

FCC TEST REPORT (15.407)

REPORT NO.: RF970702L07-1

MODEL NO.: DMP100

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TESTED: Aug. 01 to Oct. 29, 2008

ISSUED: Nov. 28, 2008

APPLICANT: Cisco-Linksys LLC

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

ISSUED BY: Bureau Veritas Consumer Products Services
(H.K.) Ltd., Taoyuan Branch

TEST LOCATION: No. 81-1, Lu Liao Keng, 9th Ling,Wu Lung
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307, Taiwan

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1. CERTIFICATION

PRODUCT: Player-Wireless-N Music Extender
BRAND NAME: LINKSYS® by Cisco
MODEL NO.: DMP100
TEST SAMPLE: R&D SAMPLE
TESTED: Aug. 01 to Oct. 29, 2008
APPLICANT: Cisco-Linksys LLC
STANDARDS: FCC Part 15, Subpart E (Section 15.407),
ANSI C63.4-2003

The above equipment (Model: DMP100) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Carol Liao , **DATE:** Nov. 28, 2008
(Carol Liao, Specialist)

TECHNICAL ACCEPTANCE : Hank Chung , **DATE:** Nov. 28, 2008
Responsible for RF (Hank Chung, Deputy Manager)

APPROVED BY : May Chen , **DATE:** Nov. 28, 2008
(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 -5.86dB at 0.369MHz
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 -0.50dB at 4644.00MHz
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.

NOTE:

1. The EUT was operating in 2.412 ~ 2.462GHz, 5.15~5.35GHz, 5.47~5.725GHz and 5.725~5.825GHz frequencies band. This report was recorded the RF parameters including 5.15~5.35GHz, 5.47~5.725GHz and 5.725~5.825GHz. For the 2.412 ~ 2.462GHz 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:

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

Measurement	Value
Conducted emissions	2.44 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	Player-Wireless-N Music Extender
MODEL NO.	DMP100
FCC ID	Q87-DMP100
POWER SUPPLY	DC 5V from power adapter
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b: 11 / 5.5 / 2 / 1Mbps 802.11g: 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6Mbps 802.11a: 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6Mbps Draft 802.11n (20MHz): 130 / 117 / 104 / 78 / 65 / 58.5 / 52 / 39 / 26 / 19.5 / 13 / 6.5Mbps Draft 802.11n (40MHz): 270 / 243 / 216 / 162 / 135 / 121.5 / 108 / 81 / 54 / 40.5 / 27 / 13.5Mbps
FREQUENCY RANGE	802.11b & 802.11g: 2412 ~ 2462MHz 802.11a: 5.18 ~ 5.32GHz, 5.50 ~ 5.70GHz and 5.745 ~ 5.805GHz
NUMBER OF CHANNEL	For 15.247(2.4GHz) 11 for 802.11b, 802.11g, draft 802.11n (20MHz) 7 for draft 802.11n (40MHz) For 15.407(5GHz) 23 for 802.11a, draft 802.11n (20MHz) 11 for draft 802.11n (40MHz)
MAXIMUM OUTPUT POWER	For 15.247(2.4GHz) 802.11b: 98.175mW 802.11g: 239.332mW draft 802.11n (20MHz): 214.319mW draft 802.11n (40MHz): 223.194mW For 15.407(5GHz) 802.11a: 23.335mW draft 802.11n (20MHz): 28.365mW draft 802.11n (40MHz): 31.445mW
ANTENNA TYPE	Please see note 1
DATA CABLE	NA

I/O PORT	Please refer to the manual
ASSOCIATED DEVICES	NA

NOTE:

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

No.	Antenna Type	For 2.4GHz Gain (dBi)	For 5GHz Gain (dBi)	Antenna Connector
CHAIN(0)	Dipole	0	3.5 (5250-5350MHz) 3 (5470-5725MHz) 3 (5725-5825MHz)	UFL-style
CHAIN(1)	Dipole	1.5	3	UFL-style

2. The EUT must be supplied with a power adapter and following two different models could be chosen :

No.	Brand	Model No.	Spec.
1	DVE	DSA-20P-05 US 050150	Input: 100-240V~50/60Hz 0.7A Output: 5V 3.0A
2	HON-KWANG	HK-IP15-A05	Input: 100-240V ~ 50/60Hz 0.6A Output: 5V ,0~3A (Set at 3.0 A)

3. The EUT incorporates a MIMO function with 802.11a, 802.11b, 802.11g, draft 802.11n. Physically, the EUT provides two completed transmit and two completed receivers.
4. The EUT is 2 * 2 spatial MIMO (2Tx & 2Rx) without beam forming function. The antenna configurations are two transmitter antennas and two receiver antennas, as there are 2 Dipole antennas. Spatial multiplexing modes for simultaneous transmission using 2 antennas, and for simultaneous receiver using 2 antennas. The 11a and 11bg legacy mode is limited to single transmitter only.
5. When the EUT operating in draft 802.11n, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 15.
6. The EUT complies with draft 802.11n standards and backwards compatible with 802.11a, 802.11b, 802.11g products.
7. 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 draft 802.11n (20MHz):

CHANNEL	FREQUENCY
1	5180 MHz
2	5200 MHz
3	5220 MHz
4	5240 MHz
5	5260 MHz
6	5280 MHz
7	5300 MHz
8	5320 MHz

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

CHANNEL	FREQUENCY
1	5190 MHz
2	5230 MHz
3	5270 MHz
4	5310 MHz

Operated in 5470MHz ~ 5725MHz bands:

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

CHANNEL	FREQUENCY
9	5500 MHz
10	5520 MHz
11	5540 MHz
12	5560 MHz
13	5580 MHz
14	5600 MHz
15	5620 MHz
16	5640 MHz
17	5660 MHz
18	5680 MHz
19	5700 MHz

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

CHANNEL	FREQUENCY
5	5510 MHz
6	5550 MHz
7	5590 MHz
8	5630 MHz
9	5670 MHz

Operated in 5725 ~ 5825MHz band:

Four channels are provided for 802.11a, draft 802.11n (20MHz):

CHANNEL	FREQUENCY
20	5745 MHz
21	5765 MHz
22	5785 MHz
23	5805 MHz

Two channels are provided for draft 802.11n (40MHz):

CHANNEL	FREQUENCY
10	5755 MHz
11	5795 MHz

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE < 1G	RE ³ 1G	APCM	
-	√	√	√	√	-

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	CHAIN(0) (TX)	CHAIN(1) (TX)
A	802.11a	√	
B	802.11a		√
C	DRAFT 802.11n(20MHz)	√	√
D	DRAFT 802.11n(40MHz)	√	√

Note:

1. The above information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.
2. Antenna 1 and Antenna 2 are Dipole antennas.

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)	TX COMBINATION
802.11a	1 to 23	1	OFDM	BPSK	6	A

- ☒ The EUT was tested as the following test modes:

Test Mode	Description
Mode 1	With Adapter 1
Mode 2	With Adapter 2

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)	TX COMBINATION
802.11a	1 to 23	1	OFDM	BPSK	6	A

- ☒ The EUT was Pre-tested as the following test modes:

Test Mode	Description
Mode 1	With Adapter 1
Mode 2	With Adapter 2

Mode 1, the worse case one, was chosen for final test.

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)	TX COMBINATION
802.11a	1 to 23	1, 2, 4, 5, 7, 8, 9, 14, 19, 20, 22, 23	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 23	1, 2, 4, 5, 7, 8, 9, 14, 19, 20, 22, 23	OFDM	BPSK	13	C
For 5 GHz Draft 802.11n (40MHz)	1 to 11	1, 2, 3, 4, 5, 7, 9, 10, 11	OFDM	BPSK	27	D

- ☒ The EUT was Pre-tested as the following test modes:

Test Mode	Description
Mode 1	With Adapter 1
Mode 2	With Adapter 2

Mode 1, the worse case one, was chosen for final test.

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)	TX COMBINATION
802.11a	1 to 23	1, 8, 9, 19, 20, 23	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 23	1, 8, 9, 19, 20, 23	OFDM	BPSK	13	C
For 5 GHz Draft 802.11n (40MHz)	1 to 11	1, 4, 5, 9, 10, 11	OFDM	BPSK	27	D

ANTENNA PORT CONDUCTED MEASUREMENT:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX COMBINATION
802.11a	1 to 23	1, 2, 4, 5, 7, 8, 9, 14, 19, 20, 22, 23	OFDM	BPSK	6	A
For 5 GHz Draft 802.11n (20MHz)	1 to 23	1, 2, 4, 5, 7, 8, 9, 14, 19, 20, 22, 23	OFDM	BPSK	13	C
For 5 GHz Draft 802.11n (40MHz)	1 to 11	1, 2, 3, 4, 5, 7, 9, 10, 11	OFDM	BPSK	27	D

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

3.4 DESCRIPTION OF SUPPORT UNITS

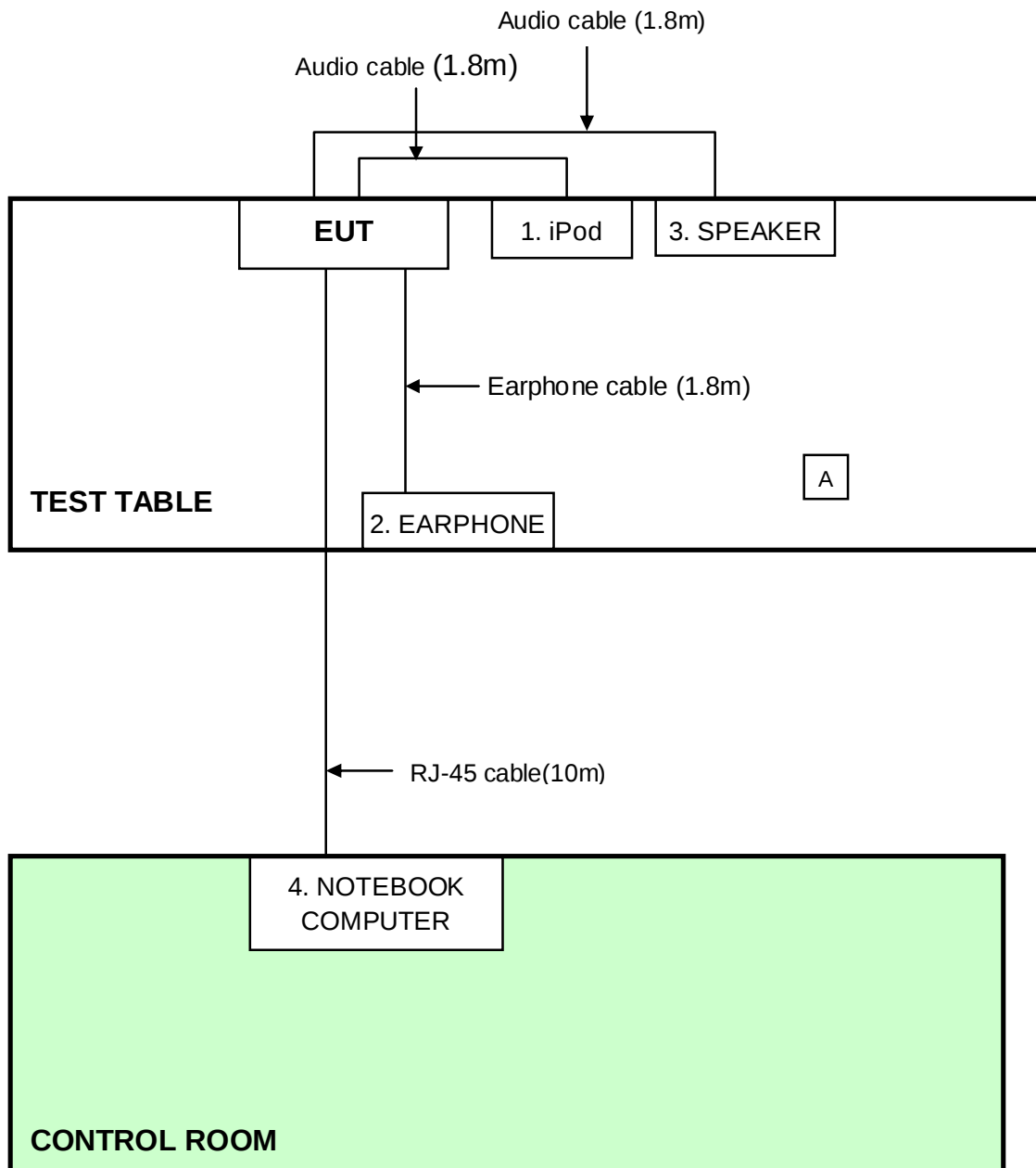
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	iPod	Apple	A1137	6U6078FMUPR	FCC DoC
2	EARPHONE	KOKA	ST-8	H201026	NA
3	SPEAKER	SANYO	SYSP-802	SP07500040300824	NA
4	NOTEBOOK COMPUTER	DELL	PP18L	6976685584	FCC DoC

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	1. 8 m wrapped shielded wire, terminal by drain wire, with 3.5 mm phone plug, w/o core.
2	1. 8 m wrapped shielded wire, terminal by drain wire, with 3.5 mm phone plug, w/o core.
3	1. 8 m wrapped shielded wire, terminated via drain wire, with 3.5 mm phone plug, w/o core.
4	NA

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

3.5 CONFIGURATION OF SYSTEM UNDER TEST



Note: 1. The item A is remote control.

4. TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

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

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver	ESCS 30	847124/029	Feb. 29, 2008	Feb. 28, 2009
Line-Impedance Stabilization Network(for EUT)	ENV-216	100071	Nov. 27, 2007	Nov. 26, 2008
Line-Impedance Stabilization Network(for Peripheral)	ESH3-Z5	848773/004	Nov. 09, 2007	Nov. 08, 2008
RF Cable (JYEBAO)	5DFB	COBCAB-001	July 24, 2008	July 23, 2009
50 ohms Terminator	50	3	Nov. 16, 2007	Nov. 15, 2008
Software	BV ADT_Cond_V7.3.6	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. B.
3. The VCCI Con B Registration No. is C-2193.

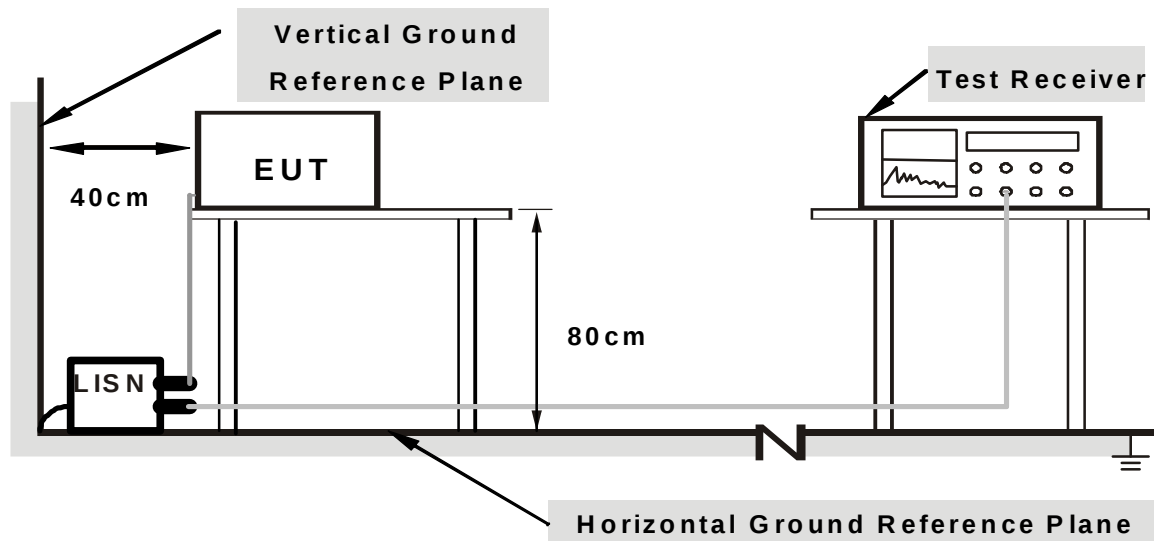
4.1.3 TEST PROCEDURES

- 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

- Placed the EUT on testing table.
- Prepared other computer system (support unit 4) to act as communication partner and placed it outside of testing area.
- The communication partner run test program “telnet.exe” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

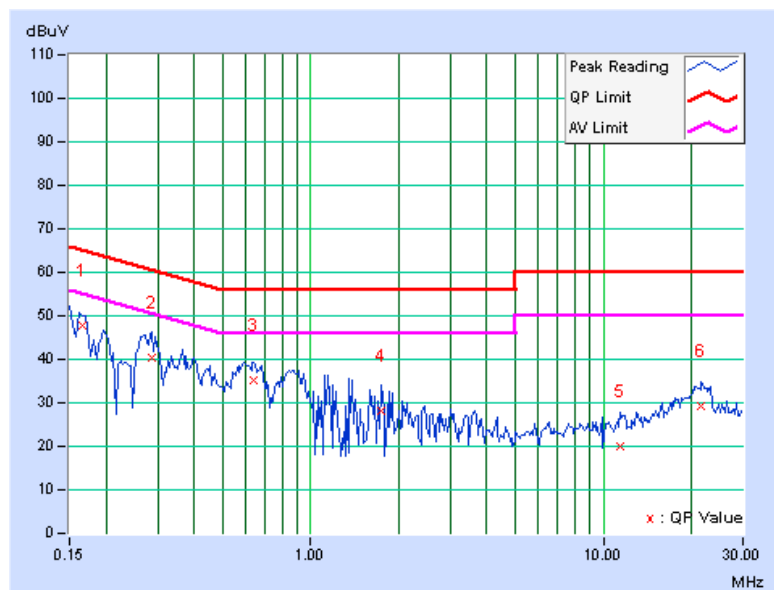
4.1.7 TEST RESULTS - Adapter 1

DRAFT 802.11a OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line (L)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 965hPa	TESTED BY	Rex Huang

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.167	9.68	37.98	-	47.66	-	65.12	55.12	-17.46	-
2	0.287	9.81	30.57	-	40.38	-	60.62	50.62	-20.24	-
3	0.643	9.84	25.38	-	35.22	-	56.00	46.00	-20.78	-
4	1.743	9.71	18.57	-	28.28	-	56.00	46.00	-27.72	-
5	11.411	9.86	9.97	-	19.83	-	60.00	50.00	-40.17	-
6	21.590	9.97	19.28	-	29.25	-	60.00	50.00	-30.75	-

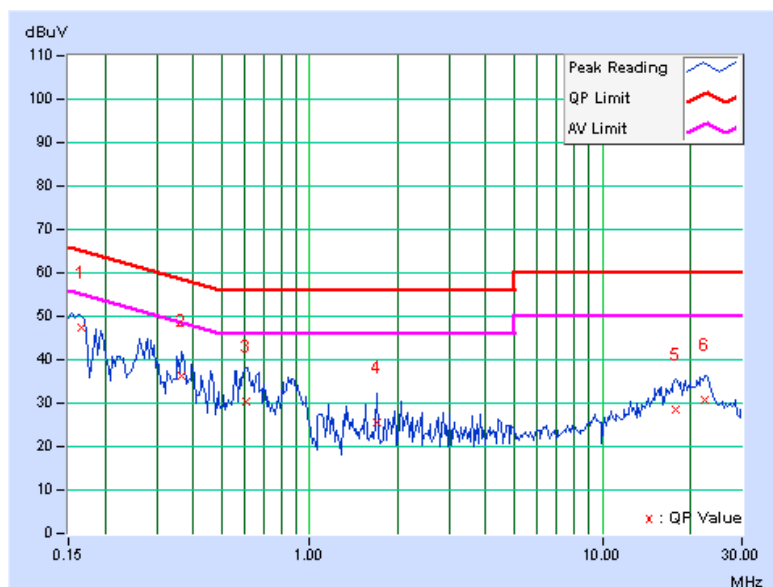
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Neutral (N)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 965hPa	TESTED BY	Rex Huang

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.167	9.68	37.75	-	47.43	-	65.11	55.11	-17.68	-
2	0.365	9.90	26.52	-	36.42	-	58.62	48.62	-22.20	-
3	0.609	9.85	20.37	-	30.22	-	56.00	46.00	-25.78	-
4	1.703	9.71	15.75	-	25.46	-	56.00	46.00	-30.54	-
5	17.805	10.03	18.54	-	28.57	-	60.00	50.00	-31.43	-
6	22.442	10.11	20.65	-	30.76	-	60.00	50.00	-29.24	-

- 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.



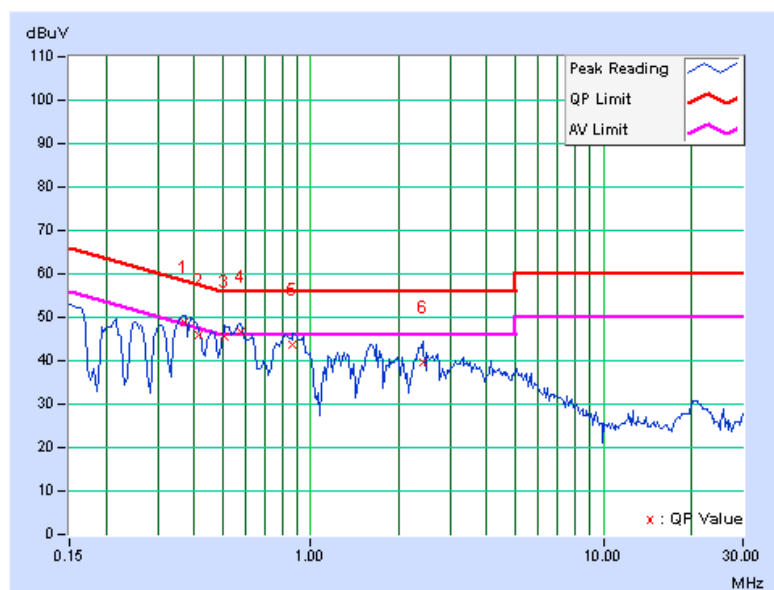
4.1.8 TEST RESULTS - Adapter 2

DRAFT 802.11a OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line (L)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 965hPa	TESTED BY	Rex Huang

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.369	9.91	38.98	32.76	48.89	42.67	58.53	48.53	-9.64	-5.86
2	0.412	9.94	35.96	-	45.90	-	57.61	47.61	-11.71	-
3	0.510	9.90	35.57	-	45.47	-	56.00	46.00	-10.53	-
4	0.579	9.87	36.85	28.99	46.72	38.86	56.00	46.00	-9.28	-7.14
5	0.868	9.73	33.95	-	43.68	-	56.00	46.00	-12.32	-
6	2.415	9.73	29.96	-	39.69	-	56.00	46.00	-16.31	-

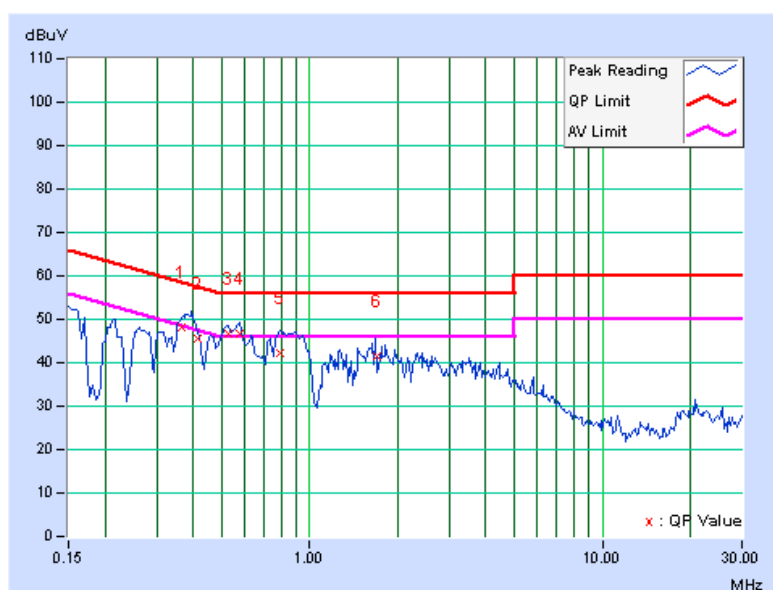
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Neutral (N)
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 965hPa	TESTED BY	Rex Huang

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.365	9.90	38.13	-	48.03	-	58.62	48.62	-10.59	-
2	0.414	9.93	35.78	-	45.71	-	57.57	47.57	-11.85	-
3	0.526	9.88	36.92	28.79	46.80	38.67	56.00	46.00	-9.20	-7.33
4	0.580	9.86	36.85	28.36	46.71	38.22	56.00	46.00	-9.29	-7.78
5	0.791	9.76	32.63	-	42.39	-	56.00	46.00	-13.61	-
6	1.688	9.70	31.89	-	41.59	-	56.00	46.00	-14.41	-

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



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

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

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

NOTE:

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

4.2.2 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

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

4.2.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ADVANTEST Spectrum Analyzer	R3271A	85060311	July 16, 2008	July 15, 2009
HP Pre_Amplifier	8449B	3008A01922	Sep. 25, 2008	Sep. 24, 2009
ROHDE & SCHWARZ Test Receiver	ESCS30	100375	April 01, 2008	Mar. 31, 2009
SCHWARZBECK TRILOG Broadband Antenna	VULB 9168	138	April 30, 2008	April 29, 2009
Schwarzbeck Horn_Antenna	BBHA9120	D124	Dec. 17, 2007	Dec. 16, 2008
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 28, 2008	Jan. 27, 2009
RF Switches	EMH-011	08009	Oct. 07, 2008	Oct. 06, 2009
RF CABLE (Chaintek)	SF102	22054-2	Dec. 07, 2007	Dec. 06, 2008
RF Cable	8DFB	STCCAB-30 M-1GHz	Oct. 07, 2008	Oct. 06, 2009
Software	ADT_Radiated_V7.6.15.9.2	NA	NA	NA
CT Antenna Tower & Turn Table	NA	NA	NA	NA

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna, HP preamplifier (model: 8449B) and Spectrum Analyzer (model: R3271A) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in Open Site No. C.
4. The FCC Site Registration No. is 656396.
5. The VCCI Site Registration No. is R-1626.
6. The CANADA Site Registration No. is IC 7450G-3.

4.2.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

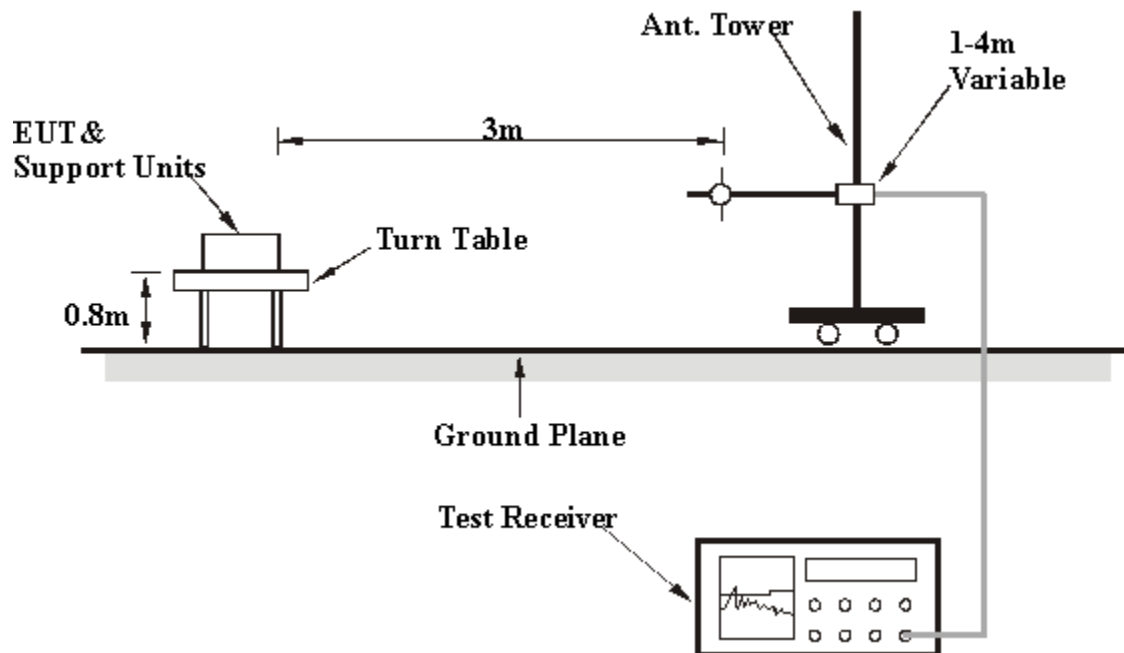
NOTE:

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

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

Below 1GHz Test Data

4.2.8 TEST RESULTS

802.11a OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	28deg. C, 64%RH, 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	125.00	35.26 QP	43.50	-8.24	1.63 H	295	21.81	13.45
2	249.99	32.69 QP	46.00	-13.31	1.18 H	292	18.19	14.50
3	375.00	35.72 QP	46.00	-10.28	2.77 H	74	16.56	19.16
4	500.00	39.52 QP	46.00	-6.48	1.68 H	60	18.21	21.31
5	625.00	37.81 QP	46.00	-8.19	1.27 H	311	13.90	23.91
6	749.99	32.89 QP	46.00	-13.11	1.10 H	48	5.89	27.00
7	824.02	35.70 QP	46.00	-10.30	1.11 H	40	6.99	28.71
8	875.00	43.45 QP	46.00	-2.55	1.00 H	124	14.18	29.27
9	891.75	37.21 QP	46.00	-8.79	1.00 H	120	7.74	29.47
10	914.33	40.01 QP	46.00	-5.99	1.07 H	107	10.22	29.79
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	45.57	31.15 QP	40.00	-8.85	1.00 V	319	18.05	13.10
2	74.28	32.53 QP	40.00	-7.47	1.00 V	34	20.71	11.82
3	111.63	26.58 QP	43.50	-16.92	1.00 V	357	14.82	11.76
4	125.00	29.45 QP	43.50	-14.05	1.00 V	22	16.00	13.46
5	249.99	26.91 QP	46.00	-19.09	1.06 V	188	12.41	14.50
6	350.00	32.22 QP	46.00	-13.78	1.00 V	254	14.04	18.18
7	500.00	39.13 QP	46.00	-6.87	1.00 V	81	17.82	21.31
8	625.00	33.99 QP	46.00	-12.01	1.00 V	116	10.08	23.91
9	670.83	34.55 QP	46.00	-11.45	1.12 V	339	9.56	24.99
10	875.00	38.20 QP	46.00	-7.80	1.07 V	180	8.93	29.27

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 Test Data

4.2.9 TEST RESULTS

802.11a OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4144.00	45.00 PK	74.00	-29.00	1.29 H	0	11.01	33.99
2	4144.00	35.00 AV	54.00	-19.00	1.29 H	0	1.01	33.99
3	5127.90	56.21 PK	74.00	-17.79	1.23 H	89	20.25	35.96
4	5127.90	43.55 AV	54.00	-10.45	1.23 H	89	7.59	35.96
5	*5180.00	102.70 PK			1.29 H	86	66.65	36.05
6	*5180.00	92.40 AV			1.29 H	86	56.35	36.05
7	#10360.00	58.10 PK	68.30	-10.20	1.27 H	1	12.18	45.92

NTENNA 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	4144.00	47.70 PK	74.00	-26.30	1.22 V	69	13.71	33.99
2	4144.00	39.50 AV	54.00	-14.50	1.22 V	69	5.51	33.99
3	5150.00	66.44 PK	74.00	-7.56	1.20 V	62	30.44	36.00
4	5150.00	51.09 AV	54.00	-2.91	1.20 V	62	15.09	36.00
5	*5180.00	111.10 PK			1.11 V	81	75.05	36.05
6	*5180.00	100.70 AV			1.11 V	81	64.65	36.05
7	#10360.00	56.60 PK	68.30	-11.70	1.42 V	77	10.68	45.92

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4160.00	46.30 PK	74.00	-27.70	1.27 H	2	12.26	34.04
2	4160.00	36.70 AV	54.00	-17.30	1.27 H	2	2.66	34.04
3	*5200.00	103.10 PK			1.27 H	96	67.02	36.08
4	*5200.00	92.60 AV			1.27 H	96	56.52	36.08
5	#10400.00	58.60 PK	68.30	-15.40	1.38 H	4	12.61	45.99

NTENNA 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	4160.00	49.50 PK	74.00	-24.50	1.39 V	68	15.46	34.04
2	4160.00	41.30 AV	54.00	-12.70	1.39 V	68	7.26	34.04
3	*5200.00	111.70 PK			1.12 V	56	75.62	36.08
4	*5200.00	100.90 AV			1.12 V	56	64.82	36.08
5	#10400.00	62.40 PK	68.30	-11.60	1.42 V	76	16.41	45.99

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4192.00	45.20 PK	74.00	-28.80	1.23 H	21	11.08	34.12
2	4192.00	35.40 AV	54.00	-18.60	1.23 H	21	1.28	34.12
3	*5240.00	103.20 PK			1.25 H	84	67.06	36.14
4	*5240.00	93.10 AV			1.25 H	84	56.96	36.14
5	#10480.00	59.70 PK	68.30	-14.30	1.36 H	354	13.58	46.12

NTENNA 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	4192.00	48.30 PK	74.00	-25.70	1.39 V	70	14.18	34.12
2	4192.00	40.10 AV	54.00	-13.90	1.39 V	70	5.98	34.12
3	*5240.00	111.90 PK			1.11 V	75	75.76	36.14
4	*5240.00	101.20 AV			1.11 V	75	65.06	36.14
5	#10480.00	59.90 PK	68.30	-14.10	1.46 V	80	13.78	46.12

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



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4208.00	44.30 PK	74.00	-29.70	1.26 H	29	10.14	34.16
2	4208.00	34.90 AV	54.00	-19.10	1.26 H	29	0.74	34.16
3	*5260.00	102.60 PK			1.24 H	84	66.42	36.18
4	*5260.00	92.40 AV			1.24 H	84	56.22	36.18
5	#10520.00	57.20 PK	68.30	-11.10	1.24 H	257	11.01	46.19

NTENNA 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	4208.00	48.40 PK	74.00	-25.60	1.21 V	71	14.24	34.16
2	4208.00	39.20 AV	54.00	-14.80	1.21 V	71	5.04	34.16
3	*5260.00	111.30 PK			1.13 V	68	75.12	36.18
4	*5260.00	100.50 AV			1.13 V	68	64.32	36.18
5	#10520.00	58.80 PK	68.30	-15.20	1.47 V	81	12.61	46.19

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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4240.00	43.20 PK	74.00	-30.80	1.27 H	38	8.96	34.24
2	4240.00	33.60 AV	54.00	-20.40	1.27 H	38	-0.64	34.24
3	*5300.00	103.60 PK			1.27 H	79	67.36	36.24
4	*5300.00	93.20 AV			1.27 H	79	56.96	36.24
5	10600.00	59.30 PK	74.00	-14.70	1.26 H	313	12.93	46.37
6	10600.00	42.40 AV	54.00	-11.60	1.26 H	313	-3.97	46.37
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	4240.00	47.60 PK	74.00	-26.40	1.36 V	66	13.36	34.24
2	4240.00	37.30 AV	54.00	-16.70	1.36 V	66	3.06	34.24
3	*5300.00	112.00 PK			1.12 V	69	75.76	36.24
4	*5300.00	101.20 AV			1.12 V	69	64.96	36.24
5	10600.00	60.40 PK	74.00	-13.60	1.45 V	83	14.03	46.37
6	10600.00	46.80 AV	54.00	-7.20	1.45 V	83	0.43	46.37

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



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 8	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4256.00	43.10 PK	74.00	-30.90	1.26 H	36	8.81	34.29
2	4256.00	31.20 AV	54.00	-22.80	1.26 H	36	-3.09	34.29
3	*5320.00	104.40 PK			1.24 H	79	68.13	36.27
4	*5320.00	93.80 AV			1.24 H	79	57.53	36.27
5	5395.90	57.74 PK	74.00	-16.26	1.24 H	79	21.35	36.39
6	5395.90	45.35 AV	54.00	-8.65	1.24 H	79	8.96	36.39
7	10640.00	60.20 PK	74.00	-13.80	1.27 H	319	13.74	46.46
8	10640.00	43.30 AV	54.00	-10.70	1.27 H	319	-3.16	46.46
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4256.00	45.10 PK	74.00	-28.90	1.32 V	67	10.81	34.29
2	4256.00	37.00 AV	54.00	-17.00	1.32 V	67	2.71	34.29
3	*5320.00	112.10 PK			1.31 V	54	75.83	36.27
4	*5320.00	101.50 AV			1.31 V	54	65.23	36.27
5	5398.60	63.99 PK	74.00	-10.01	1.18 V	60	27.59	36.40
6	5398.60	51.95 AV	54.00	-2.05	1.18 V	60	15.55	36.40
7	10640.00	60.70 PK	74.00	-13.30	1.45 V	82	14.24	46.46
8	10640.00	46.80 AV	54.00	-7.20	1.45 V	82	0.34	46.46

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4400.00	54.30 PK	74.00	-19.70	1.37 H	142	19.64	34.66
2	4400.00	43.20 AV	54.00	-10.80	1.37 H	142	8.54	34.66
3	5460.00	57.37 PK	74.00	-16.63	1.18 H	258	20.87	36.50
4	5460.00	45.03 AV	54.00	-8.97	1.18 H	258	8.53	36.50
5	#5470.00	57.30 PK	68.30	-11.00	1.19 H	256	20.79	36.51
6	*5500.00	101.60 PK			1.28 H	75	65.04	36.56
7	*5500.00	91.70 AV			1.28 H	75	55.14	36.56
8	11000.00	65.40 PK	74.00	-8.60	1.39 H	112	18.15	47.25
9	11000.00	50.30 AV	54.00	-3.70	1.39 H	112	3.05	47.25
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	4400.00	57.00 PK	74.00	-17.00	1.17 V	66	22.34	34.66
2	4400.00	46.70 AV	54.00	-7.30	1.17 V	66	12.04	34.66
3	5448.00	62.55 PK	74.00	-11.45	1.04 V	61	26.07	36.48
4	5448.00	51.40 AV	54.00	-2.60	1.04 V	61	14.92	36.48
5	#5470.00	61.10 PK	68.30	-12.90	1.14 V	61	24.59	36.51
6	*5500.00	110.10 PK			1.27 V	74	73.54	36.56
7	*5500.00	99.90 AV			1.27 V	74	63.34	36.56
8	11000.00	61.10 PK	74.00	-12.90	1.34 V	123	13.85	47.25
9	11000.00	47.40 AV	54.00	-6.60	1.34 V	123	0.15	47.25

- 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.
 5. “ * ”: Fundamental frequency.
 6. “#”: The radiated frequency is out the restricted band.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 14	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#4480.00	65.30 PK	68.30	-3.00	1.36 H	126	30.43	34.87
3	*5600.00	101.80 PK			1.27 H	69	64.98	36.82
4	*5600.00	92.10 AV			1.27 H	69	55.28	36.82
5	11200.00	61.90 PK	74.00	-12.10	1.40 H	112	14.74	47.16
6	11200.00	48.10 AV	54.00	-5.90	1.40 H	112	0.94	47.16
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	#4480.00	57.60 PK	68.30	-10.70	1.17 V	77	22.73	34.87
3	*5600.00	112.80 PK			1.12 V	60	75.98	36.82
4	*5600.00	102.30 AV			1.12 V	60	65.48	36.82
5	11200.00	63.90 PK	74.00	-10.10	1.26 V	117	16.74	47.16
6	11200.00	50.70 AV	54.00	-3.30	1.26 V	117	3.54	47.16

- 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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 19	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4560.00	53.20 PK	74.00	-20.80	1.42 H	131	18.18	35.02
2	4560.00	40.60 AV	54.00	-13.40	1.42 H	131	5.58	35.02
3	*5700.00	101.30 PK			1.24 H	95	64.21	37.09
4	*5700.00	91.30 AV			1.24 H	95	54.21	37.09
5	#5725.00	57.30 PK	78.30	-21.00	1.23 H	94	20.15	37.15
6	11400.00	66.90 PK	74.00	-7.10	1.37 H	111	19.83	47.07
7	11400.00	52.60 AV	54.00	-1.40	1.37 H	111	5.53	47.07
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	4560.00	55.10 PK	74.00	-18.90	1.28 V	57	20.08	35.02
2	4560.00	44.10 AV	54.00	-9.90	1.28 V	57	9.08	35.02
3	*5700.00	110.50 PK			1.21 V	61	73.41	37.09
4	*5700.00	100.50 AV			1.21 V	61	63.41	37.09
5	#5725.00	63.50 PK	78.30	-14.80	1.09 V	83	26.35	37.15
6	11400.00	65.10 PK	74.00	-8.90	1.24 V	116	18.03	47.07
7	11400.00	51.80 AV	54.00	-2.20	1.24 V	116	4.73	47.07

- 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 20	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4596.00	55.10 PK	74.00	-18.90	1.32 H	144	20.02	35.08
2	4596.00	41.30 AV	54.00	-12.70	1.32 H	144	6.22	35.08
3	#5715.00	58.20 PK	68.30	-10.10	1.21 H	257	21.07	37.13
4	#5725.00	61.30 PK	78.30	-17.00	1.21 H	257	24.15	37.15
5	*5745.00	101.40 PK			1.27 H	103	64.19	37.21
6	*5745.00	91.60 AV			1.27 H	103	54.39	37.21
7	11490.00	66.70 PK	74.00	-7.30	1.29 H	110	19.67	47.03
8	11490.00	53.10 AV	54.00	-0.90	1.29 H	110	6.07	47.03
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	4596.00	56.70 PK	74.00	-17.30	1.27 V	63	21.62	35.08
2	4596.00	42.60 AV	54.00	-11.40	1.27 V	63	7.52	35.08
3	#5715.00	61.60 PK	68.30	-6.70	1.10 V	83	24.47	37.13
4	#5725.00	74.00 PK	78.30	-4.30	1.10 V	83	36.85	37.15
5	*5745.00	110.30 PK			1.09 V	82	73.09	37.21
6	*5745.00	99.70 AV			1.09 V	82	62.49	37.21
7	11490.00	65.10 PK	74.00	-8.90	1.22 V	116	18.07	47.03
8	11490.00	51.40 AV	54.00	-2.60	1.22 V	116	4.37	47.03

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 22	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4628.00	55.20 PK	74.00	-18.80	1.31 H	124	20.06	35.14
2	4628.00	43.10 AV	54.00	-10.90	1.31 H	124	7.96	35.14
3	*5785.00	101.70 PK			1.26 H	97	64.39	37.31
4	*5785.00	92.00 AV			1.26 H	97	54.69	37.31
5	11570.00	66.20 PK	74.00	-7.80	1.31 H	110	19.23	46.97
6	11570.00	51.89 AV	54.00	-2.11	1.31 H	110	4.92	46.97
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4628.00	57.00 PK	74.00	-17.00	1.26 V	62	21.86	35.14
2	4628.00	48.30 AV	54.00	-5.70	1.26 V	62	13.16	35.14
3	*5785.00	110.40 PK			1.08 V	83	73.09	37.31
4	*5785.00	99.80 AV			1.08 V	83	62.49	37.31
5	11570.00	64.50 PK	74.00	-9.50	1.28 V	117	17.53	46.97
6	11570.00	50.10 AV	54.00	-3.90	1.28 V	117	3.13	46.97

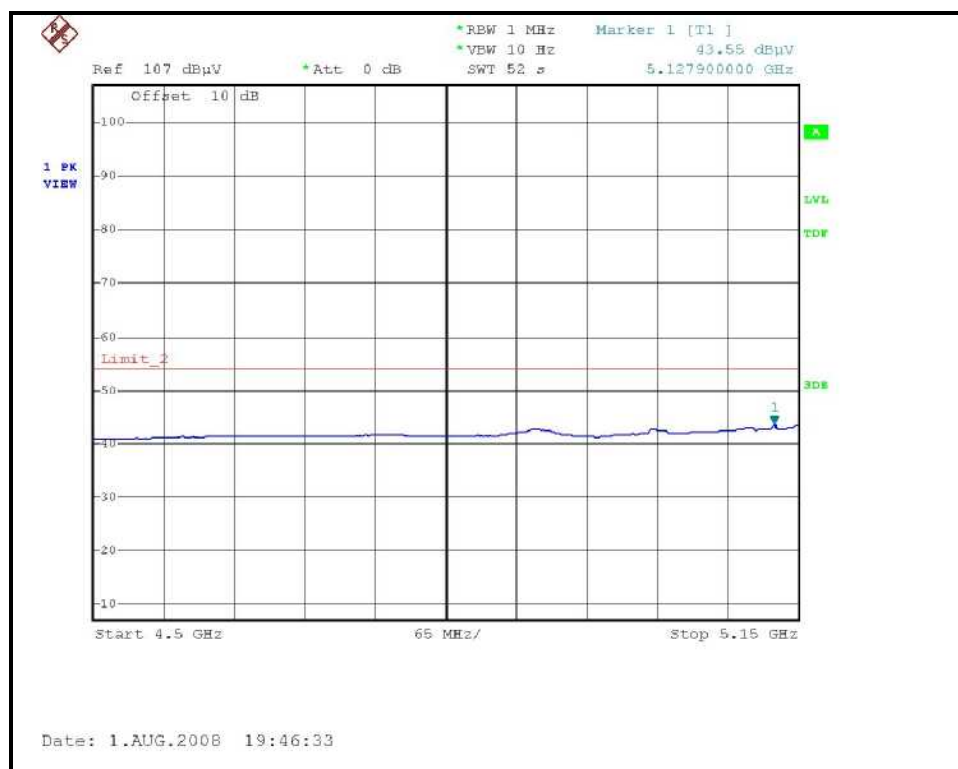
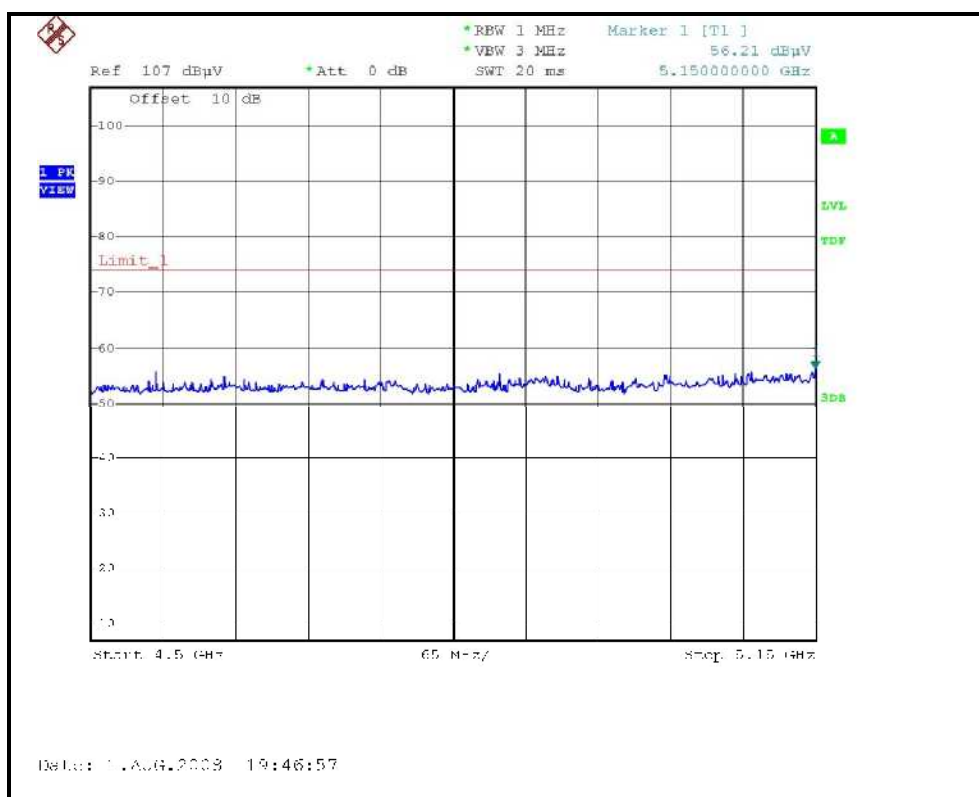
REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. “ * ”: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 23	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

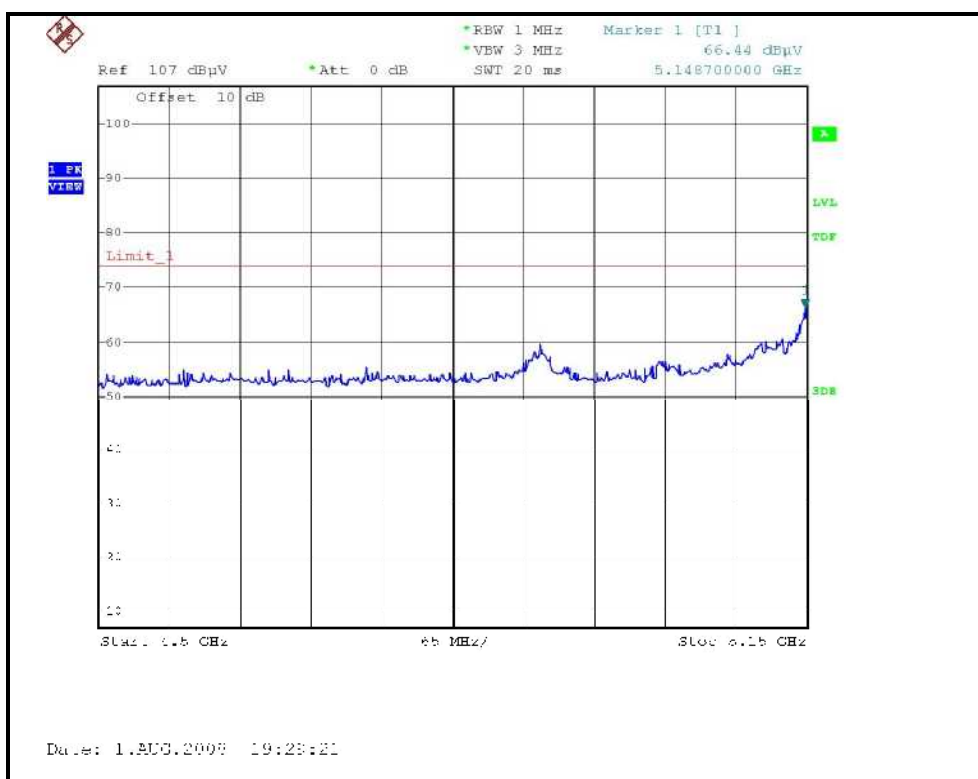
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4644.00	56.10 PK	74.00	-17.90	1.30 H	121	20.94	35.16
2	4644.00	44.30 AV	54.00	-9.70	1.30 H	121	9.14	35.16
3	*5805.00	101.40 PK			1.27 H	98	64.03	37.37
4	*5805.00	93.00 AV			1.27 H	98	55.63	37.37
5	#5825.00	56.30 PK	78.30	-22.00	1.26 H	99	18.88	37.42
6	#5835.00	49.10 PK	68.30	-19.20	1.26 H	99	11.66	37.44
7	11610.00	65.20 PK	74.00	-8.80	1.29 H	111	18.27	46.93
8	11610.00	50.90 AV	54.00	-3.10	1.29 H	111	3.97	46.93
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	4644.00	58.40 PK	74.00	-15.60	1.11 V	62	23.24	35.16
2	4644.00	50.70 AV	54.00	-3.30	1.11 V	62	15.54	35.16
3	*5805.00	110.30 PK			1.08 V	83	72.93	37.37
4	*5805.00	99.60 AV			1.08 V	83	62.23	37.37
5	#5825.00	68.70 PK	78.30	-9.60	1.18 V	73	31.28	37.42
6	#5835.00	60.10 PK	68.30	-8.20	1.18 V	73	22.66	37.44
7	11610.00	64.50 PK	74.00	-9.50	1.26 V	117	17.57	46.93
8	11610.00	49.10 AV	54.00	-4.90	1.26 V	117	2.17	46.93

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.

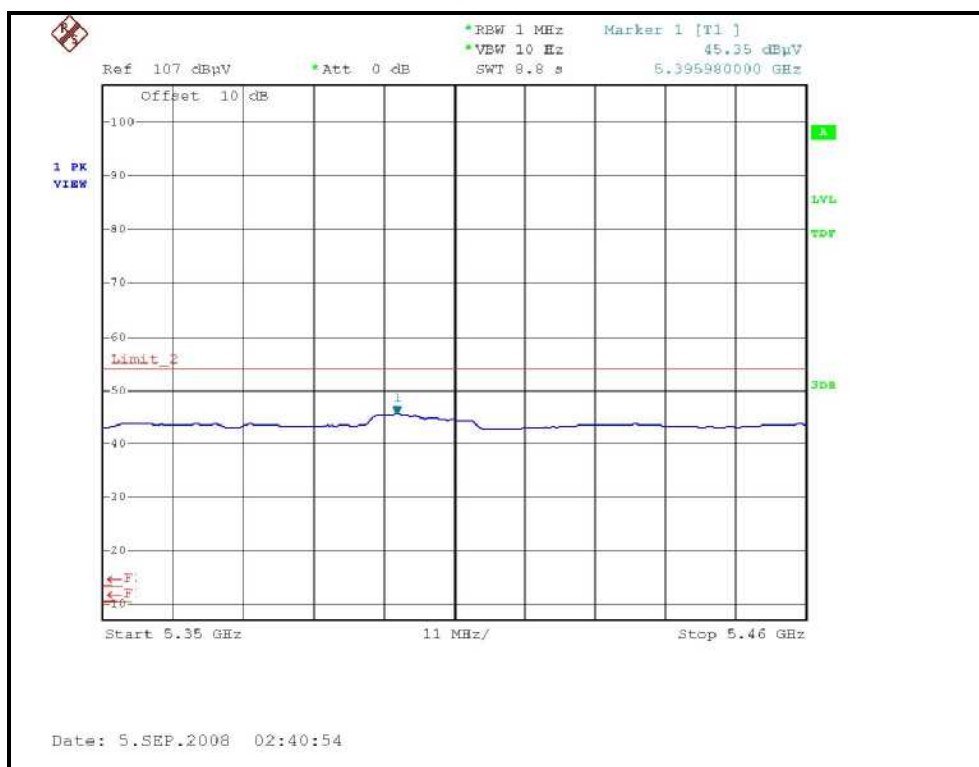
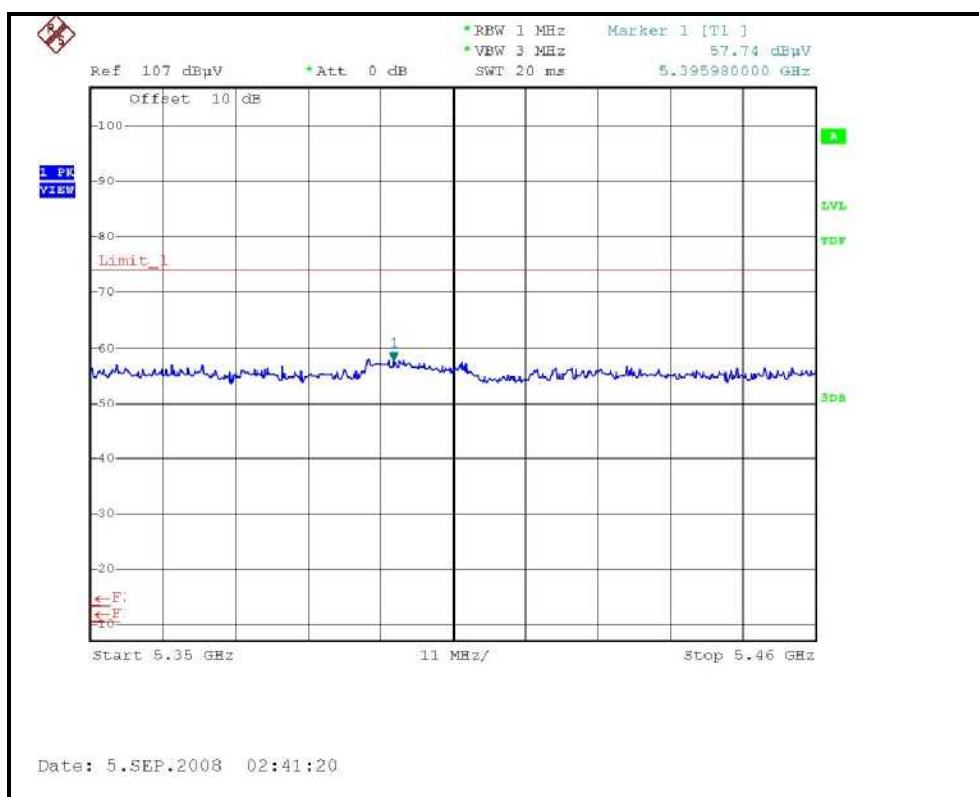
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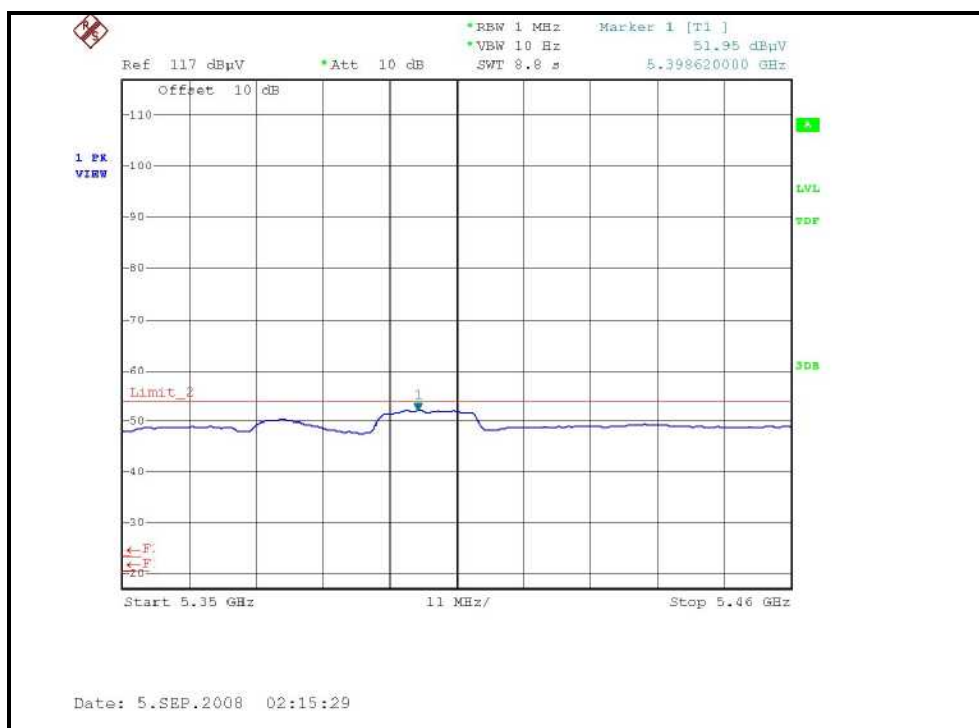
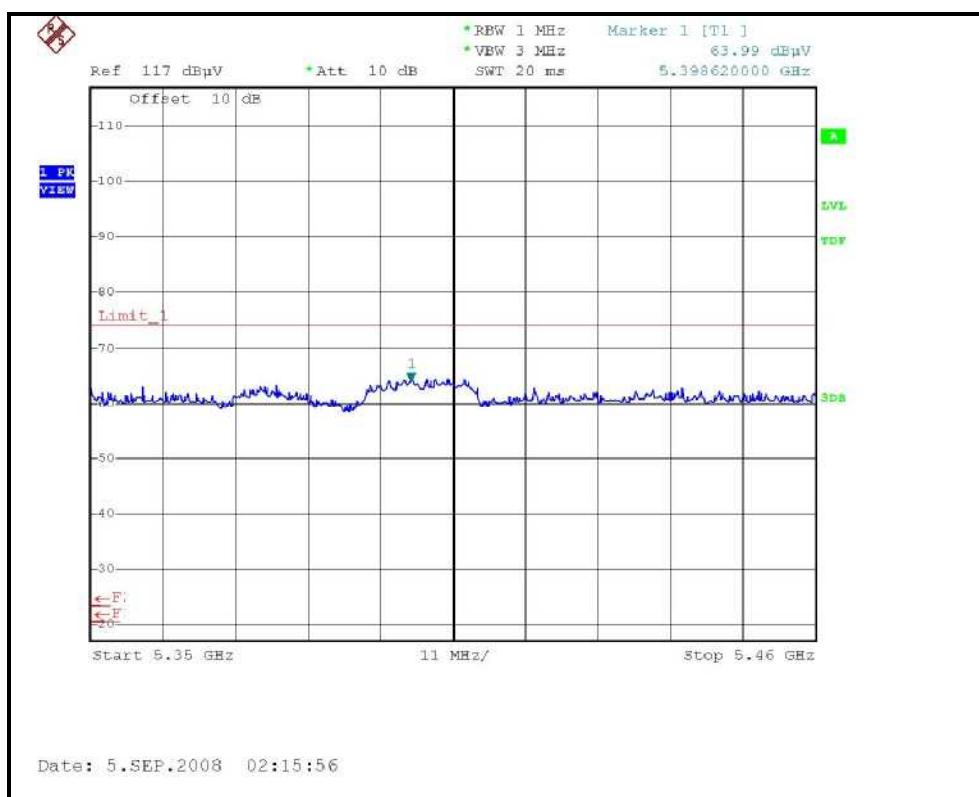
RESTRICTED BANDEDGE (802.11a MODE, CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11a MODE, CH8, HORIZONTAL)



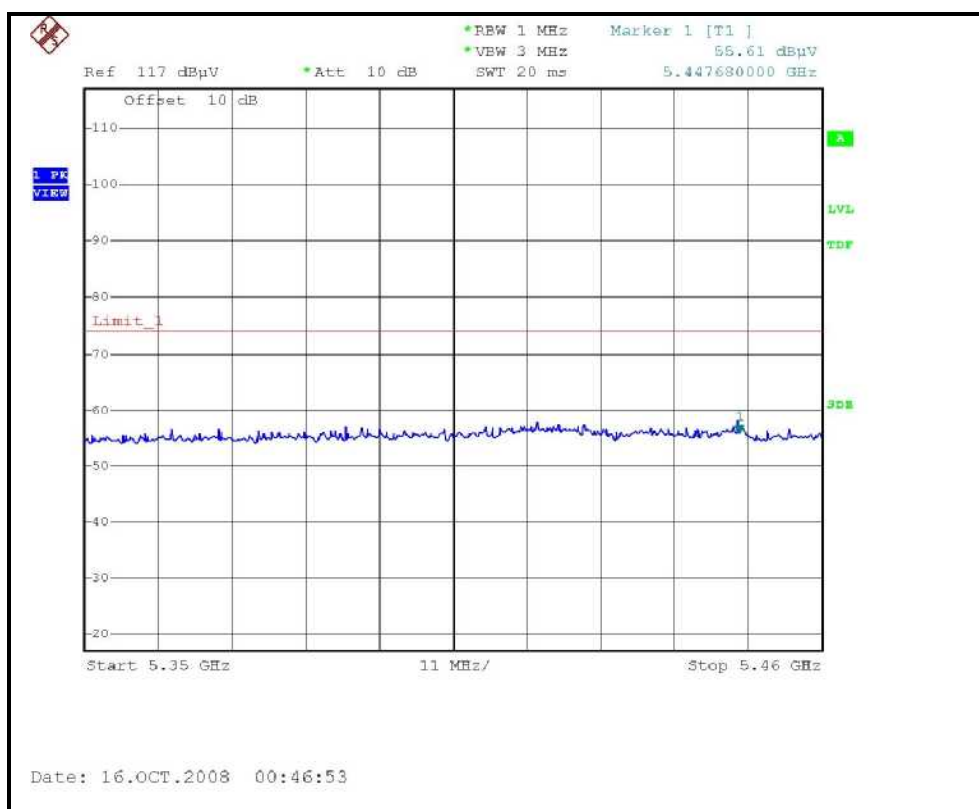
RESTRICTED BANDEDGE (802.11a MODE, CH8, VERTICAL)



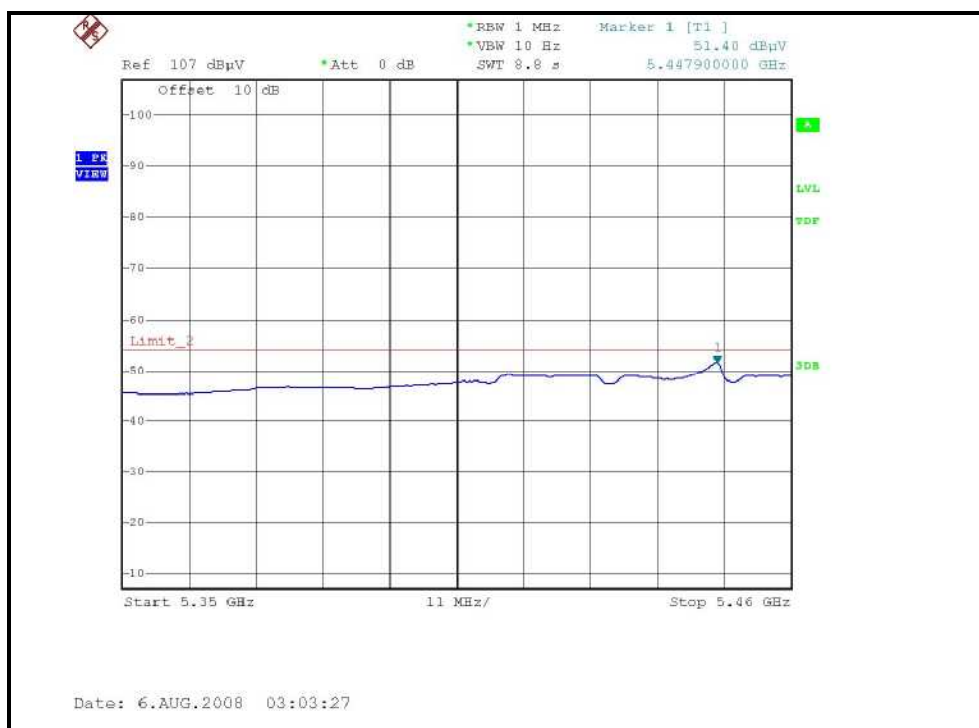
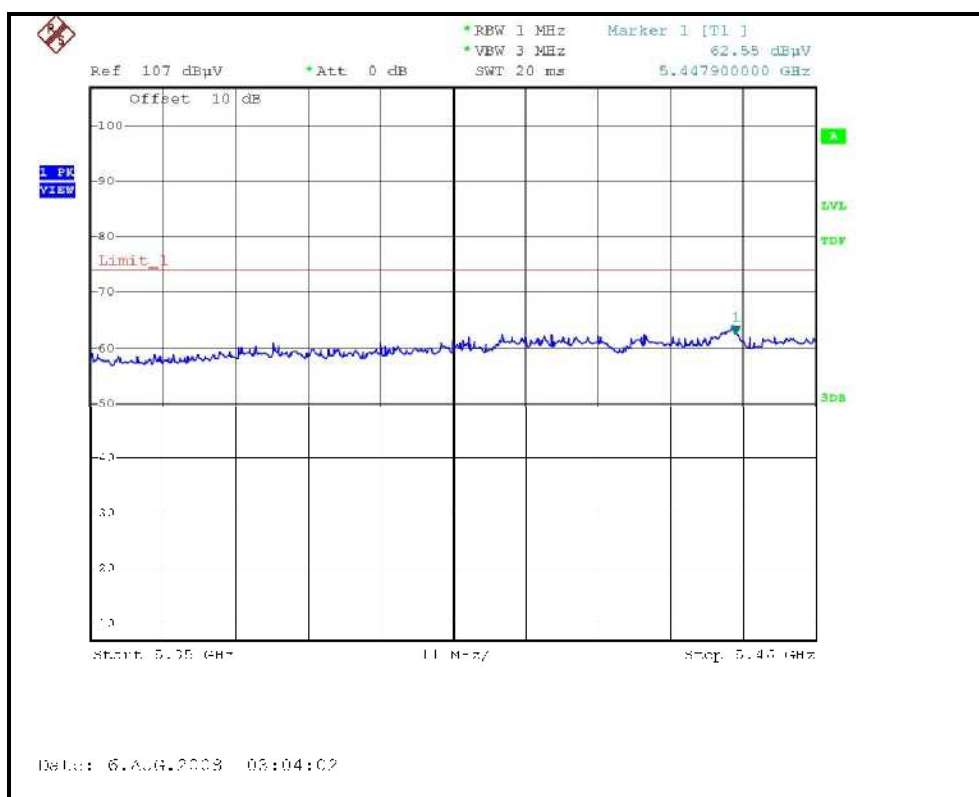


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RESTRICTED BANDEDGE (802.11a MODE, CH9, HORIZONTAL)



RESTRICTED BANDEDGE (802.11a MODE, CH9, VERTICAL)





A D T

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4144.00	45.40 PK	74.00	-28.60	1.30 H	2	11.41	33.99
2	4144.00	34.30 AV	54.00	-19.70	1.30 H	2	0.31	33.99
3	5150.00	55.34 PK	74.00	-18.66	1.17 H	85	19.34	36.00
4	5150.00	44.15 AV	54.00	-9.85	1.17 H	85	8.15	36.00
5	*5180.00	97.20 PK			1.15 H	85	61.15	36.05
6	*5180.00	85.80 AV			1.15 H	85	49.75	36.05
7	#10360.00	62.20 PK	68.30	-6.10	1.14 H	91	16.28	45.92
NTENNA 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	4144.00	46.20 PK	74.00	-27.80	1.37 V	66	12.21	33.99
2	4144.00	36.90 AV	54.00	-17.10	1.37 V	66	2.91	33.99
3	5147.80	59.67 PK	74.00	-14.33	1.12 V	86	23.67	36.00
4	5147.80	48.44 AV	54.00	-5.56	1.12 V	86	12.44	36.00
5	*5180.00	105.00 PK			1.12 V	82	68.95	36.05
6	*5180.00	94.00 AV			1.12 V	82	57.95	36.05
7	#10360.00	55.50 PK	68.30	-12.80	1.07 V	26	9.58	45.92

- 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 2	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4160.00	45.60 PK	74.00	-28.40	1.23 H	0	11.56	34.04
2	4160.00	34.50 AV	54.00	-19.50	1.23 H	0	0.46	34.04
3	*5200.00	98.20 PK			1.13 H	92	62.12	36.08
4	*5200.00	86.10 AV			1.13 H	92	50.02	36.08
5	#10400.00	63.00 PK	68.30	-5.30	1.13 H	91	17.01	45.99

NTENNA 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	4160.00	46.40 PK	74.00	-27.60	1.39 V	67	12.36	34.04
2	4160.00	37.50 AV	54.00	-16.50	1.39 V	67	3.46	34.04
3	*5200.00	105.10 PK			1.33 V	66	69.02	36.08
4	*5200.00	94.30 AV			1.33 V	66	58.22	36.08
5	#10400.00	57.30 PK	68.30	-11.00	1.05 V	38	11.31	45.99

- 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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4192.00	45.80 PK	74.00	-28.20	1.26 H	7	11.68	34.12
2	4192.00	34.60 AV	54.00	-19.40	1.26 H	7	0.48	34.12
3	*5240.00	97.60 PK			1.16 H	93	61.46	36.14
4	*5240.00	85.90 AV			1.16 H	93	49.76	36.14
5	#10480.00	59.74 PK	68.30	-8.56	1.14 H	91	13.62	46.12

NTENNA 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	4192.00	46.60 PK	74.00	-27.40	1.33 V	58	12.48	34.12
2	4192.00	37.80 AV	54.00	-16.20	1.33 V	58	3.68	34.12
3	*5240.00	105.20 PK			1.32 V	77	69.06	36.14
4	*5240.00	94.20 AV			1.32 V	77	58.06	36.14
5	#10480.00	57.10 PK	68.30	-11.20	1.03 V	43	10.98	46.12

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4208.00	54.60 PK	74.00	-19.40	1.49 H	296	20.44	34.16
2	4208.00	41.72 AV	54.00	-12.28	1.49 H	296	7.56	34.16
3	*5260.00	100.32 PK			1.24 H	82	64.14	36.18
4	*5260.00	88.83 AV			1.24 H	82	52.65	36.18
5	#10520.00	64.00 PK	68.30	-4.30	1.69 H	85	17.81	46.19

NTENNA 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	4208.00	55.90 PK	74.00	-18.10	1.32 V	122	21.74	34.16
2	4208.00	41.90 AV	54.00	-12.10	1.32 V	122	7.74	34.16
3	*5260.00	108.00 PK			1.18 V	69	71.82	36.18
4	*5260.00	96.74 AV			1.18 V	69	60.56	36.18
5	#10520.00	60.02 PK	68.30	-8.28	1.56 V	39	13.83	46.19

- 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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4240.00	55.15 PK	74.00	-18.85	1.27 H	276	20.91	34.24
2	4240.00	42.14 AV	54.00	-11.86	1.27 H	276	7.90	34.24
3	*5300.00	99.15 PK			1.23 H	78	62.91	36.24
4	*5300.00	88.03 AV			1.23 H	78	51.79	36.24
5	10600.00	62.34 PK	74.00	-11.66	1.71 H	124	15.97	46.37
6	10600.00	48.04 AV	54.00	-5.96	1.71 H	124	1.67	46.37
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	4240.00	55.00 PK	74.00	-19.00	1.39 V	105	20.76	34.24
2	4240.00	42.70 AV	54.00	-11.30	1.39 V	105	8.46	34.24
3	*5300.00	106.60 PK			1.17 V	61	70.36	36.24
4	*5300.00	95.34 AV			1.17 V	61	59.10	36.24
5	10600.00	60.44 PK	74.00	-13.56	1.52 V	40	14.07	46.37
6	10600.00	45.80 AV	54.00	-8.20	1.52 V	40	-0.57	46.37

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 8	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4256.00	54.10 PK	74.00	-19.90	1.31 H	340	19.81	34.29
2	4256.00	41.50 AV	54.00	-12.50	1.31 H	340	7.21	34.29
3	*5320.00	99.90 PK			1.23 H	78	63.63	36.27
4	*5320.00	88.41 AV			1.23 H	78	52.14	36.27
5	5452.30	56.95 PK	74.00	-17.05	1.24 H	75	20.47	36.48
6	5452.30	43.14 AV	54.00	-10.86	1.24 H	75	6.66	36.48
7	10640.00	62.90 PK	74.00	-11.10	1.14 H	116	16.44	46.46
8	10640.00	48.80 AV	54.00	-5.20	1.14 H	116	2.34	46.46
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4256.00	55.23 PK	74.00	-18.77	1.39 V	107	20.94	34.29
2	4256.00	42.00 AV	54.00	-12.00	1.39 V	107	7.71	34.29
3	*5320.00	107.51 PK			1.16 V	64	71.24	36.27
4	*5320.00	96.15 AV			1.16 V	64	59.88	36.27
5	5407.64	61.76 PK	74.00	-12.24	1.14 V	64	25.35	36.41
6	5407.64	48.29 AV	54.00	-5.71	1.14 V	64	11.88	36.41
7	10640.00	58.40 PK	74.00	-15.60	1.18 V	122	11.94	46.46
8	10640.00	44.50 AV	54.00	-9.50	1.18 V	122	-1.96	46.46

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4400.00	54.20 PK	74.00	-19.80	1.55 H	67	19.54	34.66
2	4400.00	42.30 AV	54.00	-11.70	1.55 H	67	7.64	34.66
3	5460.00	56.40 PK	74.00	-17.60	1.20 H	258	19.90	36.50
4	5460.00	44.10 AV	54.00	-9.90	1.20 H	258	7.60	36.50
5	#5470.00	52.40 PK	68.30	-15.90	1.29 H	55	15.89	36.51
6	*5500.00	98.10 PK			1.29 H	55	61.54	36.56
7	*5500.00	87.30 AV			1.29 H	55	50.74	36.56
8	11000.00	59.30 PK	74.00	-14.70	1.16 H	107	12.05	47.25
9	11000.00	44.90 AV	54.00	-9.10	1.16 H	107	-2.35	47.25
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	4400.00	55.60 PK	74.00	-18.40	1.21 V	46	20.94	34.66
2	4400.00	43.10 AV	54.00	-10.90	1.21 V	46	8.44	34.66
3	5447.90	63.18 PK	74.00	-10.82	1.03 V	61	26.68	36.50
4	5447.90	50.70 AV	54.00	-3.30	1.03 V	61	14.20	36.50
5	#5470.00	60.40 PK	68.30	-7.90	1.03 V	61	23.89	36.51
6	*5500.00	105.40 PK			1.14 V	65	68.84	36.56
7	*5500.00	94.15 AV			1.14 V	65	57.59	36.56
8	11000.00	57.40 PK	74.00	-16.60	1.20 V	104	10.15	47.25
9	11000.00	43.60 AV	54.00	-10.40	1.20 V	104	-3.65	47.25

- 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.
 5. “ * ”: Fundamental frequency.
 6. “#”: The radiated frequency is out the restricted band.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 14	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#4480.00	55.20 PK	68.30	-13.10	1.57 H	69	20.33	34.87
3	*5600.00	98.00 PK			1.24 H	60	61.18	36.82
4	*5600.00	87.20 AV			1.24 H	60	50.38	36.82
5	11200.00	60.10 PK	74.00	-13.90	1.14 H	127	12.94	47.16
6	11200.00	46.80 AV	54.00	-7.20	1.14 H	127	-0.36	47.16
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	#4480.00	56.10 PK	68.30	-12.20	1.24 V	83	21.23	34.87
3	*5600.00	105.60 PK			1.08 V	72	68.78	36.82
4	*5600.00	94.30 AV			1.08 V	72	57.48	36.82
5	11200.00	57.90 PK	74.00	-16.10	1.15 V	107	10.74	47.16
6	11200.00	43.80 AV	54.00	-10.20	1.15 V	107	-3.36	47.16

- 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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 19	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4560.00	55.40 PK	74.00	-18.60	1.54 H	88	20.38	35.02
2	4560.00	43.40 AV	54.00	-10.60	1.54 H	88	8.38	35.02
3	*5700.00	99.10 PK			1.26 H	59	62.01	37.09
4	*5700.00	88.20 AV			1.26 H	59	51.11	37.09
5	#5725.00	53.70 PK	78.30	-24.60	1.26 H	59	16.55	37.15
6	11400.00	59.80 PK	74.00	-14.20	1.31 H	106	12.73	47.07
7	11400.00	46.40 AV	54.00	-7.60	1.31 H	106	-0.67	47.07
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	4560.00	55.40 PK	74.00	-18.60	1.54 V	88	20.38	35.02
2	4560.00	43.40 AV	54.00	-10.60	1.54 V	88	8.38	35.02
3	*5700.00	99.10 PK			1.26 V	59	62.01	37.09
4	*5700.00	88.20 AV			1.26 V	59	51.11	37.09
5	#5725.00	53.70 PK	78.30	-24.60	1.26 V	59	16.55	37.15
6	11400.00	59.80 PK	74.00	-14.20	1.31 V	106	12.73	47.07
7	11400.00	46.40 AV	54.00	-7.60	1.31 V	106	-0.67	47.07

- 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 20	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4596.00	55.20 PK	74.00	-18.80	1.50 H	44	20.12	35.08
2	4596.00	43.30 AV	54.00	-10.70	1.50 H	44	8.22	35.08
3	#5715.00	51.30 PK	68.30	-17.00	1.32 H	68	14.17	37.13
4	#5725.00	57.60 PK	78.30	-20.70	1.32 H	68	20.45	37.15
5	*5745.00	99.20 PK			1.32 H	68	61.99	37.21
6	*5745.00	88.40 AV			1.32 H	68	51.19	37.21
7	11490.00	59.90 PK	74.00	-14.10	1.57 H	104	12.87	47.03
8	11490.00	46.70 AV	54.00	-7.30	1.57 H	104	-0.33	47.03
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	4596.00	56.30 PK	74.00	-17.70	1.26 V	64	21.22	35.08
2	4596.00	44.40 AV	54.00	-9.60	1.26 V	64	9.32	35.08
3	#5715.00	58.10 PK	68.30	-10.20	1.19 V	48	20.97	37.13
4	#5725.00	63.70 PK	78.30	-14.60	1.19 V	48	26.55	37.15
5	*5745.00	105.50 PK			1.20 V	56	68.29	37.21
6	*5745.00	94.70 AV			1.20 V	56	57.49	37.21
7	11490.00	57.30 PK	74.00	-16.70	1.16 V	104	10.27	47.03
8	11490.00	42.30 AV	54.00	-11.70	1.16 V	104	-4.73	47.03

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 22	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, %RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4628.00	58.60 PK	74.00	-15.40	1.54 H	97	23.46	35.14
2	4628.00	46.20 AV	54.00	-7.80	1.54 H	97	11.06	35.14
3	*5785.00	98.80 PK			1.24 H	75	61.49	37.31
4	*5785.00	88.30 AV			1.24 H	75	50.99	37.31
5	11570.00	58.90 PK	74.00	-15.10	1.54 H	132	11.93	46.97
6	11570.00	45.70 AV	54.00	-8.30	1.54 H	132	-1.27	46.97
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4628.00	58.10 PK	74.00	-15.90	1.24 V	62	22.96	35.14
2	4628.00	50.40 AV	54.00	-3.60	1.24 V	62	15.26	35.14
3	*5785.00	105.20 PK			1.13 V	74	67.89	37.31
4	*5785.00	94.20 AV			1.13 V	74	56.89	37.31
5	11570.00	55.60 PK	74.00	-18.40	1.27 V	110	8.63	46.97
6	11570.00	42.80 AV	54.00	-11.20	1.27 V	110	-4.17	46.97

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 23	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4644.00	57.10 PK	74.00	-16.90	1.27 H	38	21.94	35.16
2	4644.00	45.00 AV	54.00	-9.00	1.27 H	38	9.84	35.16
3	*5805.00	98.30 PK			1.24 H	79	60.93	37.37
4	*5805.00	88.40 AV			1.24 H	79	51.03	37.37
5	#5825.00	54.60 PK	78.30	-23.70	1.24 H	76	17.18	37.42
6	#5835.00	47.60 PK	68.30	-20.70	1.24 H	76	10.16	37.44
7	11610.00	58.40 PK	74.00	-15.60	1.56 H	105	11.47	46.93
8	11610.00	45.30 AV	54.00	-8.70	1.56 H	105	-1.63	46.93
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	4644.00	59.20 PK	74.00	-14.80	1.22 V	63	24.04	35.16
2	4644.00	53.50 AV	54.00	-0.50	1.22 V	63	18.34	35.16
3	*5805.00	105.60 PK			1.12 V	69	68.23	37.37
4	*5805.00	94.50 AV			1.12 V	69	57.13	37.37
5	#5825.00	60.70 PK	78.30	-17.60	1.17 V	62	23.28	37.42
6	#5835.00	52.10 PK	68.30	-16.20	1.17 V	62	14.66	37.44
7	11610.00	57.80 PK	74.00	-16.20	1.21 V	112	10.87	46.93
8	11610.00	43.50 AV	54.00	-10.50	1.21 V	112	-3.43	46.93

- 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.

Offset 10 dB

Ref 117 dBuV *Att 10 dB *RBW 1 MHz Marker 1 [T1] 55.34 dBuV
*VBW 3 MHz SWF 20 ms 5.150000000 GHz

Limit 1

Start 4.5 GHz 65 MHz/ Stop 5.15 GHz

1 PK VIEW

LVL
TDF
SDB

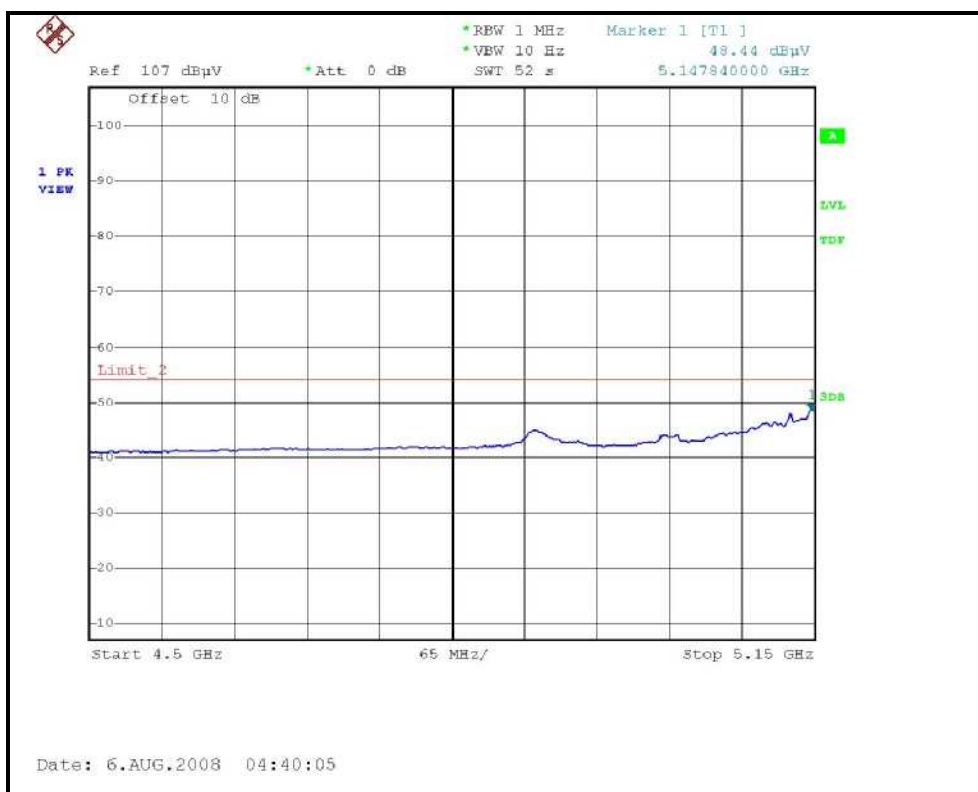
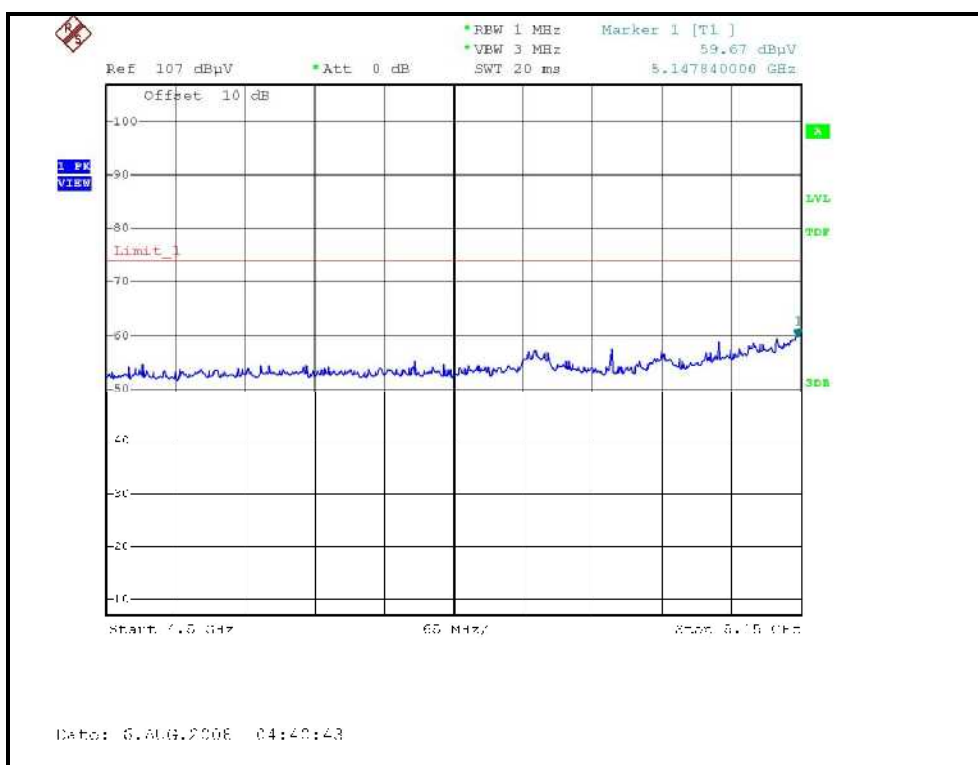
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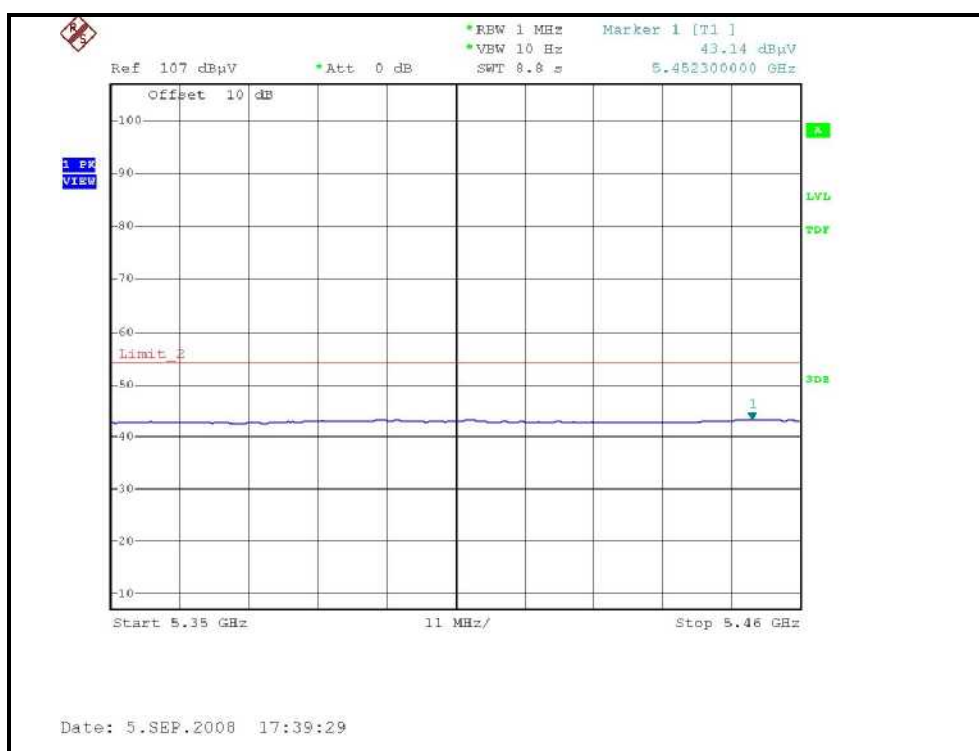
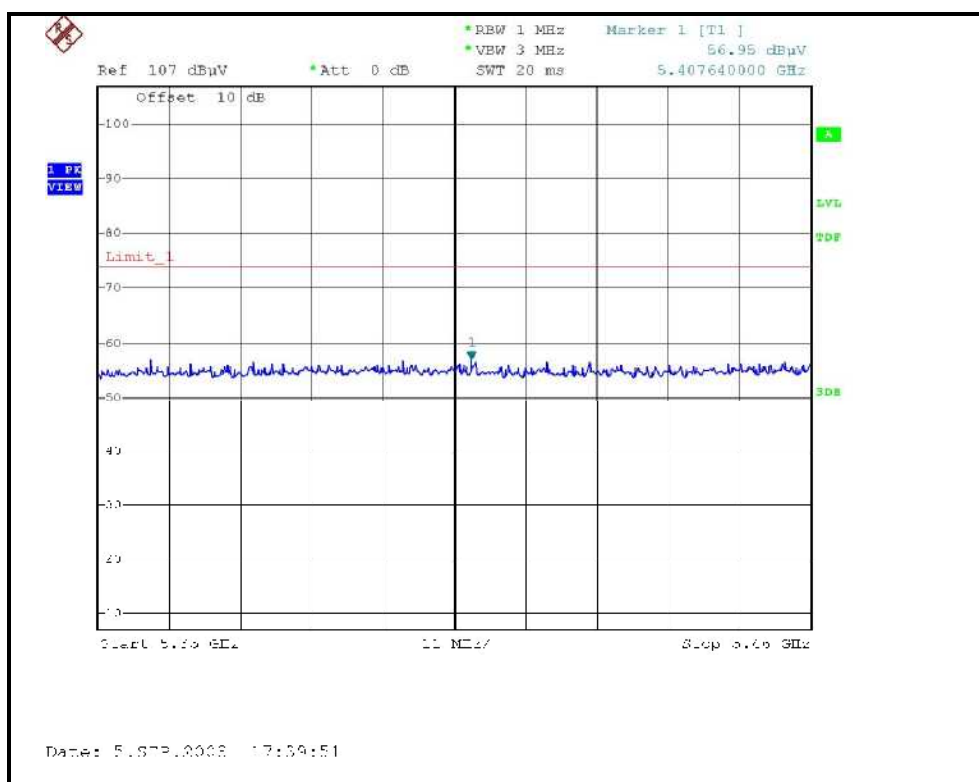
RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH1, VERTICAL)



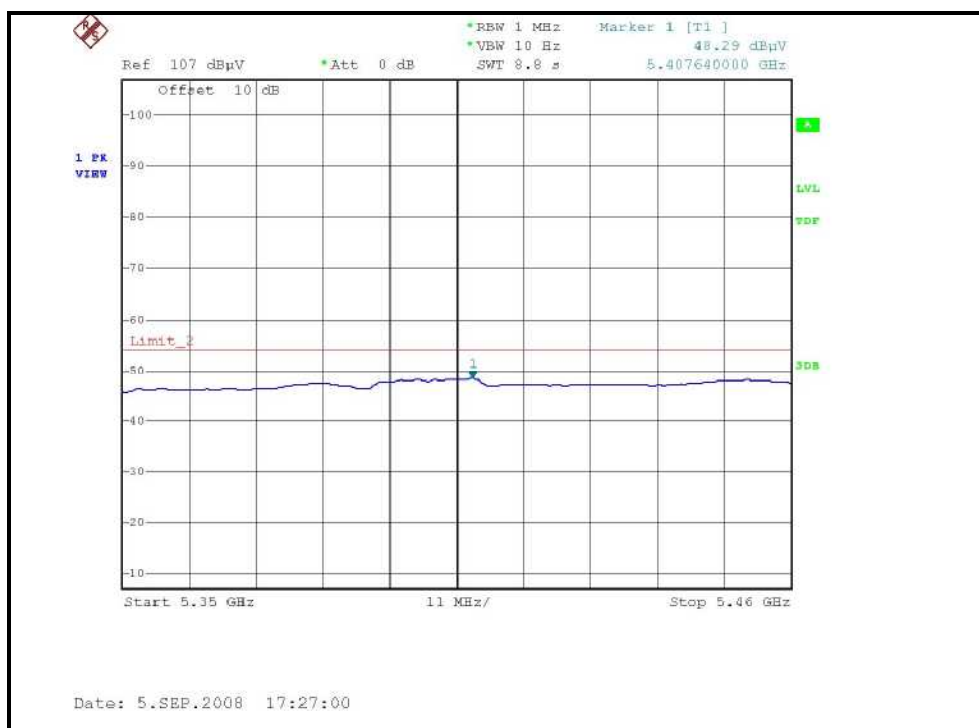
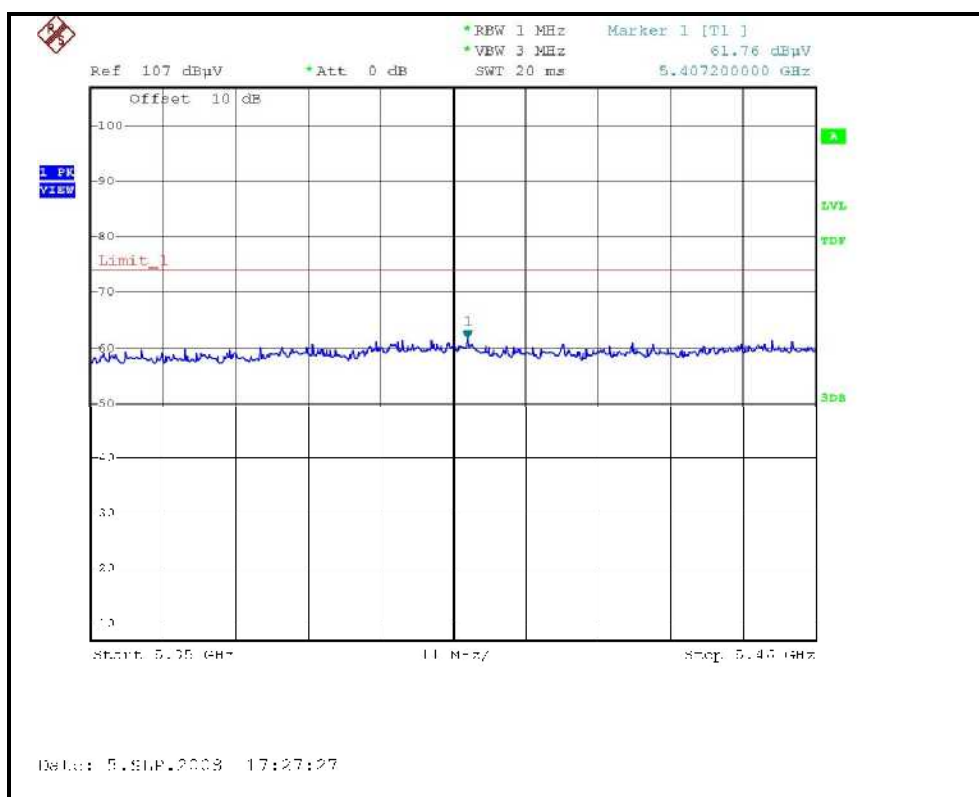


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RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH8, HORIZONTAL)



RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH8, VERTICAL)



Ref 117 dBuV *Att 10 dB RBW 1 MHz Marker 1 [T1] 55.68 dBuV
 VEW 3 MHz SWT 20 ms 5.436240000 GHz

Offset 10 dB

Limit 1

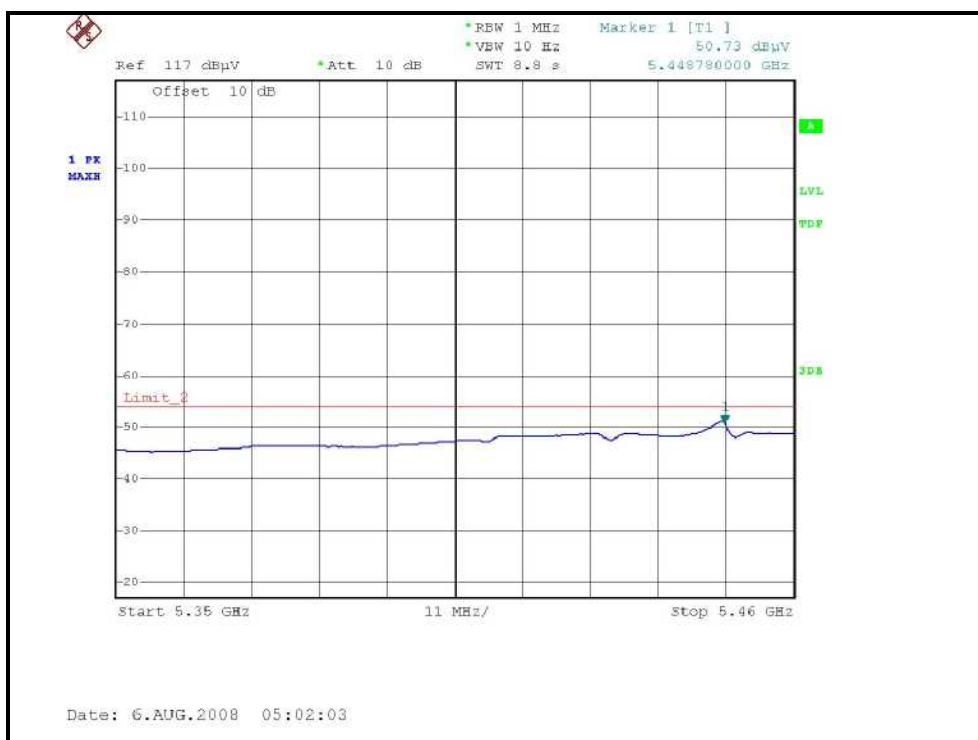
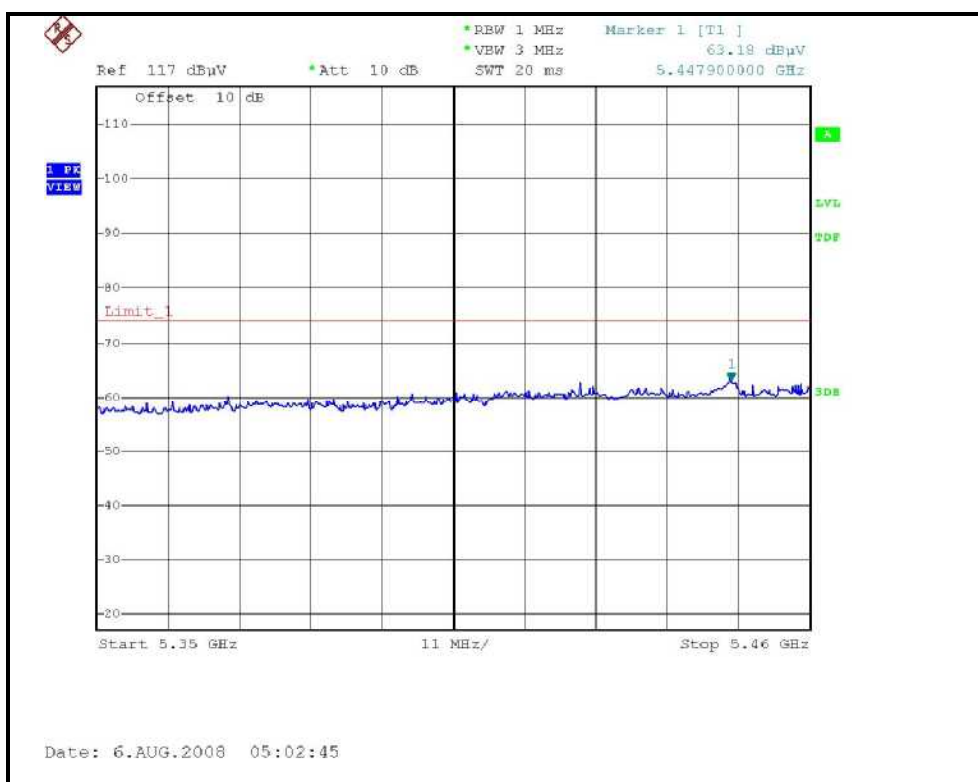
Start 5.35 GHz 11 MHz/ Stop 5.46 GHz





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RESTRICTED BANDEDGE (DRAFT 802.11n (20MHz) MODE,CH9, VERTICAL)



DRAFT 802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4152.00	44.60 PK	74.00	-29.40	1.26 H	329	10.58	34.02
2	4152.00	32.10 AV	54.00	-21.90	1.26 H	329	-1.92	34.02
3	5150.00	61.76 PK	74.00	-12.24	1.36 H	265	25.76	36.00
4	5150.00	43.61 AV	54.00	-10.39	1.36 H	265	7.61	36.00
5	*5190.00	93.60 PK			1.09 H	0	57.54	36.06
6	*5190.00	82.70 AV			1.09 H	0	46.64	36.06
7	#10380.00	59.00 PK	68.30	-9.30	1.16 H	87	13.04	45.96
NTENNA 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	4152.00	46.10 PK	74.00	-27.90	1.34 V	75	12.08	34.02
2	4152.00	36.70 AV	54.00	-17.30	1.34 V	75	2.68	34.02
3	5150.00	56.30 PK	74.00	-17.70	1.35 V	256	20.30	36.00
4	5150.00	46.69 AV	54.00	-7.31	1.35 V	256	10.69	36.00
5	*5190.00	104.00 PK			1.18 V	60	67.94	36.06
6	*5190.00	92.90 AV			1.18 V	60	56.84	36.06
7	#10380.00	53.80 PK	68.30	-14.50	1.07 V	63	7.84	45.96

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4184.00	44.90 PK	74.00	-29.10	1.24 H	331	10.80	34.10
2	4184.00	32.90 AV	54.00	-21.10	1.24 H	331	-1.20	34.10
3	*5230.00	93.20 PK			1.04 H	39	57.07	36.13
4	*5230.00	82.40 AV			1.04 H	39	46.27	36.13
5	#10460.00	59.20 PK	68.30	-9.10	1.21 H	92	13.11	46.09

NTENNA 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	4184.00	47.20 PK	74.00	-26.80	1.32 V	68	13.10	34.10
2	4184.00	37.30 AV	54.00	-16.70	1.32 V	68	3.20	34.10
3	*5230.00	103.80 PK			1.17 V	58	67.67	36.13
4	*5230.00	92.60 AV			1.17 V	58	56.47	36.13
5	#10460.00	54.20 PK	68.30	-14.10	1.06 V	79	8.11	46.09

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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4216.00	44.50 PK	74.00	-29.50	1.24 H	331	10.32	34.18
2	4216.00	32.40 AV	54.00	-21.60	1.24 H	331	-1.78	34.18
3	*5270.00	93.50 PK			1.07 H	64	57.31	36.19
4	*5270.00	82.60 AV			1.07 H	64	46.41	36.19
5	#10540.00	58.40 PK	68.30	-9.90	1.23 H	91	12.16	46.24

NTENNA 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	4216.00	45.70 PK	74.00	-28.30	1.34 V	59	11.52	34.18
2	4216.00	36.40 AV	54.00	-17.60	1.34 V	59	2.22	34.18
3	*5270.00	104.20 PK			1.16 V	48	68.01	36.19
4	*5270.00	93.10 AV			1.16 V	48	56.91	36.19
5	#10540.00	53.10 PK	68.30	-15.20	1.09 V	48	6.86	46.24

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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4248.00	45.70 PK	74.00	-28.30	1.29 H	310	11.44	34.26
2	4248.00	31.20 AV	54.00	-22.80	1.29 H	310	-3.06	34.26
3	*5310.00	93.80 PK			1.08 H	62	57.54	36.26
4	*5310.00	82.90 AV			1.08 H	62	46.64	36.26
5	5350.00	59.89 PK	74.00	-14.11	1.22 H	258	23.57	36.32
6	5350.00	45.00 AV	54.00	-9.00	1.22 H	258	8.68	36.32
7	10620.00	58.60 PK	74.00	-15.40	1.27 H	89	12.19	46.41
8	10620.00	44.50 AV	54.00	-9.50	1.27 H	89	-1.91	46.41
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	4248.00	45.80 PK	74.00	-28.20	1.37 V	64	11.54	34.26
2	4248.00	34.60 AV	54.00	-19.40	1.37 V	64	0.34	34.26
3	*5310.00	104.70 PK			1.15 V	62	68.44	36.26
4	*5310.00	93.70 AV			1.15 V	62	57.44	36.26
5	5351.54	65.97 PK	74.00	-8.03	1.14 V	258	29.65	36.32
6	5351.54	52.02 AV	54.00	-1.98	1.14 V	258	15.70	36.32
7	10620.00	52.80 PK	74.00	-21.20	1.09 V	53	6.39	46.41
8	10620.00	42.50 AV	54.00	-11.50	1.09 V	53	-3.91	46.41

- 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.
6. “#”: The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#4408.00	49.20 PK	68.30	-19.10	1.27 H	330	14.52	34.68
3	5460.00	57.60 PK	74.00	-16.40	1.19 H	255	21.10	36.50
4	5460.00	43.99 AV	54.00	-10.01	1.19 H	255	7.49	36.50
5	#5470.00	50.40 PK	68.30	-17.90	1.19 H	255	13.89	36.51
6	*5510.00	92.40 PK			1.08 H	23	55.81	36.59
7	*5510.00	81.90 AV			1.08 H	23	45.31	36.59
8	11020.00	57.10 PK	74.00	-16.90	1.39 H	59	9.86	47.24
9	11020.00	44.60 AV	54.00	-9.40	1.39 H	59	-2.64	47.24
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	#4408.00	53.20 PK	68.30	-15.10	1.31 V	65	18.52	34.68
3	5459.56	61.87 PK	74.00	-12.13	1.13 V	245	25.37	36.50
4	5459.56	47.71 AV	54.00	-6.29	1.13 V	245	11.21	36.50
5	#5470.00	59.61 PK	68.30	-8.69	1.10 V	64	23.10	36.51
6	*5510.00	103.30 PK			1.10 V	64	66.71	36.59
7	*5510.00	92.10 AV			1.10 V	64	55.51	36.59
8	11020.00	57.10 PK	74.00	-16.90	1.11 V	92	9.86	47.24
9	11020.00	43.90 AV	54.00	-10.10	1.11 V	92	-3.34	47.24

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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#4472.00	48.30 PK	68.30	-20.00	1.26 H	319	13.45	34.85
3	*5590.00	91.80 PK			1.09 H	24	55.00	36.80
4	*5590.00	81.20 AV			1.09 H	24	44.40	36.80
5	11180.00	56.90 PK	74.00	-17.10	1.43 H	58	9.73	47.17
6	11180.00	44.10 AV	54.00	-9.90	1.43 H	58	-3.07	47.17
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	#4472.00	53.40 PK	68.30	-14.90	1.30 V	70	18.55	34.85
3	*5590.00	103.20 PK			1.16 V	93	66.40	36.80
4	*5590.00	91.90 AV			1.16 V	93	55.10	36.80
5	11180.00	56.50 PK	74.00	-17.50	1.12 V	117	9.33	47.17
6	11180.00	43.60 AV	54.00	-10.40	1.12 V	117	-3.57	47.17

- 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.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4536.00	54.60 PK	74.00	-19.40	1.29 H	337	19.62	34.98
2	4536.00	38.90 AV	54.00	-15.10	1.29 H	337	3.92	34.98
3	*5670.00	91.40 PK			1.10 H	33	54.39	37.01
4	*5670.00	81.00 AV			1.10 H	33	43.99	37.01
5	#5725.00	56.30 PK	78.30	-22.00	1.16 H	250	19.15	37.15
6	11340.00	56.40 PK	74.00	-17.60	1.56 H	47	9.30	47.10
7	11340.00	43.20 AV	54.00	-10.80	1.56 H	47	-3.90	47.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4536.00	57.10 PK	74.00	-16.90	1.24 V	86	22.12	34.98
2	4536.00	46.40 AV	54.00	-7.60	1.24 V	86	11.42	34.98
3	*5670.00	103.10 PK			1.18 V	64	66.09	37.01
4	*5670.00	91.80 AV			1.18 V	64	54.79	37.01
5	#5725.00	58.50 PK	78.30	-19.80	1.18 V	64	21.35	37.15
6	11340.00	57.10 PK	74.00	-16.90	1.03 V	107	10.00	47.10
7	11340.00	43.50 AV	54.00	-10.50	1.03 V	107	-3.60	47.10

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 10	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4604.00	54.20 PK	74.00	-19.80	1.33 H	342	19.11	35.09
2	4604.00	38.40 AV	54.00	-15.60	1.33 H	342	3.31	35.09
3	#5715.00	46.20 PK	68.30	-22.10	1.20 H	277	9.07	37.13
4	#5725.00	58.30 PK	78.30	-20.00	1.20 H	277	21.15	37.15
5	*5755.00	91.60 PK			1.20 H	31	54.37	37.23
6	*5755.00	81.10 AV			1.20 H	31	43.87	37.23
7	11510.00	56.60 PK	74.00	-17.40	1.43 H	49	9.58	47.02
8	11510.00	43.70 AV	54.00	-10.30	1.43 H	49	-3.32	47.02
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	4604.00	57.40 PK	74.00	-16.60	1.22 V	66	22.31	35.09
2	4604.00	46.00 AV	54.00	-8.00	1.22 V	66	10.91	35.09
3	#5715.00	48.10 PK	68.30	-20.20	1.17 V	65	10.97	37.13
4	#5725.00	50.40 PK	78.30	-27.90	1.17 V	65	13.25	37.15
5	*5755.00	102.70 PK			1.16 V	64	65.47	37.23
6	*5755.00	91.90 AV			1.16 V	64	54.67	37.23
7	11510.00	57.20 PK	74.00	-16.80	1.04 V	121	10.18	47.02
8	11510.00	43.60 AV	54.00	-10.40	1.04 V	121	-3.42	47.02

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 11	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	27deg. C, 67%RH 965hPa	TESTED BY	Frank Liu

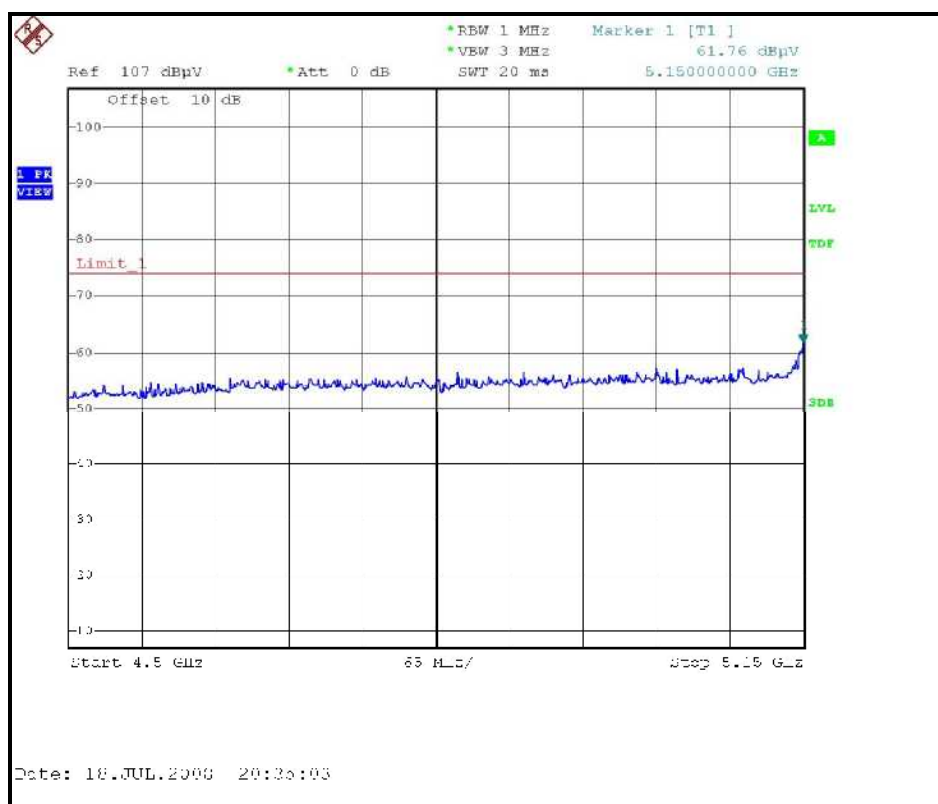
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4636.00	56.60 PK	74.00	-17.40	1.24 H	357	21.45	35.15
2	4636.00	43.90 AV	54.00	-10.10	1.24 H	357	8.75	35.15
3	*5795.00	91.30 PK			1.14 H	32	53.96	37.34
4	*5795.00	80.90 AV			1.14 H	32	43.56	37.34
5	#5825.00	46.70 PK	78.30	-31.60	1.24 H	213	9.28	37.42
6	#5835.00	44.50 PK	68.30	-23.80	1.24 H	213	7.06	37.44
7	11590.00	56.50 PK	74.00	-17.50	1.53 H	51	9.55	46.95
8	11590.00	44.10 AV	54.00	-9.90	1.53 H	51	-2.85	46.95
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	4636.00	59.30 PK	74.00	-14.70	1.20 V	64	24.15	35.15
2	4636.00	52.50 AV	54.00	-1.50	1.20 V	64	17.35	35.15
3	*5795.00	102.10 PK			1.26 V	67	64.76	37.34
4	*5795.00	91.70 AV			1.26 V	67	54.36	37.34
5	#5825.00	48.30 PK	78.30	-30.00	1.26 V	65	10.88	37.42
6	#5835.00	46.42 PK	68.30	-21.88	1.26 V	65	8.98	37.44
7	11590.00	57.90 PK	74.00	-16.10	1.07 V	124	10.95	46.95
8	11590.00	44.10 AV	54.00	-9.90	1.07 V	124	-2.85	46.95

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.

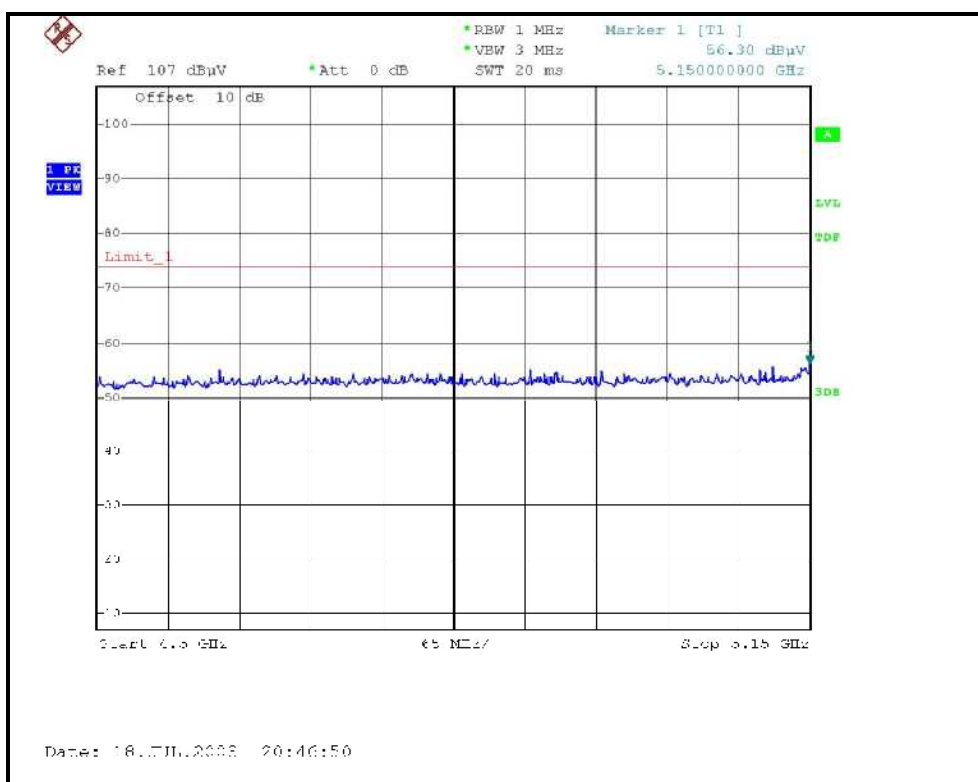


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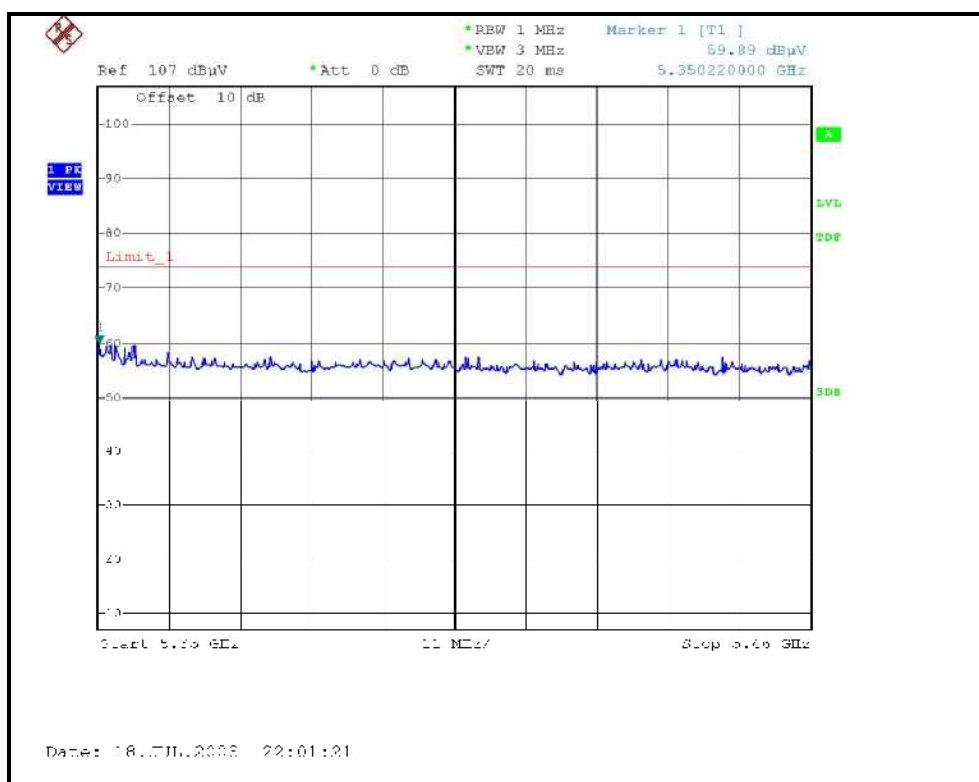
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH1, HORIZONTAL)



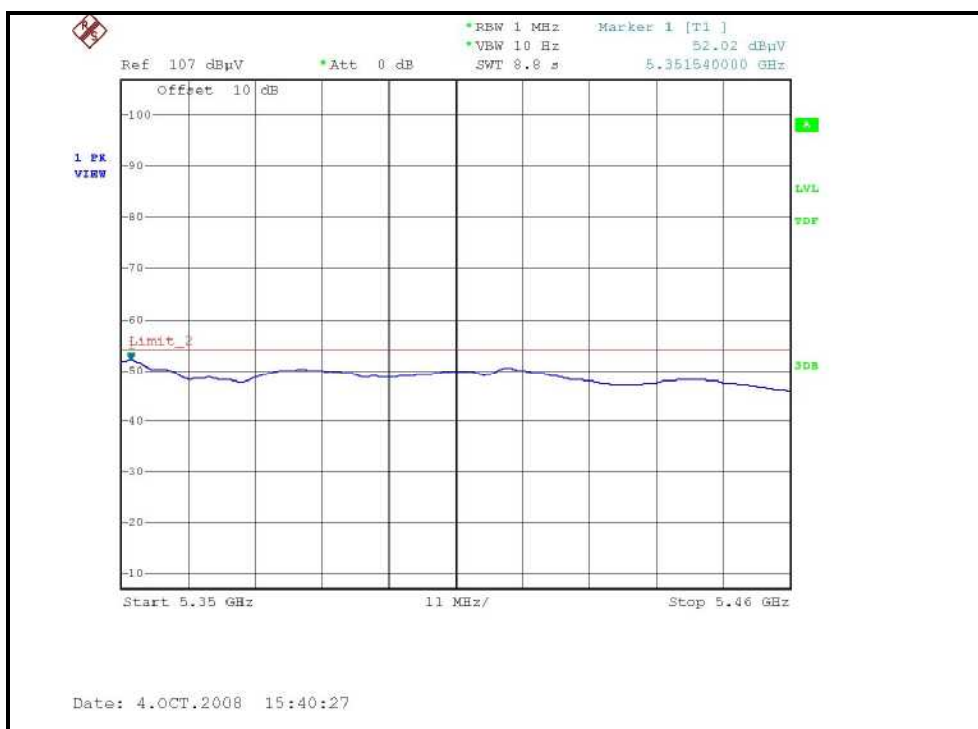
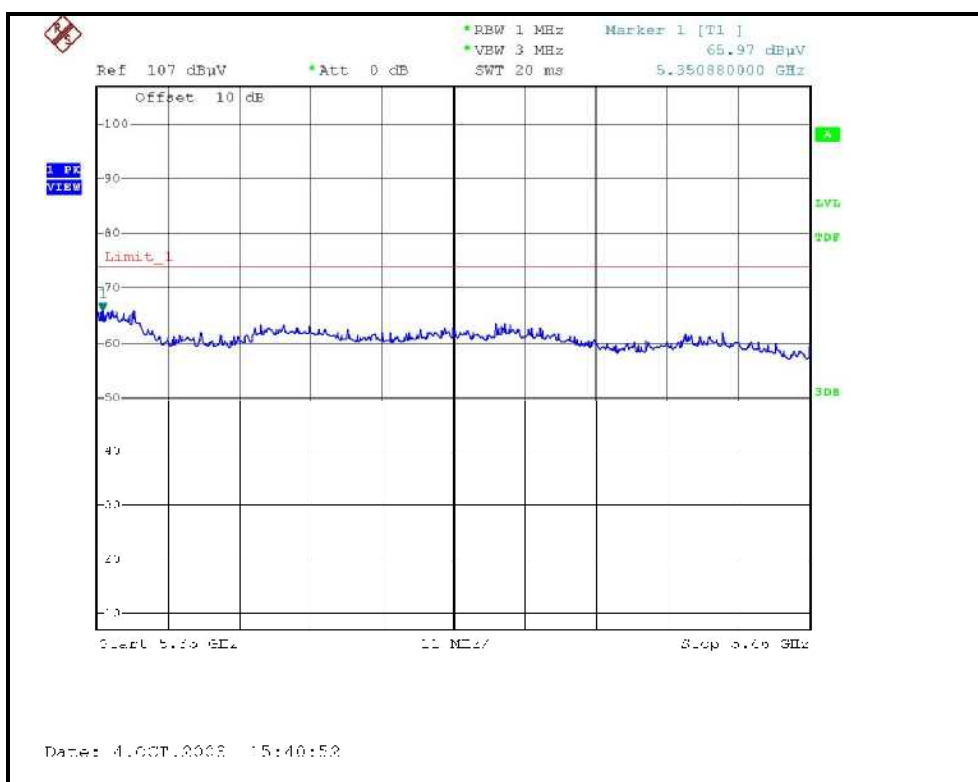
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE,CH1, VERTICAL)



RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH4, HORIZONTAL)



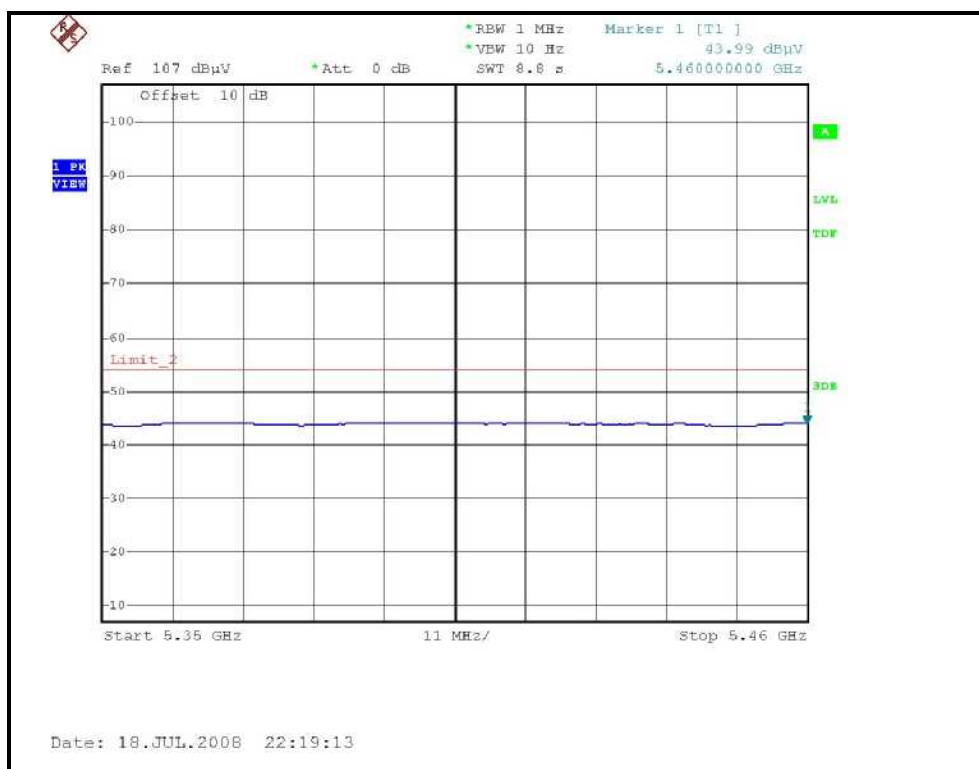
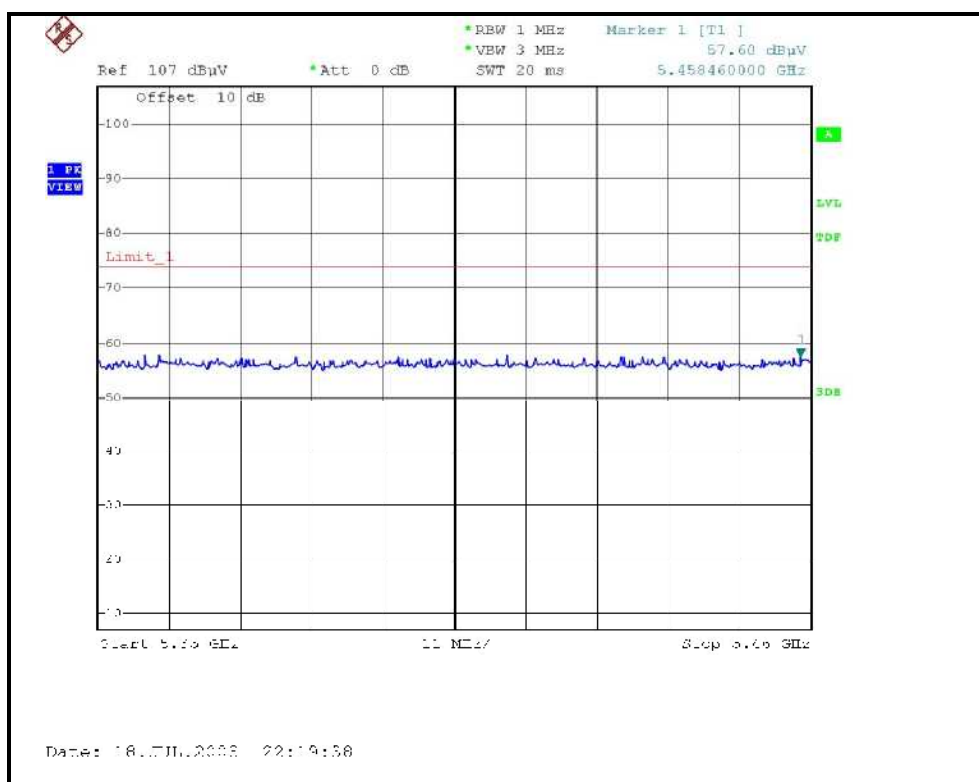
RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH4, VERTICAL)



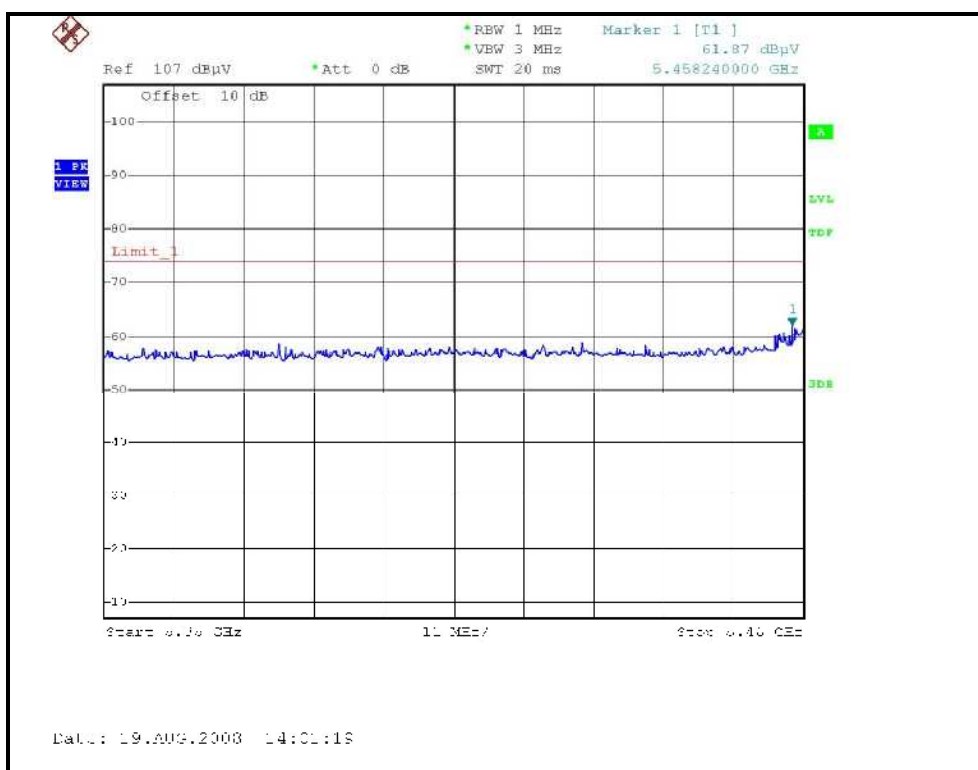


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RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH5, HORIZONTAL)



RESTRICTED BANDEDGE (DRAFT 802.11n (40MHz) MODE, CH5, 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
ADVANTEST SPECTRUM ANALYZER	U3772	160100280	July 26, 2008	July 25, 2009

NOTE:

- 1.The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
- 2.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:

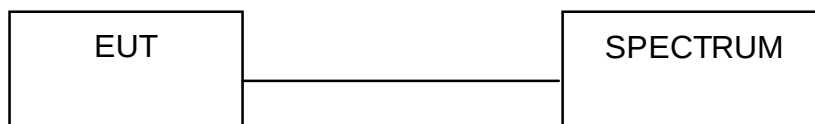
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

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:

MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 965hPa
TESTED BY	Rex Huang		

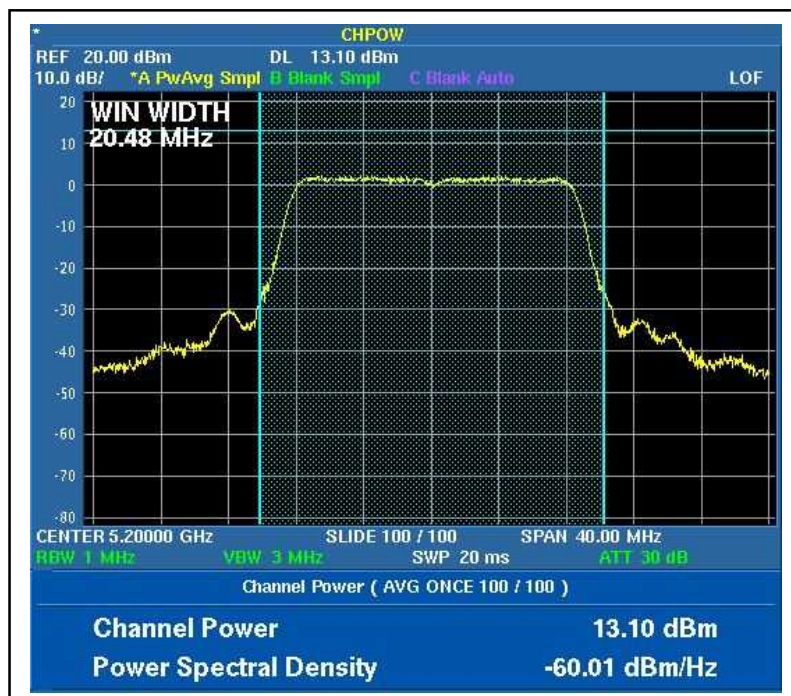
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER OUTPUT (mW)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/FAIL
1	5180	12.32	17.061	17	20.68	PASS
2	5200	13.10	20.417	17	20.48	PASS
4	5240	12.69	18.578	17	20.6	PASS
5	5260	12.46	17.620	24	20.36	PASS
7	5300	12.43	17.498	24	20.4	PASS
8	5320	12.71	18.664	24	20.48	PASS
9	5500	12.82	19.143	24	20.36	PASS
14	5600	13.36	21.677	24	20.28	PASS
19	5700	12.72	18.707	24	20.48	PASS
20	5745	13.07	20.277	30	20.68	PASS
22	5785	13.68	23.335	30	20.32	PASS
23	5805	13.26	21.184	30	20.56	PASS

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

Peak Power Output:
CH1



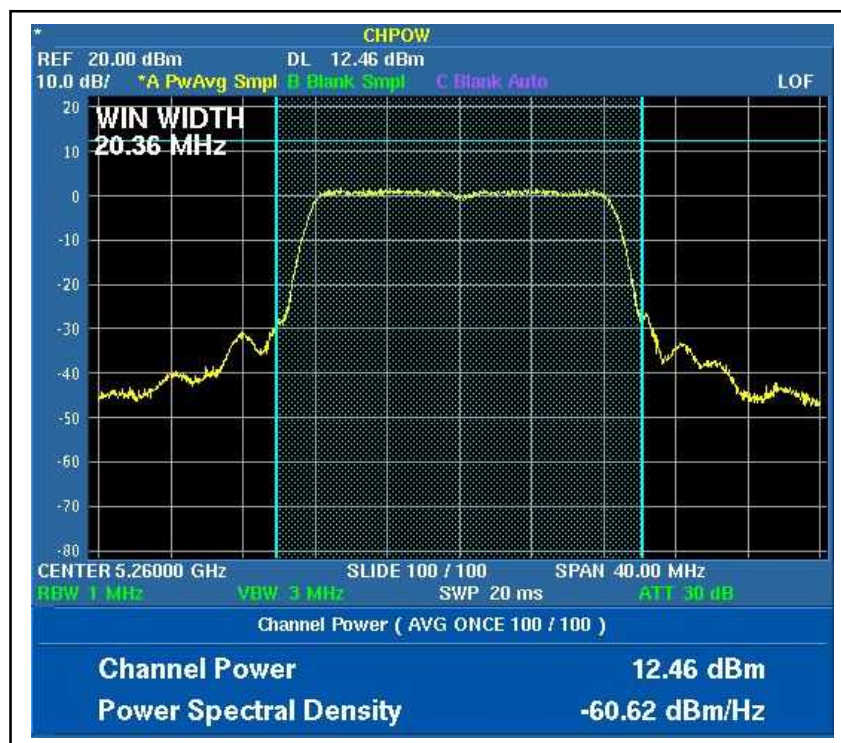
CH2



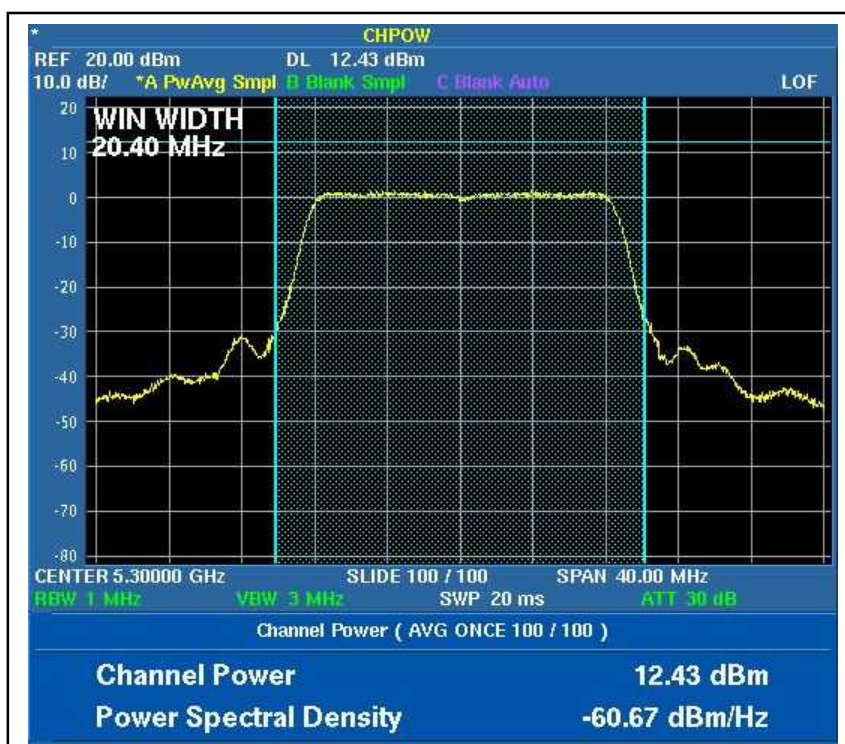
CH4



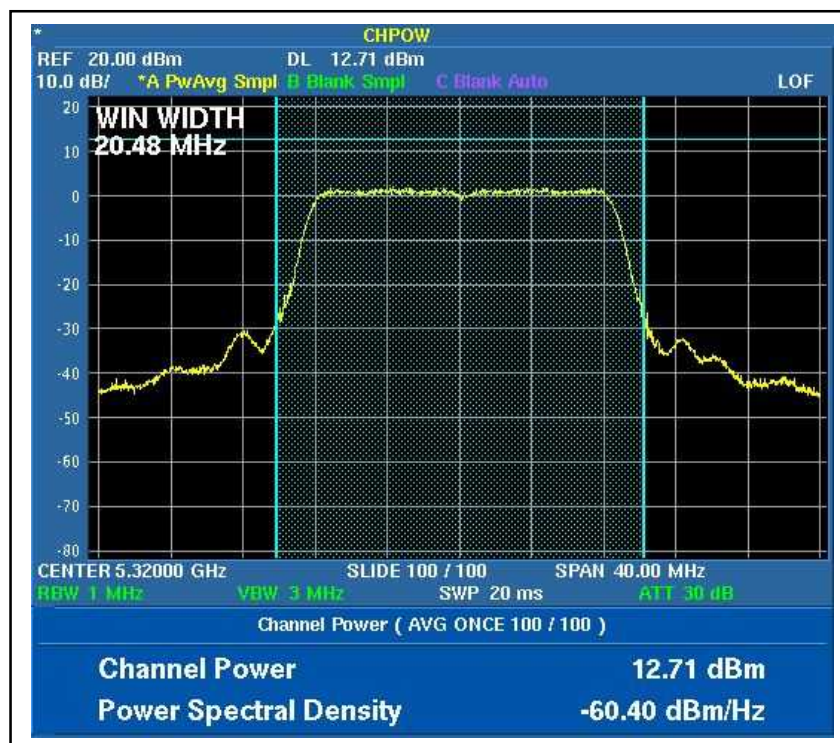
CH5



CH7



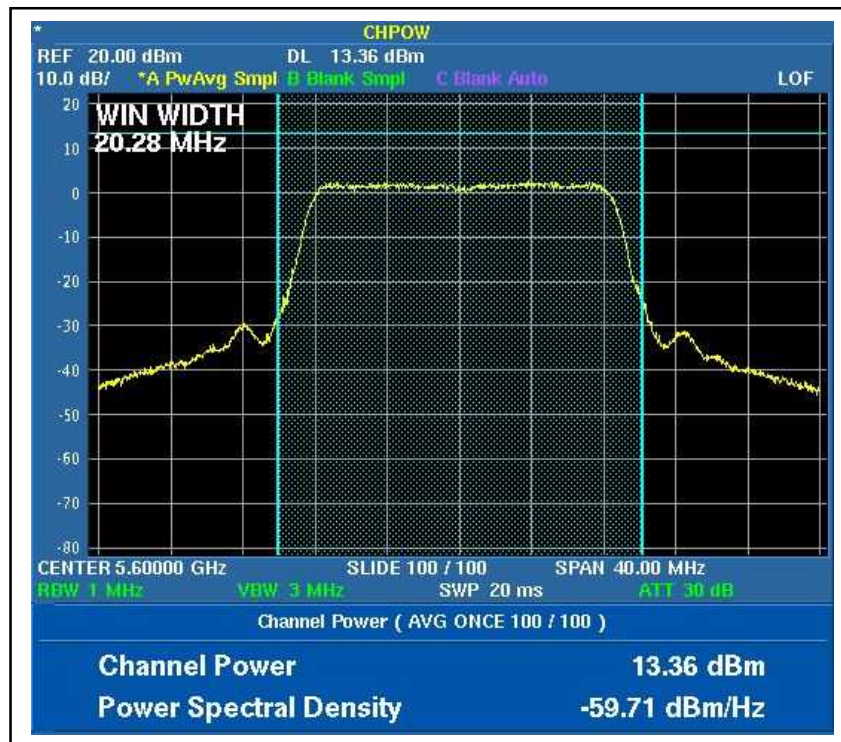
CH8



CH9



CH14



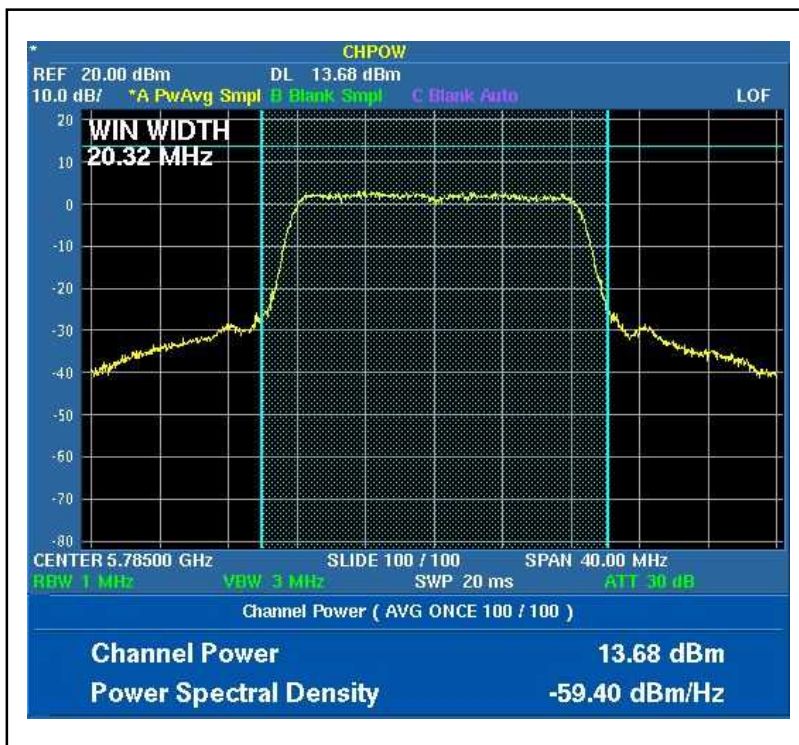
CH19



CH20



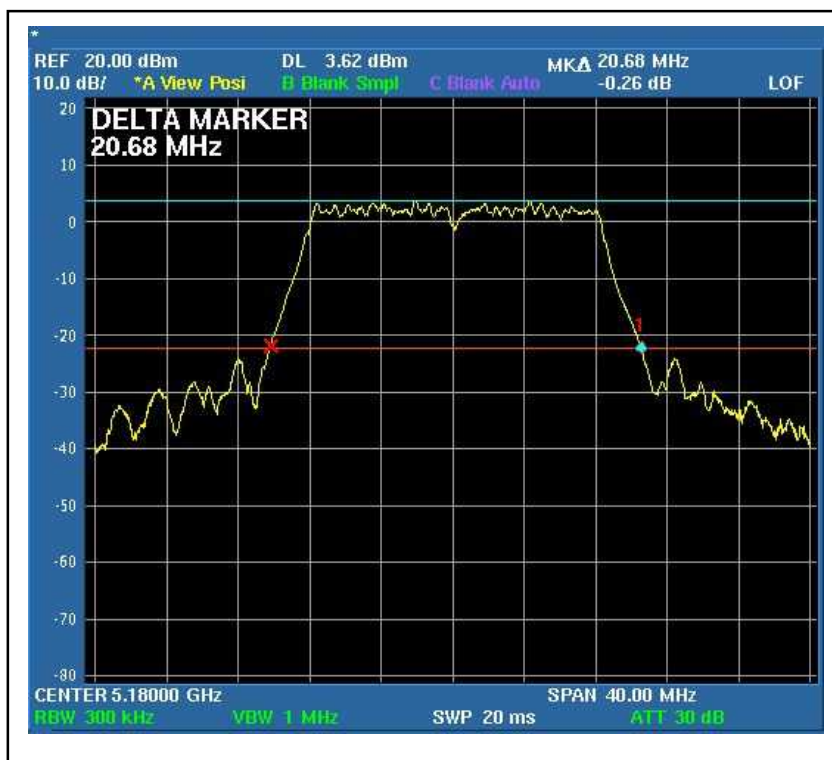
CH22



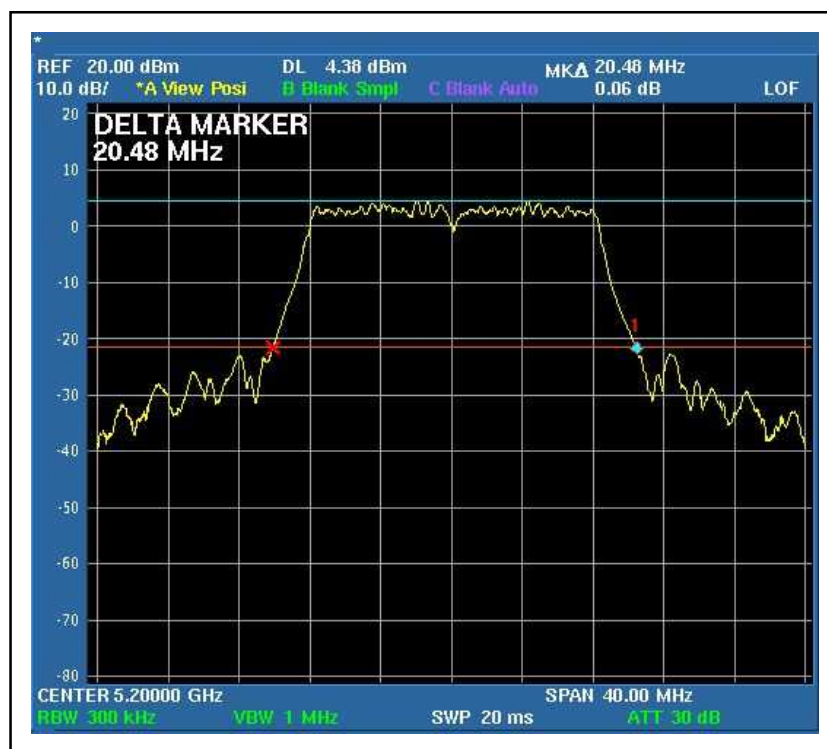
CH23



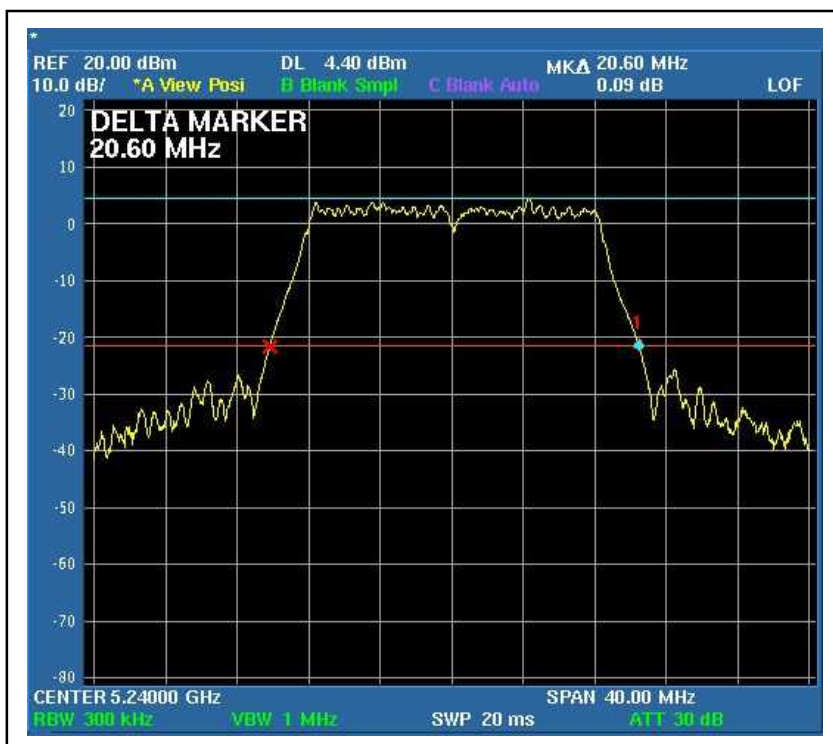
26dB Occupied Bandwidth:
CH1



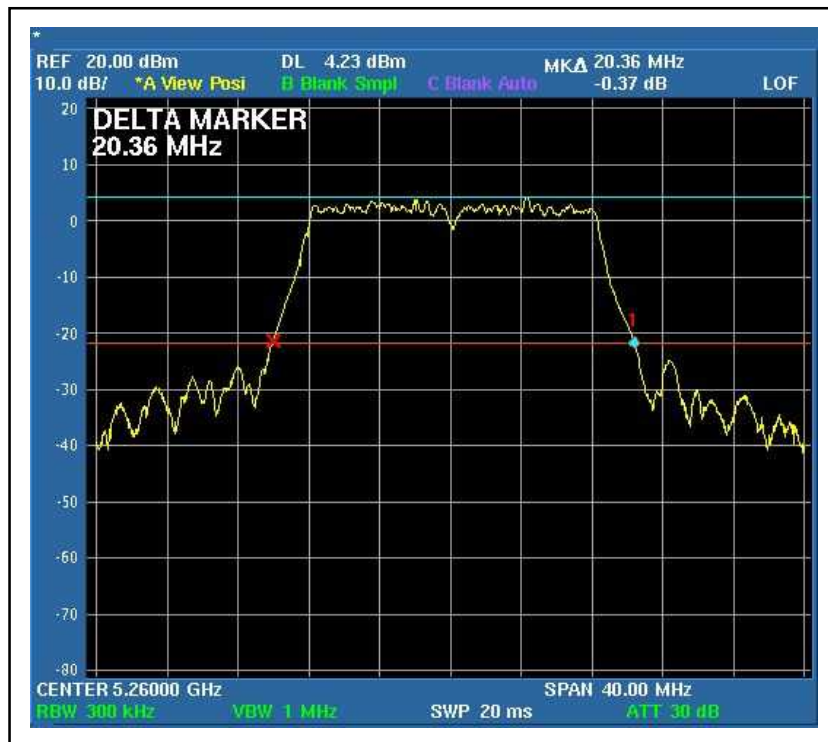
CH2



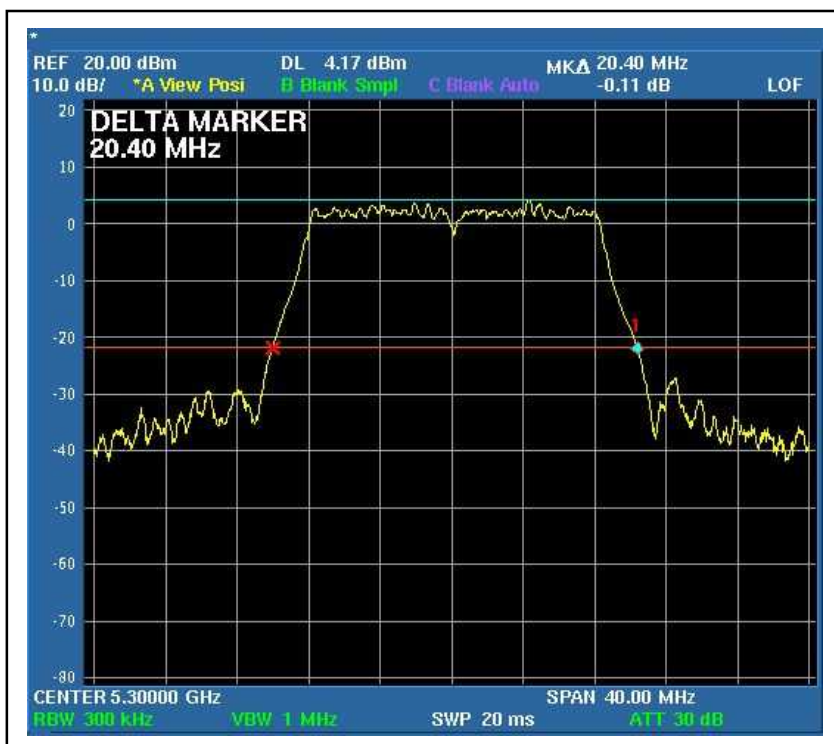
CH4



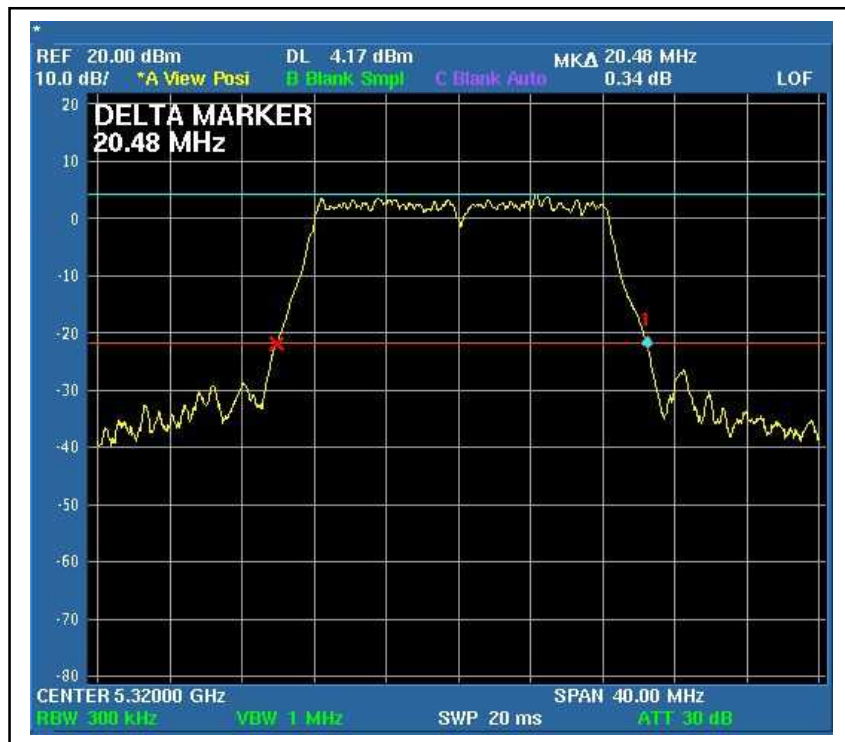
CH5



CH7



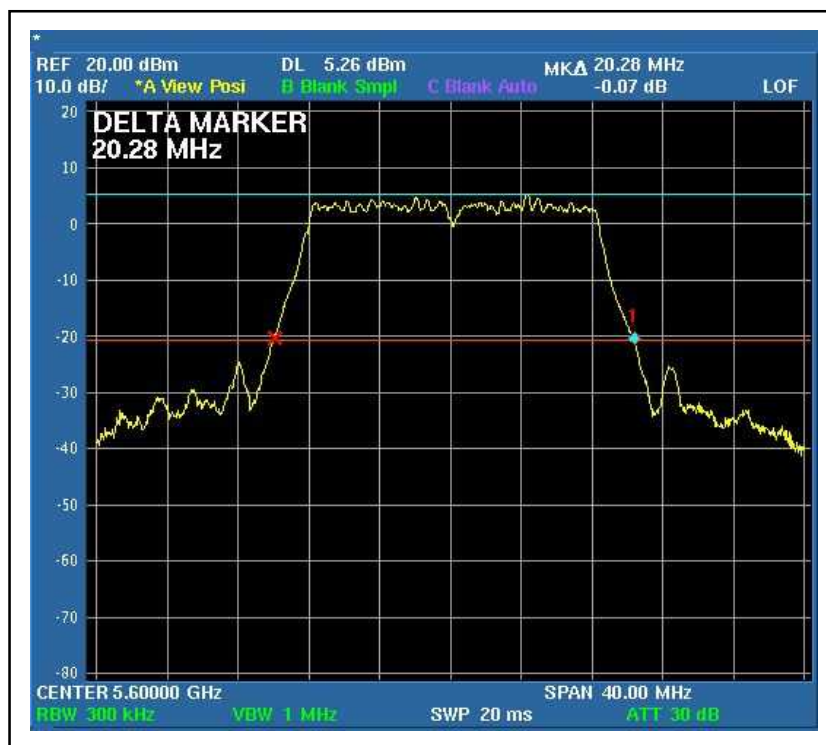
CH8



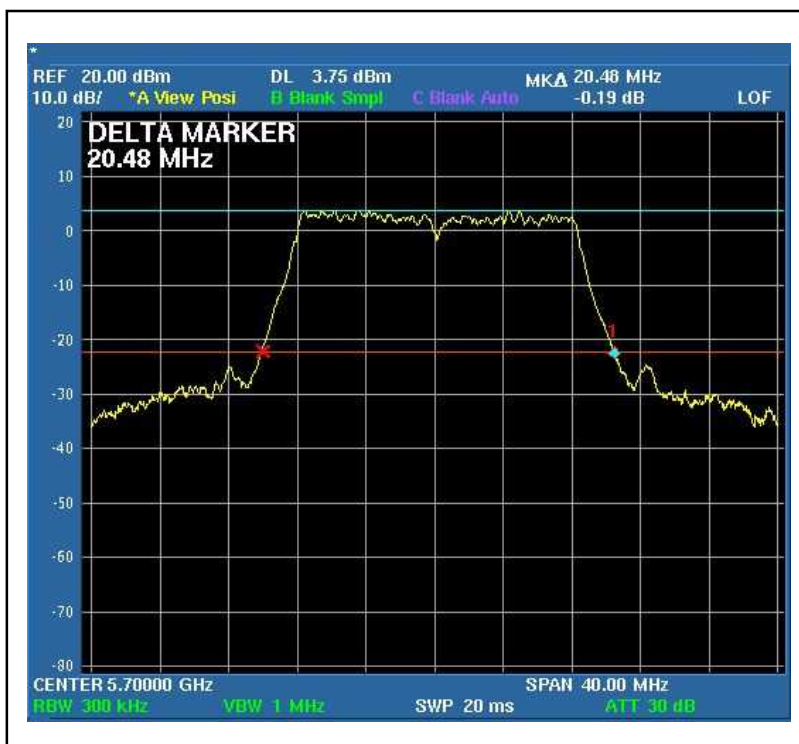
CH9



CH14



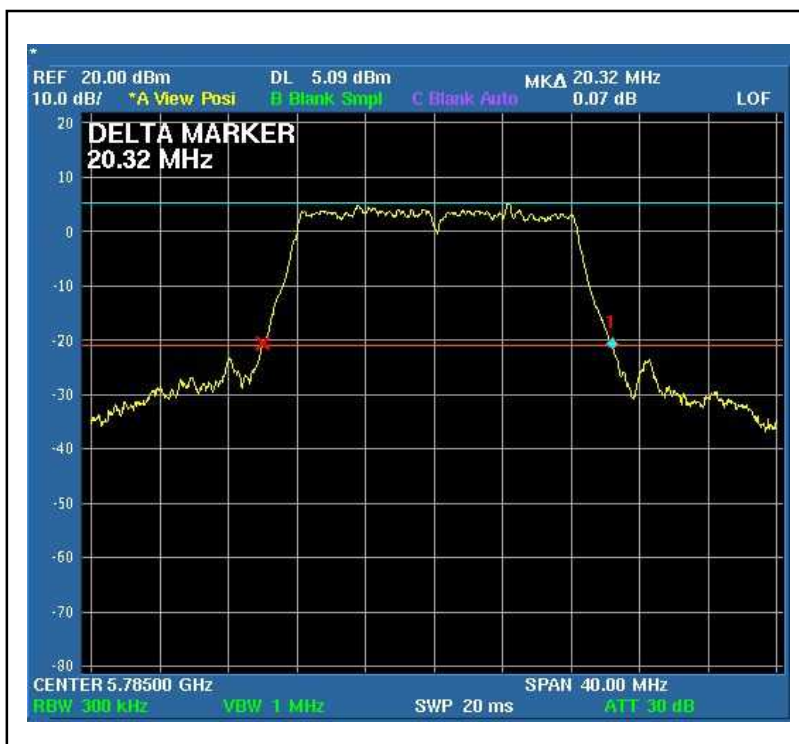
CH19



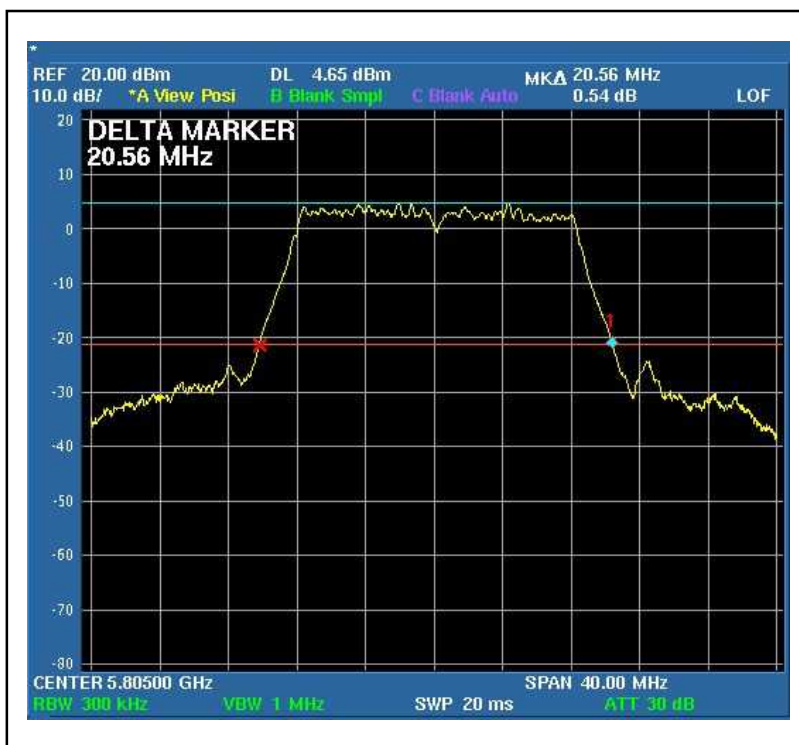
CH20



CH22



CH23





A D T

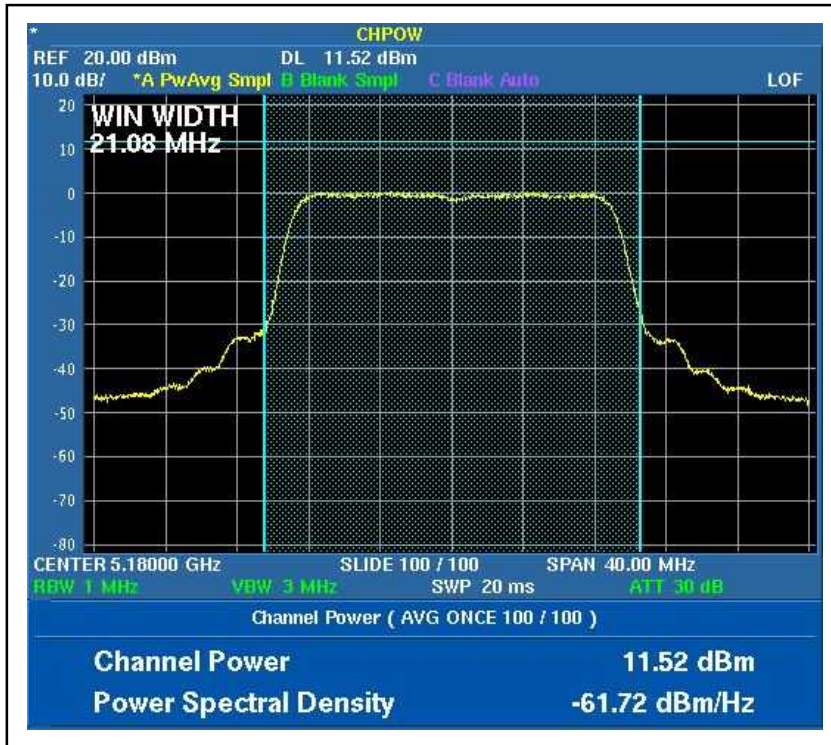
DRAFT 802.11n (20MHz) OFDM modulation:

MODULATION TYPE	BPSK	TRANSFER RATE	13Mbps
INPUT POWER	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 60%RH, 965hPa
TESTED BY	Rex Huang		

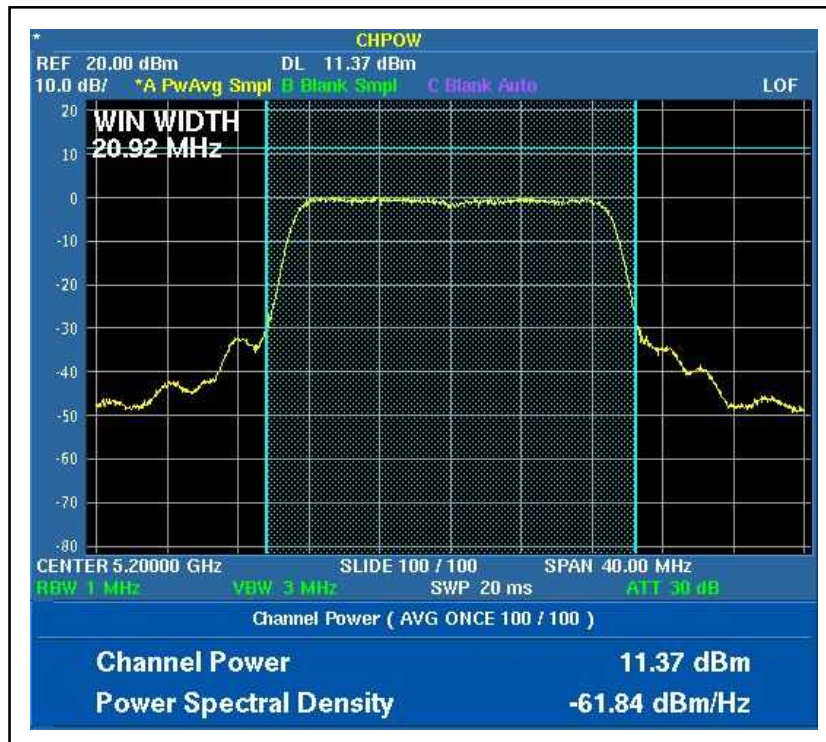
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)		PEAK POWER OUTPUT (mW)		TOTAL PEAK POWER (dBm)	TOTAL PEAK POWER (mW)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)		PASS/ FAIL
		Chain 0	Chain 1	Chain 0	Chain 1				Chain 0	Chain 1	
1	5180	11.52	10.77	14.191	11.940	14.17	26.131	17.00	21.08	20.6	PASS
2	5200	11.37	11.15	13.709	13.032	14.27	26.741	17.00	20.92	20.44	PASS
4	5240	10.91	11.90	12.331	15.488	14.44	27.819	17.00	20.96	20.56	PASS
5	5260	10.65	11.39	11.614	13.772	14.05	25.386	24.00	21.04	20.48	PASS
7	5300	10.63	10.35	11.561	10.839	13.50	22.400	24.00	21.04	20.44	PASS
8	5320	10.89	11.15	12.274	13.032	14.03	25.306	24.00	21.12	20.52	PASS
9	5500	11.06	11.24	12.764	13.305	14.16	26.069	24.00	20.96	20.48	PASS
14	5600	10.87	11.20	12.218	13.183	14.05	25.401	24.00	21.08	20.44	PASS
19	5700	11.14	10.76	13.002	11.912	13.96	24.914	24.00	21.32	20.52	PASS
20	5745	11.41	11.05	13.836	12.735	14.24	26.571	30.00	21.12	20.48	PASS
22	5785	11.00	11.98	12.589	15.776	14.53	28.365	30.00	21.12	20.36	PASS
23	5805	11.55	11.23	14.289	13.274	14.40	27.563	30.00	21.16	20.24	PASS

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

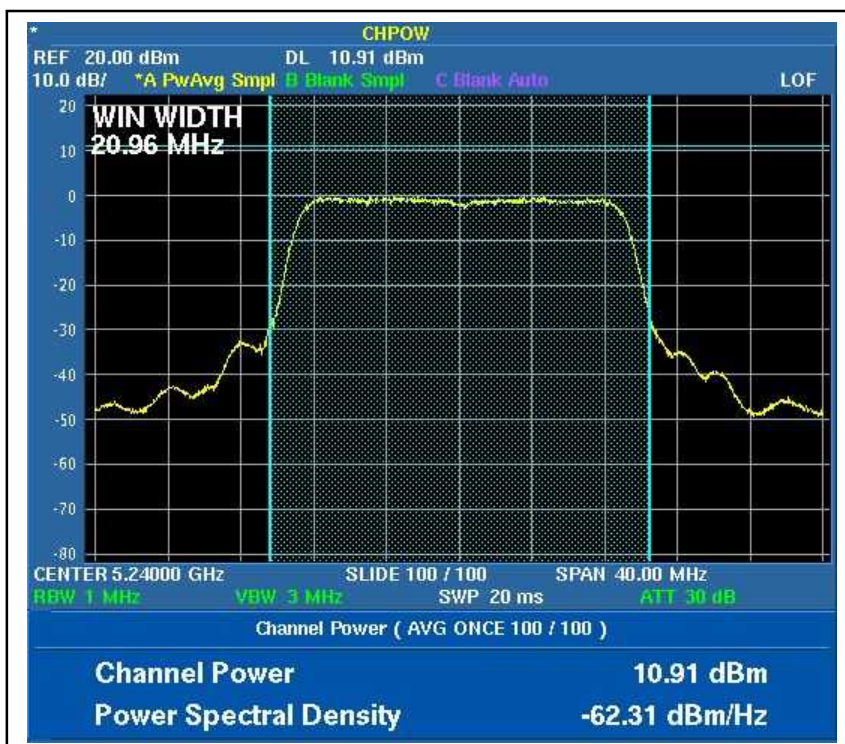
Peak Power Output:
For Chain (0) :CH1



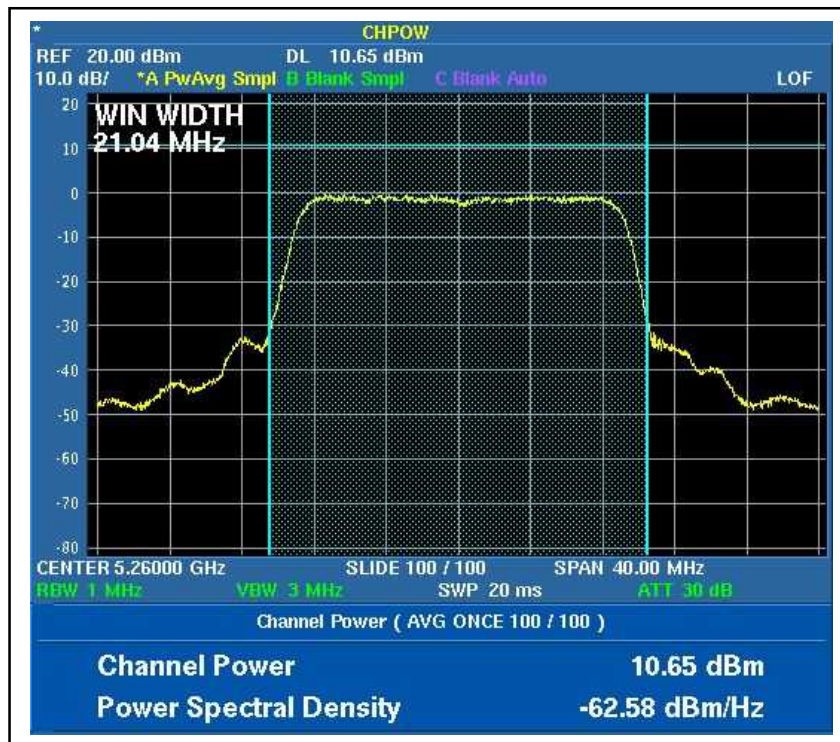
CH2



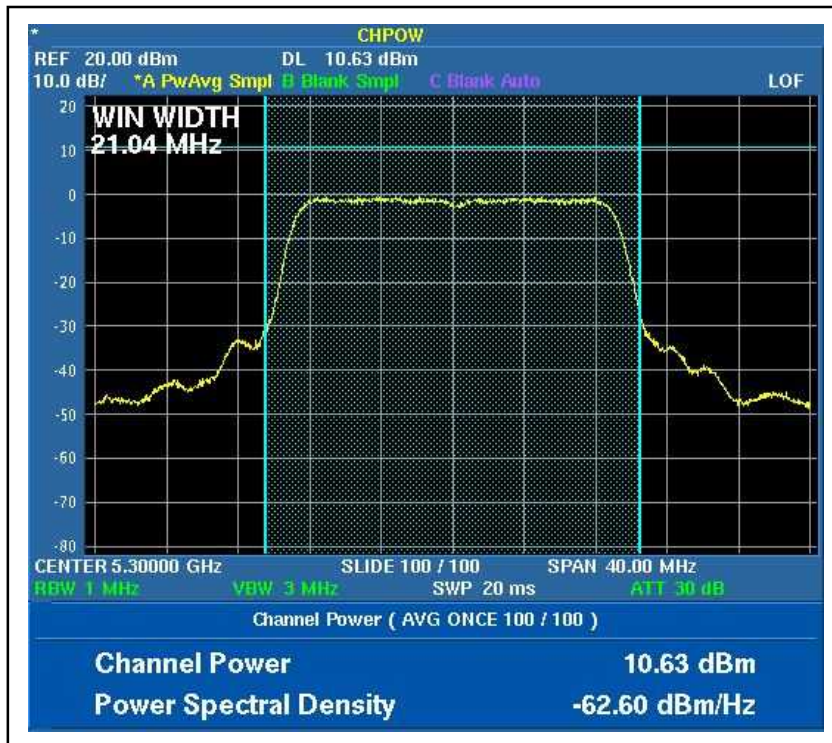
CH4



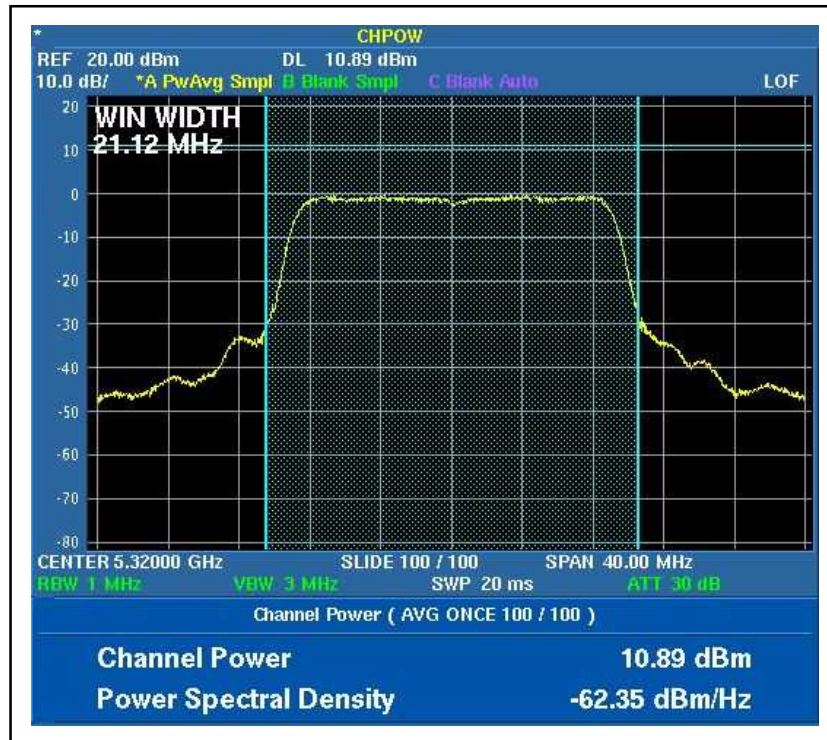
CH5



CH7



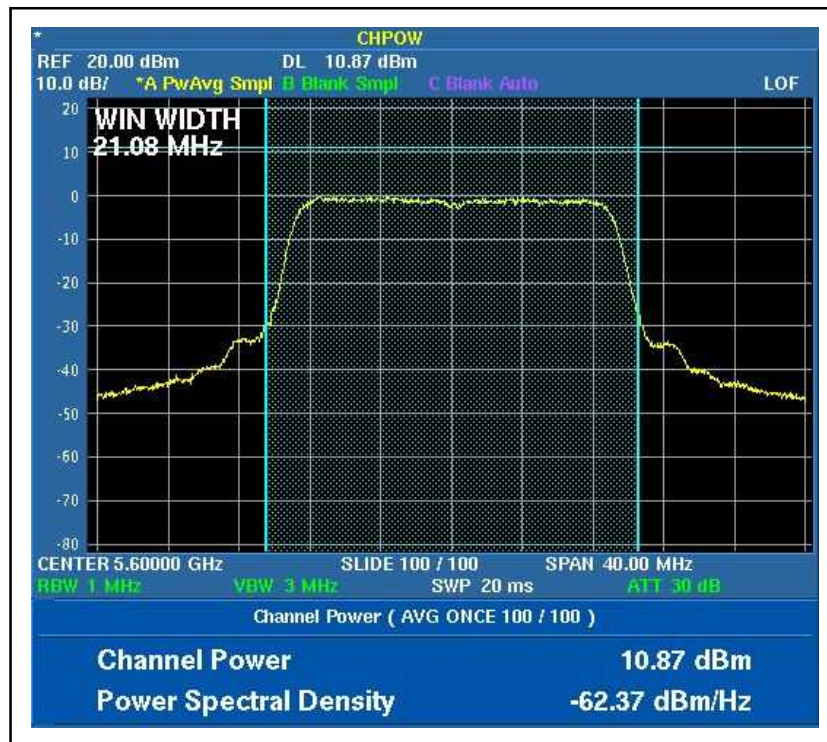
CH8



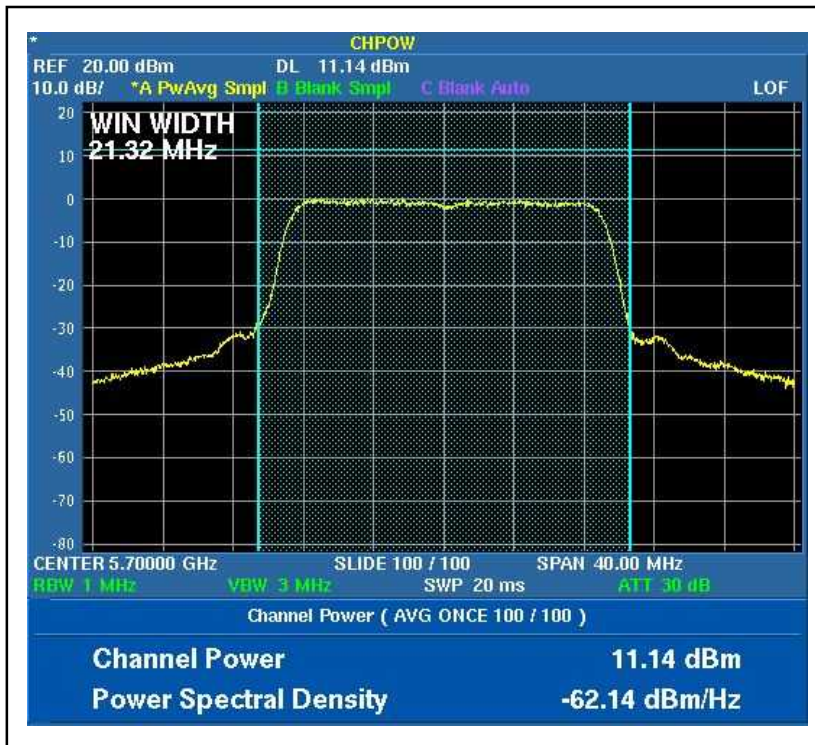
CH9



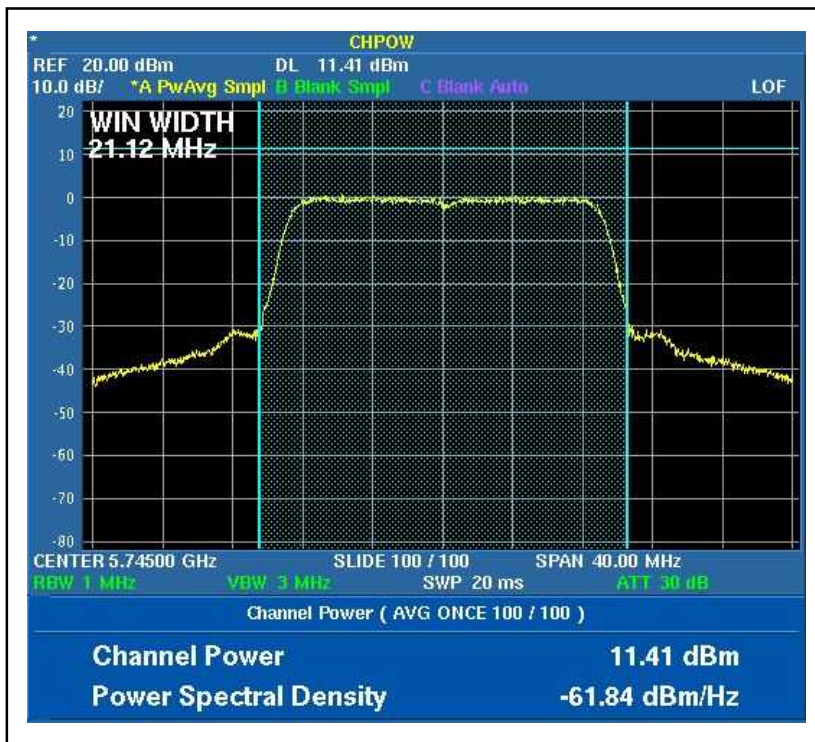
CH14



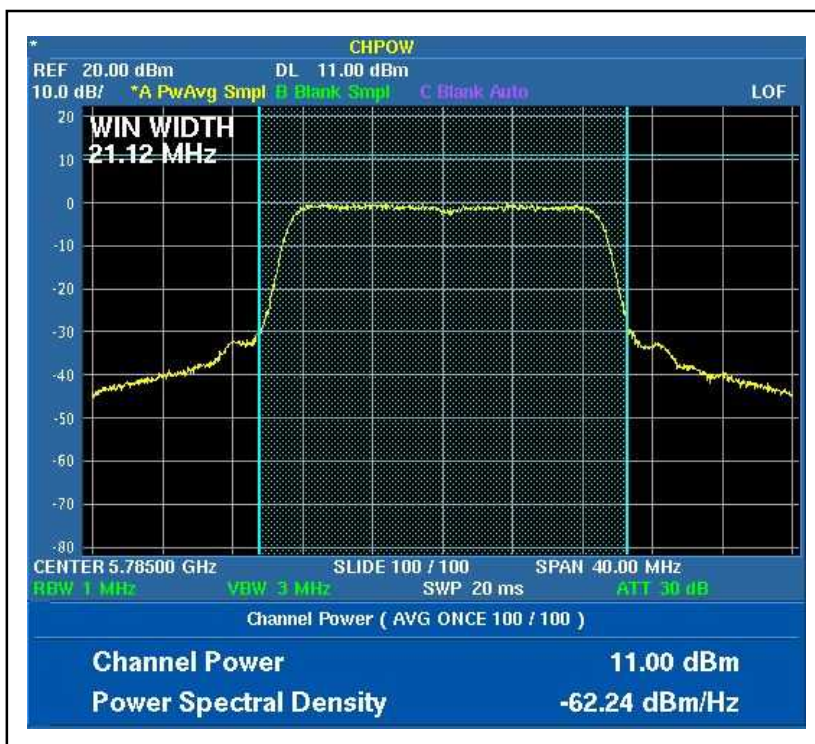
CH19



CH20



CH22



CH23

