

FCC TEST REPORT

REPORT NO.: RF951116L07

MODEL NO.: DWA-556

RECEIVED: Nov. 17, 2006

TESTED: Nov. 18 ~ Nov. 20, 2006

ISSUED: Nov. 23, 2006

APPLICANT: D-Link Corporation

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ISSUED BY: Advance Data Technology Corporation

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1. CERTIFICATION

PRODUCT: D-Link DWA-556 Xtreme N™ PCIe Desktop Adapter

MODEL: DWA-556

BRAND: D-Link

APPLICANT: D-Link Corporation

TESTED: Nov. 18 ~ Nov. 20, 2006

TEST SAMPLE: ENGINEERING SAMPLE

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

The above equipment has been tested by **Advance Data Technology Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Peggy Chen , **DATE:** Nov. 23, 2006
Peggy Chen

TECHNICAL
ACCEPTANCE : Long Chen , **DATE:** Nov. 23, 2006
Responsible for RF Long Chen

APPROVED BY : Gary Chang , **DATE:** Nov. 23, 2006
Gary Chang / Supervisor

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -18.46dB at 0.189MHz.
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit : min. 500kHz	PASS	Meet the requirement of limit.
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit.
15.247(d)	Transmitter Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -1.86dB at 2352.00MHz.
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Band Edge Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.

2.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz ~ 30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	3.59 dB
	200MHz ~ 1000MHz	3.61 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	D-Link DWA-556 Xtreme N™ PCIe Desktop Adapter
MODEL NO.	DWA-556
FCC ID	KA2WA556A1
POWER SUPPLY	3.3Vdc from host equipment
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b: 11/ 5.5/ 2/ 1Mbps 802.11g: 54/ 48/ 36/ 24/ 18/ 12/ 9/ 6Mbps Draft 802.11n (20MHz): 144.444/ 130.000/ 115.556/ 86.667/ 57.778/ 43.333/ 28.889/ 14.444/ 72.2/ 65.0/ 57.8/ 43.3/ 28.9/ 21.7/ 14.4/ 7.2Mbps Draft 802.11n (40MHz): 300/ 270/ 240/ 180/ 120/ 90/ 60/ 30/ 150/ 135/ 120/ 90/ 60/ 45/ 30/ 15Mbps
FREQUENCY RANGE	2400MHz ~ 2483.5MHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, draft 802.11n (20MHz) 7 for draft 802.11n (40MHz)
MAXIMUM OUTPUT POWER	171.718mW
ANTENNA TYPE	Refer to NOTE 1
DATA CABLE	NA
I/O PORTS	NA

NOTE:

- There are 2 types of antenna for the EUT.

For antenna without extended cable:

Type	Gain(dBi)	Connector
Dipole	2	R-SMA

For antenna with extended cable:

No.	Gain(dBi)	Connector
Antenna-1	1.1	R-SMA
Antenna-2	0.2	R-SMA
Antenna-3	1.3	R-SMA

- The EUT incorporates a MIMO function with 802.11b, 802.11g, draft 802.11n. Physically, the card provides three completed transmitters and three receivers.
- The EUT is 3 * 3 spatial MIMO (3Tx & 3Rx) without beam forming function that only operate triple chain configuration (all chain 0, chain 1 and chain 2 transceivers are operational).
- When the EUT operating in 802.11b, 802.11g, the software operation, which is defined by manufacturer, only set triple Tx.
- When the EUT operating in draft 802.11n, the software operation, which is defined by manufacturer, only set 0 ~ 15 of "MCS" (MCS: Modulation and Coding Schemes) for triple Tx.
- The EUT complies with draft 802.11n standards and backwards compatible with 802.11b, 802.11g products.
- The EUT operates in the 2.4GHz frequency spectrum with throughput of up to 300Mbps.
- The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 DESCRIPTION OF TEST MODES

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

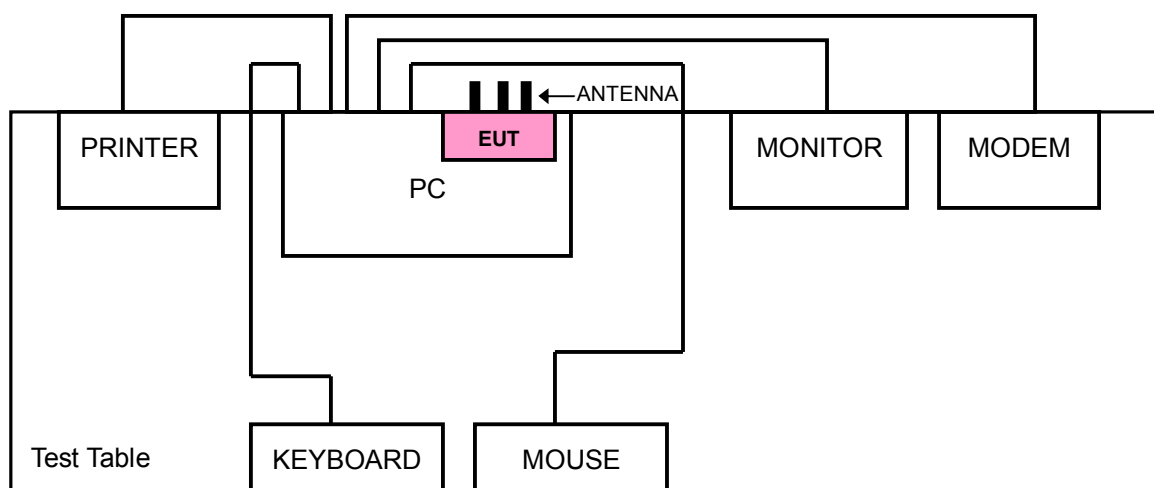
CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2412MHz	7	2442MHz
2	2417MHz	8	2447MHz
3	2422MHz	9	2452MHz
4	2427MHz	10	2457MHz
5	2432MHz	11	2462MHz
6	2437MHz		

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

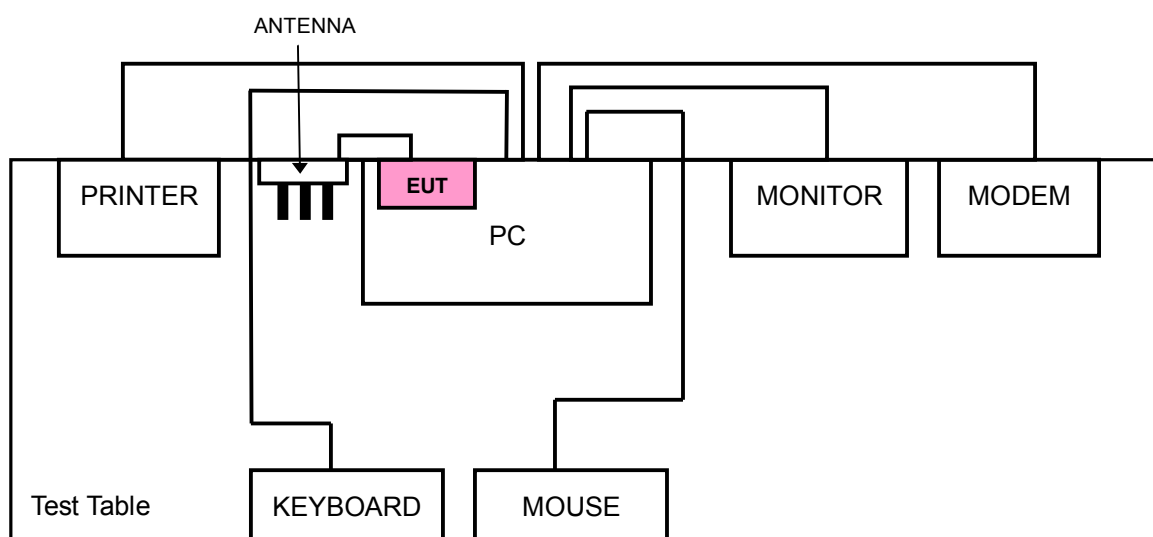
CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2422MHz	5	2442MHz
2	2427MHz	6	2447MHz
3	2432MHz	7	2452MHz
4	2437MHz		

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST

Test Mode A



Test Mode B



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE < 1G	RE ≥ 1G	APCM	
A	√	√	√	√	Antenna without extended cable
B	-	√	√	-	Antenna with extended cable

Where **PLC:** Power Line Conducted Emission

RE < 1G: Radiated Emission below 1GHz

RE ≥ 1G: Radiated Emission above 1GHz

APCM: Antenna Port Conducted Measurement

POWER LINE CONDUCTED EMISSION TEST:

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
A	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	triple
A	Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	7.2	triple
A	Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	15	triple

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.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
A	802.11g	1 to 11	1	OFDM	BPSK	6	triple
A	Draft 802.11n (20MHz)	1 to 11	1	OFDM	BPSK	7.2	triple
A	Draft 802.11n (40MHz)	1 to 7	1	OFDM	BPSK	15	triple
B	802.11g	1 to 11	1	OFDM	BPSK	6	triple
B	Draft 802.11n (20MHz)	1 to 11	1	OFDM	BPSK	7.2	triple
B	Draft 802.11n (40MHz)	1 to 7	1	OFDM	BPSK	15	triple

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.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
A	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1	triple
A	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	triple
A	Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	7.2	triple
A	Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	15	triple
B	802.11b	1 to 11	1, 11	DSSS	DBPSK	1	triple
B	802.11g	1 to 11	1, 11	OFDM	BPSK	6	triple
B	Draft 802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	7.2	triple
B	Draft 802.11n (40MHz)	1 to 7	1, 7	OFDM	BPSK	15	triple

BANDEDGE MEASUREMENT:

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
A	802.11b	1 to 11	1, 11	DSSS	DBPSK	1	triple
A	802.11g	1 to 11	1, 11	OFDM	BPSK	6	triple
A	Draft 802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	7.2	triple
A	Draft 802.11n (40MHz)	1 to 7	1, 7	OFDM	BPSK	15	triple

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.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
A	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1	triple
A	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	triple
A	Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	7.2	triple
A	Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	15	triple

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart C. (15.247)

ANSI C63.4-2003

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

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

3.4 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	PC	DELL	DIMENSION 4700	BN39F1S	FCC DoC Approved
2	LCD MONITOR	ACER	AL1721	ET.L0408.0104 04001E6PK00	FCC DoC Approved
3	PRINTER	EPSON	LQ-300+	DCGY054147	FCC DoC Approved
4	MODEM	ACEEX	1414V/3	0401008269	IFAXDM1414
5	KEYBOARD	HP	SK-1688	C0306114659	GYUR84SK
6	MOUSE	HP	M-S69	N/A	INZ211443

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.8m shielded cable
3	1.2m shielded cable
4	1.2m shielded cable
5	1.3m shielded cable
6	1.8m shielded cable

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

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 UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Sep. 25, 2007
RF signal cable Woken	5D-FB	Cable-HYCO3-01	Jan. 06, 2007
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Jan. 09, 2007
LISN ROHDE & SCHWARZ	ESH3-Z5	100311	Jan. 22, 2007
Software ADT	ADT_Cond_V3	NA	NA

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HwaYa Shielded Room 2.
 3. The VCCI Site Registration No. is C-2047.

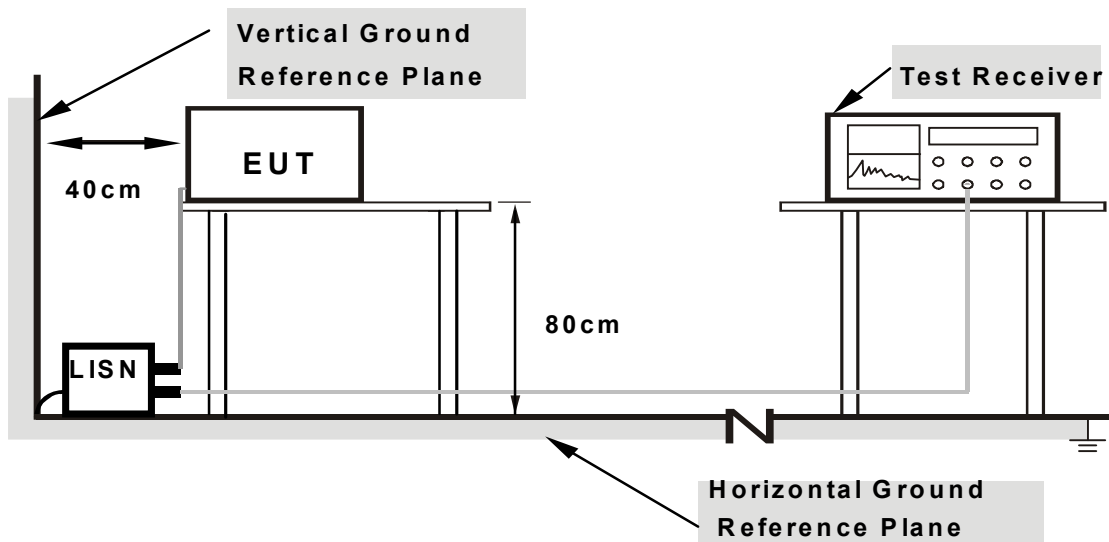
4.1.3 TEST PROCEDURES

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT OPERATING CONDITIONS

- a. Connected the EUT into the computer system and placed on a testing table.
- b. The computer system ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
- c. The necessary accessories enable the EUT in full functions.

4.1.7 TEST RESULTS

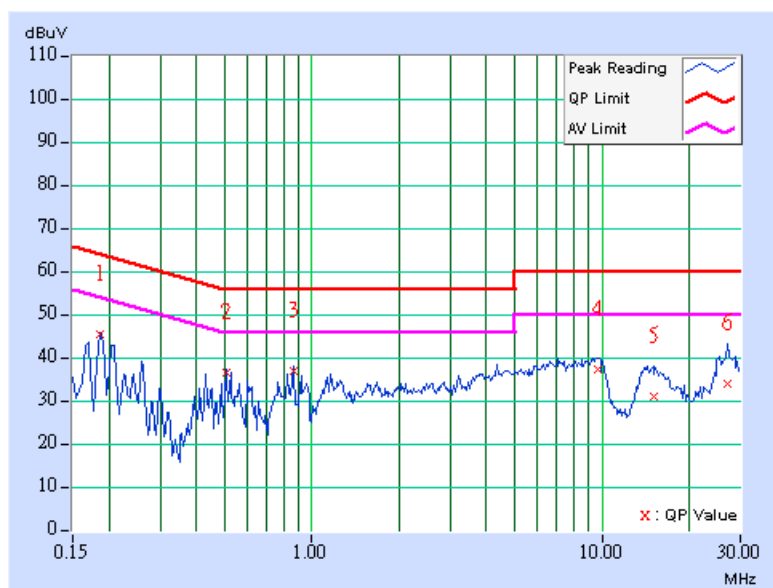
Test Mode A:

CONDUCTED WORST-CASE DATA: 802.11g OFDM MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.10	44.56	-	44.66	-	64.25	54.25	-19.59	-
2	0.505	0.10	35.62	-	35.72	-	56.00	46.00	-20.28	-
3	0.861	0.10	35.81	-	35.91	-	56.00	46.00	-20.09	-
4	9.688	0.36	36.29	-	36.65	-	60.00	50.00	-23.35	-
5	15.016	0.63	29.93	-	30.56	-	60.00	50.00	-29.44	-
6	27.012	1.09	33.14	-	34.23	-	60.00	50.00	-25.77	-

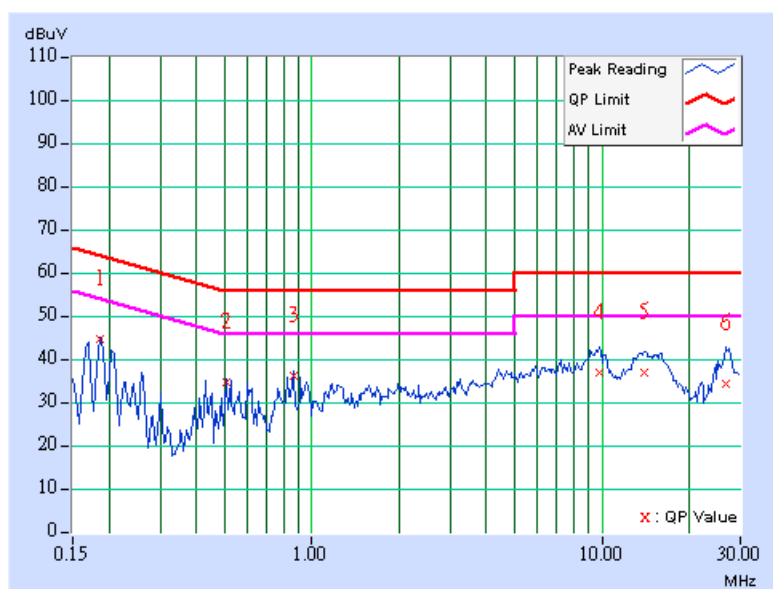
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.10	43.81	-	43.91	-	64.25	54.25	-20.34	-
2	0.505	0.12	33.87	-	33.99	-	56.00	46.00	-22.01	-
3	0.861	0.18	35.48	-	35.66	-	56.00	46.00	-20.34	-
4	9.770	0.46	36.10	-	36.56	-	60.00	50.00	-23.44	-
5	13.980	0.60	36.18	-	36.78	-	60.00	50.00	-23.22	-
6	26.926	0.91	33.53	-	34.44	-	60.00	50.00	-25.56	-

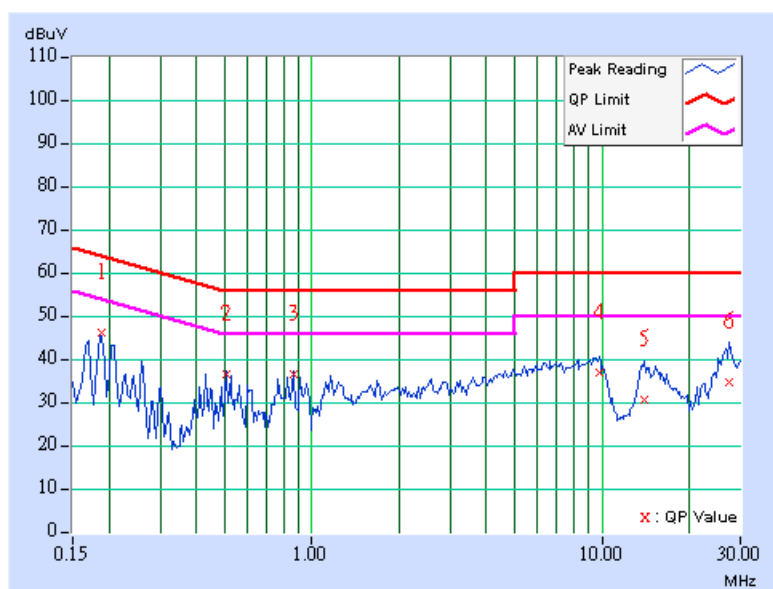
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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 6	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	Factor [dB]	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.189	0.10	45.34	-	45.44	-	64.08	54.08	-18.64	-
2	0.505	0.10	35.62	-	35.72	-	56.00	46.00	-20.28	-
3	0.861	0.10	35.63	-	35.73	-	56.00	46.00	-20.27	-
4	9.859	0.36	35.94	-	36.30	-	60.00	50.00	-23.70	-
5	13.977	0.57	29.53	-	30.10	-	60.00	50.00	-29.90	-
6	27.441	1.13	33.59	-	34.72	-	60.00	50.00	-25.28	-

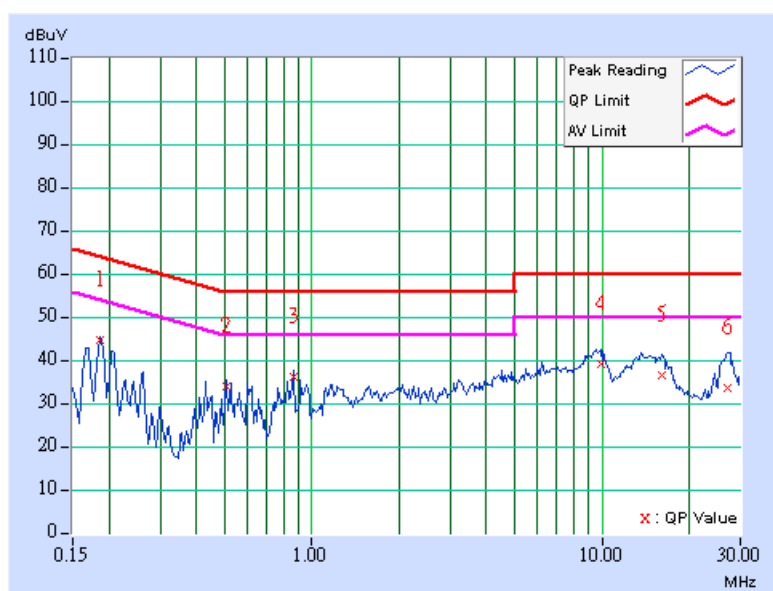
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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 6	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.10	44.00	-	44.10	-	64.25	54.25	-20.15	-
2	0.508	0.12	33.03	-	33.15	-	56.00	46.00	-22.85	-
3	0.861	0.18	35.32	-	35.50	-	56.00	46.00	-20.50	-
4	9.945	0.46	38.45	-	38.91	-	60.00	50.00	-21.09	-
5	16.180	0.61	35.65	-	36.26	-	60.00	50.00	-23.74	-
6	27.238	0.92	32.76	-	33.68	-	60.00	50.00	-26.32	-

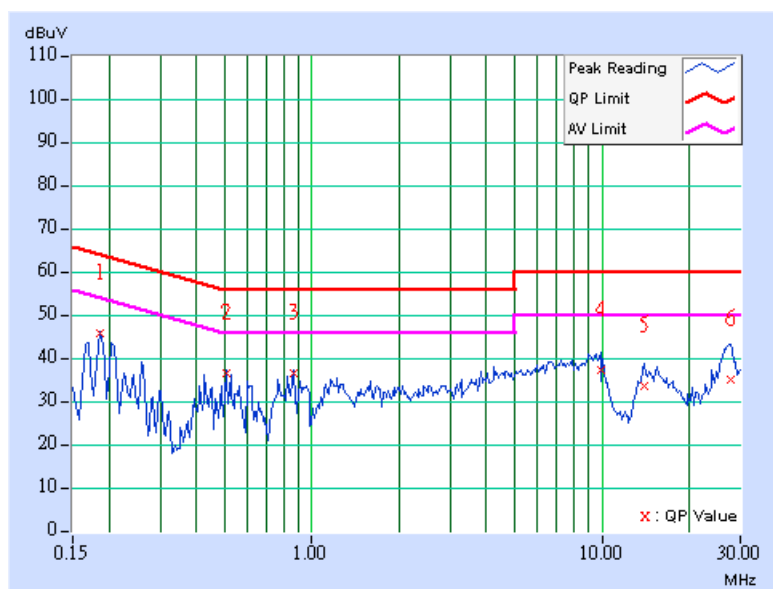
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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 11	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.10	44.72	-	44.82	-	64.25	54.25	-19.43	-
2	0.505	0.10	35.62	-	35.72	-	56.00	46.00	-20.28	-
3	0.861	0.10	35.63	-	35.73	-	56.00	46.00	-20.27	-
4	9.871	0.36	36.37	-	36.73	-	60.00	50.00	-23.27	-
5	14.086	0.58	32.40	-	32.98	-	60.00	50.00	-27.02	-
6	27.648	1.14	34.19	-	35.33	-	60.00	50.00	-24.67	-

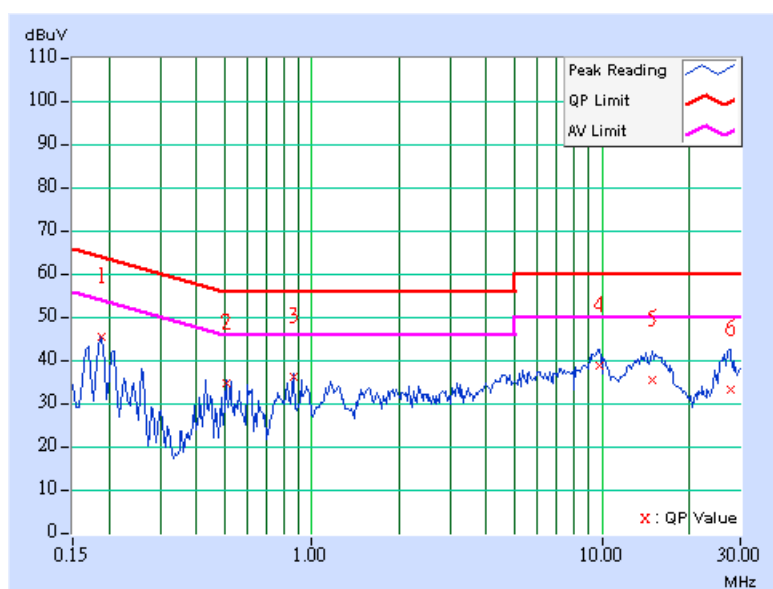
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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 11	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.189	0.10	44.71	-	44.81	-	64.08	54.08	-19.27	-
2	0.505	0.12	33.81	-	33.93	-	56.00	46.00	-22.07	-
3	0.861	0.18	35.18	-	35.36	-	56.00	46.00	-20.64	-
4	9.855	0.46	38.11	-	38.57	-	60.00	50.00	-21.43	-
5	14.895	0.63	34.62	-	35.25	-	60.00	50.00	-24.75	-
6	27.641	0.94	32.32	-	33.26	-	60.00	50.00	-26.74	-

- 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.

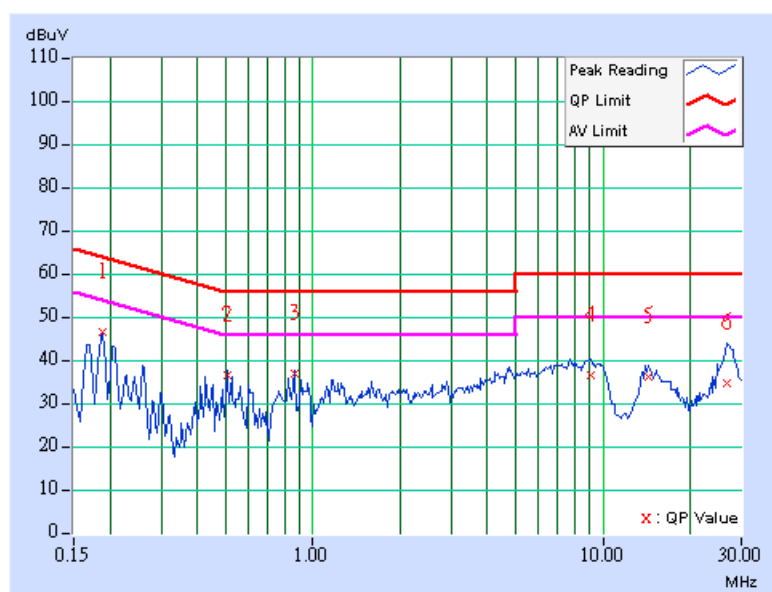


DRAFT 802.11n (20MHz) OFDM MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	7.2Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

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	0.189	0.10	45.44	-	45.54	-	64.08	54.08	-18.54	-
2	0.505	0.10	35.68	-	35.78	-	56.00	46.00	-20.22	-
3	0.861	0.10	35.81	-	35.91	-	56.00	46.00	-20.09	-
4	9.055	0.36	35.64	-	36.00	-	60.00	50.00	-24.00	-
5	14.336	0.59	35.14	-	35.73	-	60.00	50.00	-24.27	-
6	26.688	1.07	33.90	-	34.97	-	60.00	50.00	-25.03	-

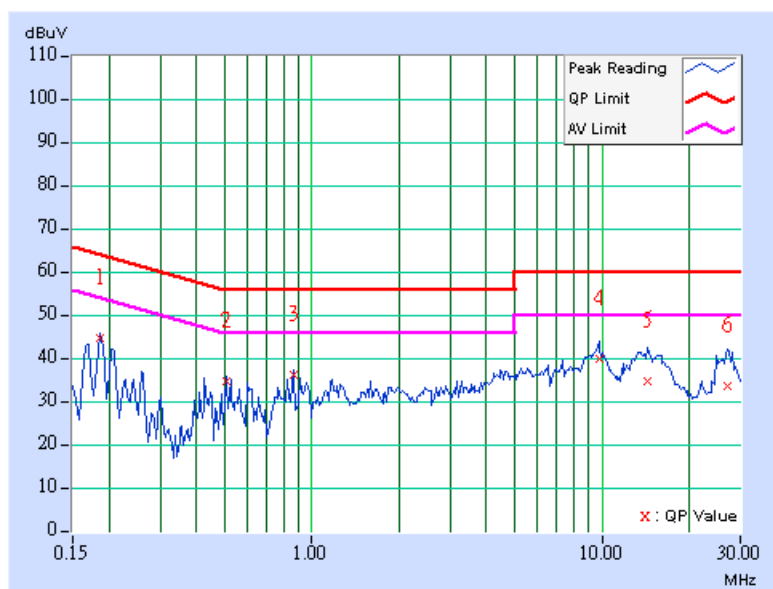
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	7.2Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.10	44.08	-	44.18	-	64.25	54.25	-20.07	-
2	0.505	0.12	33.95	-	34.07	-	56.00	46.00	-21.93	-
3	0.861	0.18	35.28	-	35.46	-	56.00	46.00	-20.54	-
4	9.746	0.46	39.23	-	39.69	-	60.00	50.00	-20.31	-
5	14.297	0.61	34.02	-	34.63	-	60.00	50.00	-25.37	-
6	27.168	0.92	32.72	-	33.64	-	60.00	50.00	-26.36	-

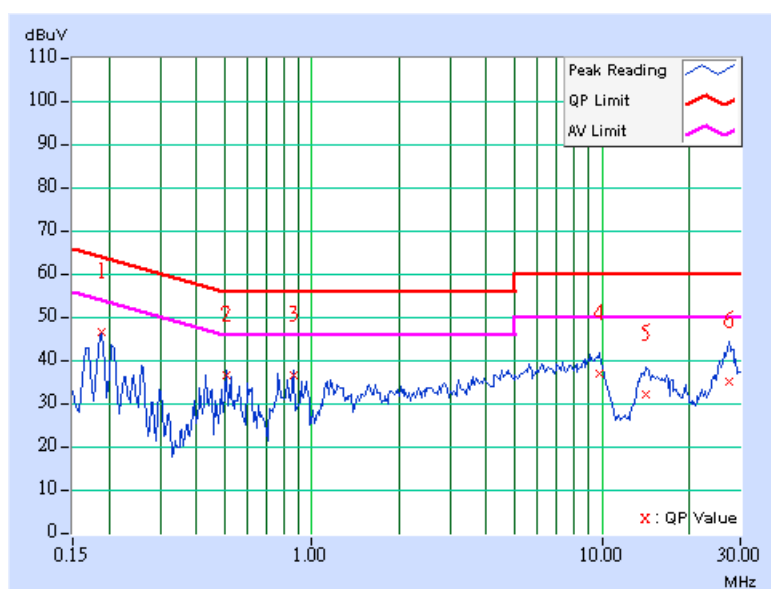
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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 6	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	7.2Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.189	0.10	45.46	-	45.56	-	64.08	54.08	-18.52	-
2	0.507	0.10	35.53	-	35.63	-	56.00	46.00	-20.37	-
3	0.861	0.10	35.48	-	35.58	-	56.00	46.00	-20.42	-
4	9.750	0.36	36.08	-	36.44	-	60.00	50.00	-23.56	-
5	14.207	0.59	31.24	-	31.83	-	60.00	50.00	-28.17	-
6	27.309	1.11	34.13	-	35.24	-	60.00	50.00	-24.76	-

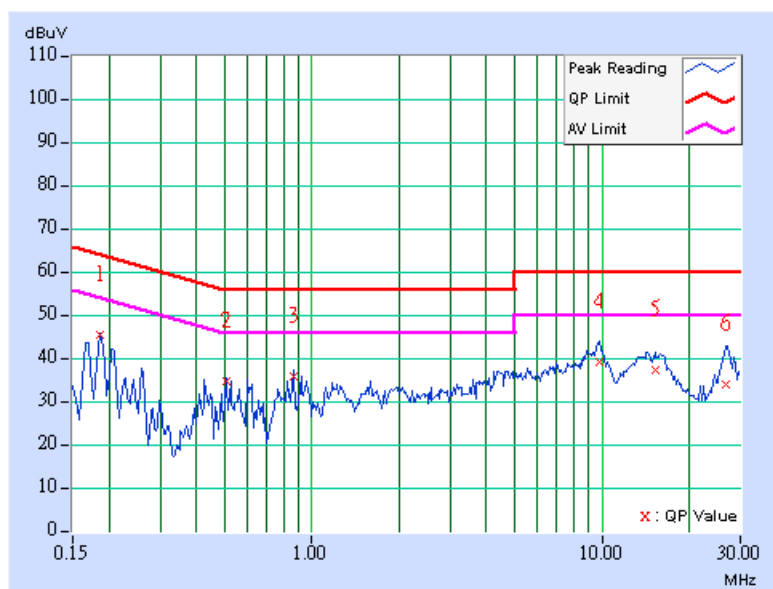
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	7.2Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.186	0.10	44.78	-	44.88	-	64.19	54.19	-19.31	-
2	0.505	0.12	33.89	-	34.01	-	56.00	46.00	-21.99	-
3	0.861	0.18	35.20	-	35.38	-	56.00	46.00	-20.62	-
4	9.813	0.46	38.38	-	38.84	-	60.00	50.00	-21.16	-
5	15.254	0.63	36.37	-	37.00	-	60.00	50.00	-23.00	-
6	26.777	0.90	33.10	-	34.00	-	60.00	50.00	-26.00	-

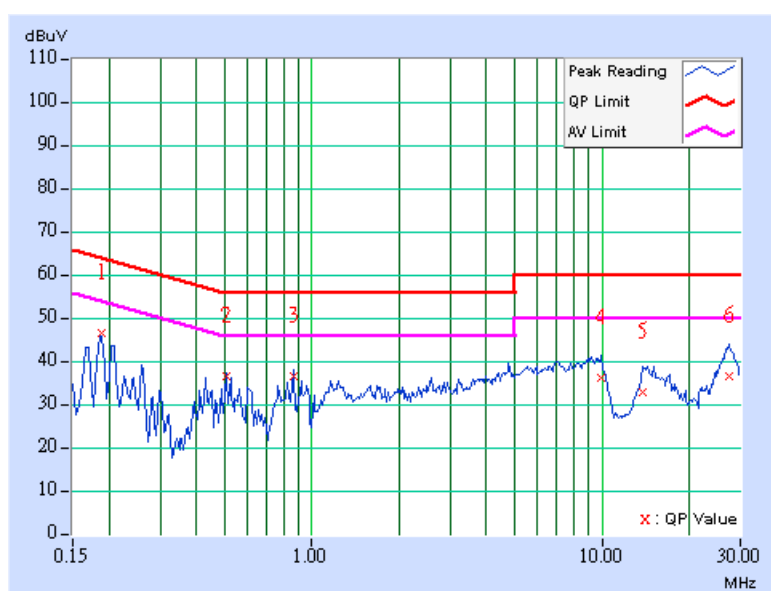
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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 11	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	7.2Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.189	0.10	45.52	-	45.62	-	64.08	54.08	-18.46	-
2	0.505	0.10	35.51	-	35.61	-	56.00	46.00	-20.39	-
3	0.861	0.10	35.42	-	35.52	-	56.00	46.00	-20.48	-
4	9.992	0.36	35.34	-	35.70	-	60.00	50.00	-24.30	-
5	13.844	0.57	31.71	-	32.28	-	60.00	50.00	-27.72	-
6	27.590	1.14	35.65	-	36.79	-	60.00	50.00	-23.21	-

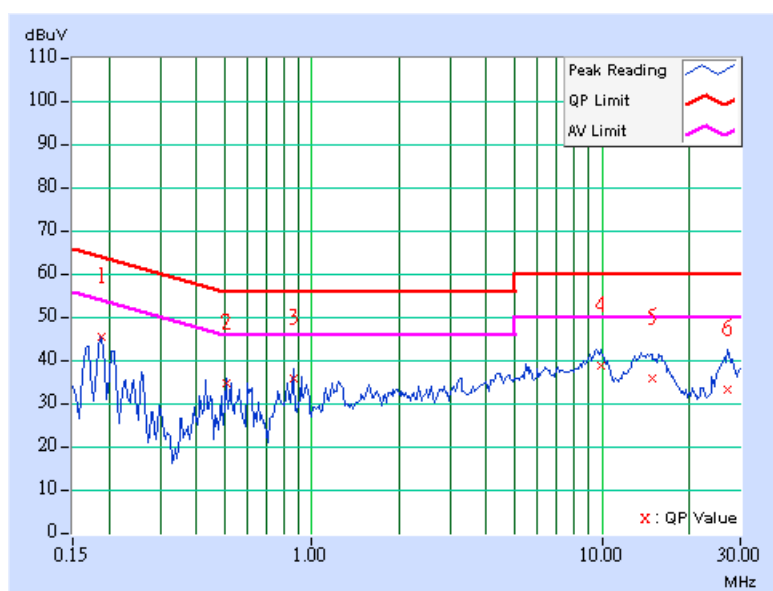
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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 11	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	7.2Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

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	0.188	0.10	44.60	-	44.70	-	64.14	54.14	-19.44	-
2	0.505	0.12	33.81	-	33.93	-	56.00	46.00	-22.07	-
3	0.861	0.18	35.06	-	35.24	-	56.00	46.00	-20.76	-
4	9.895	0.46	38.07	-	38.53	-	60.00	50.00	-21.47	-
5	14.840	0.62	34.88	-	35.50	-	60.00	50.00	-24.50	-
6	27.047	0.91	32.55	-	33.46	-	60.00	50.00	-26.54	-

- 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.

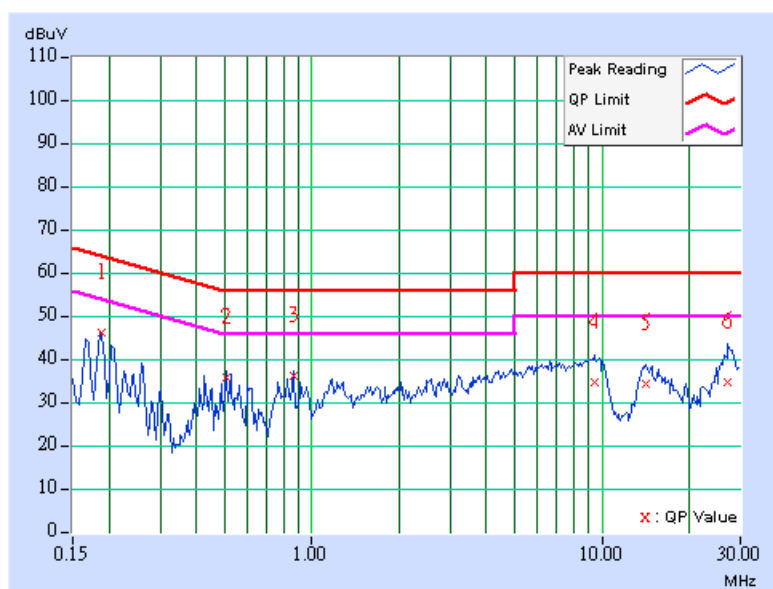


DRAFT 802.11n (40MHz) OFDM MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	15Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.188	0.10	45.27	-	45.37	-	64.14	54.14	-18.77	-
2	0.508	0.10	34.78	-	34.88	-	56.00	46.00	-21.12	-
3	0.861	0.10	35.38	-	35.48	-	56.00	46.00	-20.52	-
4	9.430	0.36	33.65	-	34.01	-	60.00	50.00	-25.99	-
5	14.164	0.58	33.33	-	33.91	-	60.00	50.00	-26.09	-
6	27.023	1.09	33.62	-	34.71	-	60.00	50.00	-25.29	-

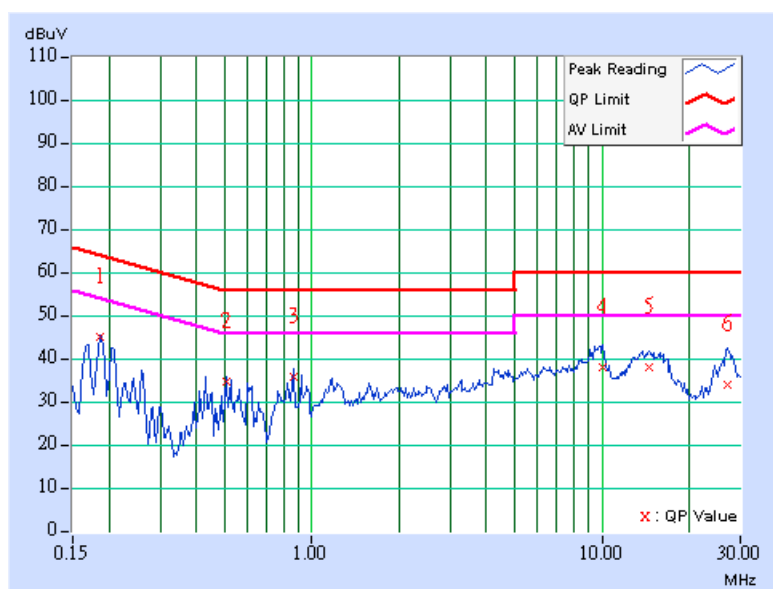
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	15Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.10	44.18	-	44.28	-	64.25	54.25	-19.97	-
2	0.505	0.12	33.77	-	33.89	-	56.00	46.00	-22.11	-
3	0.861	0.18	34.95	-	35.13	-	56.00	46.00	-20.87	-
4	10.004	0.46	37.39	-	37.85	-	60.00	50.00	-22.15	-
5	14.527	0.61	37.24	-	37.85	-	60.00	50.00	-22.15	-
6	27.090	0.91	33.20	-	34.11	-	60.00	50.00	-25.89	-

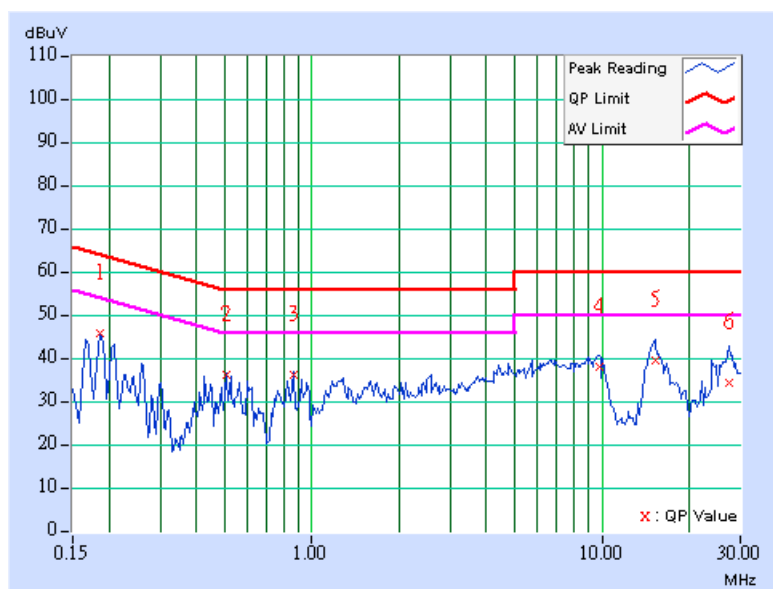
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	15Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.10	44.90	-	45.00	-	64.25	54.25	-19.25	-
2	0.505	0.10	35.19	-	35.29	-	56.00	46.00	-20.71	-
3	0.861	0.10	35.04	-	35.14	-	56.00	46.00	-20.86	-
4	9.746	0.36	37.20	-	37.56	-	60.00	50.00	-22.44	-
5	15.250	0.63	38.38	-	39.01	-	60.00	50.00	-20.99	-
6	27.313	1.12	33.38	-	34.50	-	60.00	50.00	-25.50	-

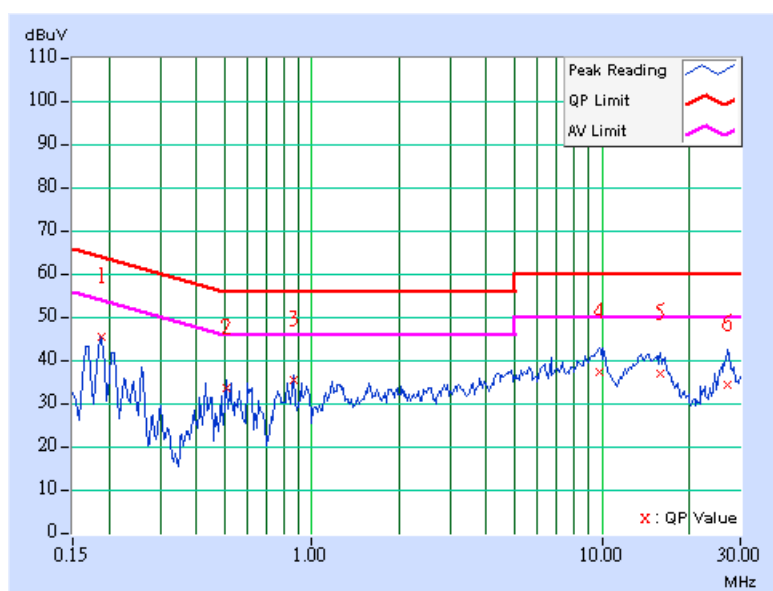
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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 4	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	15Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

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	0.188	0.10	44.68	-	44.78	-	64.14	54.14	-19.36	-
2	0.508	0.12	32.91	-	33.03	-	56.00	46.00	-22.97	-
3	0.861	0.18	34.63	-	34.81	-	56.00	46.00	-21.19	-
4	9.855	0.46	36.57	-	37.03	-	60.00	50.00	-22.97	-
5	15.941	0.62	35.95	-	36.57	-	60.00	50.00	-23.43	-
6	27.242	0.92	33.54	-	34.46	-	60.00	50.00	-25.54	-

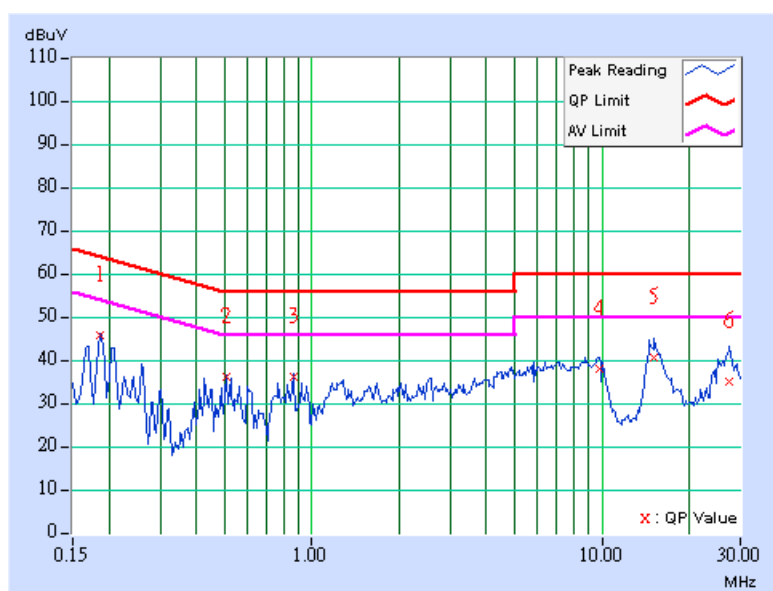
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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 7	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	15Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	Factor [dB]	[dB (uV)]	[dB (uV)]	[dB (uV)]	[dB (uV)]	[dB (uV)]	[dB (uV)]	[dB (uV)]	[dB (uV)]
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.10	44.86	-	44.96	-	64.25	54.25	-19.29	-
2	0.505	0.10	35.15	-	35.25	-	56.00	46.00	-20.75	-
3	0.861	0.10	35.06	-	35.16	-	56.00	46.00	-20.84	-
4	9.746	0.36	37.12	-	37.48	-	60.00	50.00	-22.52	-
5	15.145	0.63	39.47	-	40.10	-	60.00	50.00	-19.90	-
6	27.355	1.12	34.11	-	35.23	-	60.00	50.00	-24.77	-

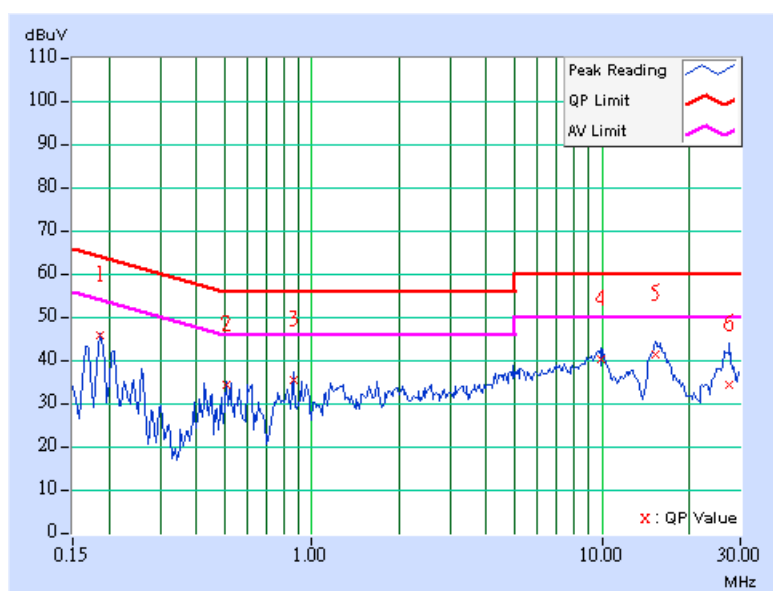
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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 7	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	15Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.186	0.10	44.92	-	45.02	-	64.19	54.19	-19.17	-
2	0.505	0.12	33.42	-	33.54	-	56.00	46.00	-22.46	-
3	0.861	0.18	34.61	-	34.79	-	56.00	46.00	-21.21	-
4	9.922	0.46	39.28	-	39.74	-	60.00	50.00	-20.26	-
5	15.238	0.63	40.57	-	41.20	-	60.00	50.00	-18.80	-
6	27.512	0.93	33.36	-	34.29	-	60.00	50.00	-25.71	-

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



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

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

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400 / F(kHz)	300
0.490 ~ 1.705	24000 / F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

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

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESMI	839013/007 839379/002	Jan. 24, 2007
Spectrum Analyzer ROHDE & SCHWARZ	FSEK30	100049	Aug. 21, 2007
BILOG Antenna SCHWARZBECK	VULB9168	9168-153	Jan. 15, 2007
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-407	Jan. 22, 2007
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 19, 2007
Preamplifier Agilent	8449B	3008A01911	Sep. 13, 2007
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	218188/218189	Dec. 13, 2006
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Mar. 08, 2007
Software ADT.	ADT_Radiated_ V7.6.01	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA
Antenna Tower Controller EMCO	2090	NA	NA
Turn Table EMCO	2087-2.03	NA	NA
Turn Table Controller EMCO	2090	NA	NA

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HwaYa Chamber 9.
 3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 4. The IC Site Registration No. is IC4924A-9.

4.2.3 TEST PROCEDURES

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

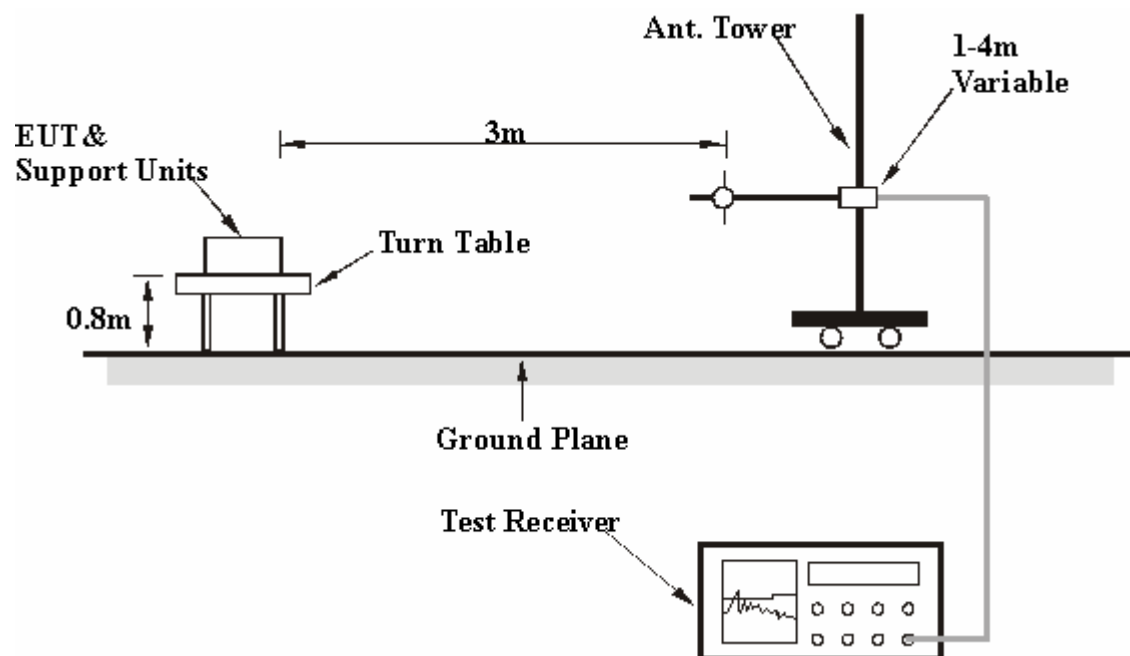
NOTE:

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 video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT OPERATING CONDITIONS

Same as item 4.1.6.

4.2.7 TEST RESULTS

BELOW 1GHz WORST-CASE DATA:

802.11g OFDM MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	43.61	28.94 QP	40.00	-11.06	2.00 H	175	14.58	14.36
2	239.94	37.47 QP	46.00	-8.53	2.00 H	124	26.22	11.24
3	409.06	31.49 QP	46.00	-14.51	2.00 H	149	14.67	16.81
4	432.38	32.64 QP	46.00	-13.36	2.00 H	263	15.44	17.21
5	572.34	36.50 QP	46.00	-9.50	2.00 H	175	16.36	20.14
6	601.50	33.94 QP	46.00	-12.06	2.00 H	346	13.12	20.82
7	681.20	31.13 QP	46.00	-14.87	2.00 H	200	9.13	22.00
8	900.86	34.49 QP	46.00	-11.51	2.00 H	200	9.52	24.97

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	43.61	30.72 QP	40.00	-9.28	1.00 V	327	16.36	14.36
2	214.67	28.57 QP	43.50	-14.93	1.00 V	289	18.16	10.41
3	239.94	31.57 QP	46.00	-14.43	1.00 V	327	20.33	11.24
4	409.06	30.41 QP	46.00	-15.59	1.00 V	276	13.60	16.81
5	572.34	35.96 QP	46.00	-10.04	1.00 V	327	15.82	20.14
6	601.50	33.65 QP	46.00	-12.35	2.00 V	270	12.83	20.82
7	659.82	32.88 QP	46.00	-13.12	1.50 V	137	11.32	21.56
8	696.75	33.37 QP	46.00	-12.63	1.00 V	346	11.05	22.32
9	751.18	32.64 QP	46.00	-13.36	1.00 V	346	8.72	23.91
10	811.44	31.01 QP	46.00	-14.99	1.50 V	23	6.88	24.13
11	840.60	30.87 QP	46.00	-15.13	1.00 V	333	6.39	24.49
12	900.86	41.66 QP	46.00	-4.34	1.00 V	289	16.69	24.97
13	933.91	30.11 QP	46.00	-15.89	1.00 V	333	3.54	26.58

- 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.

DRAFT 802.11n (20MHz) OFDM MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	7.2Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	43.61	27.84 QP	40.00	-12.16	2.00 H	130	13.48	14.36
2	239.94	38.61 QP	46.00	-7.39	2.00 H	149	27.37	11.24
3	409.06	31.18 QP	46.00	-14.82	1.50 H	156	14.37	16.81
4	432.38	30.67 QP	46.00	-15.33	1.50 H	225	13.47	17.21
5	572.34	36.55 QP	46.00	-9.45	2.00 H	130	16.41	20.14
6	601.50	34.10 QP	46.00	-11.90	2.50 H	23	13.28	20.82
7	681.20	31.91 QP	46.00	-14.09	2.00 H	187	9.91	22.00
8	900.86	34.20 QP	46.00	-11.80	2.00 H	187	9.23	24.97

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	43.61	31.17 QP	40.00	-8.83	1.50 V	308	16.81	14.36
2	239.94	31.45 QP	46.00	-14.55	2.00 V	352	20.21	11.24
3	409.06	31.93 QP	46.00	-14.07	1.50 V	339	15.12	16.81
4	432.38	30.11 QP	46.00	-15.89	1.50 V	320	12.90	17.21
5	572.34	35.62 QP	46.00	-10.38	1.50 V	308	15.48	20.14
6	601.50	32.94 QP	46.00	-13.06	1.00 V	339	12.12	20.82
7	681.20	33.61 QP	46.00	-12.39	1.00 V	289	11.61	22.00
8	700.64	31.86 QP	46.00	-14.14	1.00 V	339	9.45	22.41
9	751.18	32.74 QP	46.00	-13.26	1.00 V	320	8.83	23.91
10	811.44	31.04 QP	46.00	-14.96	2.00 V	42	6.91	24.13
11	840.60	30.43 QP	46.00	-15.57	1.00 V	301	5.94	24.49
12	900.86	41.99 QP	46.00	-4.01	1.00 V	289	17.02	24.97
13	951.40	34.57 QP	46.00	-11.43	2.00 V	352	7.25	27.32

REMARKS:

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

DRAFT 802.11n (40MHz) OFDM MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	15Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	43.61	28.54 QP	40.00	-11.46	2.00 H	137	14.18	14.36
2	199.12	27.54 QP	43.50	-15.96	1.50 H	301	17.55	9.99
3	239.94	37.43 QP	46.00	-8.57	1.50 H	168	26.19	11.24
4	288.54	30.27 QP	46.00	-15.73	2.00 H	194	16.25	14.03
5	409.06	31.15 QP	46.00	-14.85	2.00 H	175	14.34	16.81
6	572.34	37.15 QP	46.00	-8.85	2.00 H	137	17.01	20.14
7	601.50	33.78 QP	46.00	-12.22	2.00 H	168	12.96	20.82
8	681.20	31.91 QP	46.00	-14.09	2.00 H	143	9.91	22.00
9	900.86	34.33 QP	46.00	-11.67	2.00 H	143	9.36	24.97

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	43.61	32.17 QP	40.00	-7.83	1.00 V	257	17.81	14.36
2	572.34	35.37 QP	46.00	-10.63	1.00 V	257	15.24	20.14
3	601.50	32.95 QP	46.00	-13.05	1.00 V	276	12.13	20.82
4	659.82	33.32 QP	46.00	-12.68	1.00 V	162	11.77	21.56
5	720.08	30.91 QP	46.00	-15.09	1.00 V	333	7.91	23.00
6	751.18	32.50 QP	46.00	-13.50	1.00 V	333	8.59	23.91
7	768.68	30.16 QP	46.00	-15.84	1.00 V	339	6.22	23.94
8	840.60	31.44 QP	46.00	-14.56	1.00 V	352	6.95	24.49
9	900.86	41.47 QP	46.00	-4.53	2.00 V	73	16.50	24.97
10	953.35	31.35 QP	46.00	-14.65	1.00 V	257	4.09	27.27

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.

BELOW 1GHz WORST-CASE DATA:
802.11g OFDM MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	41.66	31.13 QP	40.00	-8.87	2.00 H	175	17.02	14.11
2	216.61	30.22 QP	46.00	-15.78	2.50 H	29	19.75	10.47
3	239.94	41.42 QP	46.00	-4.58	2.00 H	175	30.18	11.24
4	409.06	30.32 QP	46.00	-15.68	2.00 H	181	13.51	16.81
5	432.38	30.57 QP	46.00	-15.43	2.50 H	10	13.36	17.21
6	480.98	30.51 QP	46.00	-15.49	2.50 H	29	12.32	18.19
7	572.34	30.47 QP	46.00	-15.53	2.00 H	118	10.33	20.14
8	601.50	30.54 QP	46.00	-15.46	2.00 H	149	9.72	20.82
9	900.86	34.94 QP	46.00	-11.06	2.00 H	10	9.97	24.97

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	41.66	34.30 QP	40.00	-5.70	1.00 V	295	20.18	14.11
2	239.94	32.27 QP	46.00	-13.73	1.00 V	295	21.03	11.24
3	300.20	32.20 QP	46.00	-13.80	1.50 V	219	17.69	14.52
4	751.18	40.22 QP	46.00	-5.78	1.50 V	24	16.31	23.91
5	811.44	31.25 QP	46.00	-14.75	1.50 V	29	7.13	24.13
6	840.60	31.86 QP	46.00	-14.14	2.50 V	225	7.37	24.49
7	900.86	41.26 QP	46.00	-4.74	1.00 V	352	16.29	24.97
8	951.40	31.54 QP	46.00	-14.46	1.00 V	295	4.22	27.32

REMARKS:

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

DRAFT 802.11n (20MHz) OFDM MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	7.2Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	41.66	31.32 QP	40.00	-8.68	2.00 H	156	17.21	14.11
2	191.34	27.66 QP	43.50	-15.84	2.00 H	124	17.16	10.50
3	239.94	40.72 QP	46.00	-5.28	2.00 H	156	29.48	11.24
4	409.06	32.07 QP	46.00	-13.93	1.00 H	137	15.26	16.81
5	432.38	31.12 QP	46.00	-14.88	2.00 H	168	13.92	17.21
6	572.34	30.71 QP	46.00	-15.29	2.00 H	149	10.58	20.14
7	900.86	35.50 QP	46.00	-10.50	2.00 H	232	10.53	24.97

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	41.66	33.84 QP	40.00	-6.16	1.00 V	320	19.73	14.11
2	63.05	24.67 QP	40.00	-15.33	1.00 V	358	12.08	12.60
3	239.94	32.42 QP	46.00	-13.58	1.00 V	320	21.18	11.24
4	300.20	31.94 QP	46.00	-14.06	1.50 V	42	17.43	14.52
5	409.06	30.49 QP	46.00	-15.51	1.00 V	295	13.68	16.81
6	659.82	32.51 QP	46.00	-13.49	1.00 V	213	10.95	21.56
7	696.75	30.57 QP	46.00	-15.43	1.50 V	42	8.25	22.32
8	751.18	32.73 QP	46.00	-13.27	1.50 V	35	8.82	23.91
9	768.68	30.99 QP	46.00	-15.01	1.00 V	295	7.05	23.94
10	811.44	31.33 QP	46.00	-14.67	1.00 V	358	7.20	24.13
11	840.60	31.27 QP	46.00	-14.73	2.00 V	346	6.78	24.49
12	900.86	41.85 QP	46.00	-4.15	1.00 V	301	16.88	24.97

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.

DRAFT 802.11n (40MHz) OFDM MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	15Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	41.66	30.27 QP	40.00	-9.73	2.50 H	16	16.16	14.11
2	239.94	39.45 QP	46.00	-6.55	2.50 H	16	28.21	11.24
3	409.06	30.60 QP	46.00	-15.40	2.00 H	200	13.79	16.81
4	432.38	29.95 QP	46.00	-16.05	2.00 H	358	12.74	17.21
5	572.34	30.16 QP	46.00	-15.84	2.00 H	175	10.02	20.14
6	601.50	29.48 QP	46.00	-16.52	2.00 H	175	8.66	20.82
7	900.86	35.06 QP	46.00	-10.94	2.00 H	61	10.09	24.97

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	41.66	34.58 QP	40.00	-5.42	1.00 V	308	20.47	14.11
2	63.05	24.82 QP	40.00	-15.18	1.00 V	54	12.22	12.60
3	239.94	31.15 QP	46.00	-14.85	1.00 V	308	19.91	11.24
4	300.20	31.45 QP	46.00	-14.55	1.00 V	213	16.93	14.52
5	659.82	33.26 QP	46.00	-12.74	1.00 V	137	11.70	21.56
6	700.64	30.05 QP	46.00	-15.95	1.00 V	333	7.64	22.41
7	751.18	33.57 QP	46.00	-12.43	2.00 V	42	9.66	23.91
8	768.68	30.19 QP	46.00	-15.81	1.00 V	301	6.25	23.94
9	811.44	30.86 QP	46.00	-15.14	1.50 V	30	6.73	24.13
10	840.60	31.76 QP	46.00	-14.24	2.00 V	339	7.27	24.49
11	900.86	41.99 QP	46.00	-4.01	1.00 V	339	17.02	24.97
12	930.02	31.94 QP	46.00	-14.06	1.50 V	320	5.55	26.39
13	945.57	30.36 QP	46.00	-15.64	1.00 V	213	3.22	27.14

REMARKS:

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

ABOVE 1GHz WORST-CASE DATA:
802.11b DSSS MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	41.21 PK	74.00	-32.79	1.07 H	360	13.14	28.07
1	1500.00	34.36 AV	54.00	-19.64	1.07 H	360	6.29	28.07
2	2386.00	53.39 PK	74.00	-20.61	1.39 H	269	22.18	31.21
2	2386.00	47.17 AV	54.00	-6.83	1.39 H	269	15.96	31.21
3	*2412.00	108.32 PK			1.39 H	239	77.12	31.20
3	*2412.00	105.24 AV			1.39 H	239	74.04	31.20
4	4824.00	52.45 PK	74.00	-21.55	1.34 H	33	16.03	36.42
4	4824.00	48.86 AV	54.00	-5.14	1.34 H	33	12.44	36.42
5	7236.00	57.57 PK	88.32	-30.75	1.37 H	353	14.66	42.92
5	7236.00	50.44 AV	85.24	-34.80	1.37 H	353	7.52	42.92
6	9648.00	56.38 PK	88.32	-31.94	1.28 H	29	10.96	45.42
6	9648.00	49.47 AV	85.24	-35.77	1.28 H	29	4.05	45.42

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247.
 6. “ * ”: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	49.77 PK	74.00	-24.23	1.12 V	12	21.70	28.07
1	1500.00	43.98 AV	54.00	-10.02	1.12 V	12	15.91	28.07
2	2386.00	60.81 PK	74.00	-13.19	1.14 V	223	29.60	31.21
2	2386.00	51.84 AV	54.00	-2.16	1.14 V	223	20.63	31.21
3	*2412.00	117.04 PK			1.08 V	237	85.84	31.20
3	*2412.00	113.60 AV			1.08 V	237	82.40	31.20
4	4824.00	52.00 PK	74.00	-22.00	1.26 V	34	15.57	36.42
4	4824.00	49.61 AV	54.00	-4.39	1.26 V	34	13.18	36.42
5	7236.00	56.07 PK	97.04	-40.97	1.44 V	10	13.16	42.92
5	7236.00	48.37 AV	93.60	-45.23	1.44 V	10	5.46	42.92
6	9648.00	56.85 PK	97.04	-40.19	1.31 V	132	11.43	45.42
6	9648.00	50.50 AV	93.60	-43.10	1.31 V	132	5.08	45.42

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247.
6. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	108.63 PK			1.38 H	300	77.42	31.21
1	*2437.00	105.42 AV			1.38 H	300	74.21	31.21
2	4874.00	51.57 PK	74.00	-22.43	1.21 H	211	15.04	36.53
2	4874.00	49.52 AV	54.00	-4.48	1.21 H	211	12.99	36.53
3	7311.00	56.21 PK	74.00	-17.79	1.29 H	347	13.23	42.98
3	7311.00	48.08 AV	54.00	-5.92	1.29 H	347	5.10	42.98
4	9748.00	57.11 PK	88.63	-31.52	1.10 H	287	11.51	45.60
4	9748.00	50.20 AV	85.42	-35.22	1.10 H	287	4.60	45.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	50.30 PK	74.00	-23.70	1.07 V	174	22.23	28.07
1	1500.00	44.07 AV	54.00	-9.93	1.07 V	174	16.00	28.07
2	*2437.00	117.10 PK			1.10 V	263	85.89	31.21
2	*2437.00	113.72 AV			1.10 V	263	82.51	31.21
3	4874.00	52.64 PK	74.00	-21.36	1.27 V	247	16.11	36.53
3	4874.00	49.96 AV	54.00	-4.04	1.27 V	247	13.43	36.53
4	7311.00	56.54 PK	74.00	-17.46	1.31 V	296	13.56	42.98
4	7311.00	48.46 AV	54.00	-5.54	1.31 V	296	5.48	42.98
5	9748.00	56.96 PK	97.10	-40.14	1.07 V	300	11.36	45.60
5	9748.00	50.64 AV	93.72	-43.08	1.07 V	300	5.04	45.60

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247.
6. “ * ”: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	108.01 PK			1.42 H	287	76.79	31.22
1	*2462.00	104.96 AV			1.42 H	287	73.74	31.22
2	2483.50	53.10 PK	74.00	-20.90	1.42 H	287	21.87	31.23
2	2483.50	46.98 AV	54.00	-7.02	1.42 H	287	15.75	31.23
3	4924.00	52.07 PK	74.00	-21.93	1.28 H	187	15.44	36.63
3	4924.00	48.48 AV	54.00	-5.52	1.28 H	187	11.85	36.63
4	7386.00	57.20 PK	74.00	-16.80	1.32 H	169	14.17	43.03
4	7386.00	49.69 AV	54.00	-4.31	1.32 H	169	6.66	43.03
5	9848.00	55.36 PK	88.01	-32.65	1.28 H	37	9.66	45.70
5	9848.00	48.89 AV	84.96	-36.07	1.28 H	37	3.19	45.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	116.71 PK			1.09 V	235	85.49	31.22
1	*2462.00	113.71 AV			1.09 V	235	82.49	31.22
2	2483.50	58.01 PK	74.00	-15.99	1.12 V	232	26.78	31.23
2	2483.50	51.46 AV	54.00	-2.54	1.12 V	232	20.23	31.23
3	4924.00	52.67 PK	74.00	-21.33	1.27 V	244	16.04	36.63
3	4924.00	50.67 AV	54.00	-3.33	1.27 V	244	14.04	36.63
4	7386.00	56.78 PK	74.00	-17.22	1.27 V	360	13.75	43.03
4	7386.00	48.69 AV	54.00	-5.31	1.27 V	360	5.66	43.03
5	9848.00	57.21 PK	96.71	-39.50	1.31 V	157	11.51	45.70
5	9848.00	50.41 AV	93.71	-43.30	1.31 V	157	4.71	45.70

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. The limit value is defined as per 15.247.
6. “ * “: Fundamental frequency.

802.11g OFDM MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	41.36 PK	74.00	-32.64	1.31 H	1	13.29	28.07
1	1500.00	33.69 AV	54.00	-20.31	1.31 H	1	5.62	28.07
2	2390.00	55.30 PK	74.00	-18.70	1.02 H	244	24.09	31.21
2	2390.00	46.27 AV	54.00	-7.73	1.02 H	224	15.06	31.21
3	*2412.00	105.21 PK			1.02 H	244	74.01	31.20
3	*2412.00	95.63 AV			1.02 H	244	64.43	31.20
4	3216.00	43.58 PK	85.21	-41.63	1.11 H	239	11.23	32.35
4	3216.00	32.54 AV	75.63	-43.09	1.11 H	239	0.19	32.35

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	1500.00	46.87 PK	74.00	-27.13	1.37 V	10	18.80	28.07
1	1500.00	43.13 AV	54.00	-10.87	1.37 V	10	15.06	28.07
2	2390.00	67.40 PK	74.00	-6.60	1.16 V	220	36.19	31.21
2	2390.00	51.78 AV	54.00	-2.22	1.16 V	220	20.57	31.21
3	*2412.00	116.31 PK			1.13 V	224	85.11	31.20
3	*2412.00	106.97 AV			1.13 V	224	75.77	31.20
4	3216.00	44.07 PK	96.31	-13.07	1.28 V	220	11.72	32.35
4	3216.00	38.32 AV	86.97	-48.65	1.28 V	220	5.97	32.35

- 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. The limit value is defined as per 15.247.
 6. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	41.10 PK	74.00	-32.90	1.27 H	360	13.03	28.07
1	1500.00	34.28 AV	54.00	-19.72	1.27 H	360	6.21	28.07
2	2352.00	61.57 PK	74.00	-12.43	1.31 H	256	30.32	31.25
2	2352.00	46.84 AV	54.00	-7.16	1.31 H	256	15.59	31.25
3	*2437.00	106.27 PK			1.31 H	256	75.06	31.21
3	*2437.00	96.87 AV			1.31 H	256	65.66	31.21
4	3248.00	43.56 PK	86.27	-42.71	1.11 H	217	11.30	32.26
4	3248.00	32.87 AV	76.87	-44.00	1.11 H	217	0.61	32.26

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	1500.00	48.96 PK	74.00	-25.04	1.27 V	355	20.89	28.07
1	1500.00	44.20 AV	54.00	-9.80	1.27 V	355	16.13	28.07
2	2352.00	64.21 PK	74.00	-9.79	1.04 V	198	32.96	31.25
2	2352.00	52.14 AV	54.00	-1.86	1.04 V	198	20.89	31.25
3	*2437.00	116.98 PK			1.04 V	198	85.77	31.21
3	*2437.00	107.65 AV			1.04 V	198	76.44	31.21
4	3248.00	45.10 PK	96.98	-51.88	1.27 V	274	12.84	32.26
4	3248.00	38.60 AV	87.65	-49.05	1.27 V	274	6.34	32.26

- 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. The limit value is defined as per 15.247.
 6. “ * ”: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	40.10 PK	74.00	-33.90	1.29 H	360	12.03	28.07
1	1500.00	34.12 AV	54.00	-19.88	1.29 H	360	6.05	28.07
2	*2462.00	105.30 PK			1.24 H	240	74.08	31.22
2	*2462.00	95.42 AV			1.24 H	240	64.20	31.22
3	2483.50	60.77 PK	74.00	-13.23	1.24 H	240	29.54	31.23
3	2483.50	46.21 AV	54.00	-7.79	1.24 H	240	14.98	31.23
4	3282.00	43.20 PK	85.30	-42.10	1.10 H	277	11.05	32.15
4	3282.00	32.10 AV	75.42	-43.32	1.10 H	277	-0.05	32.15

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	46.57 PK	74.00	-27.43	1.34 V	10	18.50	28.07
1	1500.00	43.15 AV	54.00	-10.85	1.34 V	10	15.08	28.07
2	*2462.00	116.56 PK			1.13 V	263	85.34	31.22
2	*2462.00	107.07 AV			1.13 V	263	75.85	31.22
3	2483.50	70.41 PK	74.00	-3.59	1.13 V	263	39.18	31.23
3	2483.50	51.59 AV	54.00	-2.41	1.13 V	263	20.36	31.23
4	3282.00	44.17 PK	96.56	-52.39	1.27 V	199	12.02	32.15
4	3282.00	38.23 AV	87.07	-48.84	1.27 V	199	6.08	32.15

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247.
 6. “ * ”: Fundamental frequency.

DRAFT 802.11n (20MHz) OFDM MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	7.2Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	40.58 PK	74.00	-33.42	1.29 H	356	12.51	28.07
1	1500.00	33.17 AV	54.00	-20.83	1.29 H	356	5.10	28.07
2	2390.00	54.05 PK	74.00	-19.95	1.00 H	235	22.84	31.21
2	2390.00	45.09 AV	54.00	-8.91	1.00 H	235	13.88	31.21
3	*2412.00	103.99 PK			1.00 H	235	72.79	31.20
3	*2412.00	94.28 AV			1.00 H	235	63.08	31.20
4	3216.00	42.41 PK	83.99	-41.58	1.08 H	231	10.06	32.35
4	3216.00	31.63 AV	74.28	-42.65	1.08 H	231	-0.72	32.35

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	1500.00	47.73 PK	74.00	-26.27	1.49 V	6	19.66	28.07
1	1500.00	43.88 AV	54.00	-10.12	1.49 V	6	15.81	28.07
2	2390.00	65.40 PK	74.00	-8.60	1.16 V	227	34.19	31.21
2	2390.00	52.10 AV	54.00	-1.90	1.16 V	227	20.89	31.21
3	*2412.00	115.66 PK			1.11 V	226	84.46	31.20
3	*2412.00	106.02 AV			1.11 V	226	74.82	31.20
4	3216.00	43.81 PK	95.66	-51.85	1.37 V	217	11.46	32.35
4	3216.00	37.86 AV	86.02	-48.16	1.37 V	217	5.51	32.35

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. The limit value is defined as per 15.247.
6. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	7.2Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	41.57 PK	74.00	-32.43	1.31 H	360	13.50	28.07
1	1500.00	34.28 AV	54.00	-19.72	1.31 H	360	6.21	28.07
2	*2437.00	105.68 PK			1.19 H	300	74.47	31.21
2	*2437.00	96.32 AV			1.19 H	300	65.11	31.21

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	1500.00	48.24 PK	74.00	-25.76	1.34 V	10	20.17	28.07
1	1500.00	44.10 AV	54.00	-9.90	1.34 V	10	16.03	28.07
2	2390.00	63.24 PK	74.00	-10.76	1.11 V	230	32.03	31.21
2	2390.00	51.80 AV	54.00	-2.20	1.11 V	230	20.59	31.21
3	*2437.00	116.89 PK			1.11 V	230	85.68	31.21
3	*2437.00	107.24 AV			1.11 V	230	76.03	31.21
4	3248.00	44.87 PK	96.89	-52.02	1.29 V	200	12.61	32.26
4	3248.00	38.65 AV	87.24	-48.59	1.29 V	200	6.39	32.26

- 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. The limit value is defined as per 15.247.
 6. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	7.2Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	41.54 PK	74.00	-32.46	1.24 H	360	13.47	28.07
1	1500.00	33.47 AV	54.00	-20.53	1.24 H	360	5.40	28.07
2	*2462.00	104.04 PK			1.01 H	211	72.82	31.22
2	*2462.00	94.31 AV			1.01 H	211	63.09	31.22
3	2483.50	55.21 PK	74.00	-18.79	1.01 H	211	23.98	31.23
3	2483.50	45.54 AV	54.00	-8.46	1.01 H	211	14.31	31.23
4	3282.00	43.27 PK	84.04	-40.77	1.11 H	240	11.12	32.15
4	3282.00	32.70 AV	74.31	-41.61	1.11 H	240	0.55	32.15

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	47.25 PK	74.00	-26.75	1.41 V	360	19.18	28.07
1	1500.00	43.56 AV	54.00	-10.44	1.41 V	360	15.49	28.07
2	*2462.00	115.51 PK			1.12 V	223	84.29	31.22
2	*2462.00	106.29 AV			1.12 V	223	75.07	31.22
3	2483.50	64.76 PK	74.00	-9.24	1.08 V	235	33.53	31.23
3	2483.50	51.75 AV	54.00	-2.25	1.08 V	235	20.52	31.23
4	3282.00	44.07 PK	95.51	-51.44	1.27 V	230	11.92	32.15
4	3282.00	38.21 AV	86.29	-48.08	1.27 V	230	6.06	32.15

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247.
 6. “ * “: Fundamental frequency.

DRAFT 802.11n (40MHz) OFDM MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	15Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	39.98 PK	74.00	-34.02	1.00 H	0	11.91	28.07
1	1500.00	34.20 AV	54.00	-19.80	1.00 H	0	6.13	28.07
2	2390.00	59.30 PK	74.00	-14.70	1.24 H	247	28.09	31.21
2	2390.00	46.87 AV	54.00	-7.13	1.24 H	247	15.66	31.21
3	*2422.00	101.36 PK			1.24 H	247	70.15	31.21
3	*2422.00	89.01 AV			1.24 H	247	57.80	31.21
4	3229.00	43.50 PK	81.36	-37.86	1.11 H	240	11.19	32.31
4	3229.00	32.14 AV	69.01	-36.87	1.11 H	240	-0.17	32.31

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	1500.00	46.56 PK	74.00	-27.44	1.23 V	180	18.49	28.07
1	1500.00	43.21 AV	54.00	-10.79	1.23 V	180	15.14	28.07
2	2390.00	68.62 PK	74.00	-5.38	1.15 V	223	37.41	31.21
2	2390.00	51.74 AV	54.00	-2.26	1.15 V	223	20.53	31.21
3	*2422.00	109.82 PK			1.14 V	222	78.61	31.21
3	*2422.00	100.95 AV			1.14 V	222	69.74	31.21
4	3229.00	43.83 PK	89.82	-45.99	1.18 V	222	11.52	32.31
4	3229.00	36.16 AV	80.95	-44.79	1.18 V	222	3.85	32.31

- 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. The limit value is defined as per 15.247.
 6. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	15Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	41.23 PK	74.00	-32.77	1.27 H	241	13.16	28.07
1	1500.00	33.59 AV	54.00	-20.41	1.27 H	241	5.52	28.07
2	2390.00	61.21 PK	74.00	-12.79	1.27 H	300	30.00	31.21
2	2390.00	48.20 AV	54.00	-5.80	1.27 H	300	16.99	31.21
3	*2437.00	103.62 PK			1.27 H	300	72.41	31.21
3	*2437.00	93.47 AV			1.27 H	300	62.26	31.21
4	3248.00	43.23 PK	83.62	-40.39	1.11 H	240	10.97	32.26
4	3248.00	32.14 AV	73.47	-41.33	1.11 H	240	-0.12	32.26

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	1500.00	48.20 PK	74.00	-25.80	1.37 V	187	20.13	28.07
1	1500.00	44.20 AV	54.00	-9.80	1.37 V	187	16.13	28.07
2	2390.00	71.77 PK	74.00	-2.23	1.13 V	127	40.56	31.21
2	2390.00	51.89 AV	54.00	-2.11	1.13 V	127	20.68	31.21
3	*2437.00	111.57 PK			1.13 V	127	80.36	31.21
3	*2437.00	101.63 AV			1.13 V	127	70.42	31.21
4	3248.00	43.98 PK	91.57	-47.59	1.27 V	200	11.72	32.26
4	3248.00	37.96 AV	81.63	-43.67	1.27 V	200	5.70	32.26

- 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. The limit value is defined as per 15.247.
 6. “ * ”: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	15Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	A
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	40.60 PK	74.00	-33.40	1.20 H	2	12.53	28.07
1	1500.00	35.31 AV	54.00	-18.69	1.20 H	2	7.24	28.07
2	*2452.00	101.17 PK			1.27 H	255	69.95	31.22
2	*2452.00	88.86 AV			1.27 H	255	57.64	31.22
3	2483.50	60.31 PK	74.00	-13.69	1.27 H	255	29.08	31.23
3	2483.50	46.57 AV	54.00	-7.43	1.27 H	255	15.34	31.23
4	3269.00	42.87 PK	81.17	-38.30	1.01 H	214	10.68	32.19
4	3269.00	33.20 AV	68.86	-35.66	1.01 H	214	1.01	32.19

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	1500.00	46.00 PK	74.00	-28.00	1.27 V	177	17.93	28.07
1	1500.00	43.31 AV	54.00	-10.69	1.27 V	177	15.24	28.07
2	*2452.00	109.72 PK			1.11 V	247	78.50	31.22
2	*2452.00	100.48 AV			1.11 V	247	69.26	31.22
3	2483.50	68.96 PK	74.00	-5.04	1.11 V	247	37.73	31.23
3	2483.50	51.79 AV	54.00	-2.21	1.11 V	247	20.56	31.23
4	3269.00	43.57 PK	89.72	-46.15	1.40 V	196	11.38	32.19
4	3269.00	36.50 AV	80.48	-43.98	1.40 V	196	4.31	32.19

- 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. The limit value is defined as per 15.247.
 6. “ * ”: Fundamental frequency.

802.11b DSSS MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	52.52 PK	74.00	-21.48	1.07 H	124	21.31	31.21
1	2390.00	44.39 AV	54.00	-9.61	1.07 H	124	13.18	31.21
2	*2412.00	106.39 PK			1.07 H	124	75.19	31.20
2	*2412.00	103.11 AV			1.07 H	124	71.91	31.20
3	4824.00	47.27 PK	74.00	-26.73	1.27 H	350	10.84	36.42
3	4824.00	41.99 AV	54.00	-12.01	1.27 H	350	5.56	36.42
4	7236.00	52.94 PK	86.39	-33.45	1.38 H	157	10.03	42.92
4	7236.00	43.12 AV	83.11	-39.99	1.38 H	157	0.21	42.92
5	9648.00	55.65 PK	86.39	-30.74	1.00 H	205	10.23	45.42
5	9648.00	47.16 AV	83.11	-35.95	1.00 H	205	1.74	45.42

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247.
6. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2374.00	56.32 PK	74.00	-17.68	1.31 V	117	25.09	31.23
1	2374.00	47.88 AV	54.00	-6.12	1.31 V	117	16.65	31.23
2	*2412.00	115.35 PK			1.41 V	117	84.15	31.20
2	*2412.00	112.18 AV			1.41 V	117	80.98	31.20
3	4824.00	46.97 PK	74.00	-27.03	1.07 V	52	10.54	36.42
3	4824.00	40.20 AV	54.00	-13.80	1.07 V	52	3.77	36.42
4	7236.00	52.74 PK	95.35	-42.61	1.00 V	350	9.83	42.92
4	7236.00	43.11 AV	92.18	-49.07	1.00 V	350	0.20	42.92
5	9648.00	54.87 PK	95.35	-40.48	1.00 V	0	9.45	45.42
5	9648.00	47.67 AV	92.18	-44.51	1.00 V	0	2.25	45.42

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247.
6. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	107.15 PK			1.43 H	264	75.93	31.22
1	*2462.00	103.32 AV			1.43 H	264	72.10	31.22
2	2483.50	55.73 PK	74.00	-18.27	1.30 H	264	24.50	31.23
2	2483.50	45.46 AV	54.00	-8.54	1.30 H	264	14.23	31.23
3	4924.00	45.16 PK	74.00	-28.84	1.13 H	167	8.53	36.63
3	4924.00	38.37 AV	54.00	-15.63	1.13 H	167	1.74	36.63
4	7386.00	50.54 PK	74.00	-23.46	1.13 H	286	7.51	43.03
4	7386.00	41.67 AV	54.00	-12.33	1.13 H	286	-1.36	43.03

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	*2462.00	115.27 PK			1.29 V	123	84.05	31.22
1	*2462.00	112.00 AV			1.29 V	123	80.78	31.22
2	2483.50	56.85 PK	74.00	-17.15	1.29 V	123	25.62	31.23
2	2483.50	48.17 AV	54.00	-5.83	1.29 V	123	16.94	31.23
3	4924.00	47.11 PK	74.00	-26.89	1.10 V	101	10.48	36.63
3	4924.00	40.69 AV	54.00	-13.31	1.10 V	101	4.06	36.63
4	7386.00	52.69 PK	74.00	-21.31	1.07 V	344	9.66	43.03
4	7386.00	43.50 AV	54.00	-10.50	1.07 V	344	0.47	43.03
5	9848.00	55.64 PK	95.27	-39.63	1.07 V	344	9.94	45.70
5	9848.00	47.11 AV	92.00	-44.89	1.07 V	344	1.41	45.70

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. The limit value is defined as per 15.247.
6. “ * “: Fundamental frequency.

802.11g OFDM MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	41.16 PK	74.00	-32.84	1.33 H	26	13.09	28.07
1	1500.00	33.57 AV	54.00	-20.43	1.33 H	26	5.50	28.07
2	2390.00	55.93 PK	74.00	-18.07	1.13 H	264	24.72	31.21
2	2390.00	45.80 AV	54.00	-8.20	1.13 H	264	14.59	31.21
3	*2412.00	102.57 PK			1.13 H	264	71.37	31.20
3	*2412.00	92.18 AV			1.13 H	264	60.98	31.20

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	45.27 PK	74.00	-28.73	1.23 V	244	17.20	28.07
1	1500.00	42.96 AV	54.00	-11.04	1.23 V	244	14.89	28.07
2	2390.00	65.11 PK	74.00	-8.89	1.07 V	310	33.90	31.21
2	2390.00	48.96 AV	54.00	-5.04	1.07 V	310	17.75	31.21
3	*2412.00	113.57 PK			1.07 V	310	82.37	31.20
3	*2412.00	104.10 AV			1.07 V	310	72.90	31.20

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247.
 6. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	40.15 PK	74.00	-33.85	1.35 H	12	12.08	28.07
1	1500.00	34.49 AV	54.00	-19.51	1.35 H	12	6.42	28.07
2	*2462.00	103.84 PK			1.35 H	261	72.62	31.22
2	*2462.00	93.65 AV			1.35 H	261	62.43	31.22
3	2483.50	56.60 PK	74.00	-17.40	1.35 H	260	25.37	31.23
3	2483.50	45.79 AV	54.00	-8.21	1.35 H	260	14.56	31.23

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	1500.00	45.77 PK	74.00	-28.23	1.27 V	244	17.70	28.07
1	1500.00	43.69 AV	54.00	-10.31	1.27 V	244	15.62	28.07
2	*2462.00	113.47 PK			1.11 V	300	82.25	31.22
2	*2462.00	104.12 AV			1.11 V	300	72.90	31.22
3	2483.50	67.89 PK	74.00	-6.11	1.11 V	300	36.66	31.23
3	2483.50	48.72 AV	54.00	-5.28	1.11 V	300	17.49	31.23

- 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. The limit value is defined as per 15.247.
 6. “ * “: Fundamental frequency.

DRAFT 802.11n (20MHz) OFDM MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	7.2Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	40.68 PK	74.00	-33.32	1.00 H	318	12.61	28.07
1	1500.00	33.24 AV	54.00	-20.76	1.00 H	318	5.17	28.07
2	2390.00	56.88 PK	74.00	-17.12	1.15 H	166	25.67	31.21
2	2390.00	45.45 AV	54.00	-8.55	1.15 H	166	14.24	31.21
3	*2412.00	100.43 PK			1.15 H	167	69.23	31.20
3	*2412.00	91.18 AV			1.15 H	167	59.98	31.20

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	47.13 PK	74.00	-26.87	1.20 V	200	19.06	28.07
1	1500.00	43.28 AV	54.00	-10.72	1.20 V	200	15.21	28.07
2	2390.00	62.44 PK	74.00	-11.56	1.09 V	294	31.23	31.21
2	2390.00	49.57 AV	54.00	-4.43	1.09 V	294	18.36	31.21
3	*2412.00	112.57 PK			1.09 V	294	81.37	31.20
3	*2412.00	103.42 AV			1.09 V	294	72.22	31.20

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. The limit value is defined as per 15.247.
 6. “ * ”: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	7.2Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	40.68 PK	74.00	-33.32	1.30 H	239	12.61	28.07
1	1500.00	33.40 AV	54.00	-20.60	1.30 H	239	5.33	28.07
2	*2462.00	101.21 PK			1.00 H	256	69.99	31.22
2	*2462.00	91.58 AV			1.00 H	256	60.36	31.22
3	2483.50	57.68 PK	74.00	-16.32	1.00 H	256	26.45	31.23
3	2483.50	46.82 AV	54.00	-7.18	1.00 H	256	15.59	31.23

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	1500.00	46.87 PK	74.00	-27.13	1.07 V	127	18.80	28.07
1	1500.00	43.08 AV	54.00	-10.92	1.07 V	127	15.01	28.07
2	*2462.00	112.65 PK			1.07 V	247	81.43	31.22
2	*2462.00	103.42 AV			1.07 V	247	72.20	31.22
3	2483.50	61.89 PK	74.00	-12.11	1.07 V	247	30.66	31.23
3	2483.50	49.10 AV	54.00	-4.90	1.07 V	247	17.87	31.23

- 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. The limit value is defined as per 15.247.
 6. “ * “: Fundamental frequency.

DRAFT 802.11n (40MHz) OFDM MODULATION: TRIPLE TX:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	15Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	39.97 PK	74.00	-34.03	1.18 H	120	11.90	28.07
1	1500.00	34.59 AV	54.00	-19.41	1.18 H	120	6.52	28.07
2	2390.00	55.47 PK	74.00	-18.53	1.09 H	253	24.26	31.21
2	2390.00	45.80 AV	54.00	-8.20	1.09 H	253	14.59	31.21
3	*2422.00	98.87 PK			1.08 H	253	67.66	31.21
3	*2422.00	86.52 AV			1.08 H	253	55.31	31.21

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	1500.00	46.20 PK	74.00	-27.80	1.08 V	247	18.13	28.07
1	1500.00	43.01 AV	54.00	-10.99	1.08 V	247	14.94	28.07
2	2390.00	64.27 PK	74.00	-9.73	1.24 V	269	33.06	31.21
2	2390.00	49.42 AV	54.00	-4.58	1.24 V	269	18.21	31.21
3	*2422.00	106.75 PK			1.24 V	269	75.54	31.21
3	*2422.00	98.06 AV			1.24 V	269	66.85	31.21

- 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. The limit value is defined as per 15.247.
 6. “ * “: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	15Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	TEST MODE	B
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 m								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	40.10 PK	74.00	-33.90	1.00 H	120	12.03	28.07
1	1500.00	35.53 AV	54.00	-18.47	1.00 H	120	7.46	28.07
2	*2452.00	98.46 PK			1.24 H	260	67.24	31.22
2	*2452.00	85.52 AV			1.24 H	260	54.30	31.22
3	2483.50	55.80 PK	74.00	-18.20	1.24 H	260	24.57	31.23
3	2483.50	45.46 AV	54.00	-8.54	1.24 H	260	14.23	31.23

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	1500.00	45.69 PK	74.00	-28.31	1.27 V	300	17.62	28.07
1	1500.00	42.89 AV	54.00	-11.11	1.27 V	300	14.82	28.07
2	*2452.00	106.64 PK			1.10 V	296	75.42	31.22
2	*2452.00	98.19 AV			1.10 V	296	66.97	31.22
3	2483.50	65.34 PK	74.00	-8.66	1.10 V	296	34.11	31.23
3	2483.50	48.69 AV	54.00	-5.31	1.10 V	296	17.46	31.23

- 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. The limit value is defined as per 15.247.
 6. “ * “: Fundamental frequency.

4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSP40	100040	Jun. 07, 2007

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

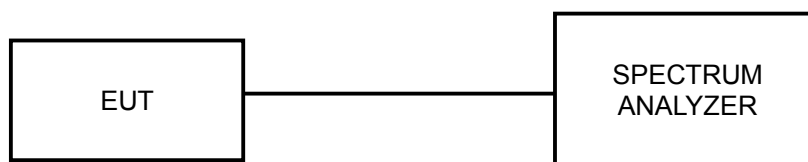
4.3.3 TEST PROCEDURE

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

4.3.4 DEVIATION FROM TEST STANDARD

No deviation

4.3.5 TEST SETUP



4.3.6 EUT OPERATING CONDITIONS

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

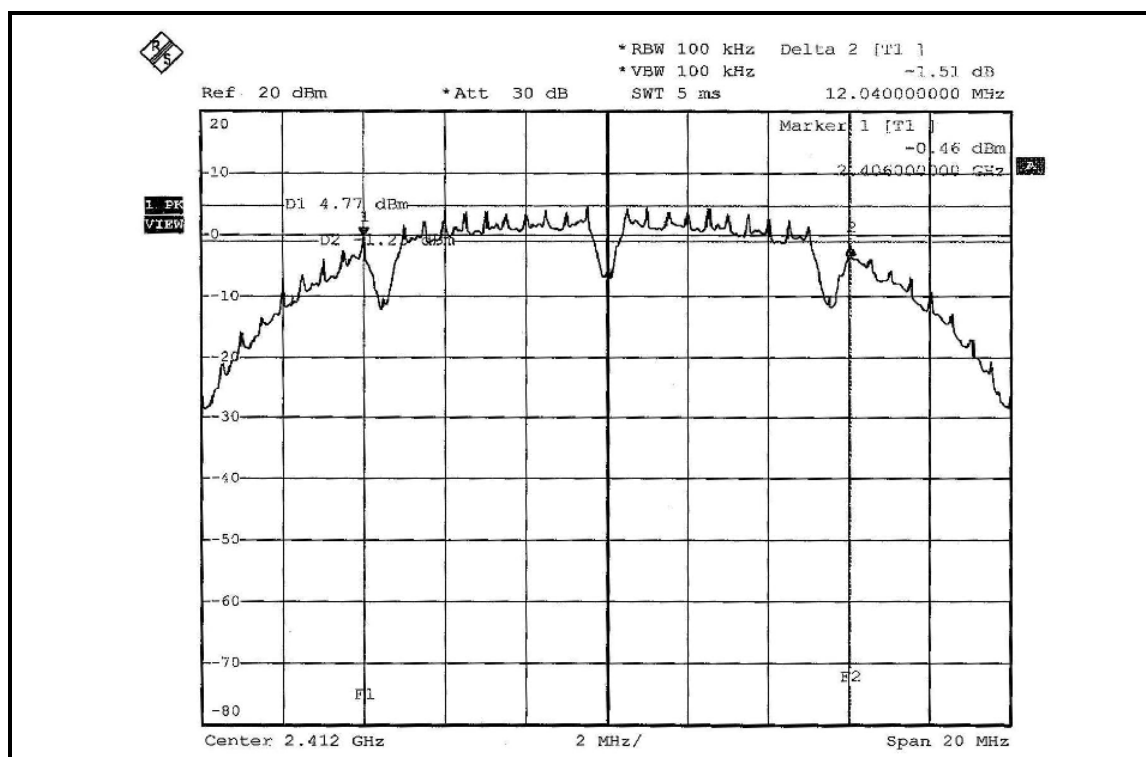
4.3.7 TEST RESULTS

802.11b DSSS MODULATION: TRIPLE TX:

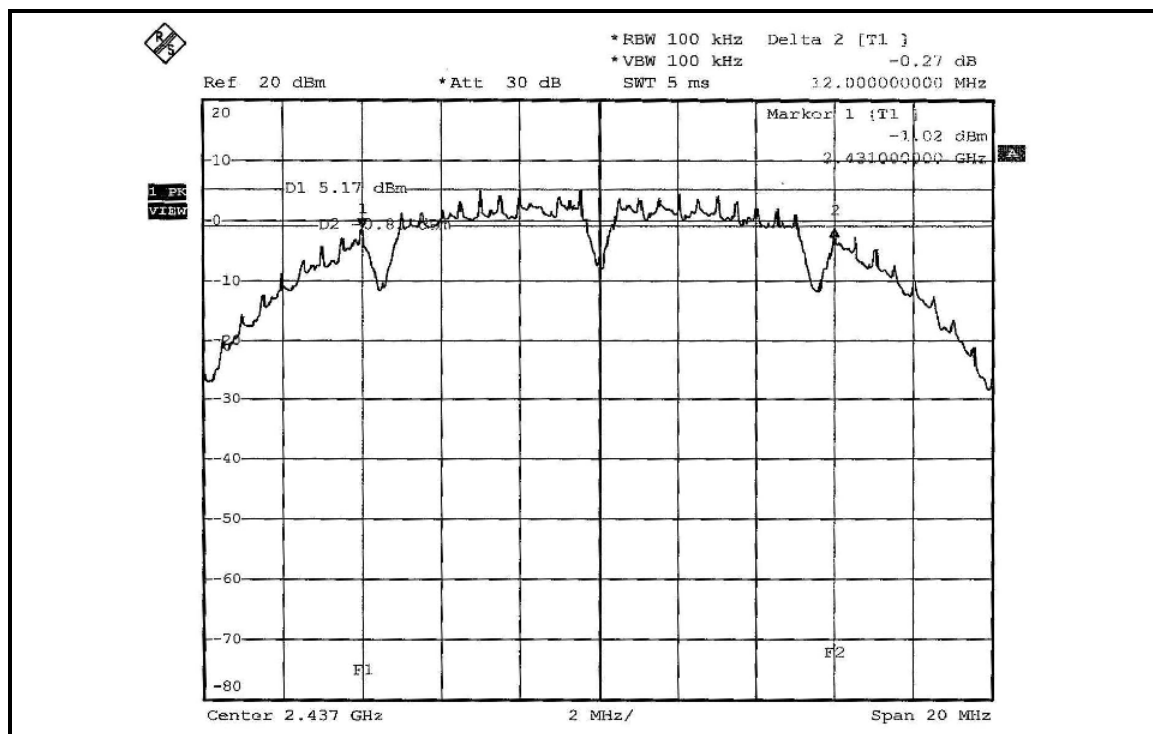
MODULATION TYPE	DBPSK	TRANSFER RATE	1Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)			MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
1	2412	12.04	12.04	12.08	0.5	PASS
6	2437	12.00	12.04	12.00	0.5	PASS
11	2462	12.04	12.08	12.08	0.5	PASS

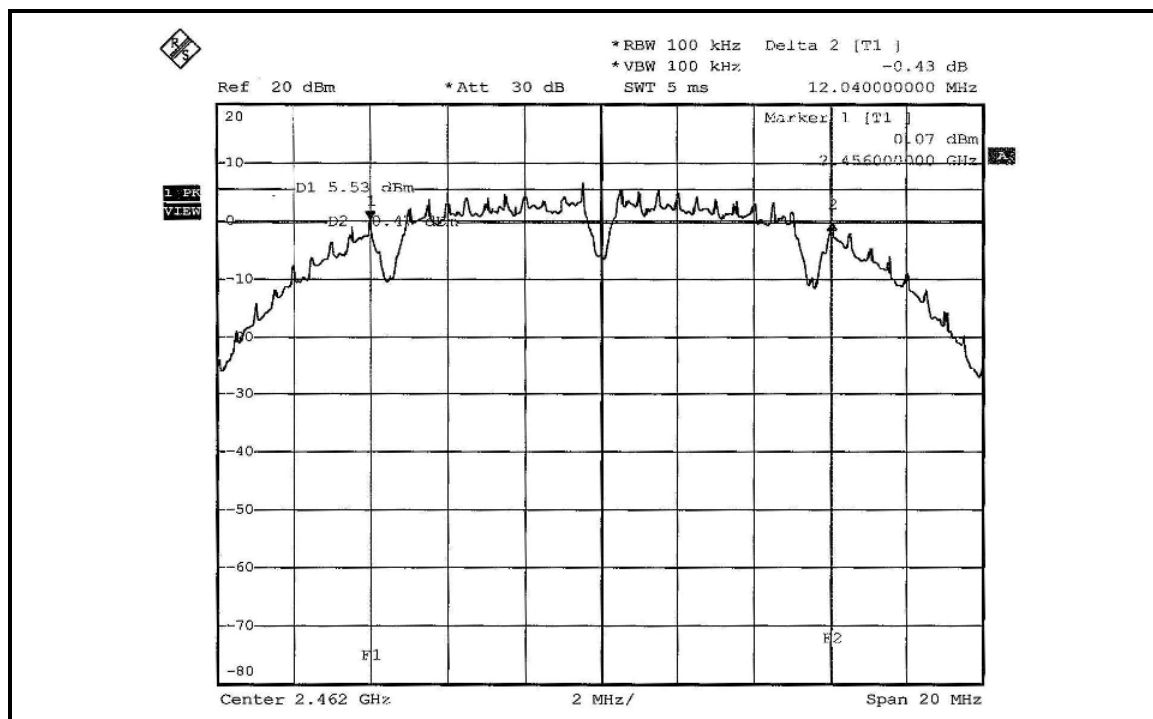
FOR CHAIN 0: CH 1



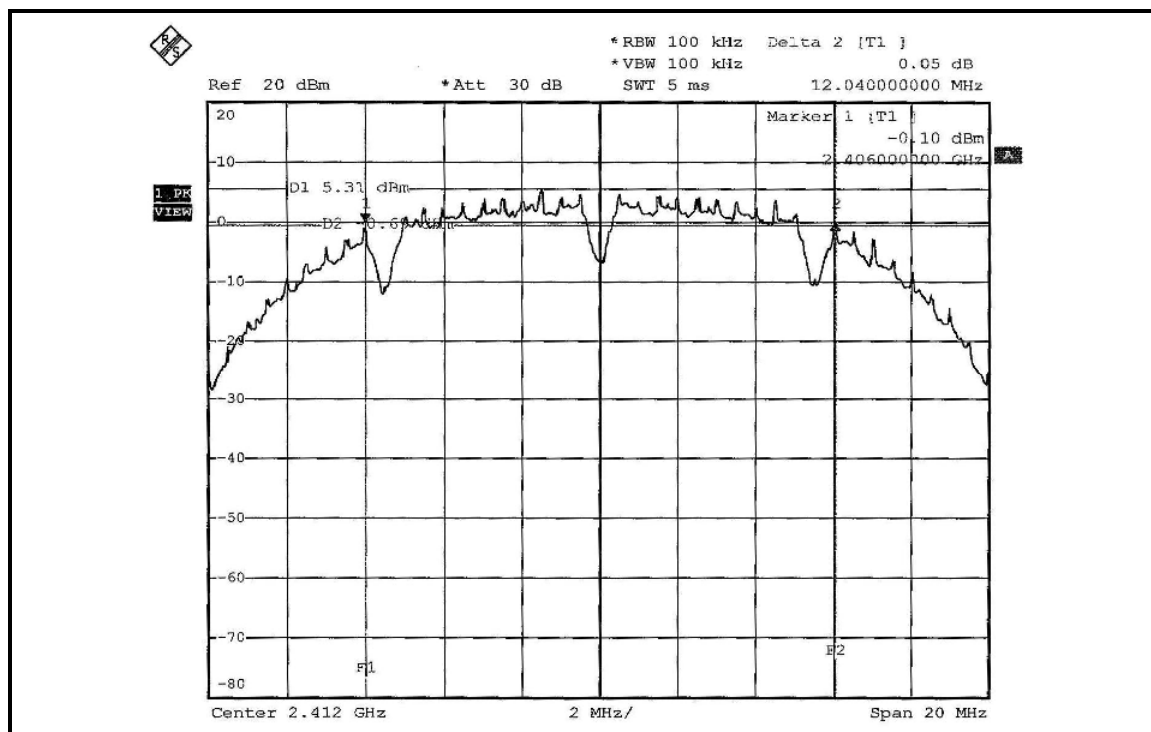
CH 6



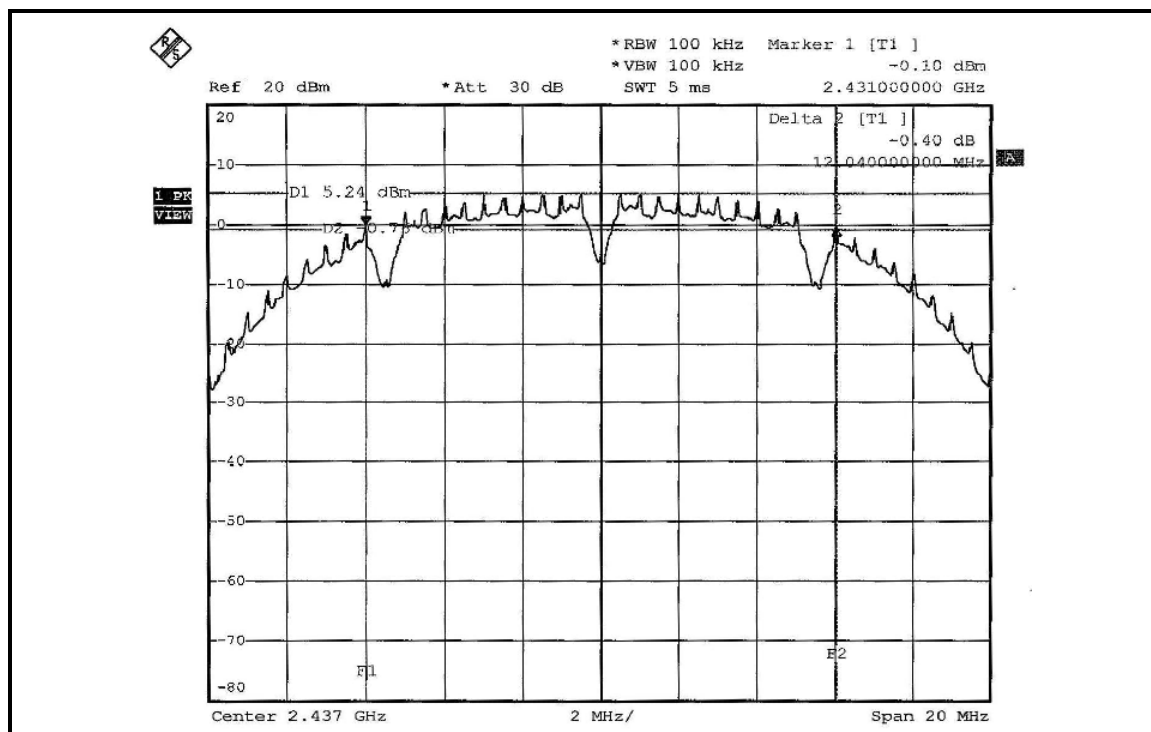
CH 11



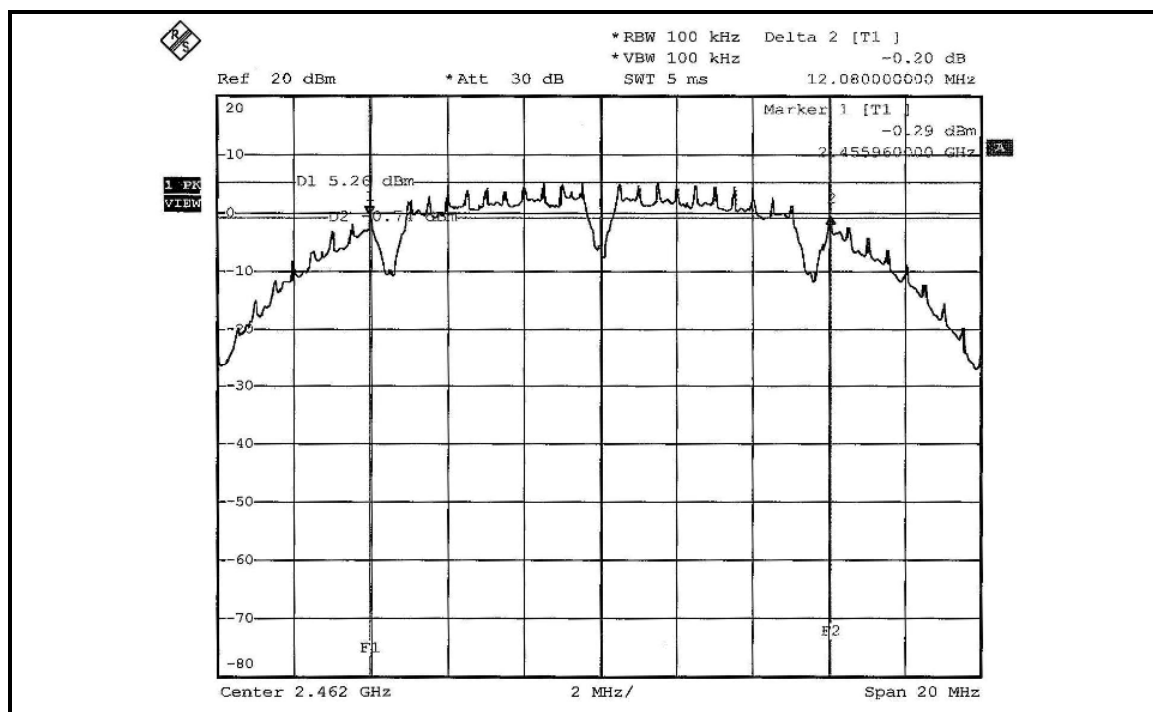
FOR CHAIN 1: CH 1



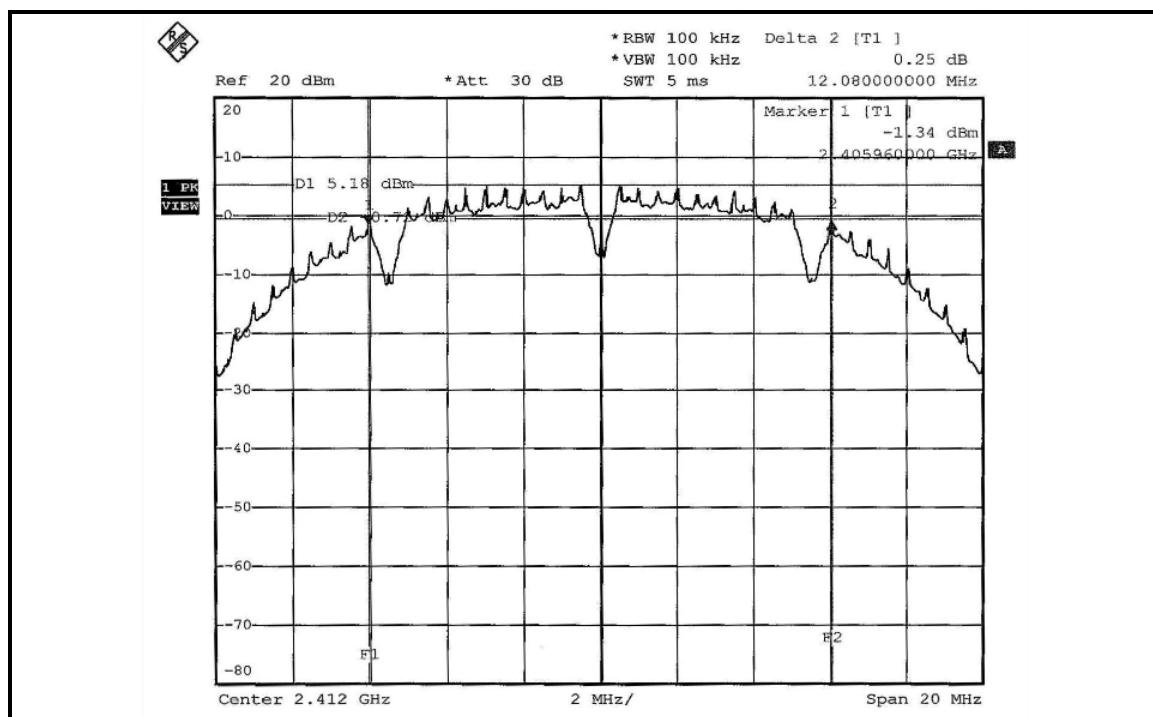
CH 6



CH 11



FOR CHAIN 2: CH 1

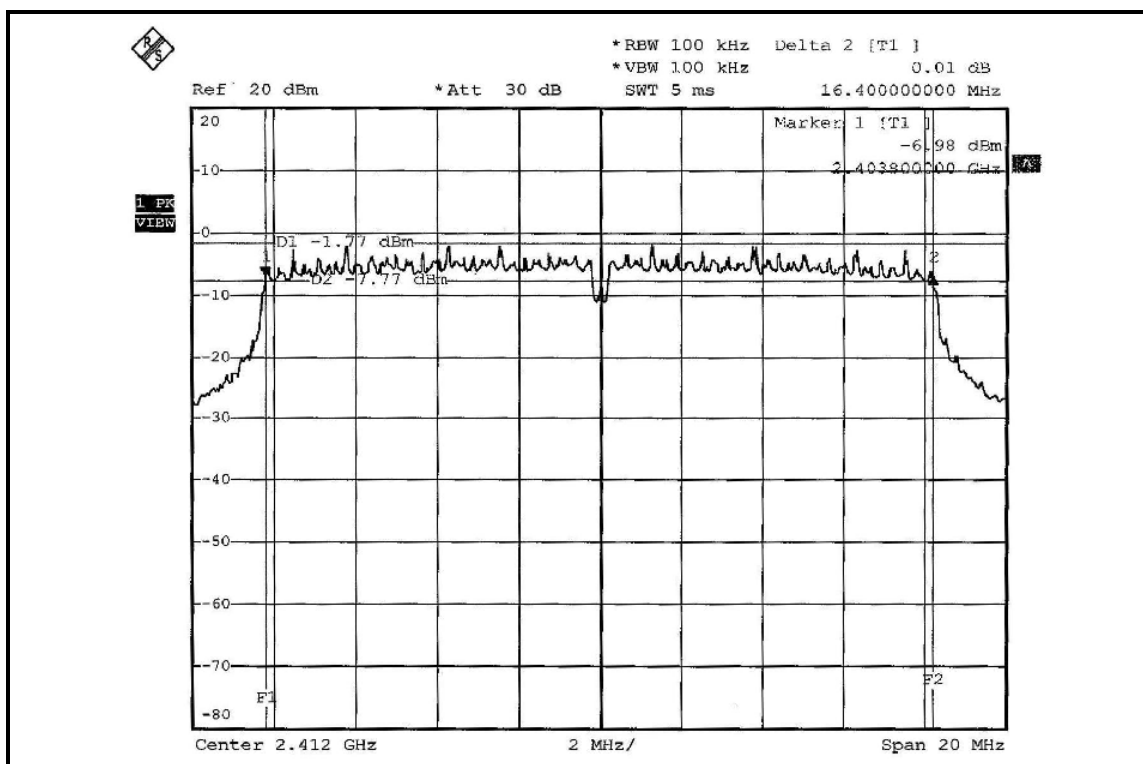


802.11g OFDM MODULATION: TRIPLE TX:

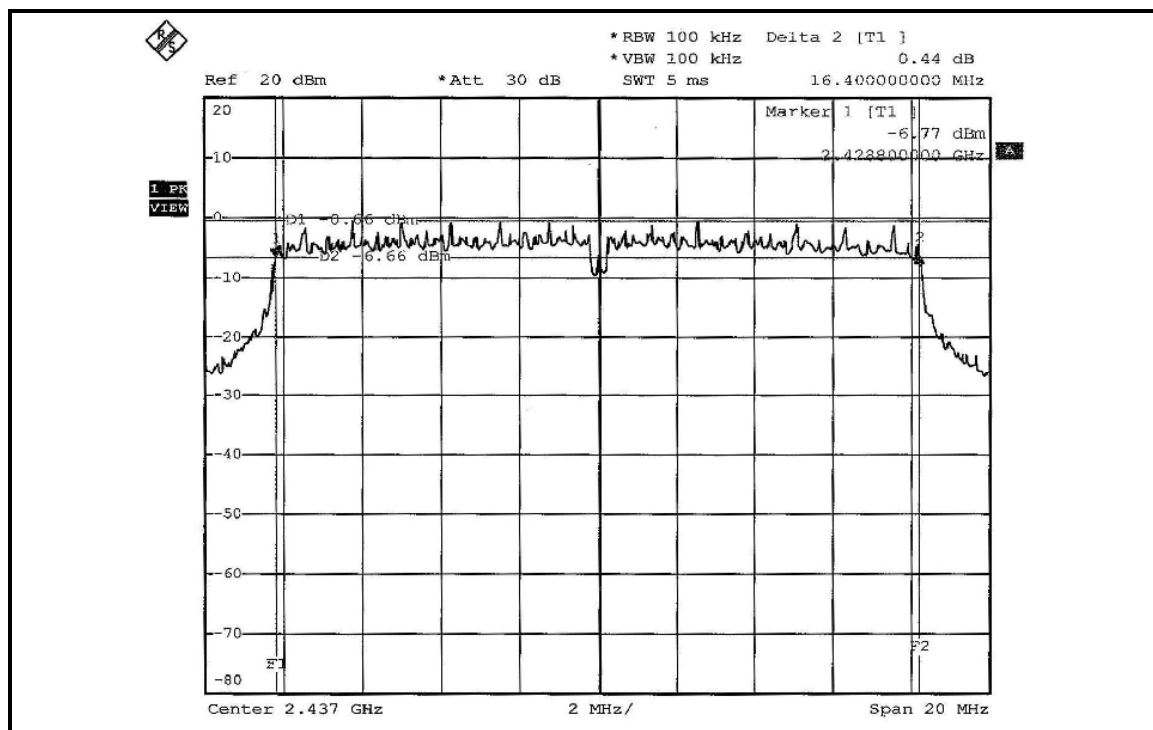
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	28deg.C, 67%RH, 991hPa
TESTED BY	Lori Chiu		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)			MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
1	2412	16.40	16.40	16.40	0.5	PASS
6	2437	16.40	16.40	16.40	0.5	PASS
11	2462	16.40	16.40	16.40	0.5	PASS

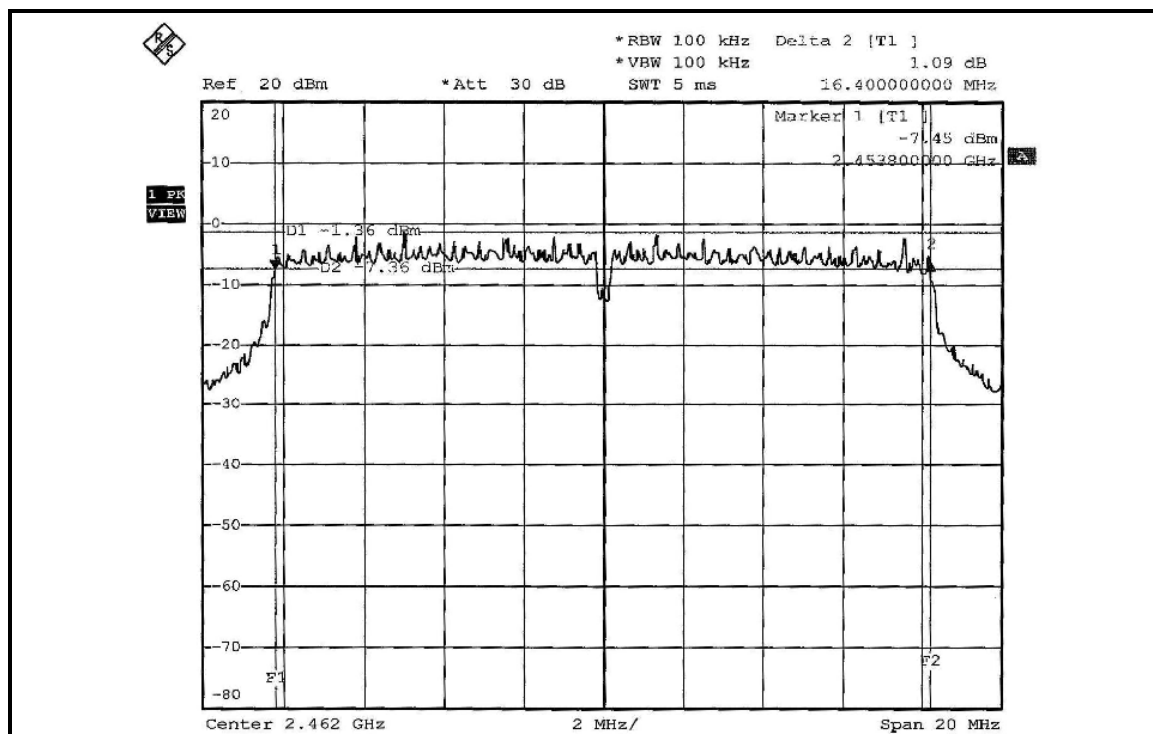
FOR CHAIN 0: CH 1



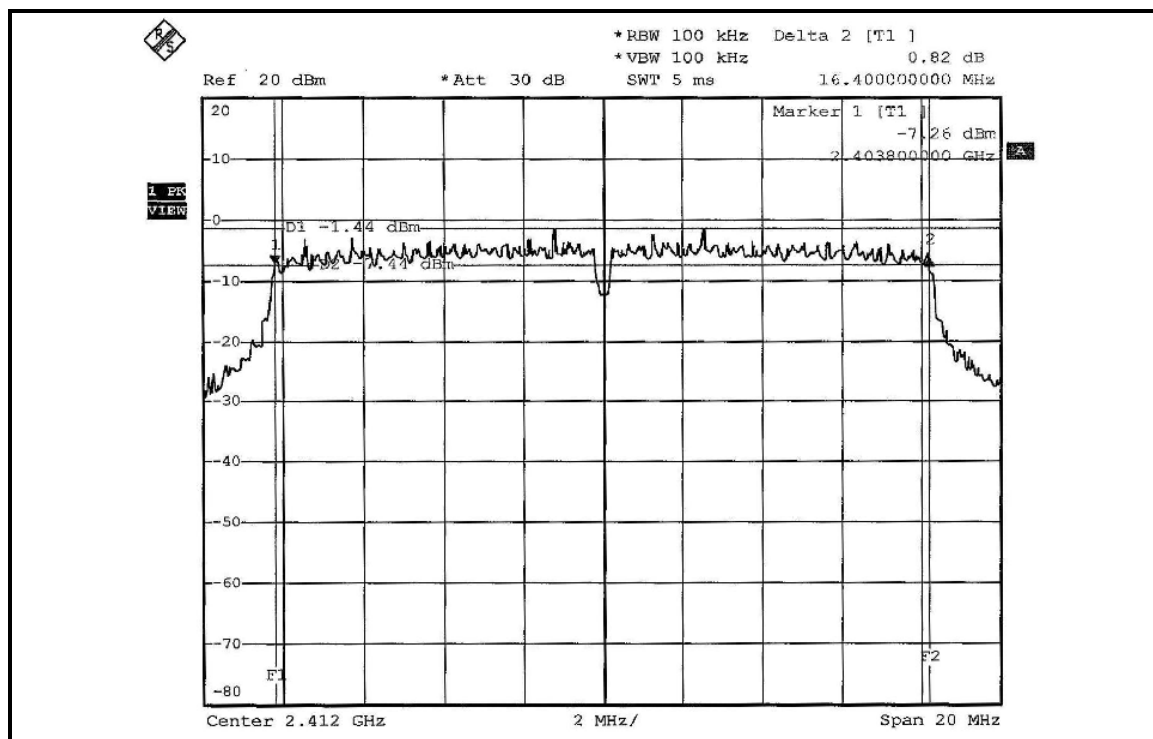
CH 6



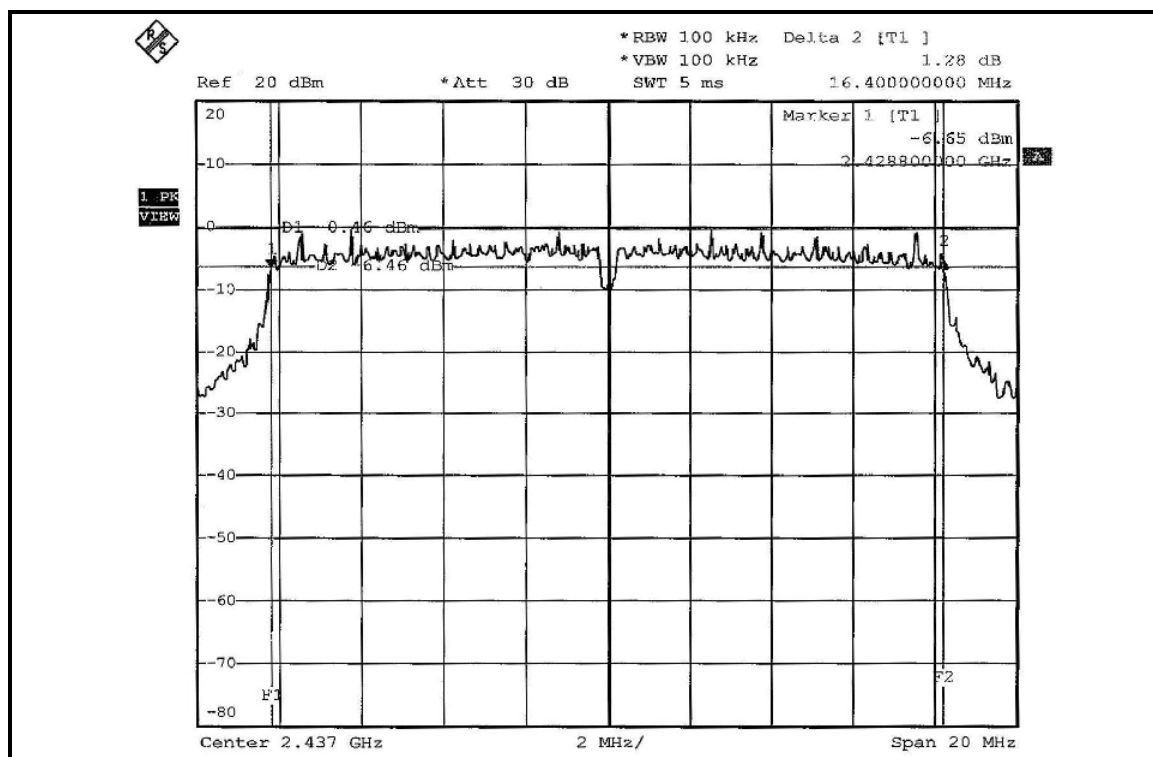
CH 11



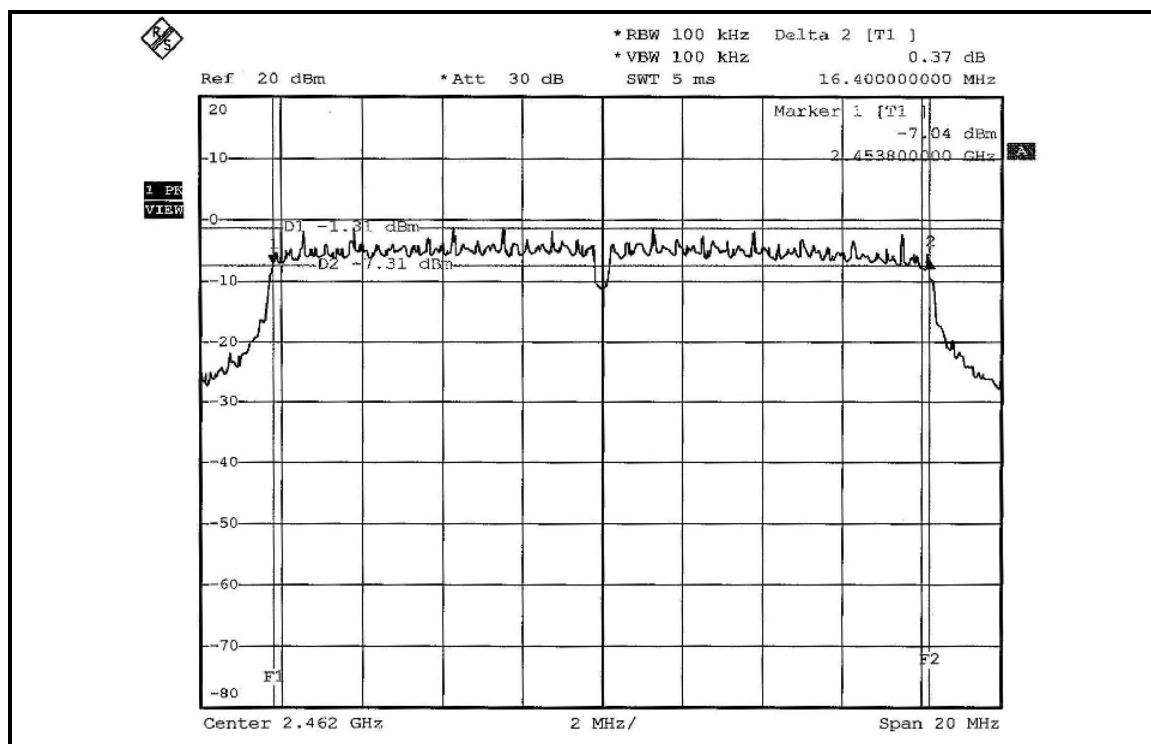
FOR CHAIN 1: CH 1



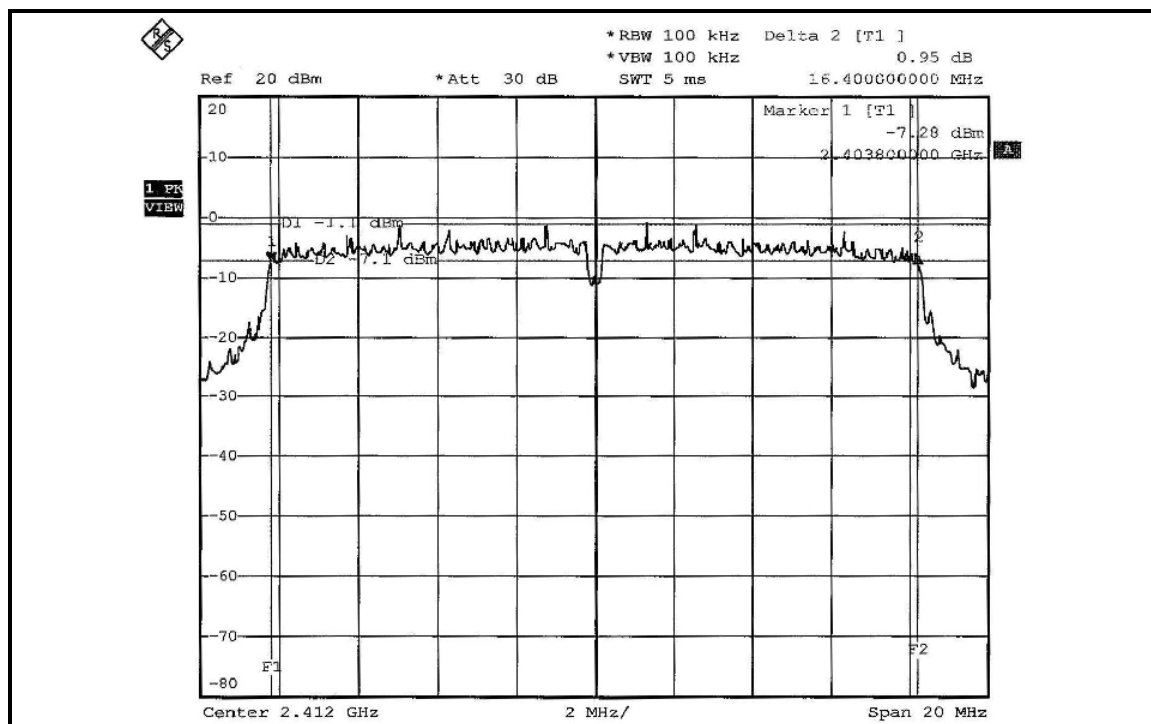
CH 6



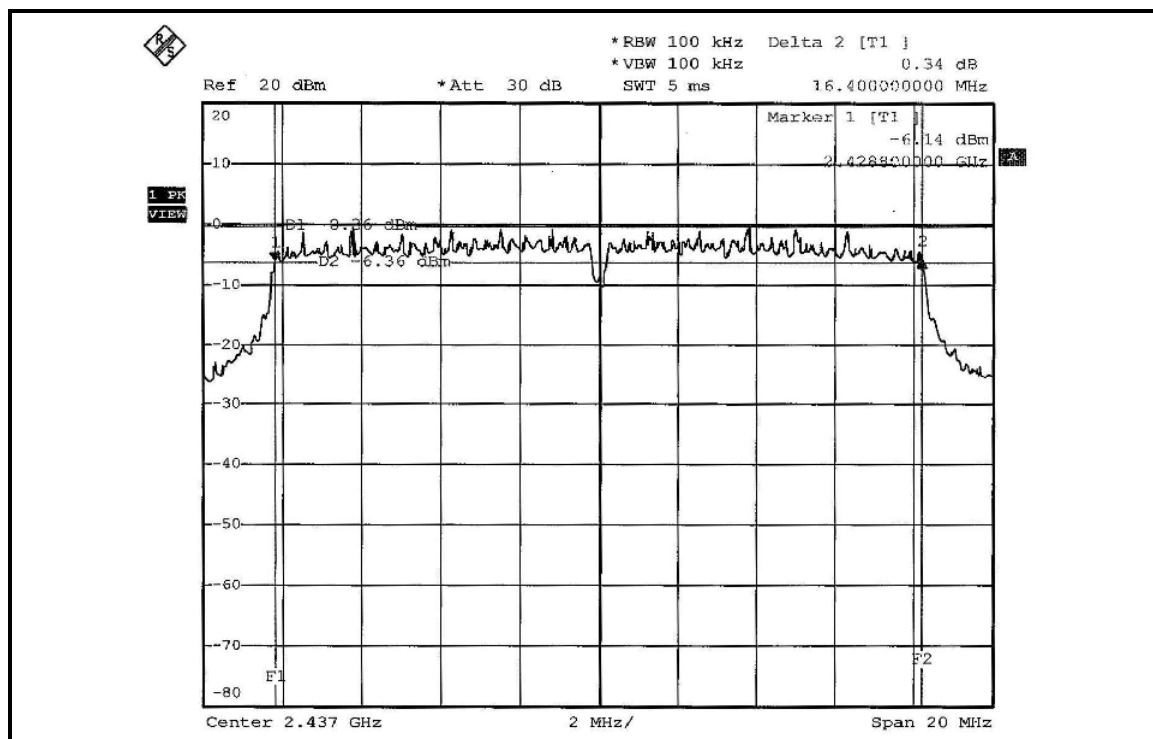
CH 11



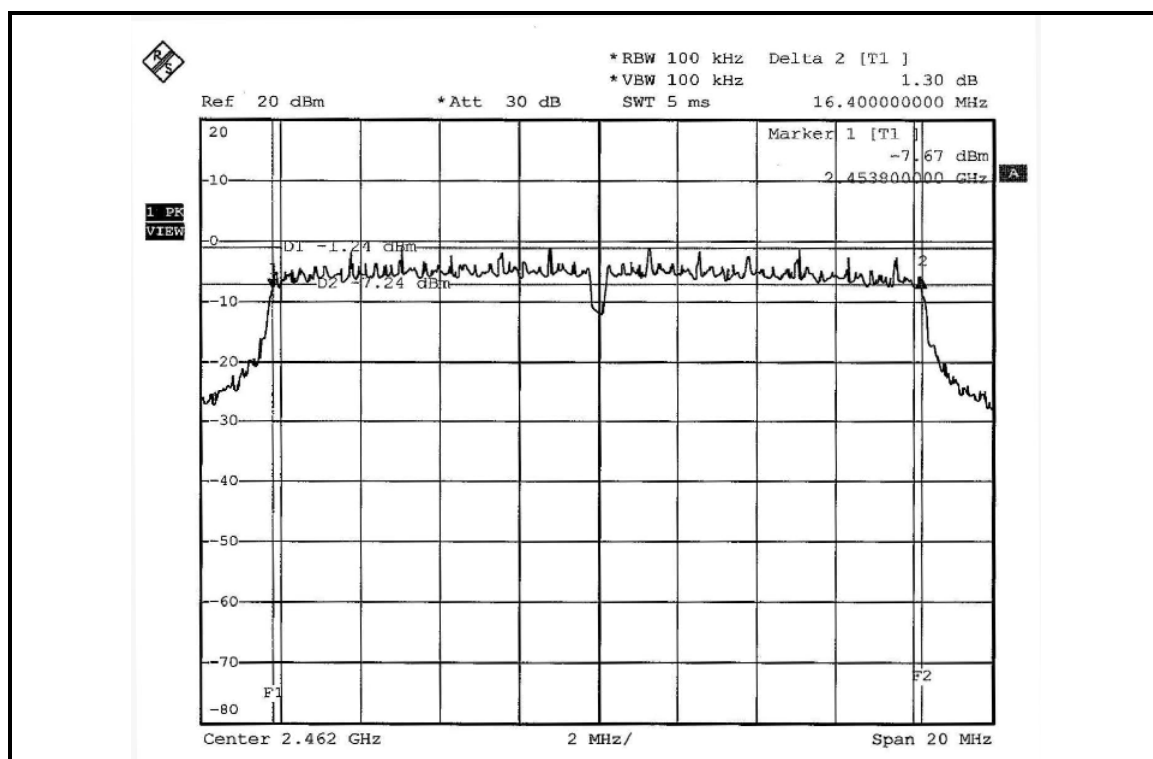
FOR CHAIN 2: CH 1



CH 6



CH 11

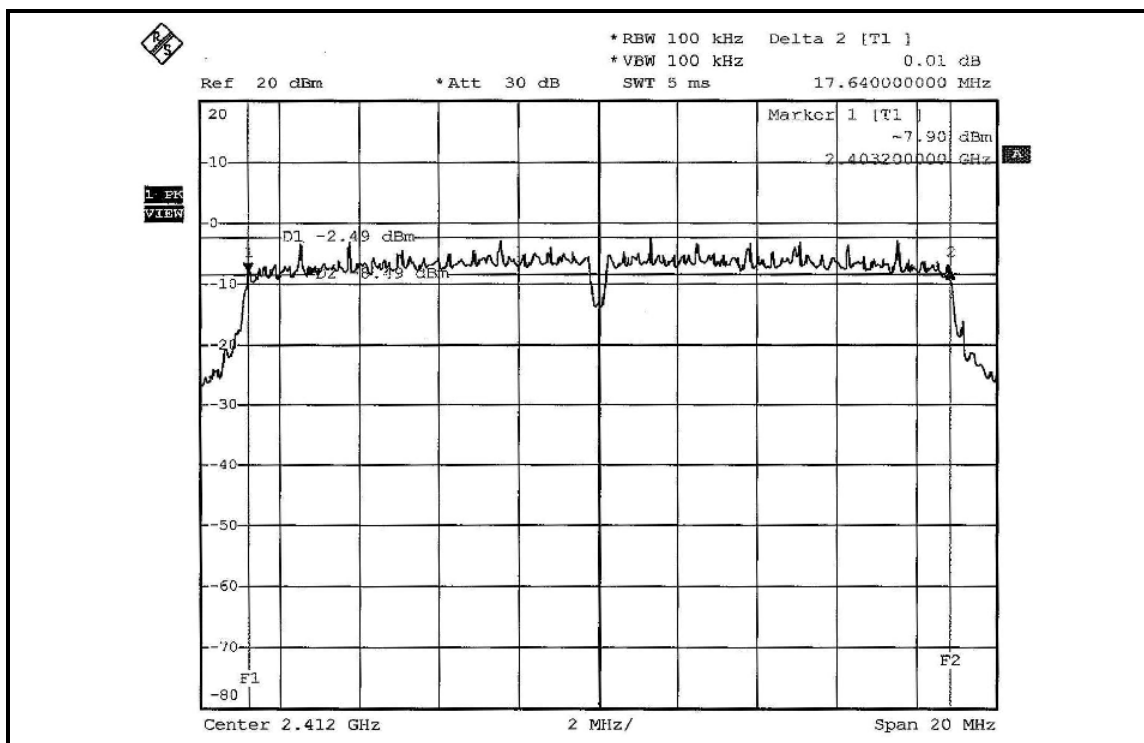


DRAFT 802.11n (20MHz) OFDM MODULATION: TRIPLE TX:

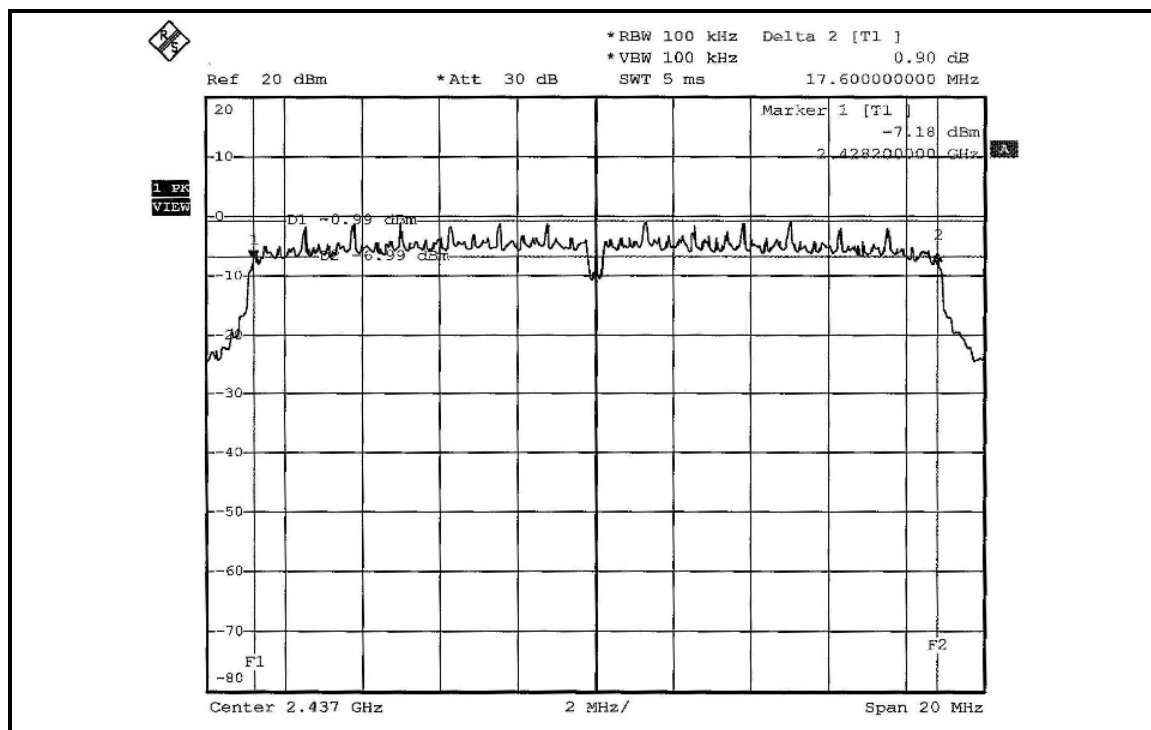
MODULATION TYPE	BPSK	TRANSFER RATE	7.2Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)			MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
1	2412	17.64	17.64	17.64	0.5	PASS
6	2437	17.60	17.60	17.60	0.5	PASS
11	2462	17.56	17.60	17.56	0.5	PASS

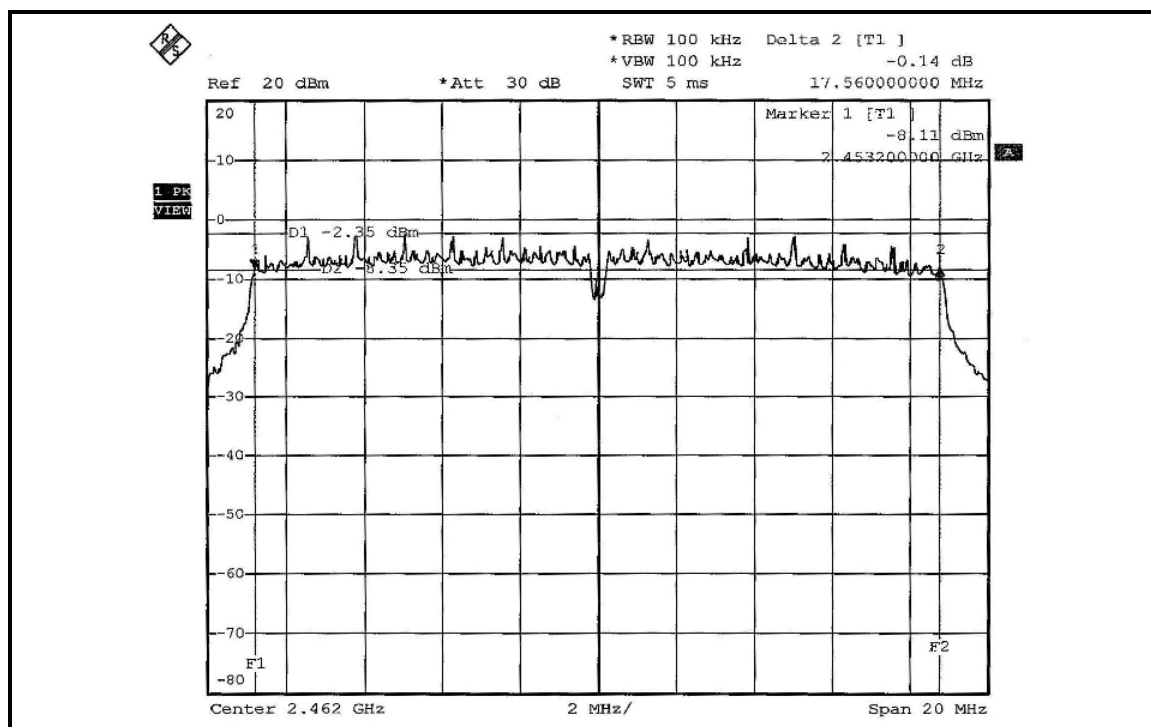
FOR CHAIN 0: CH 1



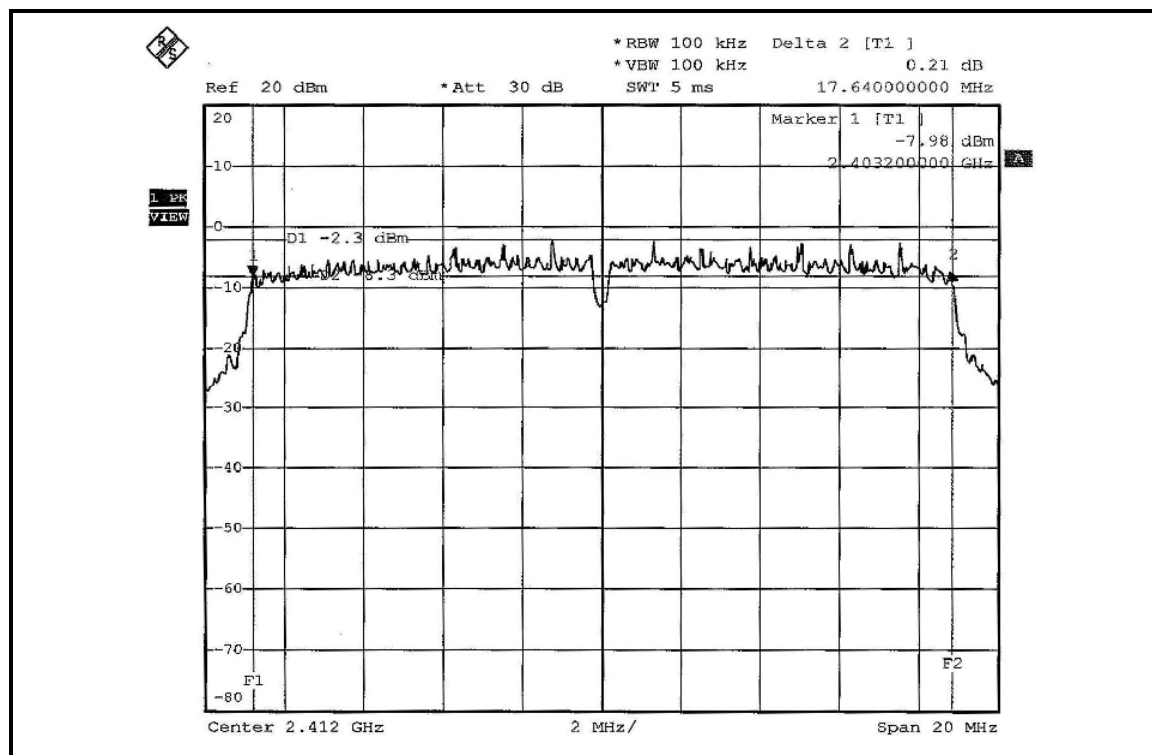
CH 6



CH 11



FOR CHAIN 1: CH 1



CH 6

