 dBm
D2 -19.38 dBm
Marker 1 [T1]
-1.02 dBm
2.377180 GHz
Marker 2 [T1]
-42.15 dBm
21.903720 GHz
Marker 3 [T1]
-42.44 dBm
21.654020 GHz
Marker 4 [T1]
-42.60 dBm
23.252100 GHz
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Start 30 MHz
2.497 GHz/
Stop 25 GHz

CH11

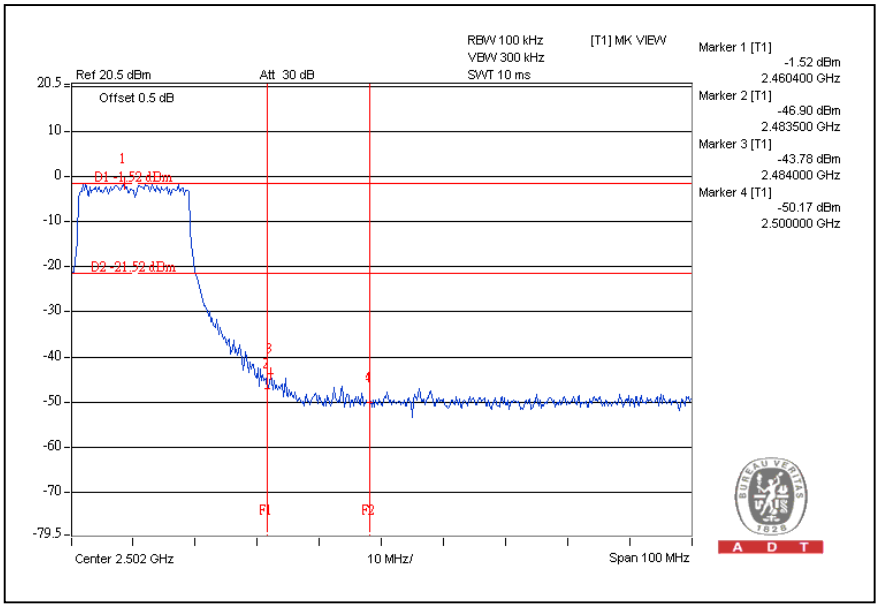

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20.5 dBm
Att 30 dB
Offset 0.5 dB
D1 0.31 dBm
D2 -19.69 dBm
Marker 1 [T1]
-1.97 dBm
2.427120 GHz
Marker 2 [T1]
-41.89 dBm
22.353180 GHz
Marker 3 [T1]
-42.46 dBm
22.203360 GHz
Marker 4 [T1]
-42.64 dBm
24.850180 GHz
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Start 30 MHz
2.497 GHz/
Stop 25 GHz

802.11n (20MHz) OFDM MODULATION:

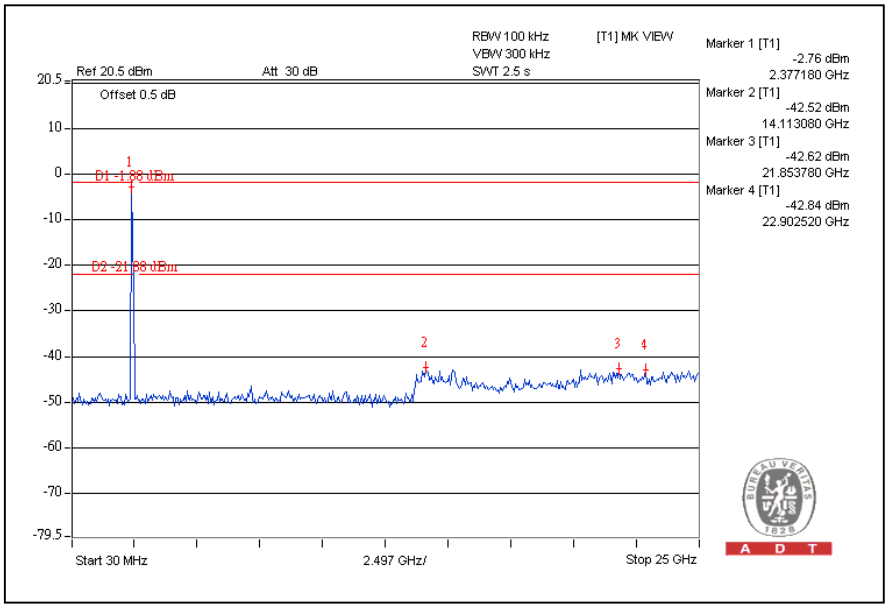
CH1



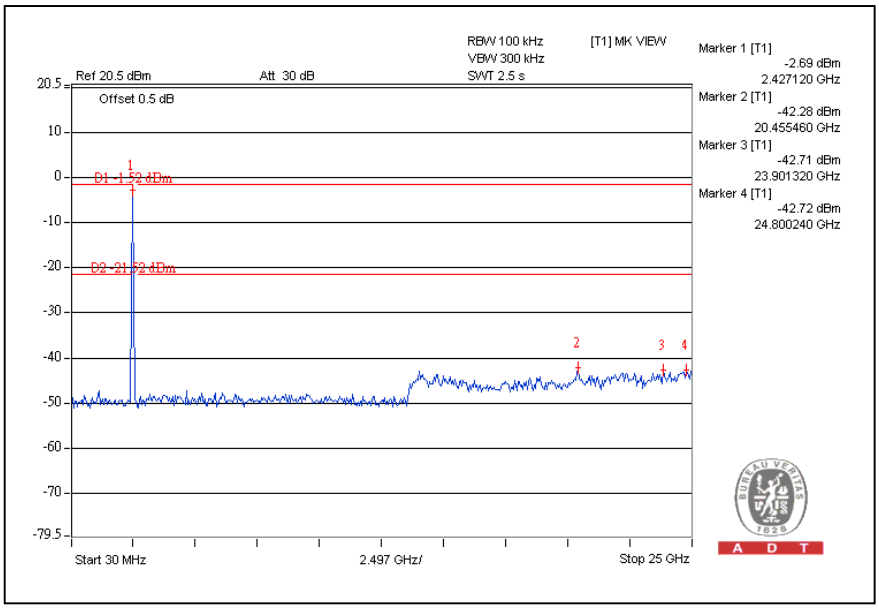
CH11



CH1

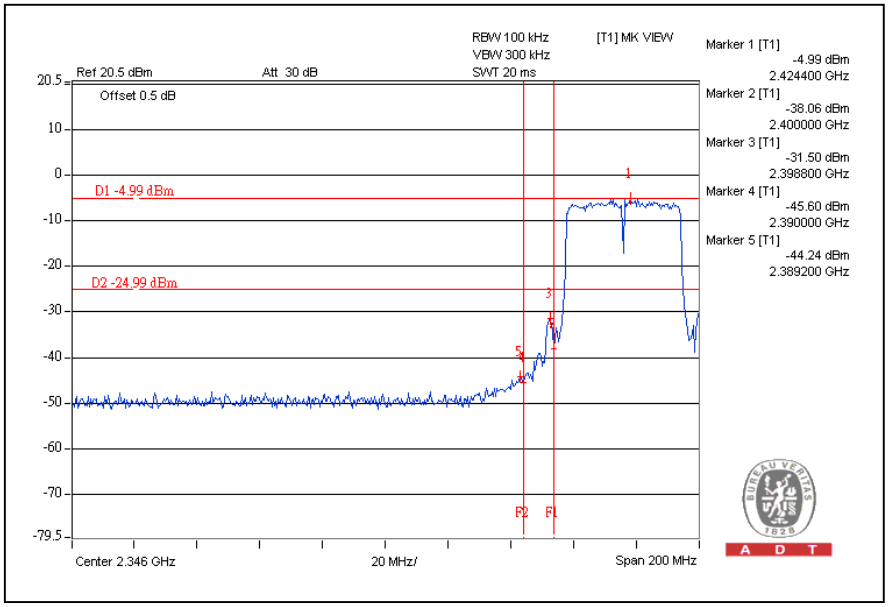

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20.5 dBm
Att 30 dB
Offset 0.5 dB
D1 -1.88 dBm
D2 -21.88 dBm
Marker 1 [T1]
-2.76 dBm
2.377180 GHz
Marker 2 [T1]
-42.52 dBm
14.113080 GHz
Marker 3 [T1]
-42.62 dBm
21.853780 GHz
Marker 4 [T1]
-42.84 dBm
22.902520 GHz
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Start 30 MHz
2.497 GHz/
Stop 25 GHz

CH11

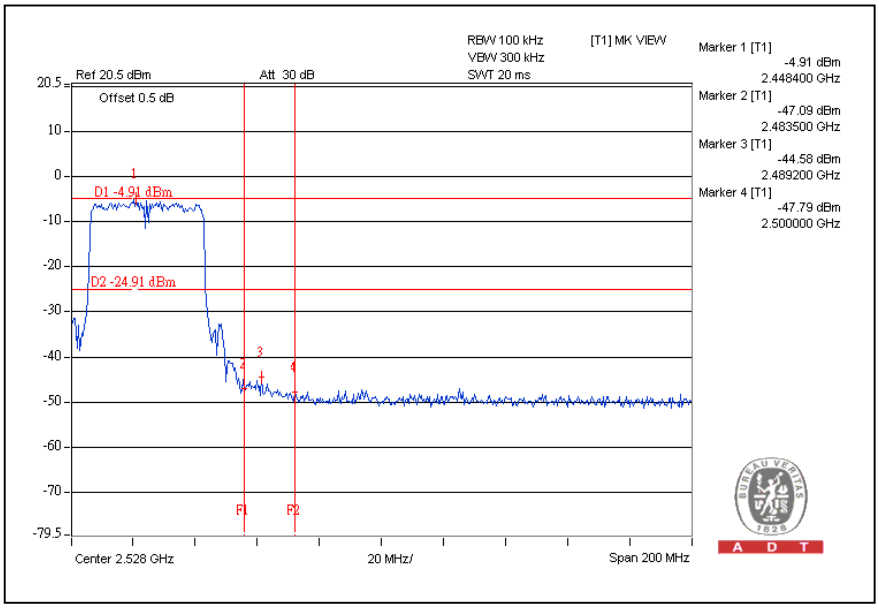

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20.5 dBm
Att 30 dB
Offset 0.5 dB
D1 -1.52 dBm
D2 -21.52 dBm
Marker 1 [T1]
-2.69 dBm
2.427120 GHz
Marker 2 [T1]
-42.28 dBm
20.455460 GHz
Marker 3 [T1]
-42.71 dBm
23.901320 GHz
Marker 4 [T1]
-42.72 dBm
24.800240 GHz
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Start 30 MHz
2.497 GHz/
Stop 25 GHz

802.11n (40MHz) OFDM MODULATION:

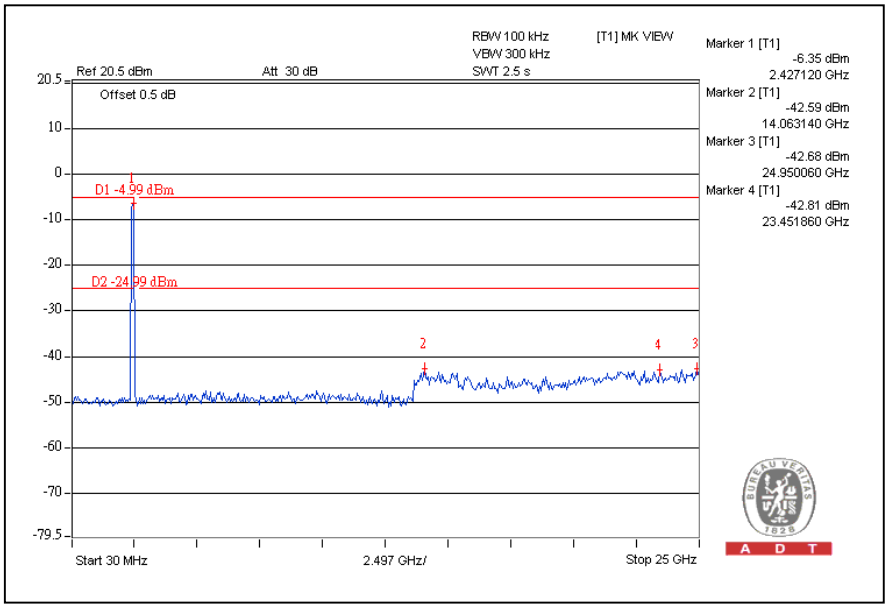
CH1



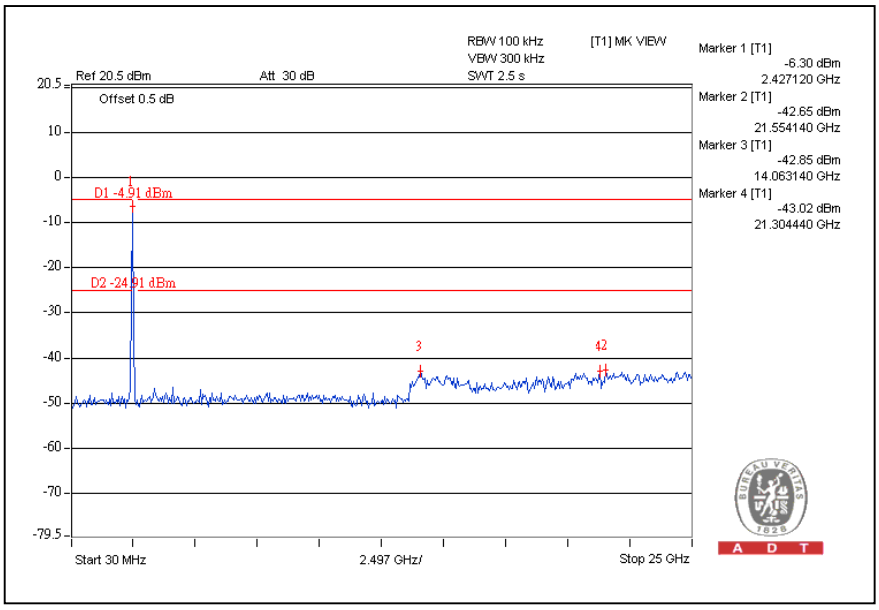
CH7



CH1


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Marker 1 [T1]
-6.35 dBm
2.427120 GHz
Marker 2 [T1]
-42.59 dBm
14.063140 GHz
Marker 3 [T1]
-42.68 dBm
24.950060 GHz
Marker 4 [T1]
-42.81 dBm
23.451860 GHz
Ref 20.5 dBm
Att 30 dB
Offset 0.5 dB
D1 -4.99 dBm
D2 -24.99 dBm
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Start 30 MHz
2.497 GHz/
Stop 25 GHz

CH7


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Marker 1 [T1]
-6.30 dBm
2.427120 GHz
Marker 2 [T1]
-42.65 dBm
21.554140 GHz
Marker 3 [T1]
-42.85 dBm
14.063140 GHz
Marker 4 [T1]
-43.02 dBm
21.304440 GHz
Ref 20.5 dBm
Att 30 dB
Offset 0.5 dB
D1 -4.91 dBm
D2 -24.91 dBm
20.5
10
0
-10
-20
-30
-40
-50
-60
-70
-79.5
Start 30 MHz
2.497 GHz/
Stop 25 GHz

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
Fax: 886-2-26052943

Hsin Chu EMC/RF Lab:
Tel: 886-3-5935343
Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Telecom Lab:
Tel: 886-3-3183232
Fax: 886-3-3185050

Web Site: www.adt.com.tw

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

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---