FCC TEST REPORT

REPORT NO.: RF950411L29

MODEL NO.: WLN-1307

RECEIVED: Apr. 13, 2006

TESTED: Apr. 13 ~ Apr. 17, 2006

ISSUED: May 18, 2006

APPLICANT: D-Link Corporation

ADDRESS: 17595 Mt. Herrmann, Fountain Valley, CA 92708, U.S.A.

ISSUED BY: Advance Data Technology Corporation

LAB LOCATION: No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou Hsiang, Taipei Hsien, Taiwan, R.O.C.

TEST LOCATION: No. 19, Hwa Ya 2nd Rd., Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

ACCREDITED
No. 2177-01

0528

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1. CERTIFICATION

PRODUCT :	2.4GHz 802.11n MPCI Module
MODEL NO.:	WLN-1307
BRAND:	D-Link
APPLICANT :	D-Link Corporation
TESTED:	Apr. 13 ~ Apr. 17, 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	: Jessie Wang	**DATE:**	May 18, 2006
TECHNICAL ACCEPTANCE Responsible for RF	: Long Chen	**DATE:**	May 18, 2006
APPROVED BY	: Gary Chang / Supervisor	**DATE:**	May 18, 2006

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 –13.94dB at 0.210MHz.
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 –1.10dB at 199.12MHz.
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	2.44dB
Radiated emissions	30MHz ~ 200MHz	3.73 dB
	200MHz ~1000MHz	3.74 dB
	1GHz ~ 18GHz	2.20 dB
	18GHz ~ 40GHz	1.88 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	2.4GHz 802.11n MPCI Module
MODEL NO.	WLN-1307
FCC ID	KA2DIR615A1
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/ 150/ 135/ 120/ 90/ 60/ 45/ 30/ 15Mbps
FREQUENCY RANGE	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, draft 802.11n (20MHz) 7 for draft 802.11n (40MHz)
MAXIMUM OUTPUT POWER	102.341mW
ANTENNA TYPE	Monopole antenna with 2dBi gain
DATA CABLE	NA
I/O PORTS	NA

NOTE:

1. The EUT incorporates a MIMO function with 802.11b, 802.11g, draft 802.11n. Physically, the card provides two completed transmitters and three receivers.
2. The EUT is 2 * 3 spatial MIMO (2Tx & 3Rx) without beam forming function that only operate dual chain configuration (both chain 0 and chain 1 transceivers are operational).
3. When the EUT operating in draft 802.11n, the software operation, which is defined by manufacturer, only set 0 ~ 7 of “MCS” (MCS: Modulation and Coding Schemes) for single Tx, 8 ~ 15 for dual Tx.

4. The EUT complies with draft 802.11n standards and backwards compatible with 802.11b, 802.11g products.
5. The EUT operates in the 2.4GHz frequency spectrum with throughput of up to 300Mbps.
6. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 DESCRIPTION OF TEST MODES

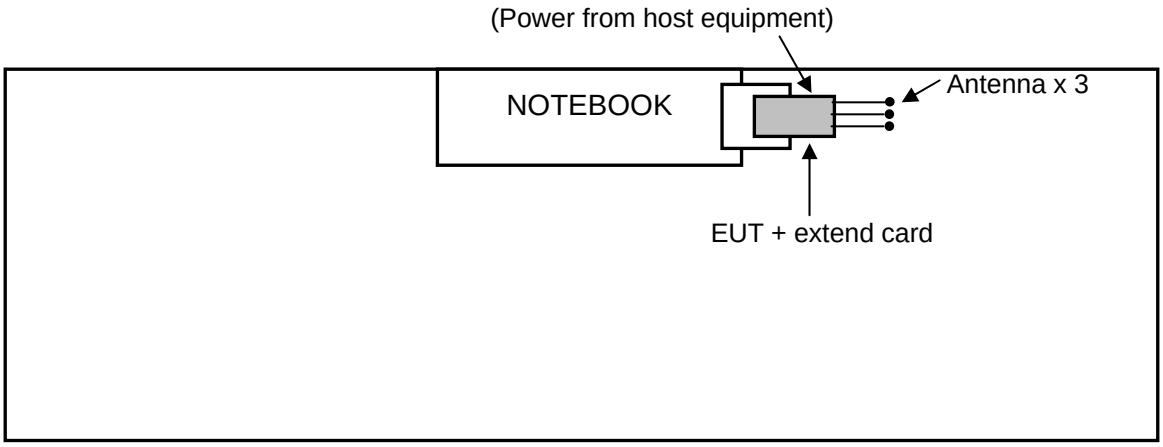
Eleven channels are provided for 802.11b, 802.11g, draft 802.11n (20MHz):

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



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

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

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

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

POWER LINE CONDUCTED EMISSION TEST:

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	Single
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	14.444	Dual
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	30	Dual

RADIATED EMISSION TEST (BELOW 1 GHz):

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
802.11g	1 to 11	1	OFDM	BPSK	6	Single
Draft 802.11n (20MHz)	1 to 11	1	OFDM	BPSK	7.2	Single
Draft 802.11n (20MHz)	1 to 11	1	OFDM	BPSK	14.444	Dual
Draft 802.11n (40MHz)	1 to 7	1	OFDM	BPSK	15	Single
Draft 802.11n (40MHz)	1 to 7	1	OFDM	BPSK	30	Dual

RADIATED EMISSION TEST (ABOVE 1 GHz):

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1	Single
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	Single
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	7.2	Single
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	14.444	Dual
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	15	Single
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	30	Dual

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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
802.11b	1 to 11	1, 11	DSSS	DBPSK	1	Single
802.11g	1 to 11	1, 11	OFDM	BPSK	6	Single
Draft 802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	7.2	Single
Draft 802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	14.444	Dual
Draft 802.11n (40MHz)	1 to 7	1, 7	OFDM	BPSK	15	Single
Draft 802.11n (40MHz)	1 to 7	1, 7	OFDM	BPSK	30	Dual

ANTENNA PORT CONDUCTED MEASUREMENT:

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX CONDITION
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1	Single
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	Single
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	7.2	Single
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	14.444	Dual
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	15	Single
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	30	Dual

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart C. (15.247)

ANSI C63.4-2003

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

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

3.4 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP05L	16484462992	E2K24CLNS

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

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

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

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Nov. 02, 2006
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 3.
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.

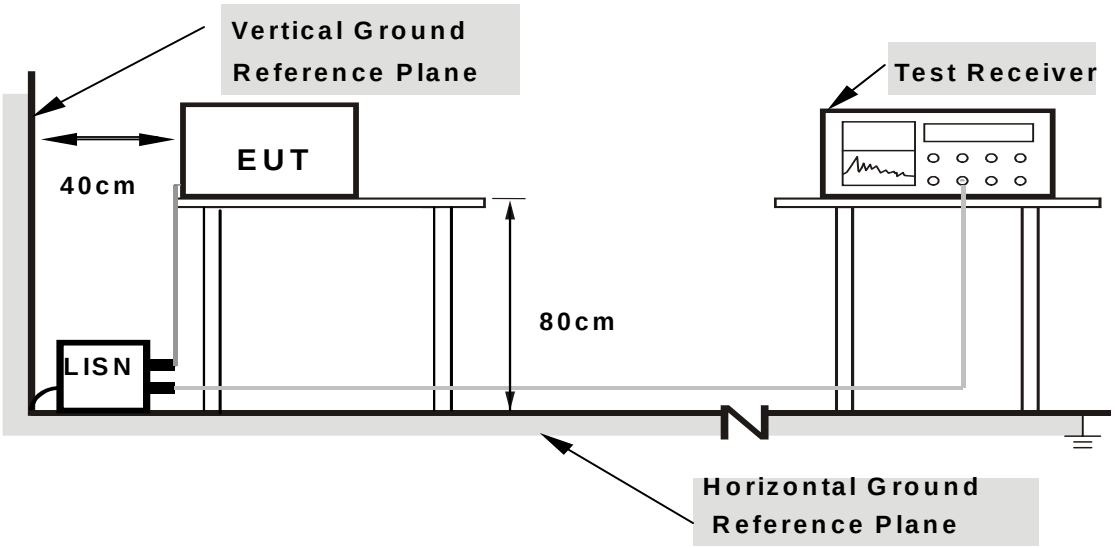
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

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 related item – Photographs of the Test Configuration.

4.1.6 EUT OPERATING CONDITIONS

a. Connected the EUT into the notebook 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 notebook system displayed “H” messages on its screen.

d. Repeated item c.

4.1.7 TEST RESULTS

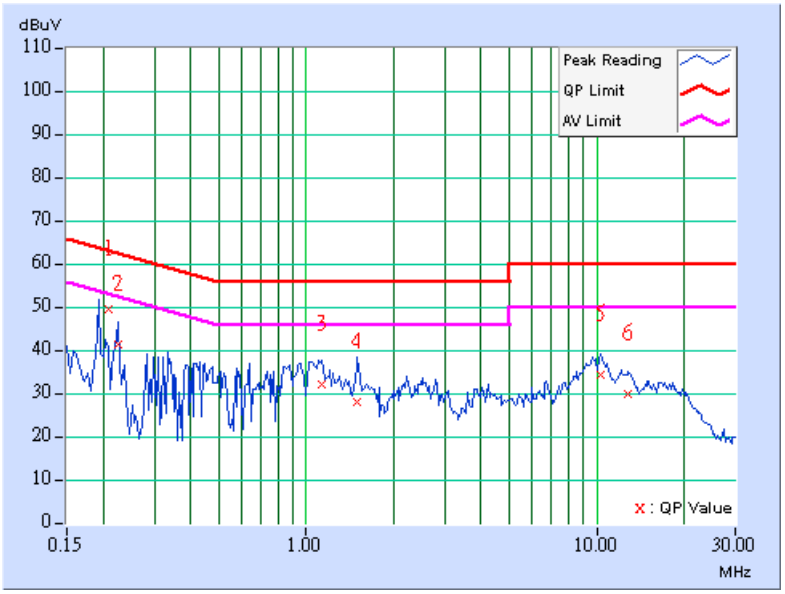
CONDUCTED WORST-CASE DATA - 802.11g OFDM MODULATION:

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	**0.210**	**0.10**	**49.18**	**-**	**49.28**	**-**	**63.22**	**53.22**	**-13.94**	**-**
2	0.224	0.10	41.06	-	41.16	-	62.66	52.66	-21.50	-
3	1.125	0.11	31.75	-	31.86	-	56.00	46.00	-24.14	-
4	1.504	0.15	27.45	-	27.60	-	56.00	46.00	-28.40	-
5	10.277	0.37	33.81	-	34.18	-	60.00	50.00	-25.82	-
6	12.887	0.52	29.56	-	30.08	-	60.00	50.00	-29.92	-

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.

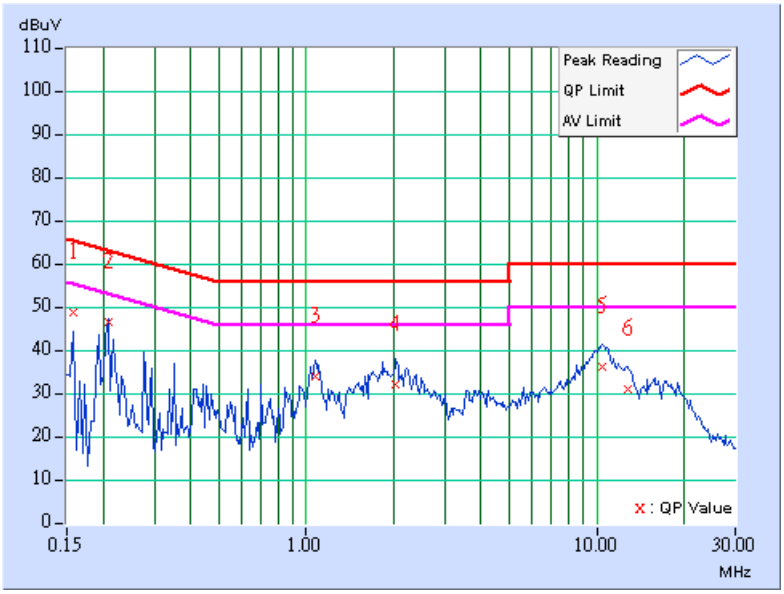


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

No.	FREQ. [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	0.158	0.10	48.22	-	48.32	-	65.58	55.58	-17.26	-
2	0.209	0.10	45.98	-	46.08	-	63.26	53.26	-17.18	-
3	1.078	0.20	33.38	-	33.58	-	56.00	46.00	-22.42	-
4	2.031	0.20	31.66	-	31.86	-	56.00	46.00	-24.14	-
5	10.441	0.48	35.56	-	36.04	-	60.00	50.00	-23.96	-
6	12.840	0.56	30.44	-	31.00	-	60.00	50.00	-29.00	-

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.

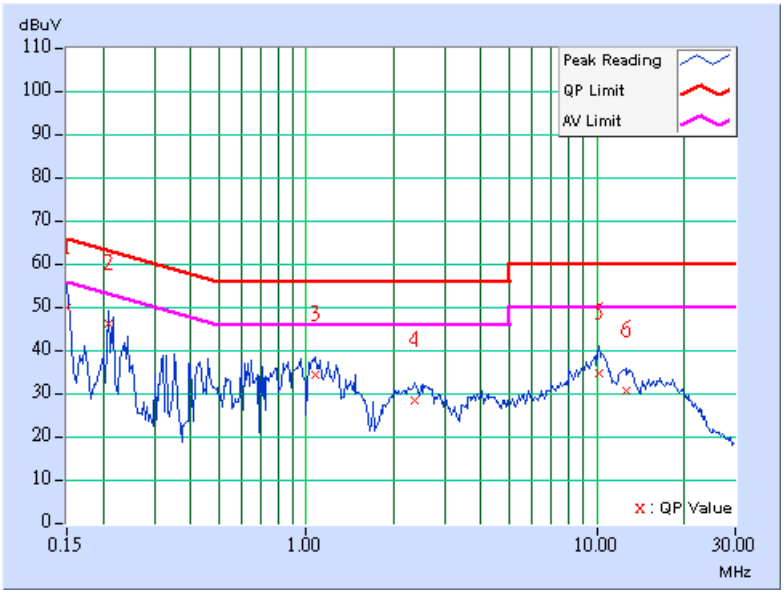


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

No.	FREQ. [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	0.150	0.10	49.63	-	49.73	-	66.00	56.00	-16.27	-
2	0.209	0.10	45.79	-	45.89	-	63.26	53.26	-17.37	-
3	1.078	0.11	33.95	-	34.06	-	56.00	46.00	-21.94	-
4	2.363	0.23	28.10	-	28.33	-	56.00	46.00	-27.67	-
5	10.172	0.37	34.19	-	34.56	-	60.00	50.00	-25.44	-
6	12.613	0.50	30.15	-	30.65	-	60.00	50.00	-29.35	-

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.

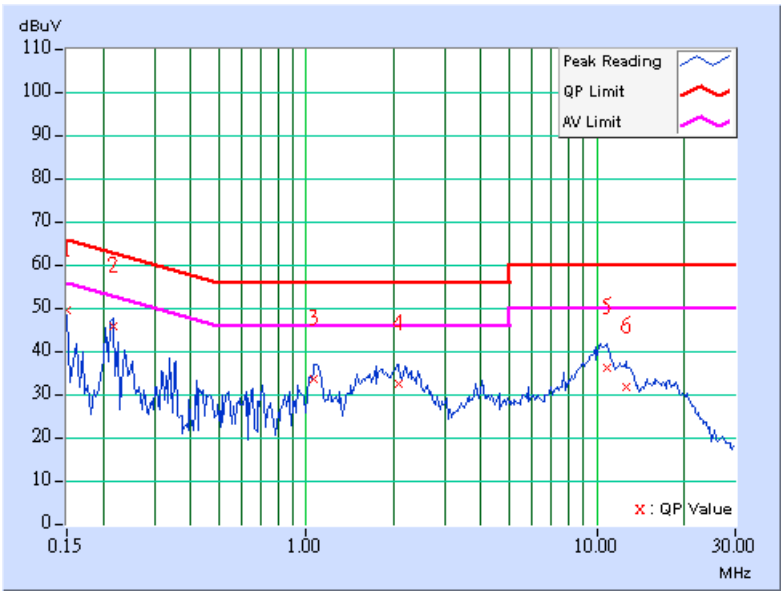


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

No.	FREQ. [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	0.150	0.10	49.25	-	49.35	-	66.00	56.00	-16.65	-
2	0.216	0.10	45.28	-	45.38	-	62.96	52.96	-17.58	-
3	1.066	0.20	33.24	-	33.44	-	56.00	46.00	-22.56	-
4	2.070	0.21	31.86	-	32.07	-	56.00	46.00	-23.93	-
5	10.813	0.49	35.62	-	36.11	-	60.00	50.00	-23.89	-
6	12.648	0.55	31.24	-	31.79	-	60.00	50.00	-28.21	-

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.

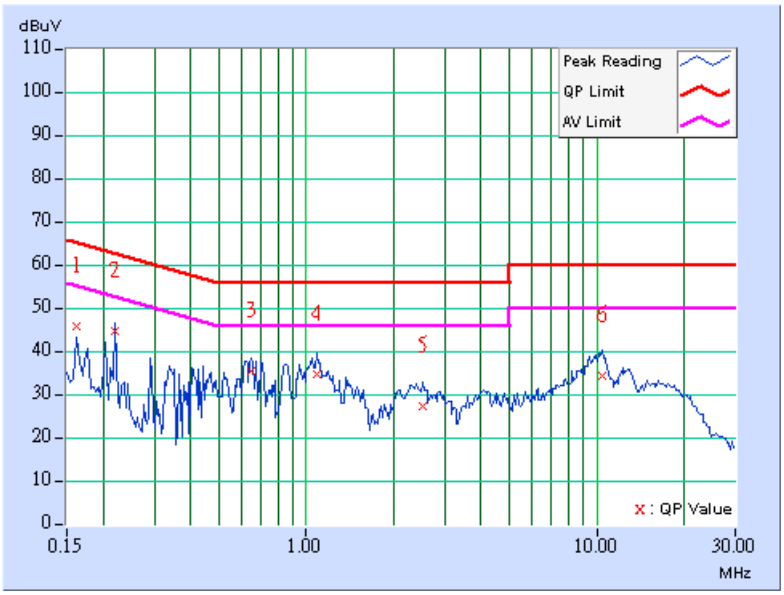


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

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	0.162	0.10	45.43	-	45.53	-	65.38	55.38	-19.85	-
2	0.220	0.10	44.27	-	44.37	-	62.81	52.81	-18.44	-
3	0.645	0.10	34.99	-	35.09	-	56.00	46.00	-20.91	-
4	1.086	0.11	34.34	-	34.45	-	56.00	46.00	-21.55	-
5	2.527	0.24	26.96	-	27.20	-	56.00	46.00	-28.80	-
6	10.465	0.39	34.08	-	34.47	-	60.00	50.00	-25.53	-

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.

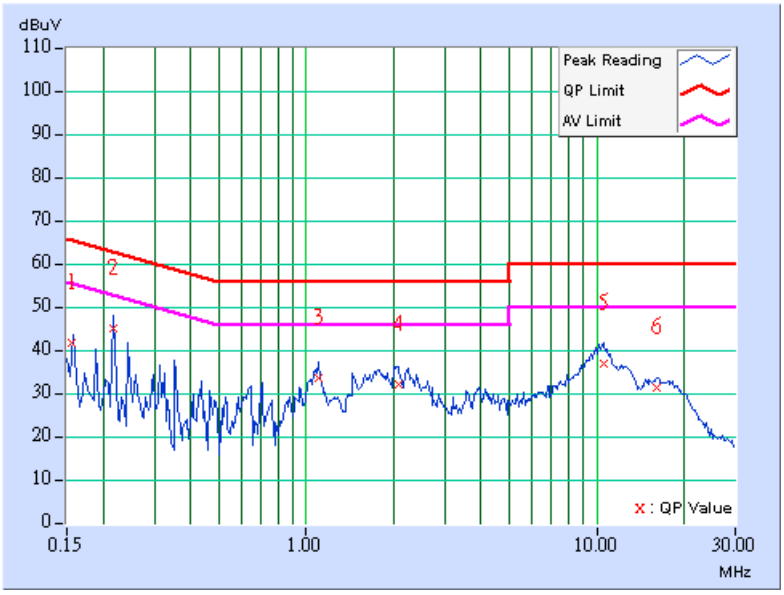


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

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	0.156	0.10	41.08	-	41.18	-	65.65	55.65	-24.47	-
2	0.216	0.10	44.75	-	44.85	-	62.96	52.96	-18.11	-
3	1.105	0.20	33.08	-	33.28	-	56.00	46.00	-22.72	-
4	2.074	0.21	31.51	-	31.72	-	56.00	46.00	-24.28	-
5	10.527	0.48	36.24	-	36.72	-	60.00	50.00	-23.28	-
6	16.191	0.61	30.69	-	31.30	-	60.00	50.00	-28.70	-

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.



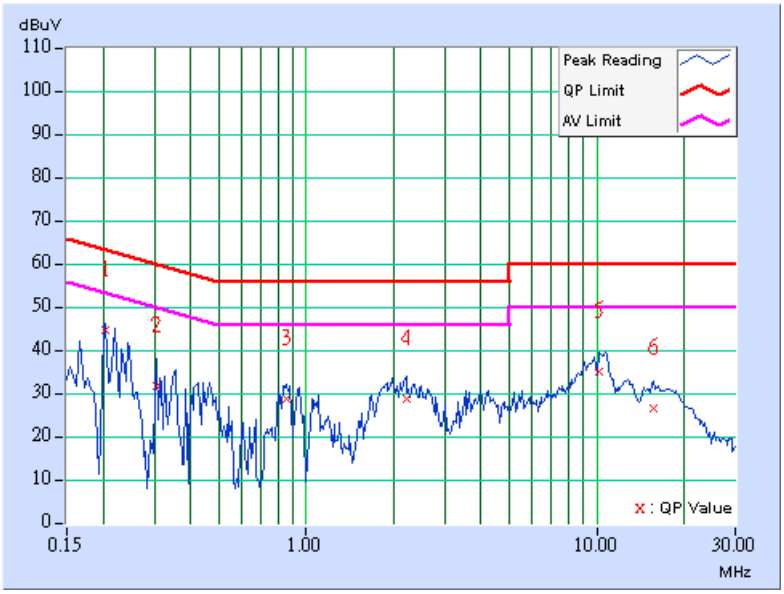
DRAFT 802.11n (20MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	14.444Mbps	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	0.205	0.10	44.14	-	44.24	-	63.42	53.42	-19.18	-
2	0.306	0.10	31.14	-	31.24	-	60.07	50.07	-28.83	-
3	0.853	0.10	28.23	-	28.33	-	56.00	46.00	-27.67	-
4	2.207	0.22	28.10	-	28.32	-	56.00	46.00	-27.68	-
5	10.176	0.37	34.52	-	34.89	-	60.00	50.00	-25.11	-
6	15.750	0.62	26.06	-	26.68	-	60.00	50.00	-33.32	-

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.

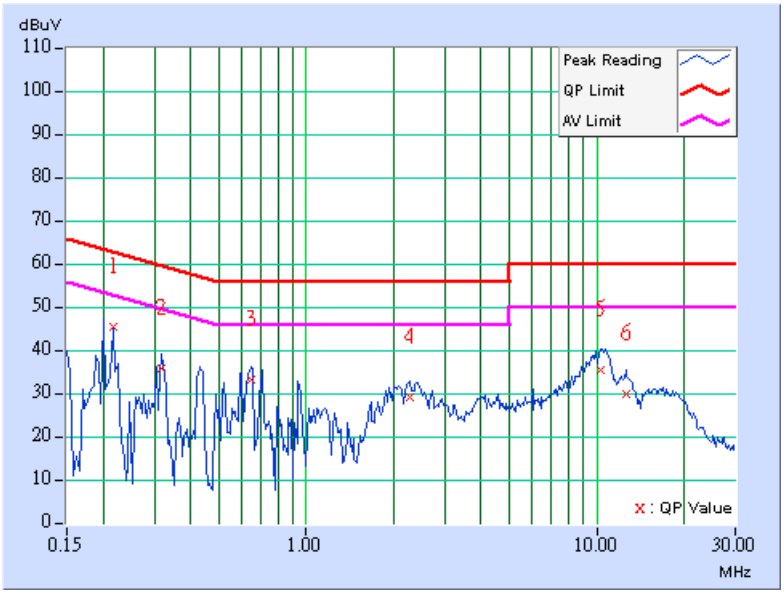


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	14.444Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

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	0.216	0.10	45.17	-	45.27	-	62.96	52.96	-17.69	-
2	0.318	0.10	35.45	-	35.55	-	59.76	49.76	-24.21	-
3	0.650	0.14	32.91	-	33.05	-	56.00	46.00	-22.95	-
4	2.262	0.22	28.60	-	28.82	-	56.00	46.00	-27.18	-
5	10.359	0.47	34.95	-	35.42	-	60.00	50.00	-24.58	-
6	12.645	0.55	29.37	-	29.92	-	60.00	50.00	-30.08	-

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.

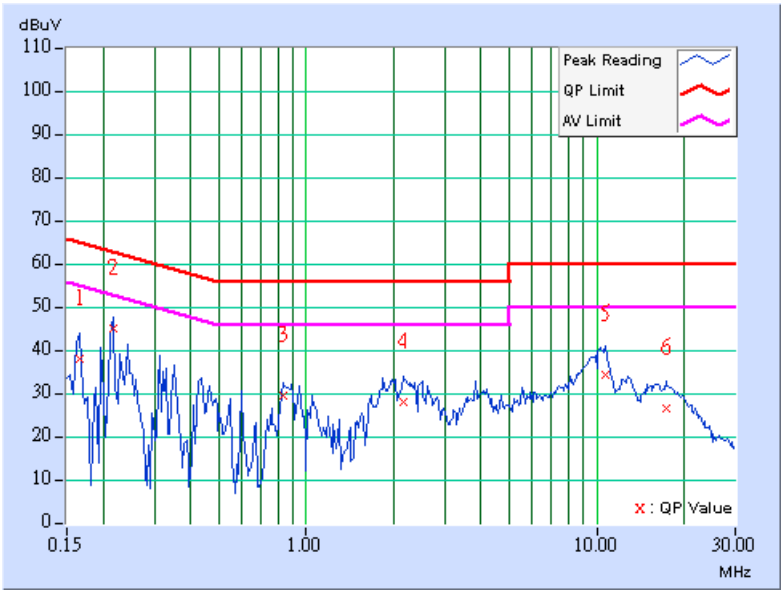


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	14.444Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

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	0.166	0.10	37.38	-	37.48	-	65.18	55.18	-27.70	-
2	0.216	0.10	44.71	-	44.81	-	62.96	52.96	-18.15	-
3	0.834	0.10	28.91	-	29.01	-	56.00	46.00	-26.99	-
4	2.152	0.21	27.64	-	27.85	-	56.00	46.00	-28.15	-
5	10.758	0.40	34.00	-	34.40	-	60.00	50.00	-25.60	-
6	17.313	0.60	26.21	-	26.81	-	60.00	50.00	-33.19	-

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.

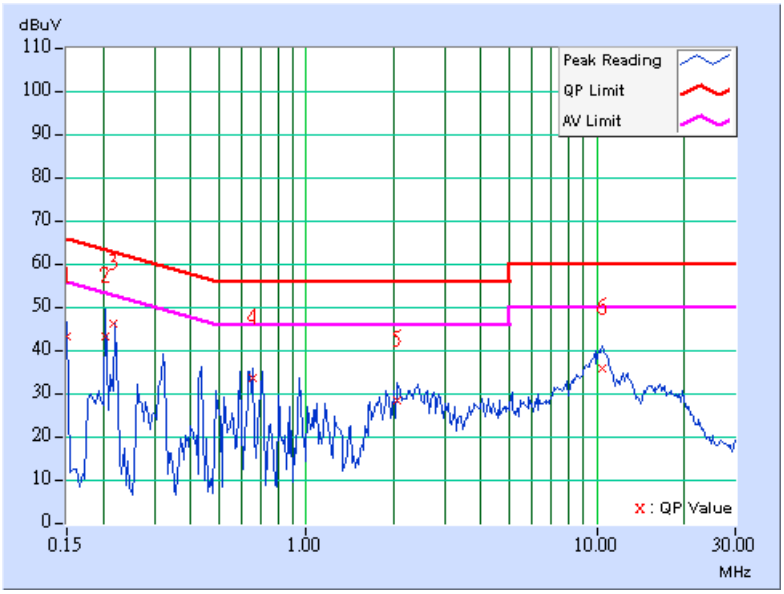


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	**PHASE**	Line 2
MODULATION TYPE	BPSK	**6dB BANDWIDTH**	9 kHz
TRANSFER RATE	14.444Mbps	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	**TESTED BY**	Match Tsui

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	0.150	0.10	42.95	-	43.05	-	66.00	56.00	-22.95	-
2	0.205	0.10	42.94	-	43.04	-	63.42	53.42	-20.38	-
3	0.218	0.10	45.98	-	46.08	-	62.91	52.91	-16.83	-
4	0.654	0.14	33.13	-	33.27	-	56.00	46.00	-22.73	-
5	2.066	0.21	27.99	-	28.20	-	56.00	46.00	-27.80	-
6	10.500	0.48	35.38	-	35.86	-	60.00	50.00	-24.14	-

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.

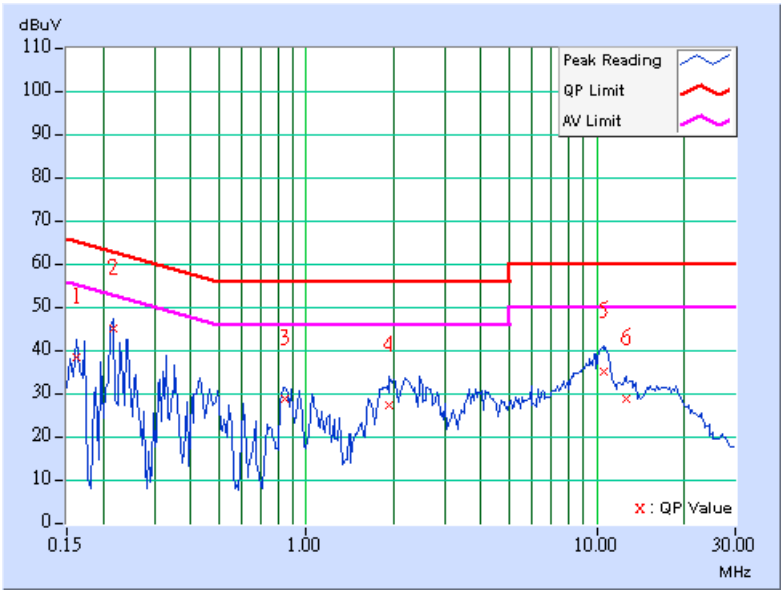


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	14.444Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

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	0.162	0.10	38.05	-	38.15	-	65.38	55.38	-27.23	-
2	0.216	0.10	44.59	-	44.69	-	62.96	52.96	-18.27	-
3	0.849	0.10	28.39	-	28.49	-	56.00	46.00	-27.51	-
4	1.934	0.19	26.87	-	27.06	-	56.00	46.00	-28.94	-
5	10.523	0.39	34.71	-	35.10	-	60.00	50.00	-24.90	-
6	12.598	0.50	28.38	-	28.88	-	60.00	50.00	-31.12	-

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.

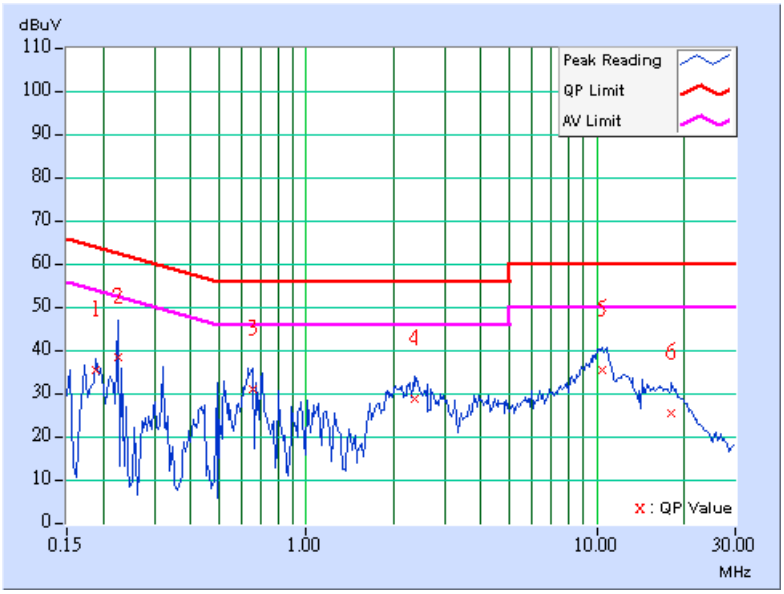


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	14.444Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

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	34.97	-	35.07	-	64.08	54.08	-29.01	-
2	0.224	0.10	38.09	-	38.19	-	62.66	52.66	-24.47	-
3	0.658	0.14	30.67	-	30.81	-	56.00	46.00	-25.19	-
4	2.355	0.23	28.21	-	28.44	-	56.00	46.00	-27.56	-
5	10.512	0.48	35.13	-	35.61	-	60.00	50.00	-24.39	-
6	18.137	0.59	25.12	-	25.71	-	60.00	50.00	-34.29	-

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.

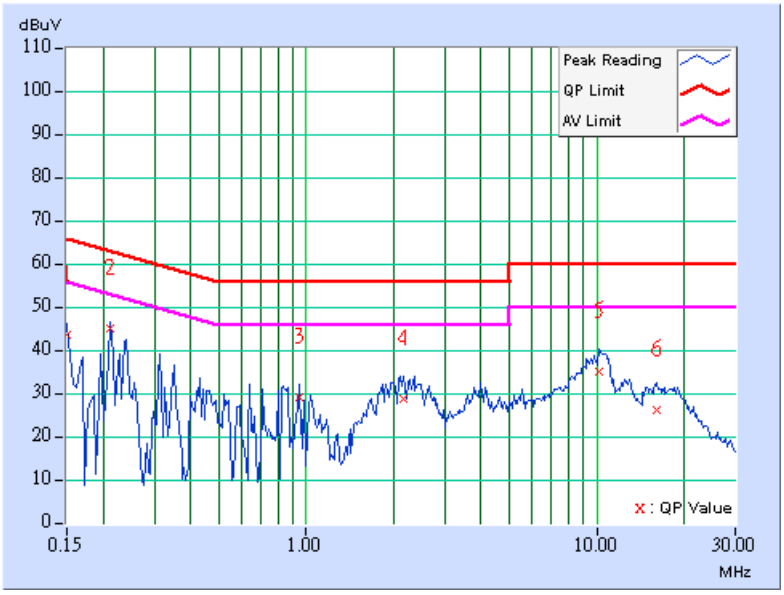


DRAFT 802.11n (40MHz) OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	30Mbps	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	0.150	0.10	43.09	-	43.19	-	66.00	56.00	-22.81	-
2	0.213	0.10	44.69	-	44.79	-	63.11	53.11	-18.32	-
3	0.943	0.10	28.70	-	28.80	-	56.00	46.00	-27.20	-
4	2.172	0.21	28.46	-	28.67	-	56.00	46.00	-27.33	-
5	10.203	0.37	34.66	-	35.03	-	60.00	50.00	-24.97	-
6	16.172	0.61	25.86	-	26.47	-	60.00	50.00	-33.53	-

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.

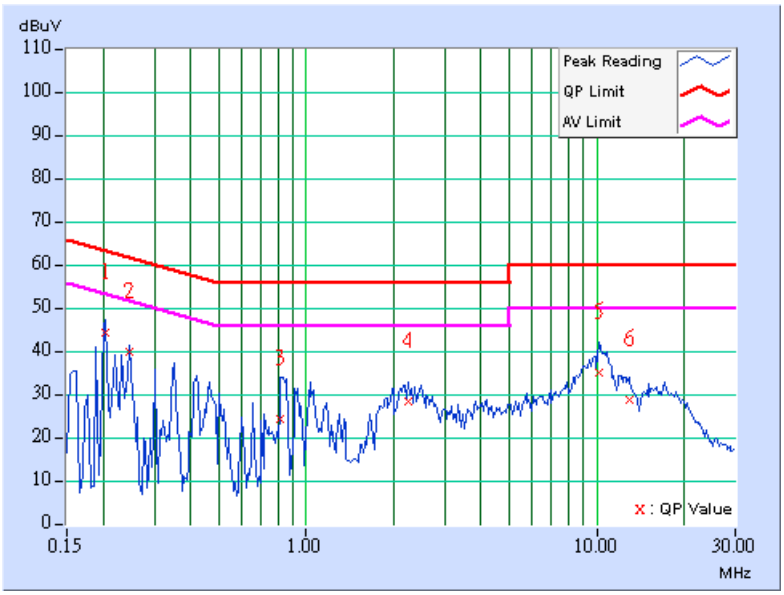


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	**PHASE**	Line 2
MODULATION TYPE	BPSK	**6dB BANDWIDTH**	9 kHz
TRANSFER RATE	30Mbps	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	**TESTED BY**	Match Tsui

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	0.205	0.10	44.04	-	44.14	-	63.42	53.42	-19.28	-
2	0.248	0.10	39.38	-	39.48	-	61.84	51.84	-22.36	-
3	0.818	0.17	23.98	-	24.15	-	56.00	46.00	-31.85	-
4	2.246	0.22	27.84	-	28.06	-	56.00	46.00	-27.94	-
5	10.219	0.47	34.76	-	35.23	-	60.00	50.00	-24.77	-
6	12.895	0.56	28.46	-	29.02	-	60.00	50.00	-30.98	-

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.

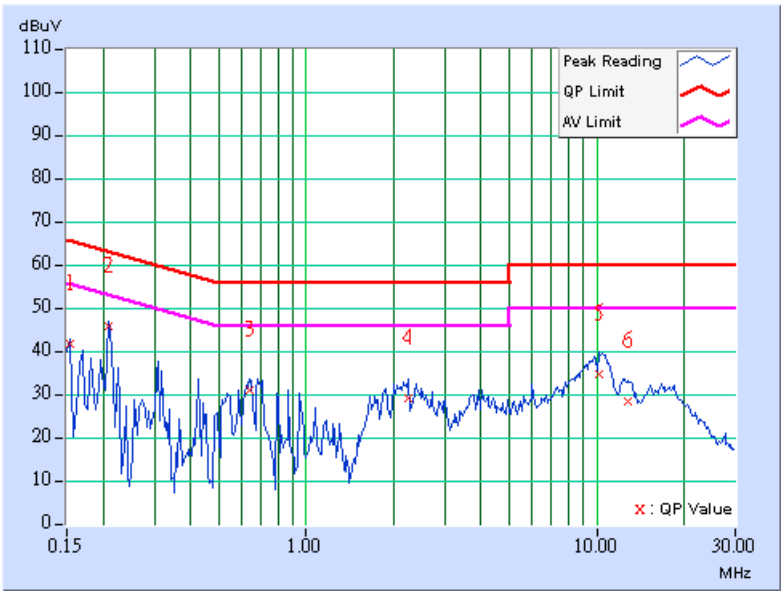


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	30Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

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	0.154	0.10	41.49	-	41.59	-	65.79	55.79	-24.20	-
2	0.209	0.10	45.37	-	45.47	-	63.26	53.26	-17.79	-
3	0.638	0.10	30.55	-	30.65	-	56.00	46.00	-25.35	-
4	2.258	0.22	28.86	-	29.08	-	56.00	46.00	-26.92	-
5	10.129	0.37	34.46	-	34.83	-	60.00	50.00	-25.17	-
6	12.773	0.51	27.86	-	28.37	-	60.00	50.00	-31.63	-

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.

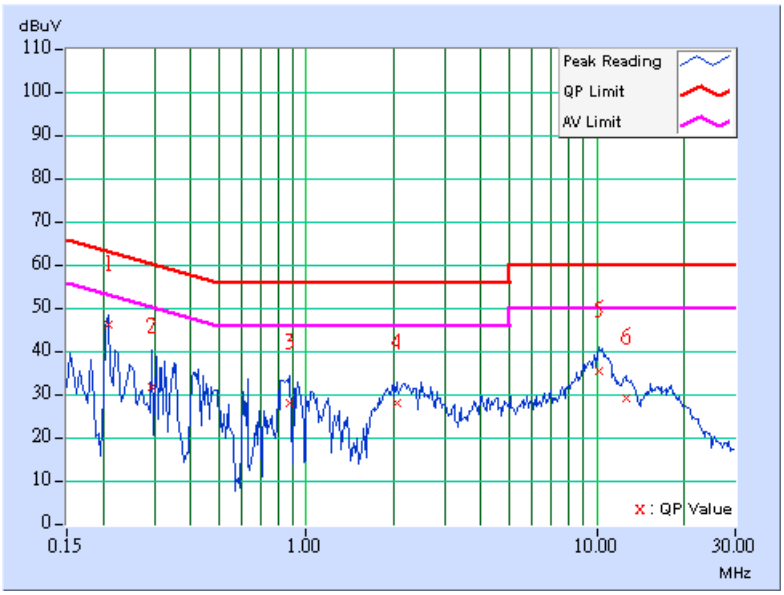


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	30Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

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	0.209	0.10	45.69	-	45.79	-	63.26	53.26	-17.47	-
2	0.295	0.10	31.32	-	31.42	-	60.40	50.40	-28.98	-
3	0.877	0.18	27.60	-	27.78	-	56.00	46.00	-28.22	-
4	2.047	0.20	27.42	-	27.62	-	56.00	46.00	-28.38	-
5	10.137	0.46	34.86	-	35.32	-	60.00	50.00	-24.68	-
6	12.605	0.55	28.89	-	29.44	-	60.00	50.00	-30.56	-

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.

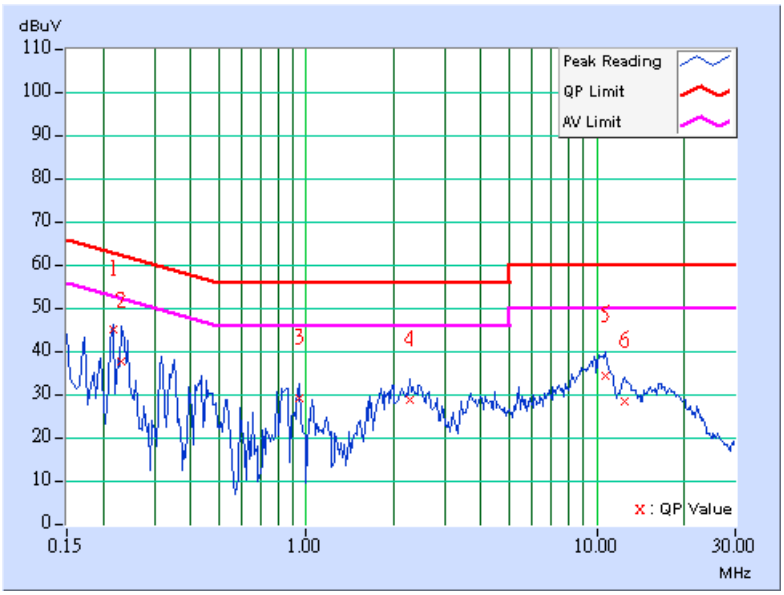


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	30Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	TESTED BY	Match Tsui

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	0.216	0.10	44.75	-	44.85	-	62.96	52.96	-18.11	-
2	0.231	0.10	37.42	-	37.52	-	62.42	52.42	-24.90	-
3	0.943	0.10	28.82	-	28.92	-	56.00	46.00	-27.08	-
4	2.285	0.22	28.26	-	28.48	-	56.00	46.00	-27.52	-
5	10.715	0.40	33.93	-	34.33	-	60.00	50.00	-25.67	-
6	12.453	0.49	28.07	-	28.56	-	60.00	50.00	-31.44	-

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.

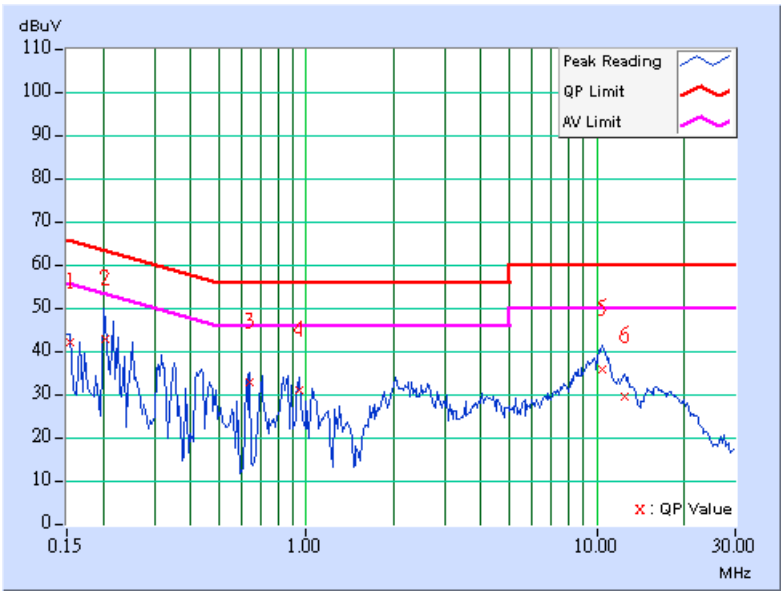


EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	**PHASE**	Line 2
MODULATION TYPE	BPSK	**6dB BANDWIDTH**	9 kHz
TRANSFER RATE	30Mbps	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	**TESTED BY**	Match Tsui

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	0.154	0.10	41.57	-	41.67	-	65.79	55.79	-24.12	-
2	0.203	0.10	42.59	-	42.69	-	63.47	53.47	-20.78	-
3	0.638	0.14	32.45	-	32.59	-	56.00	46.00	-23.41	-
4	0.943	0.19	30.55	-	30.74	-	56.00	46.00	-25.26	-
5	10.402	0.47	35.22	-	35.69	-	60.00	50.00	-24.31	-
6	12.422	0.54	28.95	-	29.49	-	60.00	50.00	-30.51	-

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	ESIB7	100188	Dec. 20, 2006
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Nov. 27, 2006
BILOG Antenna SCHWARZBECK	VULB9168	9168-157	Jan. 15, 2007
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-407	Jan. 22, 2007
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170147	Jan. 26, 2007
Preamplifier Agilent	8449B	3008A01961	Oct. 23, 2006
Preamplifier Agilent	8447D	2944A10629	Oct. 27, 2006
RF signal cable HUBER+SUHNER	SUCOFLEX 104	214380/4	Jan. 16, 2007
RF signal cable HUBER+SUHNER	SUCOFLEX 104	219266/4	Jan. 16, 2007
Software ADT.	ADT_Radiated_V5.14	NA	NA
Antenna Tower ADT.	AT100	AT93021702	NA
Turn Table ADT.	TT100.	TT93021702	NA
Controller ADT.	SC100.	SC93021702	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 1.
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 IC4924-2.

4.2.3 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 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.

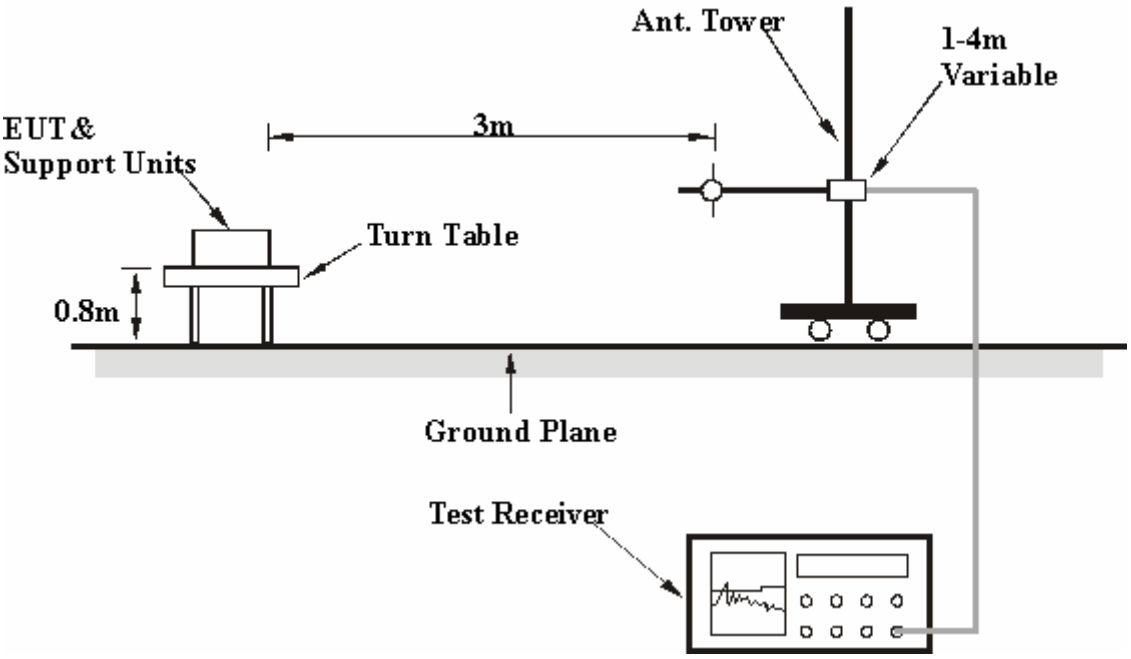
NOTE:

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

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6

4.2.7 TEST RESULTS

BELOW 1GHz WORST-CASE DATA:

802.11g OFDM MODULATION:

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	**FREQUENCY RANGE**	Below 1000MHz
MODULATION TYPE	BPSK for 802.11g	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
TRANSFER RATE	6Mbps	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 68%RH, 991hPa	**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	98.04	36.70 QP	43.50	-6.80	1.50 H	1	27.67	9.02
2	133.03	36.89 QP	43.50	-6.61	1.50 H	166	24.36	12.53
3	166.07	37.57 QP	43.50	-5.93	1.50 H	166	24.54	13.03
4	**199.12**	**42.40 QP**	**43.50**	**-1.10**	**2.00 H**	**166**	**31.51**	**10.89**
5	232.16	40.88 QP	46.00	-5.12	1.50 H	166	28.99	11.88
6	265.21	44.63 QP	46.00	-1.37	2.00 H	166	31.29	13.34
7	300.20	44.86 QP	46.00	-1.14	1.00 H	283	29.24	15.62
8	333.25	41.43 QP	46.00	-4.57	1.00 H	283	25.37	16.06
9	739.52	36.03 QP	46.00	-9.97	1.50 H	232	10.59	25.44

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	64.99	28.62 QP	40.00	-11.38	1.00 V	310	15.95	12.68
2	98.04	34.03 QP	43.50	-9.47	1.00 V	310	25.00	9.02
3	199.12	32.15 QP	43.50	-11.35	1.50 V	265	21.26	10.89
4	265.21	37.44 QP	46.00	-8.56	1.50 V	265	24.10	13.34
5	298.26	34.89 QP	46.00	-11.11	1.50 V	265	19.36	15.53
6	333.25	33.04 QP	46.00	-12.96	1.00 V	226	16.98	16.06

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

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

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

4. Margin value = Emission level – Limit value.

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK for draft 802.11n (20MHz)	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	7.2Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 68%RH, 991hPa	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	99.98	38.46 QP	43.50	-5.04	1.50 H	193	29.47	8.99
2	133.03	36.82 QP	43.50	-6.68	1.50 H	193	24.30	12.53
3	166.07	37.06 QP	43.50	-6.44	1.50 H	193	24.03	13.03
4	199.12	42.35 QP	43.50	-1.15	2.00 H	193	31.46	10.89
5	232.16	40.96 QP	46.00	-5.04	1.50 H	193	29.07	11.88
6	265.21	44.23 QP	46.00	-1.77	2.00 H	193	30.89	13.34
7	298.26	44.89 QP	46.00	-1.11	2.00 H	193	29.36	15.53
8	333.25	41.83 QP	46.00	-4.17	1.00 H	169	25.77	16.06

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	64.99	27.65 QP	40.00	-12.35	1.00 V	331	14.97	12.68
2	99.98	34.17 QP	43.50	-9.33	1.50 V	244	25.18	8.99
3	199.12	32.23 QP	43.50	-11.27	1.50 V	244	21.34	10.89
4	265.21	36.67 QP	46.00	-9.33	1.50 V	244	23.33	13.34
5	298.26	34.91 QP	46.00	-11.09	1.50 V	244	19.38	15.53
6	333.25	32.01 QP	46.00	-13.99	1.00 V	271	15.95	16.06

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

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

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

4. Margin value = Emission level – Limit value.

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	**FREQUENCY RANGE**	Below 1000MHz
MODULATION TYPE	BPSK for draft 802.11n (20MHz)	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
TRANSFER RATE	14.444Mbps	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 68%RH, 991hPa	**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	99.98	37.42 QP	43.50	-6.08	1.00 H	253	28.43	8.99
2	133.03	36.23 QP	43.50	-7.27	1.00 H	253	23.71	12.53
3	166.07	38.07 QP	43.50	-5.43	1.00 H	253	25.04	13.03
4	199.12	42.39 QP	43.50	-1.11	2.00 H	253	31.50	10.89
5	232.16	40.87 QP	46.00	-5.13	1.00 H	253	28.99	11.88
6	265.21	44.69 QP	46.00	-1.31	2.00 H	253	31.35	13.34
7	298.26	44.76 QP	46.00	-1.24	1.00 H	253	29.23	15.53
8	333.25	41.08 QP	46.00	-4.92	1.00 H	151	25.02	16.06

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	64.99	27.44 QP	40.00	-12.56	1.00 V	304	14.77	12.68
2	98.04	33.14 QP	43.50	-10.36	1.00 V	304	24.12	9.02
3	199.12	33.42 QP	43.50	-10.08	1.00 V	25	22.53	10.89
4	232.16	31.49 QP	46.00	-14.51	1.00 V	25	19.60	11.88
5	265.21	37.32 QP	46.00	-8.68	1.00 V	25	23.98	13.34
6	298.26	34.49 QP	46.00	-11.51	1.00 V	25	18.96	15.53
7	333.25	32.86 QP	46.00	-13.14	1.00 V	334	16.80	16.06

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

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK for draft 802.11n (40MHz)	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	15Mbps	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 68%RH, 991hPa	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	98.04	40.05 QP	43.50	-3.45	1.50 H	352	31.02	9.02
2	133.03	36.62 QP	43.50	-6.88	1.00 H	145	24.09	12.53
3	166.07	37.22 QP	43.50	-6.28	1.00 H	145	24.19	13.03
4	199.12	42.21 QP	43.50	-1.29	2.00 H	145	31.32	10.89
5	232.16	42.11 QP	46.00	-3.89	1.00 H	145	30.23	11.88
6	265.21	44.36 QP	46.00	-1.64	2.00 H	145	31.02	13.34
7	300.20	44.00 QP	46.00	-2.00	1.00 H	277	28.38	15.62
8	331.30	40.35 QP	46.00	-5.65	1.00 H	145	24.31	16.03
9	720.08	32.17 QP	46.00	-13.83	1.00 H	43	7.37	24.80

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	64.99	27.46 QP	40.00	-12.54	1.00 V	247	14.78	12.68
2	98.04	32.77 QP	43.50	-10.73	1.00 V	247	23.75	9.02
3	199.12	33.60 QP	43.50	-9.90	2.00 V	112	22.71	10.89
4	232.16	31.95 QP	46.00	-14.05	2.00 V	112	20.07	11.88
5	265.21	35.95 QP	46.00	-10.05	2.00 V	112	22.61	13.34
6	298.26	32.69 QP	46.00	-13.31	2.00 V	112	17.16	15.53
7	331.30	32.41 QP	46.00	-13.59	2.00 V	112	16.37	16.03
8	799.78	31.81 QP	46.00	-14.19	1.00 V	295	5.81	26.00

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

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	**FREQUENCY RANGE**	Below 1000MHz
MODULATION TYPE	BPSK for draft 802.11n (40MHz)	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
TRANSFER RATE	30Mbps	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 68%RH, 991hPa	**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	98.04	39.30 QP	43.50	-4.20	1.00 H	10	30.28	9.02
2	133.03	34.50 QP	43.50	-9.00	1.00 H	211	21.97	12.53
3	166.07	37.51 QP	43.50	-5.99	1.00 H	211	24.47	13.03
4	199.12	42.37 QP	43.50	-1.13	2.00 H	211	31.48	10.89
5	232.16	41.59 QP	46.00	-4.41	1.00 H	211	29.70	11.88
6	265.21	44.55 QP	46.00	-1.45	1.00 H	211	31.21	13.34
7	298.26	42.50 QP	46.00	-3.50	1.00 H	211	26.97	15.53
8	333.25	40.62 QP	46.00	-5.38	1.00 H	109	24.56	16.06
9	720.08	31.97 QP	46.00	-14.03	2.00 H	67	7.17	24.80
10	739.52	32.88 QP	46.00	-13.12	1.50 H	31	7.45	25.44

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	64.99	25.43 QP	40.00	-14.57	1.00 V	97	12.75	12.68
2	98.04	32.59 QP	43.50	-10.91	1.00 V	97	23.56	9.02
3	199.12	33.41 QP	43.50	-10.09	1.00 V	220	22.52	10.89
4	265.21	34.88 QP	46.00	-11.12	1.00 V	220	21.54	13.34
5	298.26	32.34 QP	46.00	-13.66	1.00 V	220	16.81	15.53
6	333.25	32.94 QP	46.00	-13.06	1.00 V	289	16.88	16.06
7	811.44	31.31 QP	46.00	-14.69	1.00 V	160	5.16	26.15

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.

802.11b DSSS MODULATION:

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, 65%RH, 991hPa	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	52.93 PK	74.00	-21.07	1.09 H	22	21.54	31.39
1	2390.00	44.16 AV	54.00	-9.84	1.09 H	22	12.77	31.39
2	*2412.00	98.59 PK			1.09 H	22	67.13	31.46
2	*2412.00	94.85 AV			1.09 H	22	63.39	31.46
3	4824.00	45.90 PK	74.00	-28.10	1.05 H	17	8.77	37.13
3	4824.00	36.47 AV	54.00	-17.53	1.05 H	17	-0.66	37.13
4	9648.00	54.80 PK	78.59	-23.79	1.19 H	112	7.23	47.57
4	9648.00	44.80 AV	74.85	-30.05	1.19 H	112	-2.77	47.57

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2250.00	58.17 PK	74.00	-15.83	1.00 V	273	27.28	30.89
2	2250.00	50.05 AV	54.00	-3.95	1.00 V	273	19.16	30.89
3	2386.00	59.37 PK	74.00	-14.63	1.11 V	81	28.00	31.37
4	2386.00	49.90 AV	54.00	-4.10	1.11 V	81	18.53	31.37
5	*2412.00	109.68 PK			1.09 V	78	78.22	31.46
6	*2412.00	106.06 AV			1.09 V	78	74.60	31.46
7	4824.00	47.17 PK	74.00	-26.83	1.25 V	130	10.04	37.13
8	4824.00	40.40 AV	54.00	-13.60	1.25 V	130	3.27	37.13
9	7236.00	54.76 PK	89.68	-34.92	1.40 V	360	10.22	44.54
10	7236.00	46.97 AV	86.06	-39.09	1.40 V	360	2.43	44.54
11	9648.00	56.78 PK	89.68	-32.90	1.23 V	31	9.21	47.57
12	9648.00	47.40 AV	86.06	-38.66	1.23 V	31	-0.17	47.57

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. 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, 70%RH, 991hPa	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	98.01 PK			1.13 H	360	66.47	31.54
1	*2437.00	94.30 AV			1.13 H	360	62.76	31.54
2	4874.00	48.71 PK	74.00	-25.29	1.54 H	59	11.42	37.29
2	4874.00	44.06 AV	54.00	-9.94	1.54 H	59	6.77	37.29

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2280.00	59.28 PK	74.00	-14.72	1.00 V	177	28.27	31.01
1	2280.00	51.01 AV	54.00	-2.99	1.00 V	177	20.00	31.01
2	*2437.00	109.71 PK			1.14 V	81	78.17	31.54
2	*2437.00	106.05 AV			1.14 V	81	74.51	31.54
3	4874.00	50.72 PK	74.00	-23.28	1.27 V	331	13.43	37.29
3	4874.00	48.33 AV	54.00	-5.67	1.27 V	331	11.04	37.29
4	7311.00	56.44 PK	74.00	-17.56	1.26 V	42	11.66	44.79
4	7311.00	45.42 AV	54.00	-8.58	1.26 V	42	0.64	44.79
5	9748.00	57.51 PK	89.71	-32.20	1.37 V	360	9.69	47.82
5	9748.00	48.72 AV	86.05	-37.33	1.37 V	360	0.90	47.82

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. 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, 70%RH, 991hPa	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	98.21 PK			1.09 H	148	66.59	31.62
1	*2462.00	94.24 AV			1.09 H	148	62.62	31.62
2	2483.50	52.46 PK	74.00	-21.54	1.09 H	148	20.76	31.70
2	2483.50	44.14 AV	54.00	-9.86	1.09 H	148	12.44	31.70
3	4924.00	49.47 PK	74.00	-24.53	1.20 H	109	12.03	37.44
3	4924.00	44.27 AV	54.00	-9.73	1.20 H	109	6.83	37.44
4	9848.00	55.36 PK	78.21	-22.85	1.20 H	360	7.30	48.06
4	9848.00	44.33 AV	74.24	-29.91	1.20 H	360	-3.73	48.06

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2320.00	60.32 PK	74.00	-13.68	1.00 V	278	29.17	31.15
1	2320.00	52.23 AV	54.00	-1.77	1.00 V	278	21.08	31.15
2	*2462.00	110.40 PK			1.19 V	230	78.78	31.62
2	*2462.00	106.65 AV			1.19 V	230	75.03	31.62
3	2483.50	61.02 PK	74.00	-12.98	1.11 V	45	29.32	31.70
3	2483.50	50.81 AV	54.00	-3.19	1.11 V	45	19.11	31.70
4	2487.00	60.81 PK	74.00	-13.19	1.11 V	78	29.10	31.71
4	2487.00	51.85 AV	54.00	-2.15	1.11 V	78	20.14	31.71
5	4924.00	51.56 PK	74.00	-22.44	1.00 V	44	14.12	37.44
5	4924.00	46.98 AV	54.00	-7.02	1.00 V	44	9.54	37.44

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:

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	24deg. C, 66%RH, 991hPa	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	58.99 PK	74.00	-15.01	1.09 H	156	27.48	31.51
1	2390.00	48.19 AV	54.00	-5.81	1.09 H	156	16.68	31.51
2	*2412.00	97.43 PK			1.09 H	156	65.85	31.58
2	*2412.00	87.32 AV			1.09 H	156	55.74	31.58
3	4824.00	44.43 PK	74.00	-29.57	1.35 H	360	7.46	36.96
3	4824.00	32.37 AV	54.00	-21.63	1.35 H	360	-4.60	36.96

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2367.00	62.48 PK	74.00	-11.52	1.29 V	238	31.05	31.43
1	2367.00	49.97 AV	54.00	-4.03	1.29 V	238	18.54	31.43
2	2390.00	69.75 PK	74.00	-4.25	1.75 V	62	38.24	31.51
2	2390.00	52.26 AV	54.00	-1.74	1.75 V	62	20.75	31.51
3	*2412.00	110.87 PK			1.75 V	62	79.29	31.58
3	*2412.00	100.04 AV			1.75 V	62	68.46	31.58
4	2487.00	62.90 PK	74.00	-11.10	1.33 V	57	31.08	31.82
4	2487.00	52.34 AV	54.00	-1.66	1.33 V	57	20.52	31.82
5	4824.00	49.04 PK	74.00	-24.96	1.32 V	17	12.07	36.96
5	4824.00	36.15 AV	54.00	-17.85	1.32 V	17	-0.82	36.96

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. 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	24deg. C, 66%RH, 991hPa	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	97.01 PK			1.26 H	165	65.35	31.66
1	*2437.00	87.49 AV			1.26 H	165	55.83	31.66
2	4874.00	44.36 PK	74.00	-29.64	1.20 H	360	7.21	37.15
2	4874.00	33.26 AV	54.00	-20.74	1.20 H	360	-3.89	37.15

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	2280.00	62.70 PK	74.00	-11.30	1.19 V	135	31.57	31.13
1	2280.00	52.62 AV	54.00	-1.38	1.19 V	135	21.49	31.13
2	2382.00	62.55 PK	74.00	-11.45	1.10 V	242	31.07	31.48
2	2382.00	52.46 AV	54.00	-1.54	1.10 V	242	20.98	31.48
3	*2437.00	110.98 PK			1.08 V	234	79.32	31.66
3	*2437.00	100.69 AV			1.08 V	234	69.03	31.66
4	2502.00	62.85 PK	90.98	-28.13	1.05 V	291	30.98	31.87
4	2502.00	52.67 AV	80.69	-28.02	1.05 V	291	20.80	31.87
5	4874.00	49.60 PK	74.00	-24.40	1.29 V	10	12.45	37.15
5	4874.00	36.57 AV	54.00	-17.43	1.29 V	10	-0.58	37.15

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.

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	24deg. C, 66%RH, 991hPa	**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	96.89 PK			1.10 H	167	65.15	31.74
1	*2462.00	87.02 AV			1.10 H	167	55.28	31.74
2	2483.50	59.36 PK	74.00	-14.64	1.10 H	167	27.55	31.81
2	2483.50	48.39 AV	54.00	-5.61	1.10 H	167	16.58	31.81
3	4924.00	43.60 PK	74.00	-30.40	1.20 H	10	6.31	37.29
3	4924.00	32.69 AV	54.00	-21.31	1.20 H	10	-4.60	37.29

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	2280.00	61.41 PK	74.00	-12.59	1.21 V	132	30.28	31.13
1	2280.00	51.79 AV	54.00	-2.21	1.21 V	132	20.66	31.13
2	*2462.00	109.84 PK			1.35 V	57	78.10	31.74
2	*2462.00	99.03 AV			1.35 V	57	67.29	31.74
3	2483.50	65.19 PK	74.00	-8.81	1.33 V	60	33.38	31.81
3	2483.50	52.31 AV	54.00	-1.69	1.33 V	60	20.50	31.81
4	4924.00	49.35 PK	74.00	-24.65	1.23 V	355	12.06	37.29
4	4924.00	36.27 AV	54.00	-17.73	1.23 V	355	-1.02	37.29

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

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

DRAFT 802.11n (20MHz) OFDM MODULATION: SINGLE 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, 70%RH, 991hPa	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	65.19 PK	74.00	-8.81	1.42 H	360	33.80	31.39
1	2390.00	45.98 AV	54.00	-8.02	1.42 H	360	14.59	31.39
2	*2412.00	100.50 PK			1.42 H	360	69.04	31.46
2	*2412.00	90.51 AV			1.42 H	360	59.05	31.46
3	4824.00	45.69 PK	74.00	-28.31	1.00 H	0	8.56	37.13
3	4824.00	32.56 AV	54.00	-21.44	1.00 H	0	-4.57	37.13

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2367.00	67.55 PK	74.00	-6.45	1.17 V	3	36.24	31.31
1	2367.00	50.77 AV	54.00	-3.23	1.17 V	3	19.46	31.31
2	2390.00	72.24 PK	74.00	-1.76	1.12 V	61	40.85	31.39
2	2390.00	51.60 AV	54.00	-2.40	1.12 V	61	20.21	31.39
3	*2412.00	107.53 PK			1.17 V	5	76.07	31.46
3	*2412.00	98.50 AV			1.17 V	5	67.04	31.46
4	4824.00	45.04 PK	74.00	-28.96	1.00 V	78	7.91	37.13
4	4824.00	33.93 AV	54.00	-20.07	1.00 V	78	-3.20	37.13

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, 70%RH, 991hPa	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	101.10 PK			1.65 H	44	69.56	31.54
1	*2437.00	89.62 AV			1.65 H	44	58.08	31.54
2	4874.00	45.89 PK	74.00	-28.11	1.10 H	0	8.60	37.29
2	4874.00	32.72 AV	54.00	-21.28	1.10 H	0	-4.57	37.29

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2280.00	60.17 PK	74.00	-13.83	1.20 V	47	29.16	31.01
1	2280.00	51.49 AV	54.00	-2.51	1.20 V	47	20.48	31.01
2	2382.00	61.95 PK	74.00	-12.05	1.22 V	233	30.59	31.36
2	2382.00	50.42 AV	54.00	-3.58	1.22 V	233	19.06	31.36
3	*2437.00	110.11 PK			1.12 V	55	78.57	31.54
3	*2437.00	100.52 AV			1.12 V	55	68.98	31.54
4	2500.00	61.57 PK	74.00	-12.43	1.07 V	57	29.82	31.75
4	2500.00	51.66 AV	54.00	-2.34	1.07 V	57	19.91	31.75
5	4874.00	45.88 PK	74.00	-28.12	1.20 V	0	8.59	37.29
5	4874.00	33.81 AV	54.00	-20.19	1.20 V	0	-3.48	37.29

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

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. 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, 70%RH, 991hPa	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	98.36 PK			1.34 H	48	66.74	31.62
1	*2462.00	88.56 AV			1.34 H	48	56.94	31.62
2	2483.50	52.69 PK	74.00	-21.31	1.34 H	48	20.99	31.70
2	2483.50	44.57 AV	54.00	-9.43	1.34 H	48	12.87	31.70
3	4924.00	46.35 PK	74.00	-27.65	1.10 H	0	8.91	37.44
3	4924.00	32.91 AV	54.00	-21.09	1.10 H	0	-4.53	37.44

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	2280.00	58.80 PK	74.00	-15.20	1.20 V	49	27.79	31.01
1	2280.00	49.94 AV	54.00	-4.06	1.20 V	49	18.93	31.01
2	*2462.00	106.80 PK			1.36 V	49	75.18	31.62
2	*2462.00	96.84 AV			1.36 V	49	65.22	31.62
3	2483.50	70.74 PK	74.00	-3.26	1.10 V	78	39.04	31.70
3	2483.50	51.91 AV	54.00	-2.09	1.10 V	78	20.21	31.70
4	4924.00	46.07 PK	74.00	-27.93	1.20 V	0	8.63	37.44
4	4924.00	34.03 AV	54.00	-19.97	1.20 V	0	-3.41	37.44

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: Dual TX

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	14.444Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH, 991hPa	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	56.33 PK	74.00	-17.67	1.42 H	22	24.94	31.39
1	2390.00	44.53 AV	54.00	-9.47	1.42 H	22	13.14	31.39
2	*2412.00	101.28 PK			1.42 H	22	69.82	31.46
2	*2412.00	92.03 AV			1.42 H	22	60.57	31.46
3	4824.00	46.00 PK	74.00	-28.00	1.10 H	0	8.87	37.13
3	4824.00	33.66 AV	54.00	-20.34	1.10 H	0	-3.47	37.13

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2280.00	57.70 PK	74.00	-16.30	1.00 V	17	26.69	31.01
1	2280.00	48.45 AV	54.00	-5.55	1.00 V	17	17.44	31.01
2	2320.00	59.60 PK	74.00	-14.40	1.00 V	280	28.45	31.15
2	2320.00	49.59 AV	54.00	-4.41	1.00 V	280	18.44	31.15
3	2390.00	68.60 PK	74.00	-5.40	1.17 V	72	37.21	31.39
3	2390.00	52.00 AV	54.00	-2.00	1.17 V	72	20.61	31.39
4	*2412.00	110.48 PK			1.14 V	74	79.02	31.46
4	*2412.00	102.33 AV			1.14 V	74	70.87	31.46
5	4824.00	46.82 PK	74.00	-27.18	1.13 V	117	9.69	37.13
5	4824.00	34.76 AV	54.00	-19.24	1.13 V	117	-2.37	37.13

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	14.444Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH, 991hPa	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	102.82 PK			1.16 H	274	71.28	31.54
1	*2437.00	94.90 AV			1.16 H	274	63.36	31.54
2	4874.00	45.89 PK	74.00	-28.11	1.20 H	1	8.60	37.29
2	4874.00	33.85 AV	54.00	-20.15	1.20 H	1	-3.44	37.29

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2280.00	58.24 PK	74.00	-15.76	1.34 V	207	27.23	31.01
1	2280.00	49.34 AV	54.00	-4.66	1.34 V	207	18.33	31.01
2	*2437.00	112.49 PK			1.12 V	78	80.95	31.54
2	*2437.00	100.54 AV			1.12 V	78	69.00	31.54
3	2500.00	58.82 PK	74.00	-15.18	1.06 V	60	27.07	31.75
3	2500.00	52.10 AV	54.00	-1.90	1.06 V	60	20.35	31.75
4	4874.00	46.81 PK	74.00	-27.19	1.20 V	360	9.52	37.29
4	4874.00	35.62 AV	54.00	-18.38	1.20 V	360	-1.67	37.29

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. 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	14.444Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH, 991hPa	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	98.03 PK			1.14 H	354	66.41	31.62
1	*2462.00	87.04 AV			1.14 H	354	55.42	31.62
2	2483.50	52.72 PK	74.00	-21.28	1.14 H	354	21.02	31.70
2	2483.50	44.31 AV	54.00	-9.69	1.14 H	354	12.61	31.70
3	4924.00	46.05 PK	74.00	-27.95	1.20 H	355	8.61	37.44
3	4924.00	33.14 AV	54.00	-20.86	1.20 H	355	-4.30	37.44

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	2280.00	56.65 PK	74.00	-17.35	1.20 V	71	25.64	31.01
1	2280.00	47.92 AV	54.00	-6.08	1.20 V	71	16.91	31.01
2	*2462.00	107.93 PK			1.19 V	258	76.31	31.62
2	*2462.00	97.55 AV			1.19 V	258	65.93	31.62
3	2483.50	68.76 PK	74.00	-5.24	1.20 V	253	37.06	31.70
3	2483.50	52.35 AV	54.00	-1.65	1.20 V	253	20.65	31.70
4	4924.00	45.79 PK	74.00	-28.21	1.01 V	355	8.35	37.44
4	4924.00	34.93 AV	54.00	-19.07	1.01 V	355	-2.51	37.44

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: SINGLE 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, 65%RH, 991hPa	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	54.96 PK	74.00	-19.04	1.32 H	19	23.57	31.39
1	2390.00	45.01 AV	54.00	-8.99	1.32 H	19	13.62	31.39
2	*2422.00	93.31 PK			1.32 H	19	61.82	31.49
2	*2422.00	84.18 AV			1.32 H	19	52.69	31.49
3	4844.00	45.70 PK	74.00	-28.30	1.00 H	0	8.51	37.19
3	4844.00	33.74 AV	54.00	-20.26	1.00 H	0	-3.45	37.19

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	2373.00	69.21 PK	74.00	-4.79	1.12 V	77	37.88	31.33
1	2373.00	50.79 AV	54.00	-3.21	1.12 V	77	19.46	31.33
2	2390.00	68.70 PK	74.00	-5.30	1.22 V	251	37.31	31.39
2	2390.00	52.06 AV	54.00	-1.94	1.22 V	251	20.67	31.39
3	*2422.00	106.93 PK			1.22 V	223	75.44	31.49
3	*2422.00	96.43 AV			1.22 V	223	64.94	31.49
4	2493.00	63.69 PK	74.00	-10.31	1.05 V	81	31.96	31.73
4	2493.00	52.14 AV	54.00	-1.86	1.05 V	81	20.41	31.73
5	4844.00	45.30 PK	74.00	-28.70	1.05 V	360	8.11	37.19
5	4844.00	32.93 AV	54.00	-21.07	1.05 V	360	-4.26	37.19

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.

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, 65%RH, 991hPa	**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	92.43 PK			1.35 H	26	60.89	31.54
1	*2437.00	83.39 AV			1.35 H	26	51.85	31.54
2	4874.00	45.18 PK	74.00	-28.82	1.00 H	0	7.89	37.29
2	4874.00	32.75 AV	54.00	-21.25	1.00 H	0	-4.54	37.29

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	2382.00	60.04 PK	74.00	-13.96	1.13 V	77	28.68	31.36
1	2382.00	49.47 AV	54.00	-4.53	1.13 V	77	18.11	31.36
2	*2437.00	105.69 PK			1.35 V	73	74.15	31.54
2	*2437.00	96.40 AV			1.35 V	73	64.86	31.54
3	2483.50	64.03 PK	74.00	-9.97	1.04 V	77	32.33	31.70
3	2483.50	51.53 AV	54.00	-2.47	1.04 V	77	19.83	31.70
4	4874.00	45.85 PK	74.00	-28.15	1.10 V	111	8.56	37.29
4	4874.00	33.05 AV	54.00	-20.95	1.10 V	111	-4.24	37.29

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. 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, 65%RH, 991hPa	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	*2452.00	91.06 PK			1.12 H	94	59.47	31.59
1	*2452.00	81.49 AV			1.12 H	94	49.90	31.59
2	2483.50	52.67 PK	74.00	-21.33	1.12 H	94	20.97	31.70
2	2483.50	44.73 AV	54.00	-9.27	1.12 H	94	13.03	31.70
3	4904.00	45.92 PK	74.00	-28.08	1.12 H	0	8.54	37.38
3	4904.00	32.86 AV	54.00	-21.14	1.12 H	0	-4.52	37.38

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	2360.00	57.75 PK	74.00	-16.25	1.15 V	96	26.47	31.28
1	2360.00	47.93 AV	54.00	-6.07	1.15 V	96	16.65	31.28
2	*2452.00	104.76 PK			1.33 V	77	73.17	31.59
2	*2452.00	94.56 AV			1.33 V	77	62.97	31.59
3	2483.50	63.54 PK	74.00	-10.46	1.32 V	79	31.84	31.70
3	2483.50	51.80 AV	54.00	-2.20	1.32 V	79	20.10	31.70
4	4904.00	36.00 PK	74.00	-38.00	1.00 V	360	-1.38	37.38
4	4904.00	33.86 AV	54.00	-20.14	1.00 V	360	-3.52	37.38

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: DUAL TX

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	30Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	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	54.40 PK	74.00	-19.60	1.46 H	357	23.01	31.39
1	2390.00	44.67 AV	54.00	-9.33	1.46 H	357	13.28	31.39
2	*2422.00	94.27 PK			1.48 H	360	62.78	31.49
2	*2422.00	83.37 AV			1.48 H	360	51.88	31.49
3	4844.00	45.40 PK	74.00	-28.60	1.46 H	0	8.21	37.19
3	4844.00	32.13 AV	54.00	-21.87	1.46 H	0	-5.06	37.19

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	2373.00	62.20 PK	74.00	-11.80	1.20 V	360	30.87	31.33
1	2373.00	50.11 AV	54.00	-3.89	1.20 V	360	18.78	31.33
2	2390.00	62.04 PK	74.00	-11.96	1.13 V	78	30.65	31.39
2	2390.00	51.74 AV	54.00	-2.26	1.13 V	78	20.35	31.39
3	*2422.00	108.37 PK			1.09 V	81	76.88	31.49
3	*2422.00	96.96 AV			1.09 V	81	65.47	31.49
4	7266.00	51.51 PK	74.00	-22.49	1.20 V	320	6.86	44.65
4	7266.00	40.40 AV	54.00	-13.60	1.20 V	320	-4.25	44.65

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. 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	30Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	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	94.57 PK			1.44 H	352	63.03	31.54
1	*2437.00	83.71 AV			1.44 H	352	52.17	31.54
2	2483.50	18.75 PK	74.00	-55.25	1.44 H	352	-12.94	31.70
2	2483.50	9.27 AV	54.00	-44.73	1.44 H	352	-22.42	31.70

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	2320.00	59.06 PK	74.00	-14.94	1.22 V	235	27.91	31.15
1	2320.00	48.91 AV	54.00	-5.09	1.22 V	235	17.76	31.15
2	*2437.00	108.01 PK			1.17 V	346	76.47	31.54
2	*2437.00	96.44 AV			1.17 V	346	64.90	31.54
3	2483.50	65.40 PK	74.00	-8.60	1.14 V	232	33.70	31.70
3	2483.50	51.84 AV	54.00	-2.16	1.14 V	232	20.14	31.70
4	4874.00	44.59 PK	74.00	-29.41	1.14 V	235	7.30	37.29
4	4874.00	33.00 AV	54.00	-21.00	1.14 V	235	-4.29	37.29

REMARKS: 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. 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	30Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	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	*2452.00	91.55 PK			1.80 H	216	59.96	31.59
1	*2452.00	81.51 AV			1.80 H	216	49.92	31.59
2	2483.50	52.58 PK	74.00	-21.42	1.80 H	216	20.88	31.70
2	2483.50	44.13 AV	54.00	-9.87	1.80 H	216	12.43	31.70
3	4904.00	45.99 PK	74.00	-28.01	1.20 H	0	8.61	37.38
3	4904.00	33.96 AV	54.00	-20.04	1.20 H	0	-3.42	37.38

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	2320.00	56.12 PK	74.00	-17.88	1.22 V	216	24.97	31.15
1	2320.00	47.70 AV	54.00	-6.30	1.22 V	216	16.55	31.15
2	*2452.00	105.04 PK			1.15 V	331	73.45	31.59
2	*2452.00	94.62 AV			1.15 V	331	63.03	31.59
3	2483.50	62.88 PK	74.00	-11.12	1.16 V	294	31.18	31.70
3	2483.50	51.80 AV	54.00	-2.20	1.16 V	294	20.10	31.70
4	4904.00	45.22 PK	74.00	-28.78	1.00 V	0	7.84	37.38
4	4904.00	33.96 AV	54.00	-20.04	1.00 V	0	-3.42	37.38

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	FSEK 30	100049	Aug. 14, 2006

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

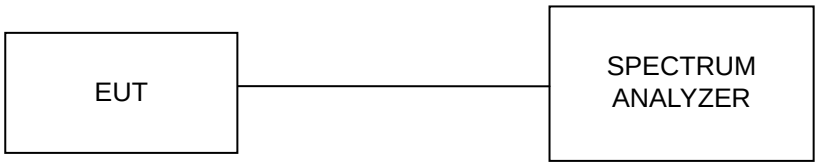
4.3.3 TEST PROCEDURE

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.

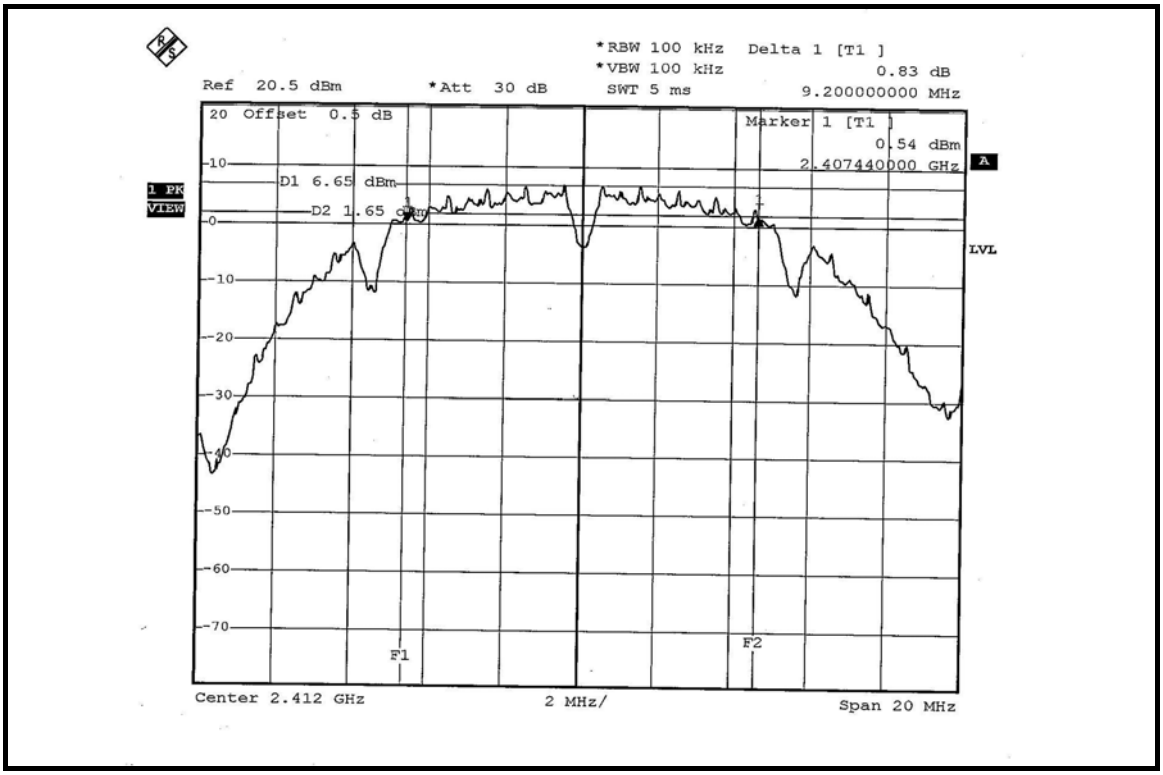
4.3.7 TEST RESULTS

802.11b DSSS MODULATION:

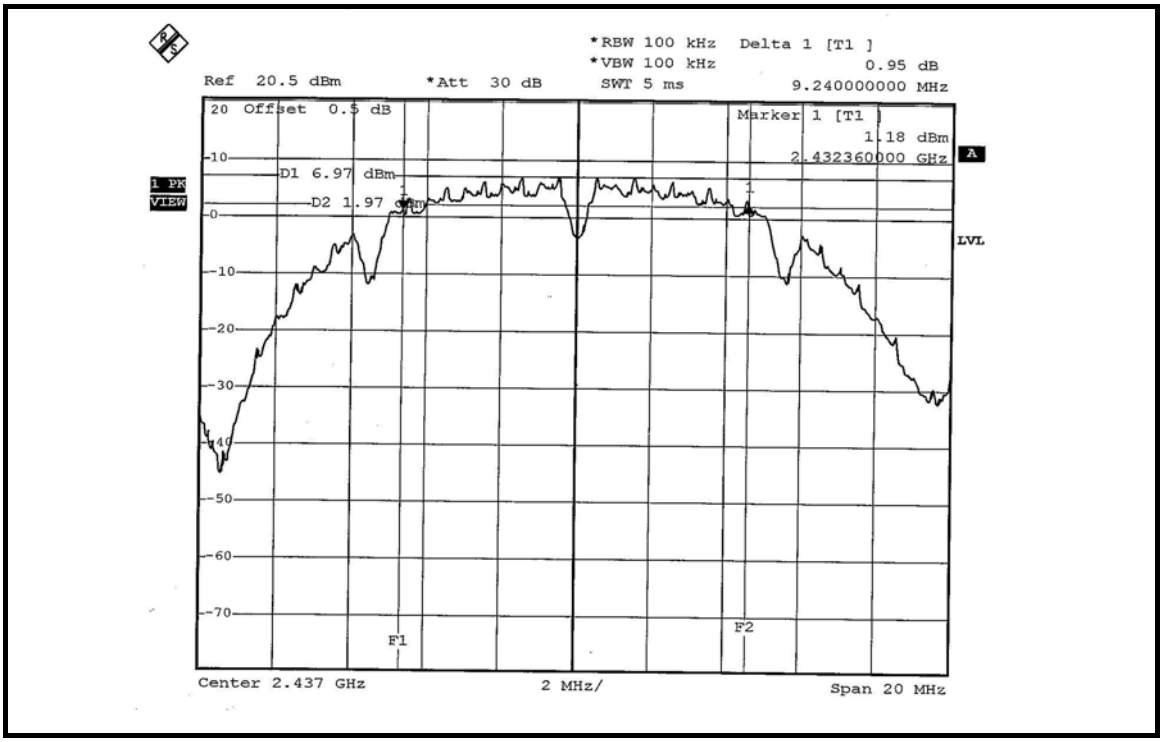
MODULATION TYPE	DBPSK	TRANSFER RATE	1Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	9.20	0.5	PASS
6	2437	9.24	0.5	PASS
11	2462	9.48	0.5	PASS

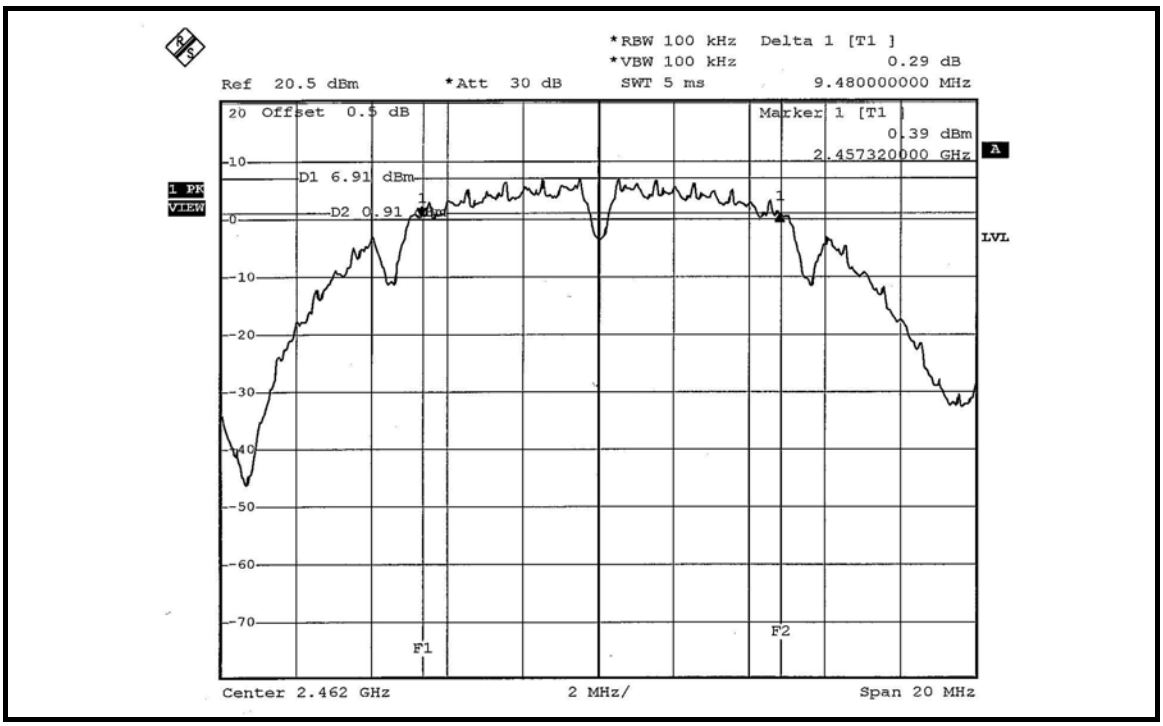
CH 1



CH 6


*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
0.95 dB
9.240000000 MHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
Marker 1 [T1]
1.18 dBm
2.432360000 GHz
D1 6.97 dBm
D2 1.97 dBm
1 PK VIEW
A
LVL
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz

CH 11

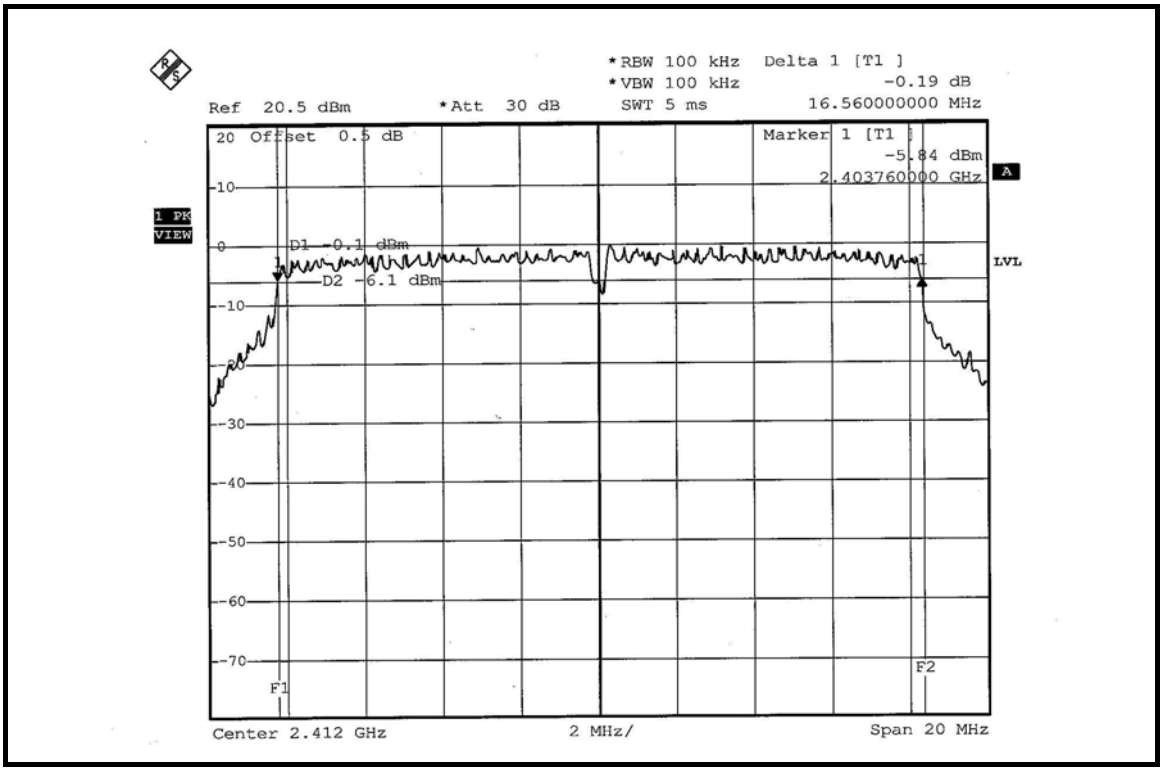

*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
0.29 dB
9.480000000 MHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
Marker 1 [T1]
0.39 dBm
2.457320000 GHz
D1 6.91 dBm
D2 0.91 dBm
1 PK VIEW
A
LVL
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz

802.11g OFDM MODULATION:

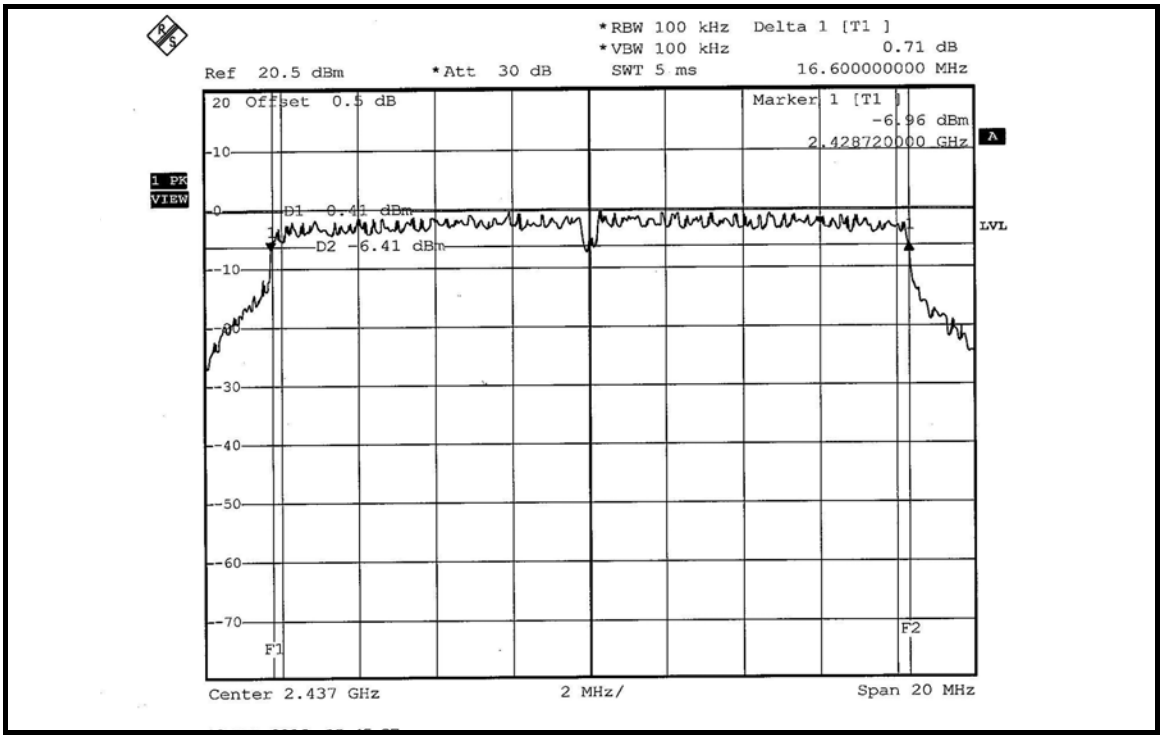
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.56	0.5	PASS
6	2437	16.60	0.5	PASS
11	2462	16.56	0.5	PASS

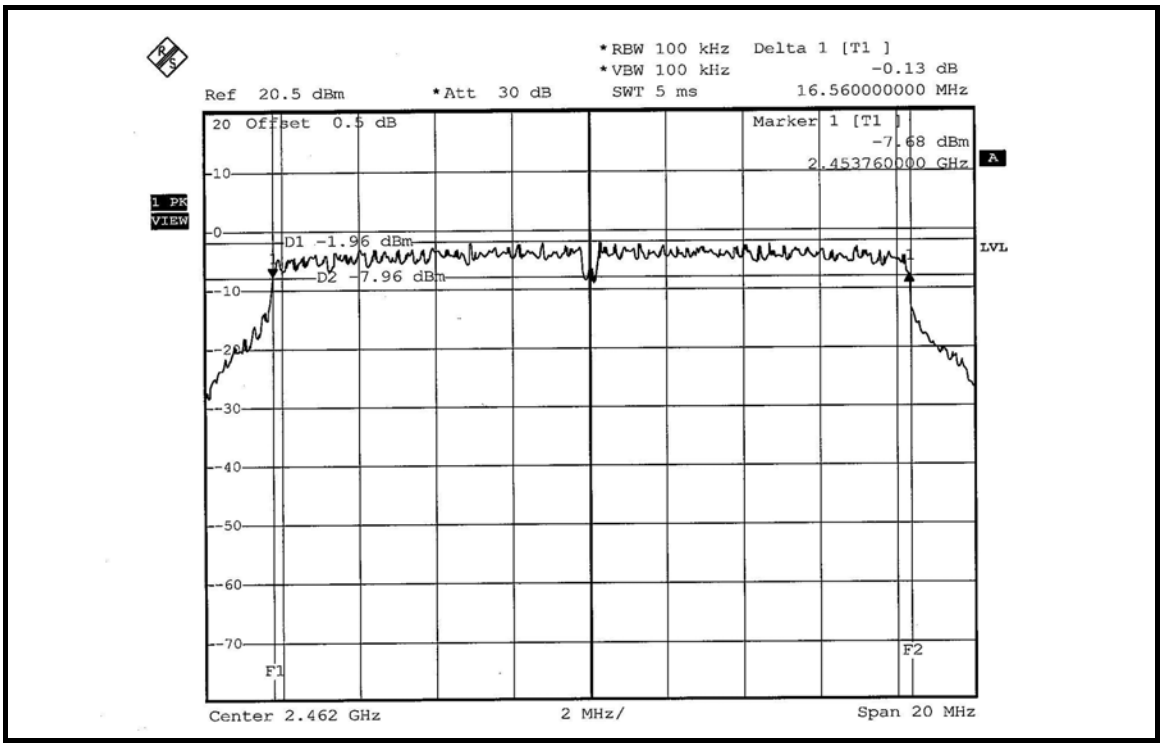
CH 1



CH 6


*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
0.71 dB
16.600000000 MHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
Marker 1 [T1]
-6.96 dBm
2.428720000 GHz
1 PK
VIEW
D1 -0.41 dBm
D2 -6.41 dBm
LVL
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz

CH 11

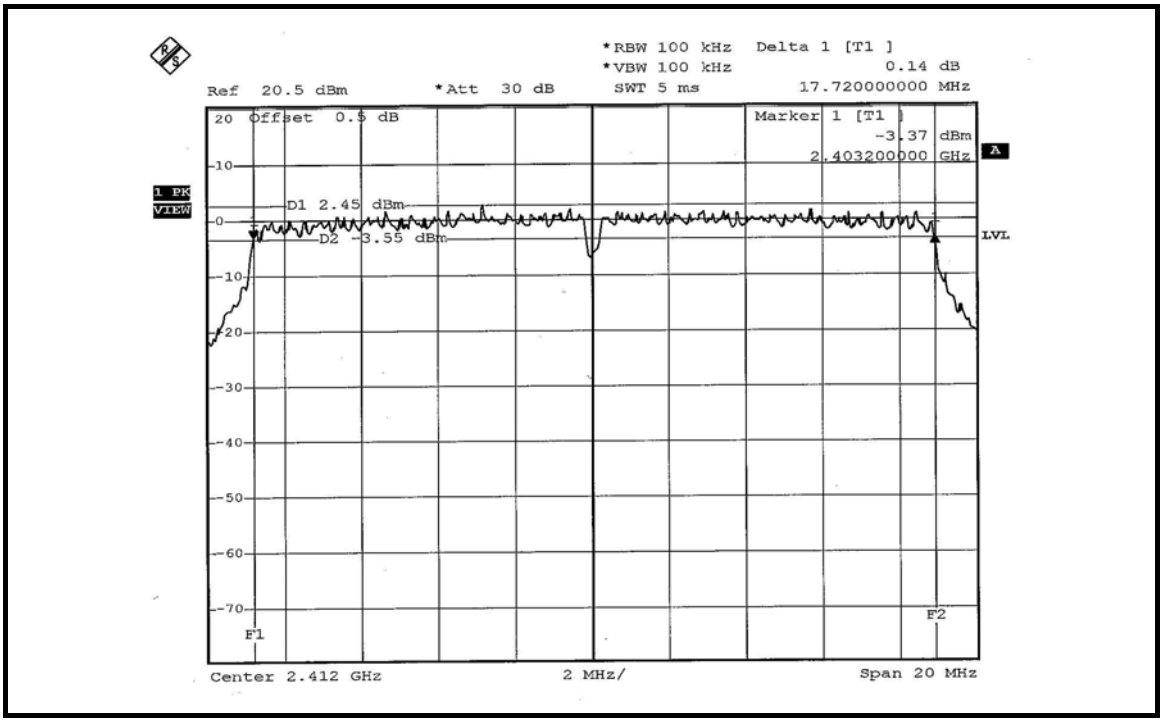

*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-0.13 dB
16.560000000 MHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
Marker 1 [T1]
-7.68 dBm
2.453760000 GHz
1 PK
VIEW
D1 -1.96 dBm
D2 -7.96 dBm
LVL
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz

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

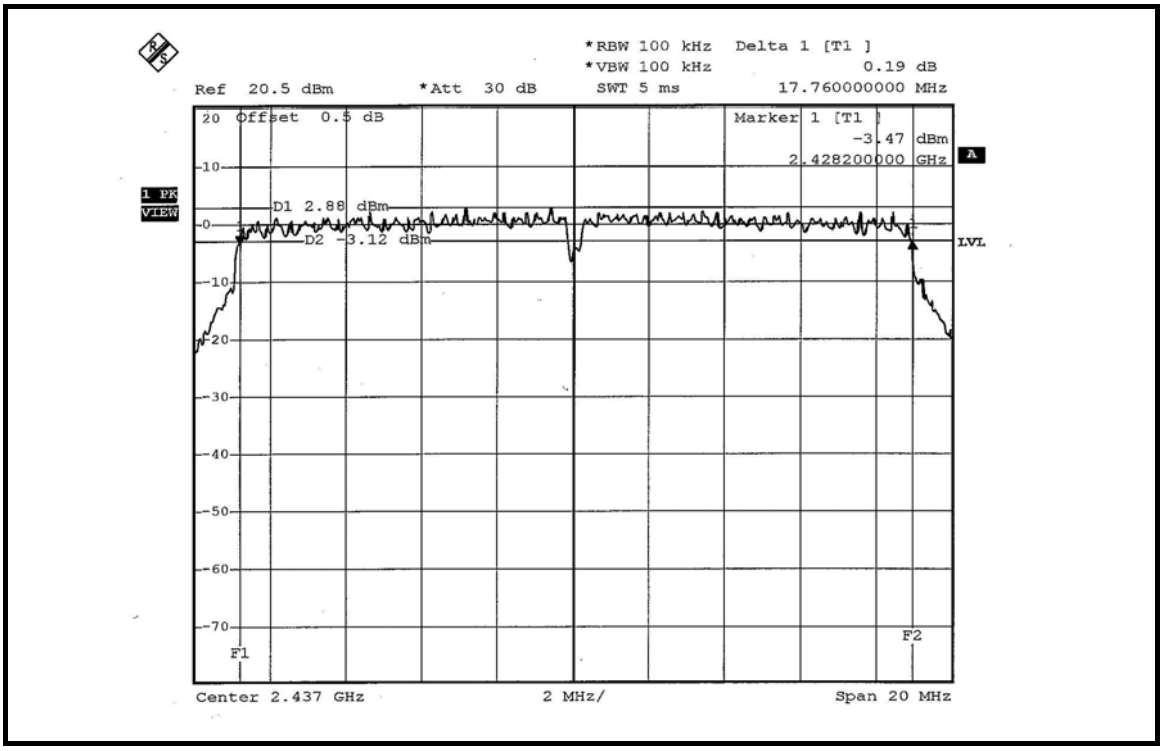
MODULATION TYPE	BPSK	TRANSFER RATE	7.2Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	17.72	0.5	PASS
6	2437	17.76	0.5	PASS
11	2462	17.80	0.5	PASS

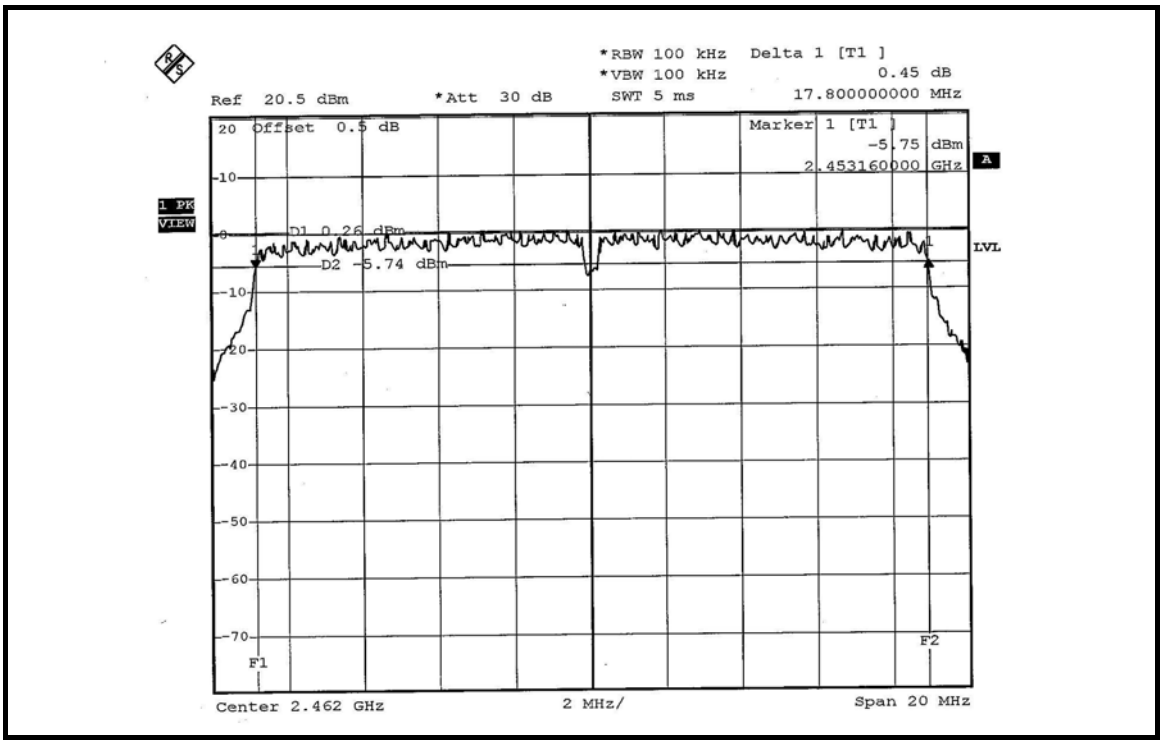
CH 1



CH 6


*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
0.19 dB
17.760000000 MHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
Marker 1 [T1]
-3.47 dBm
2.428200000 GHz
1 PK VIEW
D1 2.88 dBm
D2 -3.12 dBm
LVL
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz

CH 11

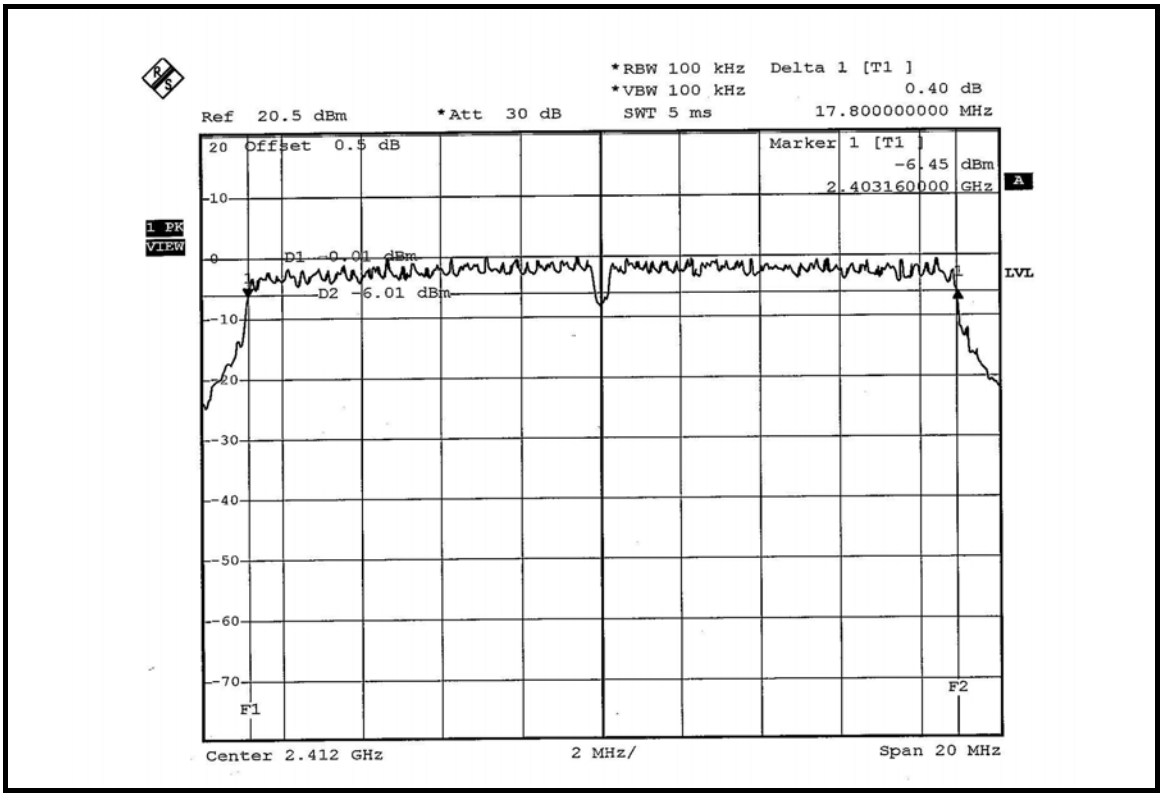

*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
0.45 dB
17.800000000 MHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
Marker 1 [T1]
-5.75 dBm
2.453160000 GHz
1 PK VIEW
D1 0.26 dBm
D2 -5.74 dBm
LVL
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz

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

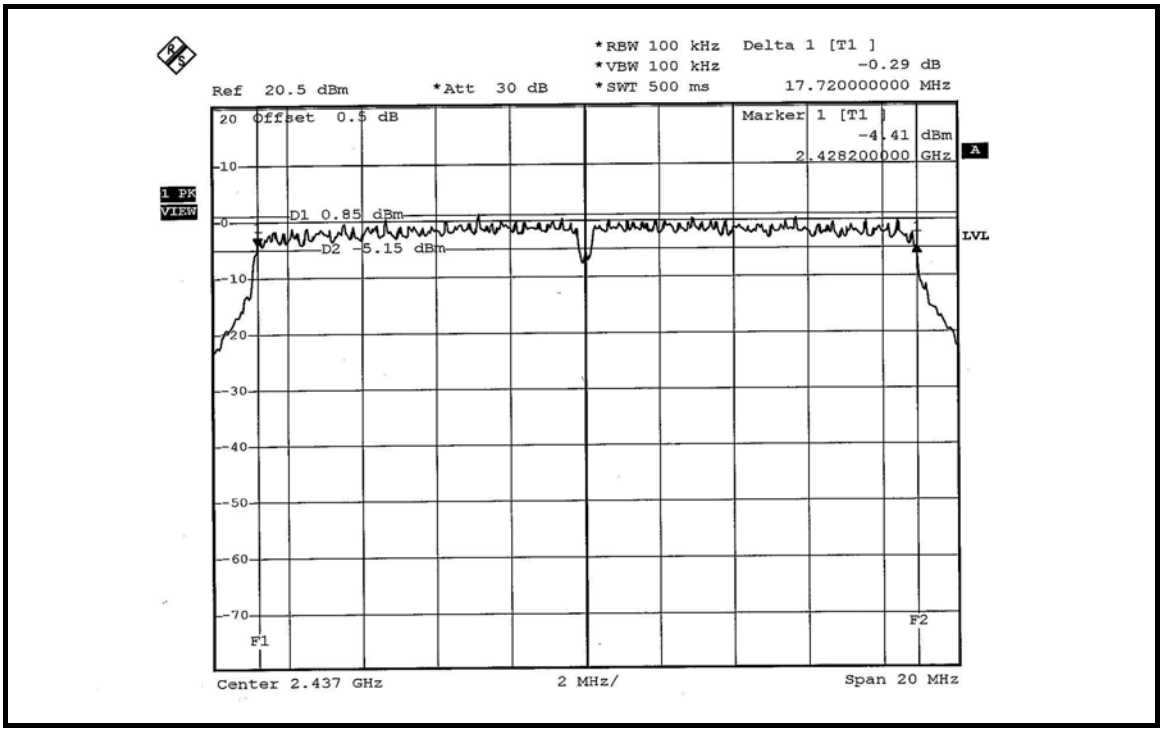
MODULATION TYPE	BPSK	**TRANSFER RATE**	14.444Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 63%RH, 991hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	17.80	17.72	0.5	PASS
6	2437	17.72	17.76	0.5	PASS
11	2462	17.76	17.76	0.5	PASS

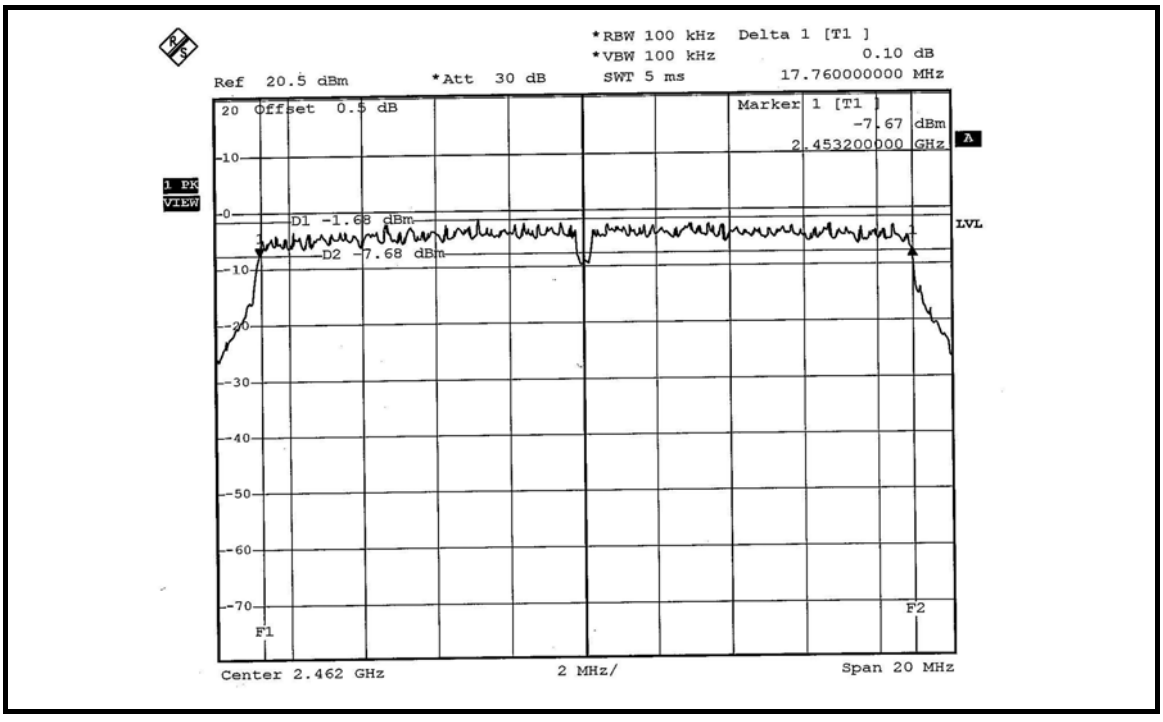
FOR CHAIN 0: CH 1



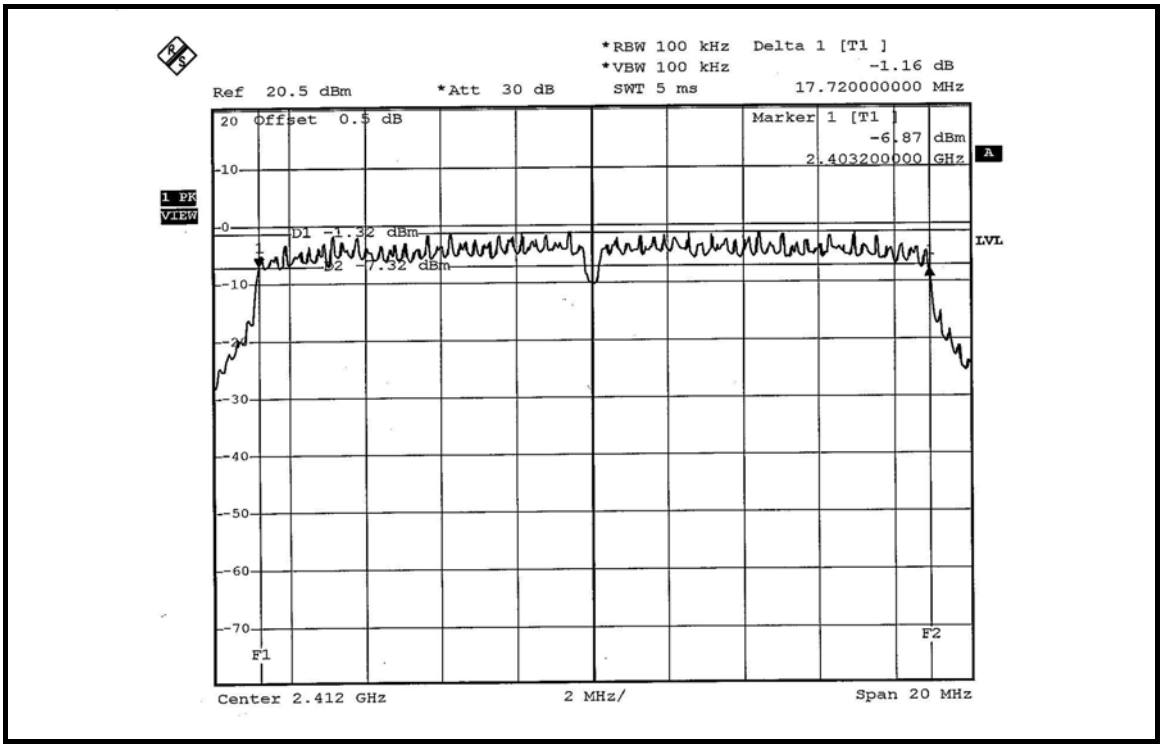
CH 6


*RBW 100 kHz
*VBW 100 kHz
*SWT 500 ms
Delta 1 [T1]
-0.29 dB
17.720000000 MHz
Ref 20.5 dBm
*Att 30 dB
Offset 0.5 dB
Marker 1 [T1]
-4.41 dBm
2.428200000 GHz
1 PK VIEW
D1 0.85 dBm
D2 -5.15 dBm
LVL
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz

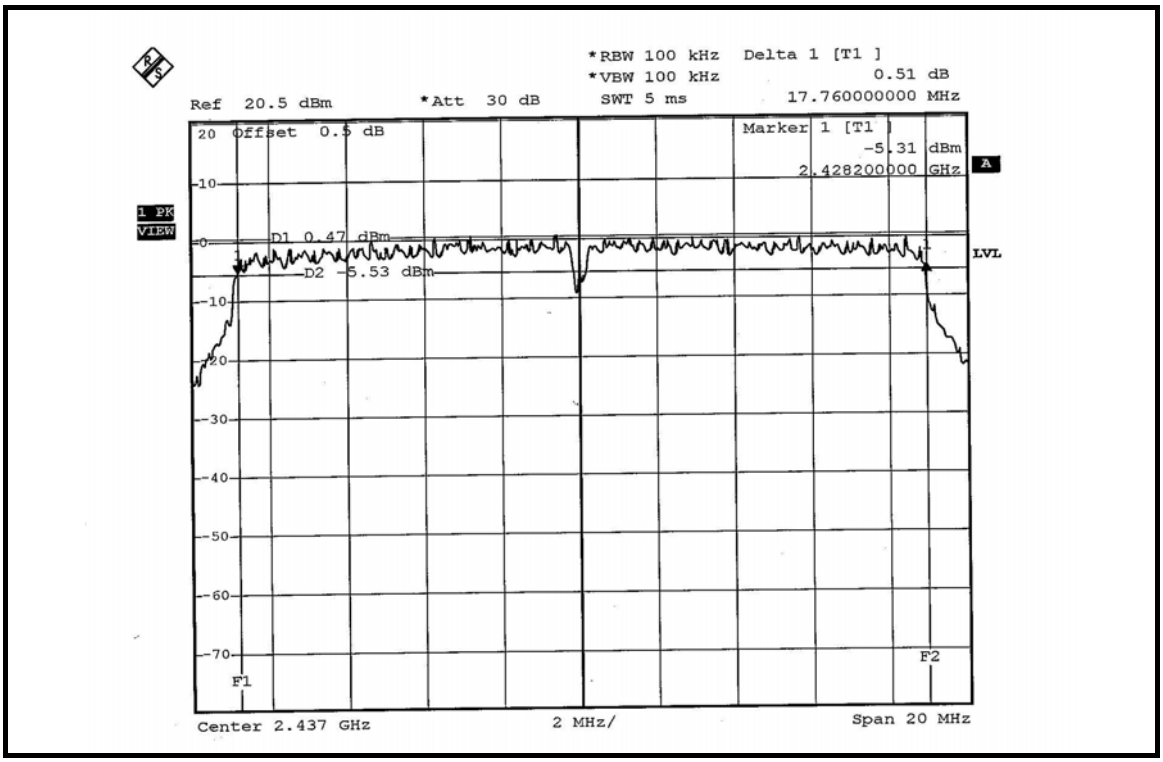
CH 11


*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
0.10 dB
17.760000000 MHz
Ref 20.5 dBm
*Att 30 dB
Offset 0.5 dB
Marker 1 [T1]
-7.67 dBm
2.453200000 GHz
1 PK VIEW
D1 -1.68 dBm
D2 -7.68 dBm
LVL
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz

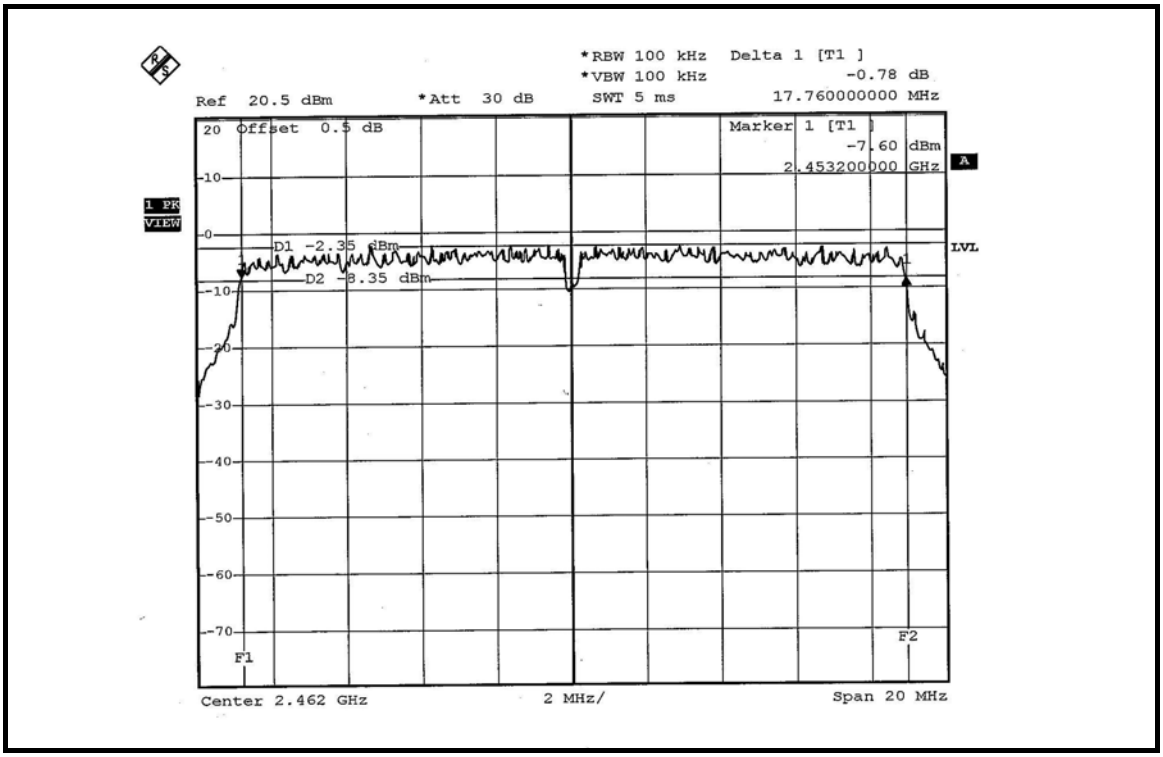
FOR CHAIN 1: CH 1



CH 6



CH 11

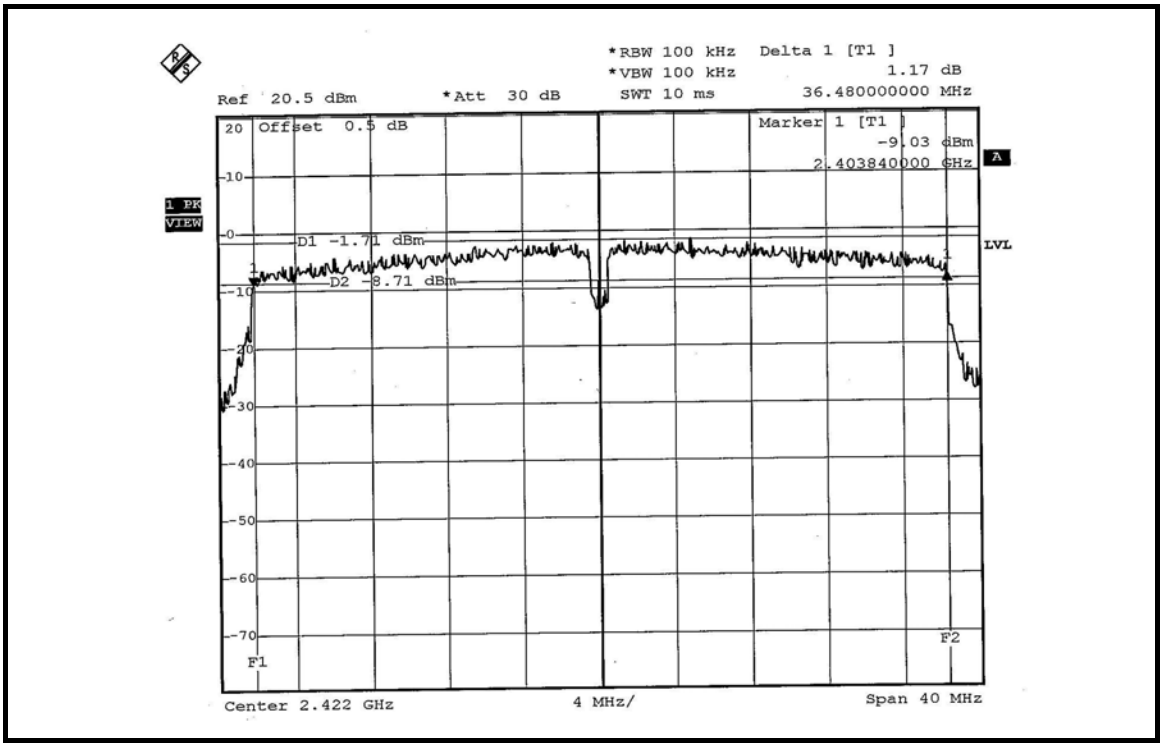

*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-0.78 dB
17.760000000 MHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
Marker 1 [T1]
-7.60 dBm
2.453200000 GHz
1 PK VIEW
D1 -2.35 dBm
D2 -8.35 dBm
LVL
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz

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

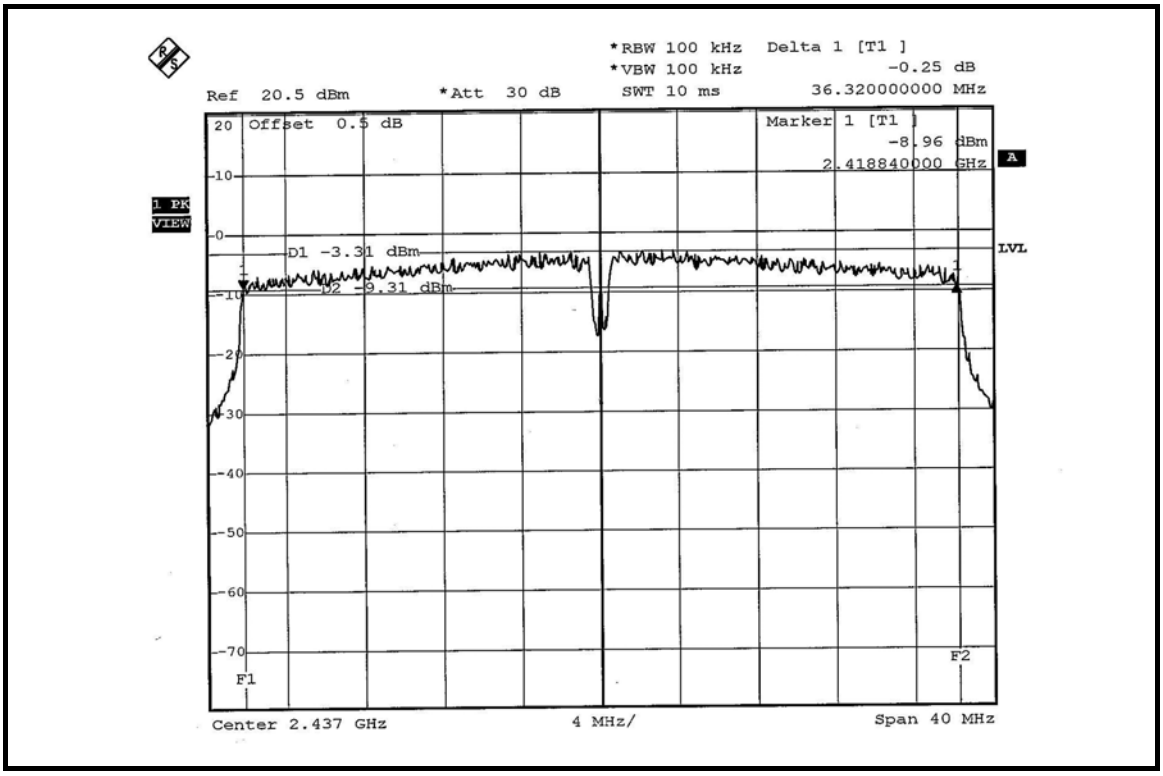
MODULATION TYPE	BPSK	TRANSFER RATE	15Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2422	36.48	0.5	PASS
4	2437	36.32	0.5	PASS
7	2452	36.16	0.5	PASS

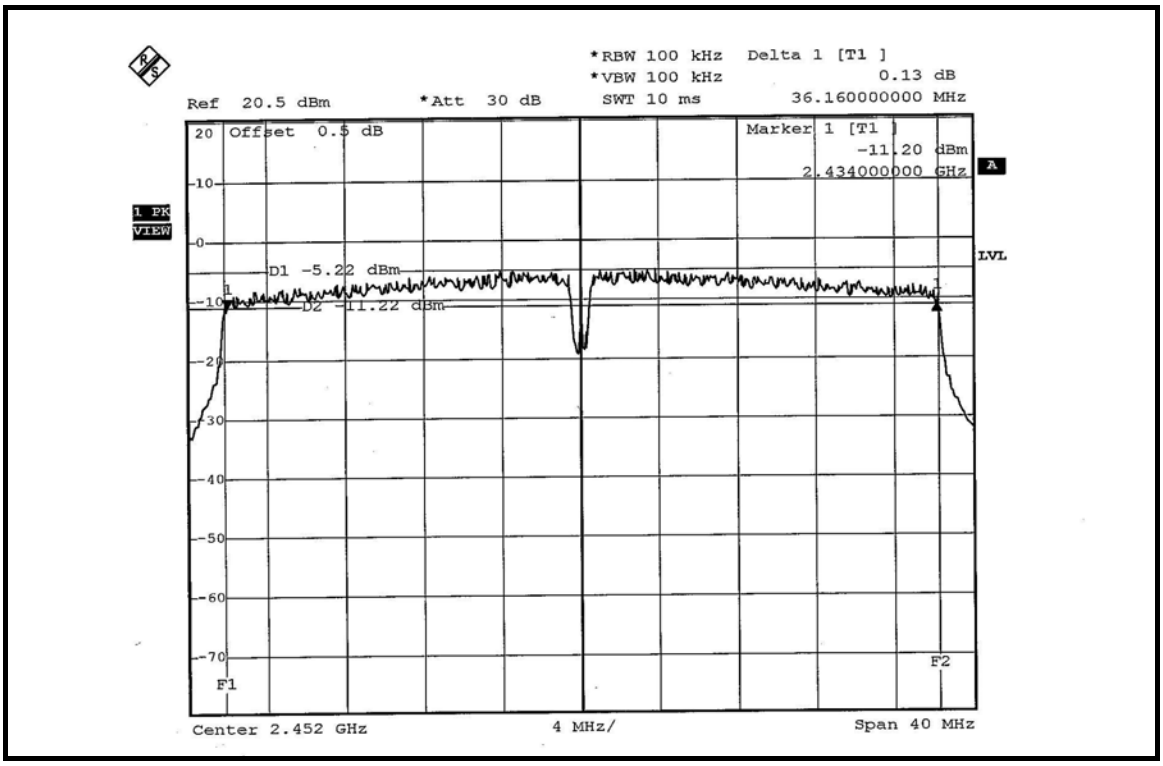
CH 1



CH 4


*RBW 100 kHz
*VBW 100 kHz
SWT 10 ms
Delta 1 [T1]
-0.25 dB
36.320000000 MHz
Ref 20.5 dBm
*Att 30 dB
Offset 0.5 dB
Marker 1 [T1]
-8.96 dBm
2.418840000 GHz
1 PK
VIEW
D1 -3.31 dBm
D2 -3.31 dBm
LVL
F1
F2
Center 2.437 GHz
4 MHz/
Span 40 MHz

CH 7

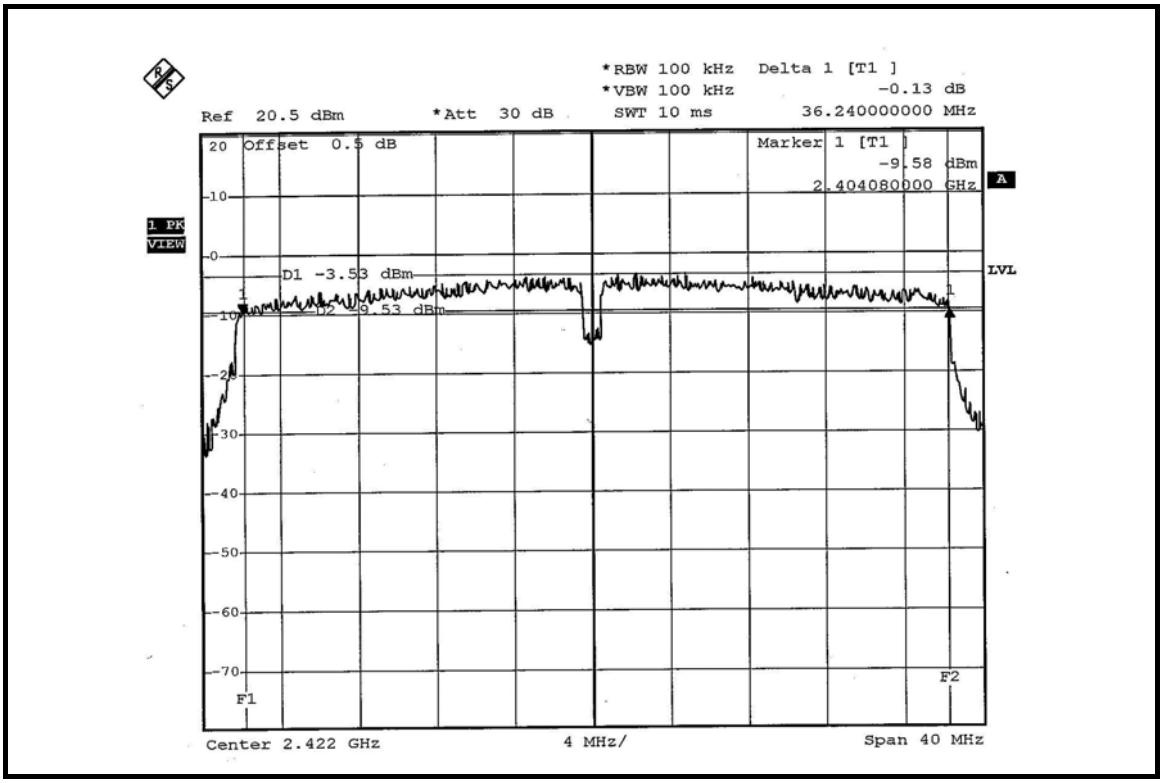

*RBW 100 kHz
*VBW 100 kHz
SWT 10 ms
Delta 1 [T1]
0.13 dB
36.160000000 MHz
Ref 20.5 dBm
*Att 30 dB
Offset 0.5 dB
Marker 1 [T1]
-11.20 dBm
2.434000000 GHz
1 PK
VIEW
D1 -5.22 dBm
D2 -11.22 dBm
LVL
F1
F2
Center 2.452 GHz
4 MHz/
Span 40 MHz

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

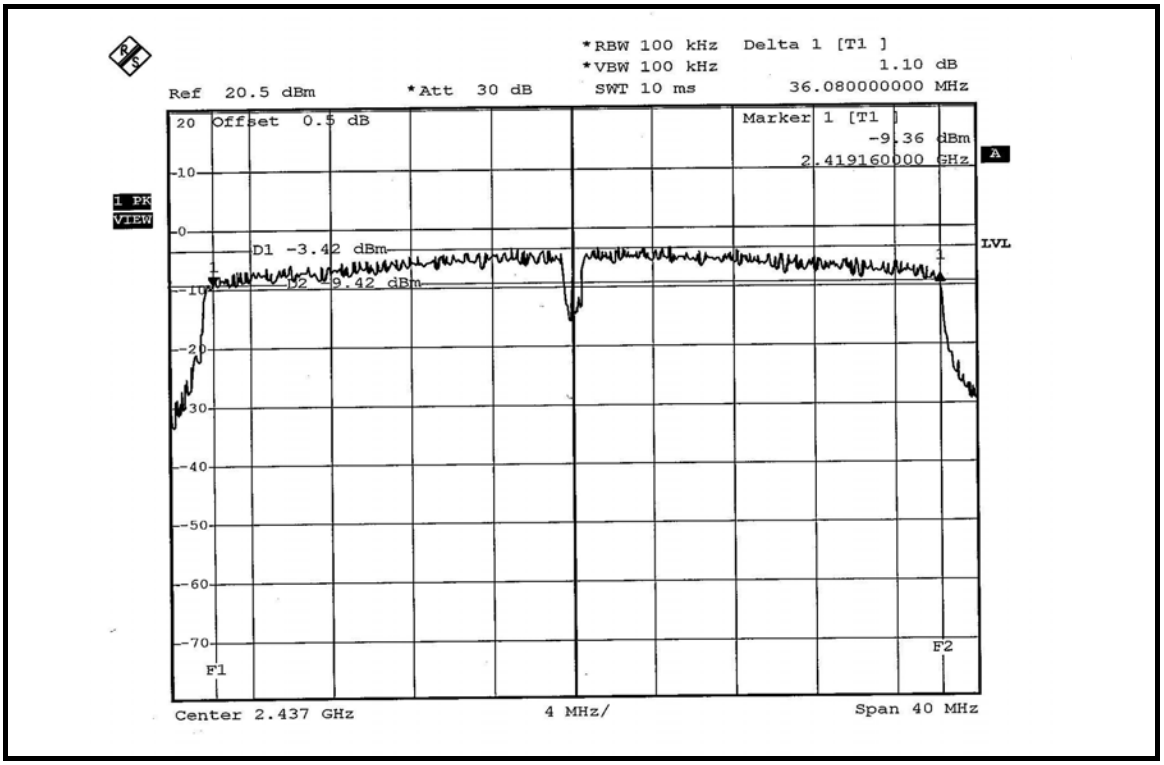
MODULATION TYPE	BPSK	**TRANSFER RATE**	30Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	25deg.C, 63%RH, 991hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2422	36.24	36.40	0.5	PASS
4	2437	36.08	36.32	0.5	PASS
7	2452	36.32	36.24	0.5	PASS

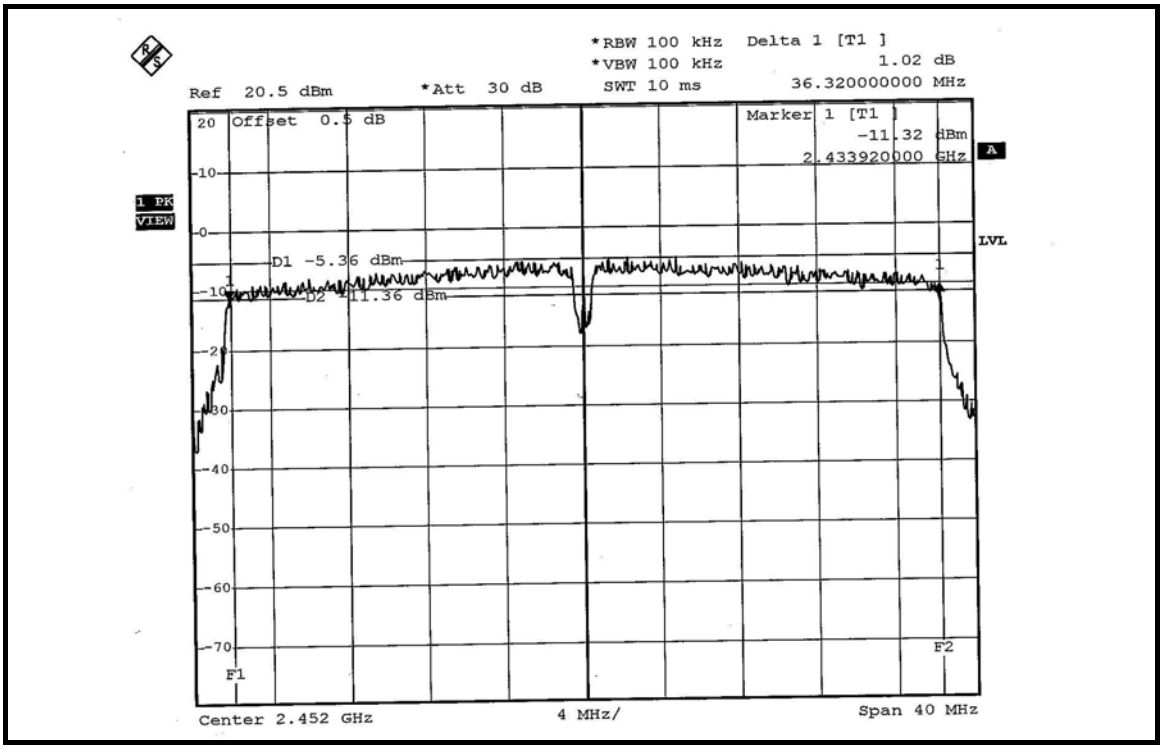
FOR CHAIN 0: CH 1



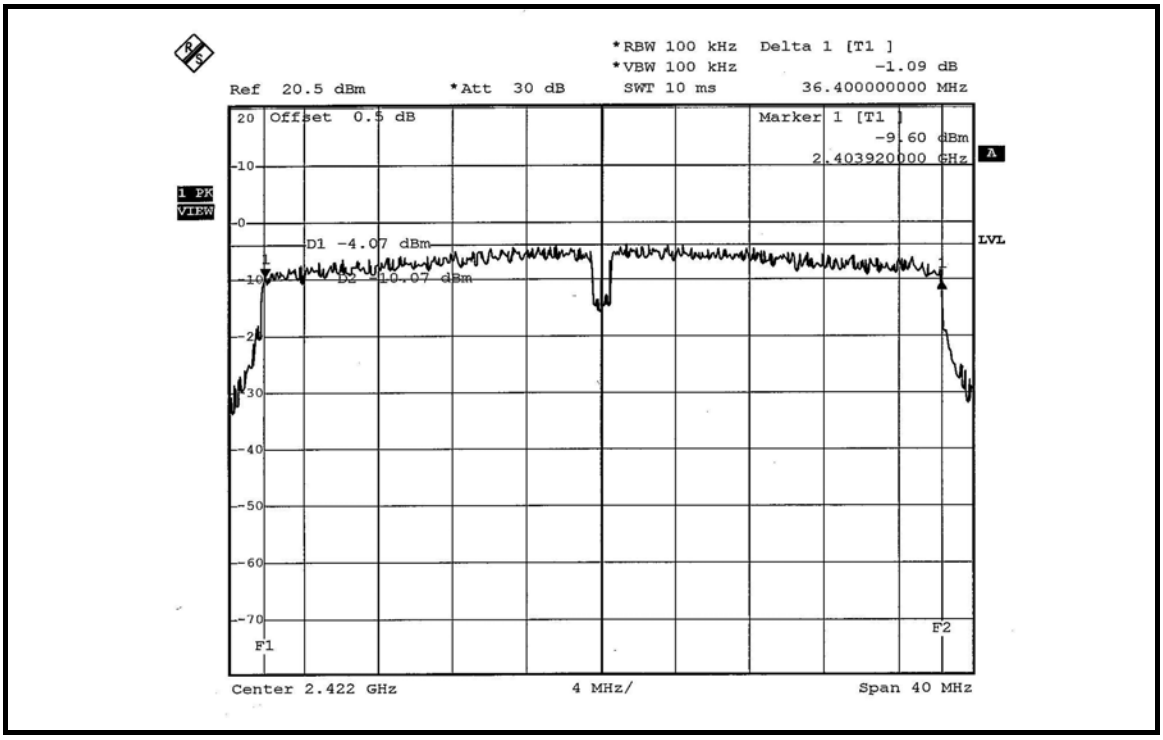
CH 4


*RBW 100 kHz
*VBW 100 kHz
SWT 10 ms
Delta 1 [T1]
1.10 dB
36.080000000 MHz
Ref 20.5 dBm
*Att 30 dB
Offset 0.5 dB
Marker 1 [T1]
-9.36 dBm
2.419160000 GHz
1 PK
VIEW
A
LVL
D1 -3.42 dBm
D2 -9.42 dBm
F1
F2
Center 2.437 GHz
4 MHz/
Span 40 MHz

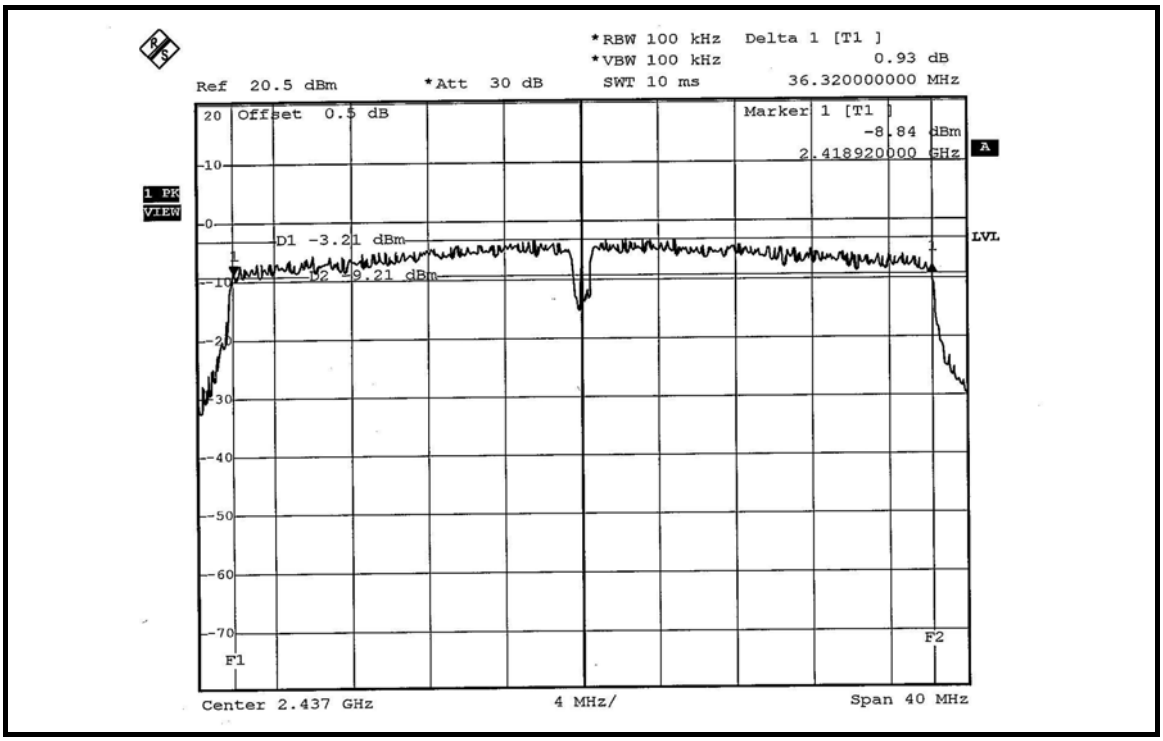
CH 7


*RBW 100 kHz
*VBW 100 kHz
SWT 10 ms
Delta 1 [T1]
1.02 dB
36.320000000 MHz
Ref 20.5 dBm
*Att 30 dB
Offset 0.5 dB
Marker 1 [T1]
-11.32 dBm
2.433920000 GHz
1 PK
VIEW
A
LVL
D1 -5.36 dBm
D2 -11.36 dBm
F1
F2
Center 2.452 GHz
4 MHz/
Span 40 MHz

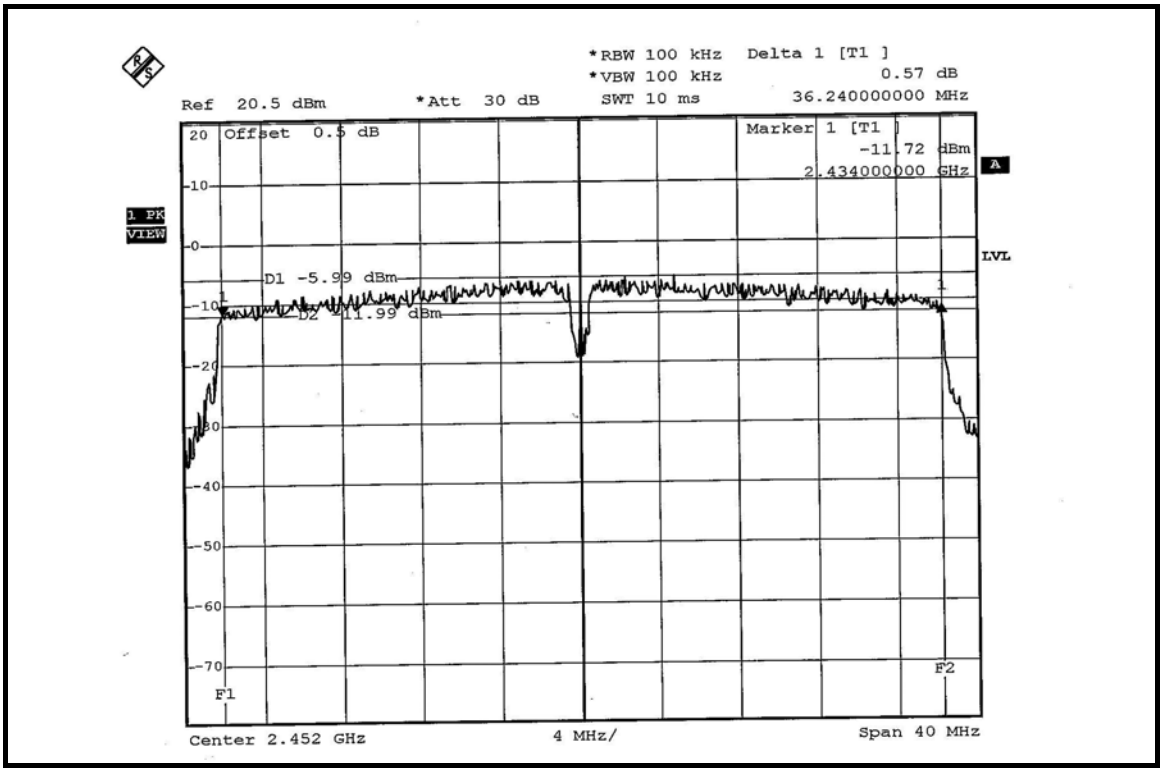
FOR CHAIN 1: CH 1



CH 4



CH 7


*RBW 100 kHz
*VBW 100 kHz
SWT 10 ms
Delta 1 [T1]
0.57 dB
36.240000000 MHz
Ref 20.5 dBm
*Att 30 dB
Offset 0.5 dB
Marker 1 [T1]
-11.72 dBm
2.434000000 GHz
1 PK
VIEW
A
LVL
D1 -5.99 dBm
D2 -11.99 dBm
F1
F2
Center 2.452 GHz
4 MHz/
Span 40 MHz

4.4 MAXIMUM PEAK OUTPUT POWER

4.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

4.4.2 INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006
AGILENT SIGNAL GENERATOR	E8257C	MY43320668	Dec. 07, 2006
DIGITAL RT OSCILLOSCOPE	TDS1012	C037299	Nov. 28, 2006
NARDA DETECTOR	4503A	FSCM99899	NA

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

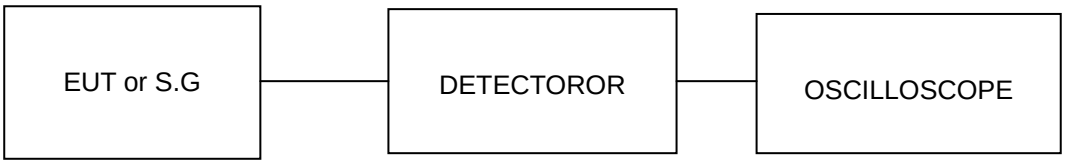
4.4.3 TEST PROCEDURES

1. A detector was used on the output port of the EUT. An oscilloscope was used to read the response of the detector.
2. Replaced the EUT by the signal generator. The center frequency of the S.G was adjusted to the center frequency of the measured channel.
3. Adjusted the power to have the same reading on oscilloscope. Record the power level.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation

4.4.5 TEST SETUP



4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6