FCC TEST REPORT (15.407)

REPORT NO.: RF990819E02-1

MODEL NO.: RT3593

FCC ID: VQF-RT3593

RECEIVED: Aug. 19, 2010

TESTED: Aug. 30 to Sep. 08, 2010

ISSUED: Sep. 17, 2010

APPLICANT: Ralink Technology Corporation

ADDRESS: 5F, No. 36, Taiyuan street, Jhu-Bei City, Hsin-Chu County 302, Taiwan, R.O.C

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

1. CERTIFICATION

PRODUCT:	802.11a/b/g/n 3T3R WLAN Mini Card
BRAND NAME:	Ralink
MODEL NO.:	RT3593
TEST SAMPLE:	MASS-PRODUCTION
TESTED:	Aug. 30 to Sep. 08, 2010
APPLICANT:	Ralink Technology Corporation
STANDARDS:	FCC Part 15, Subpart E (Section 15.407)
	ANSI C63.4-2003

The above equipment (Model: RT3593) 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:** Sep. 17, 2010
(Midoli Peng, Specialist)

TECHNICAL ACCEPTANCE : _____ , **DATE:** Sep. 17, 2010
(Hank Chung, Deputy Manager)

APPROVED BY : _____ , **DATE:** Sep. 17, 2010
(May Chen, Deputy Manager)

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:
For 802.11a

APPLIED STANDARD: FCC Part 15, Subpart E (Section 15.407)			
Standard Section	**Test Type**	**Result**	**Remark**
15.407(b)(5)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -8.25dB at 0.193MHz
15.407(b/1/2/3) (b)(5)	Electric Field Strength Spurious Emissions, 30MHz ~ 40000MHz	PASS	Meet the requirement of limit. Minimum passing margin is -0.5dB at 5147.8MHz, 5352.35MHz, 5352.30MHz, 5372.37MHz, 5352.38MHz, 5372.00MHz, 5448.63MHz & 5725.38MHz
15.407(a/1/2/3)	Peak Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a/1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is IPEX or Reverse SMA not a standard connector.

NOTE:

1. The EUT was operating in 2400 ~ 2483.5MHz, 5.15~5.35GHz, 5.47~5.725GHz and 5.725~5.850GHz frequencies band. This report was recorded the RF parameters including 5.15~5.35GHz and 5.47~5.725GHz. For the 2400 ~ 2483.5MHz and 5.725~5.850GHz RF parameters was recorded in another test report.

2.1 MEASUREMENT UNCERTAINTY

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

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

Measurement	Value
Conducted emissions	2.45 dB
Radiated emissions (30MHz-1GHz)	3.94 dB
Radiated emissions (1GHz -18GHz)	2.49 dB
Radiated emissions (18GHz -40GHz)	2.70 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	802.11a/b/g/n 3T3R WLAN Mini Card
MODEL NO.	RT3593
FCC ID	VQF-RT3593
POWER SUPPLY	DC 3.3V±10% 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 802.11a/g: 54/48/36/24/18/12/9/6Mbps HT20 MCS0~7(800ns GI): 6.5Mbps, 13Mbps, 19.5Mbps, 26Mbps, 39Mbps, 52Mbps, 58.5Mbps, 65Mbps HT20 MCS8~15(800ns GI): 13Mbps, 26Mbps, 39Mbps, 52Mbps, 78Mbps, 104Mbps, 117Mbps, 130Mbps HT40 MCS0~7(800ns GI): 13.5Mbps, 27Mbps, 40.5Mbps, 54Mbps, 81Mbps, 108Mbps, 121.5Mbps, 135Mbps HT40 MCS8~15(800ns GI): 27Mbps, 54Mbps, 81Mbps, 108Mbps, 162Mbps, 216Mbps, 243Mbps, 270Mbps HT20 MCS0~7 (400ns GI): 7.2Mbps, 14.4Mbps, 21.7Mbps, 28.9Mbps, 43.3Mbps, 57.8Mbps, 65.0Mbps, 72.2Mbps HT20 MCS8~15 (400ns GI): 14.444Mbps, 28.889Mbps, 43.333Mbps, 57.778Mbps, 86.667Mbps, 115.556Mbps, 130.000Mbps, 144.444Mbps HT40 MCS0~7 (400ns GI): 15.0Mbps, 30.0Mbps, 45.0Mbps, 60.0Mbps, 90.0Mbps, 120.0Mbps, 135.0Mbps, 150.0Mbps HT40 MCS8~15 (400ns GI): 30.0Mbps, 60.0Mbps, 90.0Mbps, 120.0Mbps, 180.0Mbps, 240.0Mbps, 270.0Mbps, 300.0Mbps
OPERATING FREQUENCY	**For 15.407** 802.11a: 5.18 ~ 5.24GHz, 5.26 ~ 5.32GHz,5.50 ~ 5.70GHz
	For 15.247 802.11b & 802.11g: 2.412 ~ 2.462GHz 802.11a: 5.745 ~ 5.825GHz

NUMBER OF CHANNEL	**For 15.407** 19 for 802.11a, 802.11n (20MHz) 9 for 802.11n (40MHz)
	For 15.247(2.4GHz) 11 for 802.11b, 802.11g, 802.11n (20MHz) 7 for 802.11n (40MHz) **For 15.247(5GHz)** 5 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz)
MAXIMUM OUTPUT POWER	**For 15.407** 802.11a: 87.1mW 802.11n (20MHz): 153.9mW 802.11n (40MHz): 151.6mW **For 15.247(2.4GHz)** 802.11b: 162.2mW 802.11g: 281.8mW 802.11n (20MHz): 616.7mW 802.11n (40MHz): 572.9mW **For 15.247(5GHz)** 802.11a: 239.9mW 802.11n (20MHz): 405.2mW 802.11n (40MHz): 437.9mW
ANTENNA TYPE	Please see note 1
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

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

Set 1						
Chain	Brand name	Model name	Antenna Gain (dBi)	Antenna Cable Length(mm)	Antenna Type	Connector
Chain (0)	JOYMAX	TWX-614XRSXX-999	3 (For 2.4GHz) 5 (For 5GHz)	320	Dipole	Reverse SMA
Chain (1)	JOYMAX	TWX-614XRSXX-999	3 (For 2.4GHz) 5 (For 5GHz)	320	Dipole	Reverse SMA
Chain (2)	JOYMAX	TWX-614XRSXX-999	3 (For 2.4GHz) 5 (For 5GHz)	320	Dipole	Reverse SMA
Set 2						
Chain	Brand name	Model name	Antenna Gain (dBi)	Antenna Cable Length(mm)	Antenna Type	Connector
Chain (0)	ACON	APP6P-700119	3.25 (For 2.4GHz) 5.01 (For 5GHz)	225	PIFA	IPEX
Chain (1)	ACON	APP6P-700119	3.25 (For 2.4GHz) 5.01 (For 5GHz)	225	PIFA	IPEX
Chain (2)	ACON	APP6P-700119	3.25 (For 2.4GHz) 5.01 (For 5GHz)	225	PIFA	IPEX

2. The PIFA antenna was pre-tested under the following test modes for three different axes placements:

Test Mode	Description
Mode A	X-Z plane
Mode B	X-Y plane
Mode C	Y-Z plane

From the above modes, the radiated emission worst case was found in Mode C.
Therefore only the test data of the mode was recorded in this report.

3. The EUT incorporates a MIMO function with 802.11n. Physically, the EUT provides three completed transmitters and three completed receivers.

4. The EUT is 3 * 3 spatial MIMO (3Tx & 3Rx) without beam forming function. The antenna configurations are three transmitter antennas and three receiver antennas, as there are 3 Dipole antennas or 3 PIFA antennas. Spatial multiplexing modes for simultaneous transmission using 3 antennas, and for simultaneous receiver using 3 antennas. The 11a/b/g legacy mode is limited to single transmitter only.

5. The EUT complies with 802.11n standards and backwards compatible with 802. 11a, 802.11b, 802.11g products.

6. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 DESCRIPTION OF TEST MODES

Operated in 5150MHz ~ 5350MHz bands:

Eight channels are provided for 802.11a and 802.11n (20MHz):

CHANNEL	FREQUENCY
36	5180 MHz
40	5200 MHz
44	5220 MHz
48	5240 MHz
52	5260 MHz
56	5280 MHz
60	5300 MHz
64	5320 MHz

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

CHANNEL	FREQUENCY
38	5190 MHz
46	5230 MHz
54	5270 MHz
62	5310 MHz

Operated in 5470MHz ~ 5725MHz bands:

Eleven channels are provided for 802.11a and 802.11n (20MHz):

CHANNEL	FREQUENCY
100	5500 MHz
104	5520 MHz
108	5540 MHz
112	5560 MHz
116	5580 MHz
120	5600 MHz
124	5620 MHz
128	5640 MHz
132	5660 MHz
136	5680 MHz
140	5700 MHz

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

CHANNEL	FREQUENCY
102	5510 MHz
110	5550 MHz
118	5590 MHz
126	5630 MHz
134	5670 MHz

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE < 1G	RE ³ 1G	APCM	
1	√	√	√		With Dipole Antenna
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)	TX CHAIN(2)
A	802.11 a	√		
B	802.11n (20MHz) for MCS 0~15	√	√	√
C	802.11n (40MHz) for MCS 0~15	√	√	√

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.

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 MODE
Worst Channel	-	-	-	-	-	-

RADIATED EMISSION TEST (BELOW 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	COMBINATION MODE
802.11n (20MHz)	36 to 140	120	OFDM	BPSK	6.5	B

RADIATED EMISSION TEST (ABOVE 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	COMBINATION MODE
802.11a	36 to 140	36, 40, 48, 52, 60, 64, 100, 120, 140	OFDM	BPSK	6	A
802.11n (20MHz)	36 to 140	36, 40, 48, 52, 60, 64, 100, 100, 120, 140	OFDM	BPSK	6.5	B
802.11n (40MHz)	38 to 134	38,46, 54, 62, 102, 118, 134	OFDM	BPSK	13.5	C

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 MODE
802.11a	36 to 140	36, 64, 100, 140	OFDM	BPSK	6	A
802.11n (20MHz)	36 to 140	36, 64, 100, 140	OFDM	BPSK	6.5	B
802.11n (40MHz)	38 to 134	38, 62, 102, 134	OFDM	BPSK	13.5	C

※ After verification, conducted out band emission as show worst chain in report by investigations.

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 MODE
802.11a	36 to 140	36, 40, 48, 52, 60, 64, 100, 120, 140	OFDM	BPSK	6	A
802.11n (20MHz)	36 to 140	36, 40, 48, 52, 60, 64, 100, 100, 120, 140	OFDM	BPSK	6.5	B
802.11n (40MHz)	38 to 134	38,46, 54, 62, 102, 118, 134	OFDM	BPSK	13.5	C

※ After verification, bandwidth as show worst chain in report by investigations.

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
RE≥1G	26deg. C, 67%RH, 1013 hPa	120Vac, 60Hz	Duke Tseng
RE<1G	27deg. C, 71%RH, 1013 hPa	120Vac, 60Hz	Rex Huang
PLC	25deg. C, 67%RH, 1013 hPa	120Vac, 60Hz	Wen Yu
APCM	25deg. C, 60%RH, 1013 hPa	120Vac, 60Hz	Rex 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 E (15.407)

ANSI C63.4-2003

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

NOTE: The EUT 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

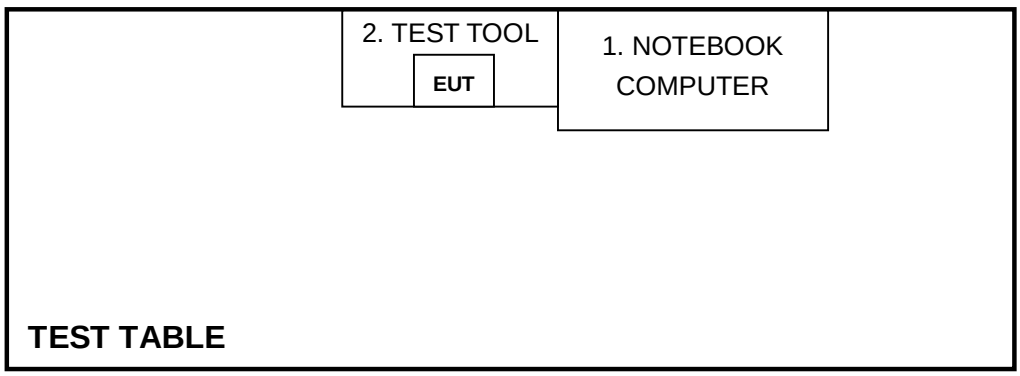
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP19L	CN-OHC416-70166-5CA-0448	PIW632500516610
2	TEST TOOL	Ralink	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)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

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

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	100287	Mar. 01, 2010	Feb. 28, 2011
Line-Impedance Stabilization Network (for EUT)	NSLK 8127	8127-523	Sep. 23, 2009	Sep. 22, 2010
Line-Impedance Stabilization Network (for Peripheral)	ENV-216	100072	June 11, 2010	June 10, 2011
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

b. provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

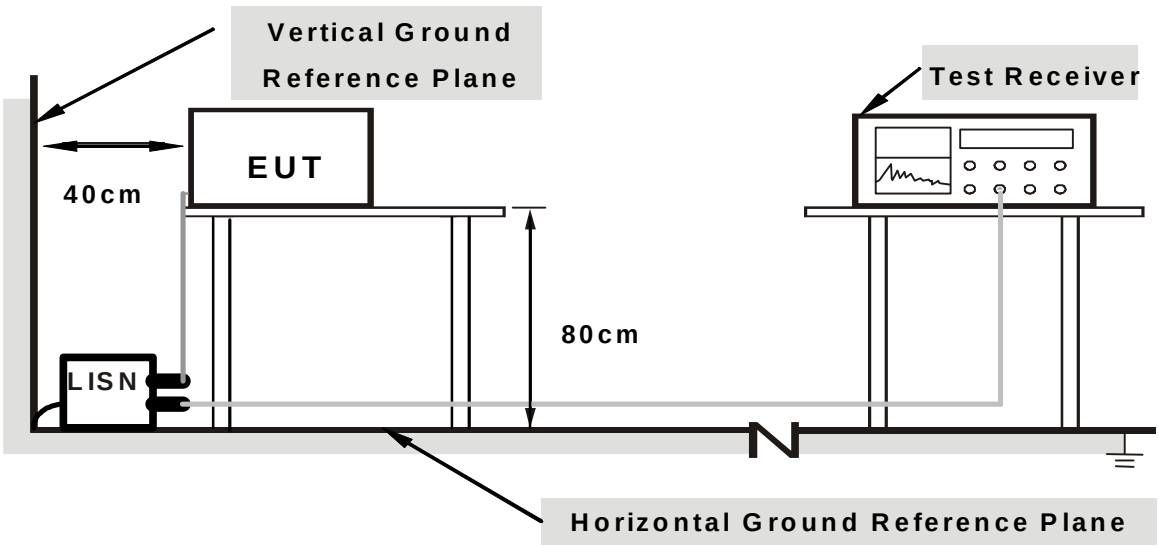
c. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

d. The frequency range from 150kHz to 30MHz was searched. Emission level under (Limit – 20dB) was not recorded.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

4.1.6 EUT OPERATING CONDITIONS

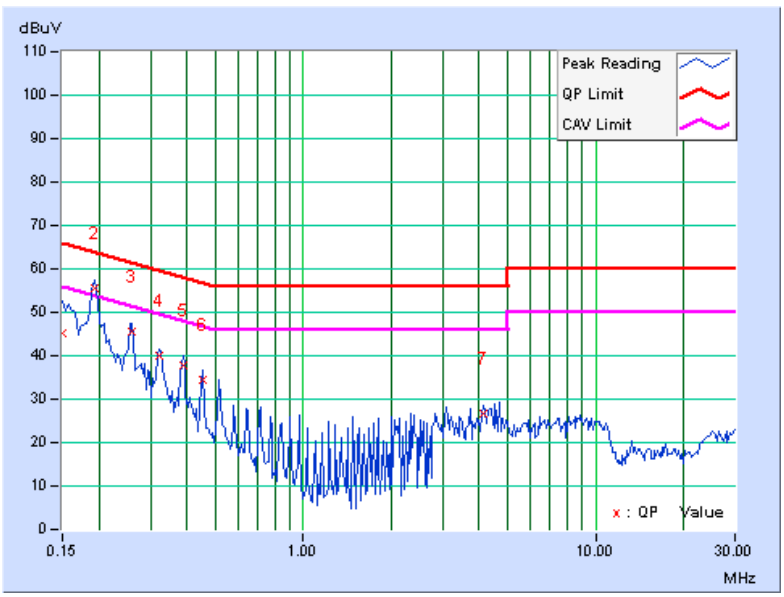
1. Connect the EUT with the support unit 1 (Notebook Computer) which is placed on a testing table via support unit 2 (Test Tool).
2. The support unit 1 (Notebook Computer) runs test program “RT5390_QA Tool” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

4.1.7 TEST RESULTS

PHASE	Line (L)	6dB BANDWIDTH	9 kHz

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	0.03	45.10	-	45.13	-	66.00	56.00	-20.87	-
2	**0.193**	**0.03**	**55.63**	**44.11**	**55.66**	**44.14**	**63.91**	**53.91**	**-8.25**	**-9.77**
3	0.259	0.03	45.69	-	45.72	-	61.45	51.45	-15.73	-
4	0.322	0.04	40.02	-	40.06	-	59.66	49.66	-19.60	-
5	0.388	0.04	37.81	-	37.85	-	58.10	48.10	-20.25	-
6	0.451	0.05	34.43	-	34.48	-	56.86	46.86	-22.39	-
7	4.125	0.12	26.73	-	26.85	-	56.00	46.00	-29.15	-

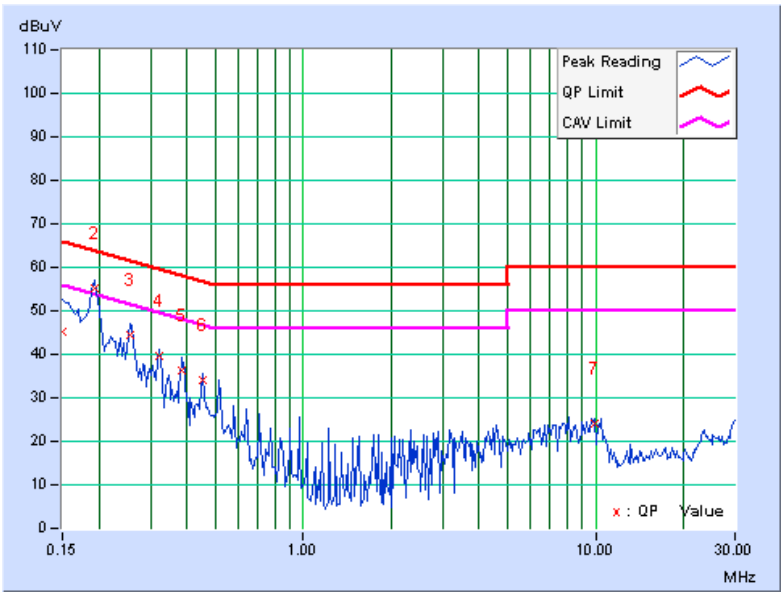
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission 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	0.150	0.04	45.12	-	45.16	-	66.00	56.00	-20.84	-
2	0.193	0.04	55.09	43.63	55.13	43.67	63.91	53.91	-8.78	-10.24
3	0.255	0.04	44.48	-	44.52	-	61.58	51.58	-17.05	-
4	0.322	0.05	39.43	-	39.48	-	59.66	49.66	-20.18	-
5	0.384	0.05	36.19	-	36.24	-	58.18	48.18	-21.95	-
6	0.451	0.06	33.95	-	34.01	-	56.86	46.86	-22.86	-
7	9.930	0.26	23.98	-	24.24	-	60.00	50.00	-35.76	-

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



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

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

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

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.
4. Section 15.205 restricted bands of operation shall compliance with the limits in Section 15.209.

4.2.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequencies (MHz)	**EIRP Limit (dBm)**	**Equivalent Field Strength at 3m (dBμV/m)** *note 3
5150~5250	-27	68.3
5250~5350	-27	68.3
5470~5725	-27	68.3
5725~5825	-27 *note 1	68.3
	-17 *note 2	78.3

NOTE:

1. For frequencies 10MHz or greater above or below the band edge.
2. All emissions within the frequency range from the band edge to 10MHz above or below the band edge.
3. The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength

$$E=\frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts)

4.2.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Agilent Spectrum Analyzer	E4446A	MY48250253	Aug. 02, 2010	Aug. 01, 2011
Agilent Pre-Selector	N9039A	MY46520311	July 14, 2010	July 13, 2011
Agilent Signal Generator	N5181A	MY49060517	July 14, 2010	July 13, 2011
Mini-Circuits Pre-Amplifier	ZFL-1000VH2B	AMP-ZFL-03	Nov. 18, 2009	Nov. 17, 2010
Agilent Pre-Amplifier	8449B	3008A02578	July 05, 2010	July 04, 2011
Miteq Pre-Amplifier	AFS33-18002650-30-8P-44	881786	NA	NA
SCHWARZBECK Trilog Broadband Antenna	VULB 9168	9168-360	Sep. 30, 2009	Sep. 29, 2010
AISI Horn_Antenna	AIH.8018	0000320091110	Nov. 16, 2009	Nov. 15, 2010
SCHWARZBECK Horn_Antenna	BBHA 9170	9170-424	Sep. 30, 2009	Sep. 29, 2010
RF CABLE	NA	RF104-201 RF104-203 RF104-204	Dec. 24, 2009	Dec. 23, 2010
RF Cable	NA	CHGCAB_001	NA	NA
Software	ADT_Radiated_V8.7.05	NA	NA	NA
CT Antenna Tower & Turn Table	NA	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in 966 Chamber No. G.
4. The FCC Site Registration No. is 966073.
5. The VCCI Site Registration No. is G-137.
6. The CANADA Site Registration No. is IC 7450H-2.

4.2.4 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter 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 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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

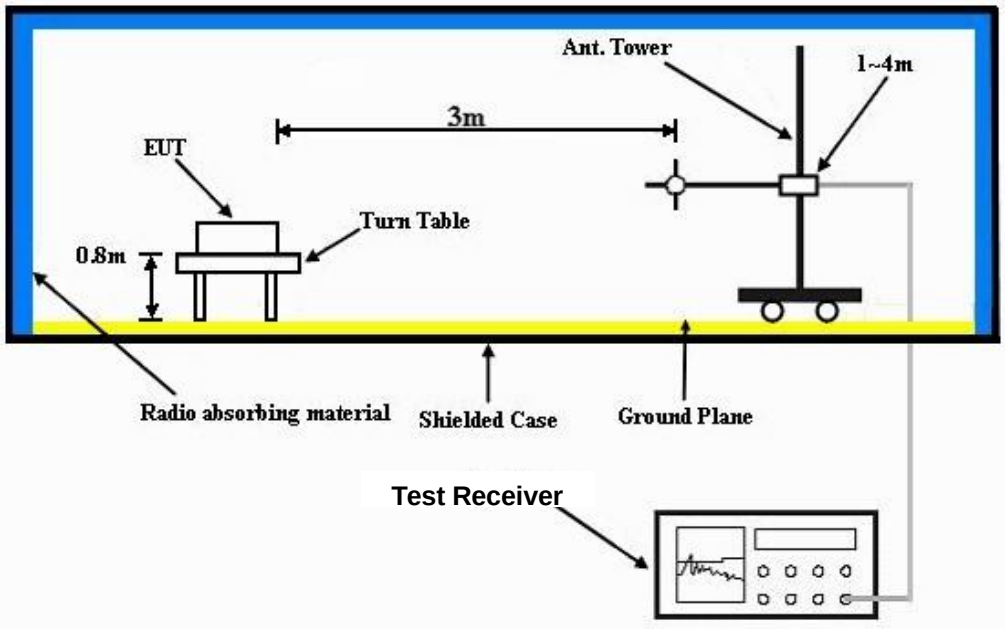
NOTE:

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

4.2.5 DEVIATION FROM TEST STANDARD

No deviation

4.2.6 TEST SETUP



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

4.2.7 EUT OPERATING CONDITION

Same as 4.1.6

4.2.8 TEST RESULTS (WITH DIPOLE ANTENNA)

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 120	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	27deg. C, 71%RH 1013 hPa	TESTED BY	Rex Huang
TEST MODE	With Dipole		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	99.99	34.2 QP	43.5	-9.3	2.00 H	360	24.92	9.24
2	299.89	38.3 QP	46.0	-7.7	1.25 H	178	23.12	15.19
3	419.97	34.2 QP	46.0	-11.8	1.00 H	123	16.36	17.81
4	499.78	38.6 QP	46.0	-7.4	1.75 H	243	18.87	19.70
5	600.44	39.8 QP	46.0	-6.2	1.50 H	238	17.83	21.98
6	799.98	38.8 QP	46.0	-7.2	1.00 H	296	14.34	24.48
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	99.51	33.6 QP	43.5	-9.9	1.00 V	248	24.39	9.20
2	300.00	33.4 QP	46.0	-12.6	1.75 V	270	18.17	15.20
3	420.08	33.8 QP	46.0	-12.2	1.50 V	255	16.00	17.81
4	499.78	35.8 QP	46.0	-10.2	2.00 V	292	16.11	19.70
5	600.32	39.4 QP	46.0	-6.6	1.00 V	141	17.47	21.97
6	799.87	39.5 QP	46.0	-6.5	1.75 V	0	15.05	24.48

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

ABOVE 1GHz WORST-CASE DATA

802.11a OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	5150.00	57.9 PK	74.0	-16.1	1.23 H	232	17.96	39.94
2	5150.00	45.5 AV	54.0	-8.5	1.23 H	232	5.56	39.94
3	*5180.00	97.9 PK			1.22 H	229	57.88	40.02
4	*5180.00	83.0 AV			1.22 H	229	42.98	40.02
5	#10360.00	52.9 PK	68.3	-15.4	1.34 H	22	6.37	46.53
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	5128.30	62.7 PK	74.0	-11.3	1.17 V	50	22.82	39.88
2	5128.30	52.6 AV	54.0	-1.4	1.17 V	50	12.72	39.88
3	5150.00	66.8 PK	74.0	-7.2	1.17 V	50	26.86	39.94
4	5150.00	49.3 AV	54.0	-4.7	1.17 V	50	9.36	39.94
5	*5180.00	110.8 PK			1.16 V	50	70.78	40.02
6	*5180.00	94.7 AV			1.16 V	50	54.68	40.02
7	#10360.00	53.0 PK	68.3	-15.3	1.20 V	70	6.47	46.53

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	*5200.00	99.2 PK			1.24 H	230	59.13	40.07
2	*5200.00	84.3 AV			1.24 H	230	44.23	40.07
3	#10400.00	52.8 PK	68.3	-15.5	1.31 H	20	6.23	46.57
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	5147.80	66.1 PK	74.0	-7.9	1.15 V	49	26.17	39.93
2	**5147.80**	**53.5 AV**	**54.0**	**-0.5**	**1.15 V**	**49**	**13.57**	**39.93**
3	*5200.00	111.2 PK			1.15 V	49	71.13	40.07
4	*5200.00	95.2 AV			1.15 V	49	55.13	40.07
5	#10400.00	53.2 PK	68.3	-15.1	1.21 V	68	6.63	46.57

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	*5240.00	99.3 PK			1.21 H	233	59.13	40.17
2	*5240.00	84.8 AV			1.21 H	233	44.63	40.17
3	#10480.00	53.0 PK	68.3	-15.3	1.33 H	25	6.33	46.67
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	111.9 PK			1.15 V	45	71.73	40.17
2	*5240.00	96.0 AV			1.15 V	45	55.83	40.17
3	#10480.00	53.5 PK	68.3	-14.8	1.20 V	71	6.83	46.67

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	*5260.00	100.6 PK			1.22 H	230	60.37	40.23
2	*5260.00	86.3 AV			1.22 H	230	46.07	40.23
3	#10520.00	52.3 PK	68.3	-16.0	1.32 H	26	5.58	46.72
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	*5260.00	114.1 PK			1.13 V	46	73.87	40.23
2	*5260.00	98.3 AV			1.13 V	46	58.07	40.23
3	#10520.00	53.7 PK	68.3	-14.6	1.20 V	81	6.98	46.72

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	*5300.00	100.6 PK			1.21 H	230	60.27	40.33
2	*5300.00	86.2 AV			1.21 H	230	45.87	40.33
3	10600.00	52.0 PK	74.0	-22.0	1.35 H	30	5.18	46.82
4	10600.00	40.0 AV	54.0	-14.0	1.35 H	30	-6.82	46.82
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	*5260.00	114.8 PK			1.13 V	45	74.57	40.23
2	*5260.00	98.3 AV			1.13 V	45	58.07	40.23
3	5352.35	64.5 PK	74.0	-9.5	1.14 V	46	24.02	40.48
4	**5352.35**	**53.5 AV**	**54.0**	**-0.5**	**1.14 V**	**46**	**13.02**	**40.48**
5	10600.00	53.0 PK	74.0	-21.0	1.21 V	77	6.18	46.82
6	10600.00	40.7 AV	54.0	-13.3	1.21 V	77	-6.12	46.82

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 64	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	*5320.00	99.2 PK			1.41 H	215	58.81	40.39
2	*5320.00	84.9 AV			1.41 H	215	44.51	40.39
3	5372.37	56.8 PK	74.0	-17.2	1.42 H	216	16.27	40.53
4	5372.37	45.9 AV	54.0	-8.1	1.42 H	216	5.37	40.53
5	10640.00	53.2 PK	74.0	-20.8	1.33 H	24	6.33	46.87
6	10640.00	40.8 AV	54.0	-13.2	1.33 H	24	-6.07	46.87
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	112.4 PK			1.14 V	47	72.01	40.39
2	*5320.00	95.9 AV			1.14 V	47	55.51	40.39
3	5372.18	63.6 PK	74.0	-10.4	1.14 V	47	23.07	40.53
4	5372.18	52.5 AV	54.0	-1.5	1.14 V	47	11.97	40.53
5	10640.00	54.5 PK	74.0	-19.5	1.19 V	80	7.63	46.87
6	10640.00	41.6 AV	54.0	-12.4	1.19 V	80	-5.27	46.87

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	5460.00	57.5 PK	74.0	-16.5	1.49 H	242	16.74	40.76
2	5460.00	46.9 AV	54.0	-7.1	1.49 H	242	6.14	40.76
3	#5470.00	58.9 PK	68.3	-9.4	1.48 H	240	18.12	40.78
4	*5500.00	100.8 PK			1.48 H	240	59.94	40.86
5	*5500.00	85.7 AV			1.48 H	240	44.84	40.86
6	11000.00	53.1 PK	74.0	-20.9	1.31 H	22	5.82	47.28
7	11000.00	41.2 AV	54.0	-12.8	1.31 H	22	-6.08	47.28
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	5446.00	61.8 PK	74.0	-12.2	1.15 V	37	21.08	40.72
2	5446.00	51.0 AV	54.0	-3.0	1.15 V	37	10.28	40.72
3	#5470.00	64.0 PK	68.3	-4.3	1.15 V	37	23.22	40.78
4	*5500.00	109.3 PK			1.15 V	37	68.44	40.86
5	*5500.00	93.3 AV			1.15 V	37	52.44	40.86
6	11000.00	54.1 PK	74.0	-19.9	1.20 V	76	6.82	47.28
7	11000.00	41.4 AV	54.0	-12.6	1.20 V	76	-5.88	47.28

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 120	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	*5600.00	100.0 PK			1.22 H	223	58.85	41.15
2	*5600.00	85.7 AV			1.22 H	223	44.55	41.15
3	11200.00	53.8 PK	74.0	-20.2	1.33 H	25	6.38	47.42
4	11200.00	41.4 AV	54.0	-12.6	1.33 H	25	-6.02	47.42
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	*5600.00	109.6 PK			1.16 V	45	68.45	41.15
2	*5600.00	93.9 AV			1.16 V	45	52.75	41.15
3	11200.00	55.0 PK	74.0	-19.0	1.22 V	75	7.58	47.42
4	11200.00	42.4 AV	54.0	-11.6	1.22 V	75	-5.02	47.42

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.

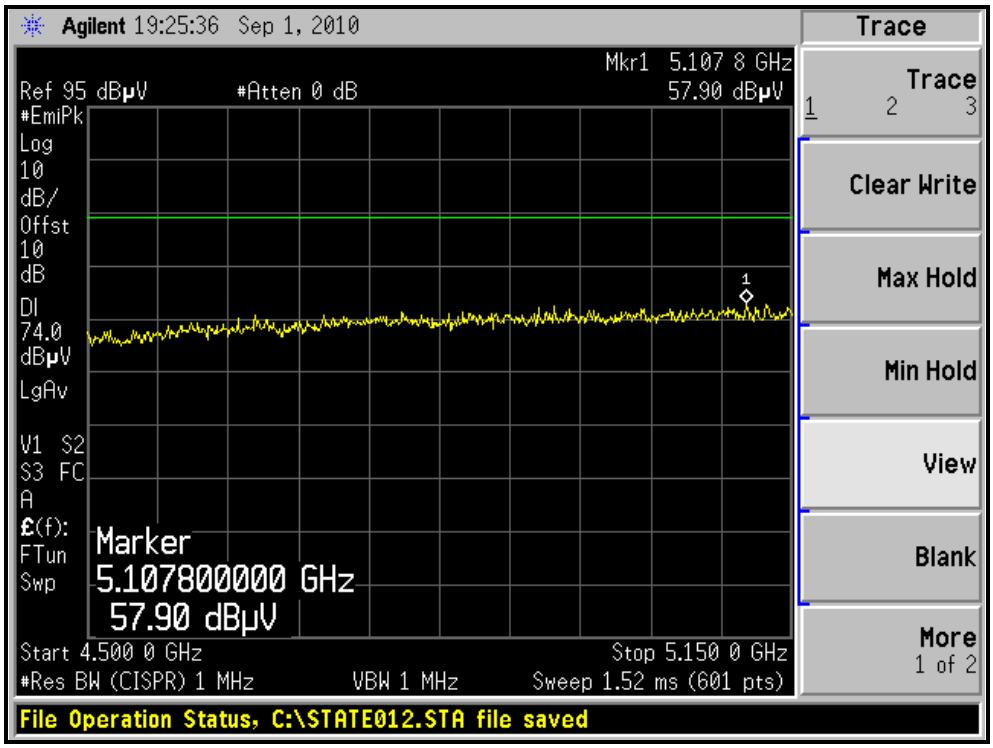
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

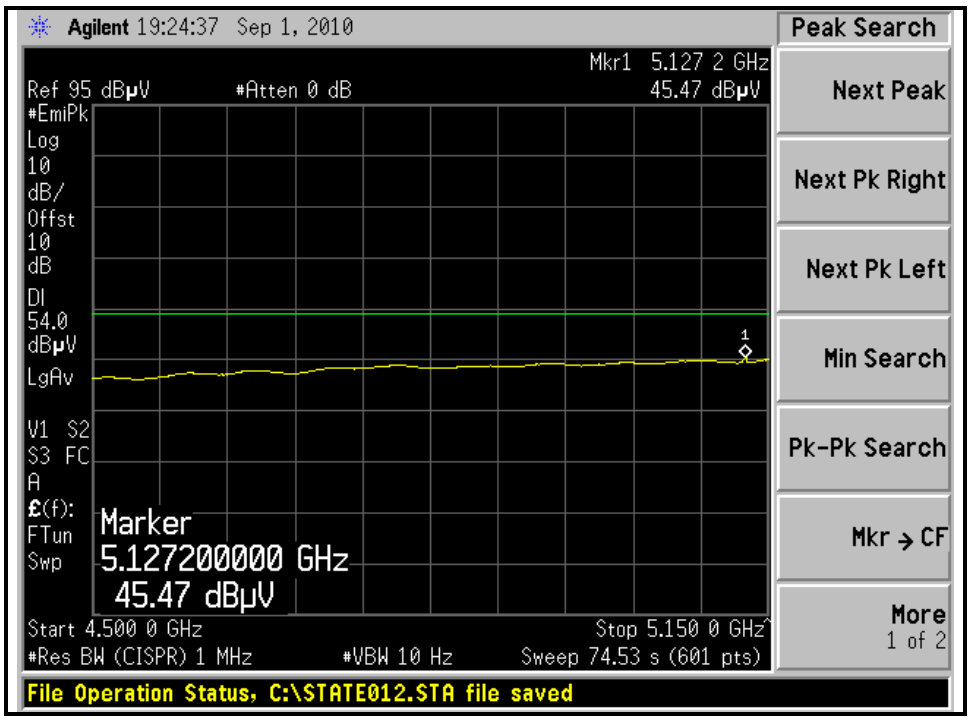
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	99.6 PK			1.26 H	240	58.18	41.42
2	*5700.00	85.1 AV			1.26 H	240	43.68	41.42
3	#5737.38	58.8 PK	68.3	-9.5	1.26 H	240	17.27	41.53
4	11400.00	53.5 PK	74.0	-20.5	1.34 H	20	5.88	47.62
5	11400.00	41.1 AV	54.0	-12.9	1.34 H	20	-6.52	47.62
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	107.7 PK			1.25 V	133	66.28	41.42
2	*5700.00	91.7 AV			1.25 V	133	50.28	41.42
3	#5725.00	63.6 PK	68.3	-4.7	1.25 V	133	22.11	41.49
4	11400.00	54.8 PK	74.0	-19.2	1.21 V	79	7.18	47.62
5	11400.00	41.8 AV	54.0	-12.2	1.21 V	79	-5.82	47.62

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

RESTRICTED BANDEDGE (802.11a MODE, CH36, HORIZONTAL)





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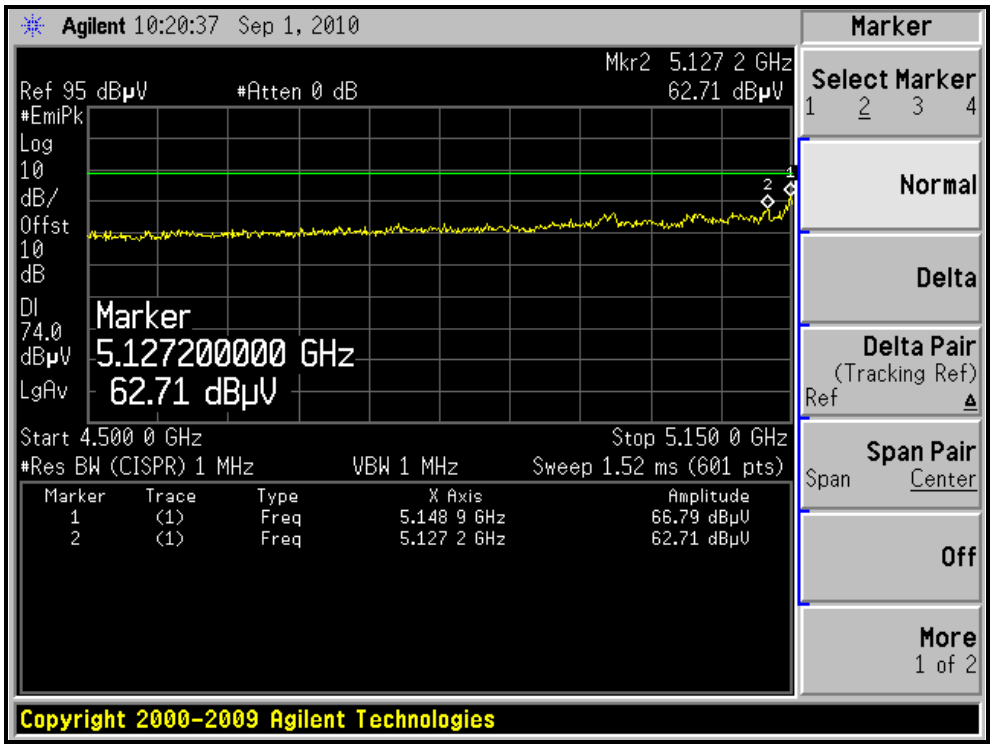

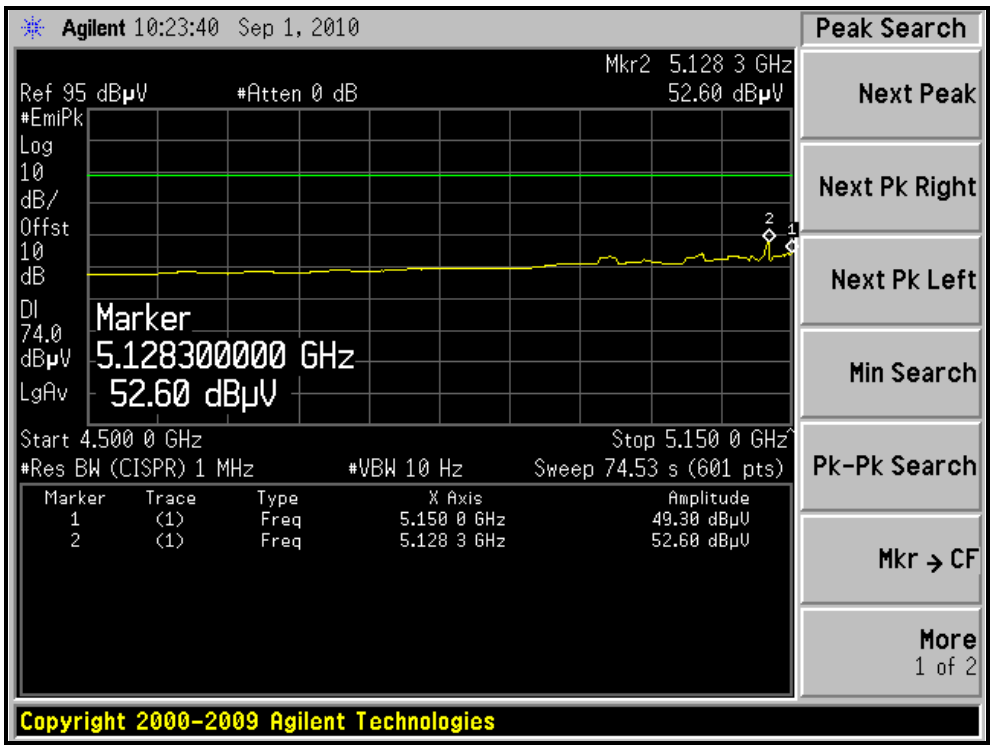

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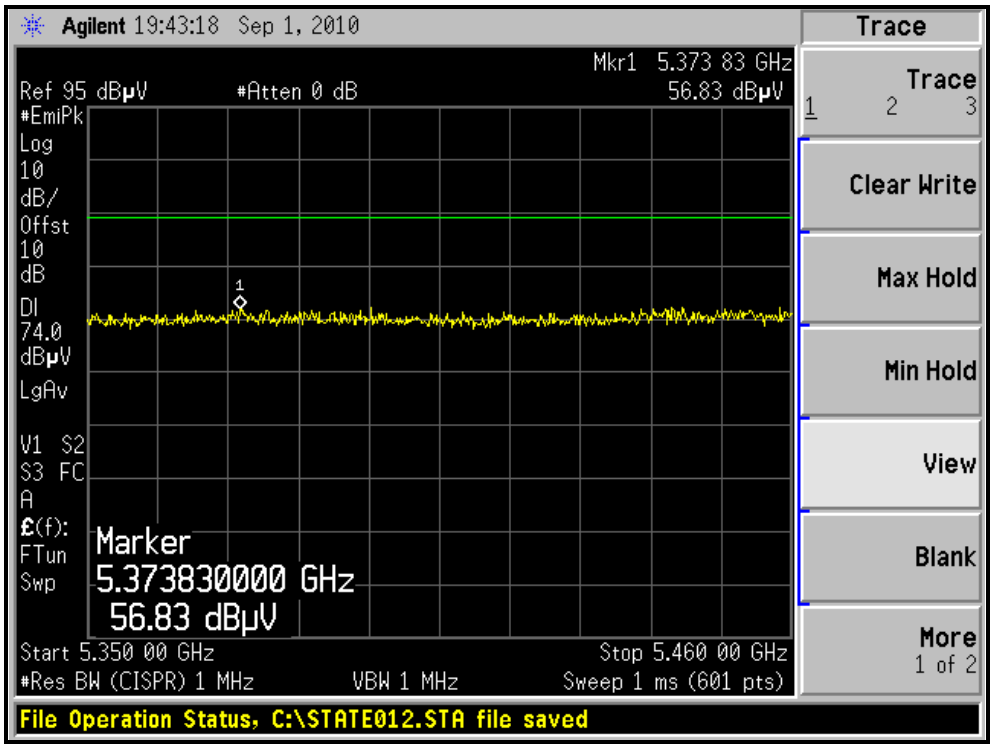

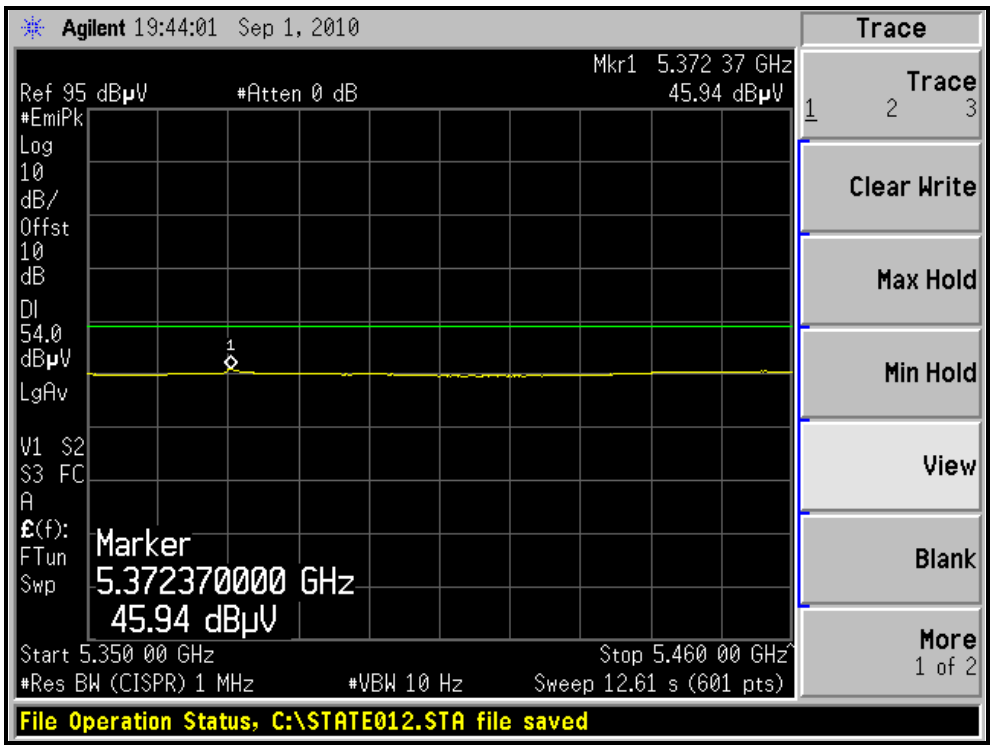

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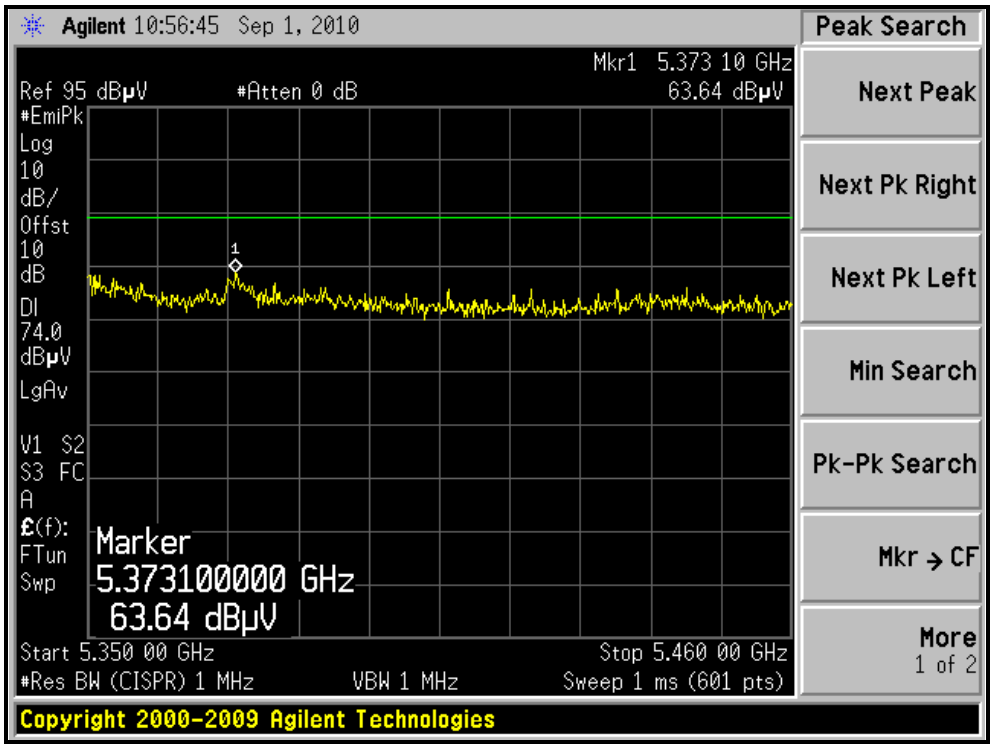

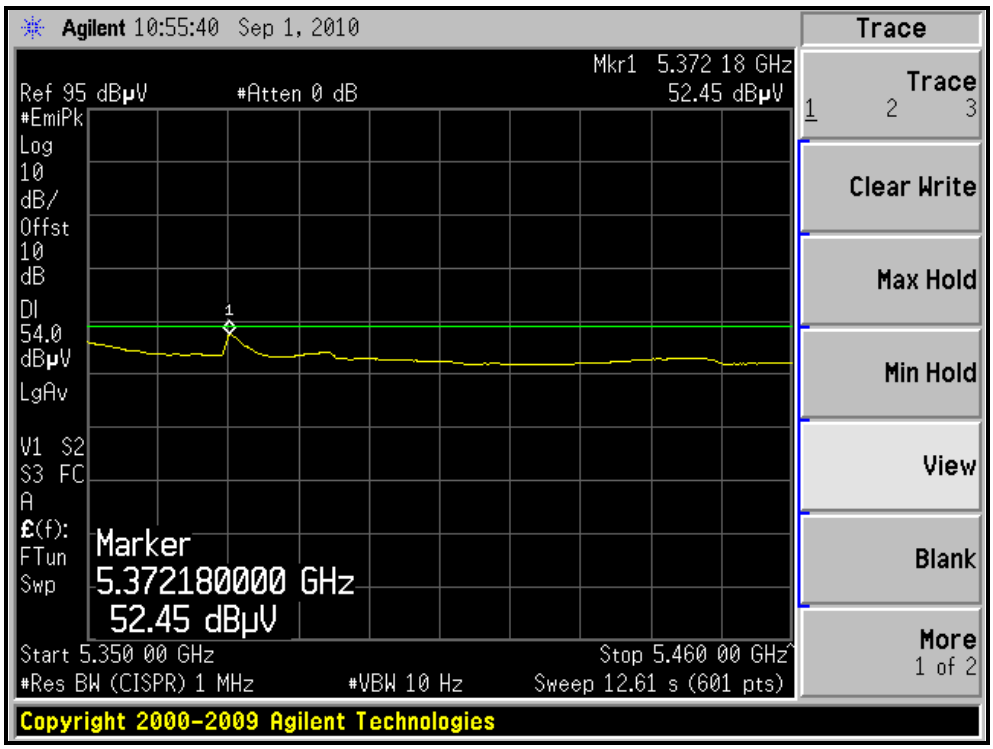

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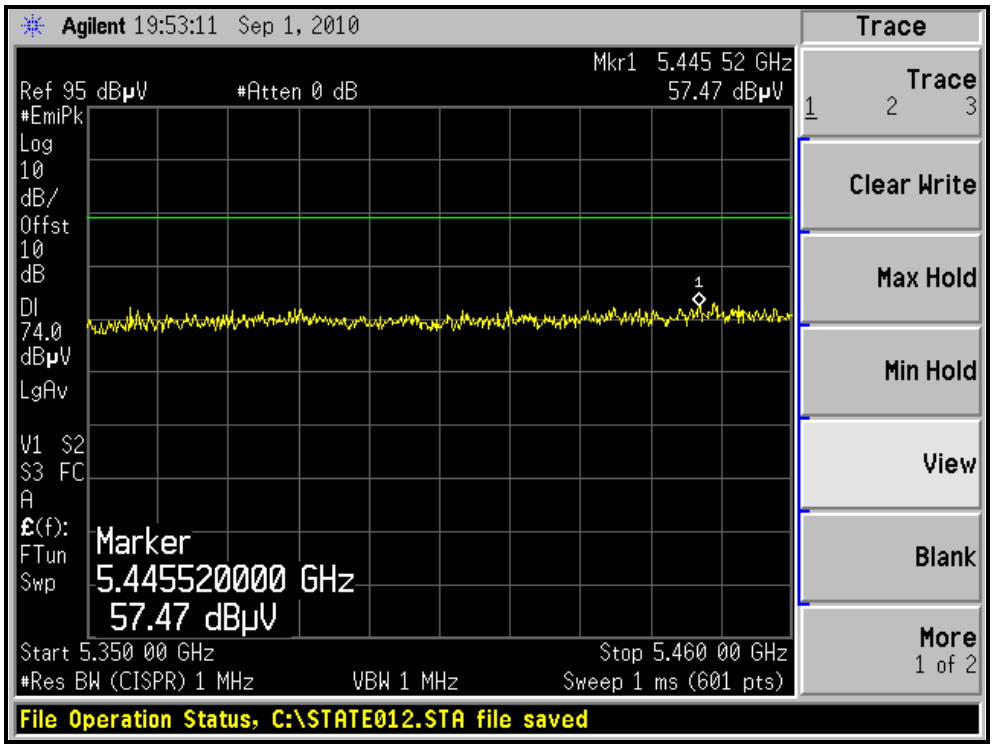

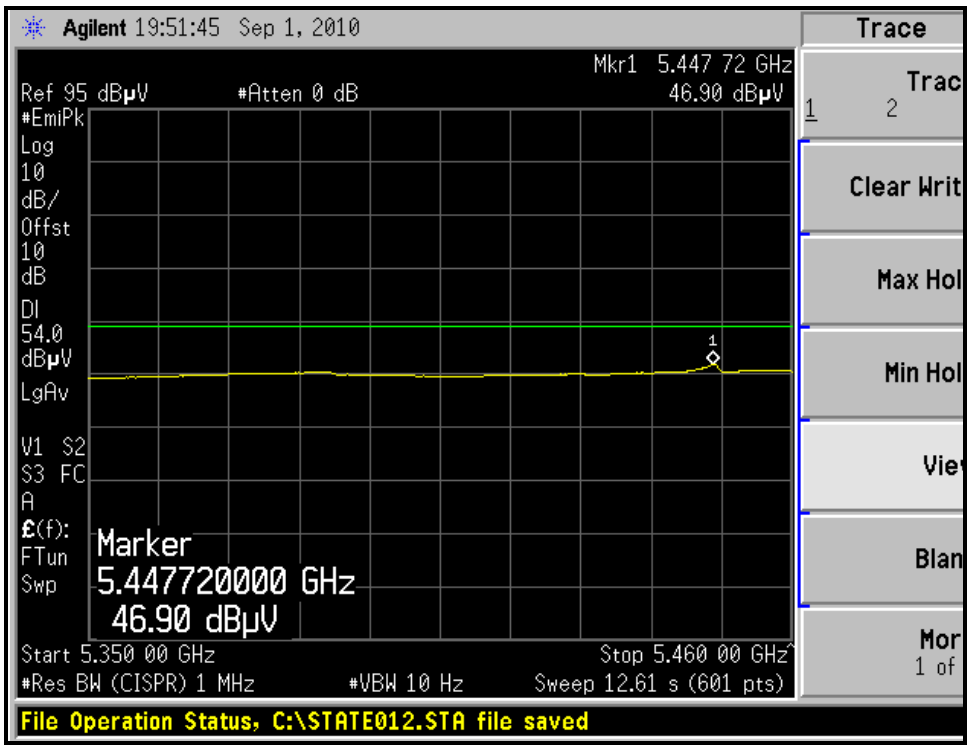

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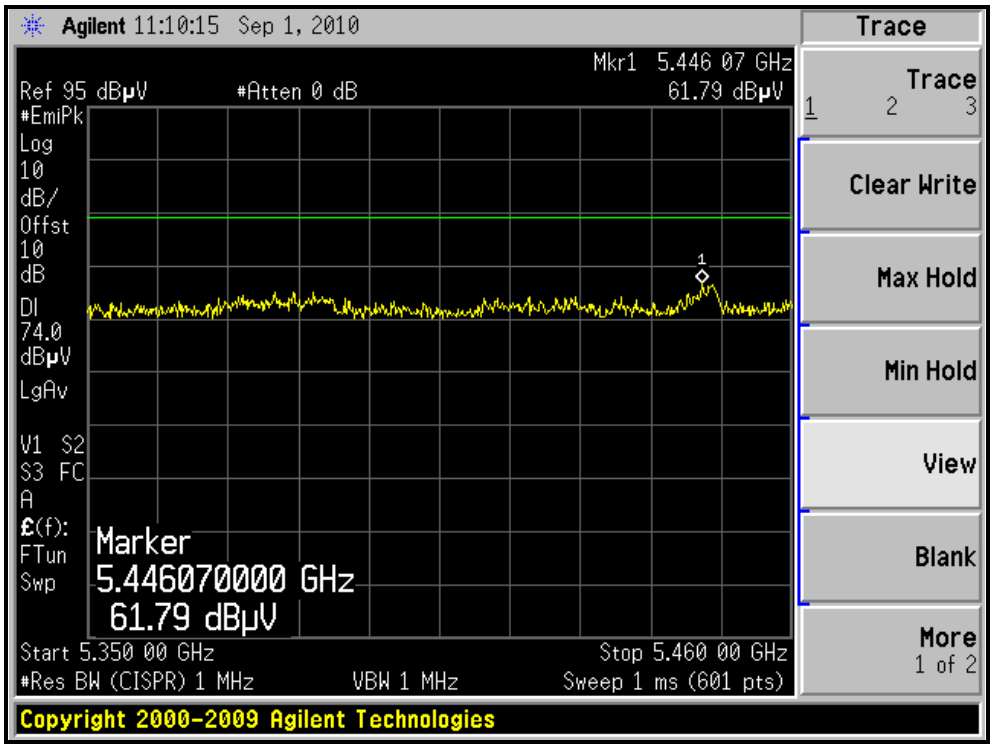
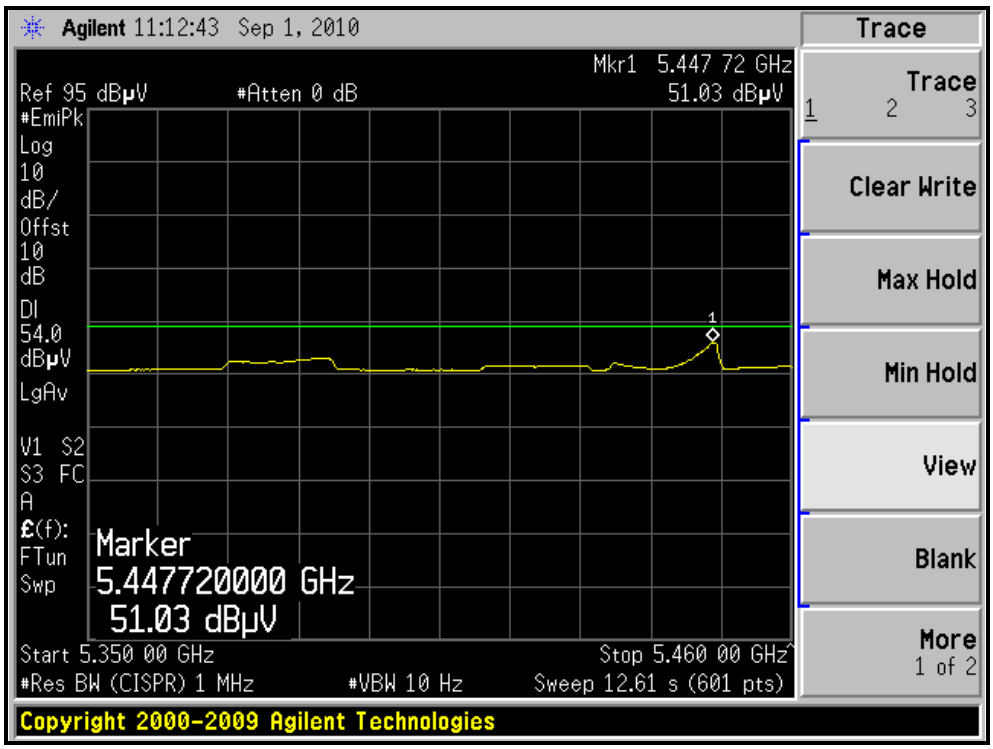




802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	5150.00	57.8 PK	74.0	-16.2	1.45 H	293	17.86	39.94
2	5150.00	44.8 AV	54.0	-9.2	1.45 H	293	4.86	39.94
3	*5180.00	98.1 PK			1.50 H	300	58.08	40.02
4	*5180.00	81.4 AV			1.50 H	300	41.38	40.02
5	#10360.00	52.3 PK	68.3	-16.0	1.35 H	20	5.77	46.53
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	5128.30	65.6 PK	74.0	-8.4	1.20 V	140	25.72	39.88
2	5128.30	51.9 AV	54.0	-2.1	1.20 V	140	12.02	39.88
3	*5180.00	111.8 PK			1.16 V	141	71.78	40.02
4	*5180.00	93.4 AV			1.16 V	141	53.38	40.02
5	#10360.00	53.7 PK	68.3	-14.6	1.33 V	13	7.17	46.53

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	*5200.00	99.6 PK			1.51 H	299	59.53	40.07
2	*5200.00	82.8 AV			1.51 H	299	42.73	40.07
3	#10400.00	53.4 PK	68.3	-14.9	1.36 H	22	6.83	46.57
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	*5200.00	113.2 PK			1.17 V	144	73.13	40.07
2	*5200.00	94.3 AV			1.17 V	144	54.23	40.07
3	#10400.00	54.8 PK	68.3	-13.5	1.33 V	111	8.23	46.57

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	*5240.00	100.9 PK			1.49 H	301	60.73	40.17
2	*5240.00	83.6 AV			1.49 H	301	43.43	40.17
3	#10480.00	53.3 PK	68.3	-15.0	1.35 H	24	6.63	46.67
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	113.4 PK			1.16 V	146	73.23	40.17
2	*5240.00	94.8 AV			1.16 V	146	54.63	40.17
3	#10480.00	55.4 PK	68.3	-12.9	1.39 V	105	8.73	46.67

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	*5260.00	104.9 PK			1.50 H	299	64.67	40.23
2	*5260.00	87.3 AV			1.50 H	299	47.07	40.23
3	#10520.00	52.9 PK	68.3	-15.4	1.34 H	19	6.18	46.72
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	*5260.00	118.7 PK			1.18 V	145	78.47	40.23
2	*5260.00	99.2 AV			1.18 V	145	58.97	40.23
3	5385.50	63.3 PK	74.0	-10.7	1.17 V	144	22.73	40.57
4	5385.50	51.1 AV	54.0	-2.9	1.17 V	144	10.53	40.57
5	#10520.00	57.7 PK	68.3	-10.6	1.35 V	10	10.98	46.72

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	*5300.00	100.7 PK			1.46 H	300	60.37	40.33
2	*5300.00	83.7 AV			1.46 H	300	43.37	40.33
3	10600.00	53.0 PK	74.0	-21.0	1.30 H	26	6.18	46.82
4	10600.00	40.1 AV	54.0	-13.9	1.30 H	26	-6.72	46.82
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	*5300.00	114.9 PK			1.18 V	144	74.57	40.33
2	*5300.00	96.0 AV			1.18 V	144	55.67	40.33
3	5352.30	66.1 PK	74.0	-7.9	1.17 V	145	25.62	40.48
4	**5352.30**	**53.5 AV**	**54.0**	**-0.5**	**1.17 V**	**145**	**13.02**	**40.48**
5	10600.00	54.8 PK	74.0	-19.2	1.31 V	15	7.98	46.82
6	10600.00	42.0 AV	54.0	-12.0	1.31 V	15	-4.82	46.82

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 64	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	*5320.00	99.8 PK			1.02 H	241	59.41	40.39
2	*5320.00	83.7 AV			1.02 H	241	43.31	40.39
3	5350.00	57.4 PK	74.0	-16.6	1.03 H	243	16.93	40.47
4	5350.00	46.0 AV	54.0	-8.0	1.03 H	243	5.53	40.47
5	10640.00	53.3 PK	74.0	-20.7	1.35 H	19	6.43	46.87
6	10640.00	40.7 AV	54.0	-13.3	1.35 H	19	-6.17	46.87
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	113.3 PK			1.16 V	140	72.91	40.39
2	*5320.00	94.6 AV			1.16 V	140	54.21	40.39
3	5350.00	66.8 PK	74.0	-7.2	1.15 V	142	26.33	40.47
4	5350.00	52.6 AV	54.0	-1.4	1.15 V	142	12.13	40.47
5	10640.00	57.9 PK	74.0	-16.1	1.19 V	82	11.03	46.87
6	10640.00	43.5 AV	54.0	-10.5	1.19 V	82	-3.37	46.87

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	5460.00	58.4 PK	74.0	-15.6	1.51 H	205	17.64	40.76
2	5460.00	46.3 AV	54.0	-7.7	1.51 H	205	5.54	40.76
3	#5470.00	57.2 PK	68.3	-11.1	1.51 H	205	16.42	40.78
4	*5500.00	97.5 PK			1.49 H	203	56.64	40.86
5	*5500.00	82.3 AV			1.49 H	203	41.44	40.86
6	11000.00	53.5 PK	74.0	-20.5	1.32 H	24	6.22	47.28
7	11000.00	41.6 AV	54.0	-12.4	1.32 H	24	-5.68	47.28
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	5460.00	65.1 PK	74.0	-8.9	1.23 V	138	24.34	40.76
2	5460.00	52.5 AV	54.0	-1.5	1.23 V	138	11.74	40.76
3	5460.50	62.3 PK	68.3	-6.0	1.23 V	106	21.54	40.76
4	*5500.00	112.3 PK			1.20 V	137	71.44	40.86
5	*5500.00	93.4 AV			1.20 V	137	52.54	40.86
6	11000.00	54.3 PK	74.0	-19.7	1.43 V	130	7.02	47.28
7	11000.00	41.7 AV	54.0	-12.3	1.43 V	130	-5.58	47.28

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 120	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	*5600.00	100.5 PK			1.46 H	295	59.35	41.15
2	*5600.00	85.2 AV			1.46 H	295	44.05	41.15
3	11200.00	53.5 PK	74.0	-20.5	1.33 H	20	6.08	47.42
4	11200.00	41.7 AV	54.0	-12.3	1.33 H	20	-5.72	47.42
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	*5600.00	116.8 PK			1.24 V	91	75.65	41.15
2	*5600.00	97.5 AV			1.24 V	91	56.35	41.15
3	11200.00	59.2 PK	74.0	-14.8	1.46 V	0	11.78	47.42
4	11200.00	44.8 AV	54.0	-9.2	1.46 V	0	-2.62	47.42

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.

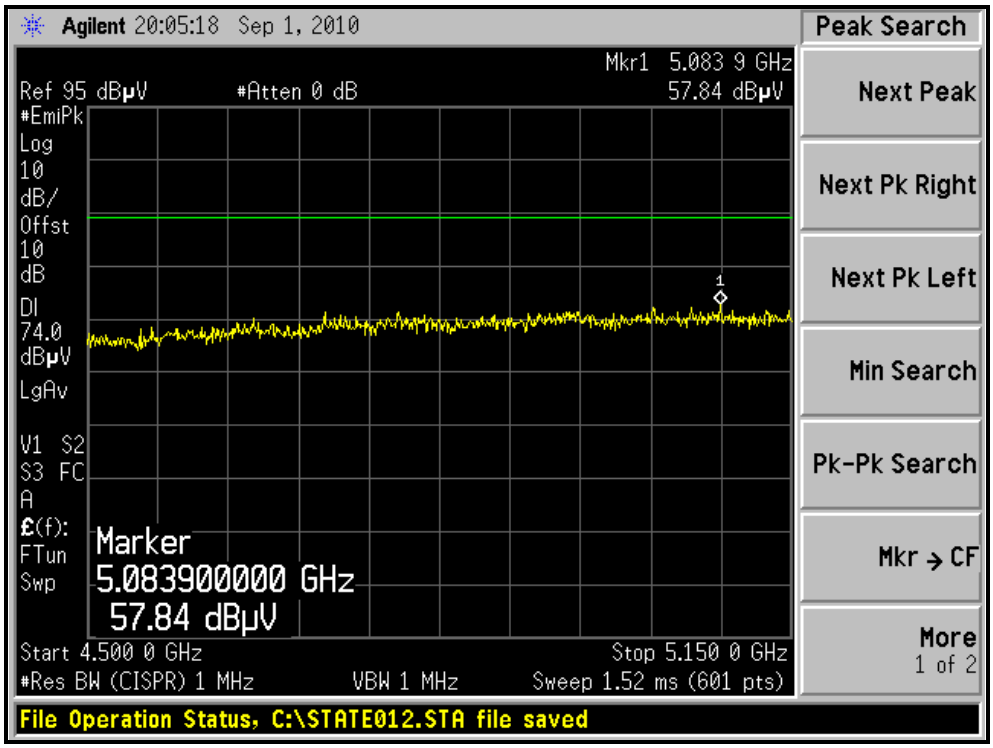
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

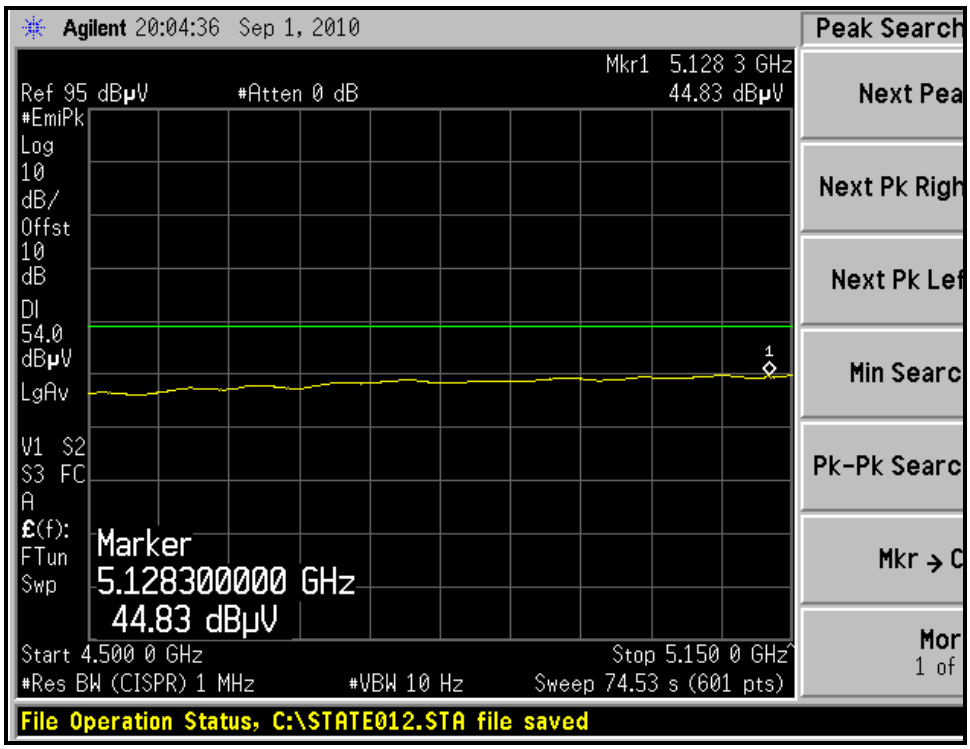
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	96.8 PK			1.35 H	295	55.38	41.42
2	*5700.00	81.0 AV			1.35 H	295	39.58	41.42
3	#5725.00	62.1 PK	68.3	-6.2	1.35 H	294	20.61	41.49
4	11400.00	53.8 PK	74.0	-20.2	1.34 H	23	6.18	47.62
5	11400.00	41.5 AV	54.0	-12.5	1.34 H	23	-6.12	47.62
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	113.0 PK			1.24 V	52	71.58	41.42
2	*5700.00	94.7 AV			1.24 V	52	53.28	41.42
3	#5725.00	67.3 PK	68.3	-1.0	1.25 V	55	25.81	41.49
4	11400.00	55.8 PK	74.0	-18.2	1.42 V	0	8.18	47.62
5	11400.00	42.3 AV	54.0	-11.7	1.42 V	0	-5.32	47.62

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH36, HORIZONTAL)





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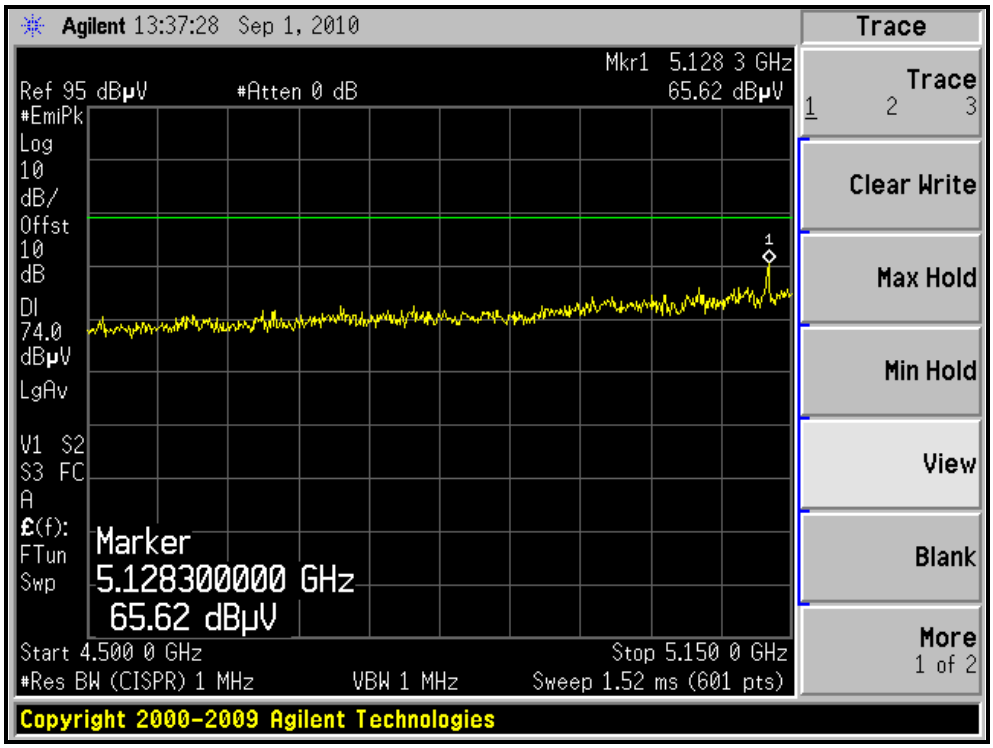

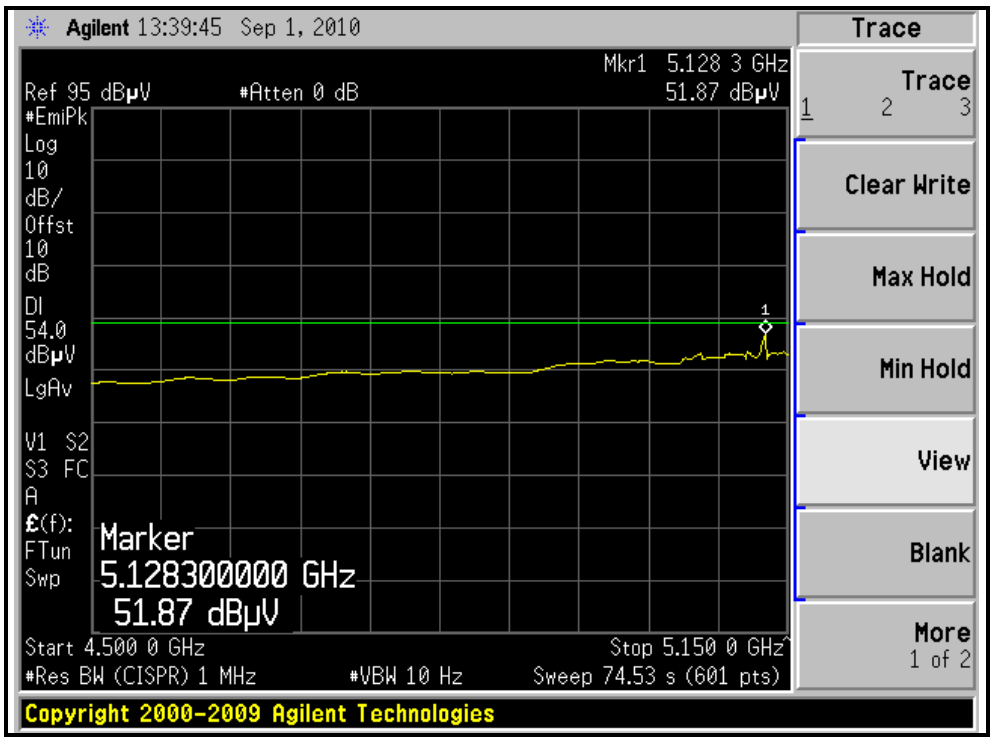

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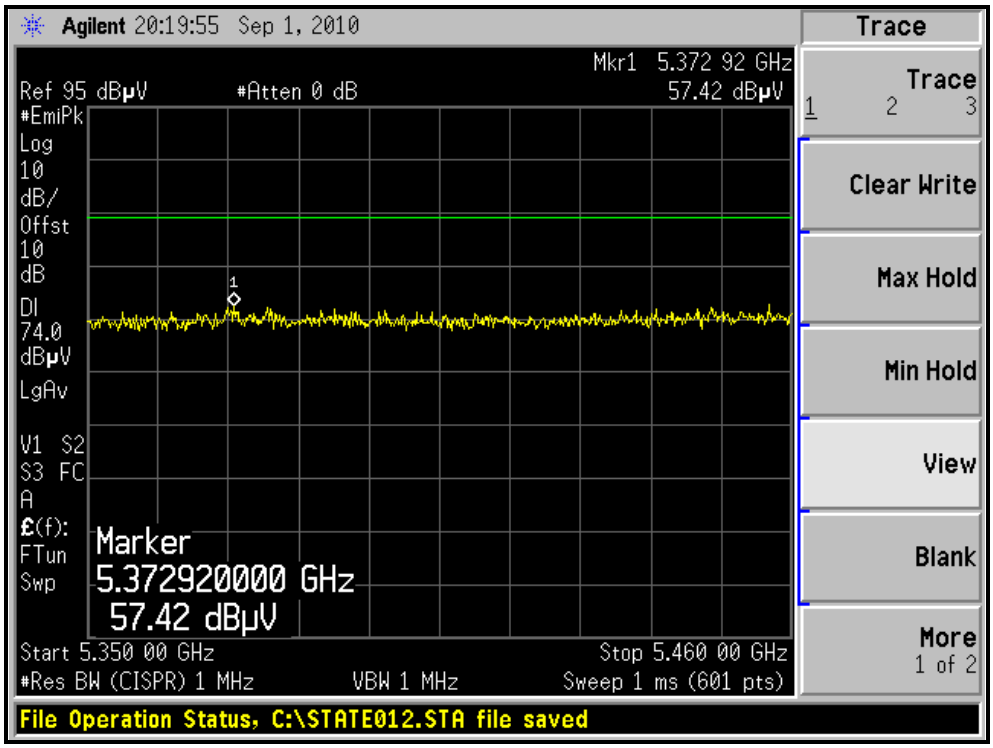

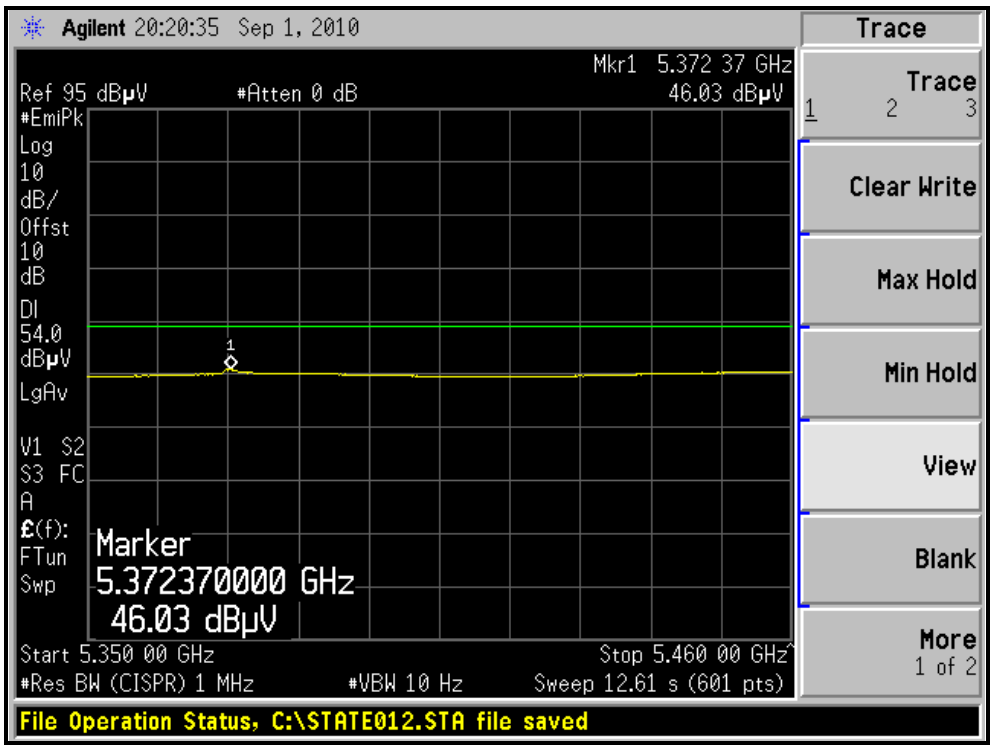

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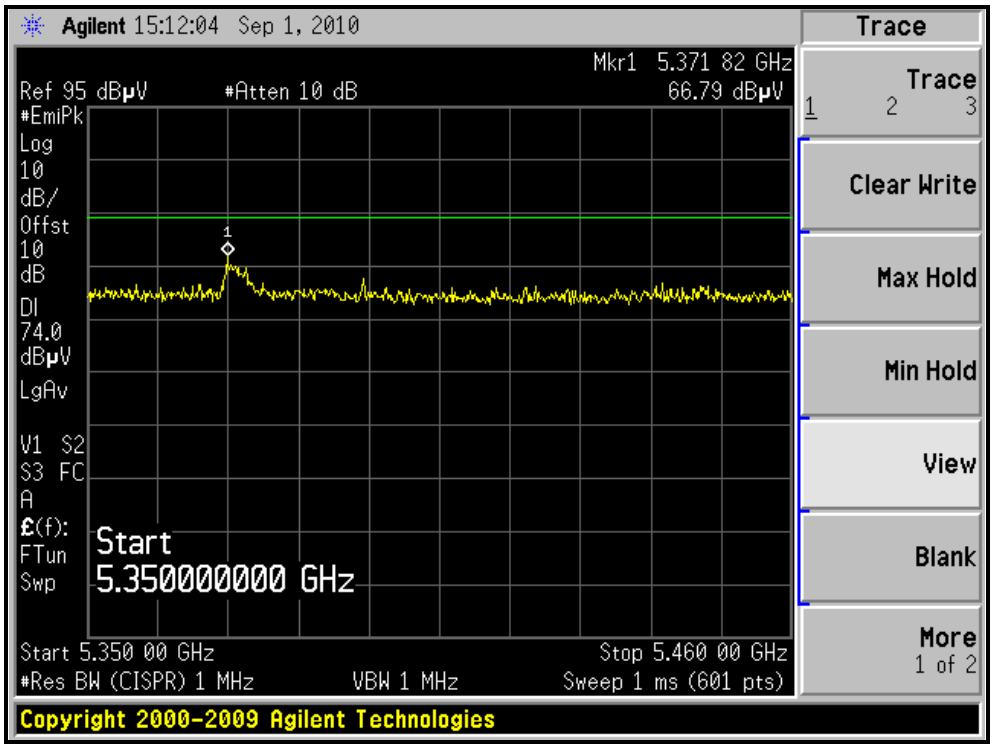

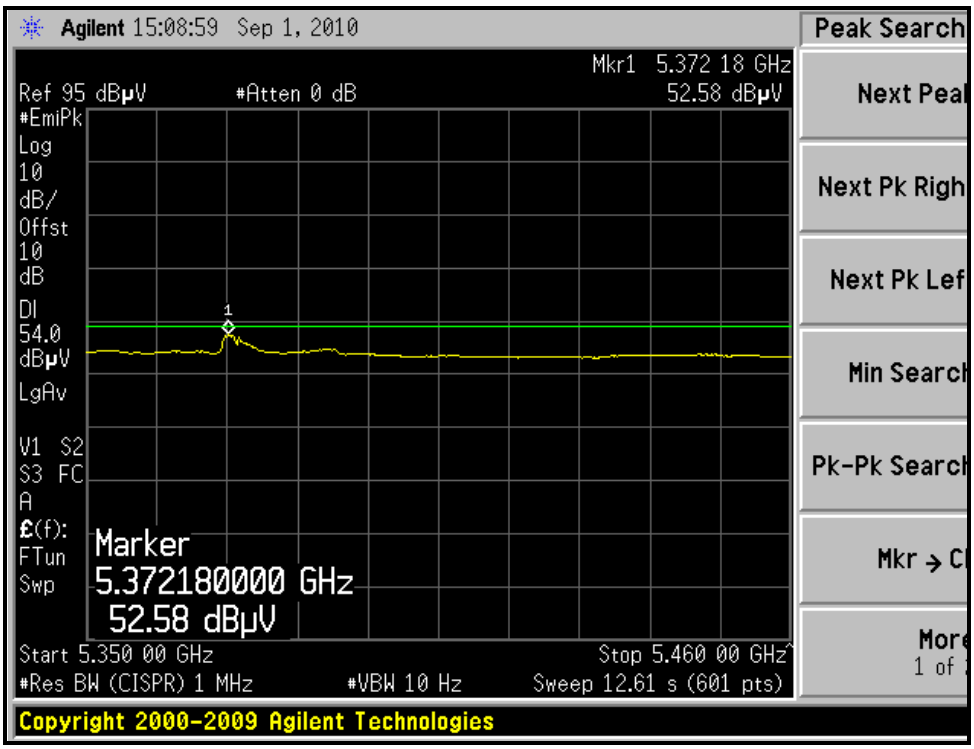

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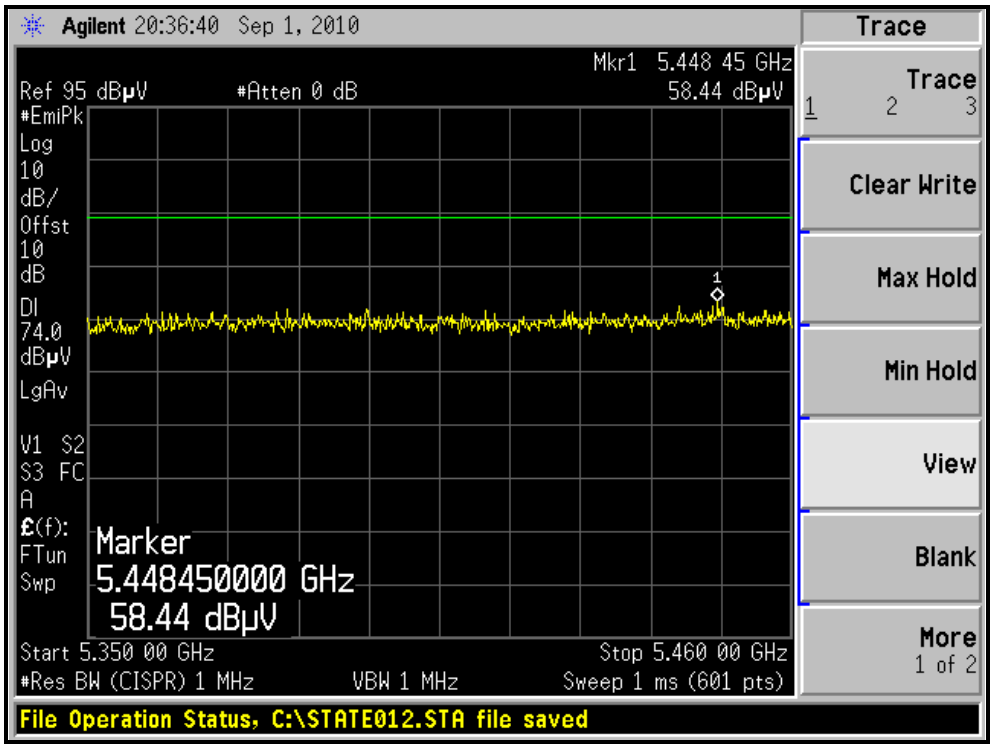

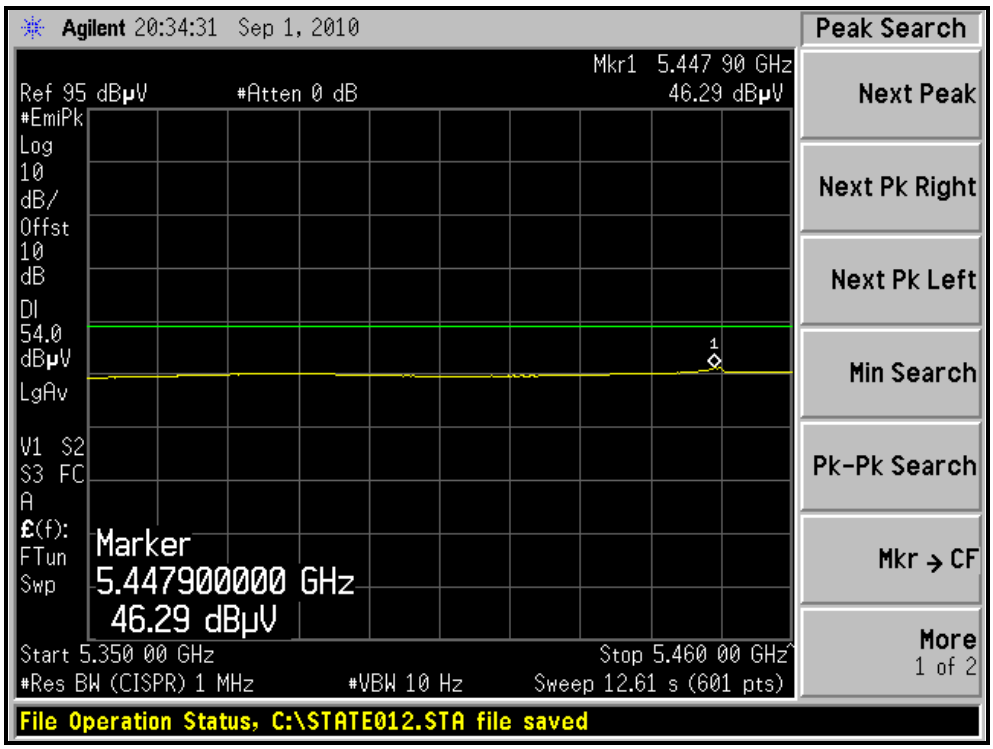

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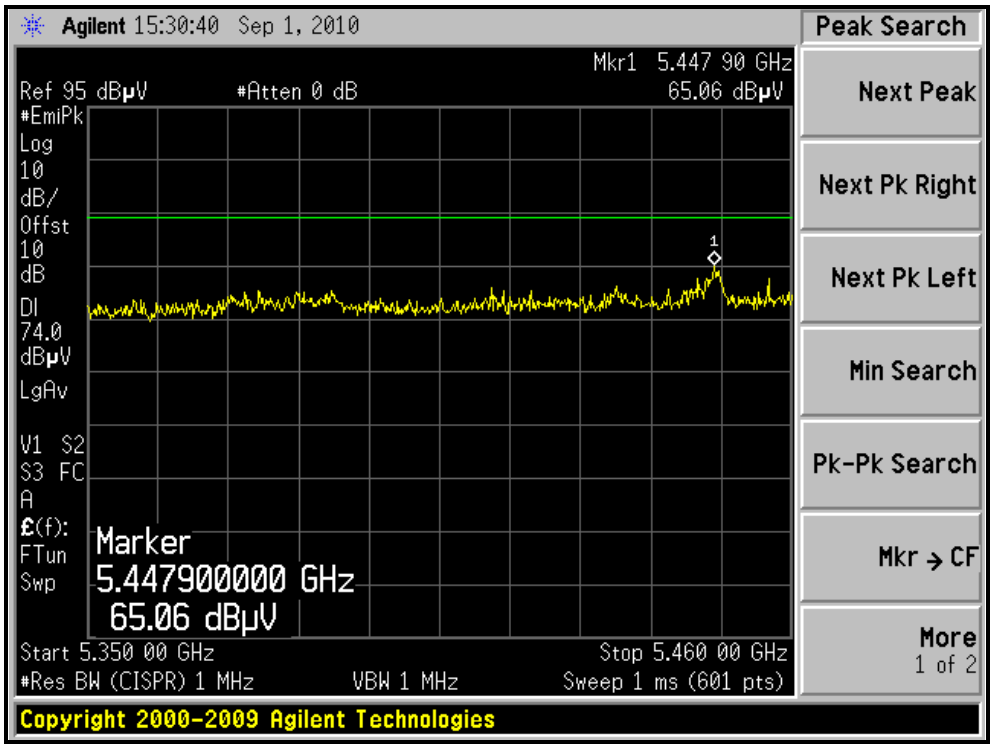
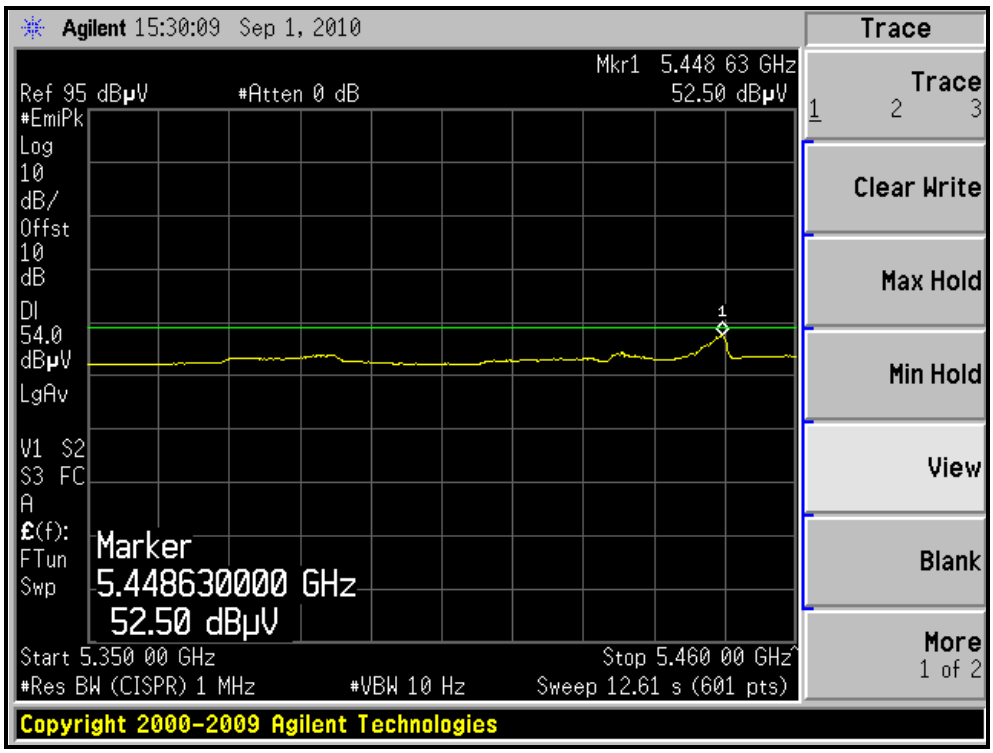




802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	5150.00	58.9 PK	74.0	-15.1	1.30 H	324	18.96	39.94
2	5150.00	45.0 AV	54.0	-9.0	1.30 H	324	5.06	39.94
3	*5190.00	97.1 PK			1.29 H	330	57.06	40.04
4	*5190.00	81.1 AV			1.29 H	330	41.06	40.04
5	#10380.00	52.6 PK	68.3	-15.7	1.33 H	20	6.05	46.55
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.8 PK	74.0	-9.2	1.25 V	40	24.86	39.94
2	5150.00	51.2 AV	54.0	-2.8	1.25 V	40	11.26	39.94
3	*5190.00	110.1 PK			1.24 V	42	70.06	40.04
4	*5190.00	87.1 AV			1.24 V	42	47.06	40.04
5	#10380.00	52.7 PK	68.3	-15.6	1.33 V	17	6.15	46.55

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	*5230.00	97.3 PK			1.28 H	288	57.15	40.15
2	*5230.00	77.5 AV			1.28 H	288	37.35	40.15
3	#10460.00	52.5 PK	68.3	-15.8	1.33 H	22	5.85	46.65
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	111.3 PK			1.26 V	43	71.15	40.15
2	*5230.00	87.5 AV			1.26 V	43	47.35	40.15
3	#10460.00	52.6 PK	68.3	-15.7	1.34 V	15	5.95	46.65

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 54	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	*5270.00	102.7 PK			1.27 H	293	62.45	40.25
2	*5270.00	81.9 AV			1.27 H	293	41.65	40.25
3	#10540.00	53.4 PK	68.3	-14.9	1.34 H	24	6.65	46.75
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	*5270.00	116.8 PK			1.14 V	41	76.55	40.25
2	*5270.00	91.7 AV			1.14 V	41	51.45	40.25
3	5374.38	65.7 PK	74.0	-8.3	1.20 V	45	25.16	40.54
4	5374.38	52.7 AV	54.0	-1.3	1.20 V	45	12.16	40.54
5	#10540.00	57.9 PK	68.3	-10.4	1.31 V	18	11.15	46.75

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	*5310.00	102.6 PK			1.29 H	286	62.24	40.36
2	*5310.00	82.2 AV			1.29 H	286	41.84	40.36
3	5350.00	58.3 PK	74.0	-15.7	1.30 H	285	17.83	40.47
4	5350.00	45.5 AV	54.0	-8.5	1.30 H	285	5.03	40.47
5	10620.00	53.3 PK	74.0	-20.7	1.35 H	25	6.46	46.84
6	10620.00	41.1 AV	54.0	-12.9	1.35 H	25	-5.74	46.84
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	*5310.00	113.4 PK			1.17 V	143	73.04	40.36
2	*5310.00	88.7 AV			1.17 V	143	48.34	40.36
3	5350.00	71.1 PK	74.0	-2.9	1.18 V	140	30.63	40.47
4	5350.00	52.2 AV	54.0	-1.8	1.18 V	140	11.73	40.47
5	10620.00	53.4 PK	74.0	-20.6	1.35 V	18	6.56	46.84
6	10620.00	41.4 AV	54.0	-12.6	1.35 V	18	-5.44	46.84

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 102	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	5456.33	58.0 PK	74.0	-16.0	1.29 H	297	17.25	40.75
2	5456.33	45.4 AV	54.0	-8.6	1.29 H	297	4.65	40.75
3	#5464.98	57.6 PK	68.3	-10.7	1.29 H	297	16.83	40.77
4	*5510.00	94.7 PK			1.29 H	297	53.81	40.89
5	*5510.00	75.5 AV			1.29 H	297	34.61	40.89
6	11020.00	53.5 PK	74.0	-20.5	1.35 H	20	6.21	47.29
7	11020.00	41.7 AV	54.0	-12.3	1.35 H	20	-5.59	47.29
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	5406.65	63.4 PK	74.0	-10.6	1.32 V	100	22.77	40.63
2	5406.65	49.7 AV	54.0	-4.3	1.32 V	100	9.07	40.63
3	#5466.00	66.3 PK	68.3	-2.0	1.31 V	108	25.52	40.78
4	*5510.00	107.7 PK			1.26 V	107	66.81	40.89
5	*5510.00	85.2 AV			1.26 V	107	44.31	40.89
6	11020.00	54.0 PK	74.0	-20.0	1.32 V	18	6.71	47.29
7	11020.00	41.8 AV	54.0	-12.2	1.32 V	18	-5.49	47.29

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 118	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

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	*5590.00	101.0 PK			1.24 H	296	59.88	41.12
2	*5590.00	80.5 AV			1.24 H	296	39.38	41.12
3	11180.00	53.8 PK	74.0	-20.2	1.36 H	22	6.39	47.41
4	11180.00	42.0 AV	54.0	-12.0	1.36 H	22	-5.41	47.41
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5590.00	112.8 PK			1.35 V	44	71.68	41.12
2	*5590.00	89.0 AV			1.35 V	44	47.88	41.12
3	11180.00	57.3 PK	74.0	-16.7	1.32 V	16	9.89	47.41
4	11180.00	44.2 AV	54.0	-9.8	1.32 V	16	-3.21	47.41

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

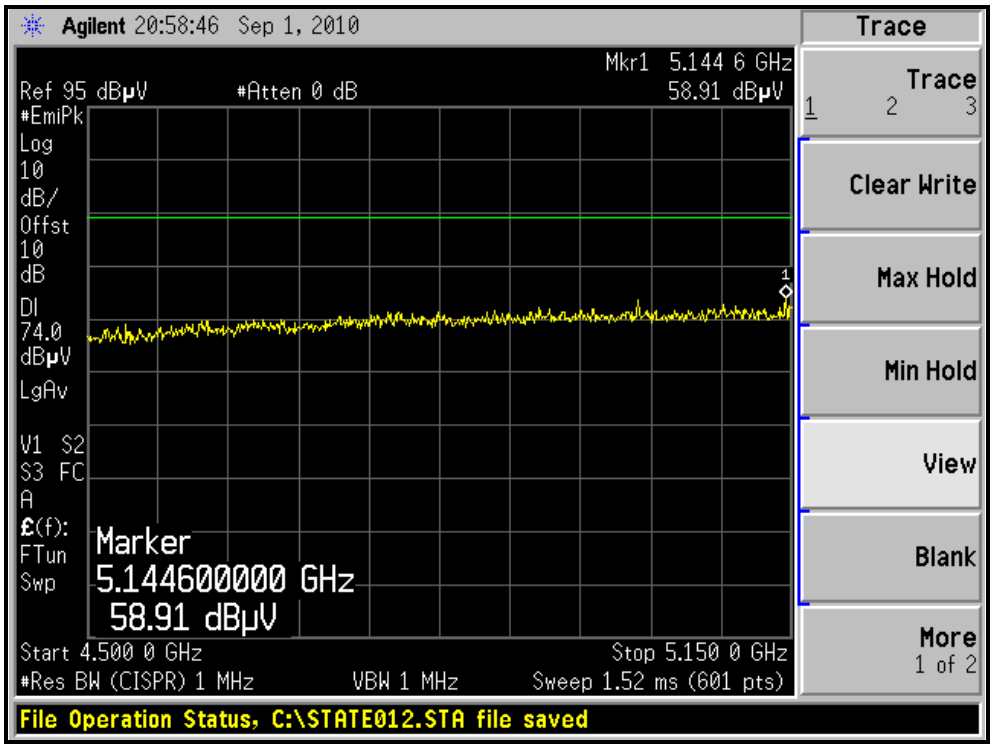
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 134	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With Dipole		

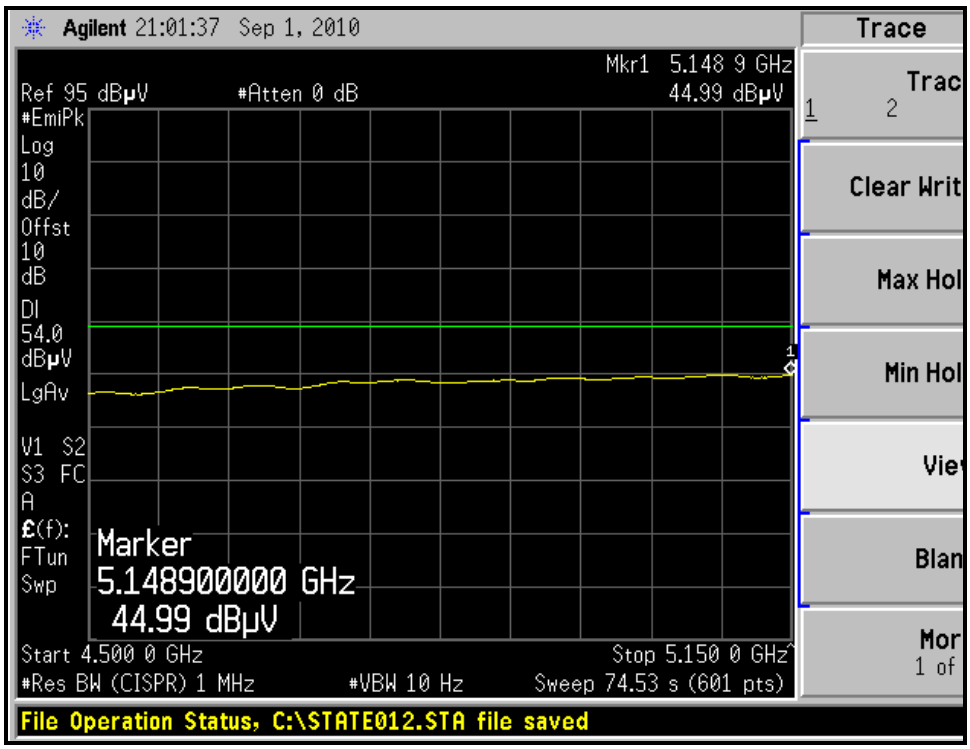
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	99.0 PK			1.26 H	300	57.66	41.34
2	*5670.00	78.3 AV			1.26 H	300	36.96	41.34
3	#5725.00	58.0 PK	68.3	-10.3	1.25 H	299	16.51	41.49
4	11340.00	53.0 PK	74.0	-21.0	1.35 H	21	5.43	47.57
5	11340.00	41.0 AV	54.0	-13.0	1.35 H	21	-6.57	47.57
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	*5670.00	111.7 PK			1.24 V	130	70.36	41.34
2	*5670.00	89.1 AV			1.24 V	130	47.76	41.34
3	#5725.00	66.4 PK	68.3	-1.9	1.23 V	127	24.91	41.49
4	11340.00	55.0 PK	74.0	-19.0	1.33 V	14	7.43	47.57
5	11340.00	42.7 AV	54.0	-11.3	1.33 V	14	-4.87	47.57

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

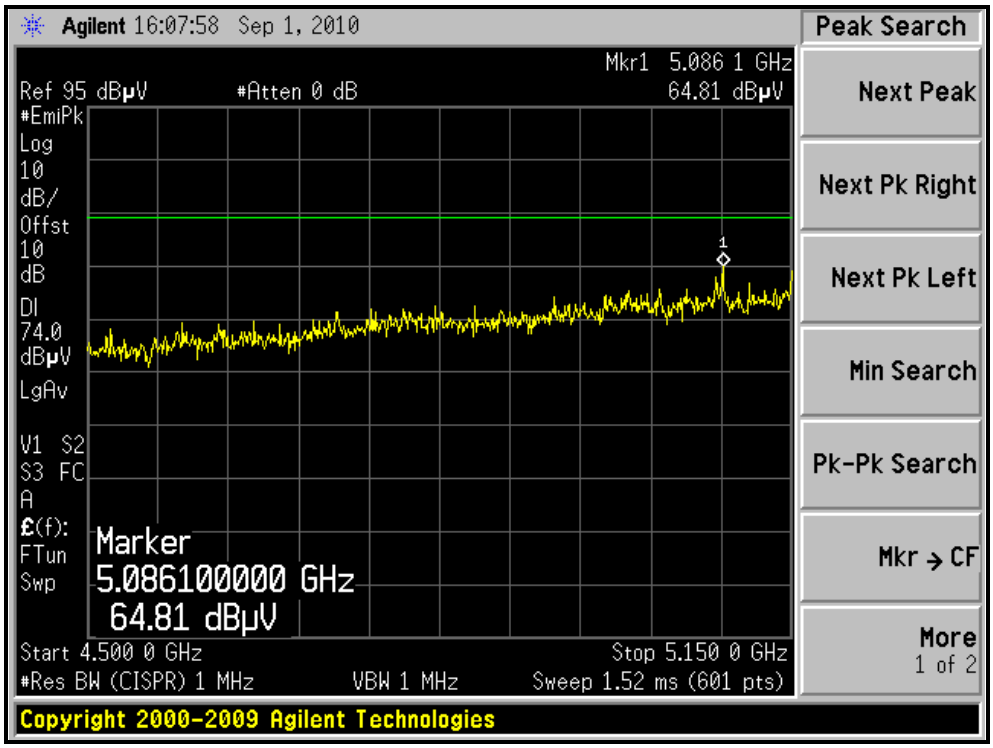
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

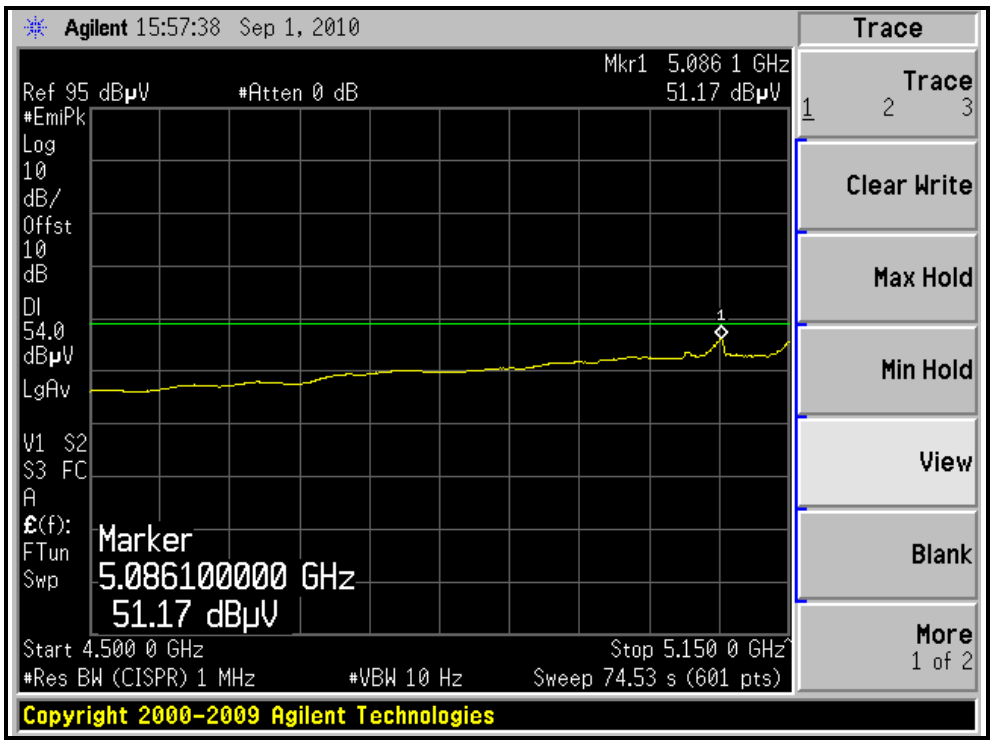
RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH38, HORIZONTAL)



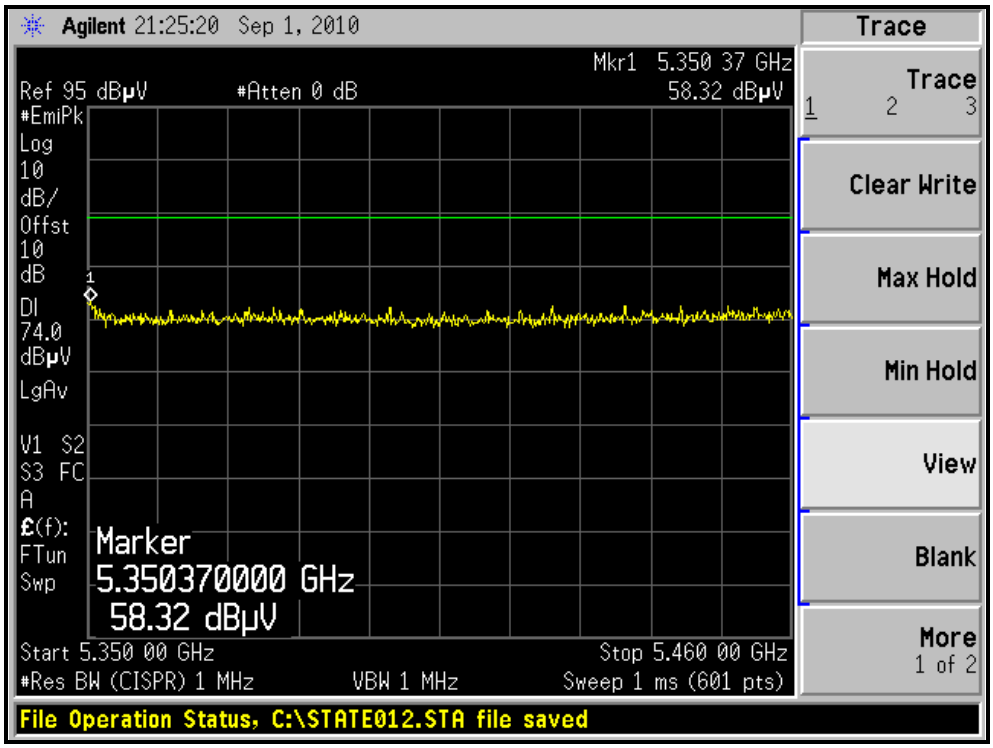


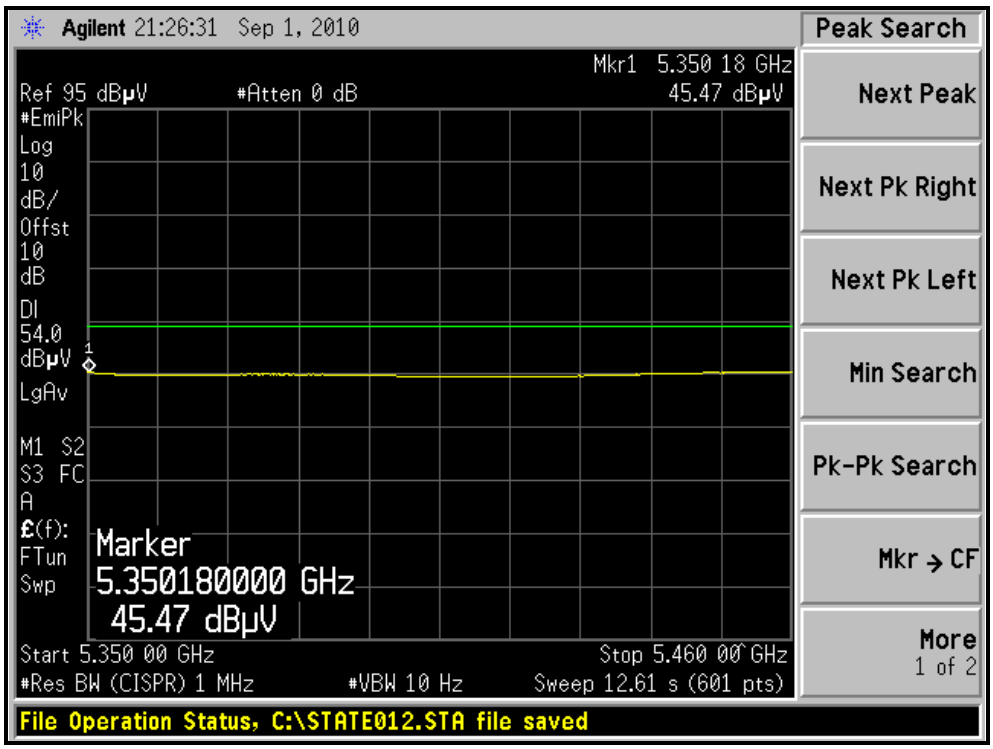
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH38, VERTICAL)



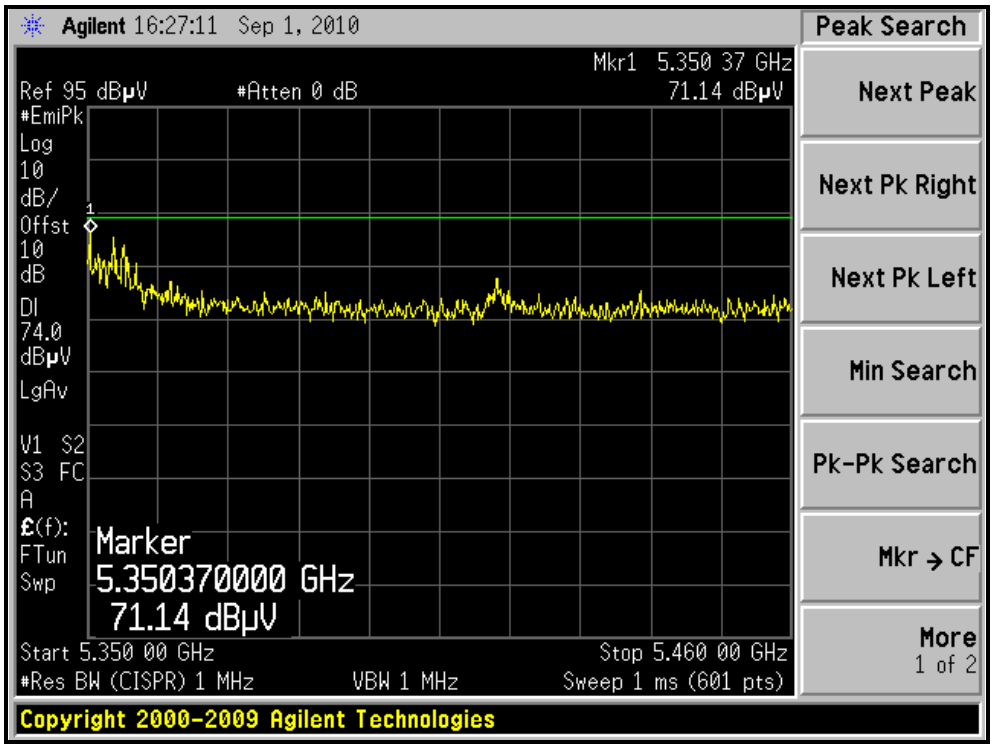


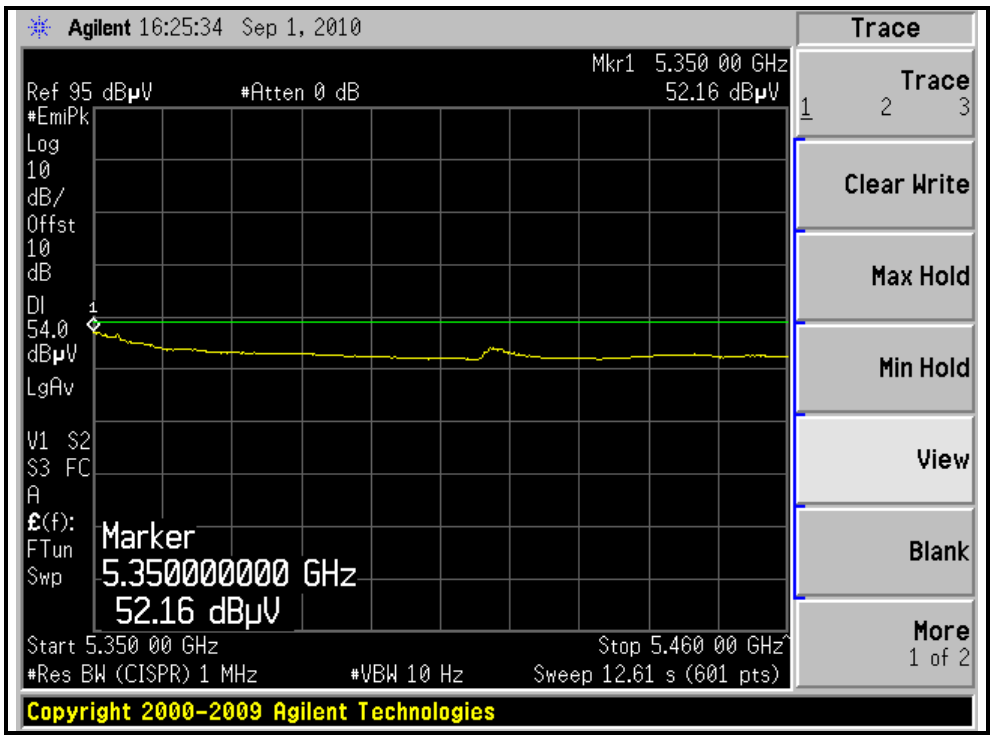
RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH62, HORIZONTAL)



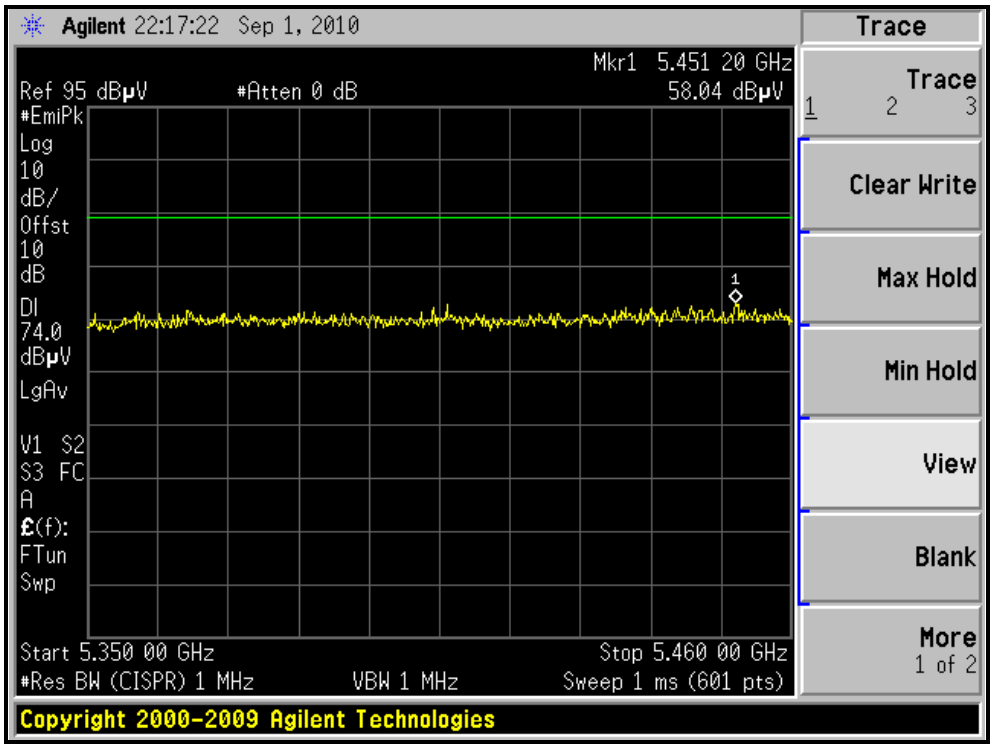


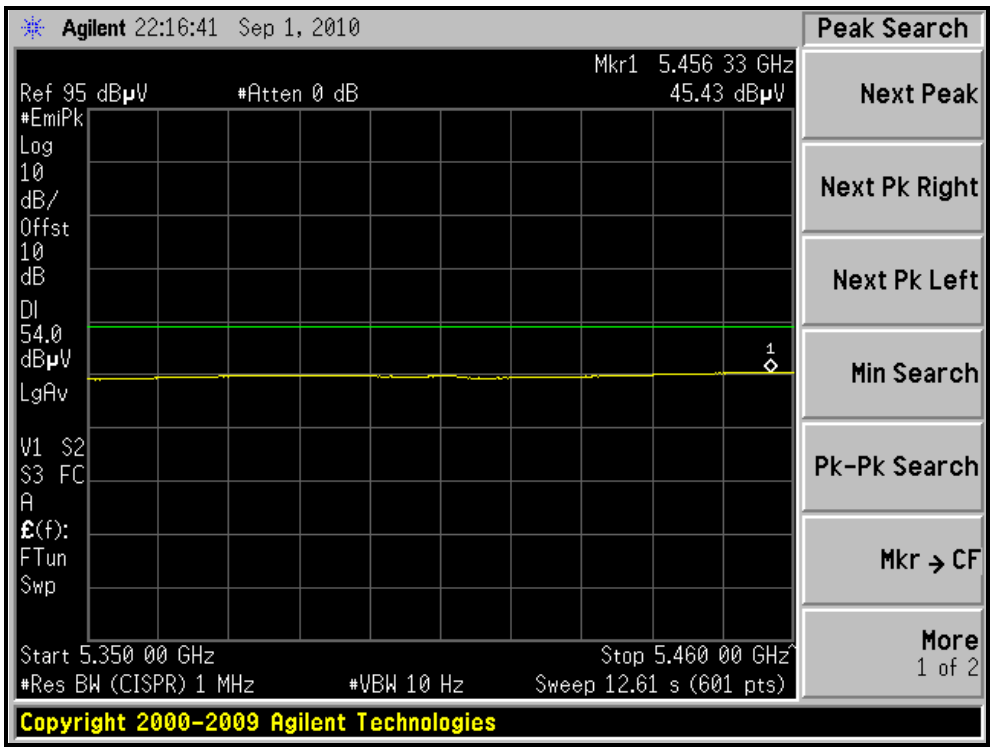
RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH62, VERTICAL)



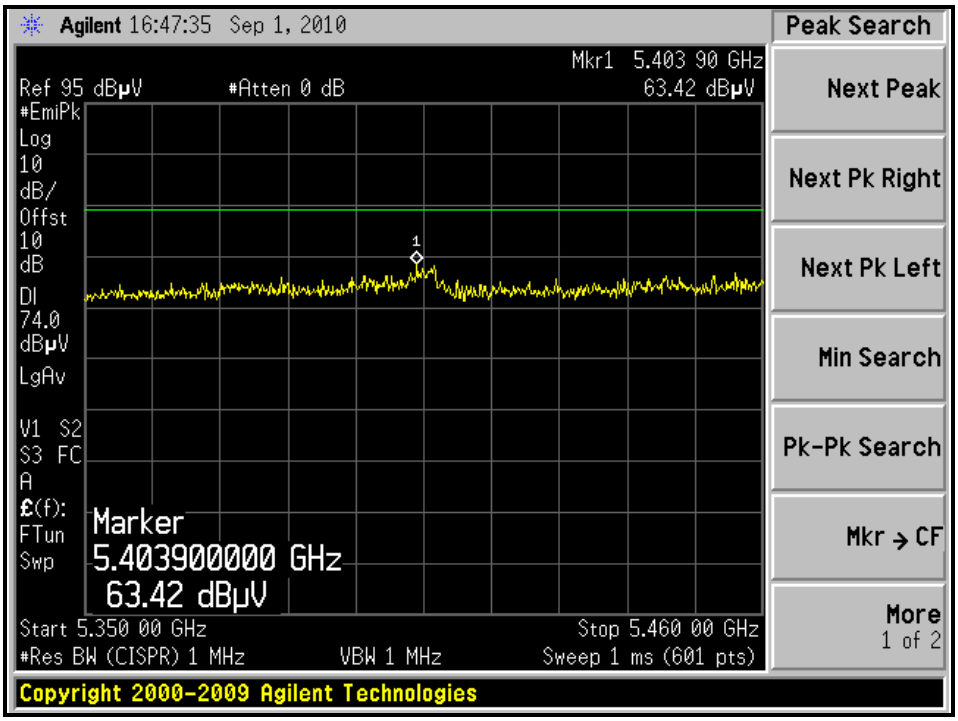


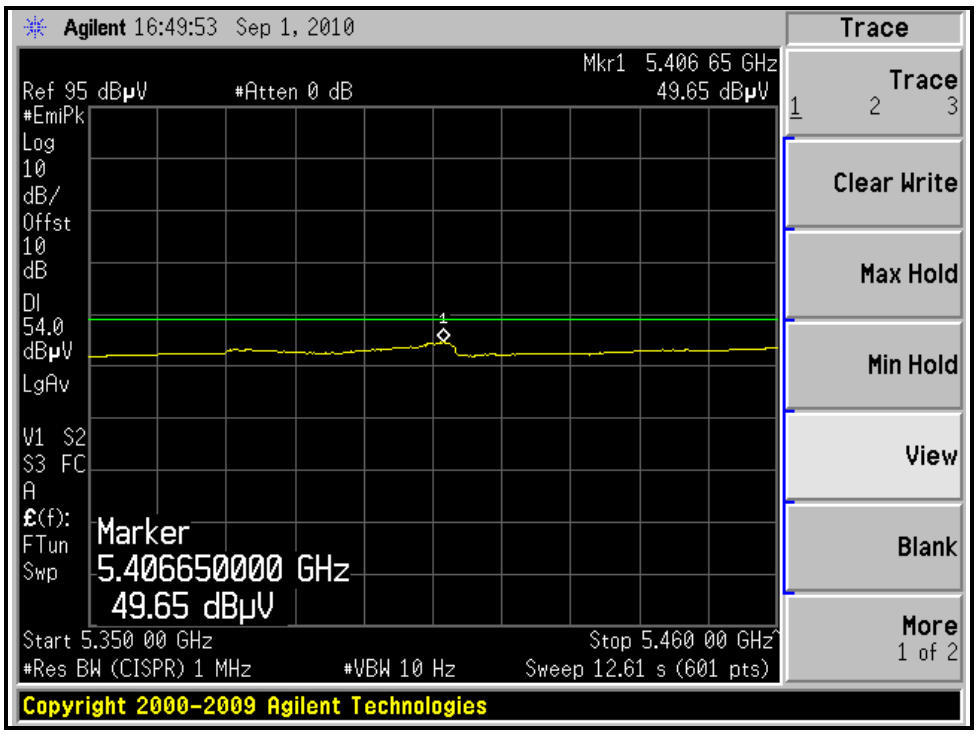
RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH102, HORIZONTAL)





RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH102, VERTICAL)





4.2.9 TEST RESULTS (WITH PIFA ANTENNA)

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 120	**FREQUENCY RANGE**	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	27deg. C, 71%RH 1013 hPa	**TESTED BY**	Rex Huang
TEST MODE	With PIFA		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	99.98	31.7 QP	43.5	-11.8	2.00 H	354	22.44	9.24
2	166.66	29.1 QP	43.5	-14.4	1.50 H	360	15.50	13.62
3	233.23	31.4 QP	46.0	-14.7	1.75 H	14	19.04	12.31
4	400.04	31.4 QP	46.0	-14.6	2.00 H	231	14.07	17.34
5	600.32	33.7 QP	46.0	-12.4	2.00 H	316	11.68	21.97
6	799.76	37.8 QP	46.0	-8.2	1.00 H	97	13.37	24.47
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	36.15	27.1 QP	40.0	-13.0	1.00 V	257	13.62	13.43
2	299.94	36.2 QP	46.0	-9.8	1.25 V	275	21.01	15.20
3	450.02	30.8 QP	46.0	-15.2	1.50 V	315	12.25	18.51
4	600.34	36.7 QP	46.0	-9.3	1.00 V	259	14.77	21.97
5	799.77	37.7 QP	46.0	-8.3	1.75 V	243	13.27	24.47
6	900.42	36.6 QP	46.0	-9.4	1.75 V	231	10.31	26.25

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.

ABOVE 1GHz WORST-CASE DATA

802.11a OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	5150.00	66.9 PK	74.0	-7.1	1.25 H	150	26.96	39.94
2	5150.00	51.6 AV	54.0	-2.4	1.25 H	150	11.66	39.94
3	*5180.00	108.9 PK			1.23 H	149	68.88	40.02
4	*5180.00	94.3 AV			1.23 H	149	54.28	40.02
5	#10360.00	53.1 PK	68.3	-15.2	1.27 H	280	6.57	46.53
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	5150.00	68.8 PK	74.0	-5.2	1.30 V	130	28.86	39.94
2	5150.00	52.7 AV	54.0	-1.3	1.30 V	130	12.76	39.94
3	*5180.00	110.0 PK			1.27 V	112	69.98	40.02
4	*5180.00	95.3 AV			1.27 V	112	55.28	40.02
5	#10360.00	55.0 PK	68.3	-13.3	1.31 V	170	8.47	46.53

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	*5200.00	109.5 PK			1.20 H	158	69.43	40.07
2	*5200.00	94.5 AV			1.20 H	158	54.43	40.07
3	#10400.00	53.0 PK	68.3	-15.3	1.28 H	282	6.43	46.57
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	*5200.00	110.4 PK			1.23 V	110	70.33	40.07
2	*5200.00	95.2 AV			1.23 V	110	55.13	40.07
3	#10400.00	54.7 PK	68.3	-13.6	1.30 V	171	8.13	46.57

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	**FREQUENCY RANGE**	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	**TESTED BY**	Duke Tseng
TEST MODE	With PIFA		

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	*5240.00	108.4 PK			1.21 H	162	68.23	40.17
2	*5240.00	93.5 AV			1.21 H	162	53.33	40.17
3	#10480.00	53.5 PK	68.3	-14.8	1.27 H	284	6.83	46.67
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	*5240.00	109.2 PK			1.24 V	112	69.03	40.17
2	*5240.00	94.3 AV			1.24 V	112	54.13	40.17
3	#10480.00	55.3 PK	68.3	-13.0	1.32 V	169	8.63	46.67

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	*5260.00	110.6 PK			1.22 H	147	70.37	40.23
2	*5260.00	95.3 AV			1.22 H	147	55.07	40.23
3	#10520.00	53.9 PK	68.3	-14.4	1.28 H	283	7.18	46.72
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	5147.75	62.0 PK	74.0	-12.0	1.27 V	118	22.07	39.93
2	5147.75	49.9 AV	54.0	-4.1	1.27 V	118	9.97	39.93
3	*5260.00	112.5 PK			1.25 V	132	72.27	40.23
4	*5260.00	97.2 AV			1.25 V	132	56.97	40.23
5	#10520.00	58.0 PK	68.3	-10.3	1.29 V	172	11.28	46.72

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	*5300.00	110.7 PK			1.20 H	148	70.37	40.33
2	*5300.00	95.5 AV			1.20 H	148	55.17	40.33
3	10600.00	53.0 PK	74.0	-21.0	1.27 H	285	6.18	46.82
4	10600.00	41.8 AV	54.0	-12.2	1.27 H	285	-5.02	46.82
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	*5300.00	112.0 PK			1.25 V	131	71.67	40.33
2	*5300.00	96.8 AV			1.25 V	131	56.47	40.33
3	5352.38	64.0 PK	74.0	-10.0	1.33 V	128	23.52	40.48
4	5352.38	53.4 AV	54.0	-0.6	1.33 V	128	12.92	40.48
5	10600.00	56.4 PK	74.0	-17.6	1.23 V	168	9.58	46.82
6	10600.00	43.6 AV	54.0	-10.4	1.23 V	168	-3.22	46.82

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 64	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	*5320.00	108.5 PK			1.19 H	148	68.11	40.39
2	*5320.00	93.8 AV			1.19 H	148	53.41	40.39
3	5372.37	62.3 PK	74.0	-11.7	1.21 H	165	21.77	40.53
4	5372.37	51.9 AV	54.0	-2.1	1.21 H	165	11.37	40.53
5	10640.00	53.1 PK	74.0	-20.9	1.28 H	285	6.23	46.87
6	10640.00	40.8 AV	54.0	-13.2	1.28 H	285	-6.07	46.87
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	110.0 PK			1.23 V	128	69.61	40.39
2	*5320.00	95.3 AV			1.23 V	128	54.91	40.39
3	5372.37	64.4 PK	74.0	-9.6	1.23 V	129	23.87	40.53
4	**5372.37**	**53.5 AV**	**54.0**	**-0.5**	**1.23 V**	**129**	**12.97**	**40.53**
5	10640.00	53.5 PK	74.0	-20.5	1.29 V	161	6.63	46.87
6	10640.00	41.0 AV	54.0	-13.0	1.29 V	161	-5.87	46.87

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	5447.72	62.8 PK	74.0	-11.2	1.07 H	156	22.07	40.73
2	5447.72	52.4 AV	54.0	-1.6	1.07 H	156	11.67	40.73
3	#5469.70	65.0 PK	68.3	-3.3	1.10 H	151	24.22	40.78
4	*5500.00	109.6 PK			1.18 H	167	68.74	40.86
5	*5500.00	94.7 AV			1.18 H	167	53.84	40.86
6	11000.00	53.0 PK	74.0	-21.0	1.29 H	286	5.72	47.28
7	11000.00	41.0 AV	54.0	-13.0	1.29 H	286	-6.28	47.28
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	5447.72	65.5 PK	74.0	-8.5	1.18 V	117	24.77	40.73
2	5447.72	53.3 AV	54.0	-0.7	1.18 V	117	12.57	40.73
3	#5469.92	67.5 PK	68.3	-0.8	1.27 V	126	26.72	40.78
4	*5500.00	110.2 PK			1.27 V	126	69.34	40.86
5	*5500.00	95.2 AV			1.27 V	126	54.34	40.86
6	11000.00	54.0 PK	74.0	-20.0	1.30 V	160	6.72	47.28
7	11000.00	41.6 AV	54.0	-12.4	1.30 V	160	-5.68	47.28

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 120	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	*5600.00	110.7 PK			1.19 H	170	69.55	41.15
2	*5600.00	95.8 AV			1.19 H	170	54.65	41.15
3	11200.00	54.9 PK	74.0	-19.1	1.27 H	284	7.48	47.42
4	11200.00	42.4 AV	54.0	-11.6	1.27 H	284	-5.02	47.42
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	*5600.00	111.2 PK			1.22 V	120	70.05	41.15
2	*5600.00	96.5 AV			1.22 V	120	55.35	41.15
3	11200.00	57.1 PK	74.0	-16.9	1.30 V	165	9.68	47.42
4	11200.00	44.1 AV	54.0	-9.9	1.30 V	165	-3.32	47.42

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.

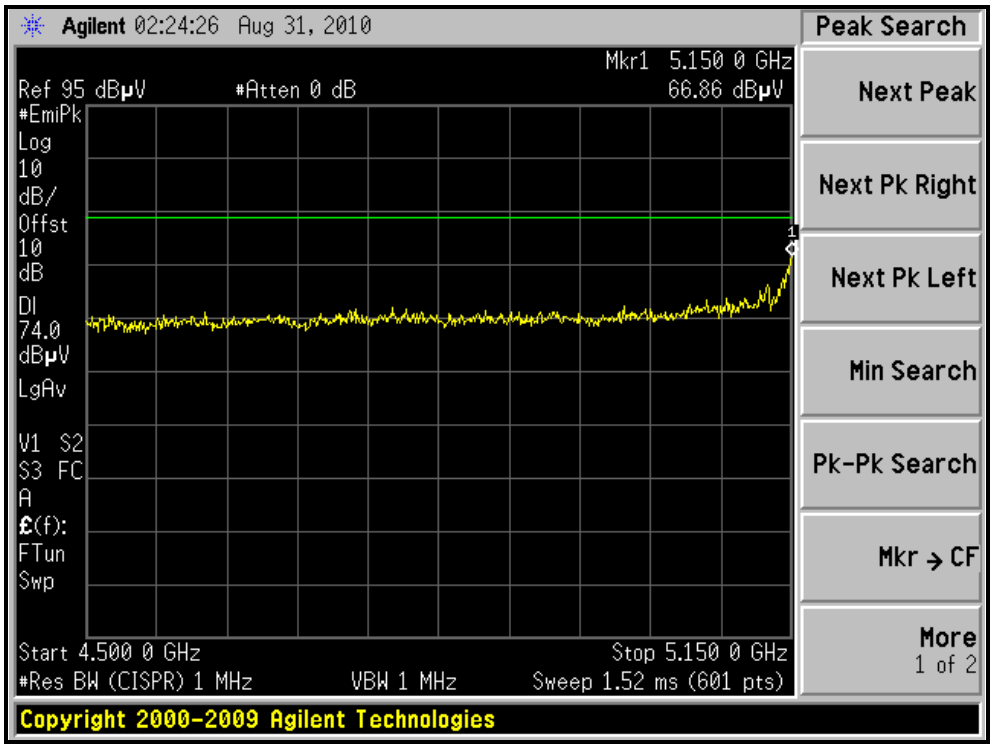
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

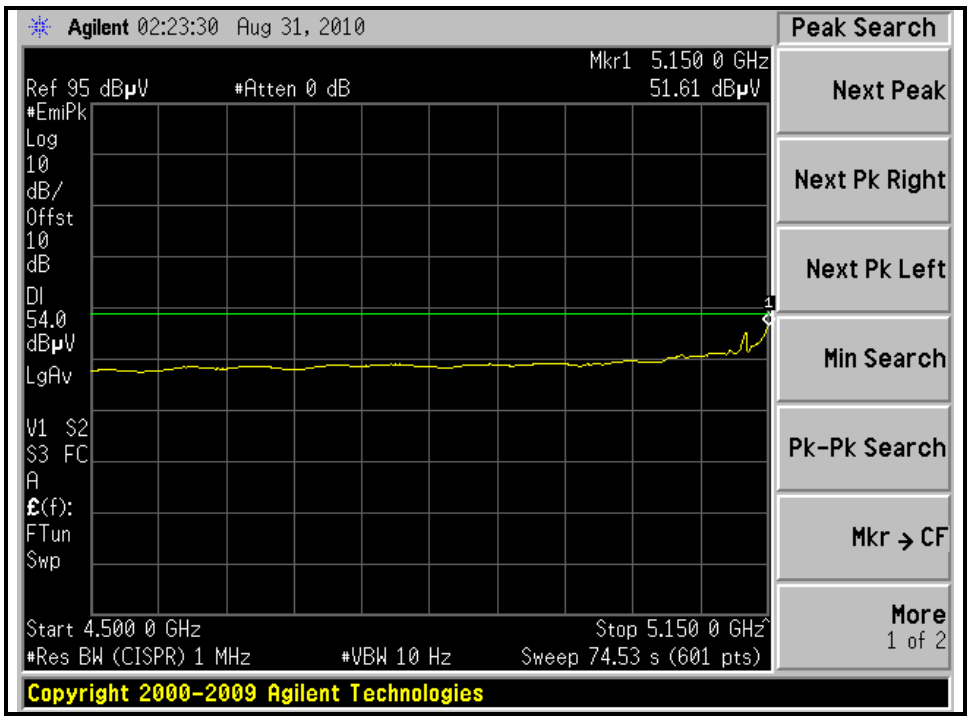
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	109.2 PK			1.24 H	145	67.78	41.42
2	*5700.00	94.2 AV			1.24 H	145	52.78	41.42
3	#5726.63	66.9 PK	68.3	-1.4	1.22 H	141	25.40	41.50
4	11400.00	53.2 PK	74.0	-20.8	1.28 H	283	5.58	47.62
5	11400.00	41.1 AV	54.0	-12.9	1.28 H	283	-6.52	47.62
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	109.6 PK			1.22 V	124	68.18	41.42
2	*5700.00	94.3 AV			1.22 V	124	52.88	41.42
3	#5725.88	67.2 PK	68.3	-1.1	1.22 V	123	25.70	41.50
4	11400.00	56.7 PK	74.0	-17.3	1.36 V	158	9.08	47.62
5	11400.00	44.0 AV	54.0	-10.0	1.36 V	158	-3.62	47.62

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

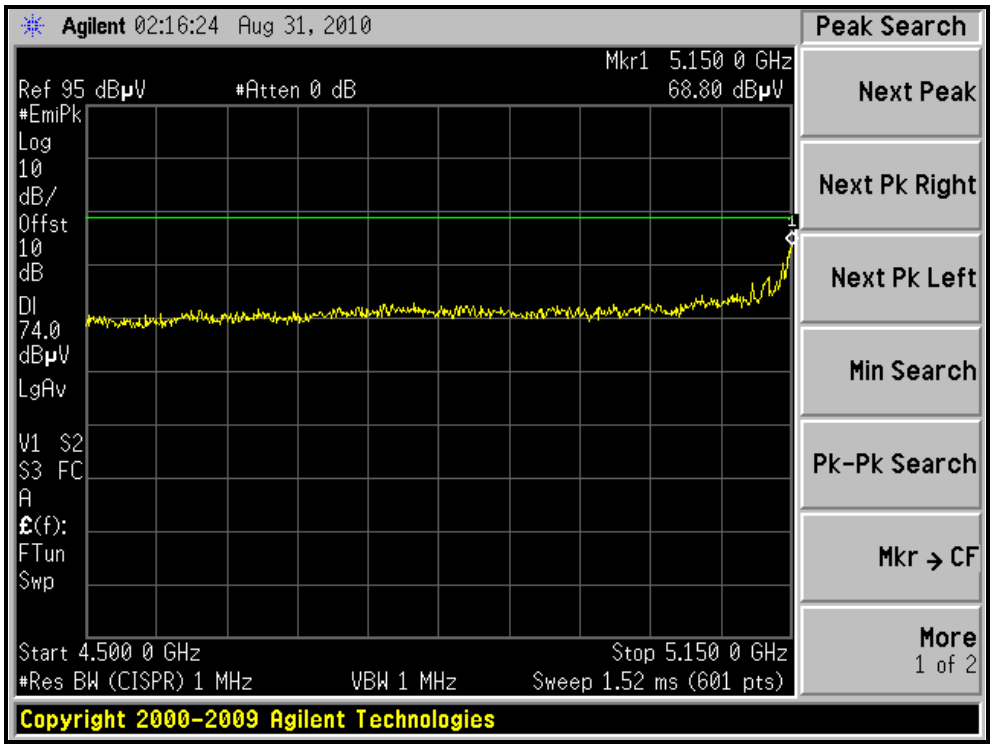
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

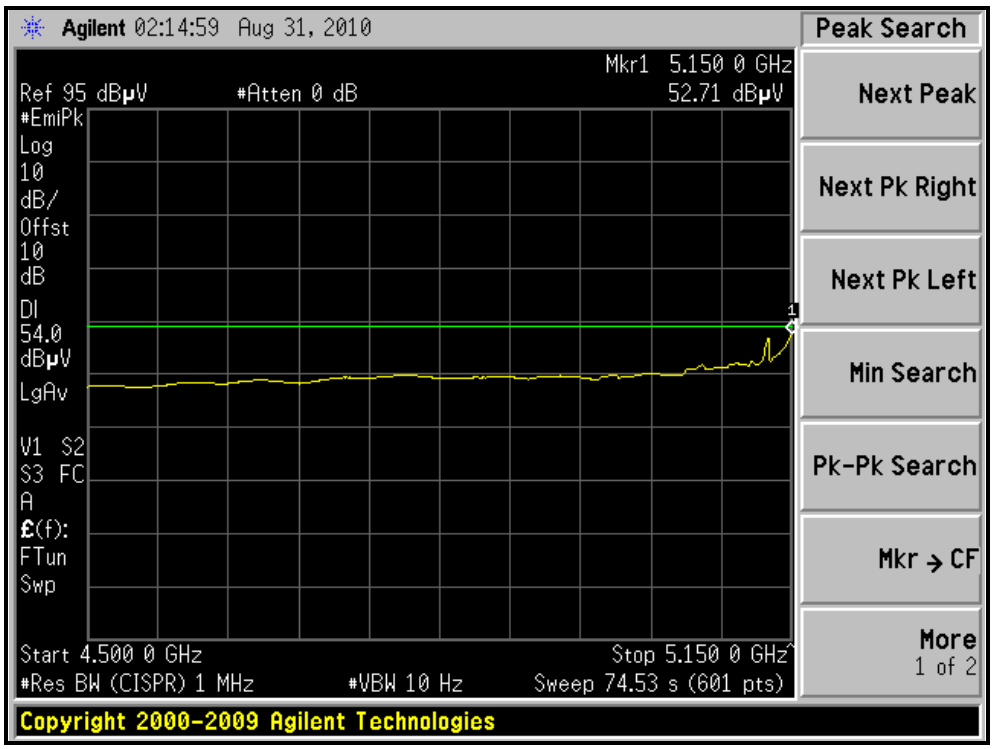
RESTRICTED BANDEDGE (802.11a MODE, CH36, HORIZONTAL)



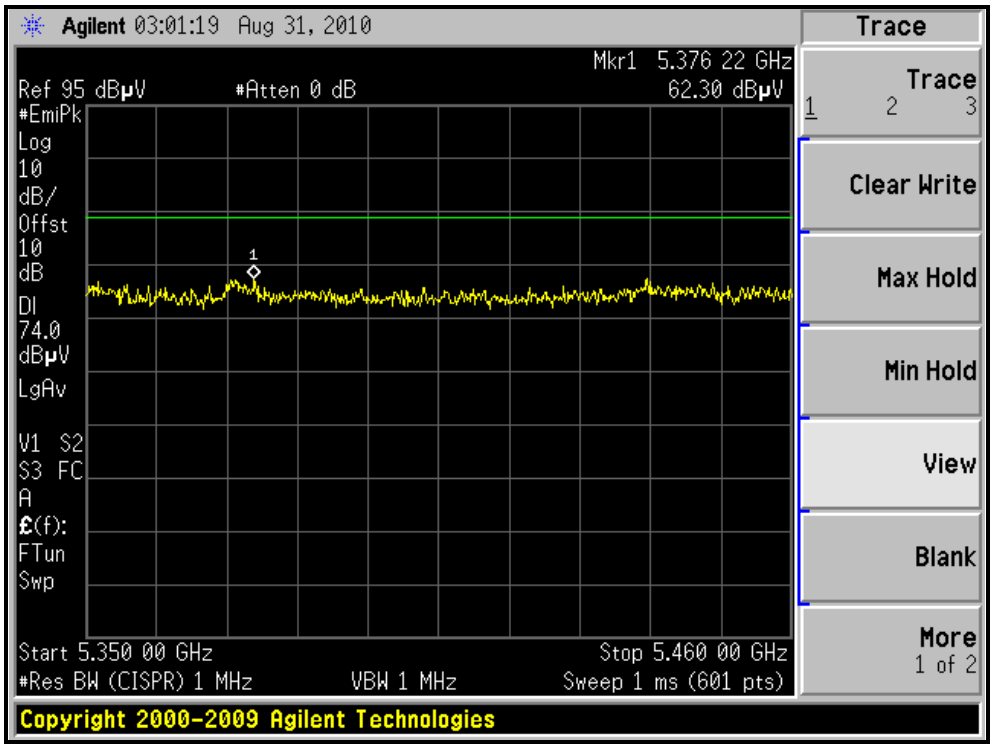


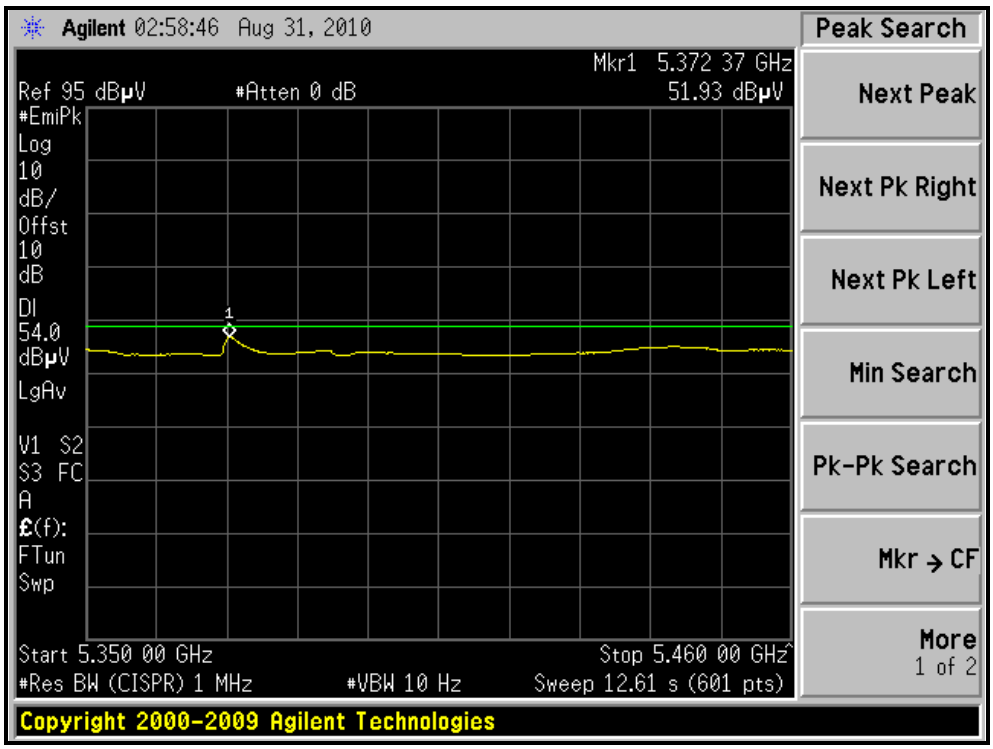
RESTRICTED BANDEDGE (802.11a MODE, CH36, VERTICAL)



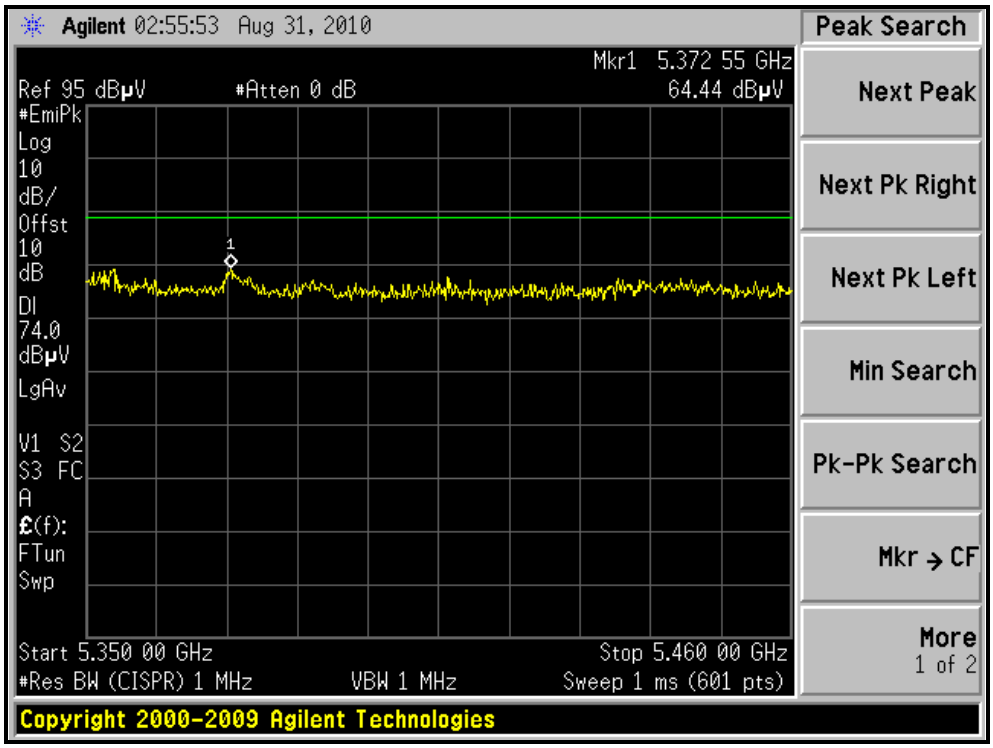


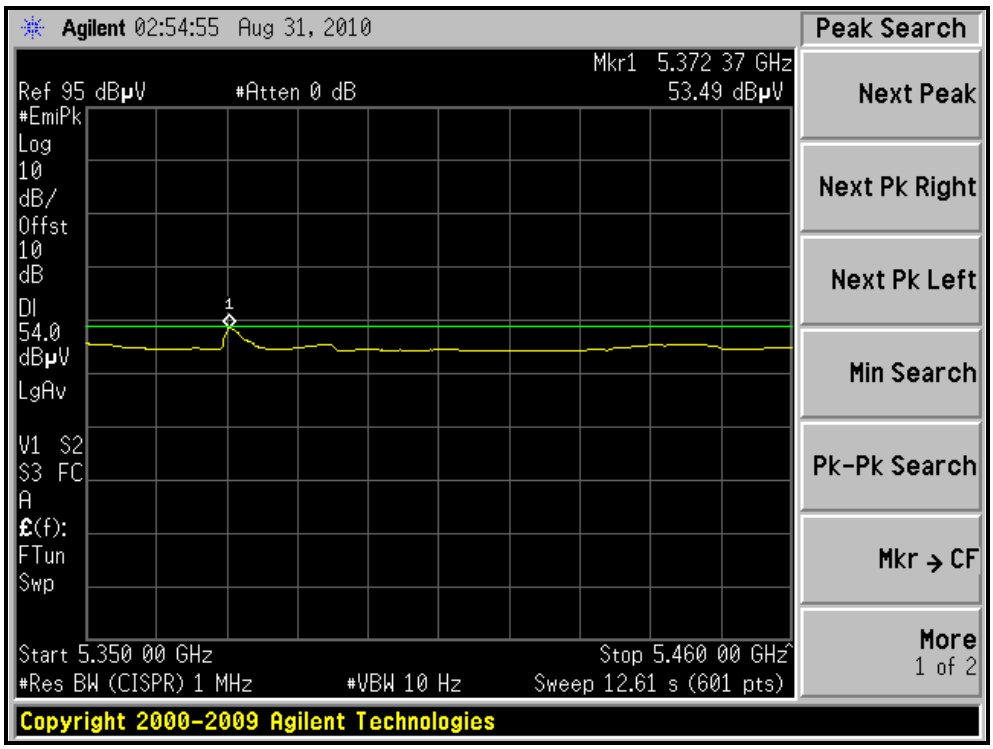
RESTRICTED BANDEDGE (802.11a MODE, CH64, HORIZONTAL)



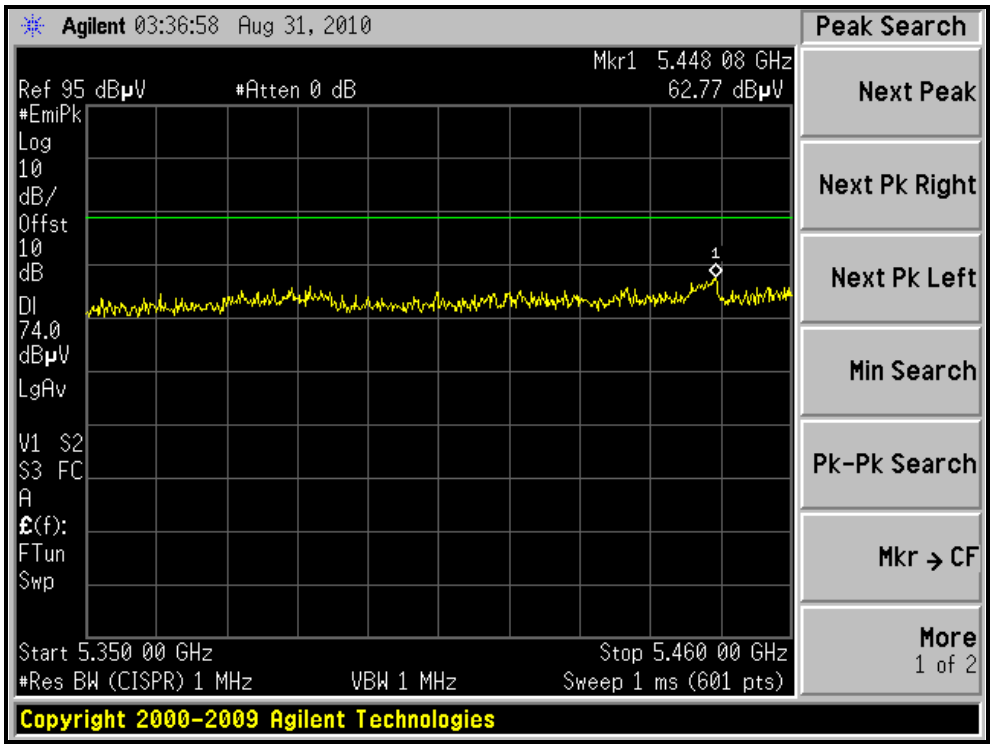


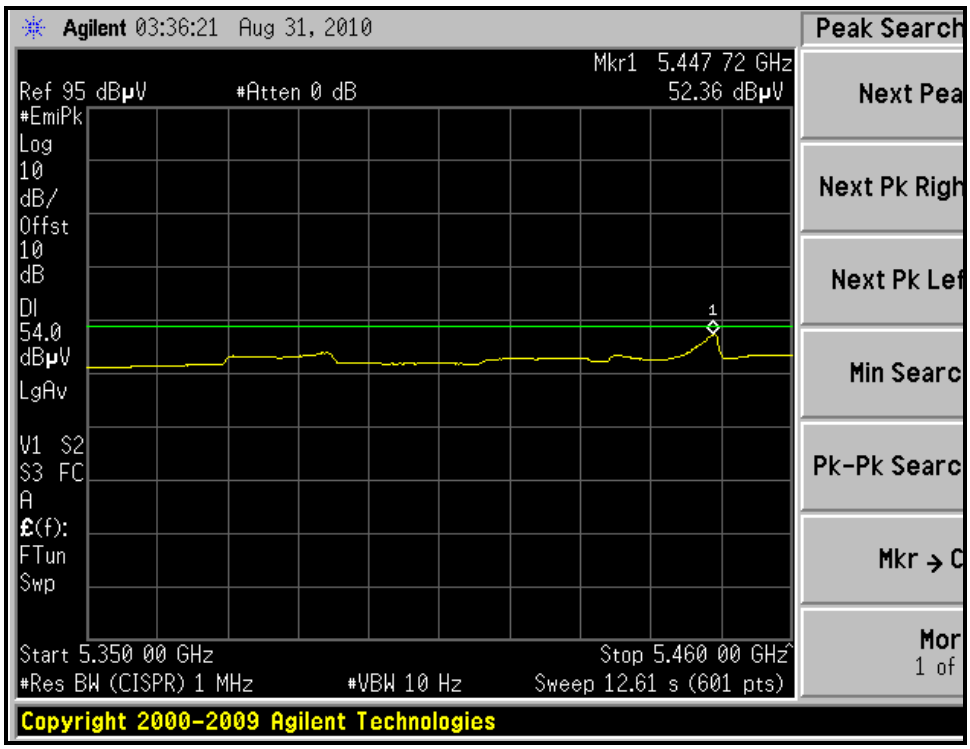
RESTRICTED BANDEDGE (802.11a MODE, CH64, VERTICAL)





RESTRICTED BANDEDGE (802.11a MODE, CH100, HORIZONTAL)





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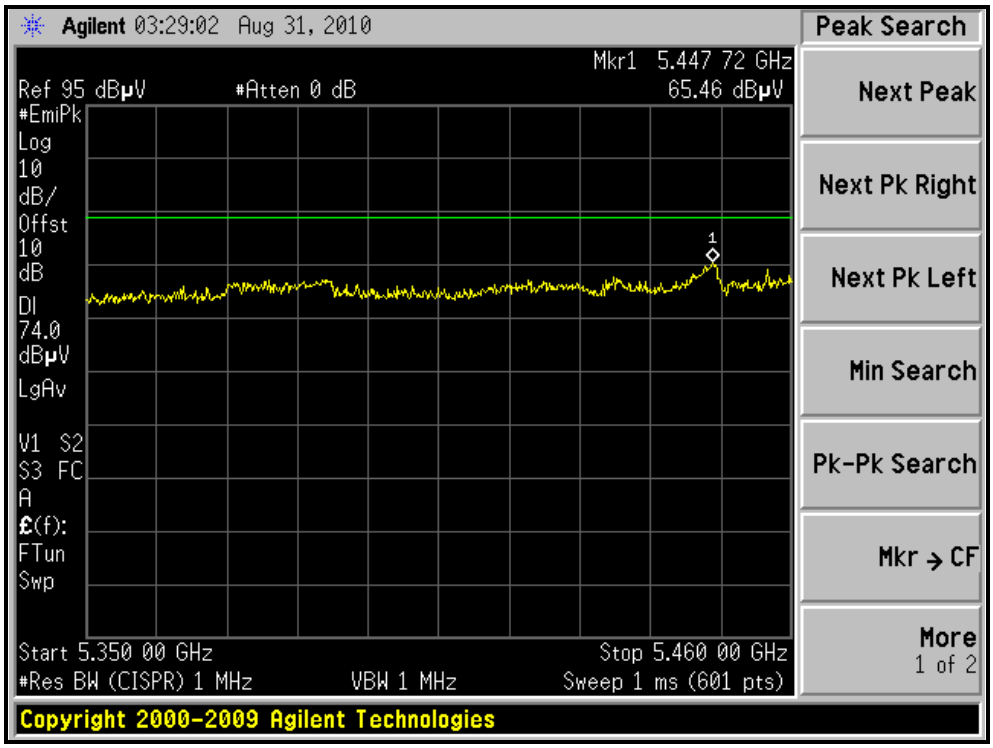
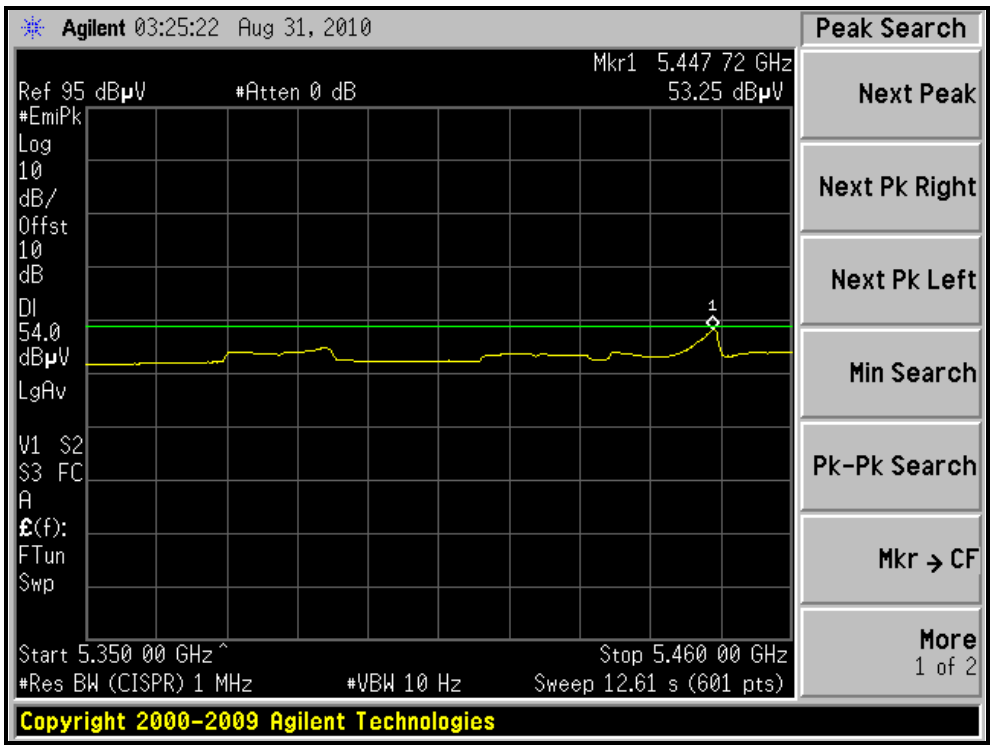




802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	5127.20	62.6 PK	74.0	-11.4	1.00 H	179	22.72	39.88
2	5127.20	50.5 AV	54.0	-3.5	1.00 H	179	10.62	39.88
3	*5180.00	111.7 PK			1.00 H	179	71.68	40.02
4	*5180.00	93.7 AV			1.00 H	179	53.68	40.02
5	#10360.00	52.7 PK	68.3	-15.6	1.58 H	231	6.17	46.53
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	5128.30	64.8 PK	74.0	-9.2	1.23 V	90	24.92	39.88
2	5128.30	52.4 AV	54.0	-1.6	1.23 V	90	12.52	39.88
3	*5180.00	113.4 PK			1.17 V	89	73.38	40.02
4	*5180.00	94.7 AV			1.17 V	89	54.68	40.02
5	#10360.00	56.0 PK	68.3	-12.3	1.38 V	170	9.47	46.53

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	**FREQUENCY RANGE**	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	**TESTED BY**	Duke Tseng
TEST MODE	With PIFA		

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	*5200.00	111.6 PK			1.00 H	164	71.53	40.07
2	*5200.00	93.5 AV			1.00 H	164	53.43	40.07
3	#10400.00	52.8 PK	68.3	-15.5	1.59 H	233	6.23	46.57
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	*5200.00	113.6 PK			1.17 V	84	73.53	40.07
2	*5200.00	94.8 AV			1.17 V	84	54.73	40.07
3	#10400.00	56.3 PK	68.3	-12.0	1.37 V	169	9.73	46.57

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	*5240.00	112.6 PK			1.00 H	167	72.43	40.17
2	*5240.00	93.9 AV			1.00 H	167	53.73	40.17
3	#10480.00	53.1 PK	68.3	-15.2	1.59 H	230	6.43	46.67
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	114.1 PK			1.16 V	87	73.93	40.17
2	*5240.00	95.0 AV			1.16 V	87	54.83	40.17
3	#10480.00	59.0 PK	68.3	-9.3	1.39 V	165	12.33	46.67

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	*5260.00	116.7 PK			1.00 H	170	76.47	40.23
2	*5260.00	97.5 AV			1.00 H	170	57.27	40.23
3	#10520.00	58.9 PK	68.3	-9.4	1.59 H	232	12.18	46.72
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	*5260.00	117.9 PK			1.16 V	132	77.67	40.23
2	*5260.00	98.5 AV			1.16 V	132	58.27	40.23
3	5459.08	64.7 PK	74.0	-9.3	1.23 V	131	23.94	40.76
4	5459.08	52.6 AV	54.0	-1.4	1.23 V	131	11.84	40.76
5	#10520.00	63.8 PK	68.3	-4.5	1.44 V	106	17.08	46.72

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	**FREQUENCY RANGE**	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	**TESTED BY**	Duke Tseng
TEST MODE	With PIFA		

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	*5300.00	113.6 PK			1.00 H	167	73.27	40.33
2	*5300.00	94.9 AV			1.00 H	167	54.57	40.33
3	10600.00	54.8 PK	74.0	-19.2	1.60 H	235	7.98	46.82
4	10600.00	41.7 AV	54.0	-12.3	1.60 H	235	-5.12	46.82
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	*5300.00	114.4 PK			1.15 V	134	74.07	40.33
2	*5300.00	95.2 AV			1.15 V	134	54.87	40.33
3	5352.38	67.1 PK	74.0	-6.9	1.15 V	138	26.62	40.48
4	**5352.38**	**53.5 AV**	**54.0**	**-0.5**	**1.15 V**	**138**	**13.02**	**40.48**
5	10600.00	59.3 PK	74.0	-14.7	1.42 V	105	12.48	46.82
6	10600.00	45.4 AV	54.0	-8.6	1.42 V	105	-1.42	46.82

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 64	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	*5320.00	111.6 PK			1.12 H	170	71.21	40.39
2	*5320.00	93.6 AV			1.12 H	170	53.21	40.39
3	5371.00	64.7 PK	74.0	-9.3	1.08 H	169	24.17	40.53
4	5371.00	52.6 AV	54.0	-1.4	1.08 H	169	12.07	40.53
5	10640.00	53.6 PK	74.0	-20.4	1.59 H	233	6.73	46.87
6	10640.00	41.6 AV	54.0	-12.4	1.59 H	233	-5.27	46.87
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	112.8 PK			1.13 V	133	72.41	40.39
2	*5320.00	94.0 AV			1.13 V	133	53.61	40.39
3	5372.00	67.6 PK	74.0	-6.4	1.23 V	133	27.07	40.53
4	**5372.00**	**53.5 AV**	**54.0**	**-0.5**	**1.23 V**	**133**	**12.97**	**40.53**
5	10640.00	56.4 PK	74.0	-17.6	1.35 V	107	9.53	46.87
6	10640.00	43.9 AV	54.0	-10.1	1.35 V	107	-2.97	46.87

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	5447.90	64.8 PK	74.0	-9.2	1.08 H	164	24.07	40.73
2	5447.90	52.9 AV	54.0	-1.1	1.08 H	164	12.17	40.73
3	#5470.00	65.0 PK	68.3	-3.3	1.08 H	164	24.22	40.78
4	*5500.00	111.8 PK			1.08 H	181	70.94	40.86
5	*5500.00	93.1 AV			1.08 H	181	52.24	40.86
6	11000.00	54.1 PK	74.0	-19.9	1.60 H	234	6.82	47.28
7	11000.00	42.0 AV	54.0	-12.0	1.60 H	234	-5.28	47.28
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	5448.63	66.4 PK	74.0	-7.6	1.14 V	134	25.67	40.73
2	**5448.63**	**53.5 AV**	**54.0**	**-0.5**	**1.14 V**	**134**	**12.77**	**40.73**
3	#5468.30	65.6 PK	68.3	-2.7	1.14 V	129	24.82	40.78
4	*5500.00	112.4 PK			1.13 V	134	71.54	40.86
5	*5500.00	93.8 AV			1.13 V	134	52.94	40.86
6	11000.00	56.9 PK	74.0	-17.1	1.30 V	110	9.62	47.28
7	11000.00	44.2 AV	54.0	-9.8	1.30 V	110	-3.08	47.28

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 120	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	*5600.00	114.7 PK			1.00 H	150	73.55	41.15
2	*5600.00	97.0 AV			1.00 H	150	55.85	41.15
3	11200.00	57.0 PK	74.0	-17.0	1.60 H	231	9.58	47.42
4	11200.00	44.3 AV	54.0	-9.7	1.60 H	231	-3.12	47.42
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	*5600.00	116.2 PK			1.18 V	118	75.05	41.15
2	*5600.00	97.8 AV			1.18 V	118	56.65	41.15
3	11200.00	60.8 PK	74.0	-13.2	1.34 V	105	13.38	47.42
4	11200.00	46.9 AV	54.0	-7.1	1.34 V	105	-0.52	47.42

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 140	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	*5700.00	112.0 PK			1.11 H	177	70.58	41.42
2	*5700.00	94.0 AV			1.11 H	177	52.58	41.42
3	#5725.00	67.3 PK	68.3	-1.0	1.11 H	176	25.81	41.49
4	11400.00	53.4 PK	74.0	-20.6	1.58 H	234	5.78	47.62
5	11400.00	41.5 AV	54.0	-12.5	1.58 H	234	-6.12	47.62
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	112.6 PK			1.12 V	123	71.18	41.42
2	*5700.00	94.2 AV			1.12 V	123	52.78	41.42
3	**#5725.38**	**67.8 PK**	**68.3**	**-0.5**	**1.14 V**	**125**	**26.30**	**41.50**
4	11400.00	57.5 PK	74.0	-16.5	1.41 V	161	9.88	47.62
5	11400.00	44.0 AV	54.0	-10.0	1.41 V	161	-3.62	47.62

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

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

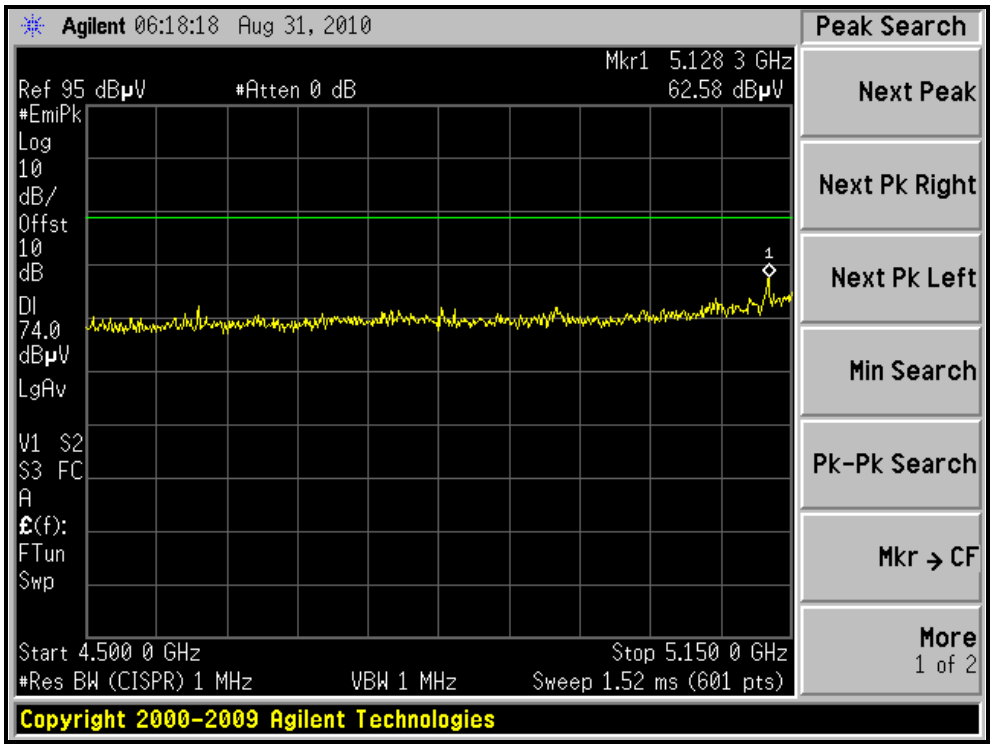
3. The other emission levels were very low against the limit.

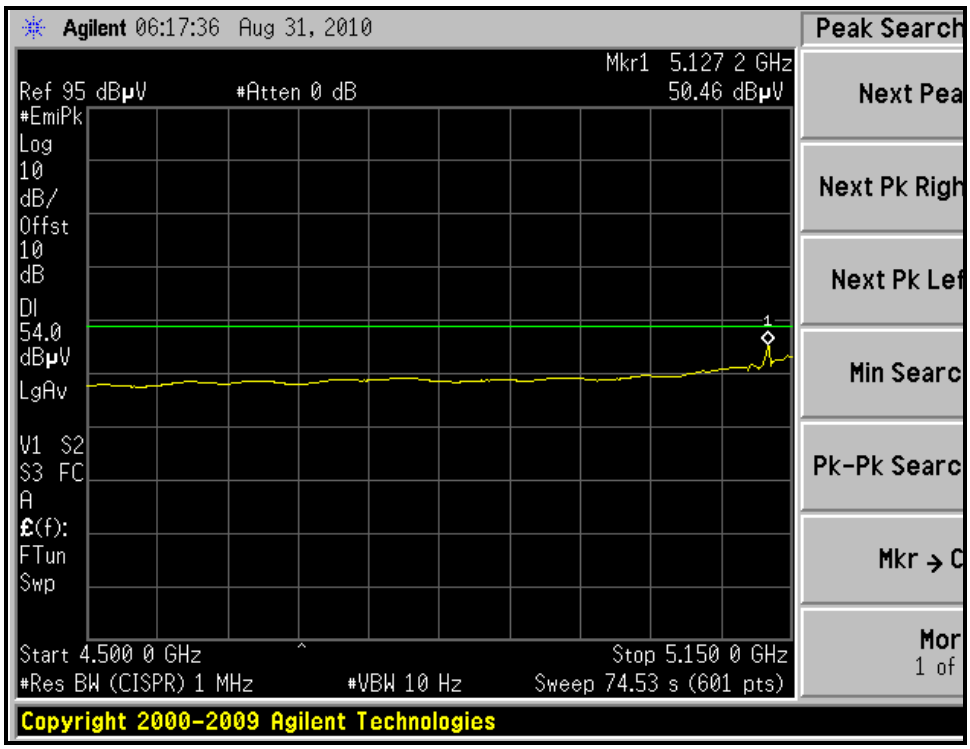
4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

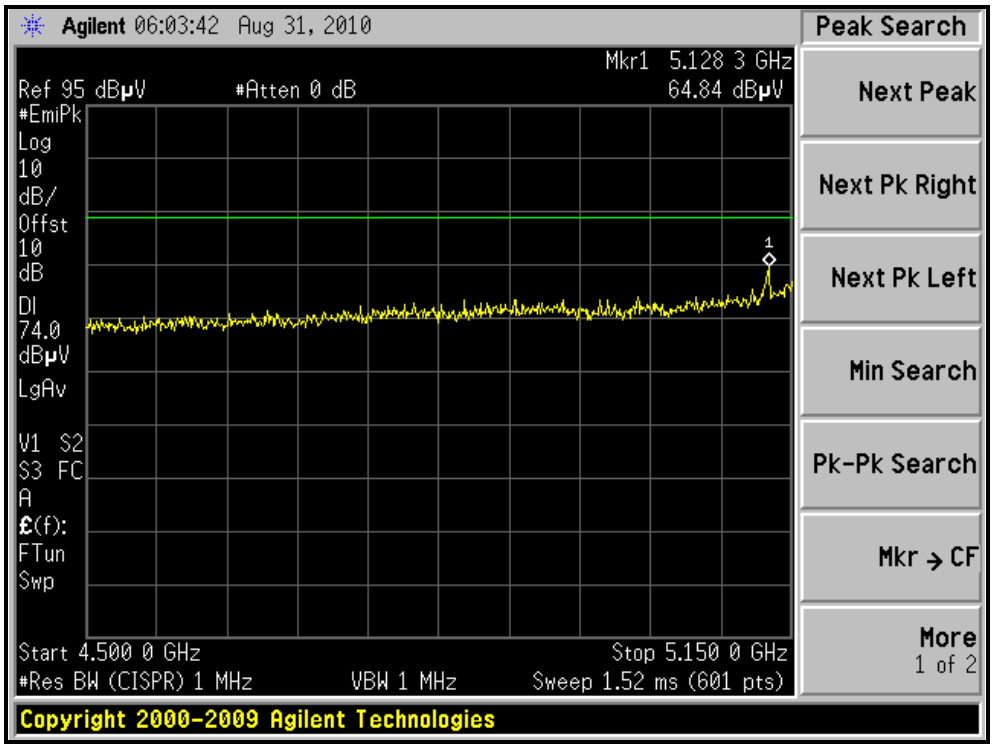
6. "#":The radiated frequency is out the restricted band.

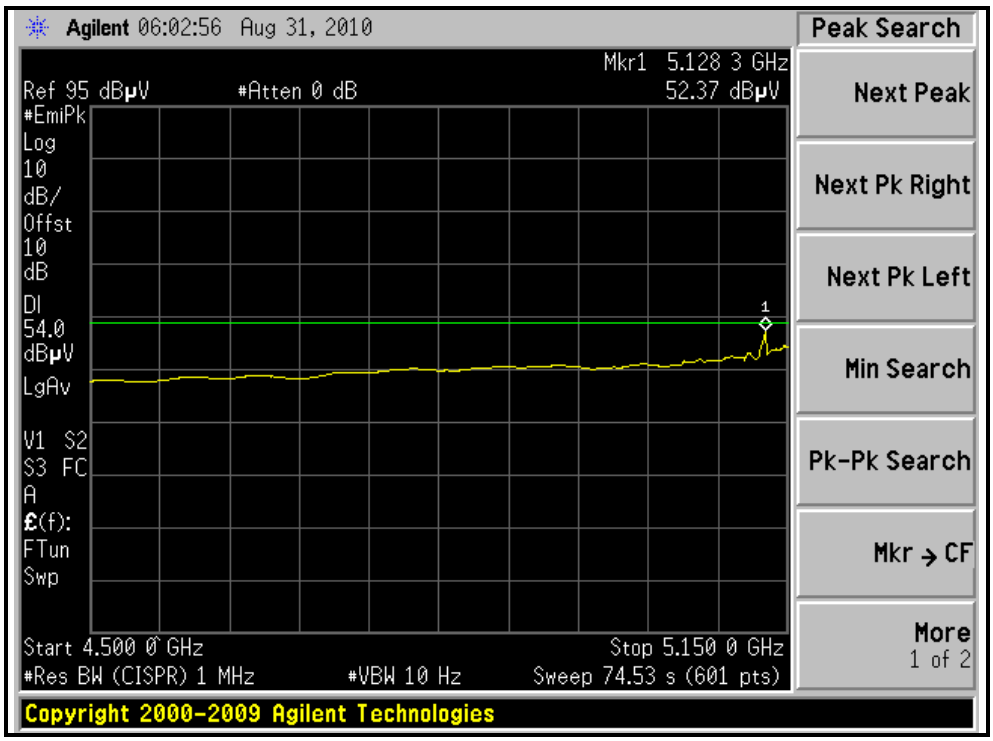
RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH36, HORIZONTAL)





RESTRICTED BANDEDGE (802.11n (20MHz) MODE,CH36, VERTICAL)





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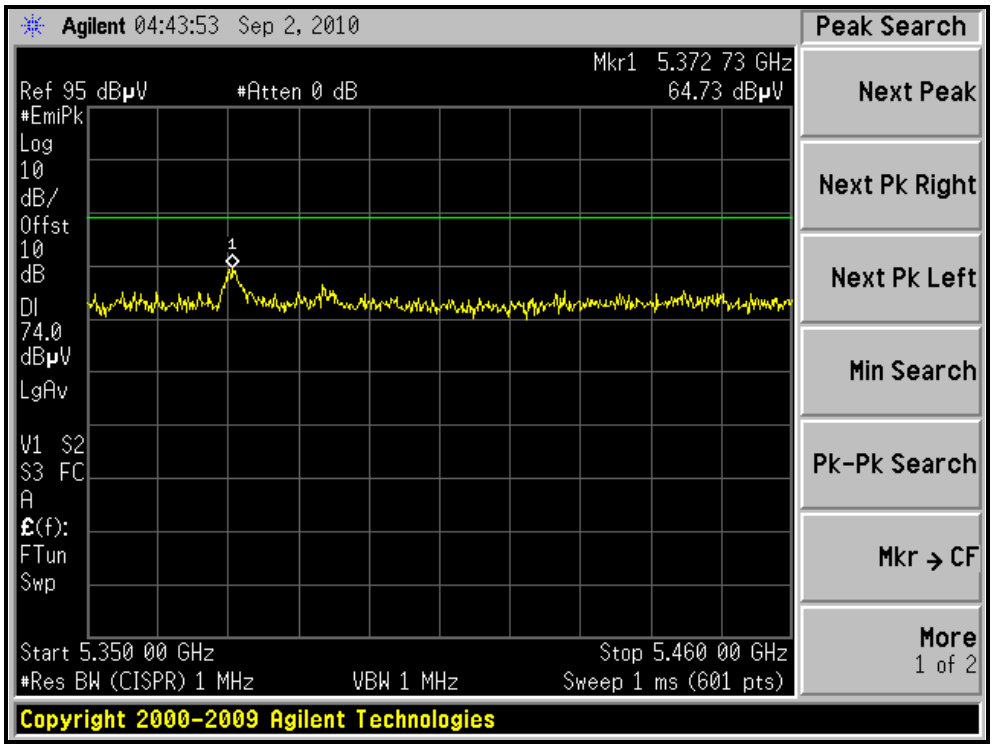

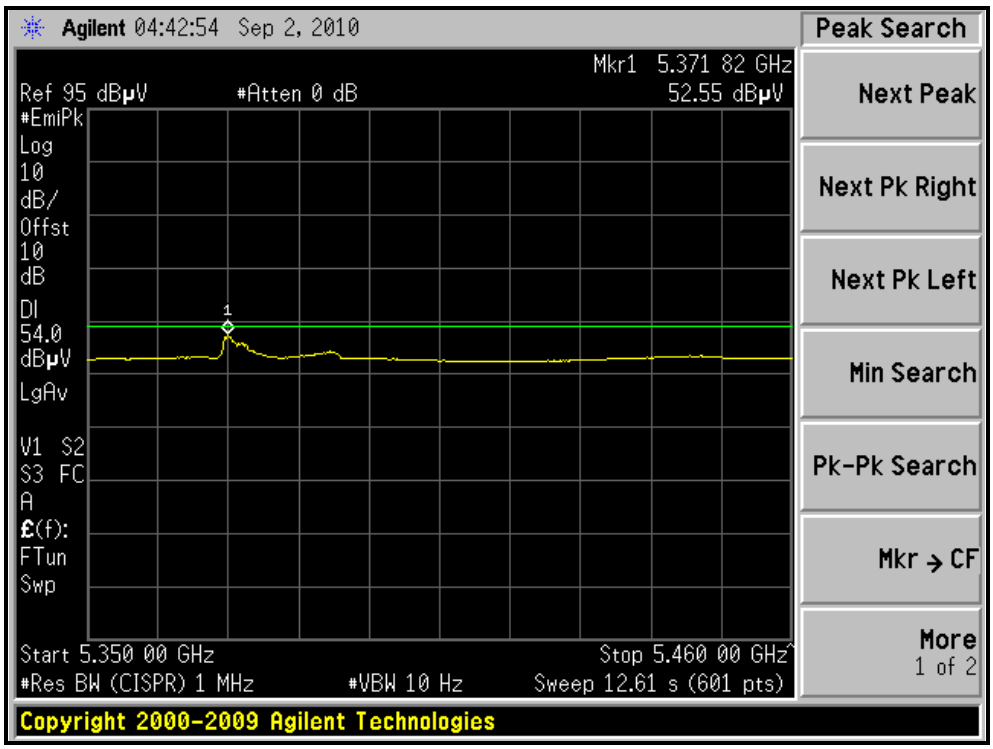

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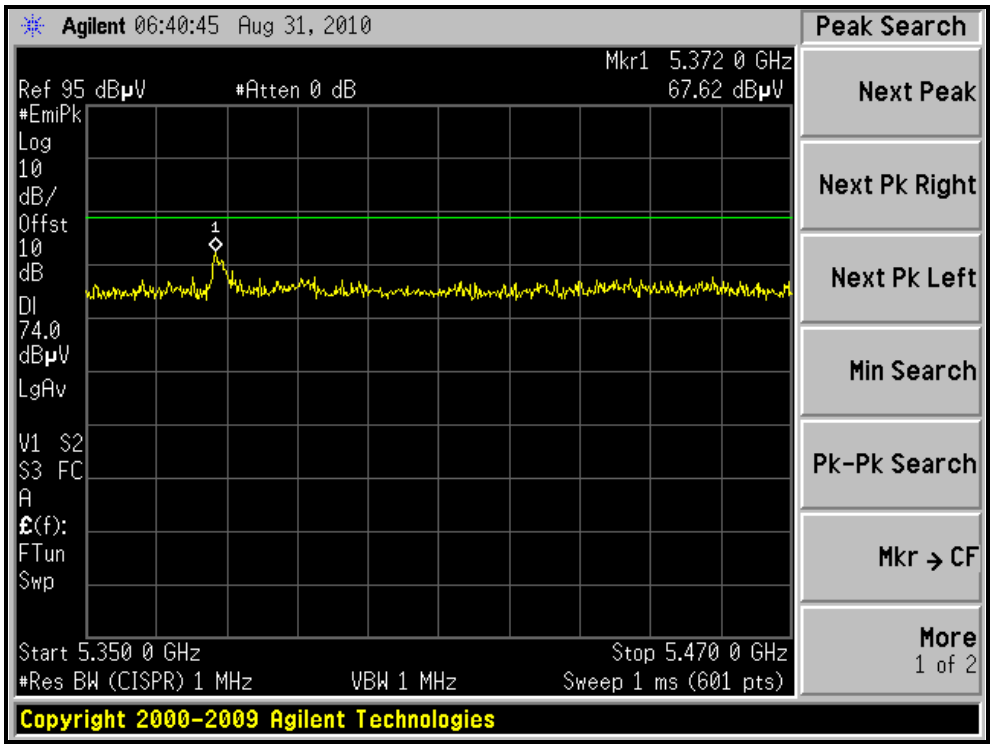

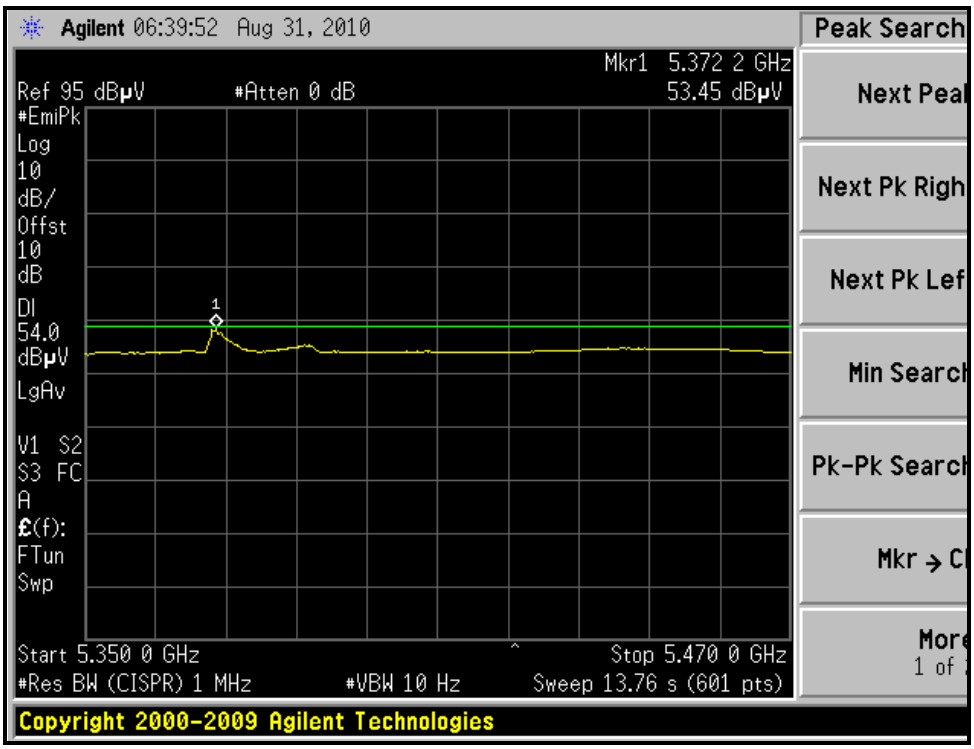

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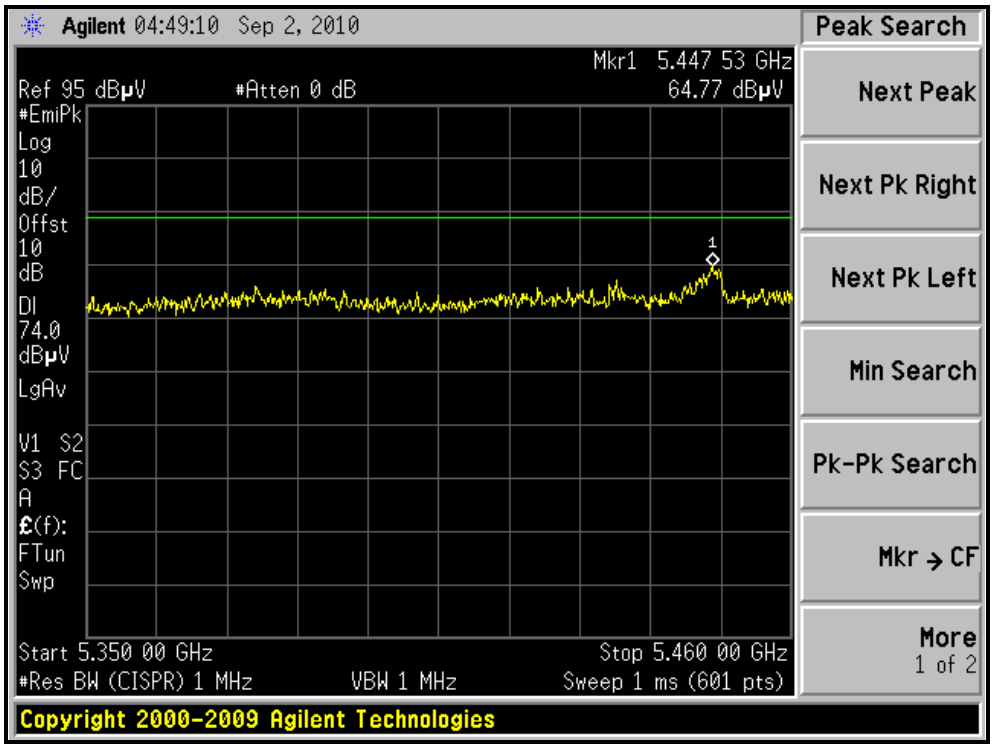

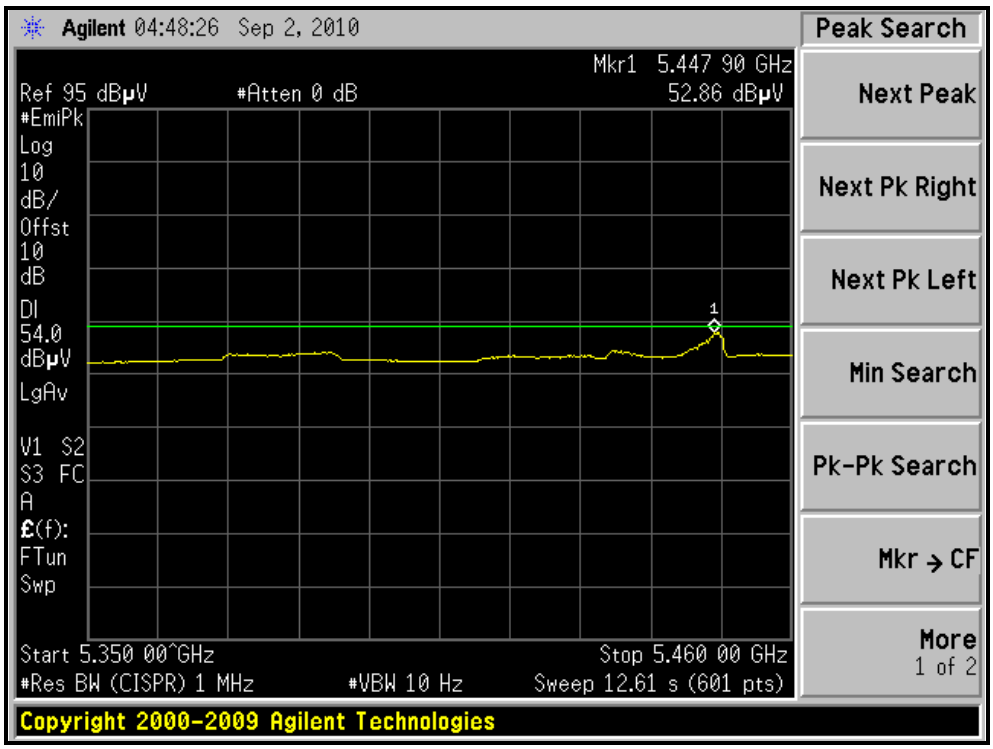

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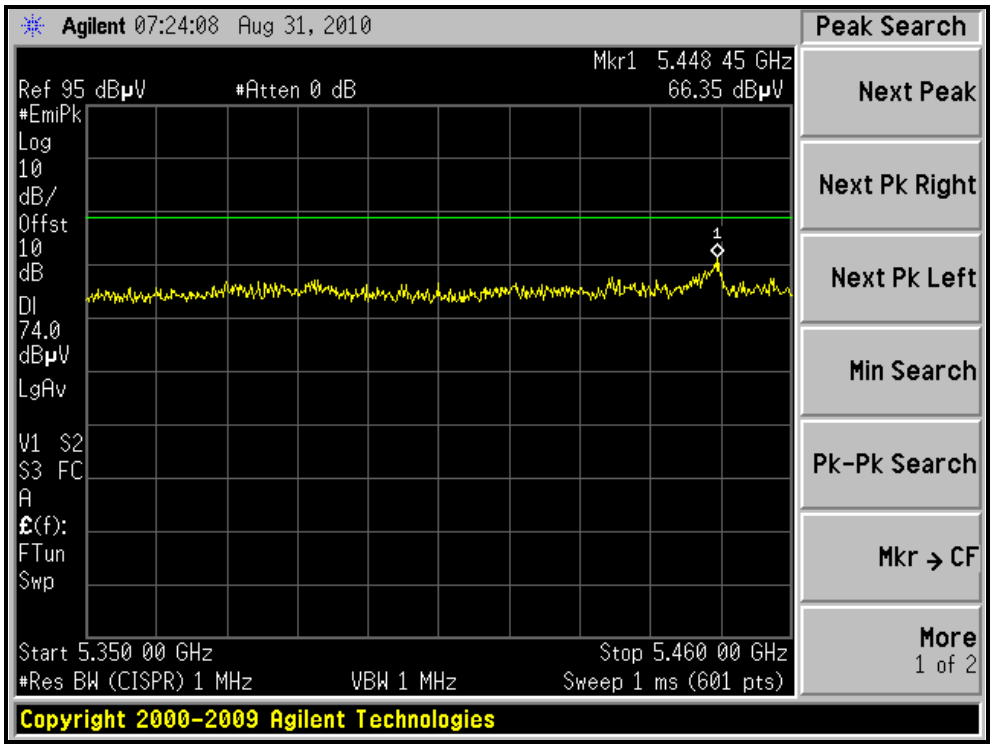
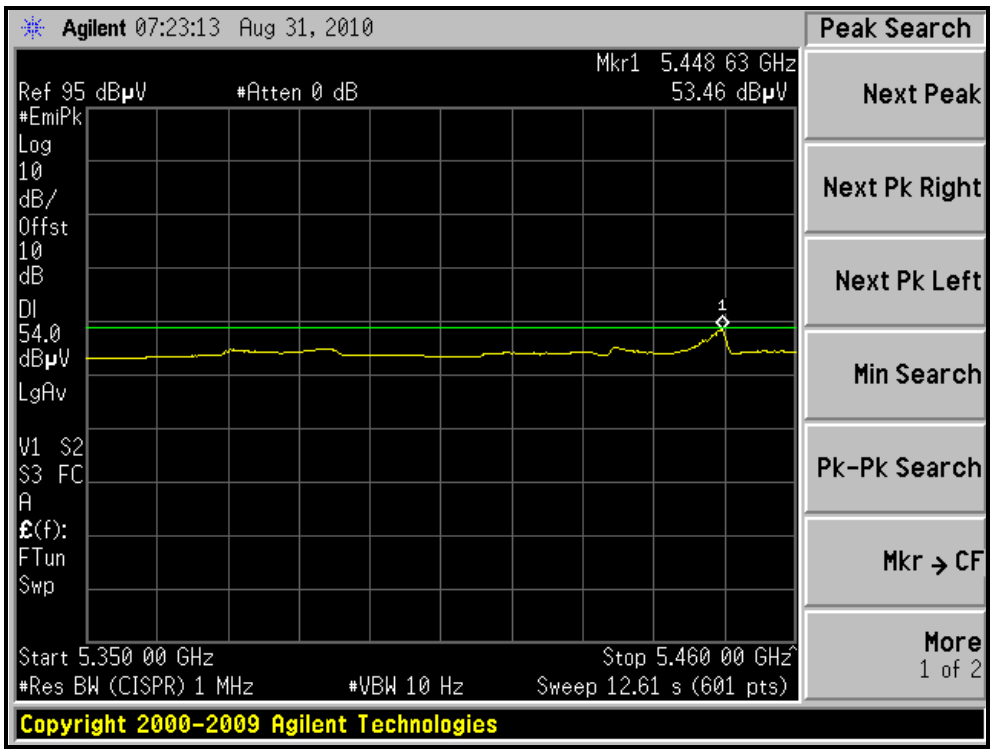




802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	5150.00	68.9 PK	74.0	-5.1	1.00 H	180	28.96	39.94
2	5150.00	50.8 AV	54.0	-3.2	1.00 H	180	10.86	39.94
3	*5190.00	108.7 PK			1.00 H	164	68.66	40.04
4	*5190.00	85.8 AV			1.00 H	164	45.76	40.04
5	#10380.00	53.0 PK	68.3	-15.3	1.58 H	231	6.45	46.55
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	73.2 PK	74.0	-0.8	1.20 V	93	33.26	39.94
2	5150.00	52.3 AV	54.0	-1.7	1.20 V	93	12.36	39.94
3	*5190.00	110.6 PK			1.20 V	95	70.56	40.04
4	*5190.00	87.6 AV			1.20 V	95	47.56	40.04
5	#10380.00	55.0 PK	68.3	-13.3	1.40 V	169	8.45	46.55

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	*5230.00	109.0 PK			1.00 H	175	68.85	40.15
2	*5230.00	86.5 AV			1.00 H	175	46.35	40.15
3	#10460.00	52.9 PK	68.3	-15.4	1.59 H	233	6.25	46.65
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	110.0 PK			1.21 V	101	69.85	40.15
2	*5230.00	87.5 AV			1.21 V	101	47.35	40.15
3	#10460.00	54.8 PK	68.3	-13.5	1.38 V	168	8.15	46.65

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 54	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	*5270.00	114.5 PK			1.01 H	174	74.25	40.25
2	*5270.00	90.0 AV			1.01 H	174	49.75	40.25
3	5374.02	65.0 PK	74.0	-9.0	1.08 H	169	24.46	40.54
4	5374.02	52.0 AV	54.0	-2.0	1.08 H	169	11.46	40.54
5	#10540.00	56.7 PK	68.3	-11.6	1.57 H	236	9.95	46.75
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	*5270.00	114.6 PK			1.18 V	126	74.35	40.25
2	*5270.00	89.9 AV			1.18 V	126	49.65	40.25
3	5373.83	67.0 PK	74.0	-7.0	1.24 V	139	26.46	40.54
4	5373.83	53.3 AV	54.0	-0.7	1.24 V	139	12.76	40.54
5	#10540.00	62.6 PK	68.3	-5.7	1.38 V	175	15.85	46.75

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	*5310.00	110.7 PK			1.08 H	171	70.34	40.36
2	*5310.00	87.2 AV			1.08 H	171	46.84	40.36
3	5350.00	72.6 PK	74.0	-1.4	1.08 H	170	32.13	40.47
4	5350.00	53.0 AV	54.0	-1.0	1.08 H	170	12.53	40.47
5	10620.00	53.5 PK	74.0	-20.5	1.58 H	234	6.66	46.84
6	10620.00	41.3 AV	54.0	-12.7	1.58 H	234	-5.54	46.84
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	*5310.00	111.0 PK			1.21 V	94	70.64	40.36
2	*5310.00	87.4 AV			1.21 V	94	47.04	40.36
3	5350.00	72.7 PK	74.0	-1.3	1.20 V	122	32.23	40.47
4	5350.00	53.4 AV	54.0	-0.6	1.20 V	122	12.93	40.47
5	10620.00	56.3 PK	74.0	-17.7	1.37 V	174	9.46	46.84
6	10620.00	43.8 AV	54.0	-10.2	1.37 V	174	-3.04	46.84

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 102	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	5406.65	63.6 PK	74.0	-10.4	1.08 H	163	22.97	40.63
2	5406.65	49.8 AV	54.0	-4.2	1.08 H	163	9.17	40.63
3	#5467.60	67.6 PK	68.3	-0.7	1.16 H	185	26.82	40.78
4	*5510.00	107.4 PK			1.07 H	151	66.51	40.89
5	*5510.00	85.2 AV			1.07 H	151	44.31	40.89
6	11020.00	54.3 PK	74.0	-19.7	1.56 H	234	7.01	47.29
7	11020.00	41.9 AV	54.0	-12.1	1.56 H	234	-5.39	47.29
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	5407.02	63.3 PK	74.0	-10.7	1.22 V	135	22.67	40.63
2	5407.02	50.5 AV	54.0	-3.5	1.22 V	135	9.87	40.63
3	#5468.25	67.3 PK	68.3	-1.0	1.21 V	119	26.52	40.78
4	*5510.00	107.5 PK			1.21 V	109	66.61	40.89
5	*5510.00	85.2 AV			1.21 V	109	44.31	40.89
6	11020.00	56.4 PK	74.0	-17.6	1.38 V	105	9.11	47.29
7	11020.00	43.8 AV	54.0	-10.2	1.38 V	105	-3.49	47.29

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 118	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

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	*5590.00	113.8 PK			1.02 H	176	72.68	41.12
2	*5590.00	89.9 AV			1.02 H	176	48.78	41.12
3	11180.00	56.4 PK	74.0	-17.6	1.41 H	226	8.99	47.41
4	11180.00	43.5 AV	54.0	-10.5	1.41 H	226	-3.91	47.41
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5590.00	113.0 PK			1.20 V	124	71.88	41.12
2	*5590.00	89.5 AV			1.20 V	124	48.38	41.12
3	11180.00	60.1 PK	74.0	-13.9	1.34 V	105	12.69	47.41
4	11180.00	45.7 AV	54.0	-8.3	1.34 V	105	-1.71	47.41

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

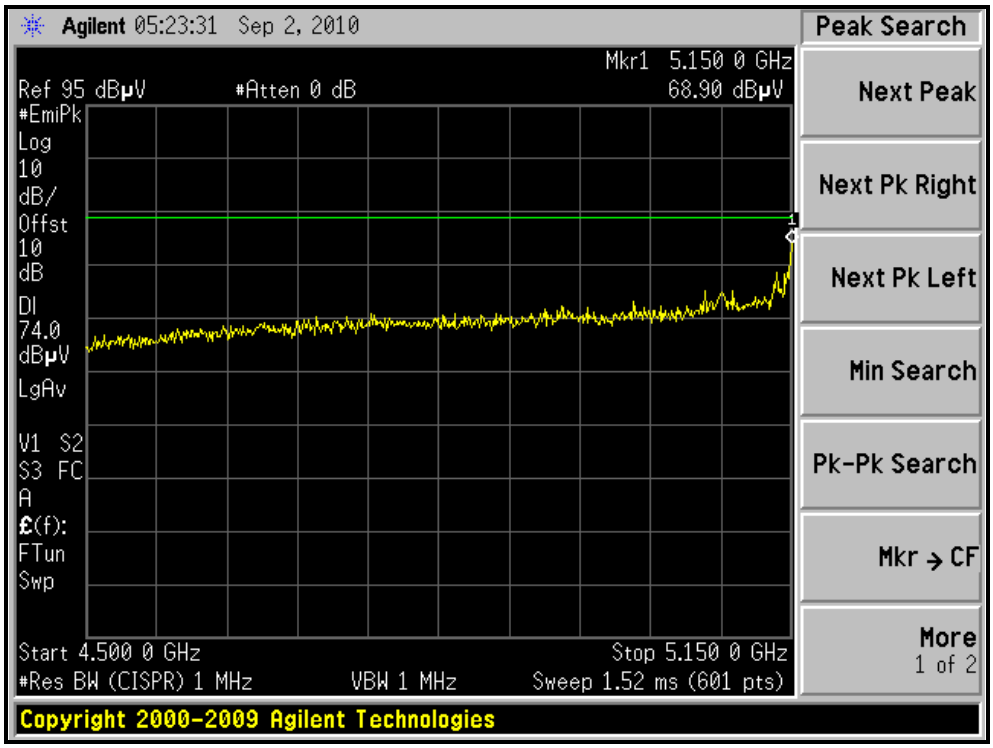
EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 134	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1013 hPa	TESTED BY	Duke Tseng
TEST MODE	With PIFA		

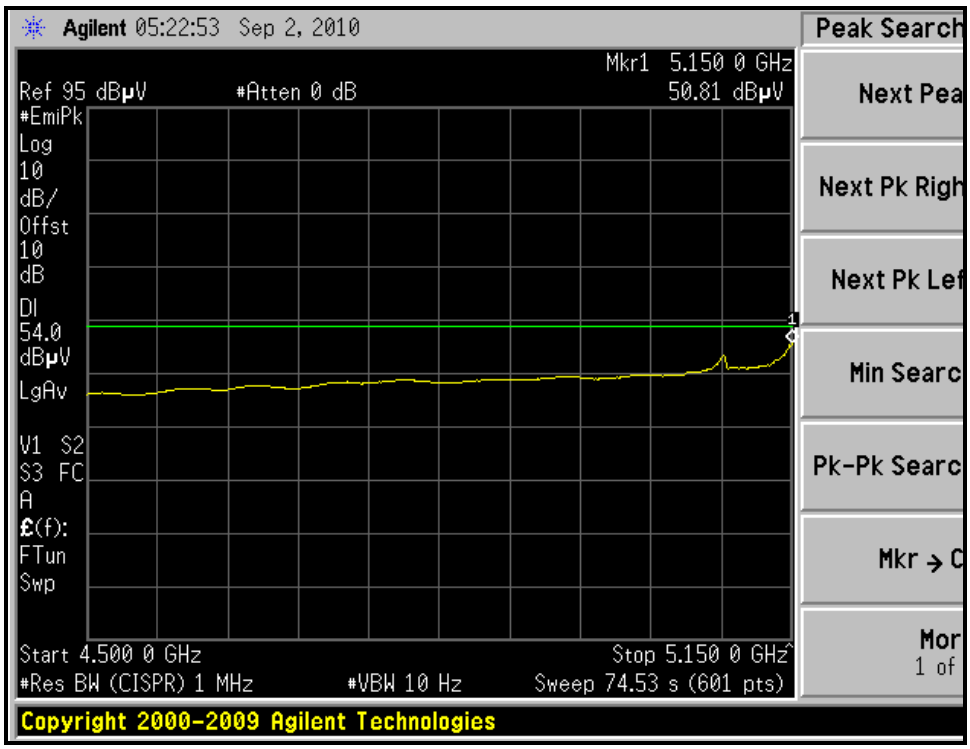
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	112.7 PK			1.02 H	180	71.36	41.34
2	*5670.00	89.5 AV			1.02 H	180	48.16	41.34
3	#5725.00	67.2 PK	68.3	-1.1	1.09 H	157	25.71	41.49
4	11340.00	54.0 PK	74.0	-20.0	1.58 H	235	6.43	47.57
5	11340.00	41.8 AV	54.0	-12.2	1.58 H	235	-5.77	47.57
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	*5670.00	110.5 PK			1.20 V	120	69.16	41.34
2	*5670.00	87.8 AV			1.20 V	120	46.46	41.34
3	#5727.38	67.4 PK	68.3	-0.9	1.21 V	118	25.90	41.50
4	11340.00	59.2 PK	74.0	-14.8	1.38 V	98	11.63	47.57
5	11340.00	45.1 AV	54.0	-8.9	1.38 V	98	-2.47	47.57

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

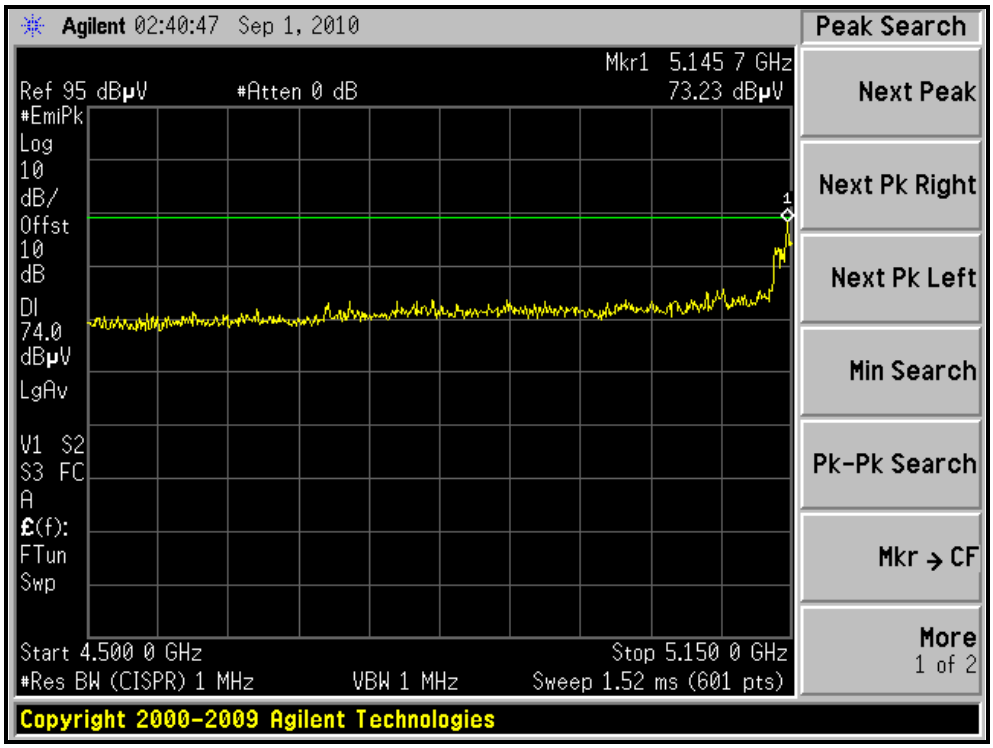
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. "#":The radiated frequency is out the restricted band.

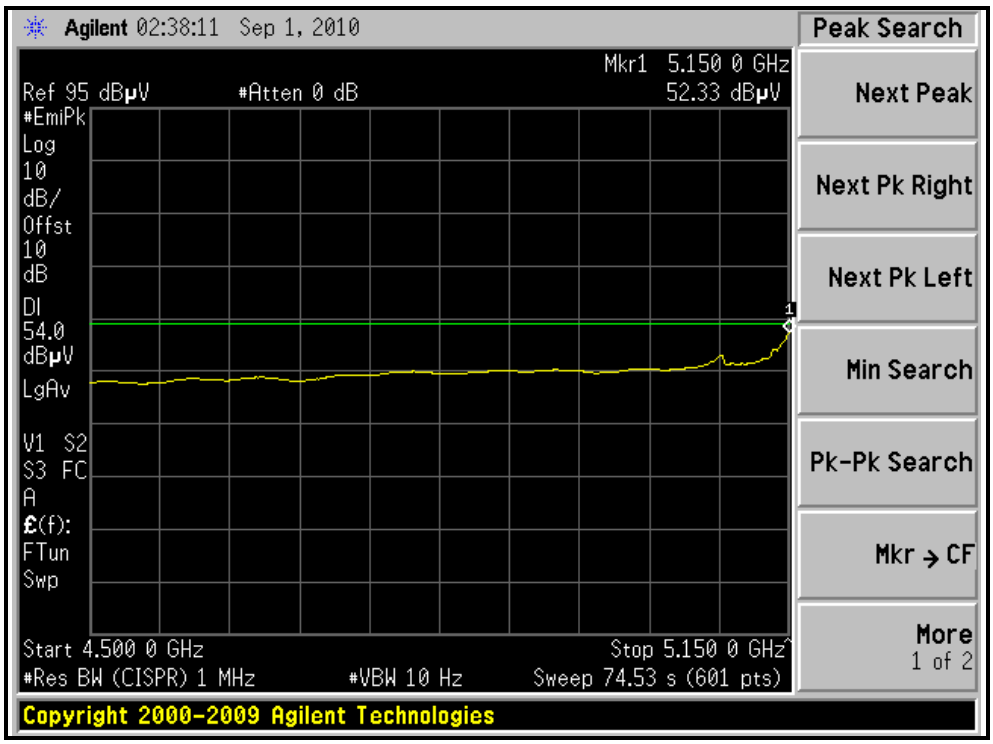
RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH38, HORIZONTAL)



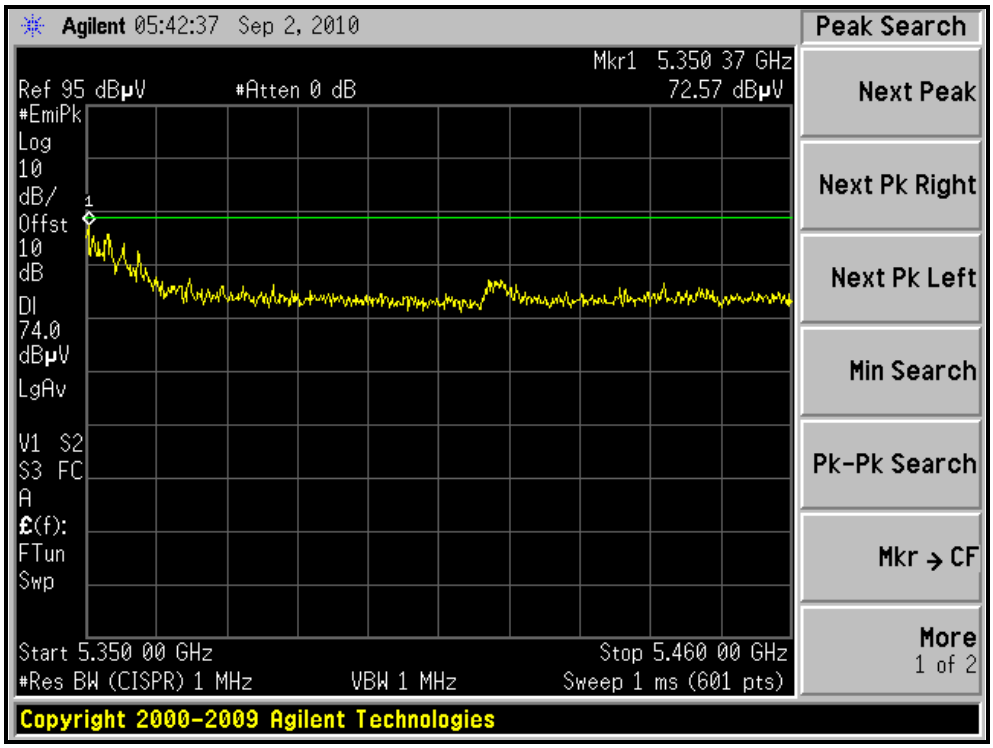


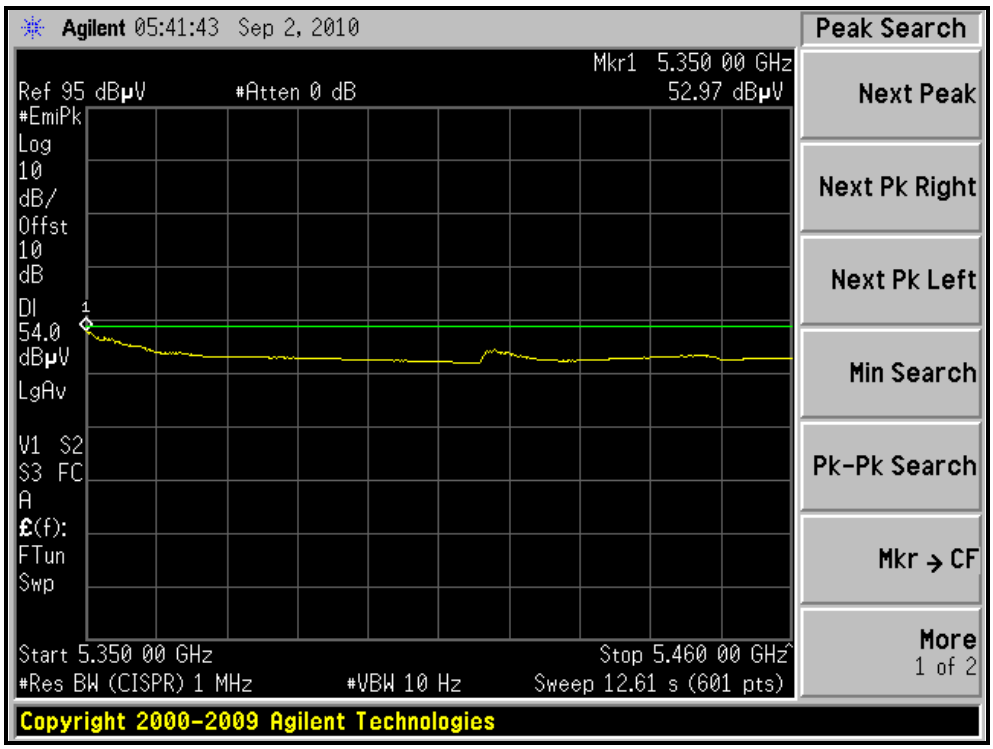
RESTRICTED BANDEDGE (802.11n (40MHz) MODE,CH38, VERTICAL)



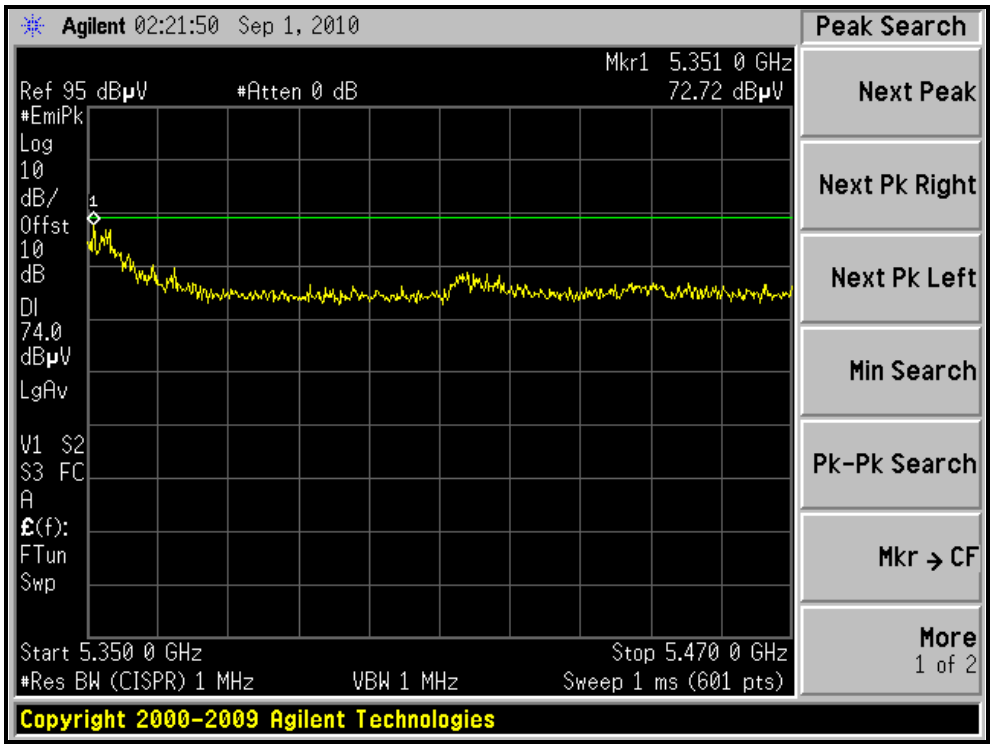


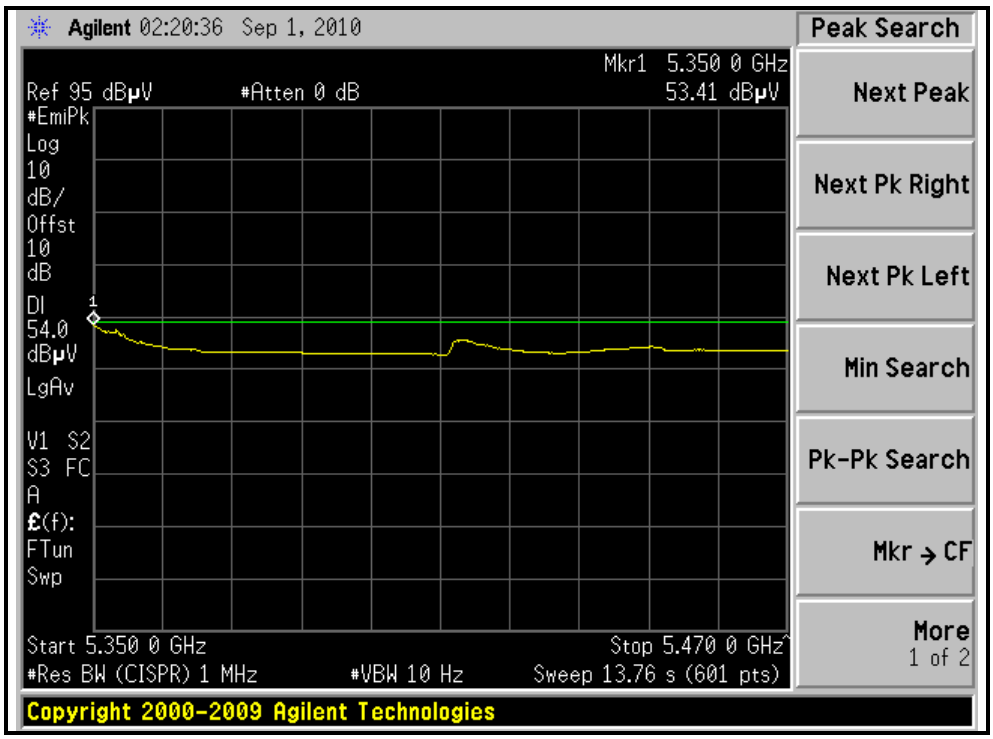
RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH62, HORIZONTAL)



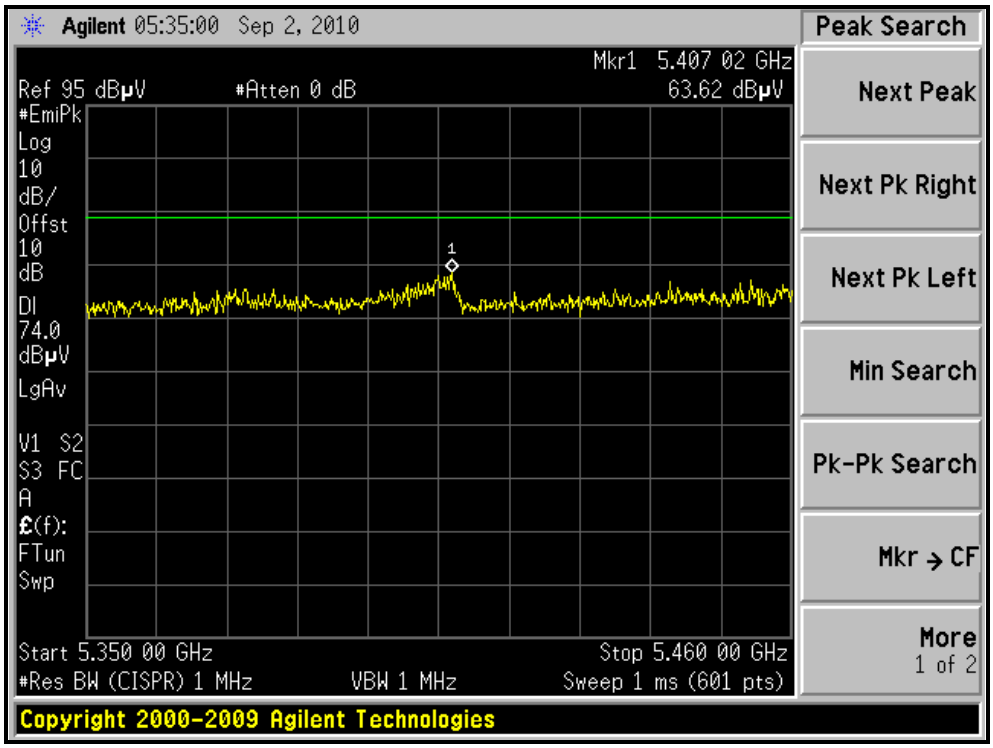


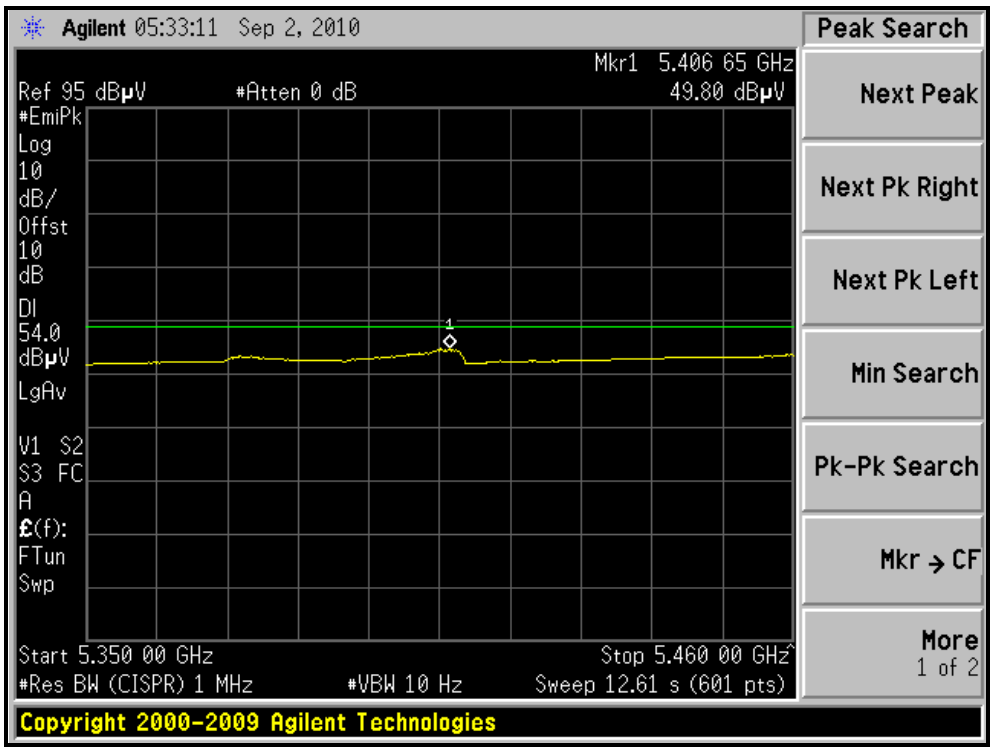
RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH62, VERTICAL)



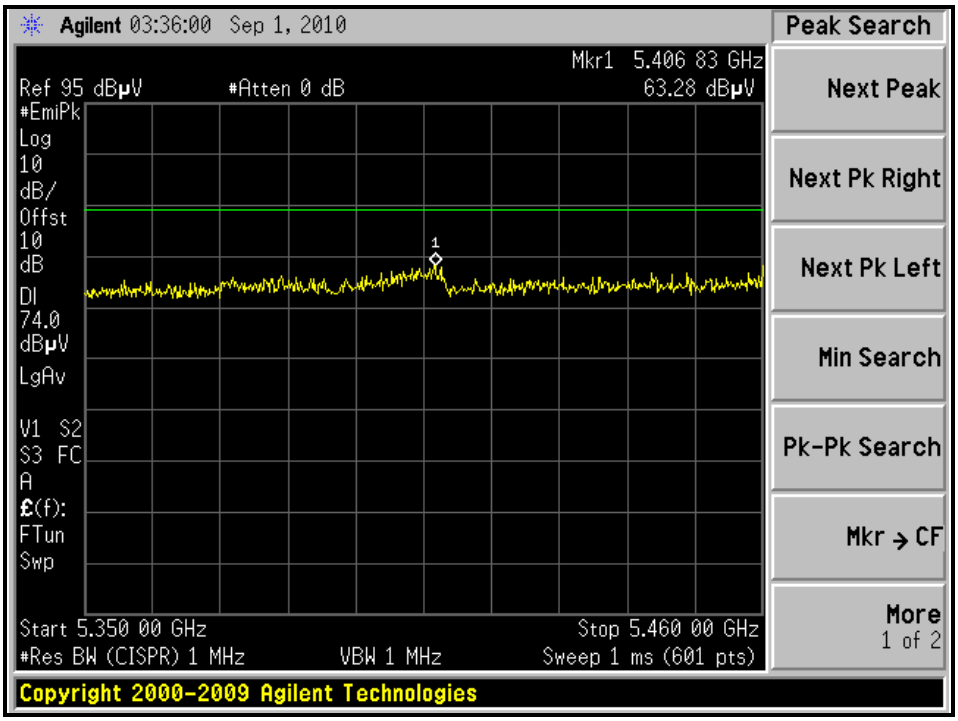


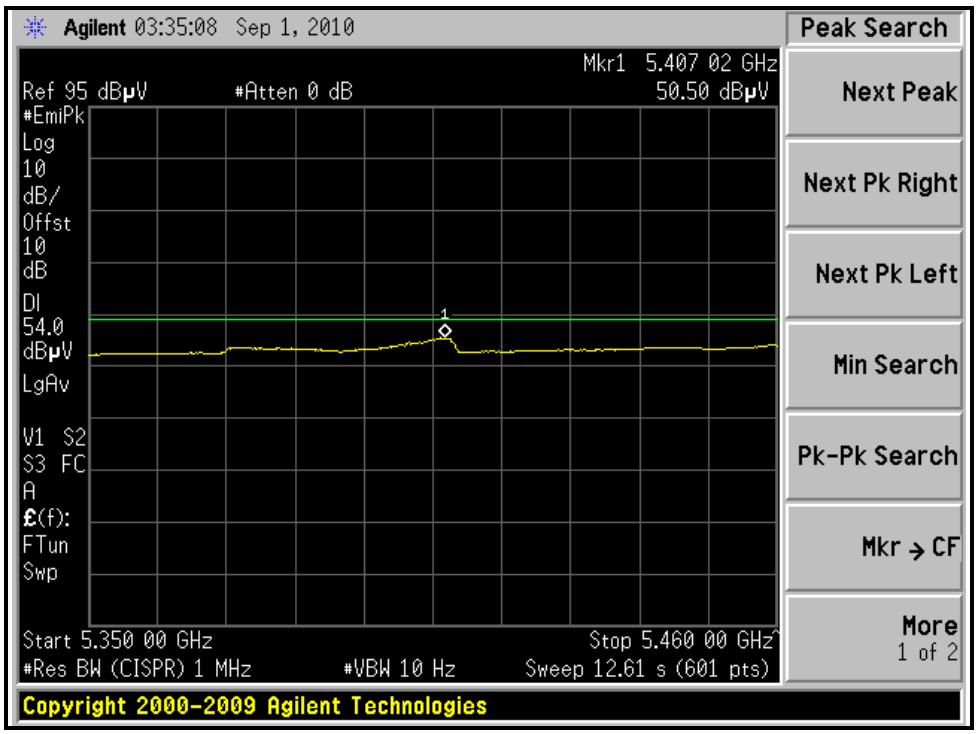
RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH102, HORIZONTAL)





RESTRICTED BANDEDGE (802.11n (40MHz) MODE, CH102, VERTICAL)





4.3 PEAK TRANSMIT POWER MEASUREMENT

4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

Frequency Band	Limit
5.15 – 5.25GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.25 – 5.35GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.47 – 5.725GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.725 – 5.825GHz	The lesser of 1W (30dBm) or 17dBm + 10logB

NOTE: Where B is the 26dB emission bandwidth in MHz.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer	E4446A	MY48250254	July 14, 2010	July 13, 2011

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

4.3.3 TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer.
2. Set span to encompass the entire emission bandwidth of the signal.
3. Set RBW to 1MHz, VBW to 300kHz.
4. Using the spectrum analyzer's channel power measurement function to measure the output power.

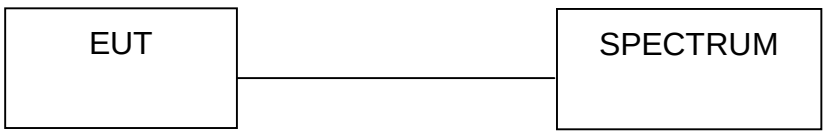
NOTE:
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

The transmitter output operates continuously therefore Method # 1 is used.

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 specific channel frequencies individually.

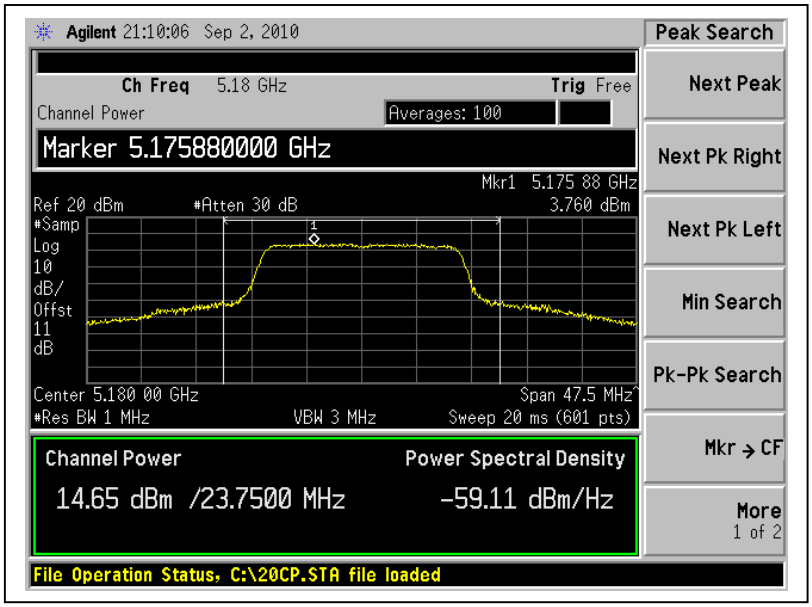
4.3.7 TEST RESULTS

802.11a OFDM MODULATION:

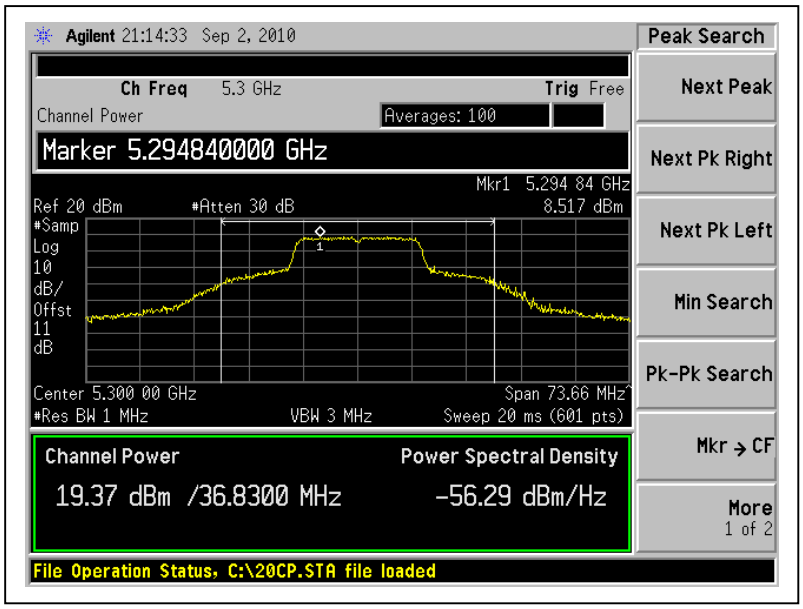
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/ FAIL
36	5180	29.5	14.7	17.0	23.75	PASS
40	5200	27.5	14.4	17.0	23.83	PASS
48	5240	26.3	14.2	17.0	24.67	PASS
52	5260	85.1	19.3	24.0	36.67	PASS
60	5300	87.1	19.4	24.0	36.83	PASS
64	5320	58.9	17.7	24.0	31.08	PASS
100	5500	52.5	17.2	24.0	29.08	PASS
120	5600	83.2	19.2	24.0	39.5	PASS
140	5700	51.3	17.1	24.0	35	PASS

NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.

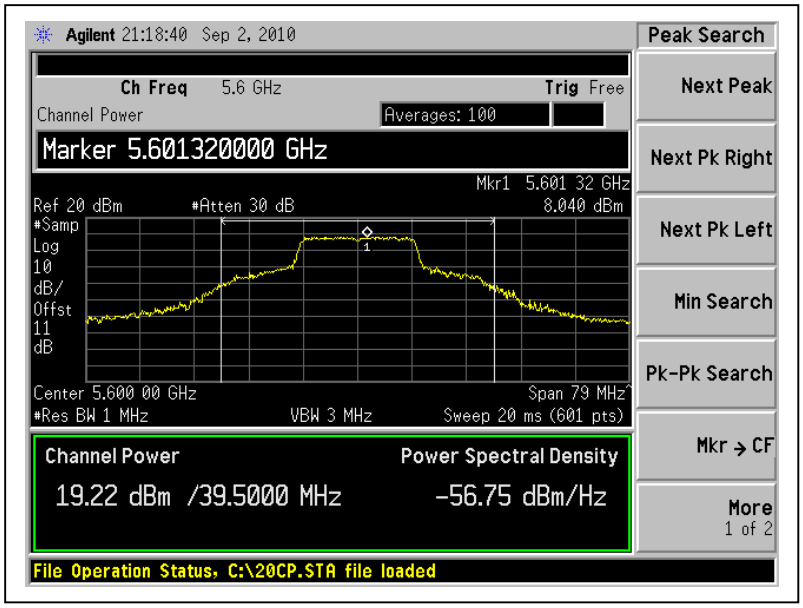
Peak Power Output:
CH36



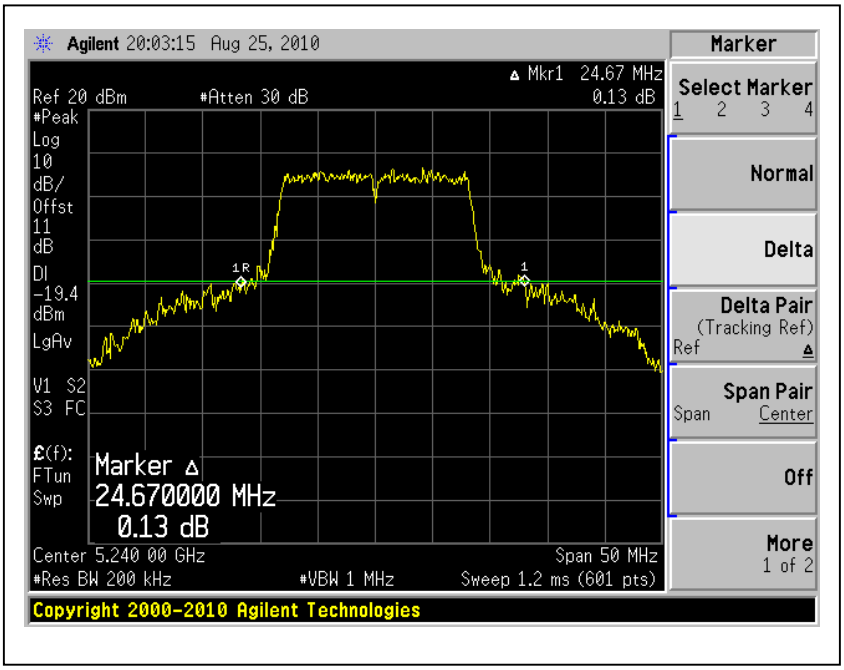
CH60



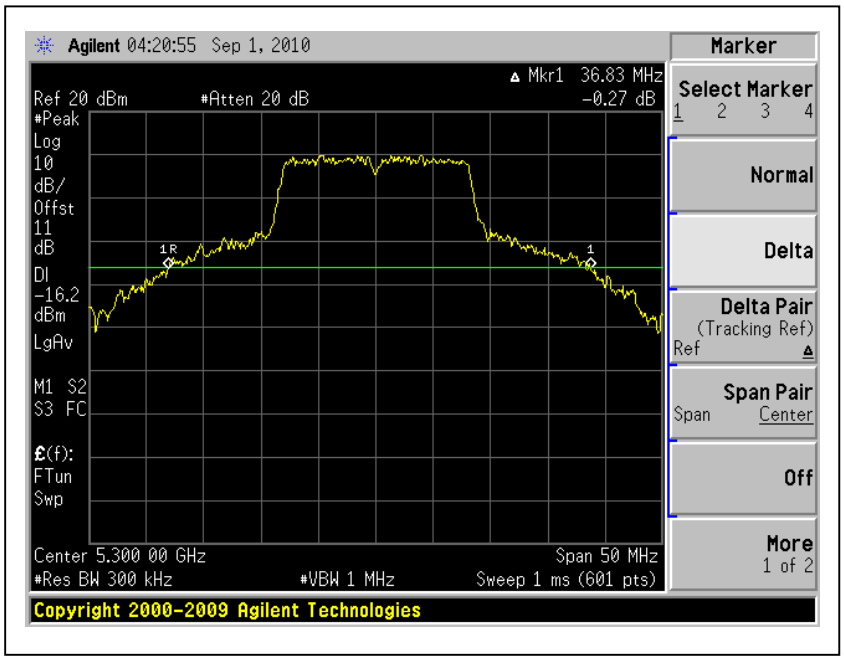
CH120


Agilent 21:18:40 Sep 2, 2010
Peak Search
Ch Freq 5.6 GHz
Trig Free
Channel Power
Averages: 100
Marker 5.601320000 GHz
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Mkr1 5.601 32 GHz
Ref 20 dBm
#Atten 30 dB
8.040 dBm
#Samp
Log
10
dB/
Offst
11
dB
Center 5.600 00 GHz
Span 79 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 20 ms (601 pts)
Channel Power
19.22 dBm /39.5000 MHz
Power Spectral Density
-56.75 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

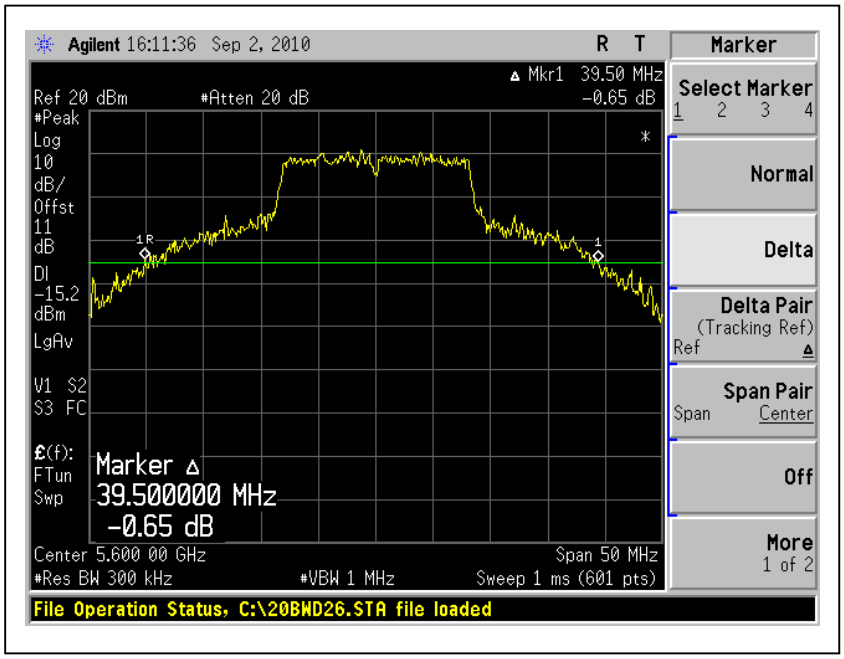
26dB Occupied Bandwidth:
CH48



CH60



CH120

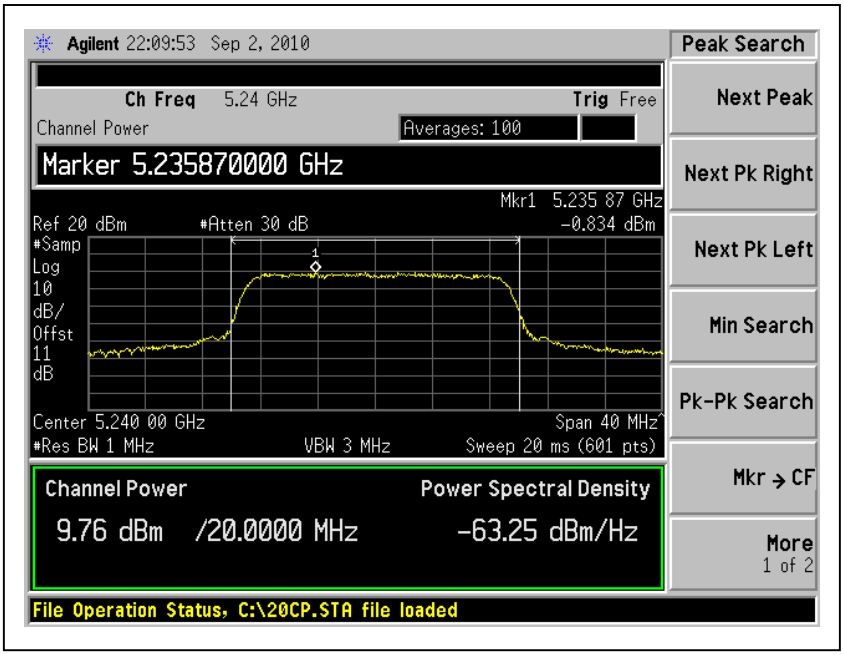

Agilent 16:11:36 Sep 2, 2010
R T
Marker
Mkr1 39.50 MHz
Ref 20 dBm
#Atten 20 dB
-0.65 dB
#Peak
Log
10
dB/
Offst
11
dB
Dl
-15.2
dBm
LgAv
V1 S2
S3 FC
£(f):
FTun
Swp
Marker Δ
39.500000 MHz
-0.65 dB
Center 5.600 00 GHz
Span 50 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
File Operation Status, C:\20BWD26.STA file loaded

802.11n (20MHz) OFDM MODULATION:

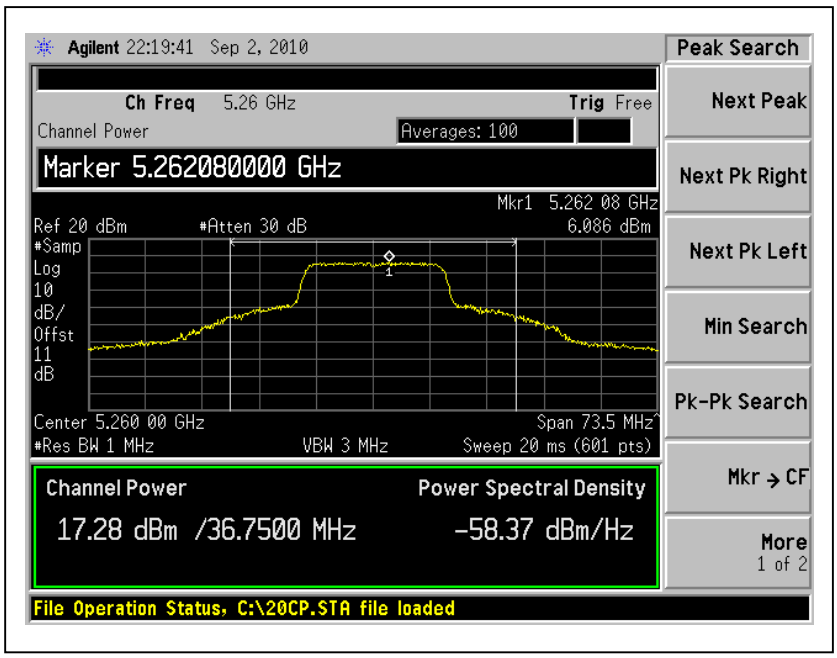
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)			TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/ FAIL
		Chain 0	Chain 1	Chain 2					
36	5180	9.3	9.1	9.3	25.2	14.0	17.0	20	PASS
40	5200	9.3	9.5	9.1	25.6	14.1	17.0	19.92	PASS
48	5240	9.5	9.8	9.4	27.2	14.3	17.0	20	PASS
52	5260	17.0	17.0	17.3	153.9	21.9	24.0	36.75	PASS
60	5300	14.4	13.8	12.6	69.7	18.4	24.0	20.5	PASS
64	5320	12.7	12.0	11.0	47.1	16.7	24.0	20.5	PASS
100	5500	12.7	12.7	12.1	53.5	17.3	24.0	20.33	PASS
120	5600	16.4	16.7	17.1	141.7	21.5	24.0	33.08	PASS
140	5700	11.4	12.2	11.7	45.2	16.6	24.0	20.42	PASS

NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.

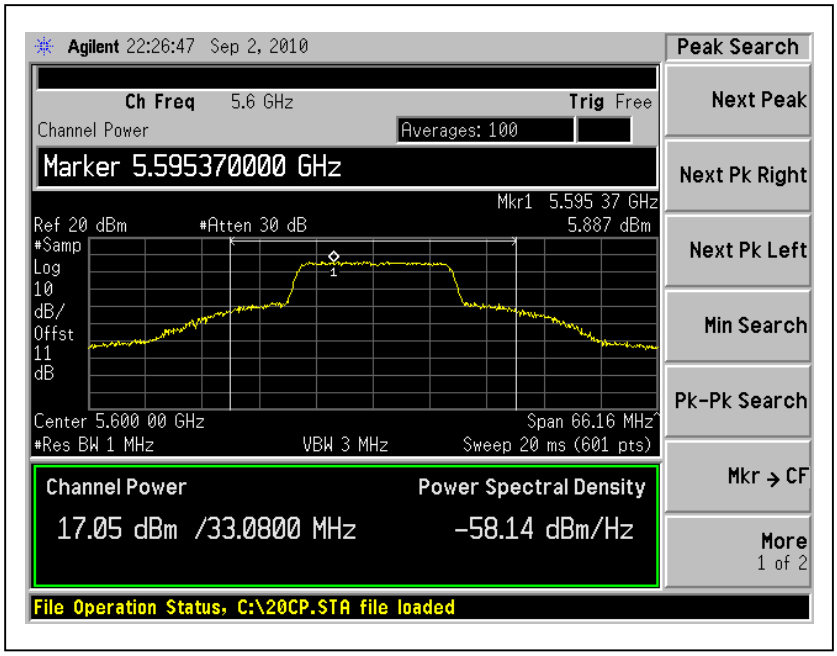
Peak Power Output:
For Chain (1) **:**CH48



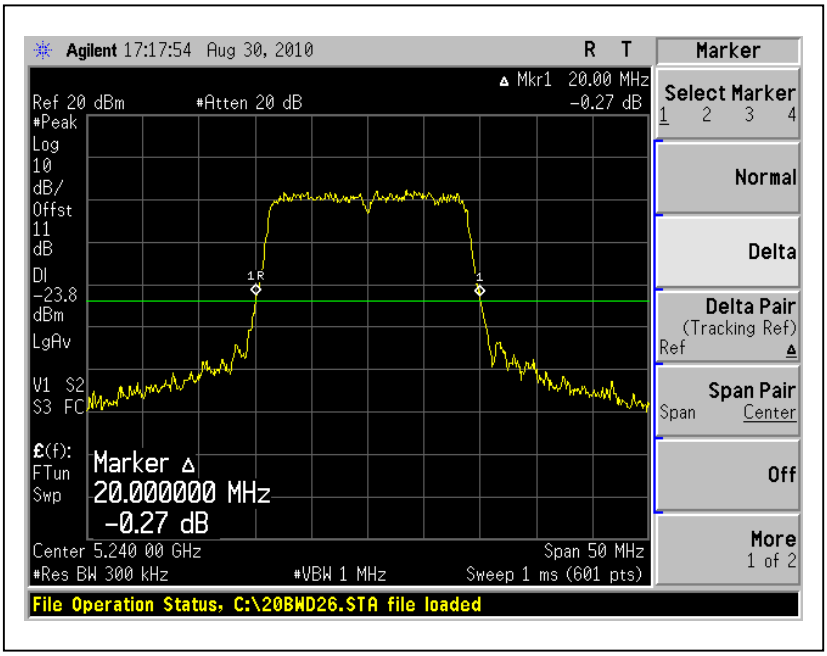
For Chain (2) :CH52



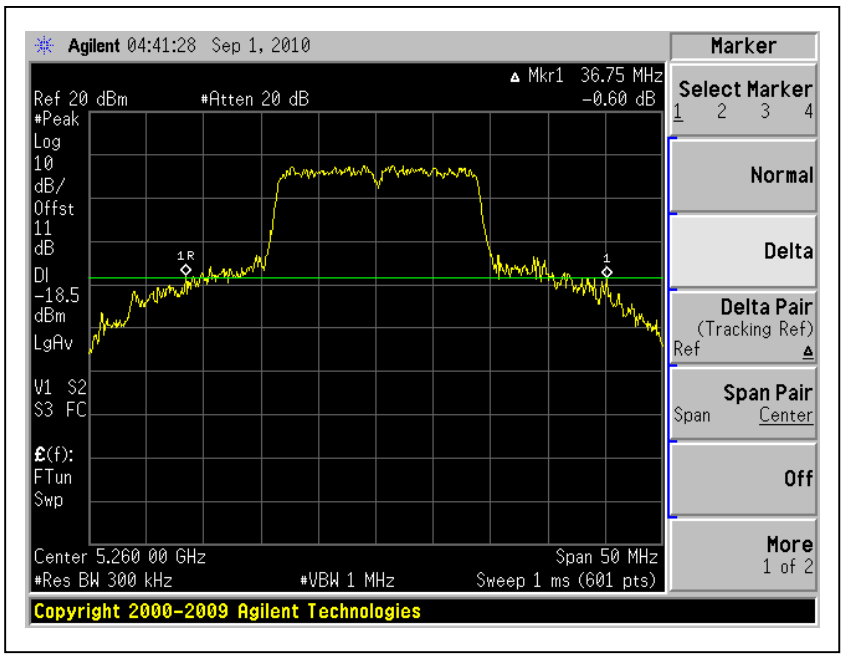
For Chain (2) :CH120



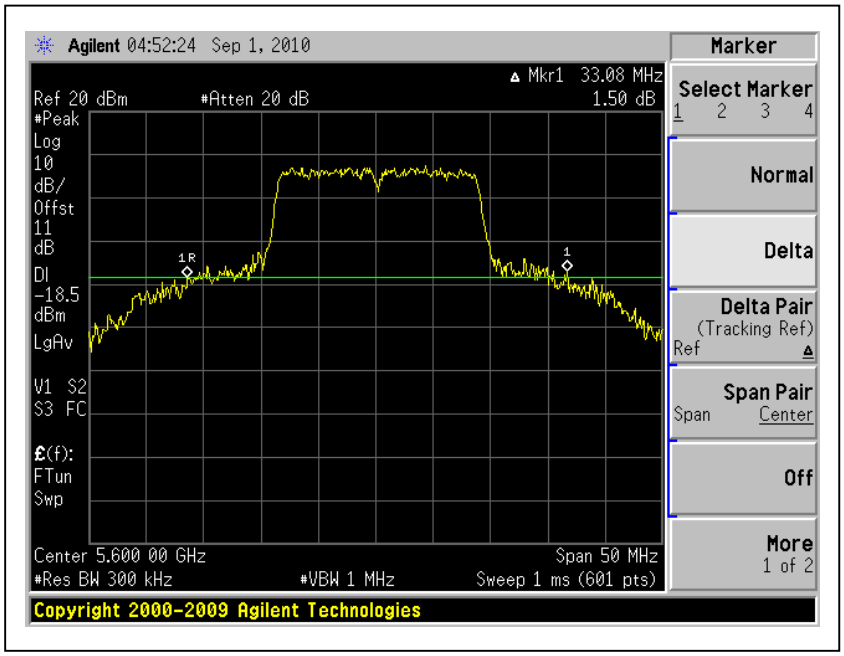
26dB Occupied Bandwidth:
CH48



CH52



CH120

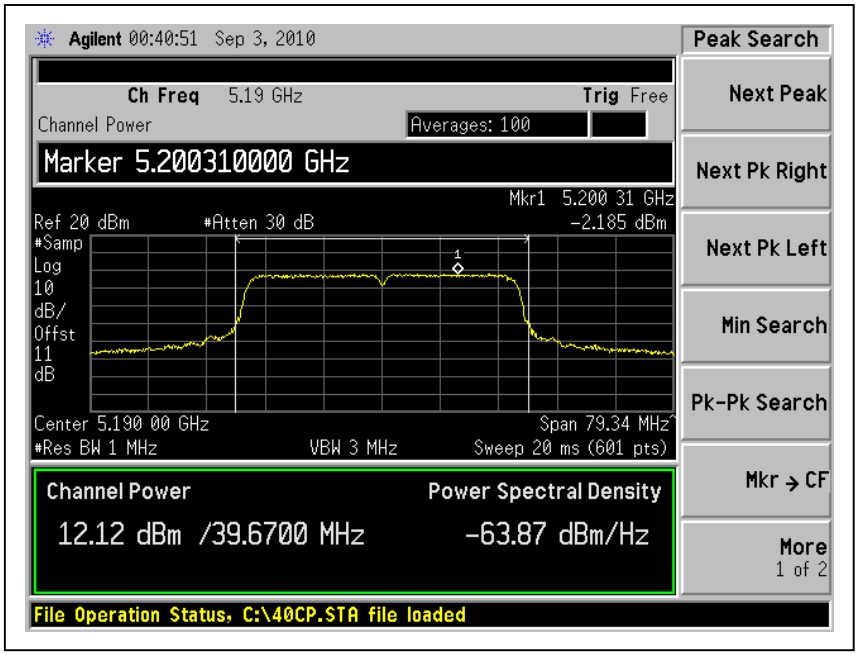

Agilent 04:52:24 Sep 1, 2010
Marker
Mkr1 33.08 MHz
Ref 20 dBm
#Atten 20 dB
1.50 dB
#Peak
Log
10
dB/
Offst
11
dB
Dl
-18.5
dBm
LgAv
V1 S2
S3 FC
£(f):
FTun
Swp
1R
1
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Center 5.600 00 GHz
Span 50 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2009 Agilent Technologies

802.11n (40MHz) OFDM MODULATION:

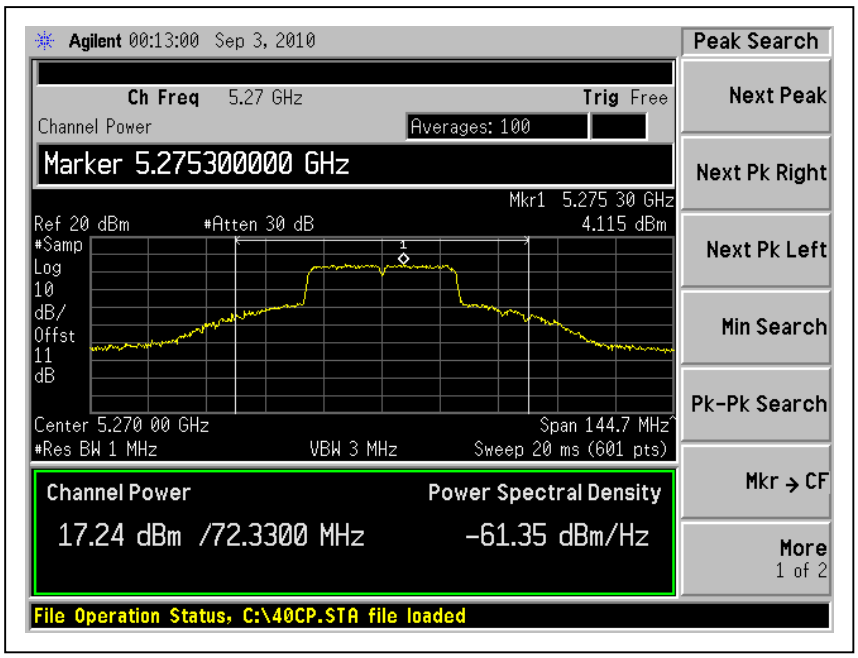
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)			TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/ FAIL
		Chain 0	Chain 1	Chain 2					
38	5190	12.1	12.0	11.6	46.5	16.7	17.0	39.67	PASS
46	5230	12.1	11.7	11.8	46.1	16.6	17.0	39.83	PASS
54	5270	17.1	16.8	17.2	151.6	21.8	24.0	72.33	PASS
62	5310	14.1	13.4	14.1	73.3	18.7	24.0	39.5	PASS
102	5510	11.0	10.9	11.0	37.5	15.7	24.0	39.67	PASS
118	5590	16.5	16.5	17.0	139.5	21.4	24.0	69.17	PASS
134	5670	15.0	15.0	15.0	94.9	19.8	24.0	49.67	PASS

NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.

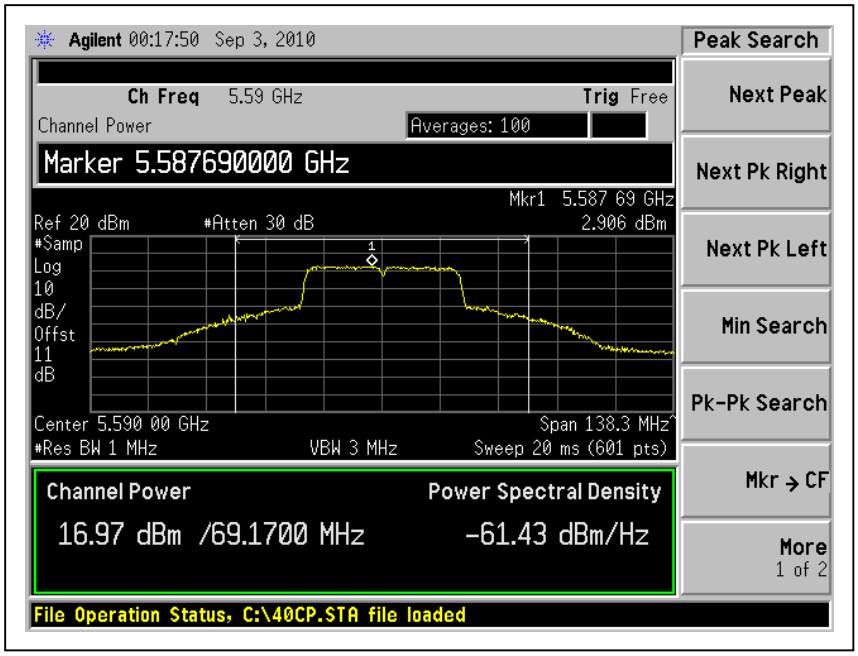
Peak Power Output:
For Chain (0) **:**CH38



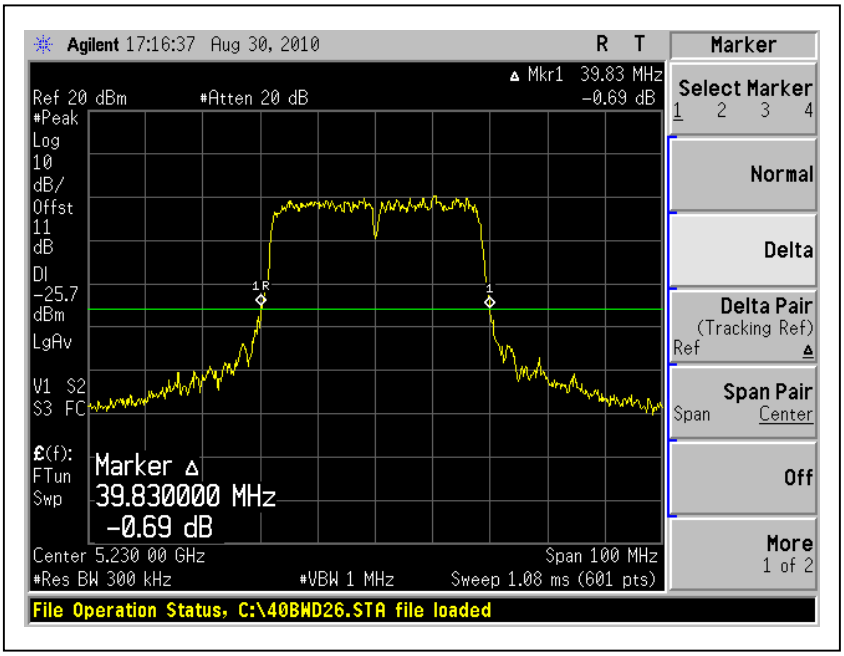
For Chain (2) :CH54



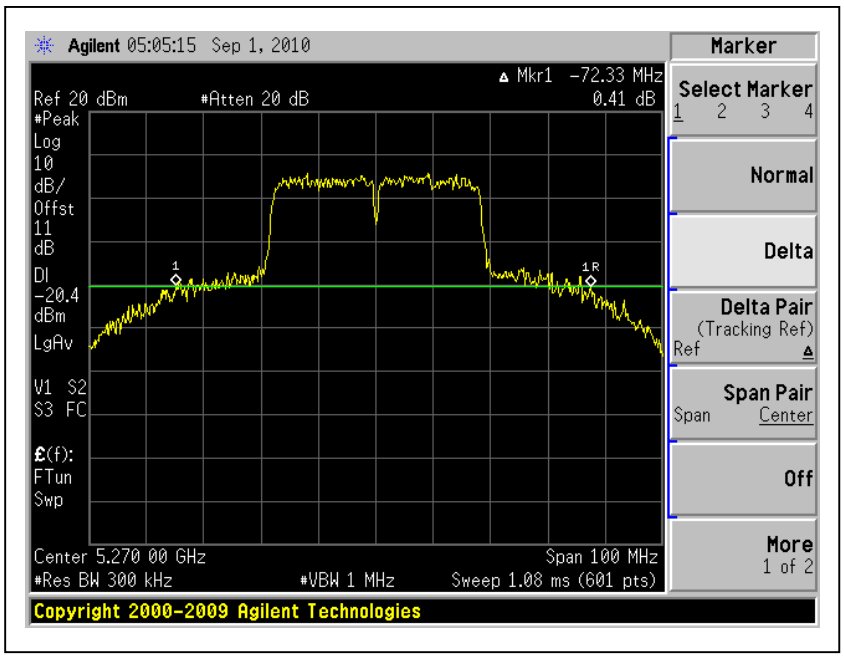
For Chain (2) :CH118



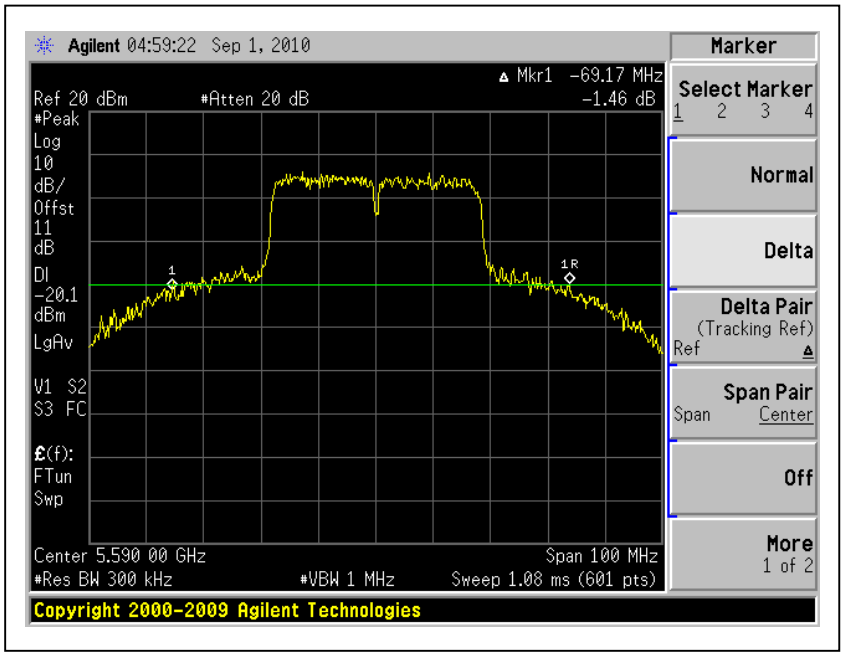
26dB Occupied Bandwidth:
CH46



CH54



CH118


Agilent 04:59:22 Sep 1, 2010
Marker
Mkr1 -69.17 MHz
-1.46 dB
Ref 20 dBm
#Atten 20 dB
#Peak
Log
10
dB/
Offst
11
dB
Dl
-20.1
dBm
LgAv
V1 S2
S3 FC
£(f):
FTun
Swp
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Center 5.590 00 GHz
Span 100 MHz
#Res BW 300 kHz
#VBW 1 MHz
Sweep 1.08 ms (601 pts)
Copyright 2000-2009 Agilent Technologies

4.4 PEAK POWER EXCURSION MEASUREMENT

4.4.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

Frequency Band	Limit
5.15 – 5.25 GHz	13dB
5.25 – 5.35 GHz	13dB
5.47 – 5.725GHz	13dB
5.725 – 5.825 GHz	13dB

4.4.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer	E4446A	MY48250254	July 14, 2010	July 13, 2011

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

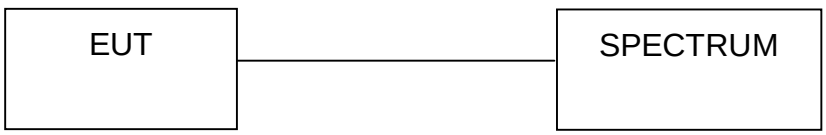
4.4.3 TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer.
2. Set the spectrum bandwidth span to view the entire spectrum.
3. Using peak detector and Max-hold function for Trace 1 (RB=1MHz, VB=3MHz) and 2 (RB=1MHz, VB=300kHz).
4. The largest difference between Trace 1 and Trace 2 in any 1MHz band on any frequency was recorded.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation

4.4.5 TEST SETUP



4.4.6 EUT OPERATING CONDITIONS

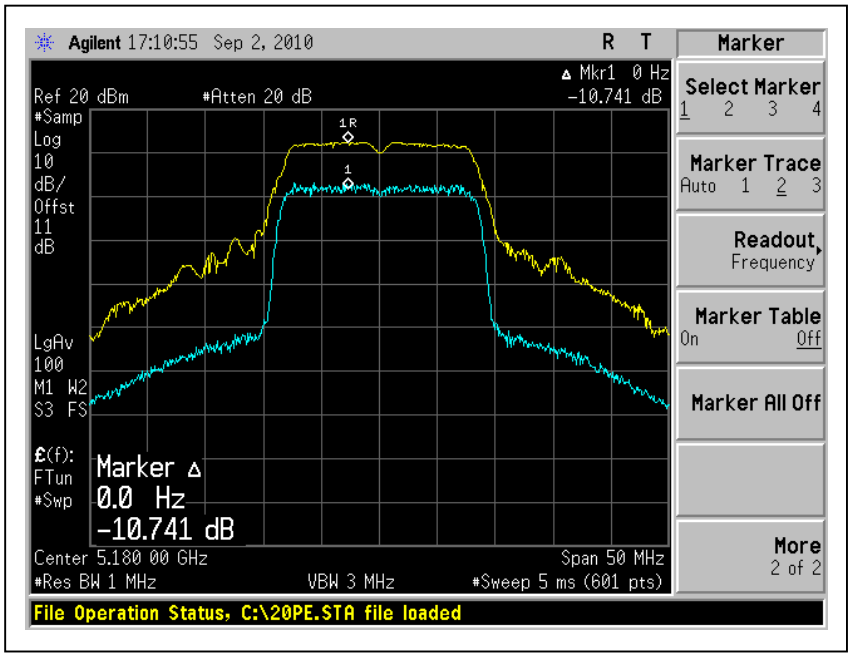
The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

4.4.7 TEST RESULTS

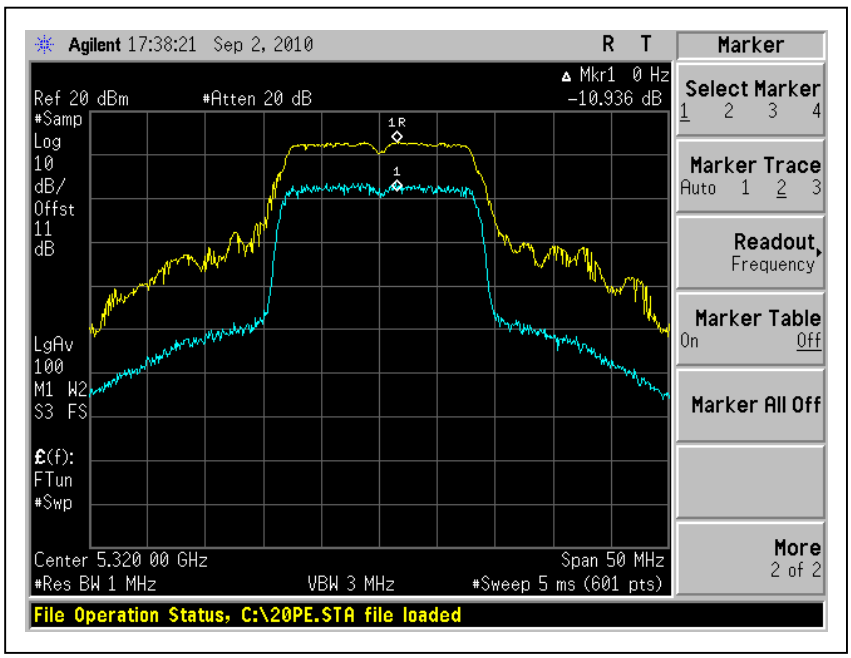
802.11a OFDM MODULATION

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
36	5180	10.7	13	PASS
40	5200	10.7	13	PASS
48	5240	10.7	13	PASS
52	5260	10.4	13	PASS
60	5300	10.4	13	PASS
64	5320	10.9	13	PASS
100	5500	11.2	13	PASS
120	5600	10.4	13	PASS
140	5700	10.9	13	PASS

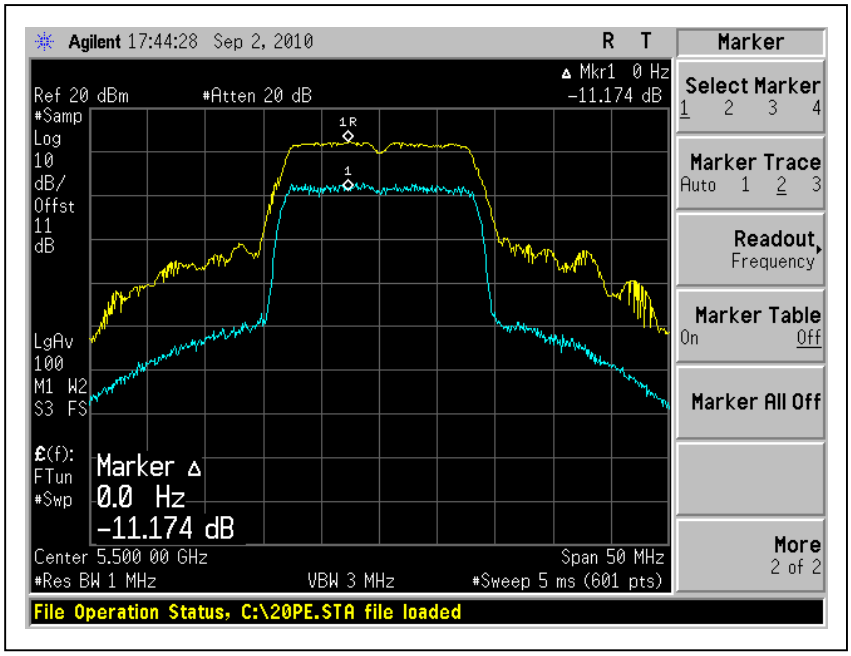
CH36


Agilent 17:10:55 Sep 2, 2010
R T
Marker
Δ Mkr1 0 Hz
-10.741 dB
Ref 20 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Offst
11
dB
1R
1
LgAv
100
M1 W2
S3 FS
£(f):
FTun
#Swp
Marker Δ
0.0 Hz
-10.741 dB
Center 5.180 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
#Sweep 5 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2

CH64


Agilent 17:38:21 Sep 2, 2010
R T
Marker
Δ Mkr1 0 Hz
-10.936 dB
Ref 20 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Offst
11
dB
1R
1
LgAv
100
M1 W2
S3 FS
£(f):
FTun
#Swp
Center 5.320 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
#Sweep 5 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2

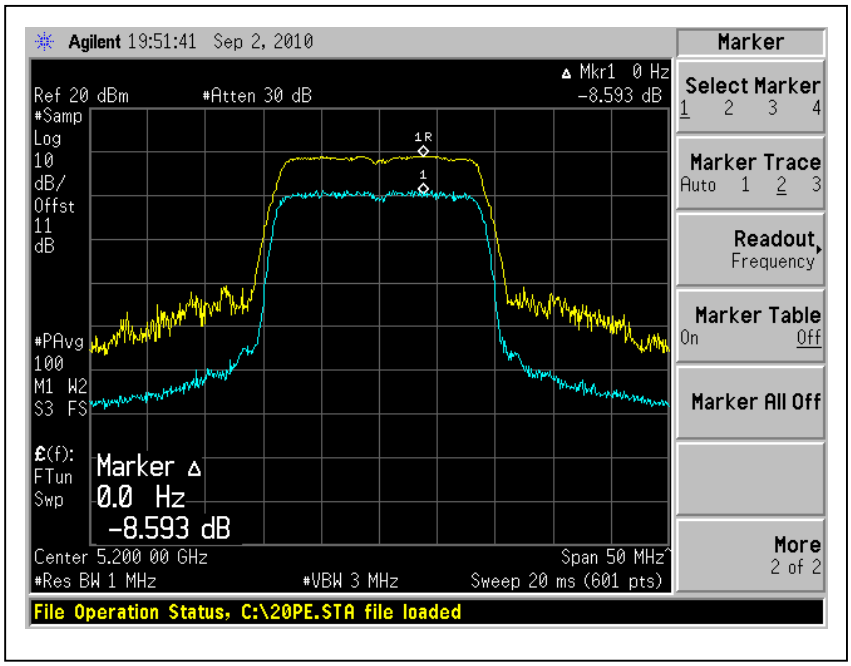
CH100


Agilent 17:44:28 Sep 2, 2010
R T
Ref 20 dBm
#Atten 20 dB
Δ Mkr1 0 Hz
-11.174 dB
#Samp
Log
10
dB/
Offst
11
dB
1R
1
LgAv
100
M1 W2
S3 FS
£(f):
FTun
#Swp
Marker Δ
0.0 Hz
-11.174 dB
Center 5.500 00 GHz
Span 50 MHz
#Res BW 1 MHz
VBW 3 MHz
#Sweep 5 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded
Marker
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2

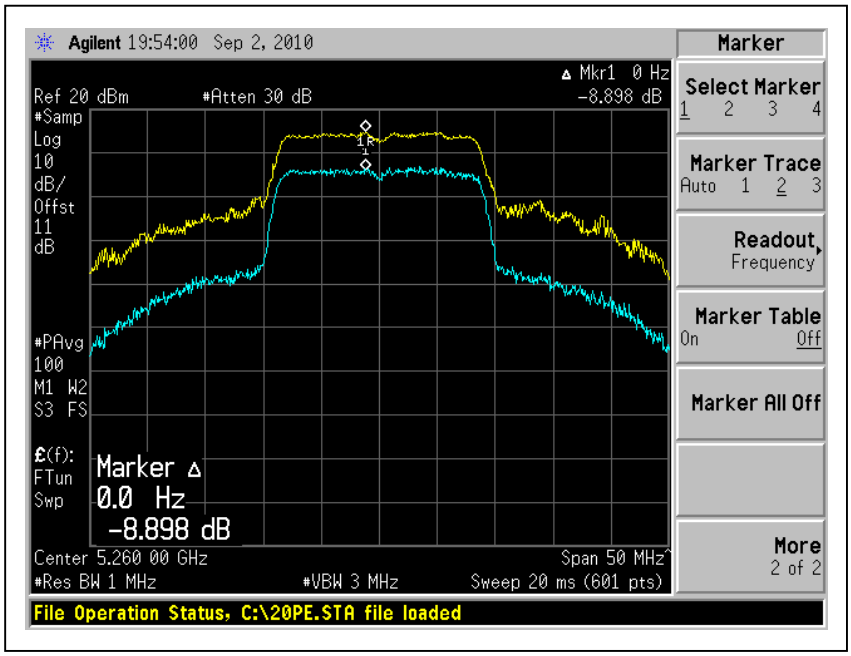
802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
36	5180	8.3	13	PASS
40	5200	8.6	13	PASS
48	5240	8.5	13	PASS
52	5260	8.9	13	PASS
60	5300	8.5	13	PASS
64	5320	8.3	13	PASS
100	5500	8.7	13	PASS
120	5600	9.2	13	PASS
140	5700	8.9	13	PASS

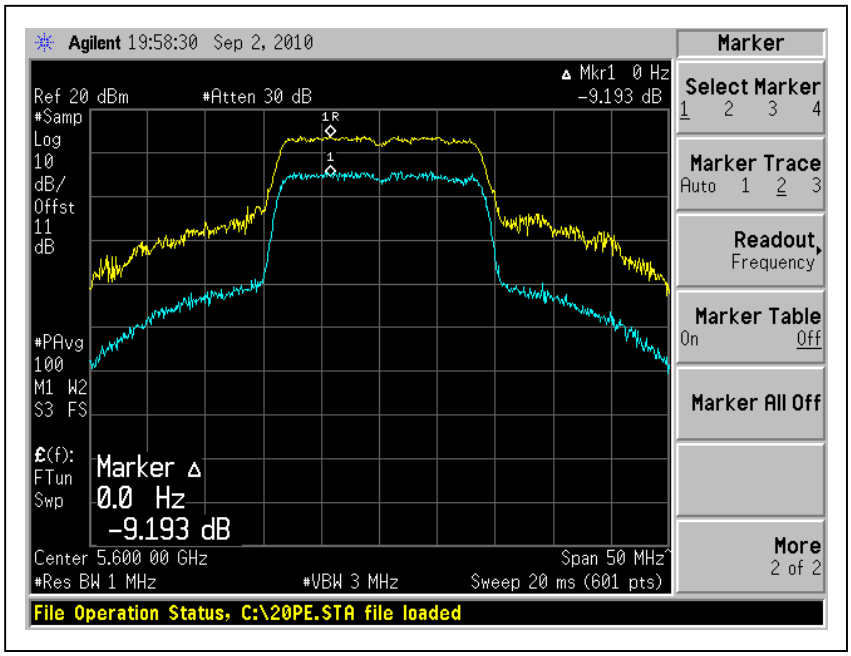
CH40


Agilent 19:51:41 Sep 2, 2010
Marker
Mkr1 0 Hz
-8.593 dB
Ref 20 dBm
#Atten 30 dB
#Samp
Log
10
dB/
Offst
11
dB
#PAvg
100
M1 W2
S3 FS
£(f):
FTun
Swp
Marker Δ
0.0 Hz
-8.593 dB
Center 5.200 00 GHz
Span 50 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 20 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2

CH52


Agilent 19:54:00 Sep 2, 2010
Marker
Mkr1 0 Hz
-8.898 dB
Ref 20 dBm
#Atten 30 dB
#Samp
Log
10
dB/
Offst
11
dB
#PAvg
100
M1 W2
S3 FS
£(f):
FTun
Swp
Marker Δ
0.0 Hz
-8.898 dB
Center 5.260 00 GHz
Span 50 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 20 ms (601 pts)
File Operation Status, C:\20PE.STA file loaded
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2

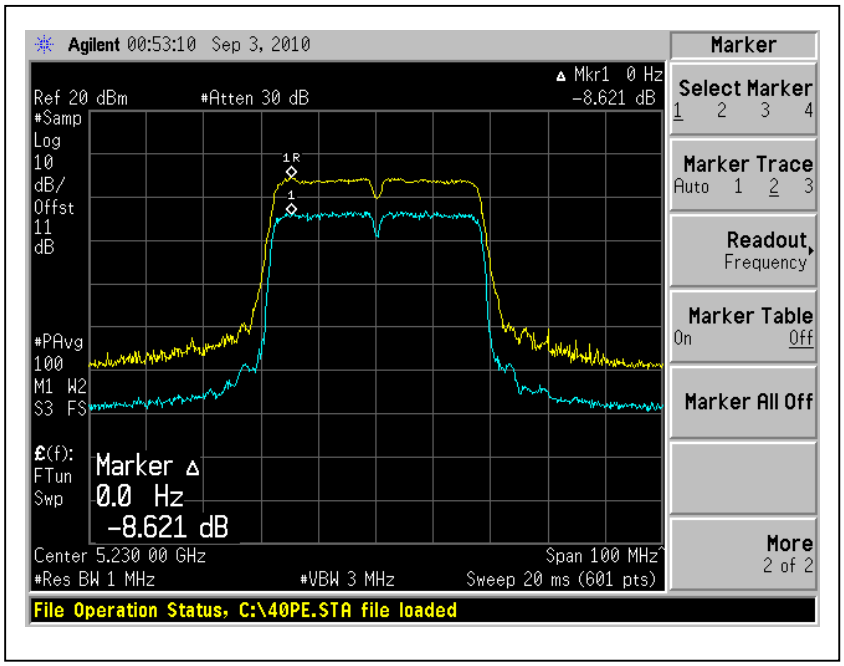
CH120


Agilent 19:58:30 Sep 2, 2010
Ref 20 dBm
#Atten 30 dB
Mkr1 0 Hz
-9.193 dB
#Samp
Log
10
dB/
Offst
11
dB
#PAvg
100
M1 W2
S3 FS
£(f):
FTun
Swp
Marker Δ
0.0 Hz
-9.193 dB
Center 5.600 00 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 50 MHz
Sweep 20 ms (601 pts)
Marker
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
File Operation Status, C:\20PE.STA file loaded

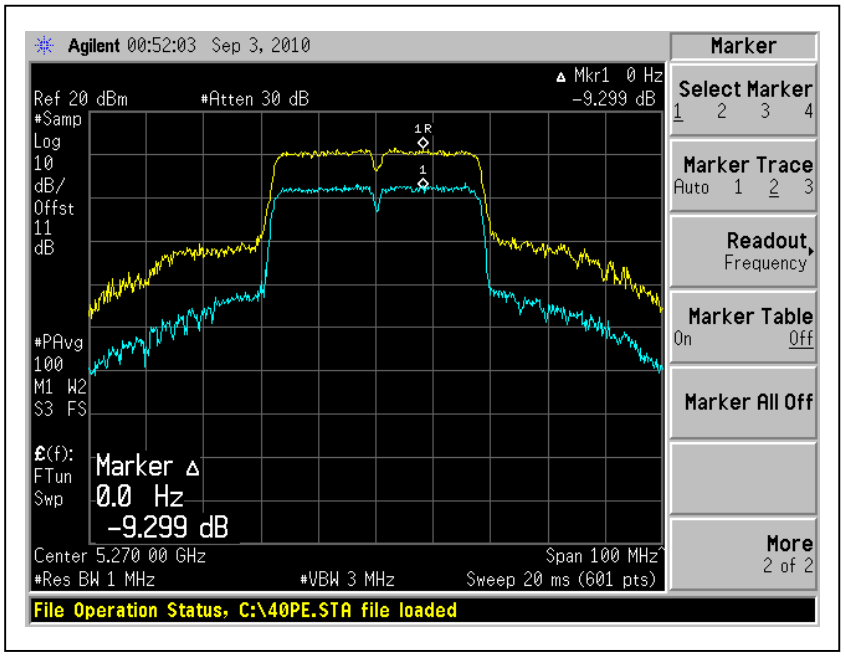
802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
38	5190	8.5	13	PASS
46	5230	8.6	13	PASS
54	5270	9.3	13	PASS
62	5310	8.6	13	PASS
102	5510	8.8	13	PASS
118	5590	9.0	13	PASS
134	5670	8.8	13	PASS

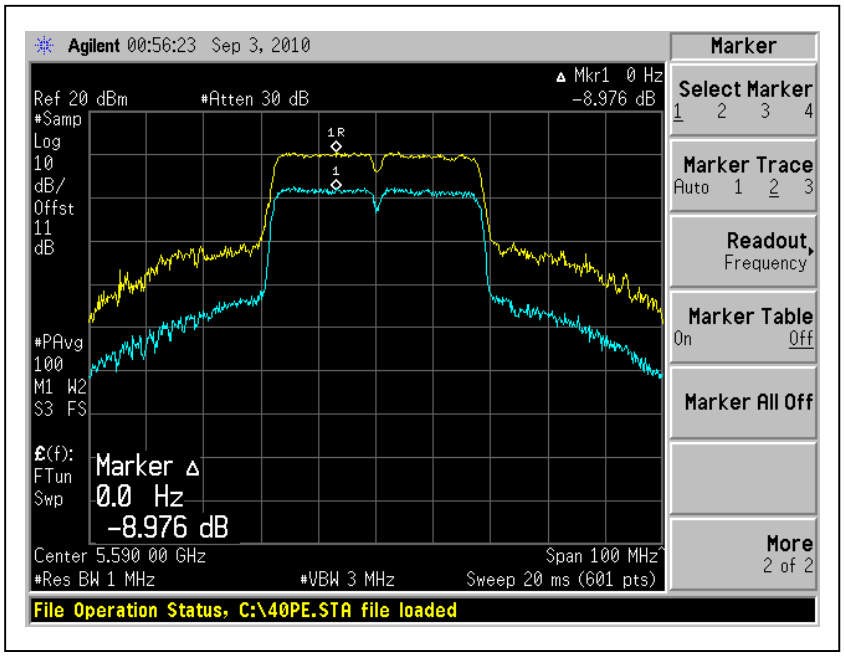
CH46


Agilent 00:53:10 Sep 3, 2010
Marker
Ref 20 dBm
#Atten 30 dB
Mkr1 0 Hz
-8.621 dB
#Samp
Log
10
dB/
Offst
11
dB
#PAvg
100
M1 W2
S3 FS
£(f):
FTun
Swp
Marker Δ
0.0 Hz
-8.621 dB
Center 5.230 00 GHz
Span 100 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 20 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
File Operation Status, C:\40PE.STA file loaded

CH54


Agilent 00:52:03 Sep 3, 2010
Marker
Ref 20 dBm
#Atten 30 dB
Mkr1 0 Hz
-9.299 dB
#Samp
Log
10
dB/
Offst
11
dB
#PAvg
100
M1 W2
S3 FS
£(f):
FTun
Swp
Marker Δ
0.0 Hz
-9.299 dB
Center 5.270 00 GHz
Span 100 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 20 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
File Operation Status, C:\40PE.STA file loaded

CH118


Agilent 00:56:23 Sep 3, 2010
Marker
Ref 20 dBm
#Atten 30 dB
Mkr1 0 Hz
-8.976 dB
#Samp
Log
10
dB/
Offst
11
dB
1R
1
#PAvg
100
M1 W2
S3 FS
£(f):
FTun
Swp
Marker Δ
0.0 Hz
-8.976 dB
Center 5.590 00 GHz
Span 100 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 20 ms (601 pts)
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Marker Table
On Off
Marker All Off
More
2 of 2
File Operation Status, C:\40PE.STA file loaded

4.5 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

Frequency Band	Limit
5.15 ~ 5.25GHz	4dBm
5.25 ~ 5.35GHz	11dBm
5.47 – 5.725GHz	11dBm
5.725 ~ 5.825GHz	17dBm

4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer	E4446A	MY48250254	July 14, 2010	July 13, 2011

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

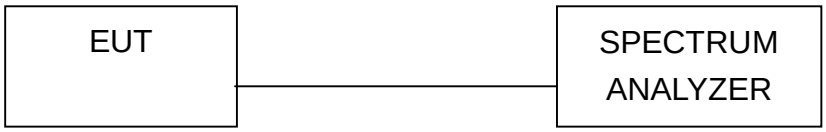
4.5.3 TEST PROCEDURES

1. The transmitter output was connected to the spectrum analyzer.
2. Set RBW=1MHz, VBW=3MHz. The PPSD is the highest level found across the emission in any 1MHz band.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITIONS

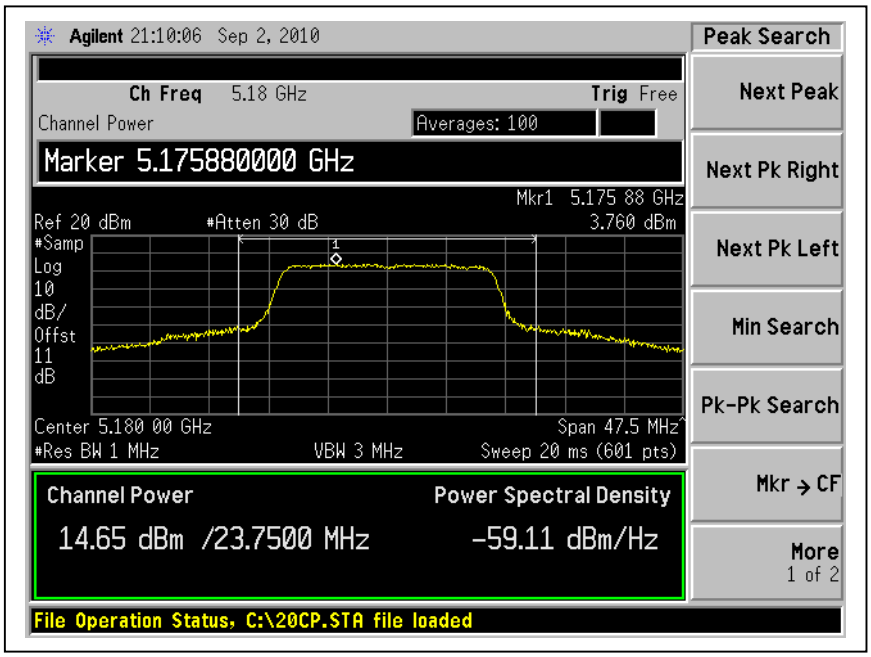
Same as 4.3.6

4.5.7 TEST RESULTS

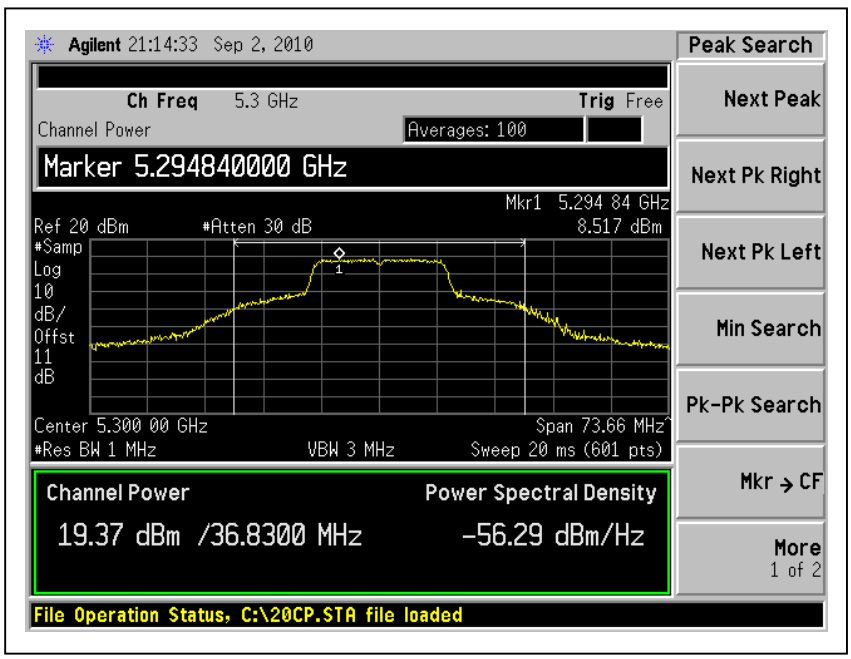
802.11a OFDM MODULATION

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	3.8	4	PASS
40	5200	3.6	4	PASS
48	5240	3.4	4	PASS
52	5260	8.4	11	PASS
60	5300	8.5	11	PASS
64	5320	6.7	11	PASS
100	5500	6.4	11	PASS
120	5600	8.0	11	PASS
140	5700	6.3	11	PASS

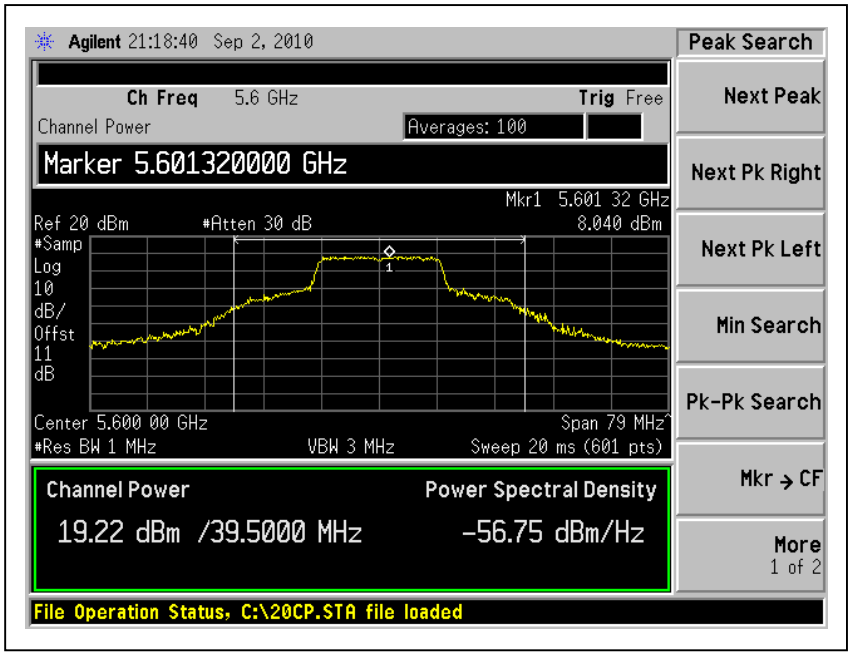
CH36


Agilent 21:10:06 Sep 2, 2010
Peak Search
Ch Freq 5.18 GHz
Trig Free
Channel Power
Averages: 100
Marker 5.175880000 GHz
Mkr1 5.175 88 GHz
Ref 20 dBm
#Atten 30 dB
3.760 dBm
#Samp
Log
10
dB/
Offst
11
dB
Center 5.180 00 GHz
Span 47.5 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 20 ms (601 pts)
Channel Power
14.65 dBm /23.7500 MHz
Power Spectral Density
-59.11 dBm/Hz
File Operation Status, C:\20CP.STA file loaded
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2

CH60


Agilent 21:14:33 Sep 2, 2010
Peak Search
Ch Freq 5.3 GHz
Trig Free
Channel Power
Averages: 100
Marker 5.294840000 GHz
Mkr1 5.294 84 GHz
Ref 20 dBm
#Atten 30 dB
8.517 dBm
#Samp
Log
10
dB/
Offst
11
dB
Center 5.300 00 GHz
Span 73.66 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 20 ms (601 pts)
Channel Power
19.37 dBm /36.8300 MHz
Power Spectral Density
-56.29 dBm/Hz
File Operation Status, C:\20CP.STA file loaded
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2

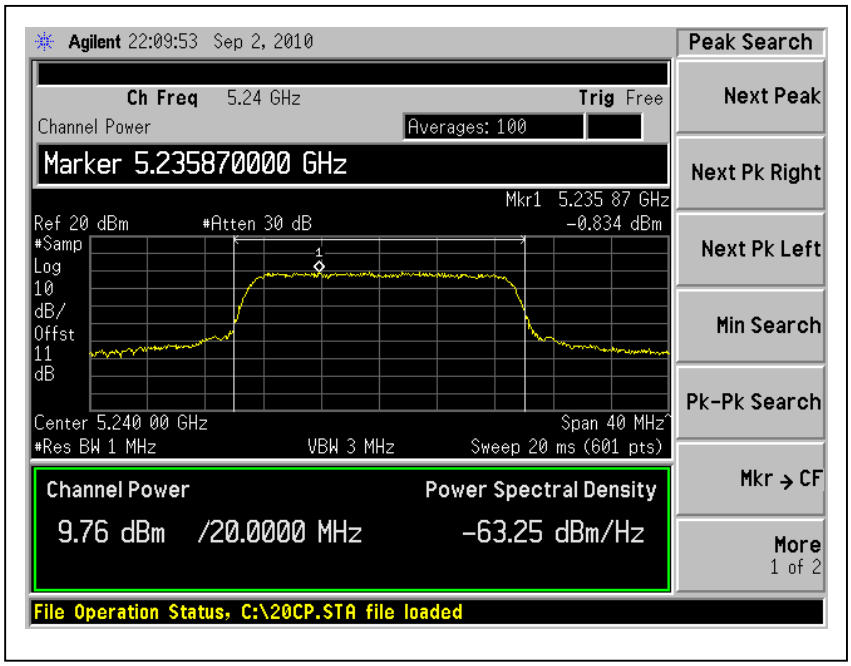
CH120


Agilent 21:18:40 Sep 2, 2010
Peak Search
Ch Freq 5.6 GHz
Trig Free
Channel Power
Averages: 100
Marker 5.601320000 GHz
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Mkr1 5.601 32 GHz
Ref 20 dBm
#Atten 30 dB
8.040 dBm
#Samp
Log
10
dB/
Offst
11
dB
Center 5.600 00 GHz
Span 79 MHz
#Res BW 1 MHz
VBW 3 MHz
Sweep 20 ms (601 pts)
Channel Power
19.22 dBm /39.5000 MHz
Power Spectral Density
-56.75 dBm/Hz
File Operation Status, C:\20CP.STA file loaded

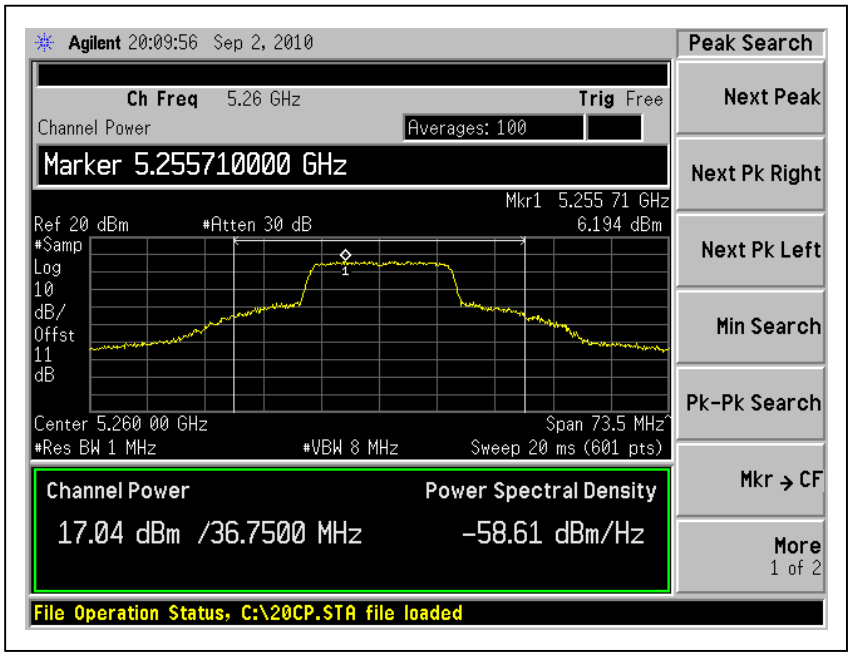
802.11n (20MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL OUTPUT POWER DENSITY (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
		Chain 0	Chain 1	Chain 2			
36	5180	-1.3	-1.4	-1.2	3.5	4	PASS
40	5200	-1.3	-1.4	-1.3	3.4	4	PASS
48	5240	-1.0	-0.8	-1.2	3.8	4	PASS
52	5260	5.9	6.2	6.1	10.8	11	PASS
60	5300	3.8	3.1	1.5	7.7	11	PASS
64	5320	2.6	1.7	0.3	6.4	11	PASS
100	5500	2.1	1.7	2.1	6.7	11	PASS
120	5600	5.1	5.5	5.9	10.3	11	PASS
140	5700	0.5	1.9	0.9	5.9	11	PASS

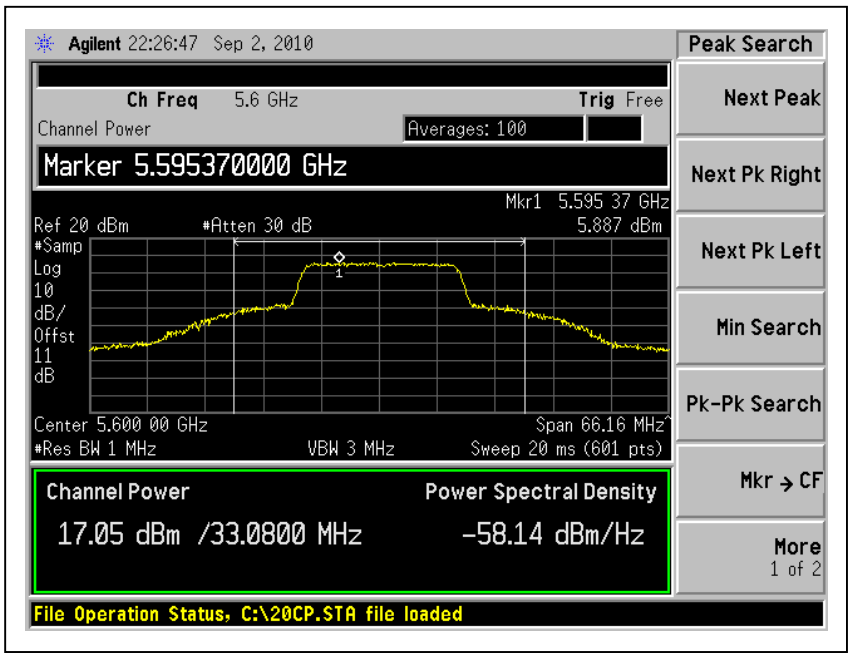
For Chain (1) : CH48



For Chain (1) : CH52



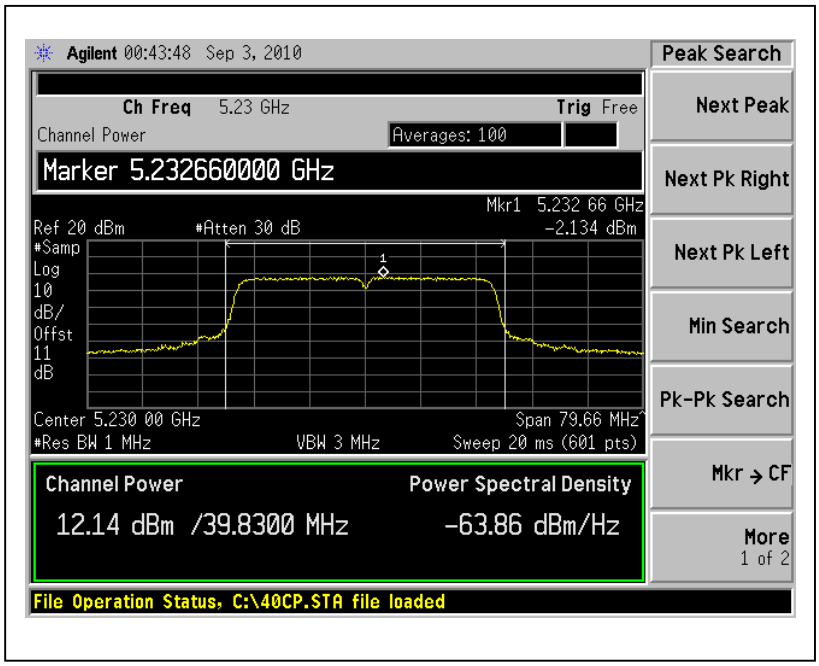
For Chain (2) : CH120



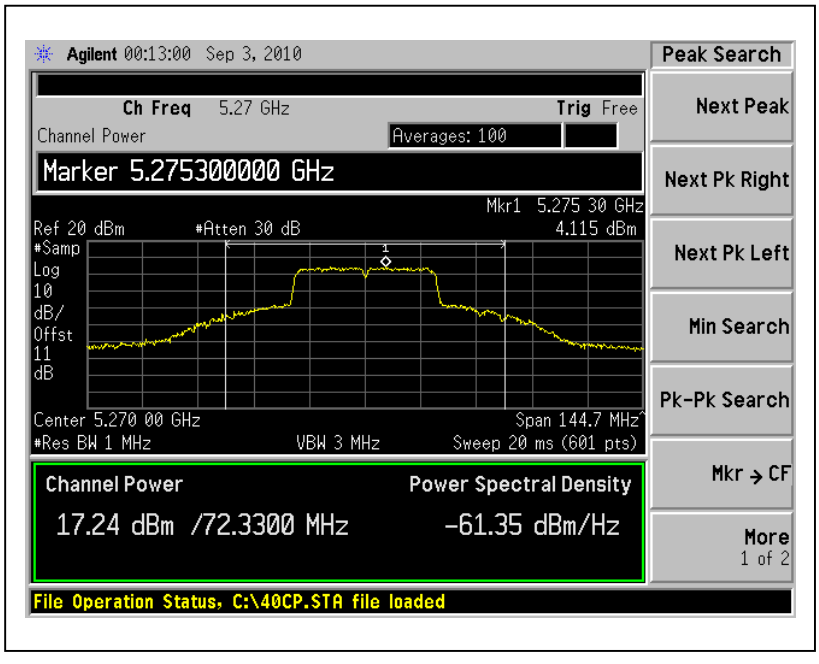
802.11n (40MHz) OFDM MODULATION:

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL OUTPUT POWER DENSITY (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
		Chain 0	Chain 1	Chain 2			
38	5190	-2.2	-2.4	-2.4	2.4	4	PASS
46	5230	-2.1	-2.1	-2.4	2.6	4	PASS
54	5270	3.3	2.6	4.1	8.1	11	PASS
62	5310	-0.2	-0.7	-0.2	4.4	11	PASS
102	5510	-2.9	-3.3	-3.3	1.6	11	PASS
118	5590	2.5	2.3	2.9	7.3	11	PASS
134	5670	0.9	0.9	0.9	5.7	11	PASS

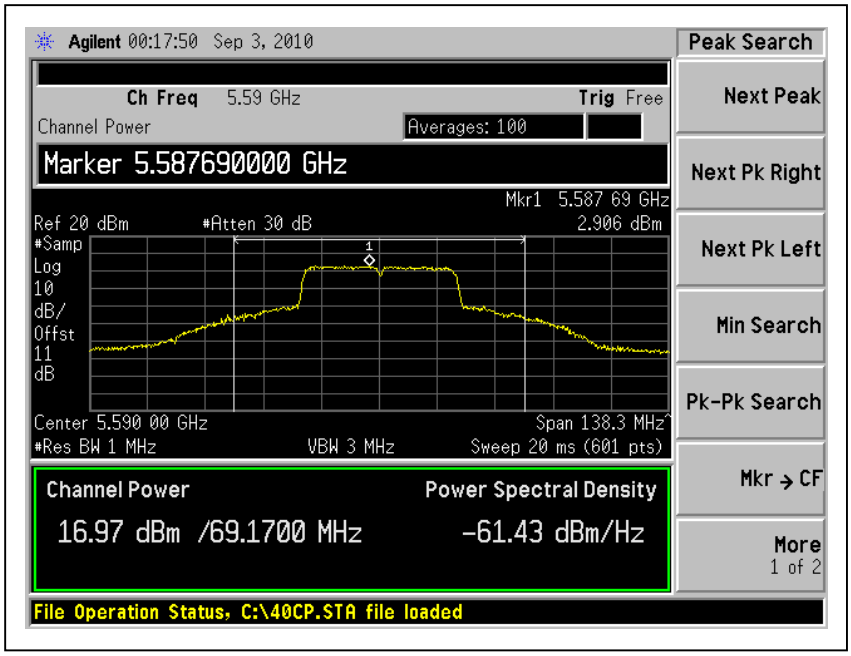
For Chain (0) : CH46



For Chain (2) : CH54



For Chain (2) : CH118



4.6 FREQUENCY STABILITY

4.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

The frequency tolerance of the carrier signal shall be maintained within the band of the operating frequency over a temperature variation of –30 degrees to 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

4.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100036	Dec. 18, 2009	Dec. 17, 2010

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

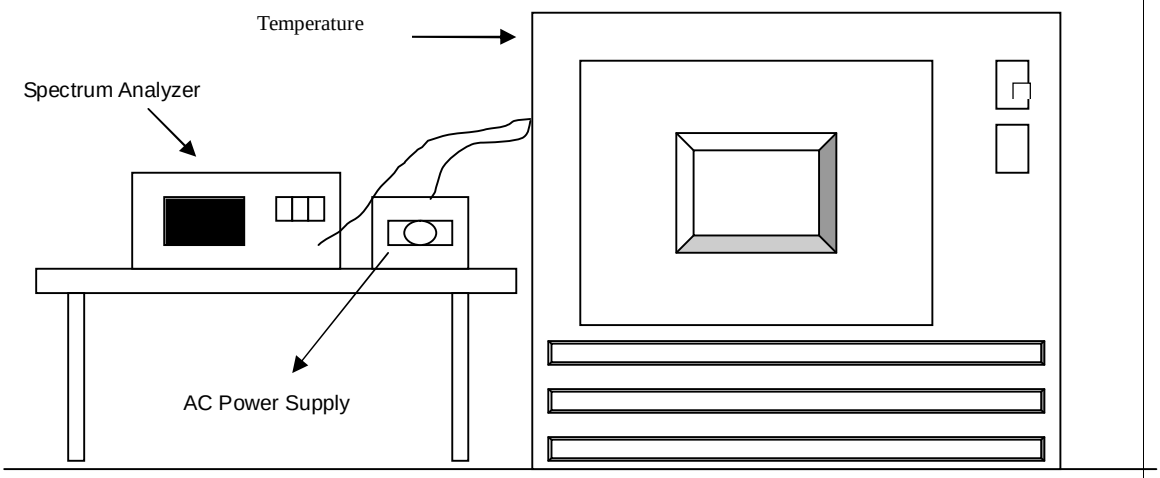
4.6.3 TEST PROCEDURE

1. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
2. Turn the EUT on and couple its output to a spectrum analyzer.
3. Turn the EUT off and set the chamber to the highest temperature specified.
4. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
5. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
6. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 TEST SETUP



4.6.6 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

4.6.7 TEST RESULTS

Operating frequency: 5320MHz									
Temp. (℃)	Power supply (VAC)	0 minute		2 minute		5 minute		10 minute	
		(MHz)	(%)	(MHz)	(%)	(MHz)	(%)	(MHz)	(%)
50	126.5	5319.9982	0.000034	5319.9981	0.000036	5319.9979	0.000039	5319.9970	0.000056
	110	5319.9982	0.000034	5319.9981	0.000036	5319.9981	0.000036	5319.9968	0.000060
	93.5	5319.9982	0.000034	5319.998	0.000038	5319.9978	0.000041	5319.9966	0.000064
40	126.5	5320.0164	0.000308	5320.0149	0.000280	5320.0130	0.000244	5320.0134	0.000252
	110	5320.0162	0.000305	5320.0169	0.000318	5320.0150	0.000282	5320.0158	0.000297
	93.5	5320.0162	0.000305	5320.0139	0.000261	5320.0130	0.000244	5320.0156	0.000293
30	126.5	5320.0088	0.000165	5320.0039	0.000073	5320.0040	0.000075	5320.0044	0.000083
	110	5320.0088	0.000165	5320.0069	0.000130	5320.0050	0.000094	5320.0050	0.000094
	93.5	5320.0068	0.000128	5320.0039	0.000073	5320.0040	0.000075	5320.0048	0.000090
20	126.5	5320.0222	0.000417	5320.0226	0.000425	5320.0228	0.000429	5320.0230	0.000432
	110	5320.0222	0.000417	5320.0225	0.000423	5320.0228	0.000429	5320.0236	0.000444
	93.5	5320.0224	0.000421	5320.0223	0.000419	5320.0228	0.000429	5320.0234	0.000440
10	126.5	5319.9739	0.000491	5319.9835	0.000310	5319.9833	0.000314	5319.9837	0.000306
	110	5319.974	0.000489	5319.9835	0.000310	5319.9835	0.000310	5319.9833	0.000314
	93.5	5319.9839	0.000303	5319.9838	0.000305	5319.9832	0.000316	5319.9836	0.000308
0	126.5	5319.978	0.000414	5319.9778	0.000417	5319.9777	0.000419	5319.9766	0.000440
	110	5319.978	0.000414	5319.978	0.000414	5319.9778	0.000417	5319.9774	0.000425
	93.5	5319.978	0.000414	5319.9778	0.000417	5319.9776	0.000421	5319.9768	0.000436
-10	126.5	5319.9929	0.000133	5319.9927	0.000137	5319.9925	0.000141	5319.9928	0.000135
	110	5319.993	0.000132	5319.9931	0.000130	5319.9929	0.000133	5319.9926	0.000139
	93.5	5319.9929	0.000133	5319.9927	0.000137	5319.9925	0.000141	5319.9923	0.000145
-20	126.5	5320.0158	0.000297	5320.0109	0.000205	5320.0070	0.000132	5320.0064	0.000120
	110	5320.0158	0.000297	5320.0139	0.000261	5320.0100	0.000188	5320.0088	0.000165
	93.5	5320.0158	0.000297	5320.0099	0.000186	5320.0080	0.000150	5320.0074	0.000139
-30	126.5	5319.9974	0.000049	5319.9970	0.000056	5319.9968	0.000060	5319.9958	0.000079
	110	5319.9974	0.000049	5319.9972	0.000053	5319.9971	0.000055	5319.9956	0.000083
	93.5	5319.9974	0.000049	5319.9970	0.000056	5319.9968	0.000060	5319.9953	0.000088

4.7 CONDUCTED OUT-BAND EMISSION MEASUREMENT

4.7.1 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100036	Dec. 18, 2009	Dec. 17, 2010

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

4.7.2 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set RBW of spectrum analyzer to 1MHz with suitable frequency span including 100MHz or 200MHz bandwidth from band edge. The band edges was measured and recorded.

4.7.3 EUT OPERATING CONDITION

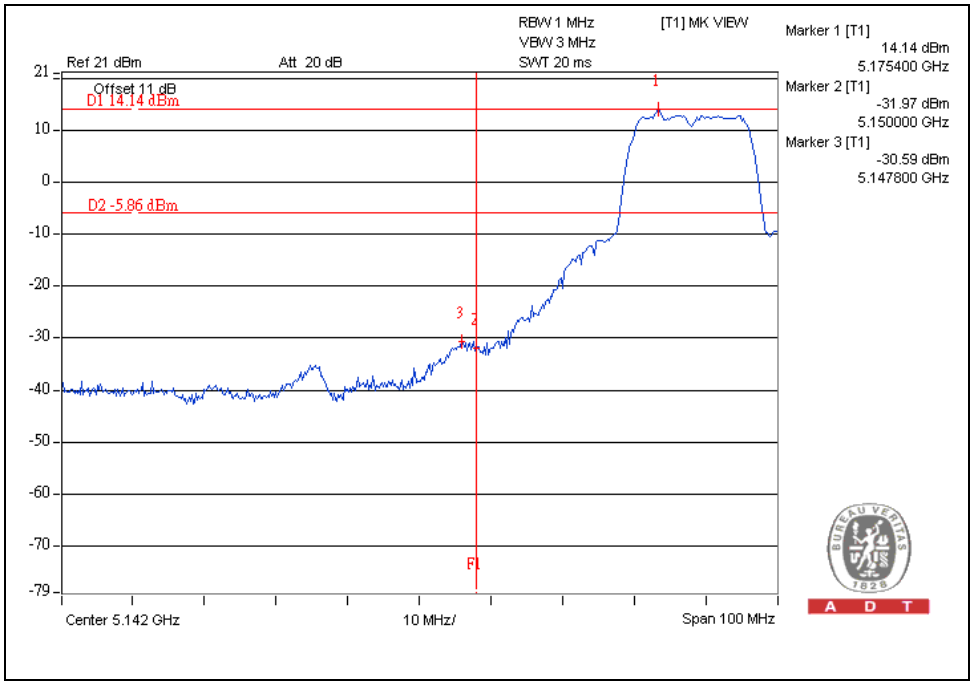
The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

4.7.4 TEST RESULTS

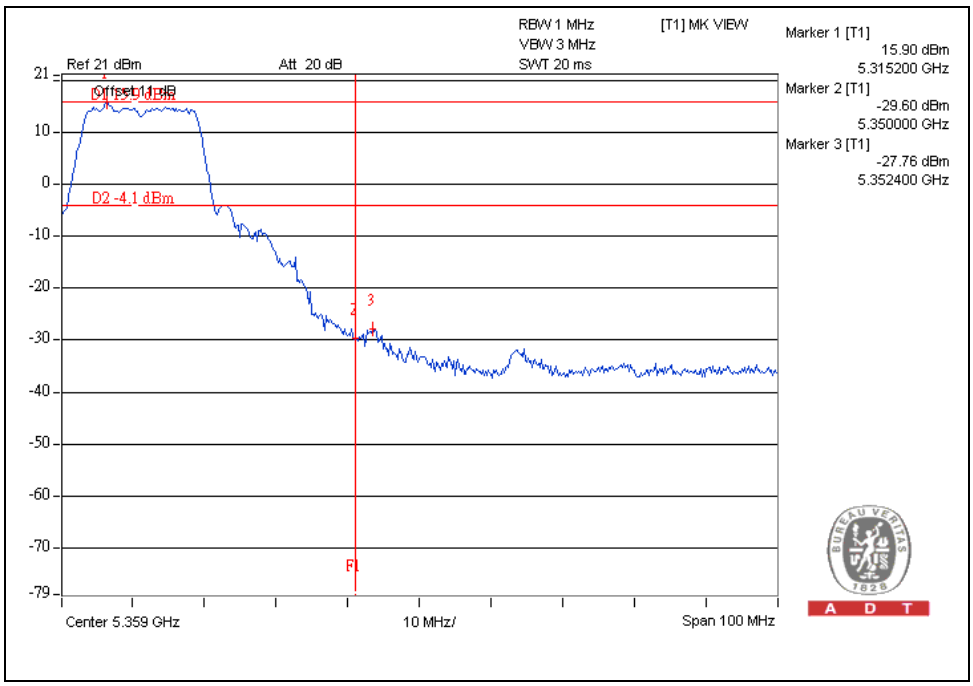
For 5.15 to 5.35GHz band:
The spectrum plots (Peak RBW=1MHz, VBW=3MHz) are attached on the following pages.

802.11a OFDM modulation

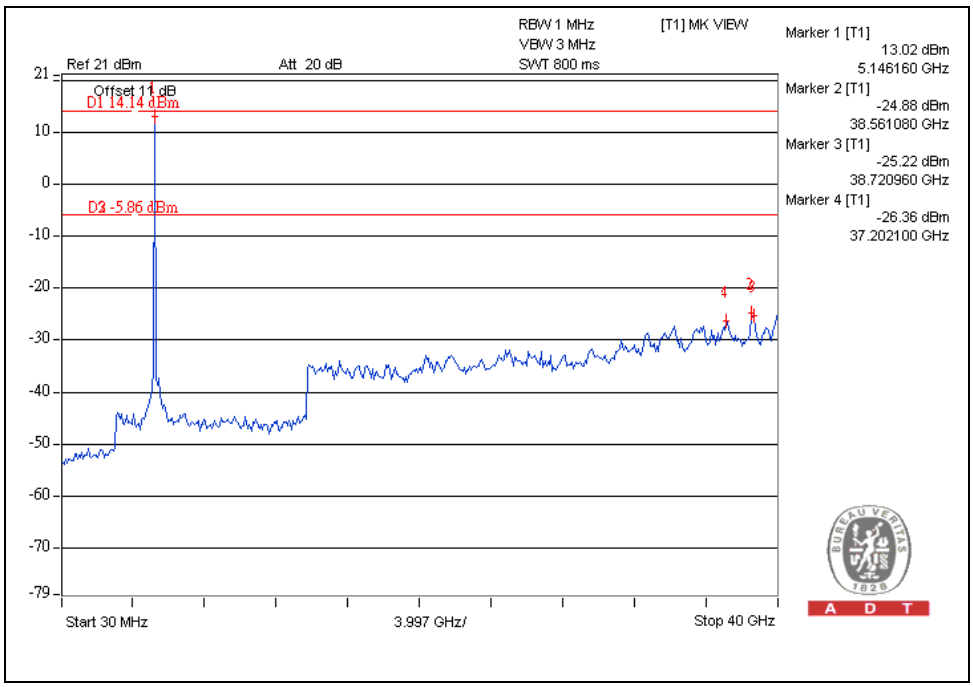
CH 36



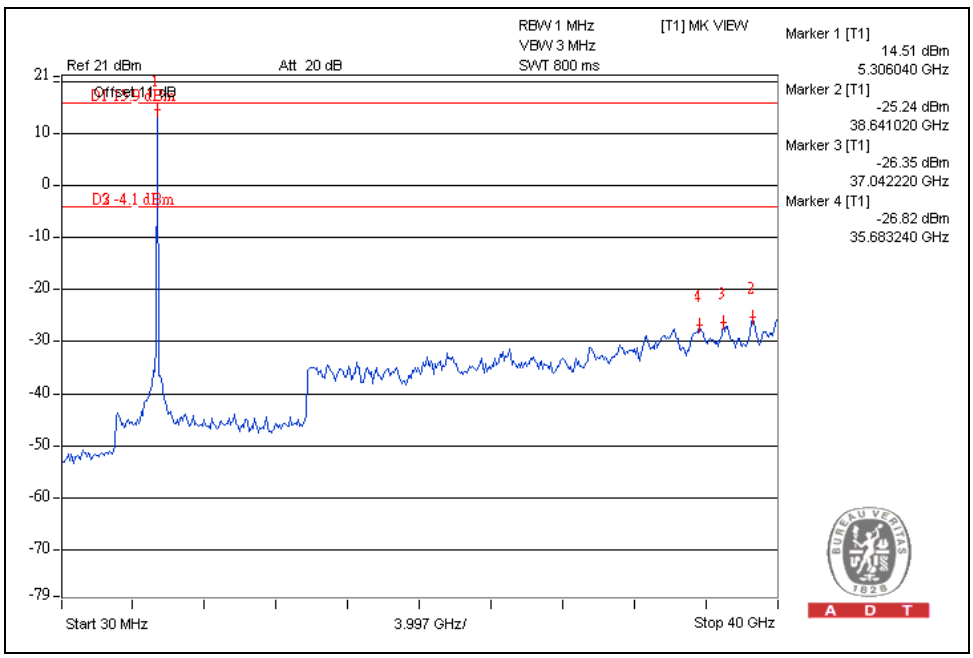
CH 64



CH 36

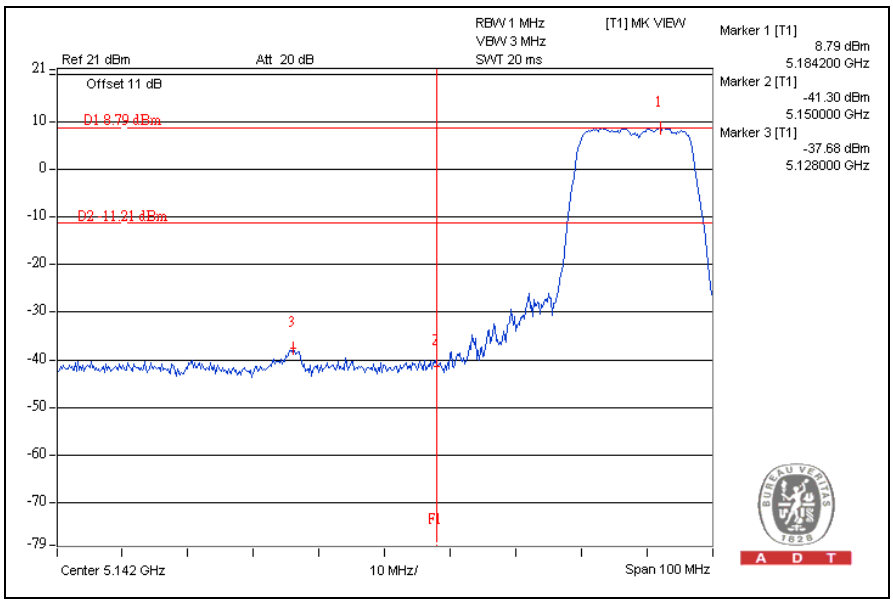

RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 21 dBm
Att 20 dB
Offset 11 dB
D1 14.14 dBm
D2 -5.86 dBm
Marker 1 [T1]
13.02 dBm
5.146160 GHz
Marker 2 [T1]
-24.88 dBm
38.561080 GHz
Marker 3 [T1]
-25.22 dBm
38.720960 GHz
Marker 4 [T1]
-26.36 dBm
37.202100 GHz
21
10
0
-10
-20
-30
-40
-50
-60
-70
-79
Start 30 MHz
3.997 GHz/
Stop 40 GHz

CH 64

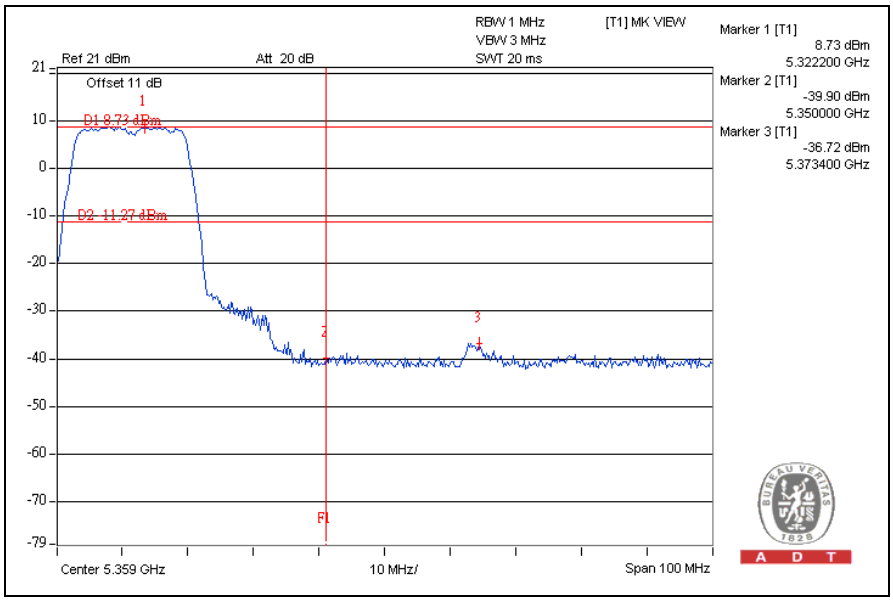

RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 21 dBm
Att 20 dB
D2 -4.1 dBm
Marker 1 [T1]
14.51 dBm
5.306040 GHz
Marker 2 [T1]
-25.24 dBm
38.641020 GHz
Marker 3 [T1]
-26.35 dBm
37.042220 GHz
Marker 4 [T1]
-26.82 dBm
35.683240 GHz
21
10
0
-10
-20
-30
-40
-50
-60
-70
-79
Start 30 MHz
3.997 GHz/
Stop 40 GHz

802.11n (20MHz) OFDM MODULATION:

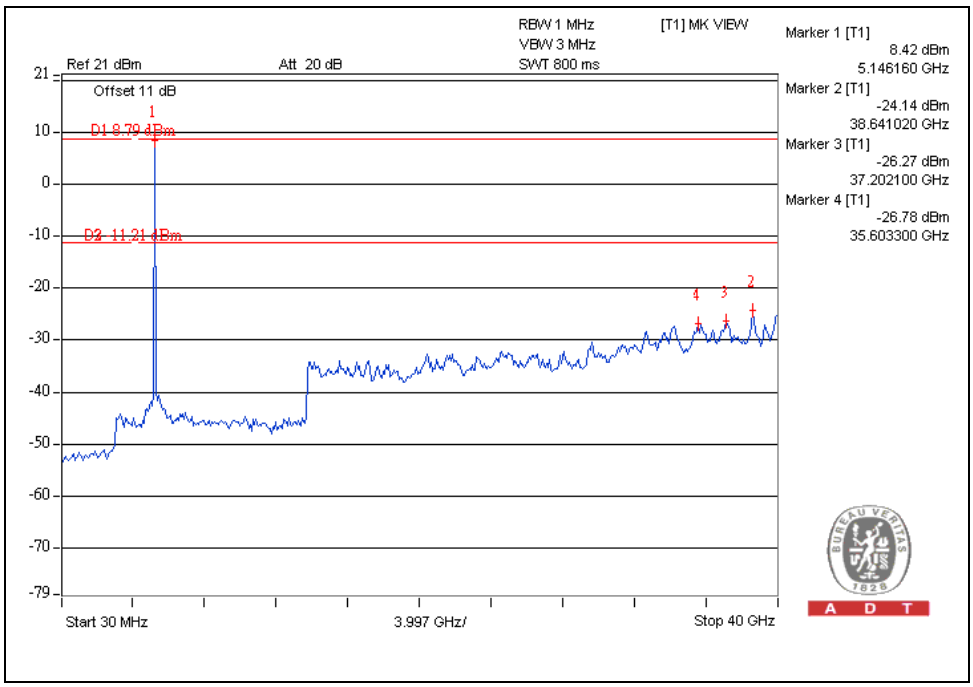
CH36



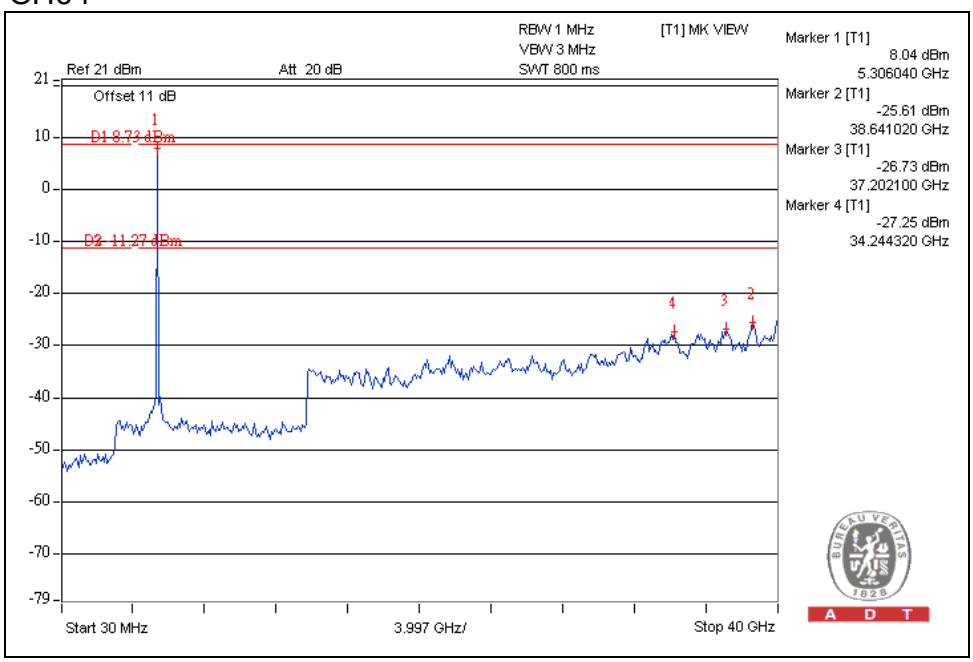
CH64



CH36

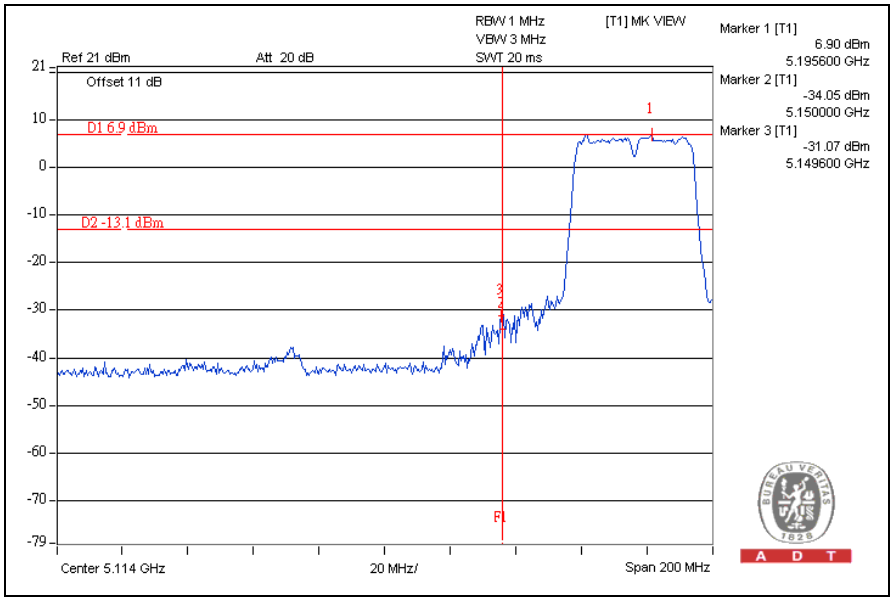

RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 21 dBm
Att 20 dB
Offset 11 dB
D1 8.79 dBm
D2 -11.21 dBm
Marker 1 [T1]
8.42 dBm
5.146160 GHz
Marker 2 [T1]
-24.14 dBm
38.641020 GHz
Marker 3 [T1]
-26.27 dBm
37.202100 GHz
Marker 4 [T1]
-26.78 dBm
35.603300 GHz
21
10
0
-10
-20
-30
-40
-50
-60
-70
-79
Start 30 MHz
3.997 GHz/
Stop 40 GHz

CH64

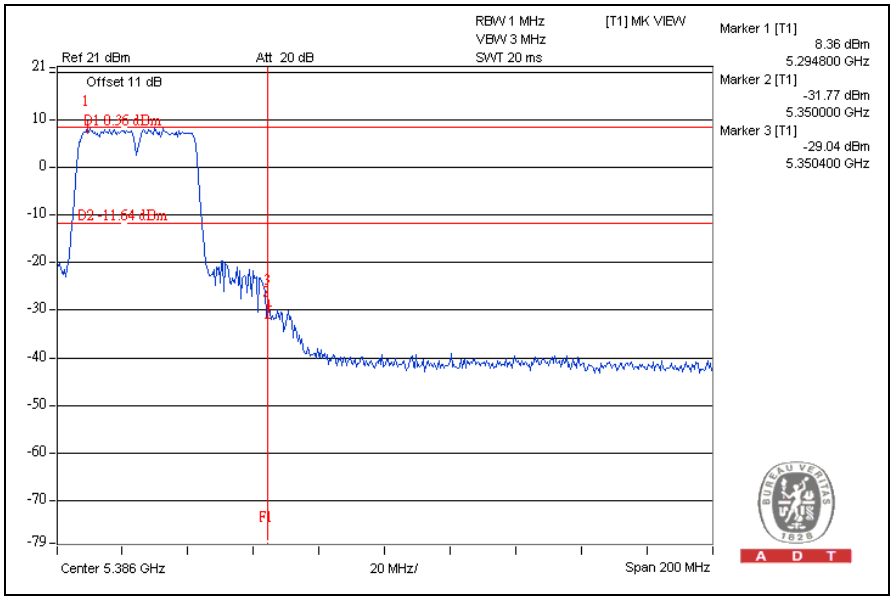

RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 21 dBm
Att 20 dB
Offset 11 dB
D1 8.73 dBm
D2 -11.27 dBm
Marker 1 [T1]
8.04 dBm
5.306040 GHz
Marker 2 [T1]
-25.61 dBm
38.641020 GHz
Marker 3 [T1]
-26.73 dBm
37.202100 GHz
Marker 4 [T1]
-27.25 dBm
34.244320 GHz
21
10
0
-10
-20
-30
-40
-50
-60
-70
-79
Start 30 MHz
3.997 GHz/
Stop 40 GHz

802.11n (40MHz) OFDM MODULATION:

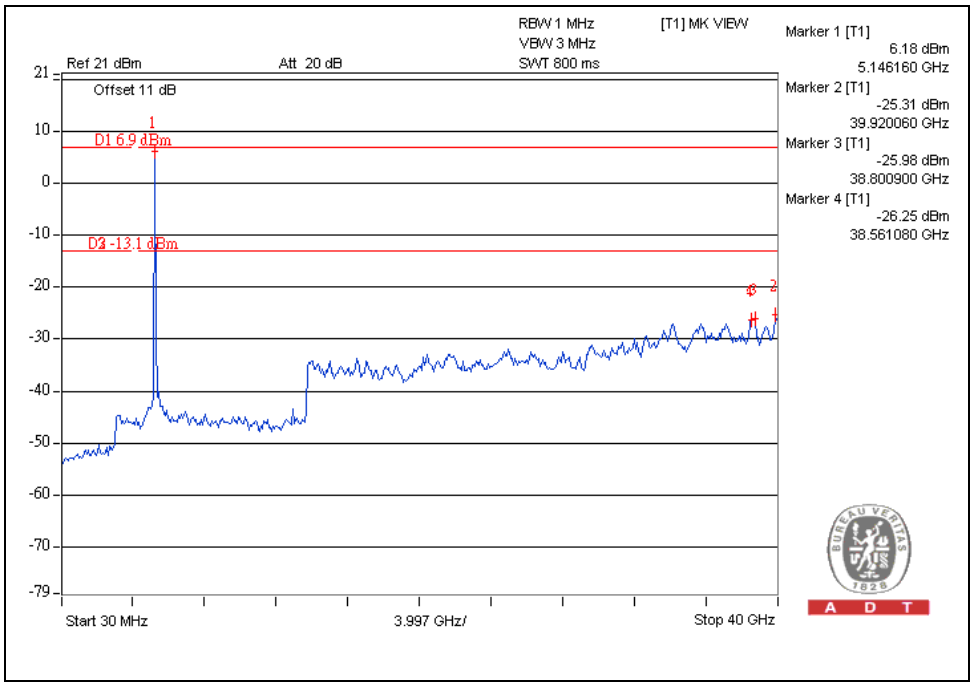
CH38



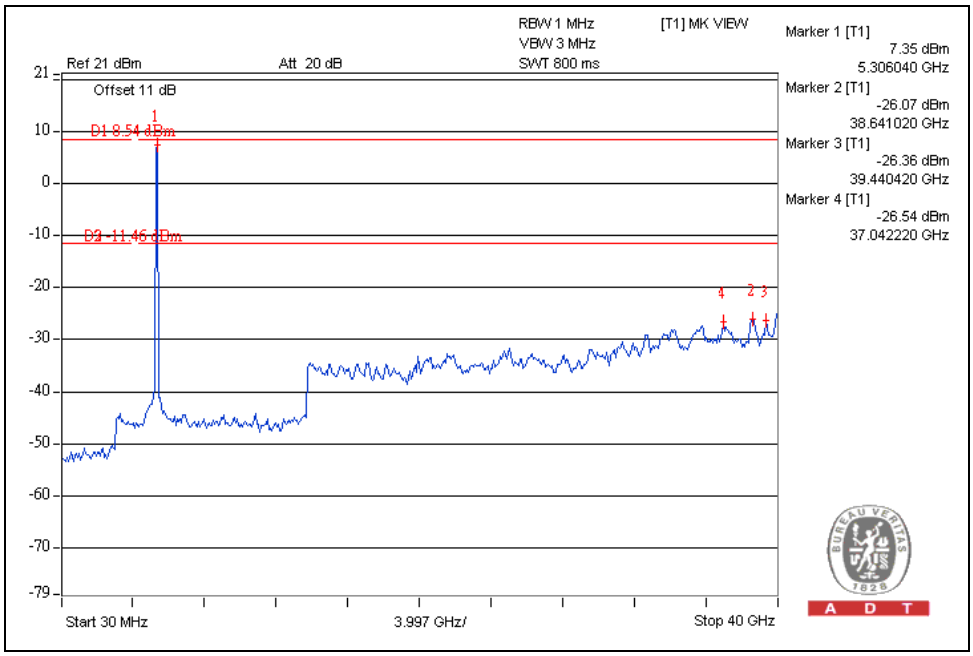
CH62



CH38


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 21 dBm
Att 20 dB
Offset 11 dB
D1 6.9 dBm
D2 -13.1 dBm
Marker 1 [T1]
6.18 dBm
5.146160 GHz
Marker 2 [T1]
-25.31 dBm
39.920060 GHz
Marker 3 [T1]
-25.98 dBm
38.800900 GHz
Marker 4 [T1]
-26.25 dBm
38.561080 GHz
21
10
0
-10
-20
-30
-40
-50
-60
-70
-79
Start 30 MHz
3.997 GHz/
Stop 40 GHz

CH62

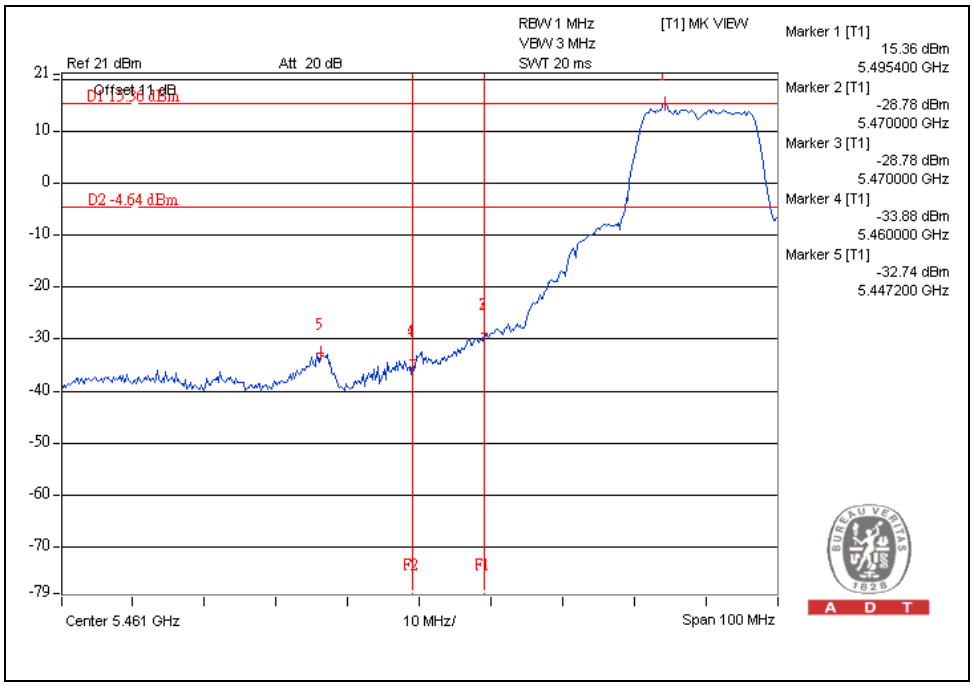

RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 21 dBm
Att 20 dB
Offset 11 dB
D1 8.54 dBm
D2 -11.46 dBm
Marker 1 [T1]
7.35 dBm
5.306040 GHz
Marker 2 [T1]
-26.07 dBm
38.641020 GHz
Marker 3 [T1]
-26.36 dBm
39.440420 GHz
Marker 4 [T1]
-26.54 dBm
37.042220 GHz
21
10
0
-10
-20
-30
-40
-50
-60
-70
-79
Start 30 MHz
3.997 GHz/
Stop 40 GHz

For 5.47 to 5.725GHz band:

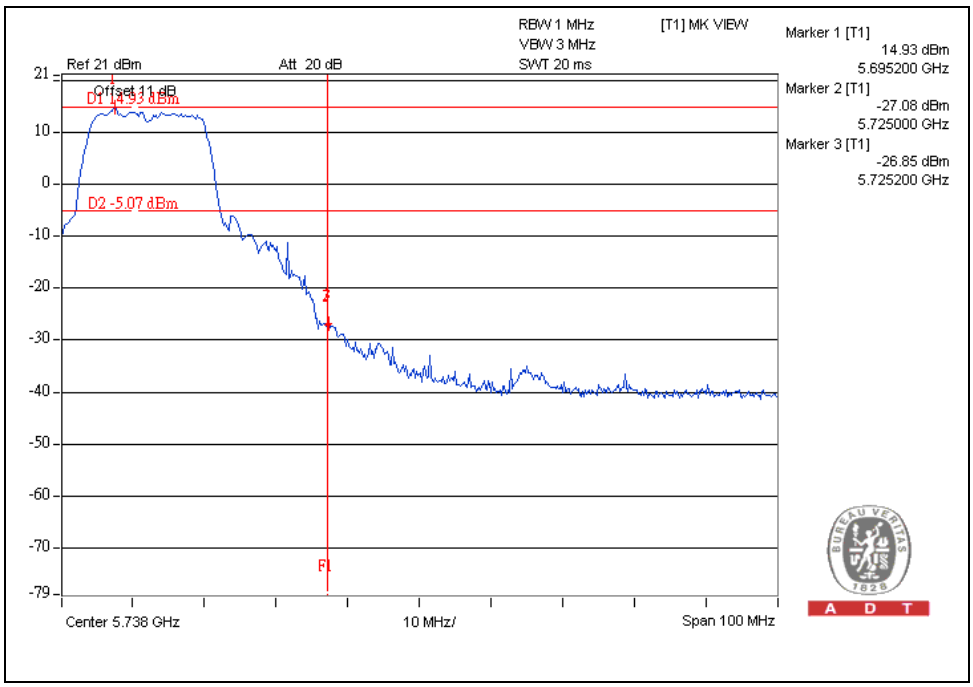
The spectrum plots (Peak RBW=1MHz, VBW=3MHz) are attached on the following pages.

802.11a OFDM MODULATION

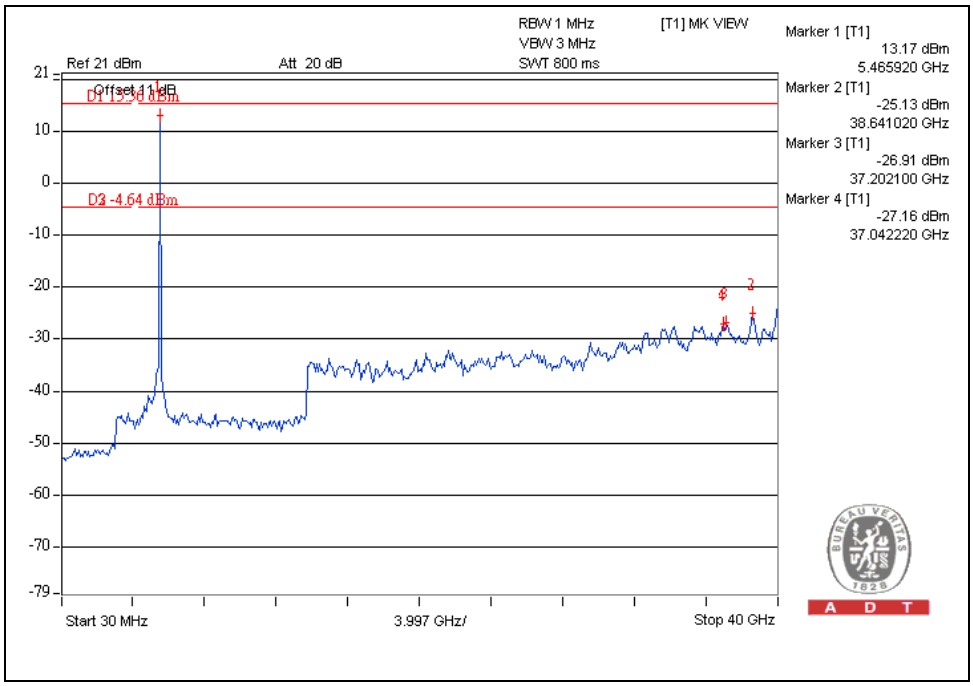
CH 100



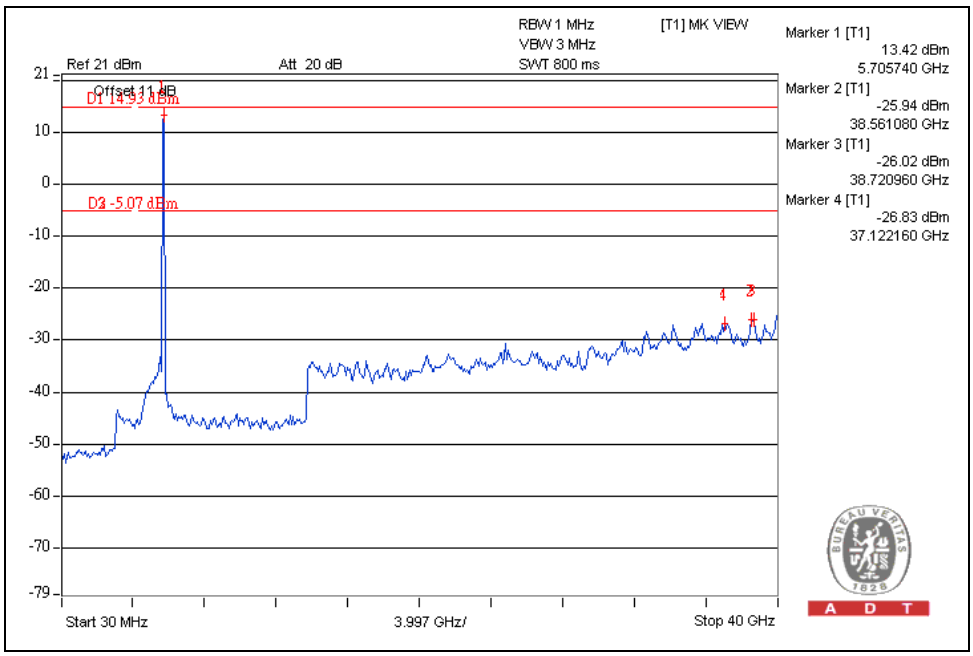
CH 140



CH 100

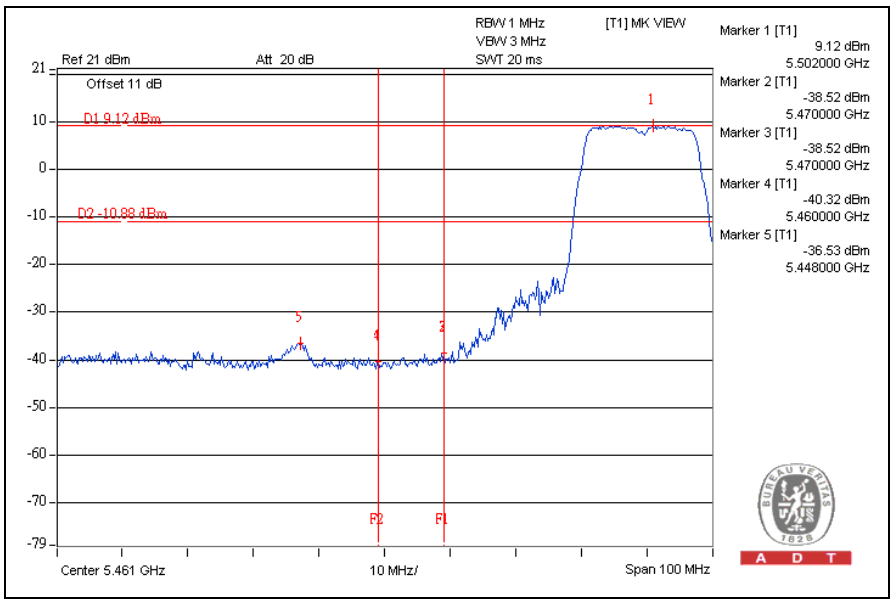

RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 21 dBm
Att 20 dB
Offset 11 dB
D1 15.36 dBm
D2 -4.64 dBm
Marker 1 [T1]
13.17 dBm
5.465920 GHz
Marker 2 [T1]
-25.13 dBm
38.641020 GHz
Marker 3 [T1]
-26.91 dBm
37.202100 GHz
Marker 4 [T1]
-27.16 dBm
37.042220 GHz
21
10
0
-10
-20
-30
-40
-50
-60
-70
-79
Start 30 MHz
3.997 GHz/
Stop 40 GHz

CH 140

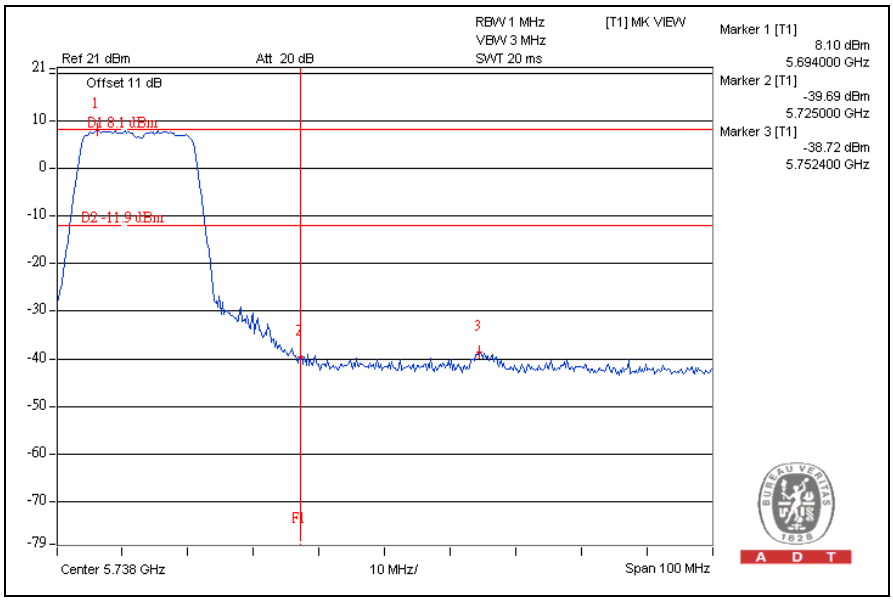

RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 21 dBm
Att 20 dB
Offset 11 dB
D1 14.93 dBm
D2 -5.07 dBm
Marker 1 [T1]
13.42 dBm
5.705740 GHz
Marker 2 [T1]
-25.94 dBm
38.561080 GHz
Marker 3 [T1]
-26.02 dBm
38.720960 GHz
Marker 4 [T1]
-26.83 dBm
37.122160 GHz
21
10
0
-10
-20
-30
-40
-50
-60
-70
-79
Start 30 MHz
3.997 GHz/
Stop 40 GHz

802.11n (20MHz) OFDM MODULATION:

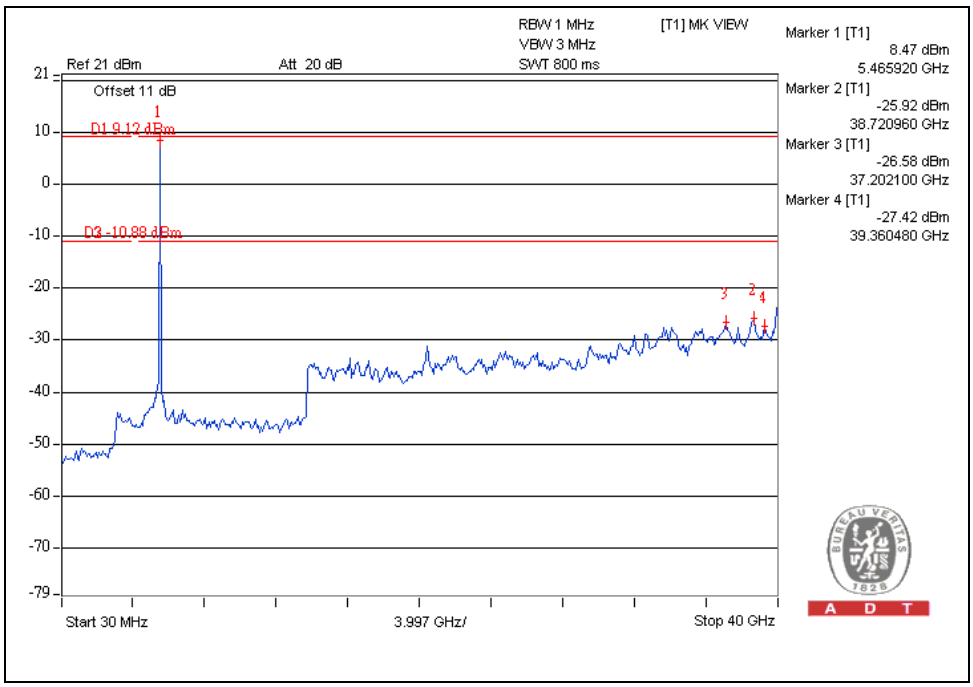
CH100



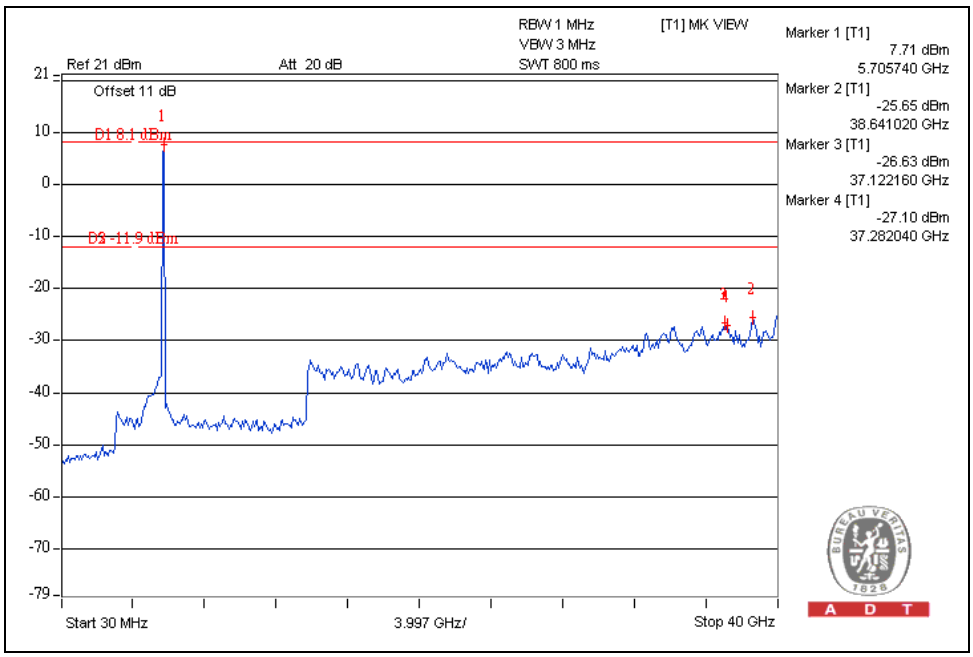
CH140



CH100

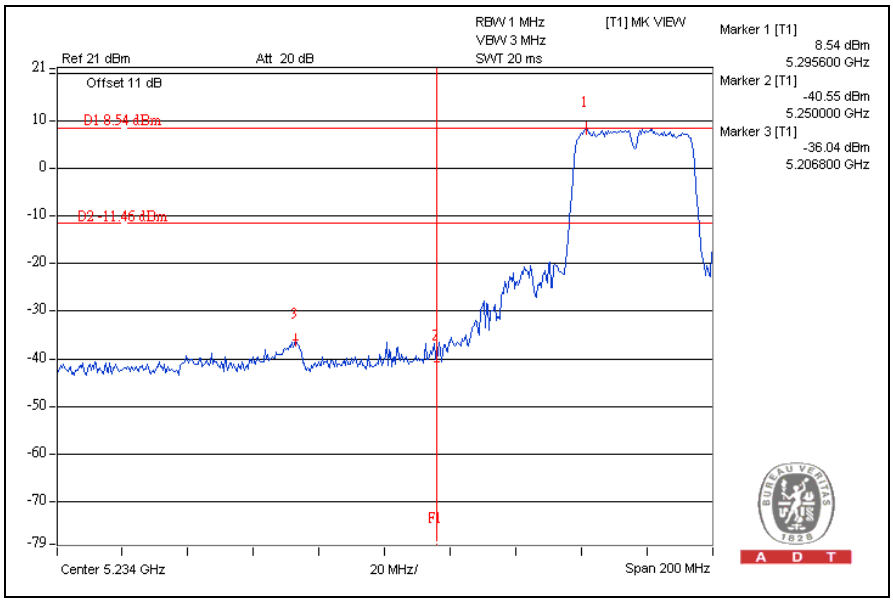

RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 21 dBm
Att 20 dB
Offset 11 dB
D1 9.12 dBm
D3 -10.88 dBm
Marker 1 [T1]
8.47 dBm
5.465920 GHz
Marker 2 [T1]
-25.92 dBm
38.720960 GHz
Marker 3 [T1]
-26.58 dBm
37.202100 GHz
Marker 4 [T1]
-27.42 dBm
39.360480 GHz
21
10
0
-10
-20
-30
-40
-50
-60
-70
-79
Start 30 MHz
3.997 GHz/
Stop 40 GHz

CH140

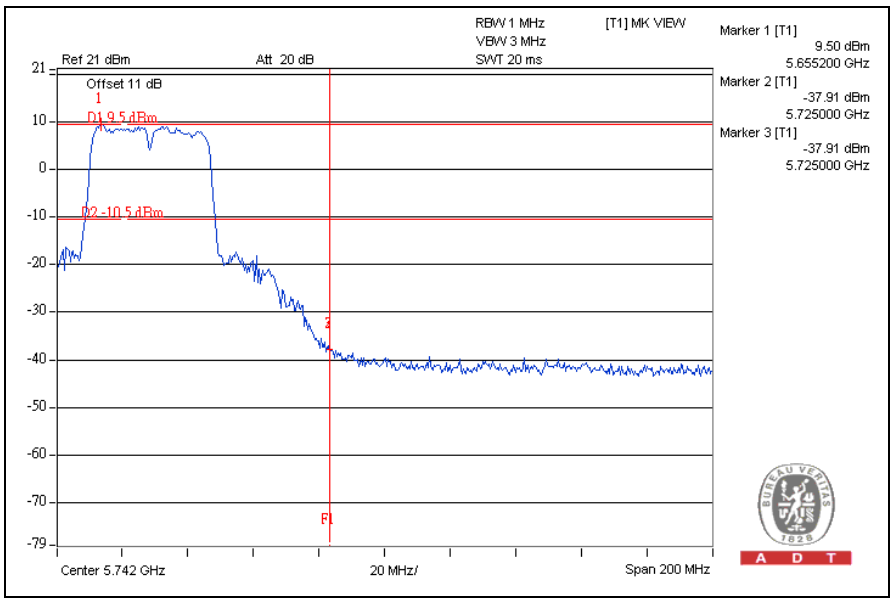

RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 21 dBm
Att 20 dB
Offset 11 dB
D1 8.1 dBm
D3 -11.9 dBm
Marker 1 [T1]
7.71 dBm
5.705740 GHz
Marker 2 [T1]
-25.65 dBm
38.641020 GHz
Marker 3 [T1]
-26.63 dBm
37.122160 GHz
Marker 4 [T1]
-27.10 dBm
37.282040 GHz
21
10
0
-10
-20
-30
-40
-50
-60
-70
-79
Start 30 MHz
3.997 GHz/
Stop 40 GHz

802.11n (40MHz) OFDM MODULATION:

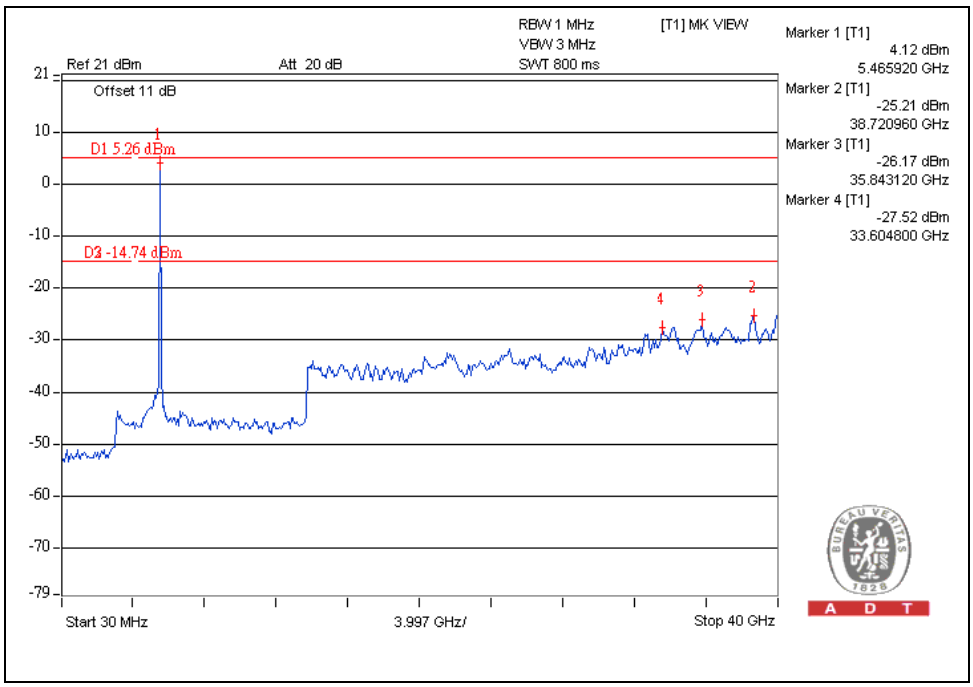
CH102



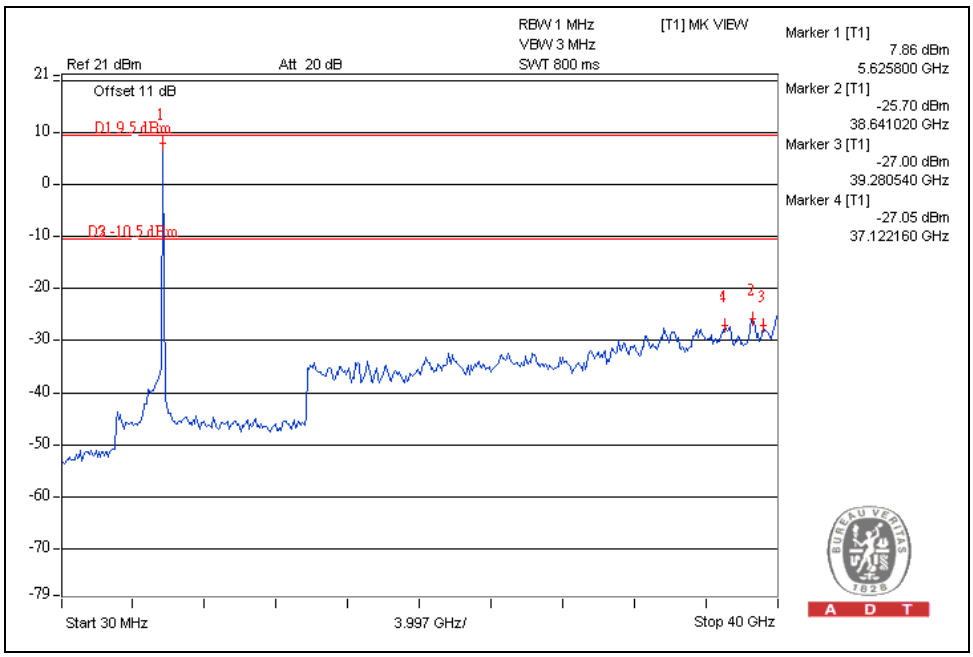
CH134



CH102


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 21 dBm
Att 20 dB
Offset 11 dB
D1 5.26 dBm
D2 -14.74 dBm
Marker 1 [T1]
4.12 dBm
5.465920 GHz
Marker 2 [T1]
-25.21 dBm
38.720960 GHz
Marker 3 [T1]
-26.17 dBm
35.843120 GHz
Marker 4 [T1]
-27.52 dBm
33.604800 GHz
21
10
0
-10
-20
-30
-40
-50
-60
-70
-79
Start 30 MHz
3.997 GHz/
Stop 40 GHz

CH134


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 21 dBm
Att 20 dB
Offset 11 dB
D1 9.5 dBm
D2 -10.5 dBm
Marker 1 [T1]
7.86 dBm
5.625800 GHz
Marker 2 [T1]
-25.70 dBm
38.641020 GHz
Marker 3 [T1]
-27.00 dBm
39.280540 GHz
Marker 4 [T1]
-27.05 dBm
37.122160 GHz
21
10
0
-10
-20
-30
-40
-50
-60
-70
-79
Start 30 MHz
3.997 GHz/
Stop 40 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

Email: service@adt.com.tw
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.