



FCC TEST REPORT

REPORT NO.: RF950424L13

MODEL NO.: WNR834M

RECEIVED: Mar. 27, 2006

TESTED: Mar. 27 ~ May 06, 2006

ISSUED: May 08, 2006

APPLICANT: Netgear Incorporated

ADDRESS: 4500 Great America Parkway Santa Clara,
CA 95054, 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.

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No. 2177-01



0528



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1. CERTIFICATION

PRODUCT : RangeMax NEXT Wireless mPCI
MODEL NO.: WNR834M
BRAND: NETGEAR
APPLICANT : Netgear Incorporated
TESTED: Mar. 27 ~ May 06, 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 : Andrea Hsia, **DATE:** May 08, 2006
Andrea Hsia

TECHNICAL ACCEPTANCE : Long Chen, **DATE:** May 08, 2006
Responsible for RF Long Chen

APPROVED BY : Gary Chang, **DATE:** May 08, 2006
Gary Chang / Supervisor

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -18.01dB at 0.189MHz.
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit : min. 500kHz	PASS	Meet the requirement of limit.
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit.
15.247(d)	Transmitter Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -1.00dB at 4824.00MHz.
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Band Edge Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.

2.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz ~ 30MHz	2.44dB
Radiated emissions	30MHz ~ 200MHz	3.73dB
	200MHz ~ 1000MHz	3.74dB
	1GHz ~ 18GHz	2.20dB
	18GHz ~ 40GHz	1.88dB

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	RangeMax NEXT Wireless mPCI
MODEL NO.	WNR834M
FCC ID	PY306100038
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	102.103mW
ANTENNA TYPE	Dipole antenna with 2.18dBi 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

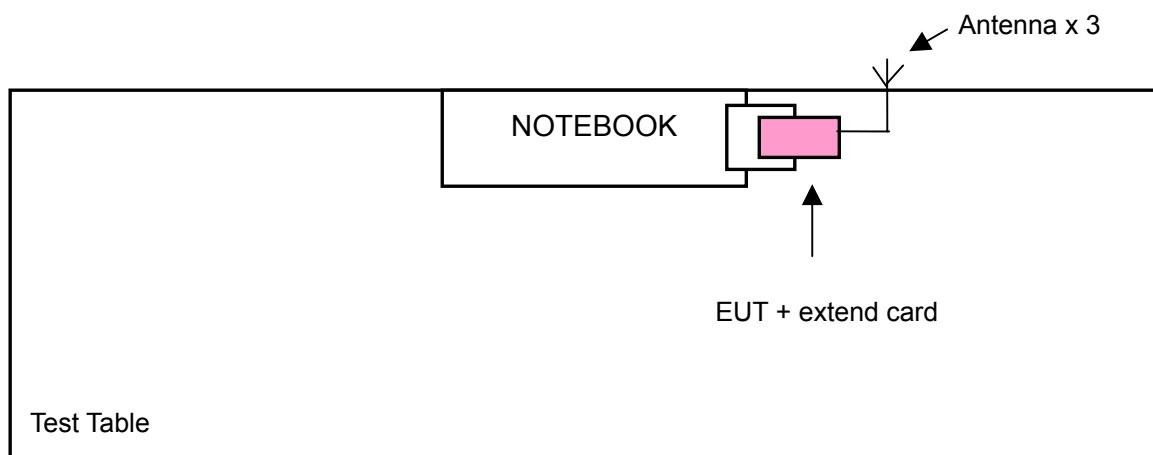
Eleven channels are provided for 802.11b, 802.11g, draft 802.11n (20MHz):

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
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1	Dual
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	Single
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	Dual
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
802.11b	1 to 11	1, 11	DSSS	DBPSK	1	Dual
802.11g	1 to 11	1, 11	OFDM	BPSK	6	Single
802.11g	1 to 11	1, 11	OFDM	BPSK	6	Dual
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
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1	Dual
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	Single
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6	Dual
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	12130898320	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 (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

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

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	100291	Nov. 11, 2006
RF signal cable Woken	5D-FB	Cable-HYC01-01	Jan. 06, 2007
LISN ROHDE & SCHWARZ	ESH3-Z5	100312	Feb. 15, 2007
LISN ROHDE & SCHWARZ	ESH2-Z5	100104	Feb. 07, 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 1.
 3. The VCCI Site Registration No. is C-2040.

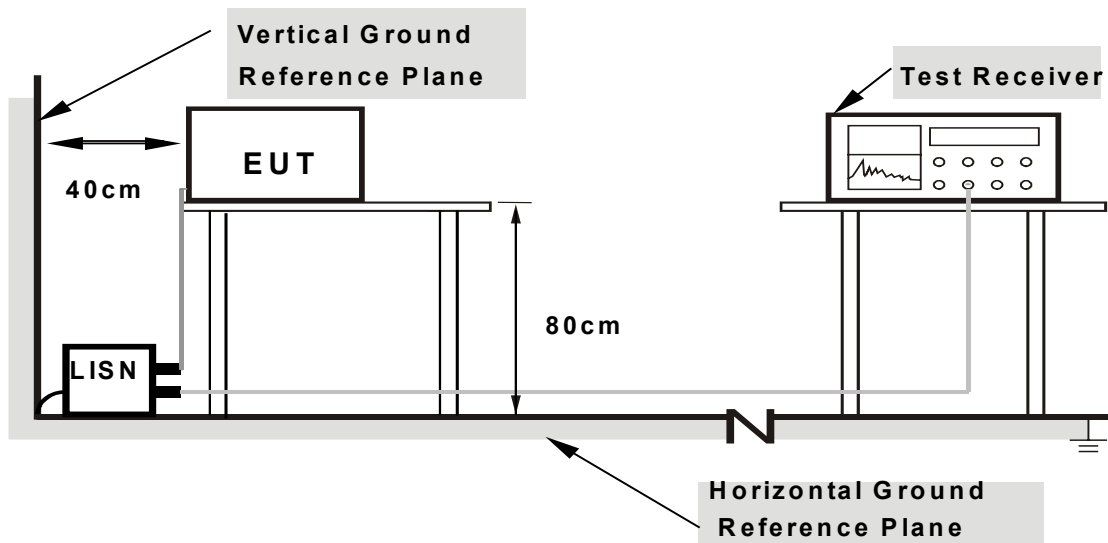
4.1.3 TEST PROCEDURES

- 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.

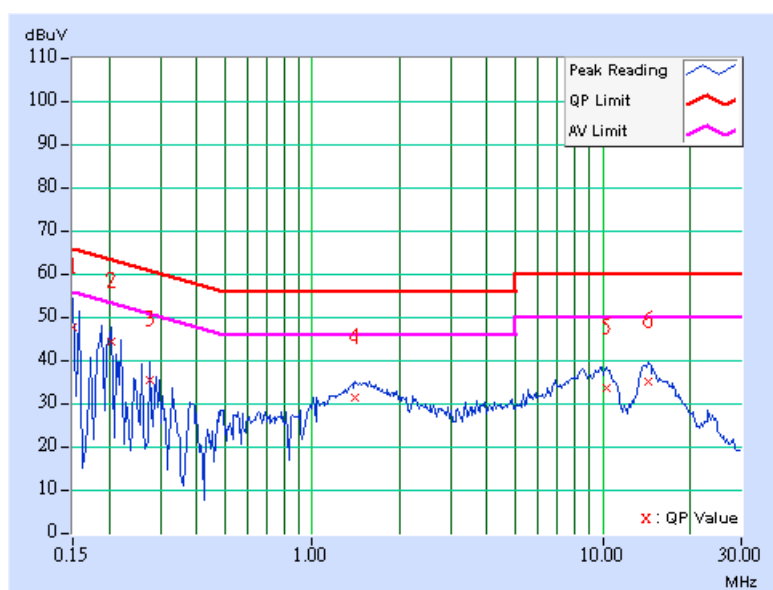
4.1.7 TEST RESULTS

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	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

No	FREQ.	CORR.	READING VALUE		EMISSION LEVEL		LIMIT		MARGIN	
	[MHz]	Factor (dB)	Q.P. [dB (uV)]	AV. [dB (uV)]	Q.P. [dB (uV)]	AV. [dB (uV)]	Q.P. [dB (uV)]	AV. [dB (uV)]	Q.P. (dB)	AV. (dB)
1	0.150	0.10	47.02	-	47.12	-	66.00	56.00	-18.88	-
2	0.205	0.10	43.98	-	44.08	-	63.42	53.42	-19.34	-
3	0.275	0.10	35.02	-	35.12	-	60.97	50.97	-25.85	-
4	1.410	0.20	30.92	-	31.12	-	56.00	46.00	-24.88	-
5	10.262	0.47	33.28	-	33.75	-	60.00	50.00	-26.25	-
6	14.332	0.61	34.62	-	35.23	-	60.00	50.00	-24.77	-

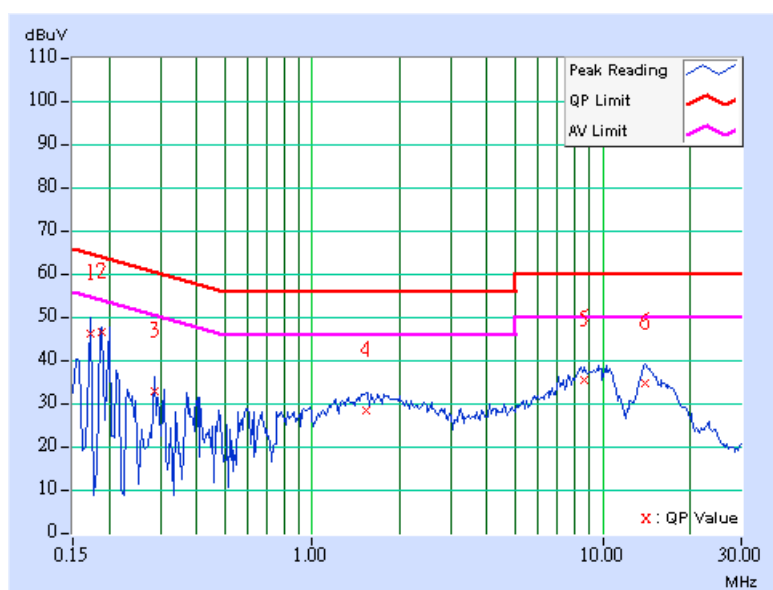
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

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	0.173	0.10	45.86	-	45.96	-	64.79	54.79	-18.83	-
2	0.189	0.10	45.97	-	46.07	-	64.08	54.08	-18.01	-
3	0.287	0.10	32.32	-	32.42	-	60.62	50.62	-28.20	-
4	1.535	0.15	28.14	-	28.29	-	56.00	46.00	-27.71	-
5	8.648	0.44	35.12	-	35.56	-	60.00	50.00	-24.44	-
6	14.020	0.52	34.20	-	34.72	-	60.00	50.00	-25.28	-

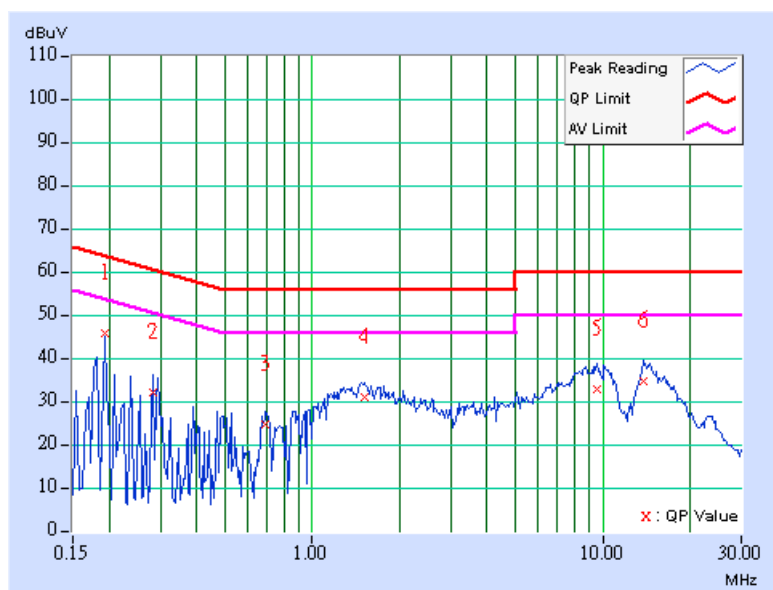
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 1
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

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	0.193	0.10	45.43	-	45.53	-	63.91	53.91	-18.38	-
2	0.283	0.10	31.75	-	31.85	-	60.73	50.73	-28.88	-
3	0.693	0.15	24.34	-	24.49	-	56.00	46.00	-31.51	-
4	1.520	0.20	30.51	-	30.71	-	56.00	46.00	-25.29	-
5	9.574	0.46	32.24	-	32.70	-	60.00	50.00	-27.30	-
6	13.785	0.59	34.31	-	34.90	-	60.00	50.00	-25.10	-

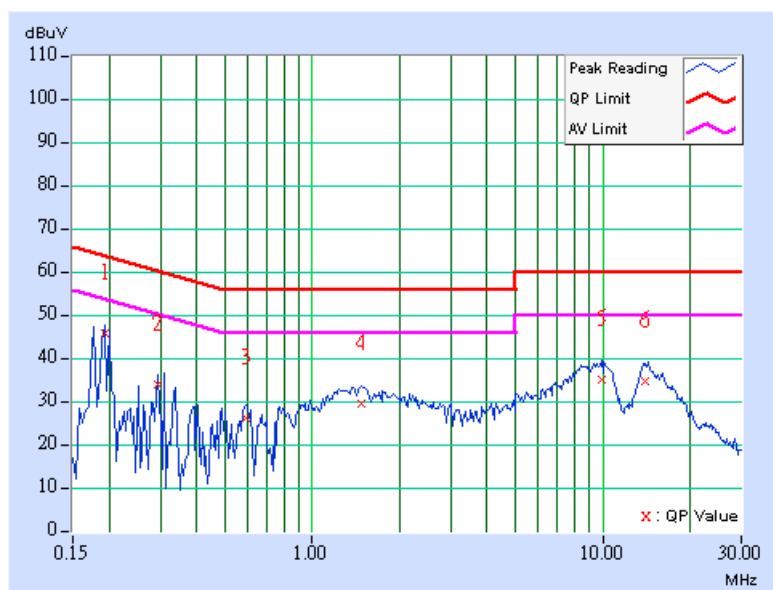
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

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	0.193	0.10	45.36	-	45.46	-	63.92	53.92	-18.46	-
2	0.295	0.10	33.46	-	33.56	-	60.40	50.40	-26.84	-
3	0.591	0.10	25.96	-	26.06	-	56.00	46.00	-29.94	-
4	1.469	0.15	29.00	-	29.15	-	56.00	46.00	-26.85	-
5	9.926	0.46	34.77	-	35.23	-	60.00	50.00	-24.77	-
6	14.070	0.52	34.44	-	34.96	-	60.00	50.00	-25.04	-

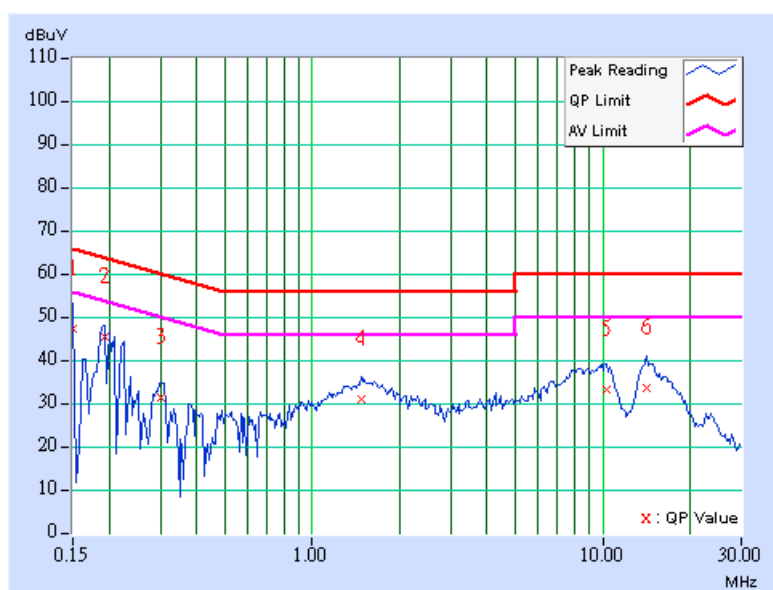
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

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	46.88	-	46.98	-	66.00	56.00	-19.02	-
2	0.193	0.10	45.11	-	45.21	-	63.91	53.91	-18.70	-
3	0.302	0.10	30.82	-	30.92	-	60.18	50.18	-29.26	-
4	1.473	0.20	30.62	-	30.82	-	56.00	46.00	-25.18	-
5	10.340	0.47	32.69	-	33.16	-	60.00	50.00	-26.84	-
6	14.227	0.60	33.06	-	33.66	-	60.00	50.00	-26.34	-

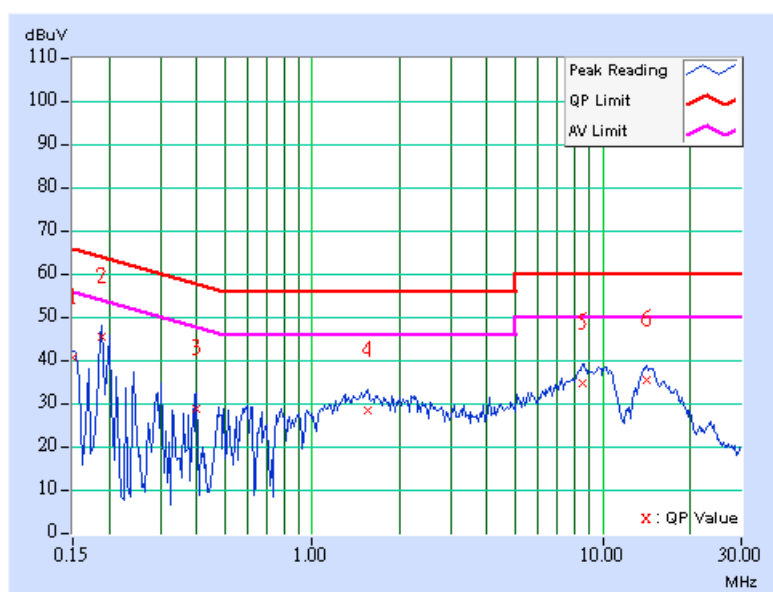
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

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	40.12	-	40.22	-	66.00	56.00	-25.78	-
2	0.189	0.10	45.07	-	45.17	-	64.08	54.08	-18.91	-
3	0.400	0.10	28.50	-	28.60	-	57.85	47.85	-29.25	-
4	1.559	0.16	28.09	-	28.25	-	56.00	46.00	-27.75	-
5	8.484	0.44	34.48	-	34.92	-	60.00	50.00	-25.08	-
6	14.113	0.52	34.92	-	35.44	-	60.00	50.00	-24.56	-

- 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.

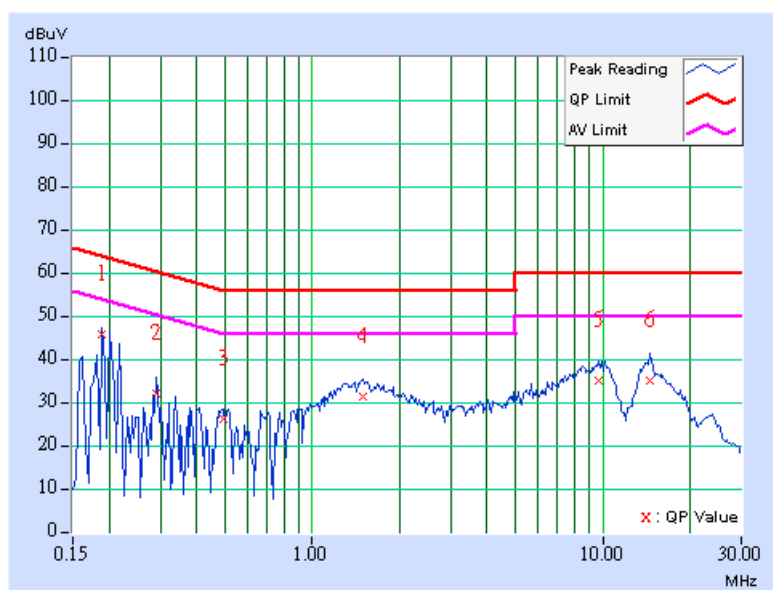


DRAFT 802.11n (20MHz) OFDM MODULATION:

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	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

No	FREQ. [MHz]	CORR. Factor (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.189	0.10	45.18	-	45.28	-	64.08	54.08	-18.80	-
2	0.291	0.10	31.74	-	31.84	-	60.51	50.51	-28.67	-
3	0.494	0.12	25.59	-	25.71	-	56.10	46.10	-30.40	-
4	1.496	0.20	30.73	-	30.93	-	56.00	46.00	-25.07	-
5	9.723	0.46	34.68	-	35.14	-	60.00	50.00	-24.86	-
6	14.578	0.62	34.58	-	35.20	-	60.00	50.00	-24.80	-

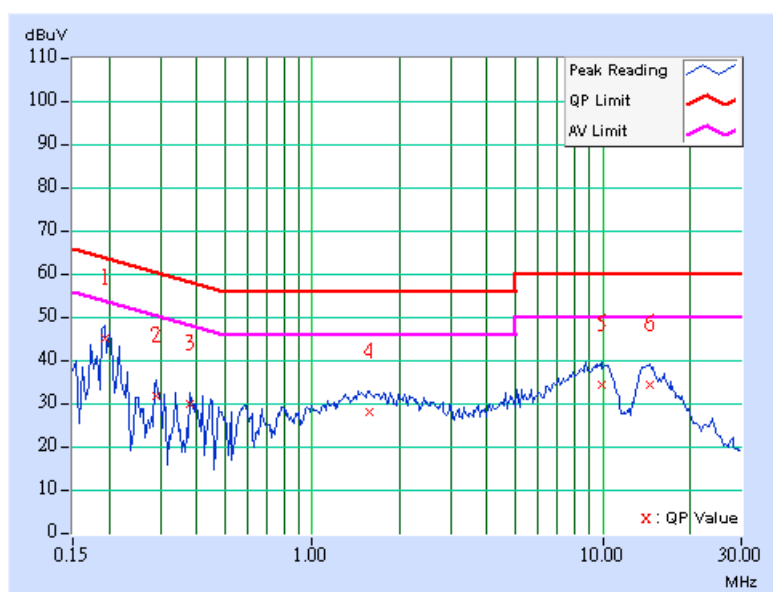
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

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	0.193	0.10	44.79	-	44.89	-	63.91	53.91	-19.02	-
2	0.291	0.10	31.42	-	31.52	-	60.51	50.51	-28.99	-
3	0.380	0.10	29.44	-	29.54	-	58.27	48.27	-28.73	-
4	1.566	0.16	27.59	-	27.75	-	56.00	46.00	-28.25	-
5	9.977	0.46	34.03	-	34.49	-	60.00	50.00	-25.51	-
6	14.570	0.52	34.08	-	34.60	-	60.00	50.00	-25.40	-

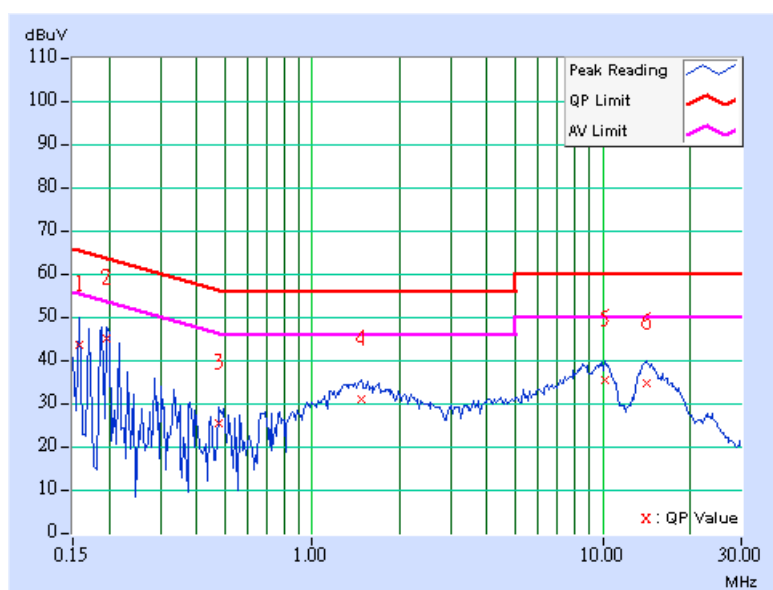
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

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	43.25	-	43.35	-	65.58	55.58	-22.23	-
2	0.197	0.10	44.64	-	44.74	-	63.74	53.74	-19.00	-
3	0.478	0.11	25.12	-	25.23	-	56.37	46.37	-31.14	-
4	1.473	0.20	30.50	-	30.70	-	56.00	46.00	-25.30	-
5	10.184	0.47	34.80	-	35.27	-	60.00	50.00	-24.73	-
6	14.094	0.60	34.18	-	34.78	-	60.00	50.00	-25.22	-

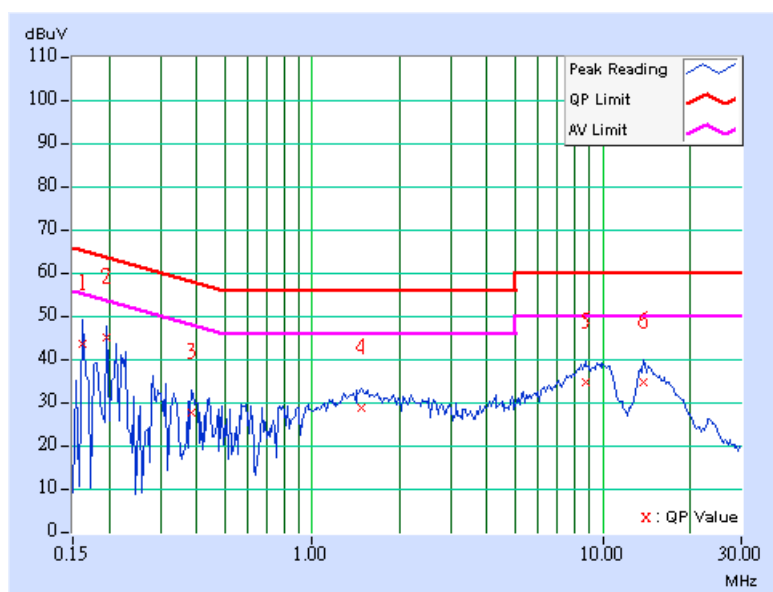
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

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	43.31	-	43.41	-	65.38	55.38	-21.97	-
2	0.197	0.10	44.66	-	44.76	-	63.74	53.74	-18.98	-
3	0.384	0.10	27.36	-	27.46	-	58.18	48.18	-30.72	-
4	1.480	0.15	28.43	-	28.58	-	56.00	46.00	-27.42	-
5	8.711	0.44	34.37	-	34.81	-	60.00	50.00	-25.19	-
6	13.797	0.51	34.29	-	34.80	-	60.00	50.00	-25.20	-

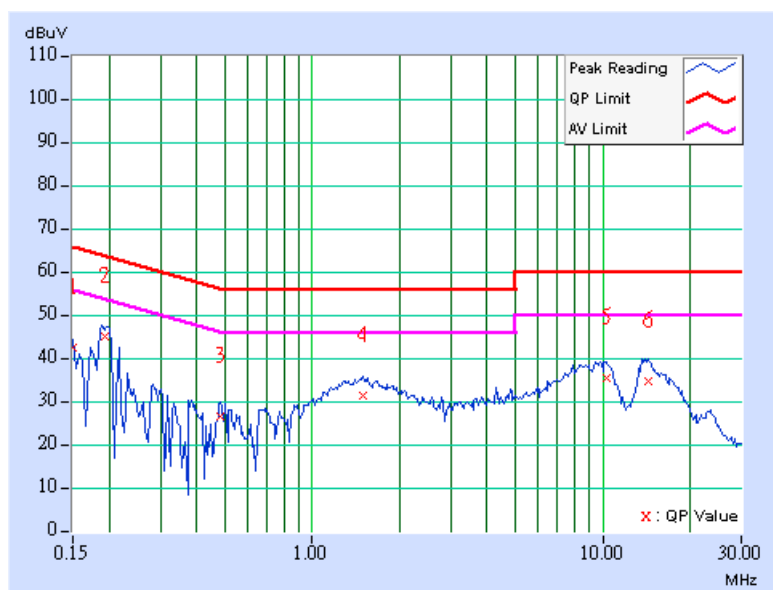
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

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	41.90	-	42.00	-	66.00	56.00	-24.00	-
2	0.194	0.10	44.43	-	44.53	-	63.86	53.86	-19.33	-
3	0.482	0.11	25.94	-	26.05	-	56.30	46.30	-30.25	-
4	1.492	0.20	30.98	-	31.18	-	56.00	46.00	-24.82	-
5	10.320	0.47	34.99	-	35.46	-	60.00	50.00	-24.54	-
6	14.441	0.61	34.33	-	34.94	-	60.00	50.00	-25.06	-

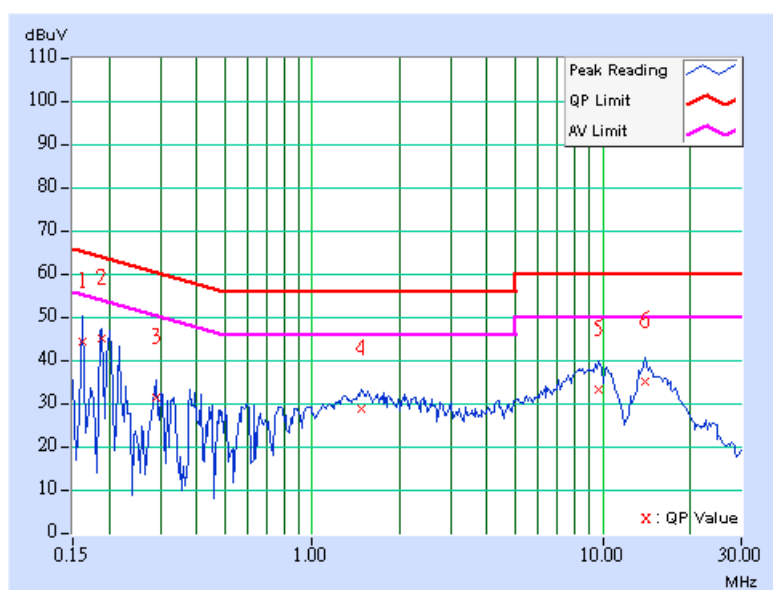
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

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	43.83	-	43.93	-	65.38	55.38	-21.45	-
2	0.189	0.10	44.78	-	44.88	-	64.08	54.08	-19.20	-
3	0.291	0.10	31.06	-	31.16	-	60.51	50.51	-29.35	-
4	1.477	0.15	28.39	-	28.54	-	56.00	46.00	-27.46	-
5	9.707	0.46	32.90	-	33.36	-	60.00	50.00	-26.64	-
6	13.965	0.52	34.56	-	35.08	-	60.00	50.00	-24.92	-

- 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.

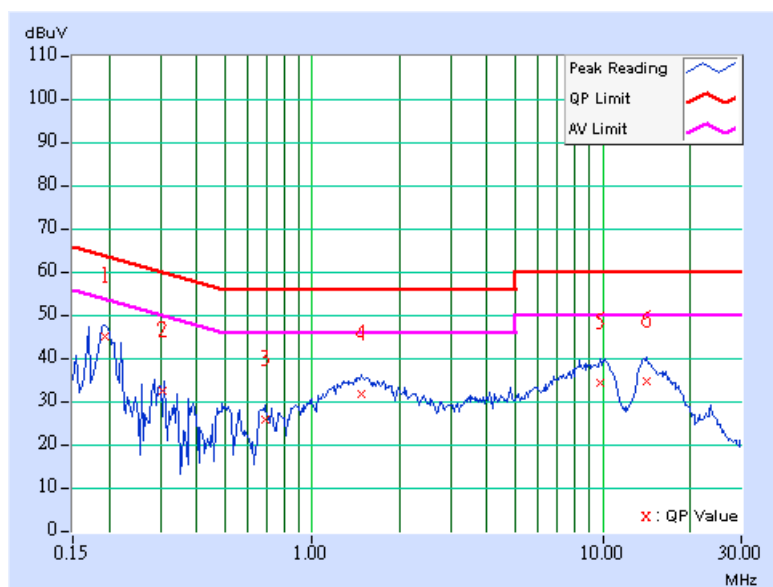


DRAFT 802.11n (40MHz) OFDM MODULATION:

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	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

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	0.193	0.10	44.76	-	44.86	-	63.91	53.91	-19.05	-
2	0.304	0.10	31.96	-	32.06	-	60.14	50.14	-28.08	-
3	0.685	0.15	25.42	-	25.57	-	56.00	46.00	-30.43	-
4	1.480	0.20	31.27	-	31.47	-	56.00	46.00	-24.53	-
5	9.852	0.46	33.90	-	34.36	-	60.00	50.00	-25.64	-
6	14.133	0.60	34.09	-	34.69	-	60.00	50.00	-25.31	-

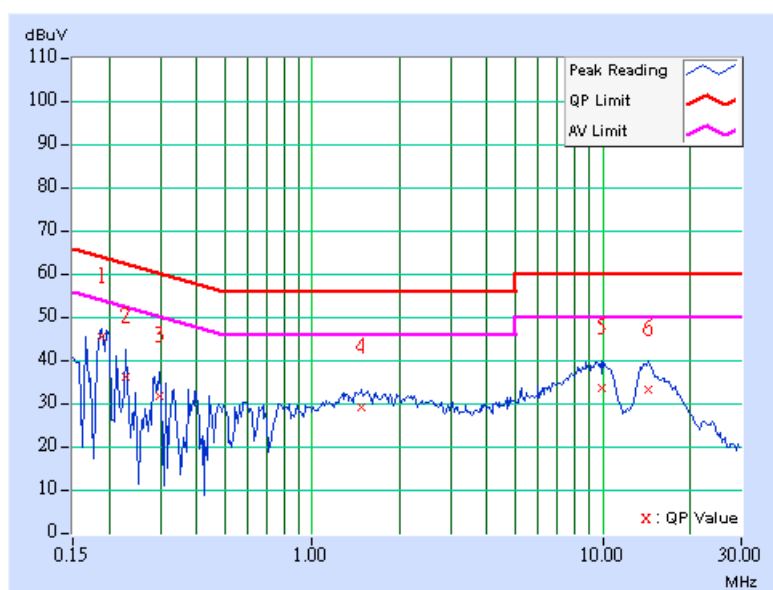
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 2
MODULATION TYPE	BPSK	6dB BANDWIDTH	9 kHz
TRANSFER RATE	30Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

No	FREQ. [MHz]	CORR. Factor (dB)	READING VALUE [dB (uV)]		EMISSION LEVEL [dB (uV)]		LIMIT [dB (uV)]		MARGIN (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.189	0.10	45.01	-	45.11	-	64.08	54.08	-18.97	-
2	0.228	0.10	35.94	-	36.04	-	62.52	52.52	-26.48	-
3	0.298	0.10	31.44	-	31.54	-	60.29	50.29	-28.75	-
4	1.484	0.15	28.69	-	28.84	-	56.00	46.00	-27.16	-
5	9.930	0.46	33.15	-	33.61	-	60.00	50.00	-26.39	-
6	14.332	0.52	32.80	-	33.32	-	60.00	50.00	-26.68	-

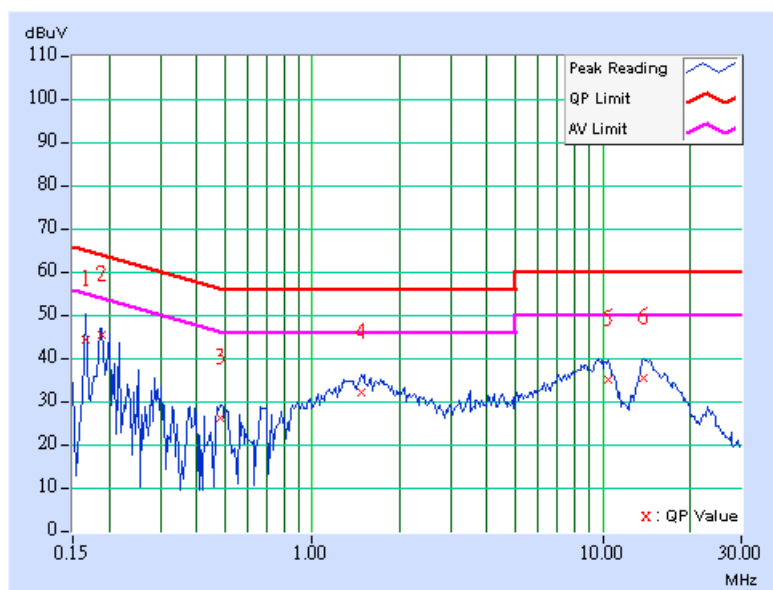
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

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	44.01	-	44.11	-	65.18	55.18	-21.07	-
2	0.189	0.10	44.92	-	45.02	-	64.08	54.08	-19.06	-
3	0.482	0.11	25.89	-	26.00	-	56.30	46.30	-30.30	-
4	1.480	0.20	31.51	-	31.71	-	56.00	46.00	-24.29	-
5	10.438	0.47	34.49	-	34.96	-	60.00	50.00	-25.04	-
6	13.816	0.59	34.79	-	35.38	-	60.00	50.00	-24.62	-

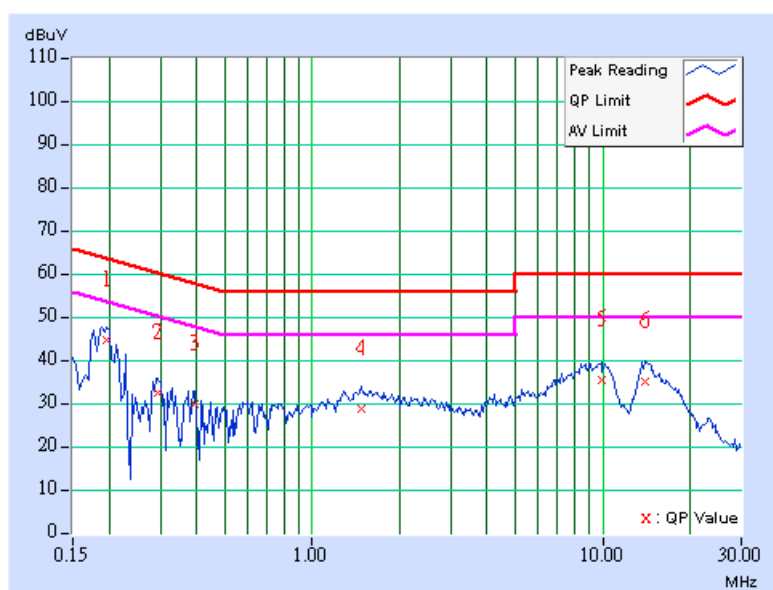
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

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	0.197	0.10	44.13	-	44.23	-	63.74	53.74	-19.51	-
2	0.295	0.10	31.96	-	32.06	-	60.40	50.40	-28.34	-
3	0.396	0.10	29.65	-	29.75	-	57.93	47.93	-28.18	-
4	1.469	0.15	28.37	-	28.52	-	56.00	46.00	-27.48	-
5	9.961	0.46	35.09	-	35.55	-	60.00	50.00	-24.45	-
6	14.023	0.52	34.82	-	35.34	-	60.00	50.00	-24.66	-

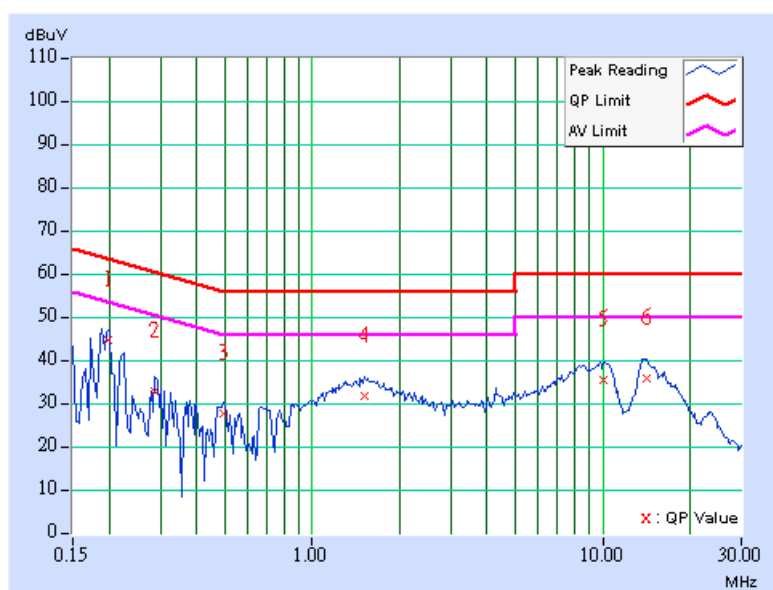
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

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	0.198	0.10	44.13	-	44.23	-	63.68	53.68	-19.45	-
2	0.287	0.10	32.18	-	32.28	-	60.62	50.62	-28.34	-
3	0.494	0.12	27.02	-	27.14	-	56.10	46.10	-28.97	-
4	1.520	0.20	31.16	-	31.36	-	56.00	46.00	-24.64	-
5	10.031	0.46	35.11	-	35.57	-	60.00	50.00	-24.43	-
6	14.117	0.60	35.27	-	35.87	-	60.00	50.00	-24.13	-

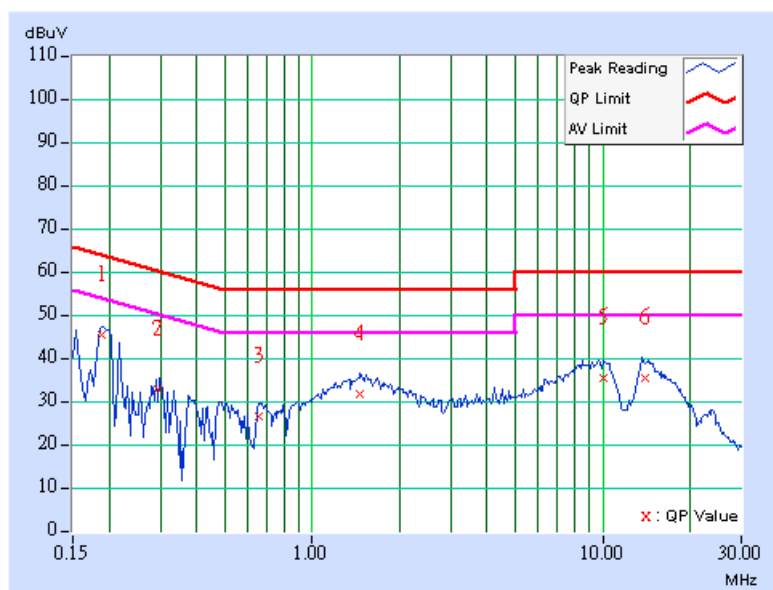
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = 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	22deg. C, 75%RH, 991hPa	TESTED BY	Scott Yang

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	44.93	-	45.03	-	64.08	54.08	-19.05	-
2	0.296	0.10	32.28	-	32.38	-	60.36	50.36	-27.98	-
3	0.658	0.10	26.04	-	26.14	-	56.00	46.00	-29.86	-
4	1.465	0.15	31.27	-	31.42	-	56.00	46.00	-24.58	-
5	10.105	0.46	35.06	-	35.52	-	60.00	50.00	-24.48	-
6	13.945	0.52	35.10	-	35.62	-	60.00	50.00	-24.38	-

- 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	ESI7	838496/016	Jan. 01, 2007
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100041	Dec. 04, 2006
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Jan. 15, 2007
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-404	Jan. 01, 2007
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 19, 2007
Preamplifier Agilent	8449B	3008A01960	Nov. 09, 2006
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	219268/4	Dec. 20, 2006
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	230129/4	Dec. 20, 2006
Software ADT.	ADT_Radiated_V5.14	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA
Antenna Tower Controller inn-co GmbH	CO2000	019303	NA
Turn Table ADT.	TT100.	TT93021704	NA
Turn Table Controller ADT.	SC100.	SC93021704	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 3.
 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 IC4924-4.

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.

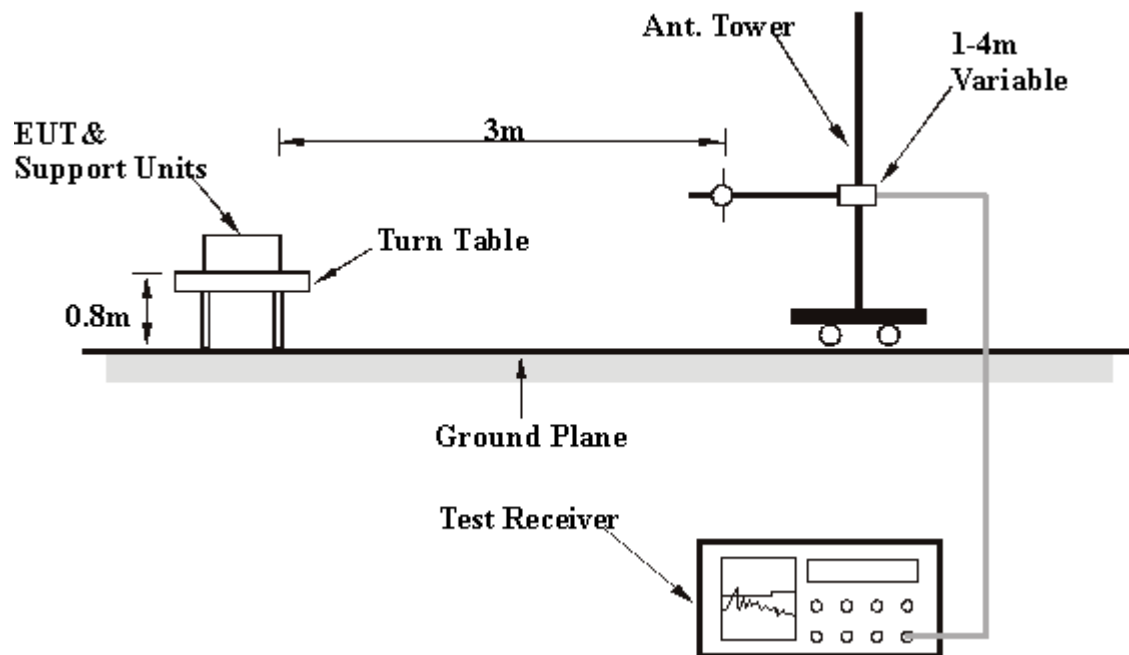
NOTE:

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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	133.03	38.16 QP	43.50	-5.34	1.00 H	157	25.61	12.55
2	166.07	37.69 QP	43.50	-5.81	1.00 H	157	24.86	12.83
3	199.12	42.31 QP	43.50	-1.19	1.00 H	157	31.50	10.81
4	265.21	43.32 QP	46.00	-2.68	1.00 H	157	30.01	13.31
5	333.25	40.39 QP	46.00	-5.61	1.50 H	151	24.51	15.89
6	465.43	39.55 QP	46.00	-6.45	1.75 H	148	20.47	19.08

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	31.94	37.34 QP	40.00	-2.66	1.00 V	133	24.76	12.58
2	331.30	31.30 QP	46.00	-14.70	1.00 V	118	15.44	15.86
3	465.43	33.66 QP	46.00	-12.34	1.25 V	10	14.58	19.08
4	599.56	32.37 QP	46.00	-13.63	1.00 V	289	9.84	22.54
5	640.38	33.82 QP	46.00	-12.18	1.00 V	271	10.81	23.01
6	799.78	35.88 QP	46.00	-10.12	1.00 V	115	9.77	26.11

- 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, 62%RH, 991hPa	TESTED BY	Brad Wu

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	133.03	39.45 QP	43.50	-4.05	1.00 H	220	26.90	12.55
2	166.07	41.69 QP	43.50	-1.81	1.50 H	226	28.86	12.83
3	199.12	41.75 QP	43.50	-1.75	1.25 H	135	30.94	10.81
4	232.16	41.02 QP	46.00	-4.98	1.25 H	323	29.18	11.84
5	265.21	42.05 QP	46.00	-3.95	1.25 H	226	28.75	13.31
6	799.78	38.77 QP	46.00	-7.23	1.25 H	109	12.66	26.11

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	31.94	38.26 QP	40.00	-1.74	1.00 V	277	25.68	12.58
2	64.99	37.25 QP	40.00	-2.75	1.00 V	277	24.67	12.58
3	99.98	38.38 QP	43.50	-5.12	1.50 V	220	29.38	9.00
4	467.37	33.89 QP	46.00	-12.11	1.25 V	28	14.76	19.13
5	640.38	33.30 QP	46.00	-12.70	1.00 V	310	10.29	23.01
6	799.78	38.12 QP	46.00	-7.88	1.00 V	79	12.01	26.11

- 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, 62%RH, 991hPa	TESTED BY	Brad Wu

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	133.03	39.47 QP	43.50	-4.03	1.00 H	103	26.92	12.55
2	166.07	41.33 QP	43.50	-2.17	1.00 H	103	28.50	12.83
3	199.12	41.48 QP	43.50	-2.02	1.50 H	103	30.67	10.81
4	232.16	41.79 QP	46.00	-4.21	1.50 H	103	29.95	11.84
5	265.21	42.51 QP	46.00	-3.49	1.50 H	103	29.20	13.31
6	465.43	36.99 QP	46.00	-9.01	1.50 H	145	17.91	19.08

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	31.94	38.45 QP	40.00	-1.55	1.50 V	25	25.87	12.58
2	64.99	36.67 QP	40.00	-3.33	1.00 V	13	24.09	12.58
3	98.04	38.75 QP	43.50	-4.75	1.00 V	15	29.75	9.00
4	133.03	34.37 QP	43.50	-9.13	1.00 V	103	21.82	12.55
5	199.12	34.20 QP	43.50	-9.30	1.00 V	103	23.39	10.81
6	799.78	37.82 QP	46.00	-8.18	1.75 V	118	11.71	26.11

- 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, 62%RH, 991hPa	TESTED BY	Brad Wu

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	64.99	33.24 QP	40.00	-6.76	1.25 H	58	20.66	12.58
2	133.03	39.70 QP	43.50	-3.80	1.00 H	77	27.15	12.55
3	166.07	41.84 QP	43.50	-1.66	1.00 H	62	29.01	12.83
4	199.12	42.12 QP	43.50	-1.38	1.00 H	154	31.31	10.81
5	232.16	40.93 QP	46.00	-5.07	1.00 H	85	29.09	11.84
6	265.21	41.73 QP	46.00	-4.27	1.00 H	85	28.42	13.31

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	31.94	38.40 QP	40.00	-1.60	1.00 V	268	25.82	12.58
2	64.99	36.99 QP	40.00	-3.01	1.00 V	268	24.41	12.58
3	99.98	39.17 QP	43.50	-4.33	1.25 V	175	30.17	9.00
4	333.25	32.94 QP	46.00	-13.06	1.75 V	316	17.05	15.89
5	467.37	33.74 QP	46.00	-12.26	1.25 V	25	14.61	19.13
6	799.78	38.17 QP	46.00	-7.83	1.50 V	112	12.06	26.11

- 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, 62%RH, 991hPa	TESTED BY	Brad Wu

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	133.03	40.05 QP	43.50	-3.45	1.50 H	24	27.50	12.55
2	166.07	42.13 QP	43.50	-1.37	1.25 H	13	29.30	12.83
3	199.12	41.66 QP	43.50	-1.84	1.50 H	156	30.85	10.81
4	232.16	41.12 QP	46.00	-4.88	1.25 H	13	29.28	11.84
5	265.21	41.87 QP	46.00	-4.13	1.25 H	206	28.56	13.31
6	799.78	39.41 QP	46.00	-6.59	1.25 H	67	13.31	26.11

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	31.94	38.63 QP	40.00	-1.37	1.25 V	238	26.05	12.58
2	64.99	36.51 QP	40.00	-3.49	1.00 V	238	23.93	12.58
3	99.98	38.56 QP	43.50	-4.94	1.00 V	121	29.57	9.00
4	467.37	33.93 QP	46.00	-12.07	1.25 V	49	14.80	19.13
5	640.38	33.25 QP	46.00	-12.75	1.00 V	259	10.24	23.01
6	799.78	35.80 QP	46.00	-10.20	1.25 V	277	9.69	26.11

- 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: Single TX

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	40.72 PK	74.00	-33.28	1.12 H	256	12.92	27.80
1	1090.00	36.84 AV	54.00	-17.16	1.12 H	256	9.04	27.80
2	2386.00	44.20 PK	74.00	-29.80	1.26 H	179	12.10	32.10
2	2386.00	40.61 AV	54.00	-13.39	1.26 H	179	8.51	32.10
3	*2412.00	96.72 PK			1.26 H	179	64.53	32.19
3	*2412.00	93.13 AV			1.26 H	179	60.94	32.19
4	4824.00	49.92 PK	74.00	-24.08	1.03 H	258	11.27	38.65
4	4824.00	41.06 AV	54.00	-12.94	1.03 H	258	2.41	38.65

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1090.00	43.81 PK	74.00	-30.19	1.04 V	62	16.01	27.80
1	1090.00	39.27 AV	54.00	-14.73	1.04 V	62	11.47	27.80
2	2386.00	56.60 PK	74.00	-17.40	1.10 V	158	24.50	32.10
2	2386.00	52.87 AV	54.00	-1.13	1.10 V	158	20.77	32.10
3	*2412.00	109.12 PK			1.10 V	158	76.93	32.19
3	*2412.00	105.39 AV			1.10 V	158	73.20	32.19
4	4824.00	50.55 PK	74.00	-23.45	1.30 V	84	11.90	38.65
4	4824.00	43.32 AV	54.00	-10.68	1.30 V	84	4.67	38.65

- 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 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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	40.89 PK	74.00	-33.11	1.10 H	251	13.09	27.80
1	1090.00	36.95 AV	54.00	-17.05	1.10 H	251	9.15	27.80
2	*2437.00	99.15 PK			1.24 H	181	66.86	32.29
2	*2437.00	95.57 AV			1.24 H	181	63.28	32.29
3	4874.00	51.24 PK	74.00	-22.76	1.05 H	267	12.45	38.79
3	4874.00	42.43 AV	54.00	-11.57	1.05 H	267	3.64	38.79

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1090.00	43.97 PK	74.00	-30.03	1.05 V	76	16.17	27.80
1	1090.00	39.42 AV	54.00	-14.58	1.05 V	76	11.62	27.80
2	*2437.00	111.64 PK			1.12 V	159	79.35	32.29
2	*2437.00	107.92 AV			1.12 V	159	75.63	32.29
3	4874.00	52.69 PK	74.00	-21.31	1.38 V	96	13.90	38.79
3	4874.00	45.48 AV	54.00	-8.52	1.38 V	96	6.69	38.79

- 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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	40.85 PK	74.00	-33.15	1.10 H	276	13.05	27.80
1	1090.00	36.97 AV	54.00	-17.03	1.10 H	276	9.17	27.80
2	*2462.00	96.35 PK			1.25 H	181	63.97	32.38
2	*2462.00	92.78 AV			1.25 H	181	60.40	32.38
3	2487.00	43.85 PK	74.00	-30.15	1.25 H	181	11.38	32.47
3	2487.00	40.28 AV	54.00	-13.72	1.25 H	181	7.81	32.47
4	4924.00	50.26 PK	74.00	-23.74	1.07 H	233	11.34	38.92
4	4924.00	41.21 AV	54.00	-12.79	1.07 H	233	2.29	38.92

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	1090.00	43.96 PK	74.00	-30.04	1.05 V	74	16.16	27.80
1	1090.00	39.42 AV	54.00	-14.58	1.05 V	74	11.62	27.80
2	*2462.00	108.85 PK			1.08 V	156	76.47	32.38
2	*2462.00	104.89 AV			1.08 V	156	72.51	32.38
3	2487.00	62.89 PK	74.00	-11.11	1.13 V	230	30.42	32.47
3	2487.00	52.89 AV	54.00	-1.11	1.13 V	230	20.42	32.47
4	4924.00	50.67 PK	74.00	-23.33	1.31 V	69	11.75	38.92
4	4924.00	43.48 AV	54.00	-10.52	1.31 V	69	4.56	38.92

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

802.11b DSSS MODULATION: Dual TX

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
MODULATION TYPE	DBPSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TRANSFER RATE	1Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 63%RH, 991hPa	TESTED BY	Morgan Chen

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	1090.00	41.65 PK	74.00	-32.35	1.13 H	256	14.28	27.37
1	1090.00	37.70 AV	54.00	-16.30	1.13 H	256	10.33	27.37
2	2320.00	51.88 PK	74.00	-22.12	1.13 H	28	20.37	31.51
2	2320.00	41.65 AV	54.00	-12.35	1.13 H	28	10.14	31.51
3	2360.00	53.85 PK	74.00	-20.15	1.15 H	36	22.11	31.74
3	2360.00	43.72 AV	54.00	-10.28	1.15 H	36	11.98	31.74
4	*2412.00	104.13 PK			1.15 H	322	72.09	32.04
4	*2412.00	100.08 AV			1.15 H	322	68.04	32.04
5	4824.00	51.75 PK	74.00	-22.25	1.25 H	255	14.24	37.51
5	4824.00	48.65 AV	54.00	-5.35	1.25 H	255	11.14	37.51

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	1090.00	43.77 PK	74.00	-30.23	1.05 V	45	16.40	27.37
1	1090.00	39.84 AV	54.00	-14.16	1.05 V	45	12.47	27.37
2	2320.00	61.32 PK	74.00	-12.68	1.00 V	26	29.81	31.51
2	2320.00	49.75 AV	54.00	-4.25	1.00 V	26	18.24	31.51
3	2360.00	63.00 PK	74.00	-11.00	1.13 V	68	31.26	31.74
3	2360.00	52.40 AV	54.00	-1.60	1.13 V	68	20.66	31.74
4	*2412.00	114.12 PK			1.08 V	78	82.08	32.04
4	*2412.00	110.08 AV			1.08 V	78	78.04	32.04
5	4824.00	56.11 PK	74.00	-17.89	1.09 V	18	18.60	37.51
5	4824.00	53.00 AV	54.00	-1.00	1.09 V	18	15.49	37.51

- 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	22deg. C, 64%RH, 991hPa	TESTED BY	Morgan Chen

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	1090.00	41.68 PK	74.00	-32.32	1.15 H	258	14.31	27.37
1	1090.00	37.75 AV	54.00	-16.25	1.15 H	258	10.38	27.37
2	2320.00	52.32 PK	74.00	-21.68	1.15 H	36	20.81	31.51
2	2320.00	42.11 AV	54.00	-11.89	1.15 H	36	10.60	31.51
3	2360.00	53.36 PK	74.00	-20.64	1.13 H	49	21.62	31.74
3	2360.00	43.20 AV	54.00	-10.80	1.13 H	49	11.46	31.74
4	*2437.00	104.69 PK			1.19 H	318	72.49	32.20
4	*2437.00	100.71 AV			1.19 H	318	68.51	32.20
5	4874.00	52.26 PK	74.00	-21.74	1.28 H	219	14.71	37.55
5	4874.00	49.18 AV	54.00	-4.82	1.28 H	219	11.63	37.55

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1090.00	43.75 PK	74.00	-30.25	1.04 V	39	16.38	27.37
1	1090.00	39.86 AV	54.00	-14.14	1.04 V	39	12.49	27.37
2	2320.00	61.84 PK	74.00	-12.16	1.00 V	20	30.33	31.51
2	2320.00	50.21 AV	54.00	-3.79	1.00 V	20	18.70	31.51
3	2360.00	63.43 PK	74.00	-10.57	1.14 V	53	31.69	31.74
3	2360.00	52.94 AV	54.00	-1.06	1.14 V	53	21.20	31.74
4	*2437.00	114.74 PK			1.11 V	83	82.54	32.20
4	*2437.00	110.63 AV			1.11 V	83	78.43	32.20
5	4874.00	55.38 PK	74.00	-18.62	1.00 V	179	17.83	37.55
5	4874.00	52.14 AV	54.00	-1.86	1.00 V	179	14.59	37.55

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. 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	22deg. C, 64%RH, 991hPa	TESTED BY	Morgan Chen

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	1090.00	41.59 PK	74.00	-32.41	1.19 H	265	14.22	27.37
1	1090.00	37.64 AV	54.00	-16.36	1.19 H	265	10.27	27.37
2	2320.00	52.29 PK	74.00	-21.71	1.13 H	249	20.78	31.51
2	2320.00	42.09 AV	54.00	-11.91	1.13 H	249	10.58	31.51
3	2360.00	53.33 PK	74.00	-20.67	1.15 H	56	21.59	31.74
3	2360.00	43.15 AV	54.00	-10.85	1.15 H	56	11.41	31.74
4	*2462.00	104.58 PK			1.20 H	325	72.23	32.35
4	*2462.00	100.49 AV			1.20 H	325	68.14	32.35
5	2483.50	51.18 PK	74.00	-22.82	1.18 H	336	18.69	32.49
5	2483.50	41.05 AV	54.00	-12.95	1.18 H	336	8.56	32.49
6	4924.00	52.18 PK	74.00	-21.82	1.32 H	263	14.60	37.58
6	4924.00	49.06 AV	54.00	-4.94	1.32 H	263	11.48	37.58

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	1090.00	43.69 PK	74.00	-30.31	1.05 V	41	16.32	27.37
1	1090.00	39.78 AV	54.00	-14.22	1.05 V	41	12.41	27.37
2	2320.00	61.73 PK	74.00	-12.27	1.05 V	25	30.22	31.51
2	2320.00	50.19 AV	54.00	-3.81	1.05 V	25	18.68	31.51
3	2360.00	63.32 PK	74.00	-10.68	1.13 V	58	31.58	31.74
3	2360.00	52.83 AV	54.00	-1.17	1.13 V	58	21.09	31.74
4	*2462.00	114.68 PK			1.13 V	79	82.33	32.35
4	*2462.00	110.59 AV			1.13 V	79	78.24	32.35
5	2483.50	62.48 PK	74.00	-11.52	1.16 V	48	29.99	32.49
5	2483.50	51.96 AV	54.00	-2.04	1.16 V	48	19.47	32.49
6	4924.00	55.32 PK	74.00	-18.68	1.05 V	168	17.74	37.58
6	4924.00	52.09 AV	54.00	-1.91	1.05 V	168	14.51	37.58

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

802.11g 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	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	39.68 PK	74.00	-34.32	1.13 H	254	11.88	27.80
1	1090.00	35.74 AV	54.00	-18.26	1.13 H	254	7.94	27.80
2	2390.00	52.74 PK	74.00	-21.26	1.00 H	189	20.63	32.11
2	2390.00	42.61 AV	54.00	-11.39	1.00 H	189	10.50	32.11
3	*2412.00	99.10 PK			1.00 H	189	66.91	32.19
3	*2412.00	88.97 AV			1.00 H	189	56.78	32.19
4	4824.00	50.13 PK	74.00	-23.87	1.09 H	271	11.48	38.65
4	4824.00	36.81 AV	54.00	-17.19	1.09 H	271	-1.84	38.65

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1090.00	42.78 PK	74.00	-31.22	1.00 V	43	14.98	27.80
1	1090.00	38.89 AV	54.00	-15.11	1.00 V	43	11.09	27.80
2	2390.00	62.57 PK	74.00	-11.43	1.31 V	190	30.46	32.11
2	2390.00	52.48 AV	54.00	-1.52	1.31 V	190	20.37	32.11
3	*2412.00	108.93 PK			1.31 V	190	76.74	32.19
3	*2412.00	98.84 AV			1.31 V	190	66.65	32.19
4	4824.00	52.21 PK	74.00	-21.79	1.00 V	20	13.56	38.65
4	4824.00	38.94 AV	54.00	-15.06	1.00 V	20	0.29	38.65

- 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 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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	39.57 PK	74.00	-34.43	1.08 H	261	11.77	27.80
1	1090.00	35.62 AV	54.00	-18.38	1.08 H	261	7.82	27.80
2	*2437.00	99.87 PK			1.02 H	194	67.58	32.29
2	*2437.00	89.76 AV			1.02 H	194	57.47	32.29
3	4874.00	50.26 PK	74.00	-23.74	1.14 H	268	11.47	38.79
3	4874.00	36.95 AV	54.00	-17.05	1.14 H	268	-1.84	38.79

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1090.00	42.86 PK	74.00	-31.14	1.02 V	56	15.06	27.80
1	1090.00	38.97 AV	54.00	-15.03	1.02 V	56	11.17	27.80
2	*2437.00	109.65 PK			1.20 V	222	77.36	32.29
2	*2437.00	100.10 AV			1.20 V	222	67.81	32.29
3	4874.00	52.66 PK	74.00	-21.34	1.08 V	269	13.87	38.79
3	4874.00	39.34 AV	54.00	-14.66	1.08 V	269	0.55	38.79

- 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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	39.77 PK	74.00	-34.23	1.10 H	234	11.97	27.80
1	1090.00	35.86 AV	54.00	-18.14	1.10 H	234	8.06	27.80
2	*2462.00	98.63 PK			1.02 H	191	66.25	32.38
2	*2462.00	88.52 AV			1.02 H	191	56.14	32.38
3	2483.50	53.41 PK	74.00	-20.59	1.02 H	191	20.95	32.46
3	2483.50	43.30 AV	54.00	-10.70	1.02 H	191	10.84	32.46
4	4924.00	50.34 PK	74.00	-23.66	1.07 H	286	11.42	38.92
4	4924.00	37.06 AV	54.00	-16.94	1.07 H	286	-1.86	38.92

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	1090.00	43.51 PK	74.00	-30.49	1.03 V	54	15.71	27.80
1	1090.00	39.72 AV	54.00	-14.28	1.03 V	54	11.92	27.80
2	*2462.00	108.13 PK			1.26 V	209	75.75	32.38
2	*2462.00	98.11 AV			1.26 V	209	65.73	32.38
3	2483.50	62.91 PK	74.00	-11.09	1.26 V	209	30.45	32.46
3	2483.50	52.89 AV	54.00	-1.11	1.26 V	209	20.43	32.46
4	4924.00	52.64 PK	74.00	-21.36	1.03 V	74	13.72	38.92
4	4924.00	39.35 AV	54.00	-14.65	1.03 V	74	0.43	38.92

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

802.11g 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	6Mbps	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 63%RH, 991hPa	TESTED BY	Morgan Chen

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	1090.00	41.72 PK	74.00	-32.28	1.14 H	262	14.35	27.37
1	1090.00	37.89 AV	54.00	-16.11	1.14 H	262	10.52	27.37
2	2360.00	56.28 PK	74.00	-17.72	1.02 H	176	24.54	31.74
2	2360.00	43.03 AV	54.00	-10.97	1.02 H	176	11.29	31.74
3	*2412.00	101.63 PK			1.02 H	176	69.59	32.04
3	*2412.00	91.52 AV			1.02 H	176	59.48	32.04
4	4824.00	52.64 PK	74.00	-21.36	1.11 H	206	15.13	37.51
4	4824.00	39.36 AV	54.00	-14.64	1.11 H	206	1.85	37.51

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	1090.00	43.86 PK	74.00	-30.14	1.01 V	52	16.49	27.37
1	1090.00	39.95 AV	54.00	-14.05	1.01 V	52	12.58	27.37
2	2360.00	66.16 PK	74.00	-7.84	1.11 V	57	34.42	31.74
2	2360.00	52.12 AV	54.00	-1.88	1.11 V	57	20.38	31.74
3	*2412.00	111.51 PK			1.11 V	57	79.47	32.04
3	*2412.00	101.38 AV			1.11 V	57	69.34	32.04
4	4824.00	54.36 PK	74.00	-19.64	1.06 V	217	16.85	37.51
4	4824.00	41.07 AV	54.00	-12.93	1.06 V	217	3.56	37.51

- 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	22deg. C, 63%RH, 991hPa	TESTED BY	Morgan Chen

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	1090.00	41.97 PK	74.00	-32.03	1.12 H	283	14.60	27.37
1	1090.00	38.06 AV	54.00	-15.94	1.12 H	283	10.69	27.37
2	2360.00	54.12 PK	74.00	-19.88	1.04 H	181	22.38	31.74
2	2360.00	42.98 AV	54.00	-11.02	1.04 H	181	11.24	31.74
3	*2437.00	103.71 PK			1.04 H	181	71.51	32.20
3	*2437.00	93.62 AV			1.04 H	181	61.42	32.20
4	4874.00	53.24 PK	74.00	-20.76	1.06 H	117	15.69	37.55
4	4874.00	40.02 AV	54.00	-13.98	1.06 H	117	2.47	37.55

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1090.00	44.14 PK	74.00	-29.86	1.03 V	48	16.77	27.37
1	1090.00	40.26 AV	54.00	-13.74	1.03 V	48	12.89	27.37
2	2360.00	64.03 PK	74.00	-9.97	1.12 V	33	32.29	31.74
2	2360.00	52.86 AV	54.00	-1.14	1.12 V	33	21.12	31.74
3	*2437.00	113.62 PK			1.10 V	60	81.42	32.20
3	*2437.00	103.50 AV			1.10 V	60	71.30	32.20
4	4874.00	54.89 PK	74.00	-19.11	1.05 V	229	17.34	37.55
4	4874.00	41.56 AV	54.00	-12.44	1.05 V	229	4.01	37.55

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. 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	22deg. C, 63%RH, 991hPa	TESTED BY	Morgan Chen

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	1090.00	41.69 PK	74.00	-32.31	1.13 H	257	14.32	27.37
1	1090.00	37.82 AV	54.00	-16.18	1.13 H	257	10.45	27.37
2	2360.00	56.55 PK	74.00	-17.45	1.13 H	169	24.81	31.74
2	2360.00	43.49 AV	54.00	-10.51	1.13 H	169	11.75	31.74
3	*2462.00	101.99 PK			1.03 H	171	69.64	32.35
3	*2462.00	91.86 AV			1.03 H	171	59.51	32.35
4	2483.50	53.95 PK	74.00	-20.05	1.03 H	171	21.46	32.49
4	2483.50	40.89 AV	54.00	-13.11	1.03 H	171	8.40	32.49
5	4924.00	52.48 PK	74.00	-21.52	1.02 H	203	14.90	37.58
5	4924.00	39.18 AV	54.00	-14.82	1.02 H	203	1.60	37.58

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	1090.00	43.75 PK	74.00	-30.25	1.02 V	47	16.38	27.37
1	1090.00	39.86 AV	54.00	-14.14	1.02 V	47	12.49	27.37
2	2360.00	64.02 PK	74.00	-9.98	1.13 V	25	32.28	31.74
2	2360.00	52.83 AV	54.00	-1.17	1.13 V	25	21.09	31.74
3	*2462.00	111.98 PK			1.10 V	62	79.63	32.35
3	*2462.00	101.88 AV			1.10 V	62	69.53	32.35
4	2483.50	63.58 PK	74.00	-10.42	1.10 V	62	31.09	32.49
4	2483.50	50.50 AV	54.00	-3.50	1.10 V	62	18.01	32.49
5	4924.00	54.47 PK	74.00	-19.53	1.01 V	204	16.89	37.58
5	4924.00	41.18 AV	54.00	-12.82	1.01 V	204	3.60	37.58

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	39.84 PK	74.00	-34.16	1.08 H	291	12.04	27.80
1	1090.00	35.92 AV	54.00	-18.08	1.08 H	291	8.12	27.80
2	2390.00	52.00 PK	74.00	-22.00	1.24 H	87	19.89	32.11
2	2390.00	42.59 AV	54.00	-11.41	1.24 H	87	10.48	32.11
3	*2412.00	97.83 PK			1.24 H	87	65.64	32.19
3	*2412.00	88.42 AV			1.24 H	87	56.23	32.19
4	4824.00	50.27 PK	74.00	-23.73	1.12 H	265	11.62	38.65
4	4824.00	36.95 AV	54.00	-17.05	1.12 H	265	-1.70	38.65

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1090.00	42.87 PK	74.00	-31.13	1.02 V	51	15.07	27.80
1	1090.00	38.95 AV	54.00	-15.05	1.02 V	51	11.15	27.80
2	2390.00	66.44 PK	74.00	-7.56	1.06 V	234	34.33	32.11
2	2390.00	52.50 AV	54.00	-1.50	1.06 V	234	20.39	32.11
3	*2412.00	107.62 PK			1.02 V	218	75.43	32.19
3	*2412.00	98.33 AV			1.02 V	218	66.14	32.19
4	4824.00	52.36 PK	74.00	-21.64	1.04 V	76	13.71	38.65
4	4824.00	39.12 AV	54.00	-14.88	1.04 V	76	0.47	38.65

- 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 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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	39.84 PK	74.00	-34.16	1.04 H	71	12.04	27.80
1	1090.00	35.97 AV	54.00	-18.03	1.04 H	71	8.17	27.80
2	*2437.00	100.06 PK			1.21 H	89	67.77	32.29
2	*2437.00	90.71 AV			1.21 H	89	58.42	32.29
3	4874.00	50.21 PK	74.00	-23.79	1.15 H	236	11.42	38.79
3	4874.00	36.87 AV	54.00	-17.13	1.15 H	236	-1.92	38.79

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1090.00	42.86 PK	74.00	-31.14	1.06 V	72	15.06	27.80
1	1090.00	38.94 AV	54.00	-15.06	1.06 V	72	11.14	27.80
2	*2437.00	109.86 PK			1.04 V	234	77.57	32.29
2	*2437.00	100.48 AV			1.04 V	234	68.19	32.29
3	4874.00	52.64 PK	74.00	-21.36	1.05 V	72	13.85	38.79
3	4874.00	39.42 AV	54.00	-14.58	1.05 V	72	0.63	38.79

- 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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	39.91 PK	74.00	-34.09	1.05 H	46	12.11	27.80
1	1090.00	36.04 AV	54.00	-17.96	1.05 H	46	8.24	27.80
2	*2462.00	97.95 PK			1.23 H	94	65.57	32.38
2	*2462.00	88.56 AV			1.23 H	94	56.18	32.38
3	2483.50	52.15 PK	74.00	-21.85	1.23 H	94	19.69	32.46
3	2483.50	42.76 AV	54.00	-11.24	1.23 H	94	10.30	32.46
4	4924.00	50.34 PK	74.00	-23.66	1.01 H	224	11.42	38.92
4	4924.00	37.08 AV	54.00	-16.92	1.01 H	224	-1.84	38.92

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	1090.00	42.71 PK	74.00	-31.29	1.04 V	63	14.91	27.80
1	1090.00	38.82 AV	54.00	-15.18	1.04 V	63	11.02	27.80
2	*2462.00	107.95 PK			1.03 V	224	75.57	32.38
2	*2462.00	98.64 AV			1.03 V	224	66.26	32.38
3	2483.50	66.21 PK	74.00	-7.79	1.01 V	233	33.75	32.46
3	2483.50	52.84 AV	54.00	-1.16	1.01 V	233	20.38	32.46
4	4924.00	52.47 PK	74.00	-21.53	1.07 V	84	13.55	38.92
4	4924.00	39.26 AV	54.00	-14.74	1.07 V	84	0.34	38.92

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. 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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	40.13 PK	74.00	-33.87	1.04 H	238	12.33	27.80
1	1090.00	36.21 AV	54.00	-17.79	1.04 H	238	8.41	27.80
2	2390.00	52.06 PK	74.00	-21.94	1.20 H	74	19.95	32.11
2	2390.00	42.03 AV	54.00	-11.97	1.20 H	74	9.92	32.11
3	*2412.00	98.13 PK			1.20 H	74	65.94	32.19
3	*2412.00	88.10 AV			1.20 H	74	55.91	32.19
4	4824.00	50.47 PK	74.00	-23.53	1.09 H	271	11.82	38.65
4	4824.00	37.18 AV	54.00	-16.82	1.09 H	271	-1.47	38.65

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1090.00	42.84 PK	74.00	-31.16	1.04 V	67	15.04	27.80
1	1090.00	38.93 AV	54.00	-15.07	1.04 V	67	11.13	27.80
2	2390.00	65.23 PK	74.00	-8.77	1.05 V	229	33.12	32.11
2	2390.00	51.83 AV	54.00	-2.17	1.05 V	229	19.72	32.11
3	*2412.00	107.93 PK			1.05 V	229	75.74	32.19
3	*2412.00	97.90 AV			1.05 V	229	65.71	32.19
4	4824.00	52.47 PK	74.00	-21.53	1.05 V	208	13.82	38.65
4	4824.00	39.16 AV	54.00	-14.84	1.05 V	208	0.51	38.65

- 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 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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	40.37 PK	74.00	-33.63	1.12 H	249	12.57	27.80
1	1090.00	36.45 AV	54.00	-17.55	1.12 H	249	8.65	27.80
2	*2437.00	98.62 PK			1.20 H	84	66.33	32.29
2	*2437.00	88.64 AV			1.20 H	84	56.35	32.29
3	4874.00	50.69 PK	74.00	-23.31	1.10 H	304	11.90	38.79
3	4874.00	37.45 AV	54.00	-16.55	1.10 H	304	-1.34	38.79

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1090.00	43.24 PK	74.00	-30.76	1.05 V	209	15.44	27.80
1	1090.00	39.31 AV	54.00	-14.69	1.05 V	209	11.51	27.80
2	*2437.00	108.52 PK			1.07 V	231	76.23	32.29
2	*2437.00	98.41 AV			1.07 V	231	66.12	32.29
3	4874.00	52.68 PK	74.00	-21.32	1.01 V	217	13.89	38.79
3	4874.00	39.41 AV	54.00	-14.59	1.01 V	217	0.62	38.79

- 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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	40.26 PK	74.00	-33.74	1.09 H	230	12.46	27.80
1	1090.00	36.35 AV	54.00	-17.65	1.09 H	230	8.55	27.80
2	*2462.00	98.57 PK			1.19 H	78	66.19	32.38
2	*2462.00	88.52 AV			1.19 H	78	56.14	32.38
3	2483.50	52.87 PK	74.00	-21.13	1.19 H	78	20.41	32.46
3	2483.50	42.82 AV	54.00	-11.18	1.19 H	78	10.36	32.46
4	4924.00	50.58 PK	74.00	-23.42	1.14 H	295	11.66	38.92
4	4924.00	37.32 AV	54.00	-16.68	1.14 H	295	-1.60	38.92

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	1090.00	42.96 PK	74.00	-31.04	1.11 V	192	15.16	27.80
1	1090.00	39.04 AV	54.00	-14.96	1.11 V	192	11.24	27.80
2	*2462.00	108.46 PK			1.06 V	231	76.08	32.38
2	*2462.00	98.31 AV			1.06 V	231	65.93	32.38
3	2483.50	63.98 PK	74.00	-10.02	1.03 V	235	31.52	32.46
3	2483.50	52.61 AV	54.00	-1.39	1.03 V	235	20.15	32.46
4	4924.00	52.56 PK	74.00	-21.44	1.04 V	223	13.64	38.92
4	4924.00	39.24 AV	54.00	-14.76	1.04 V	223	0.32	38.92

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. 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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	40.27 PK	74.00	-33.73	1.05 H	277	12.47	27.80
1	1090.00	36.12 AV	54.00	-17.88	1.05 H	277	8.32	27.80
2	2390.00	52.57 PK	74.00	-21.43	1.05 H	235	20.46	32.11
2	2390.00	43.12 AV	54.00	-10.88	1.05 H	235	11.01	32.11
3	*2422.00	93.67 PK			1.05 H	235	61.44	32.23
3	*2422.00	84.22 AV			1.05 H	235	51.99	32.23
4	4844.00	50.46 PK	74.00	-23.54	1.04 H	231	11.76	38.70
4	4844.00	37.18 AV	54.00	-16.82	1.04 H	231	-1.52	38.70

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	1090.00	42.78 PK	74.00	-31.22	1.05 V	68	14.98	27.80
1	1090.00	38.86 AV	54.00	-15.14	1.05 V	68	11.06	27.80
2	2390.00	64.63 PK	74.00	-9.37	1.11 V	156	32.52	32.11
2	2390.00	52.86 AV	54.00	-1.14	1.11 V	156	20.75	32.11
3	*2422.00	103.40 PK			1.10 V	156	71.17	32.23
3	*2422.00	94.01 AV			1.10 V	156	61.78	32.23
4	4844.00	52.67 PK	74.00	-21.33	1.05 V	64	13.97	38.70
4	4844.00	39.34 AV	54.00	-14.66	1.05 V	64	0.64	38.70

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



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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	40.49 PK	74.00	-33.51	1.05 H	253	12.69	27.80
1	1090.00	36.42 AV	54.00	-17.58	1.05 H	253	8.62	27.80
2	2390.00	51.18 PK	74.00	-22.82	1.05 H	244	19.07	32.11
2	2390.00	41.54 AV	54.00	-12.46	1.05 H	244	9.43	32.11
3	*2437.00	96.78 PK			1.05 H	244	64.49	32.29
3	*2437.00	87.14 AV			1.05 H	244	54.85	32.29
4	2483.50	50.56 PK	74.00	-23.44	1.05 H	244	18.10	32.46
4	2483.50	40.92 AV	54.00	-13.08	1.05 H	244	8.46	32.46
5	4874.00	50.45 PK	74.00	-23.55	1.02 H	238	11.66	38.79
5	4874.00	37.16 AV	54.00	-16.84	1.02 H	238	-1.63	38.79

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1090.00	42.89 PK	74.00	-31.11	1.07 V	84	15.09	27.80
1	1090.00	38.97 AV	54.00	-15.03	1.07 V	84	11.17	27.80
2	2390.00	63.67 PK	74.00	-10.33	1.09 V	155	31.56	32.11
2	2390.00	51.91 AV	54.00	-2.09	1.09 V	155	19.80	32.11
3	*2437.00	106.41 PK			1.09 V	155	74.12	32.29
3	*2437.00	97.08 AV			1.09 V	155	64.79	32.29
4	2483.50	64.92 PK	74.00	-9.08	1.09 V	155	32.46	32.46
4	2483.50	52.20 AV	54.00	-1.80	1.09 V	155	19.74	32.46
5	4874.00	52.84 PK	74.00	-21.16	1.02 V	75	14.05	38.79
5	4874.00	39.52 AV	54.00	-14.48	1.02 V	75	0.73	38.79

- 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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	40.36 PK	74.00	-33.64	1.07 H	249	12.56	27.80
1	1090.00	36.24 AV	54.00	-17.76	1.07 H	249	8.44	27.80
2	*2452.00	94.65 PK			1.06 H	241	62.31	32.34
2	*2452.00	85.04 AV			1.06 H	241	52.70	32.34
3	2483.50	53.41 PK	74.00	-20.59	1.06 H	241	20.95	32.46
3	2483.50	43.80 AV	54.00	-10.20	1.06 H	241	11.34	32.46
4	4904.00	50.31 PK	74.00	-23.69	1.05 H	246	11.44	38.87
4	4904.00	37.02 AV	54.00	-16.98	1.05 H	246	-1.85	38.87

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1090.00	42.96 PK	74.00	-31.04	1.01 V	72	15.16	27.80
1	1090.00	39.04 AV	54.00	-14.96	1.01 V	72	11.24	27.80
2	*2452.00	104.05 PK			1.11 V	157	71.71	32.34
2	*2452.00	94.57 AV			1.11 V	157	62.23	32.34
3	2483.50	64.16 PK	74.00	-9.84	1.11 V	157	31.70	32.46
3	2483.50	52.89 AV	54.00	-1.11	1.11 V	157	20.43	32.46
4	4904.00	52.77 PK	74.00	-21.23	1.06 V	231	13.90	38.87
4	4904.00	39.48 AV	54.00	-14.52	1.06 V	231	0.61	38.87

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.
 5. 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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	39.84 PK	74.00	-34.16	1.12 H	268	12.04	27.80
1	1090.00	35.92 AV	54.00	-18.08	1.12 H	268	8.12	27.80
2	2390.00	52.72 PK	74.00	-21.28	1.00 H	128	20.61	32.11
2	2390.00	42.37 AV	54.00	-11.63	1.00 H	128	10.26	32.11
3	*2422.00	94.29 PK			1.00 H	128	62.06	32.23
3	*2422.00	83.94 AV			1.00 H	128	51.71	32.23
4	4844.00	50.26 PK	74.00	-23.74	1.12 H	263	11.56	38.70
4	4844.00	36.95 AV	54.00	-17.05	1.12 H	263	-1.75	38.70

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	1090.00	42.69 PK	74.00	-31.31	1.02 V	54	14.89	27.80
1	1090.00	38.77 AV	54.00	-15.23	1.02 V	54	10.97	27.80
2	2390.00	62.71 PK	74.00	-11.29	1.20 V	342	30.60	32.11
2	2390.00	52.46 AV	54.00	-1.54	1.20 V	342	20.35	32.11
3	*2422.00	104.28 PK			1.20 V	342	72.05	32.23
3	*2422.00	94.03 AV			1.20 V	342	61.80	32.23
4	4844.00	52.36 PK	74.00	-21.64	1.01 V	43	13.66	38.70
4	4844.00	39.07 AV	54.00	-14.93	1.01 V	43	0.37	38.70

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

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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	39.86 PK	74.00	-34.14	1.05 H	234	12.06	27.80
1	1090.00	35.97 AV	54.00	-18.03	1.05 H	234	8.17	27.80
2	2390.00	52.82 PK	74.00	-21.18	1.04 H	136	20.71	32.11
2	2390.00	41.50 AV	54.00	-12.50	1.04 H	136	9.39	32.11
3	*2437.00	97.45 PK			1.04 H	136	65.16	32.29
3	*2437.00	86.13 AV			1.04 H	136	53.84	32.29
4	2483.50	53.09 PK	74.00	-20.91	1.04 H	136	20.63	32.46
4	2483.50	41.77 AV	54.00	-12.23	1.04 H	136	9.31	32.46
5	4874.00	50.37 PK	74.00	-23.63	1.12 H	265	11.58	38.79
5	4874.00	36.95 AV	54.00	-17.05	1.12 H	265	-1.84	38.79

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1090.00	42.86 PK	74.00	-31.14	1.09 V	84	15.06	27.80
1	1090.00	38.95 AV	54.00	-15.05	1.09 V	84	11.15	27.80
2	2390.00	67.49 PK	74.00	-6.51	1.20 V	344	35.38	32.11
2	2390.00	52.65 AV	54.00	-1.35	1.20 V	344	20.54	32.11
3	*2437.00	107.51 PK			1.20 V	344	75.22	32.29
3	*2437.00	97.28 AV			1.20 V	344	64.99	32.29
4	2483.50	65.56 PK	74.00	-8.44	1.20 V	344	33.10	32.46
4	2483.50	52.92 AV	54.00	-1.08	1.20 V	344	20.46	32.46
5	4874.00	52.61 PK	74.00	-21.39	1.04 V	68	13.82	38.79
5	4874.00	39.38 AV	54.00	-14.62	1.04 V	68	0.59	38.79

- 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	22deg. C, 64%RH, 991hPa	TESTED BY	Brad Wu

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	1090.00	39.75 PK	74.00	-34.25	1.10 H	274	11.95	27.80
1	1090.00	35.81 AV	54.00	-18.19	1.10 H	274	8.01	27.80
2	*2452.00	95.36 PK			1.02 H	134	63.02	32.34
2	*2452.00	84.05 AV			1.02 H	134	51.71	32.34
3	2483.50	52.52 PK	74.00	-21.48	1.02 H	134	20.06	32.46
3	2483.50	41.21 AV	54.00	-12.79	1.02 H	134	8.75	32.46
4	4904.00	50.23 PK	74.00	-23.77	1.09 H	251	11.36	38.87
4	4904.00	36.89 AV	54.00	-17.11	1.09 H	251	-1.98	38.87

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1090.00	42.78 PK	74.00	-31.22	1.04 V	62	14.98	27.80
1	1090.00	38.86 AV	54.00	-15.14	1.04 V	62	11.06	27.80
2	*2452.00	105.49 PK			1.21 V	340	73.15	32.34
2	*2452.00	95.26 AV			1.21 V	340	62.92	32.34
3	2483.50	62.65 PK	74.00	-11.35	1.21 V	340	30.19	32.46
3	2483.50	52.42 AV	54.00	-1.58	1.21 V	340	19.96	32.46
4	4904.00	52.47 PK	74.00	-21.53	1.05 V	57	13.60	38.87
4	4904.00	39.21 AV	54.00	-14.79	1.05 V	57	0.34	38.87

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

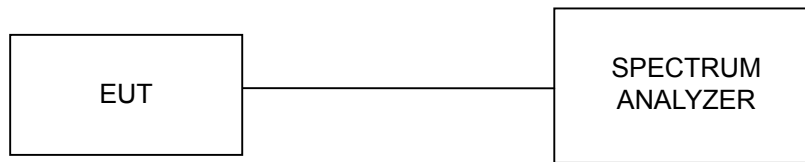
4.3.3 TEST PROCEDURE

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.

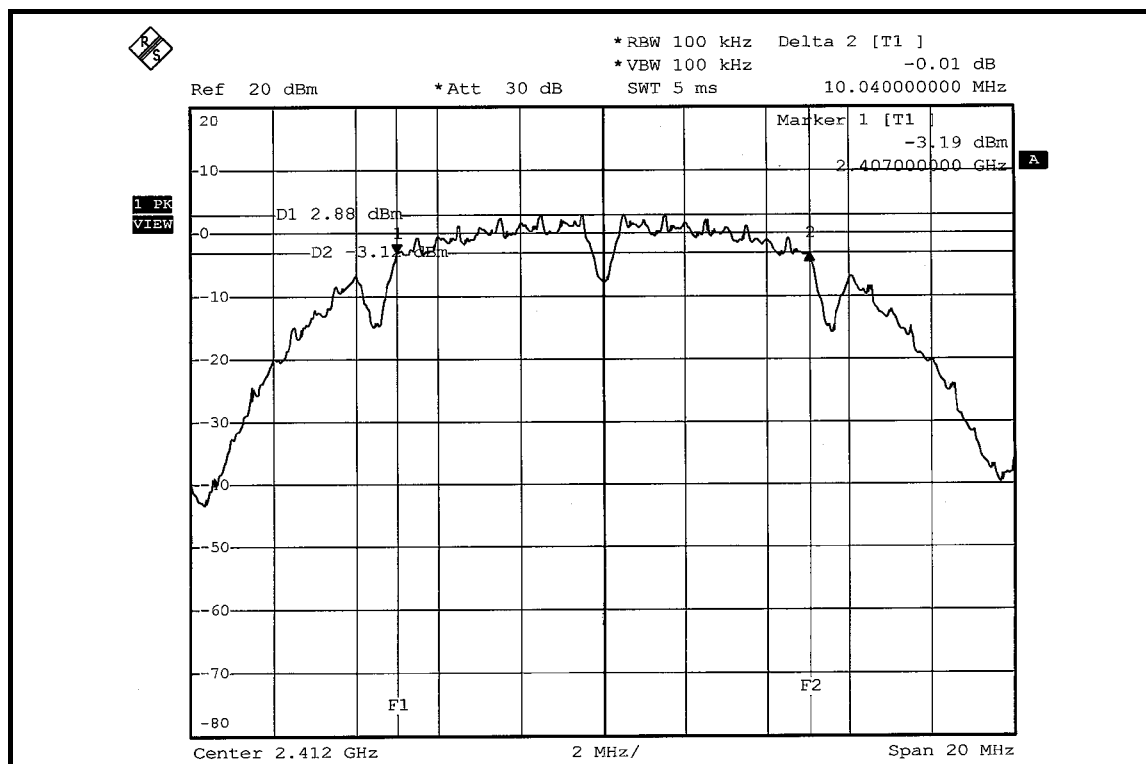
4.3.7 TEST RESULTS

802.11b DSSS MODULATION: Single TX

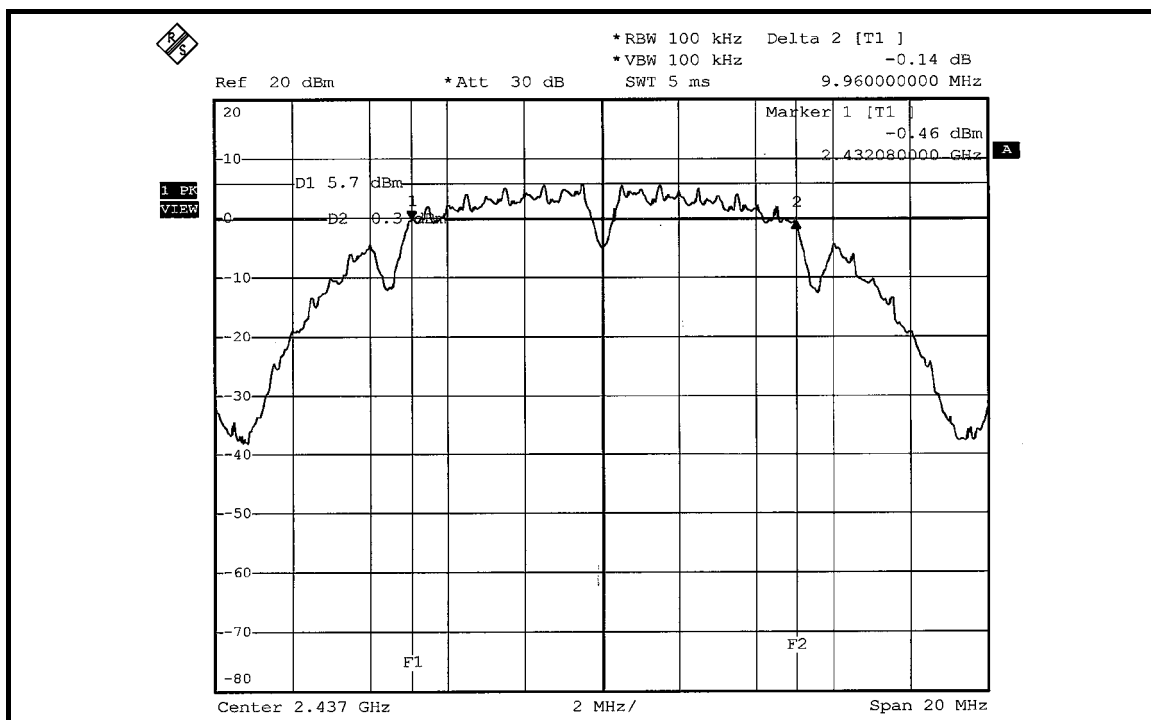
MODULATION TYPE	DBPSK	TRANSFER RATE	1Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	10.04	0.5	PASS
6	2437	9.96	0.5	PASS
11	2462	10.04	0.5	PASS

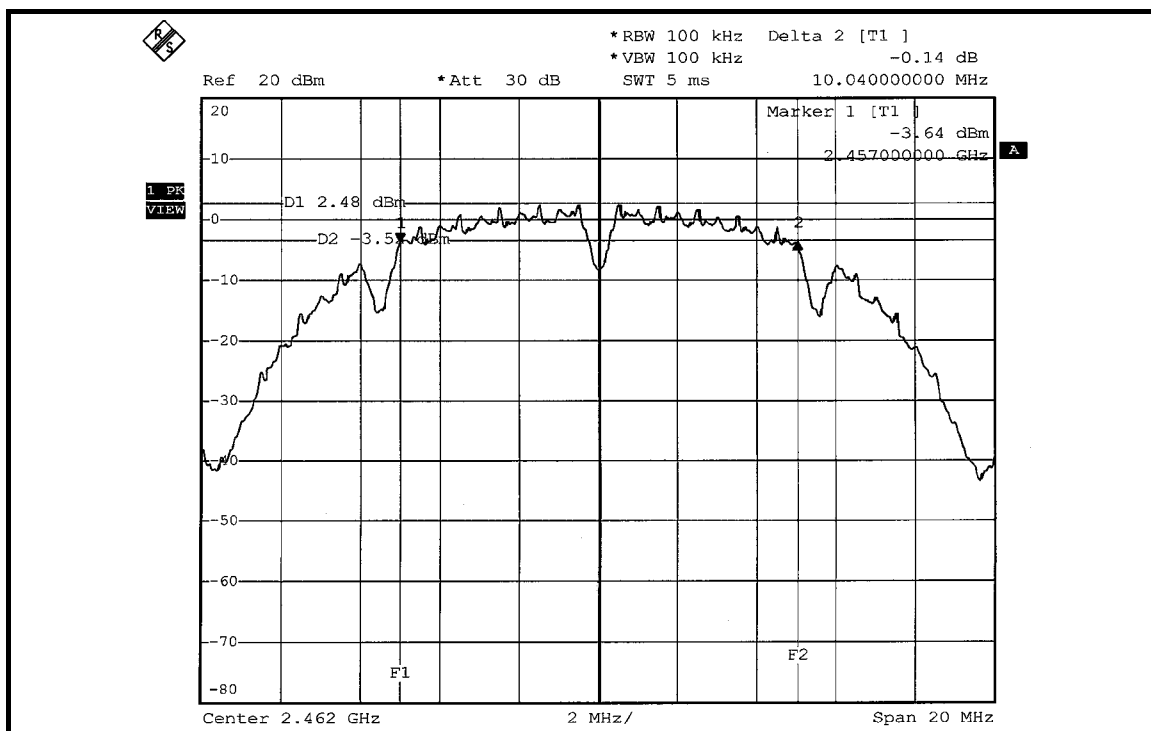
CH 1



CH 6



CH 11



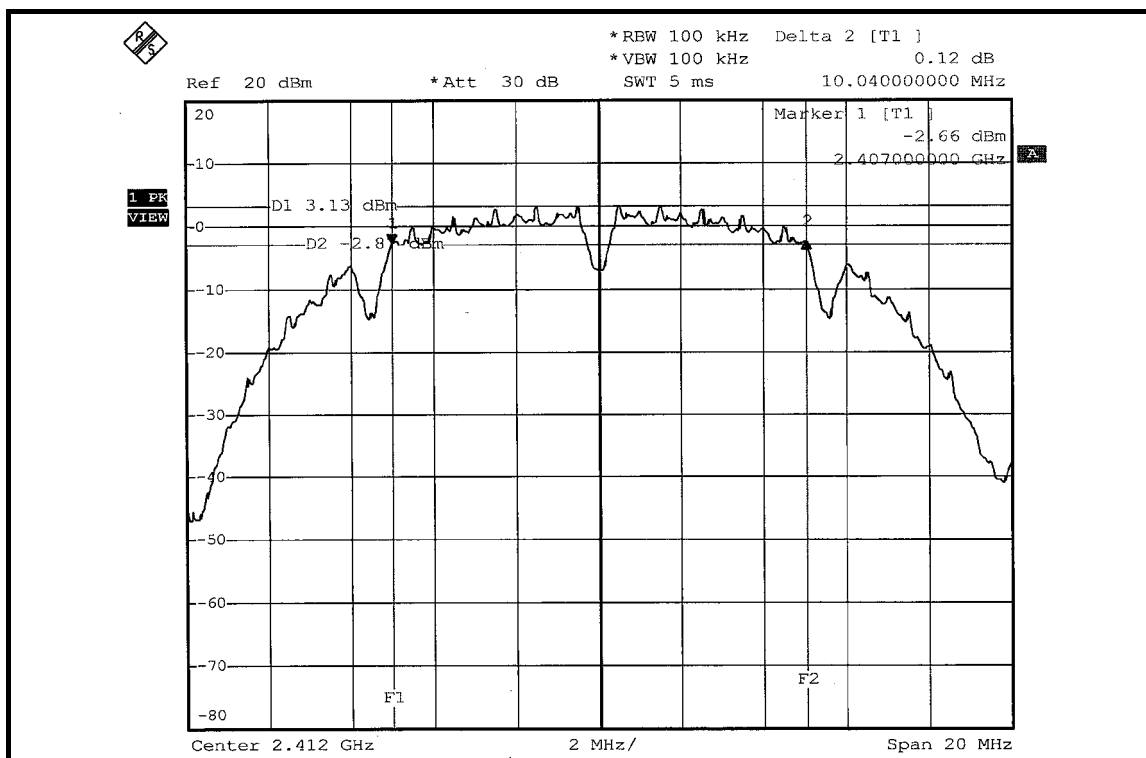


802.11b DSSS MODULATION: Dual TX

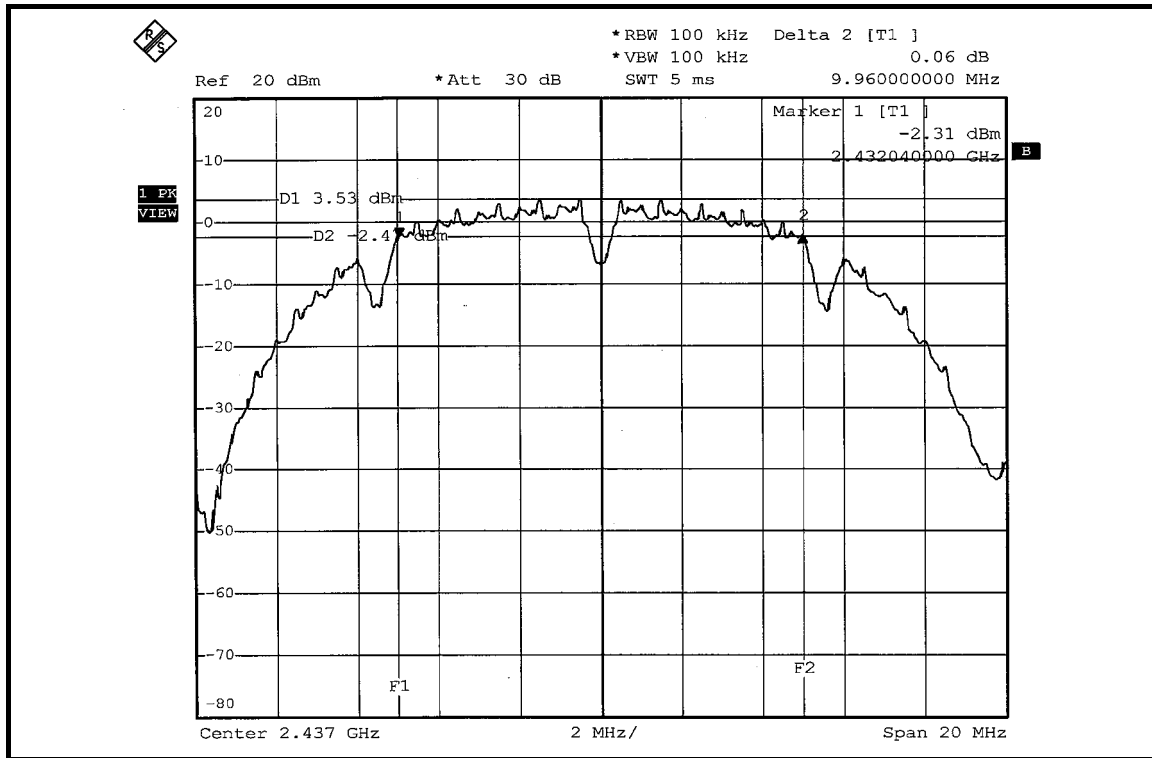
MODULATION TYPE	DBPSK	TRANSFER RATE	1Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Morgan Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	10.04	10.04	0.5	PASS
6	2437	9.96	10.00	0.5	PASS
11	2462	10.08	10.08	0.5	PASS

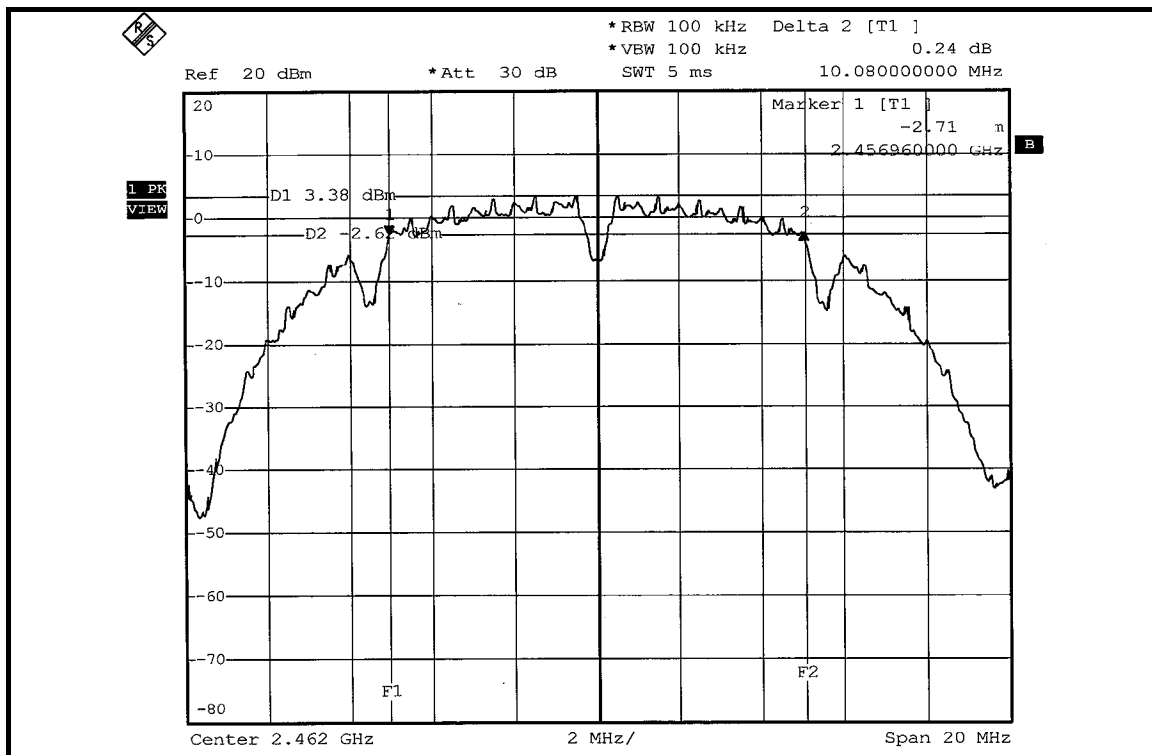
FOR CHAIN 0: CH 1



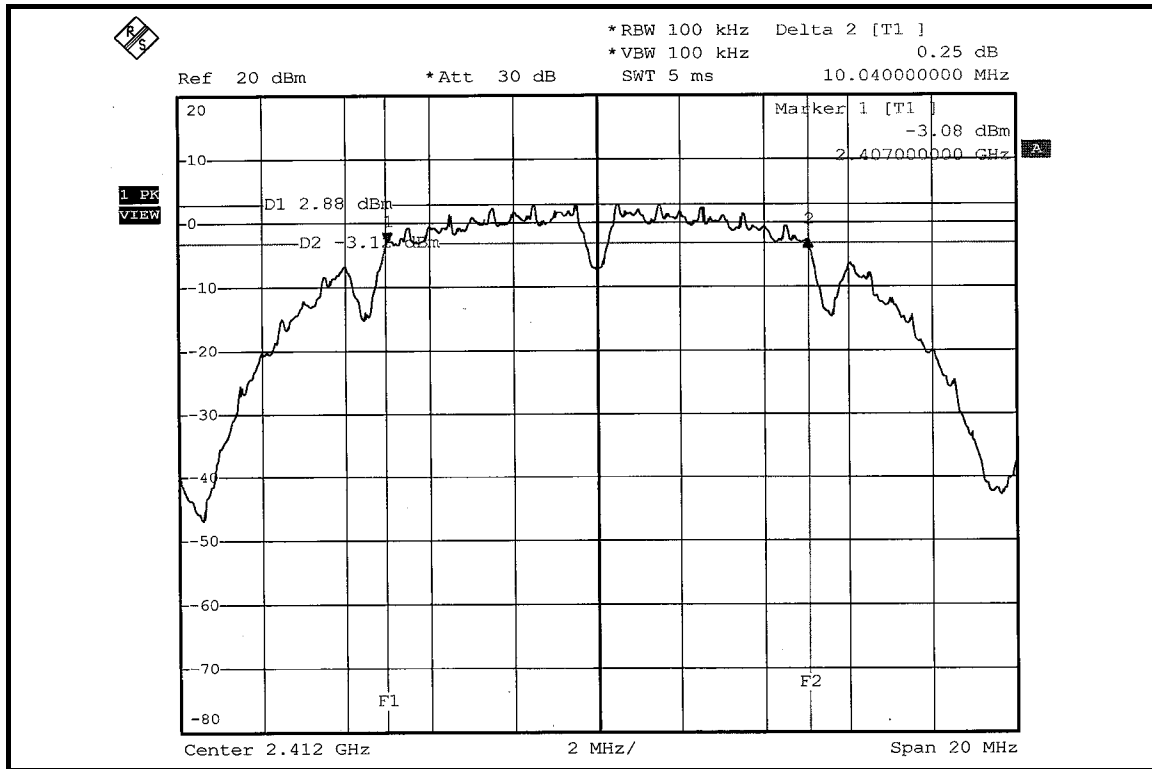
CH 6



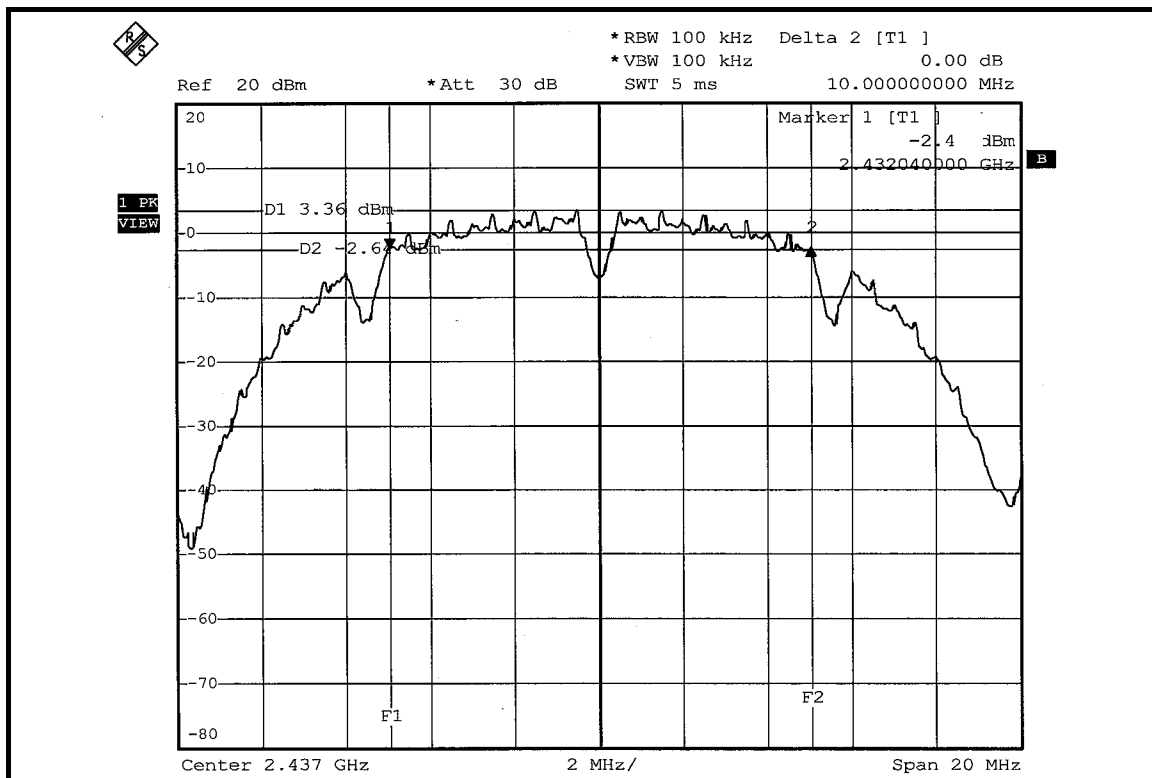
CH 11



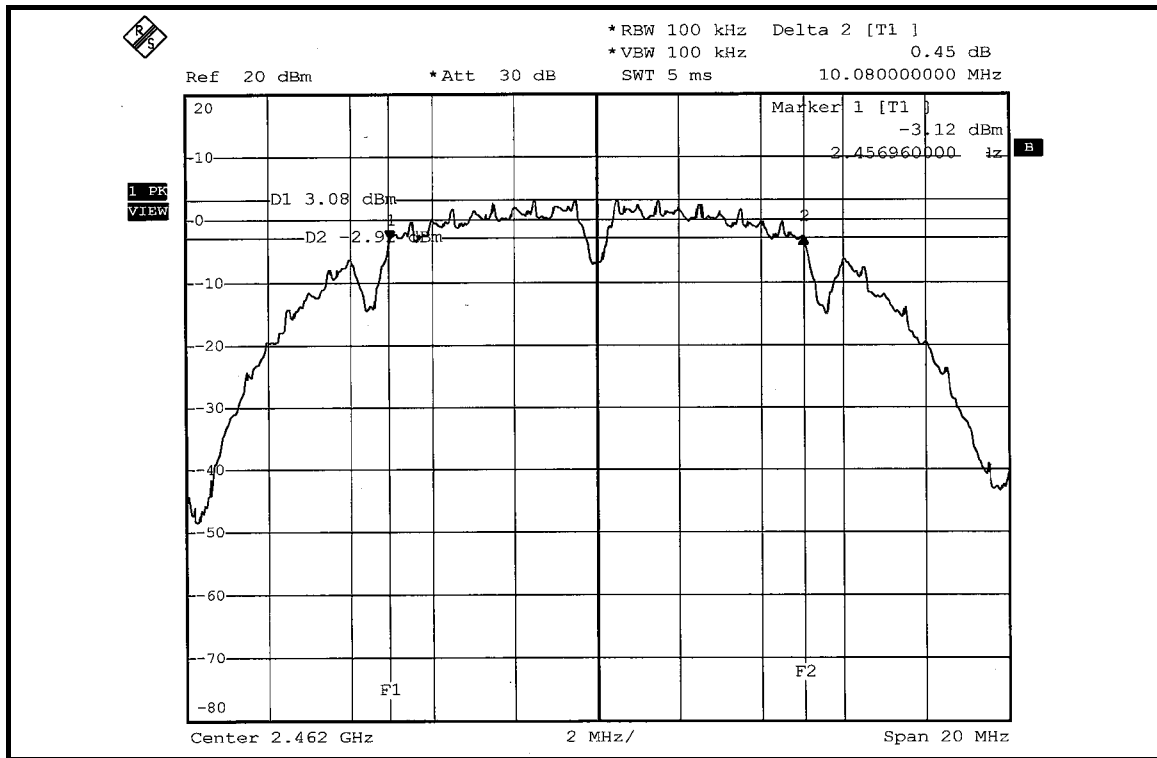
FOR CHAIN 1: CH 1



CH 6



CH 11

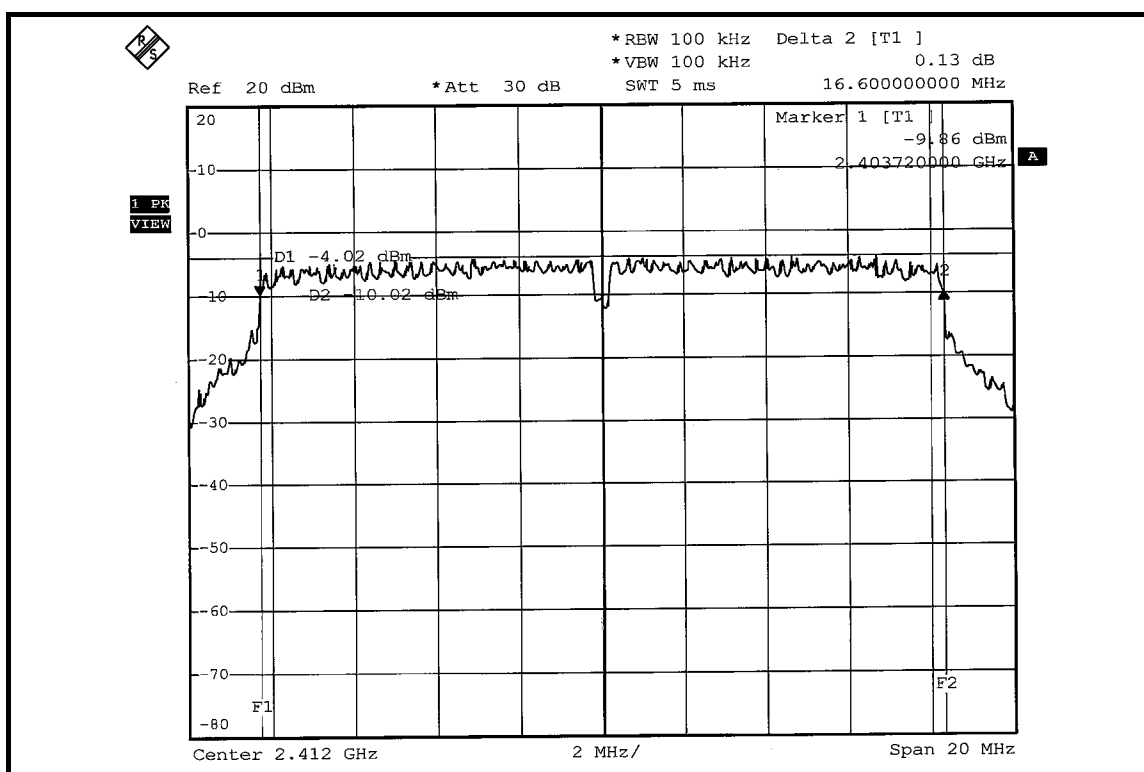


802.11g OFDM MODULATION: Single TX

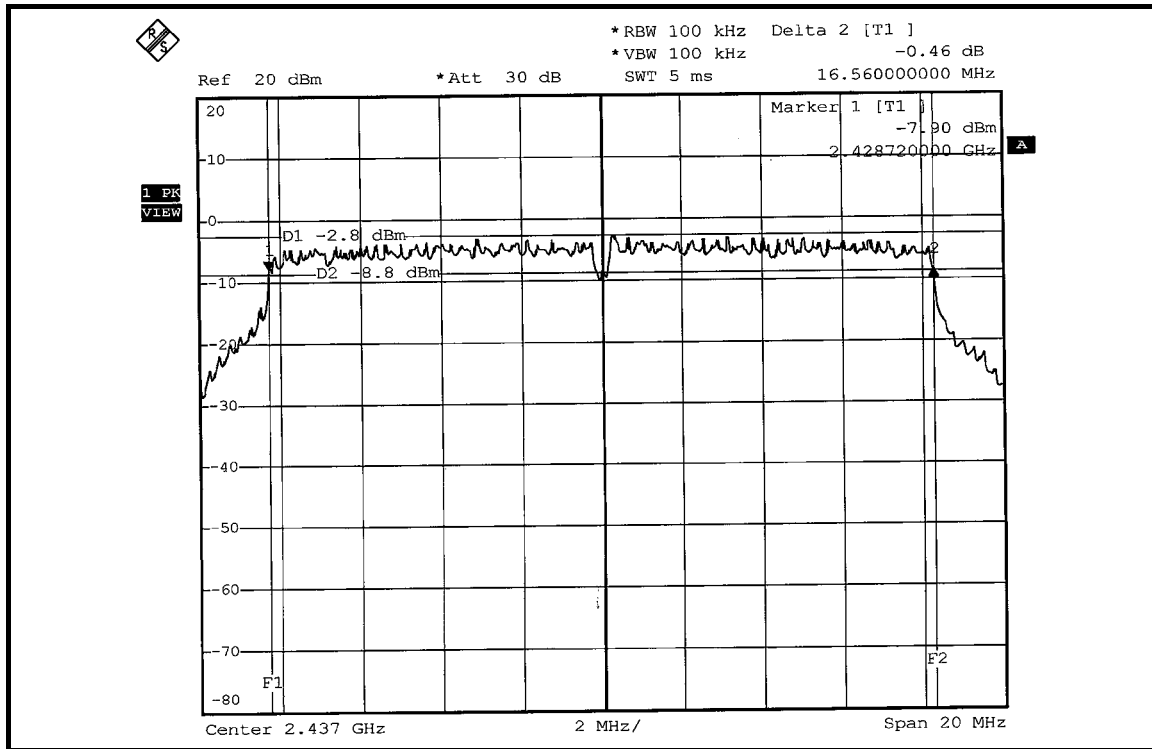
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Long Chen		

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

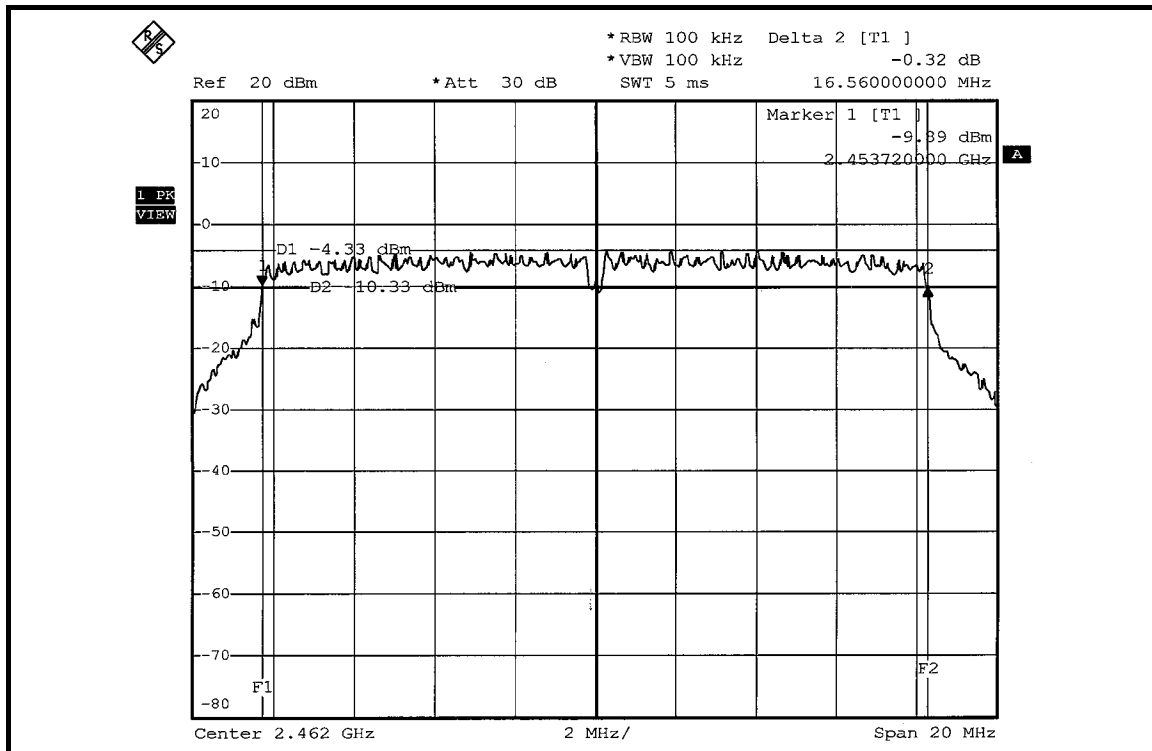
CH 1



CH 6



CH 11



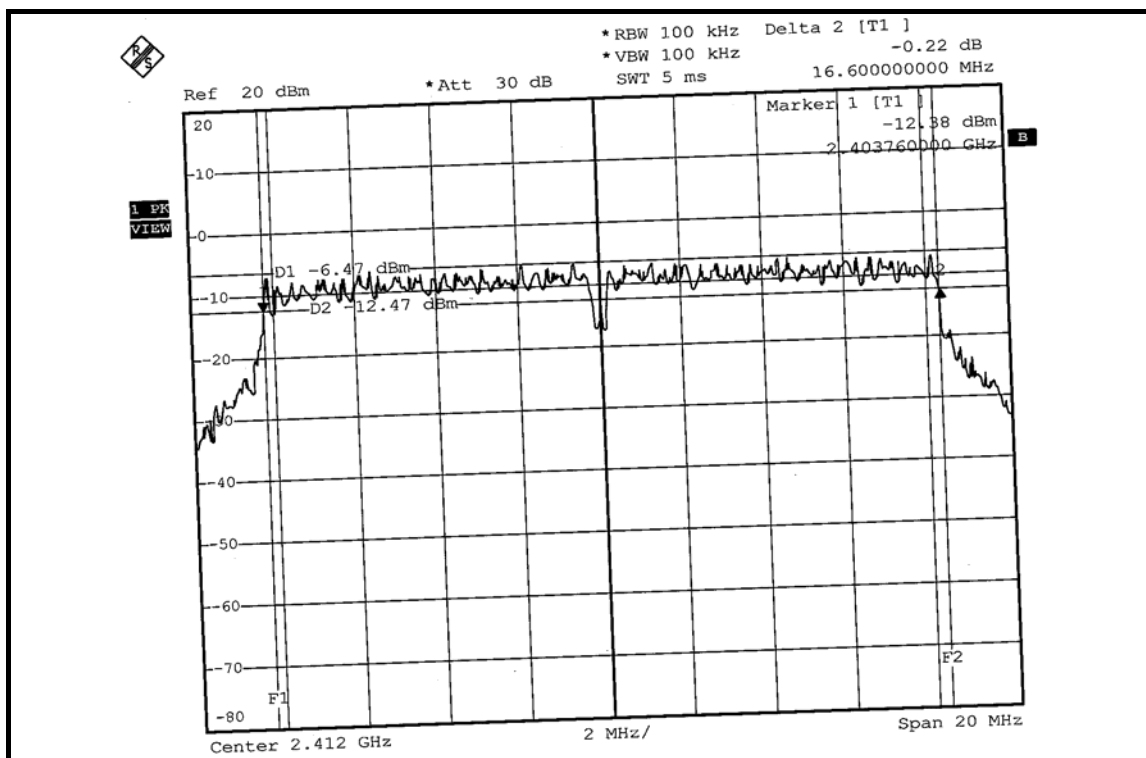


802.11g OFDM MODULATION: Dual TX

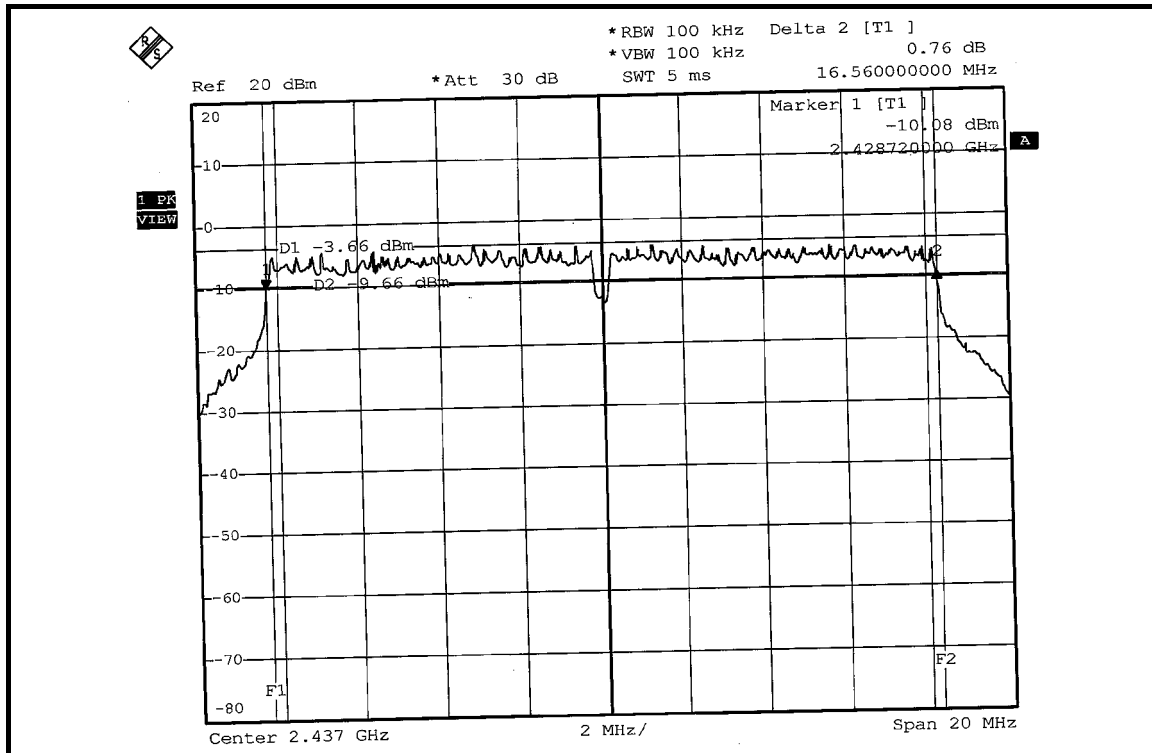
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Morgan Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	16.60	16.60	0.5	PASS
6	2437	16.56	16.56	0.5	PASS
11	2462	16.60	16.60	0.5	PASS

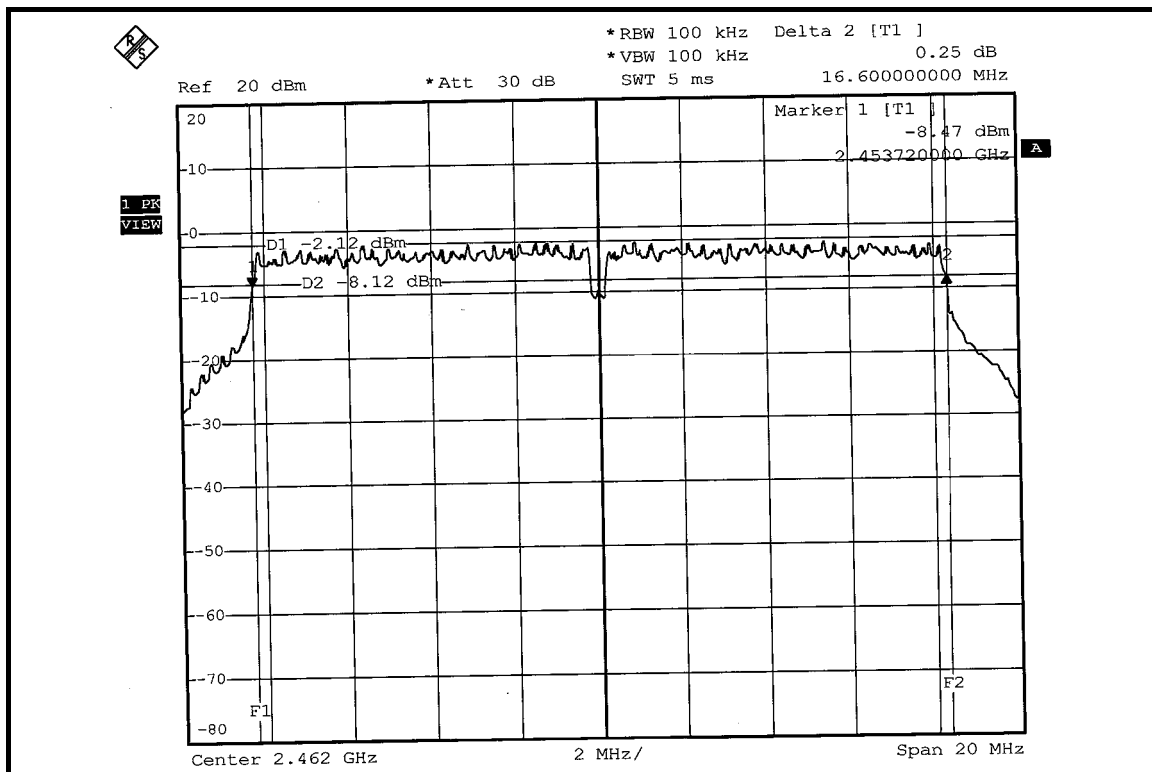
FOR CHAIN 0: CH 1



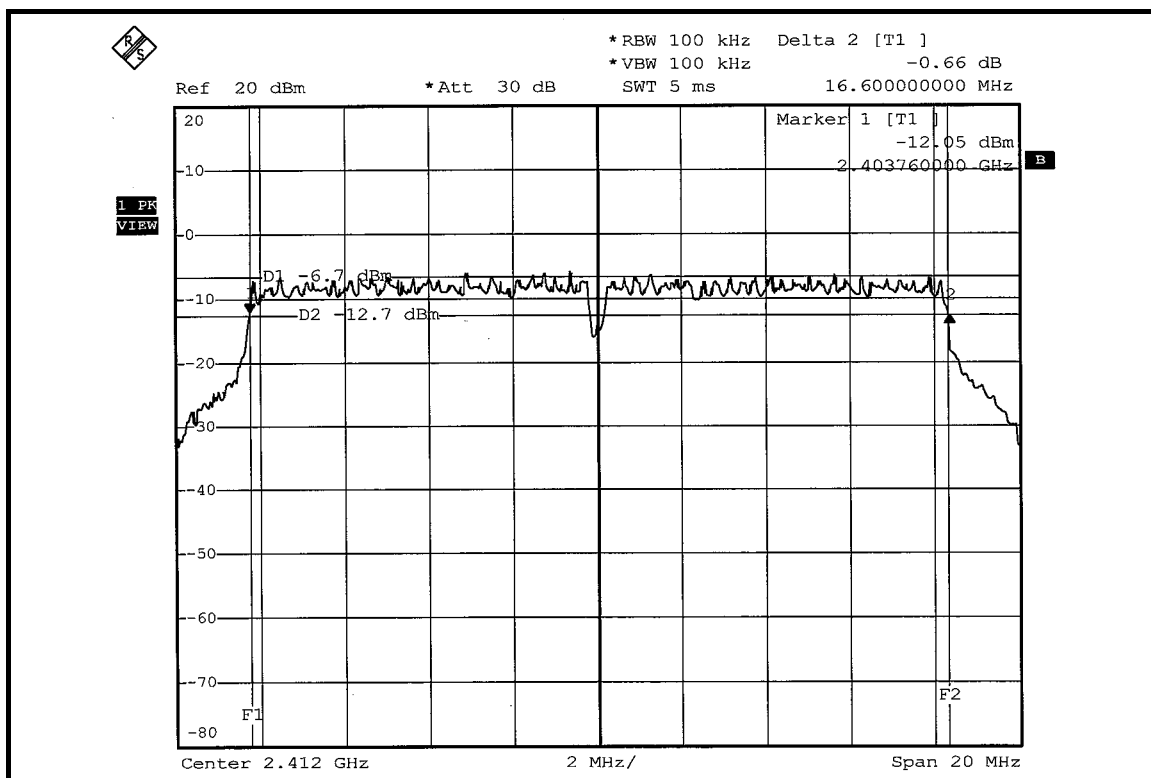
CH 6



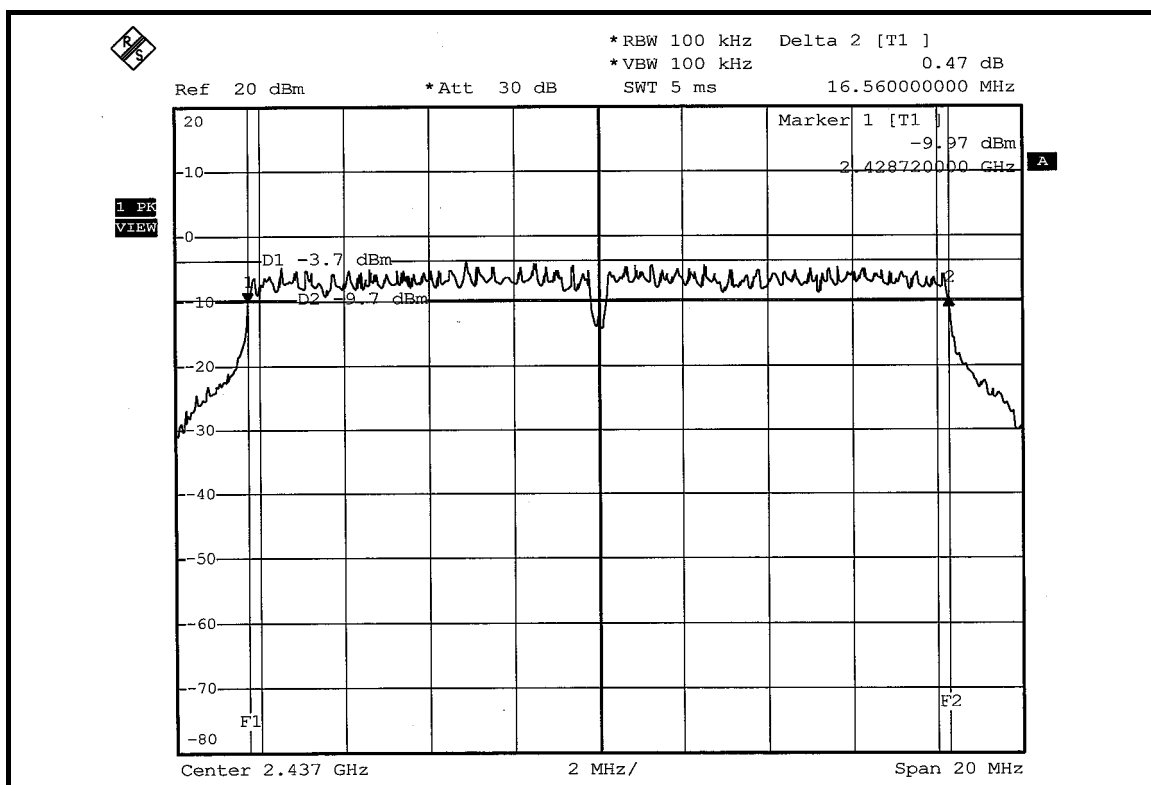
CH 11



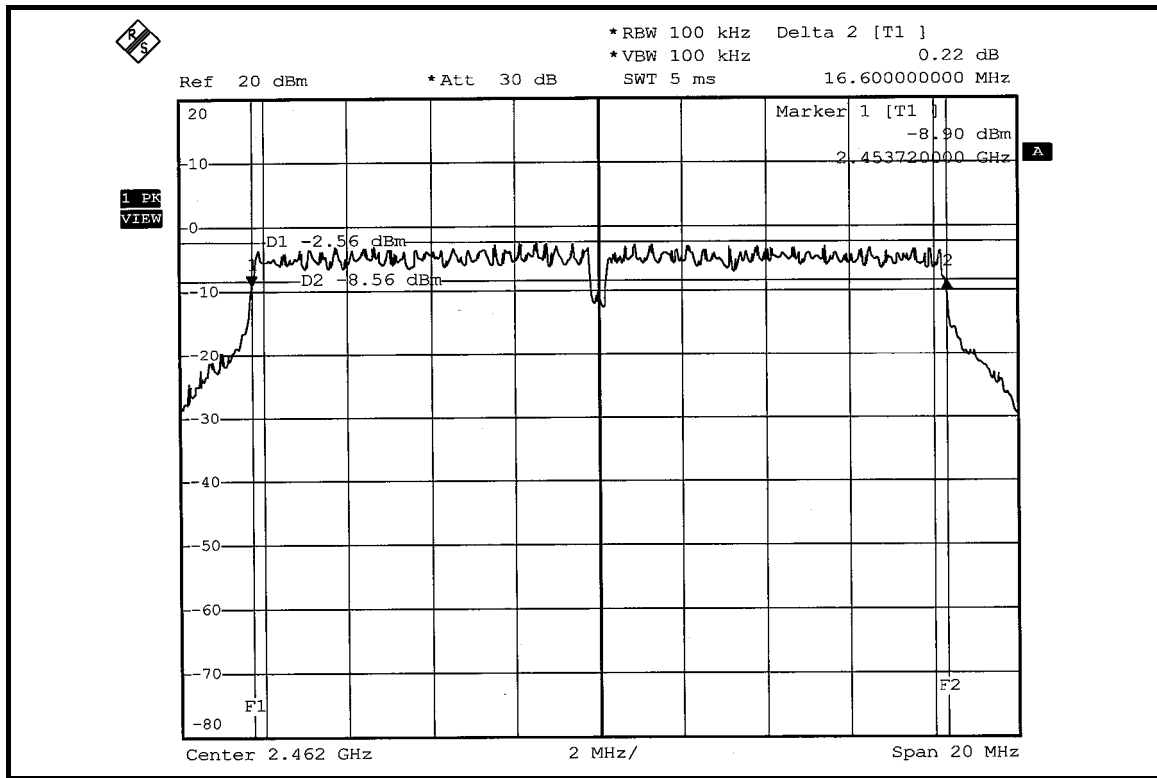
FOR CHAIN 1: CH 1



CH 6



CH 11

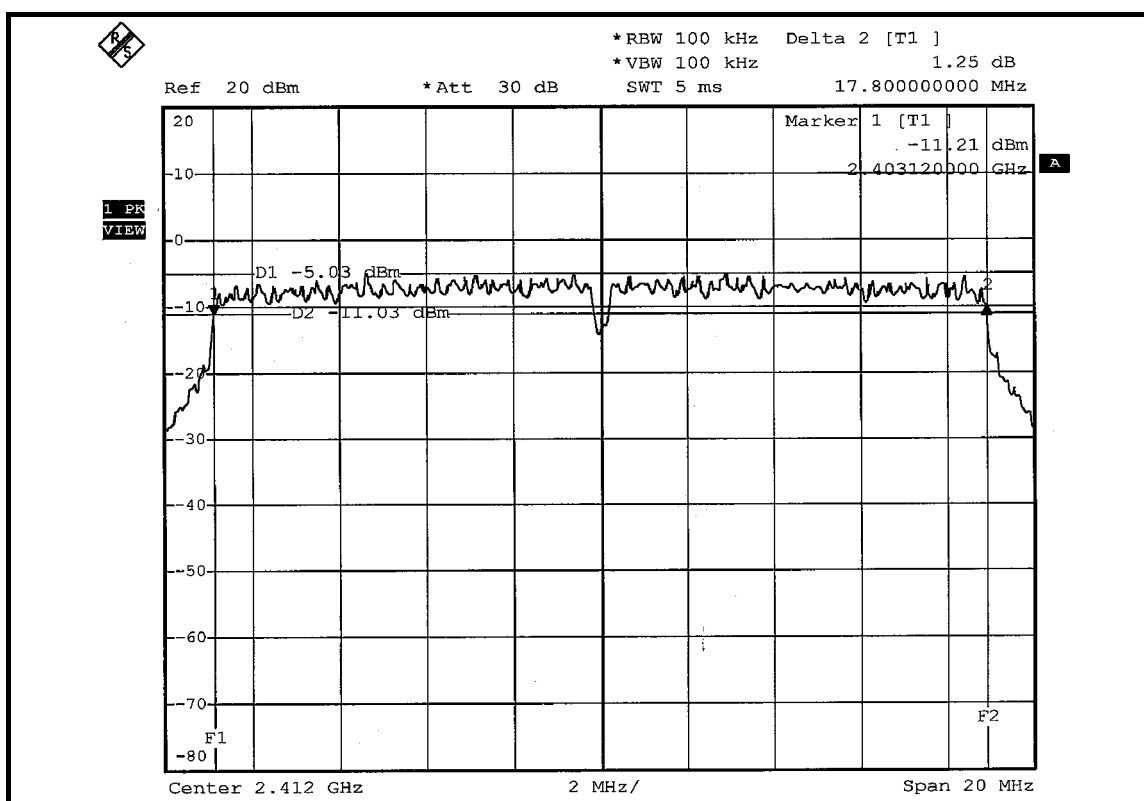


DRAFT 802.11n (20MHz) OFDM MODULATION: SINGLE TX:

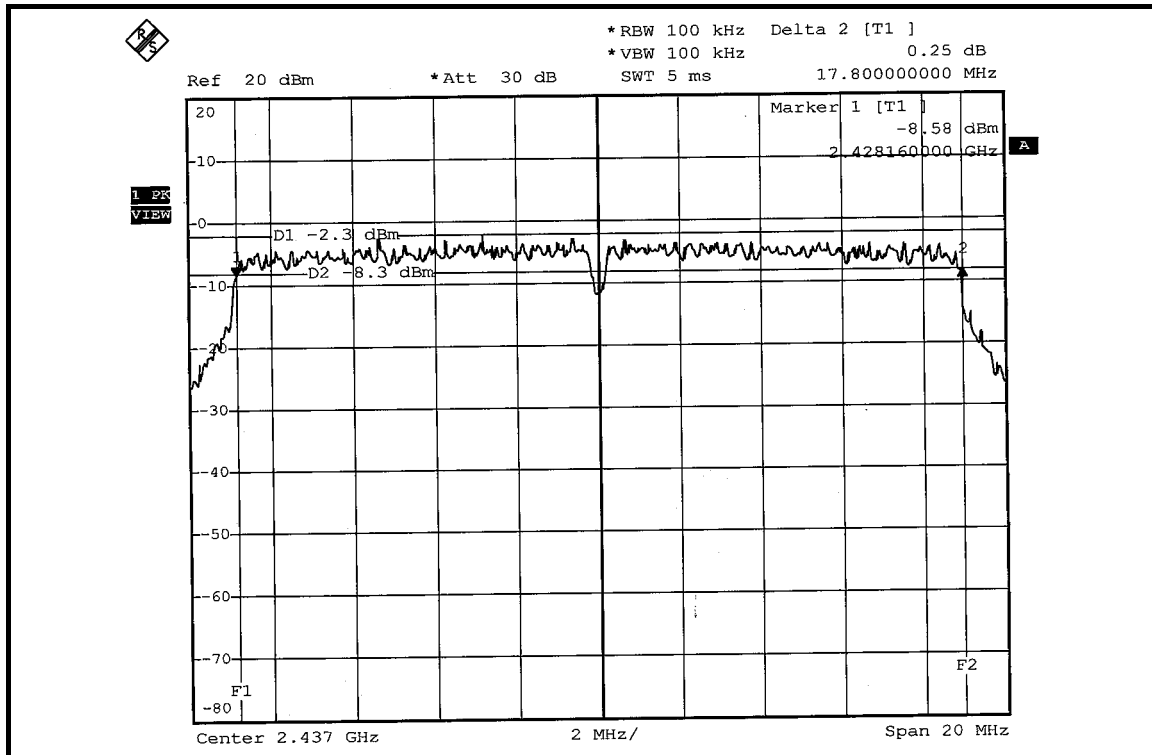
MODULATION TYPE	BPSK	TRANSFER RATE	7.2Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Long Chen		

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

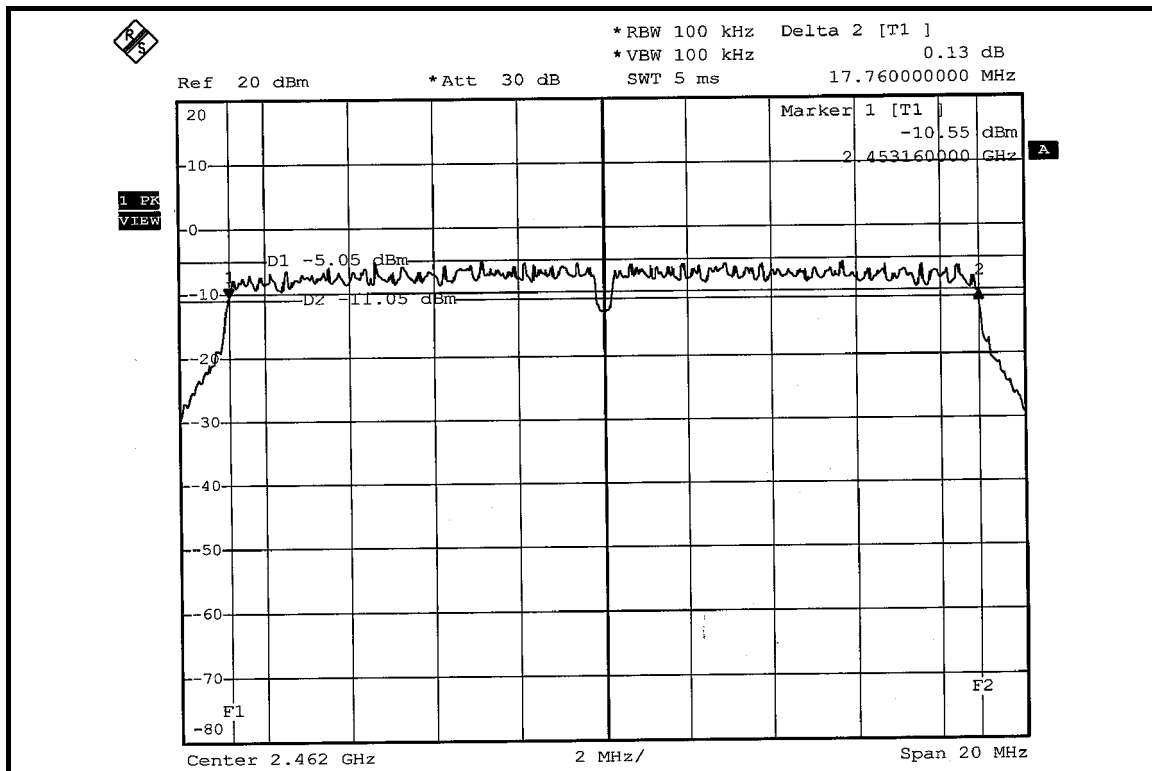
CH 1



CH 6



CH 11

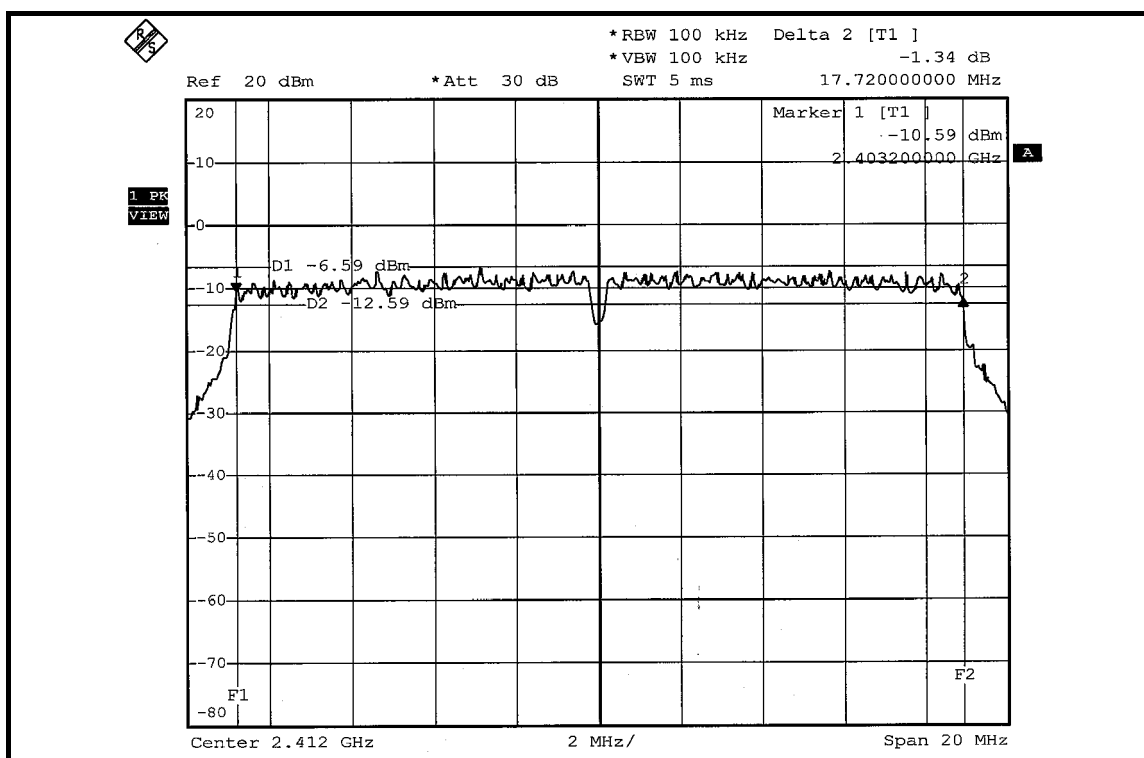


DRAFT 802.11n (20MHz) OFDM MODULATION: DUAL TX:

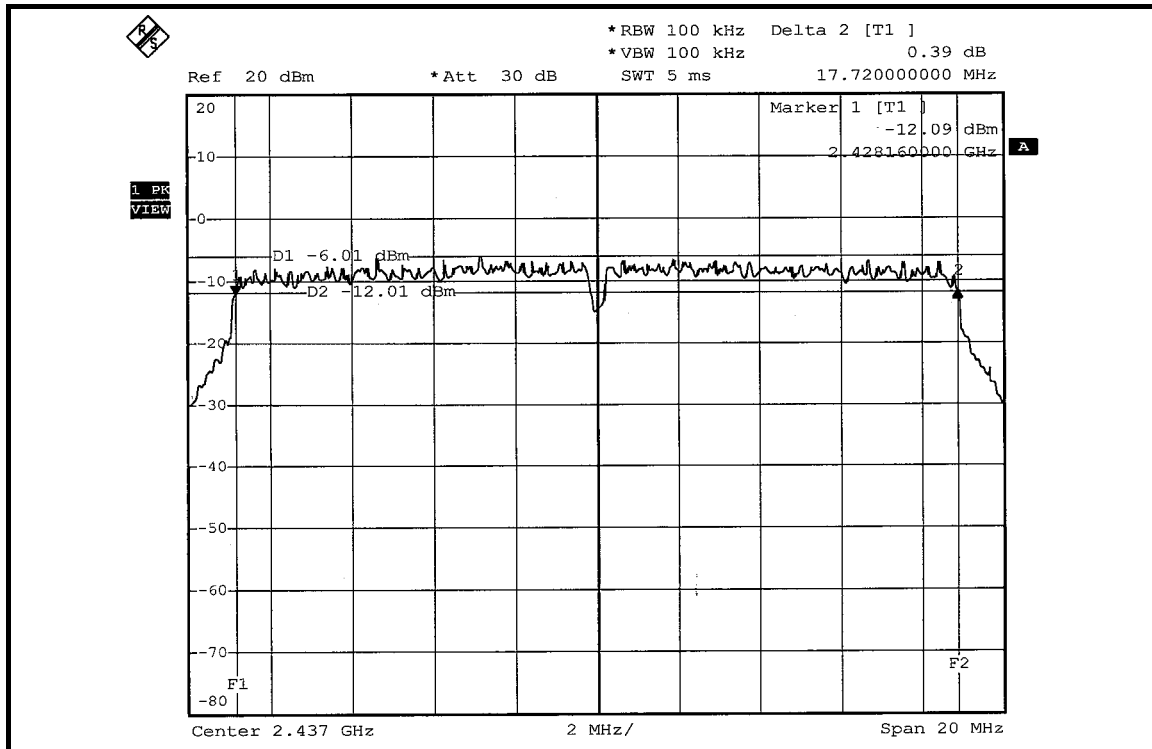
MODULATION TYPE	BPSK	TRANSFER RATE	14.444Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	17.72	17.68	0.5	PASS
6	2437	17.72	17.64	0.5	PASS
11	2462	17.76	17.72	0.5	PASS

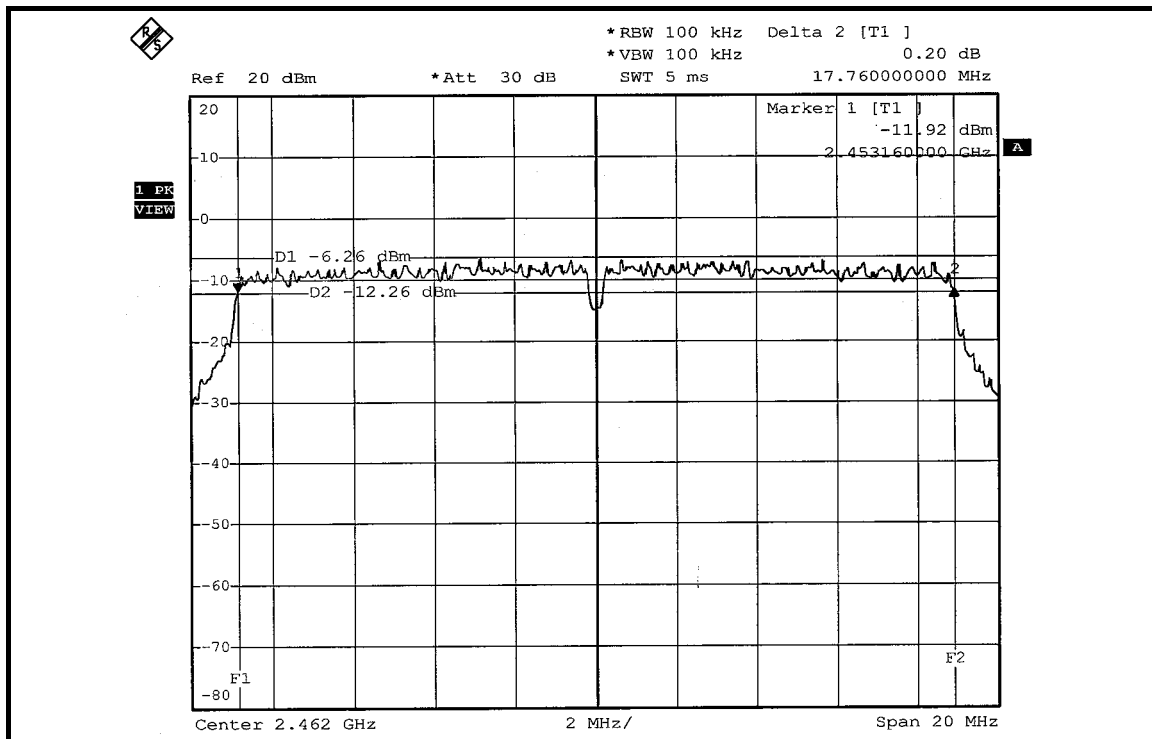
FOR CHAIN 0: CH 1



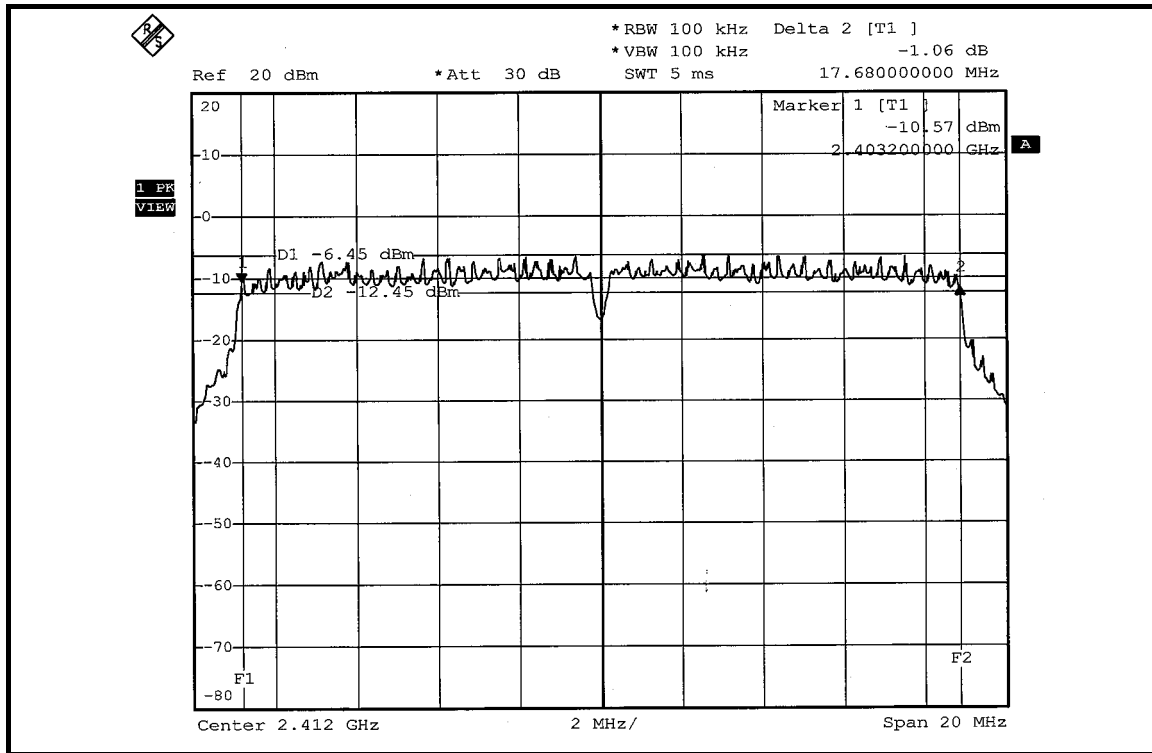
CH 6



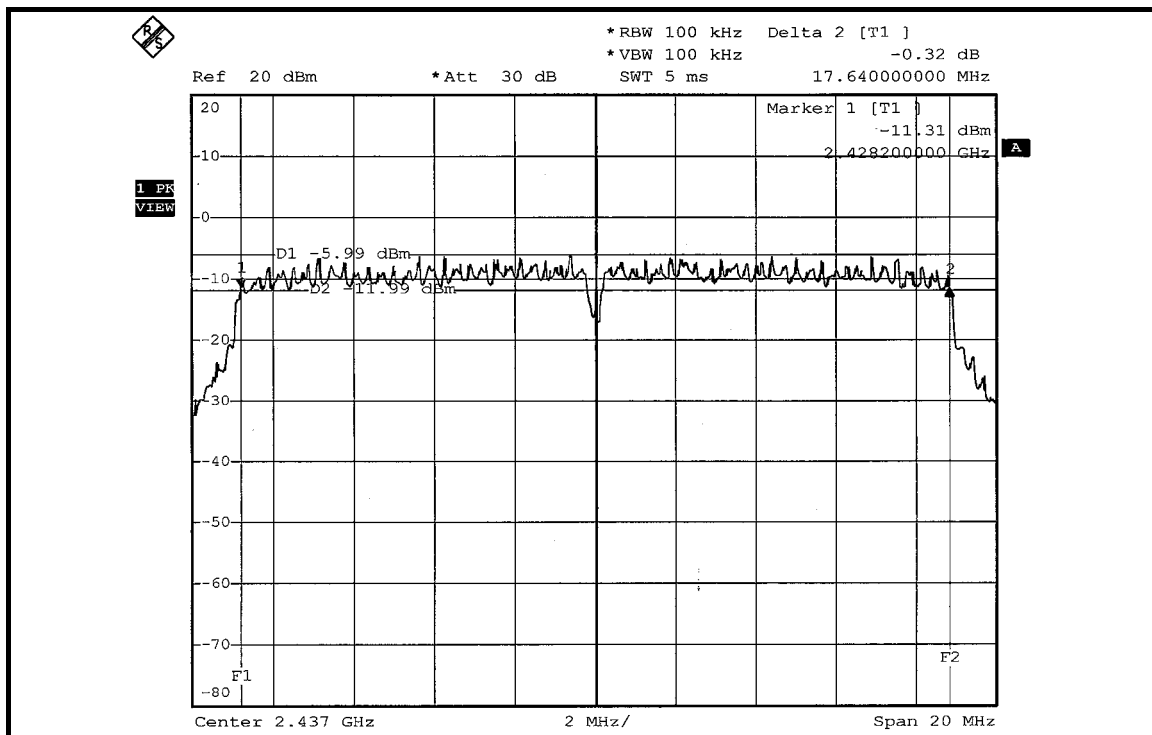
CH 11



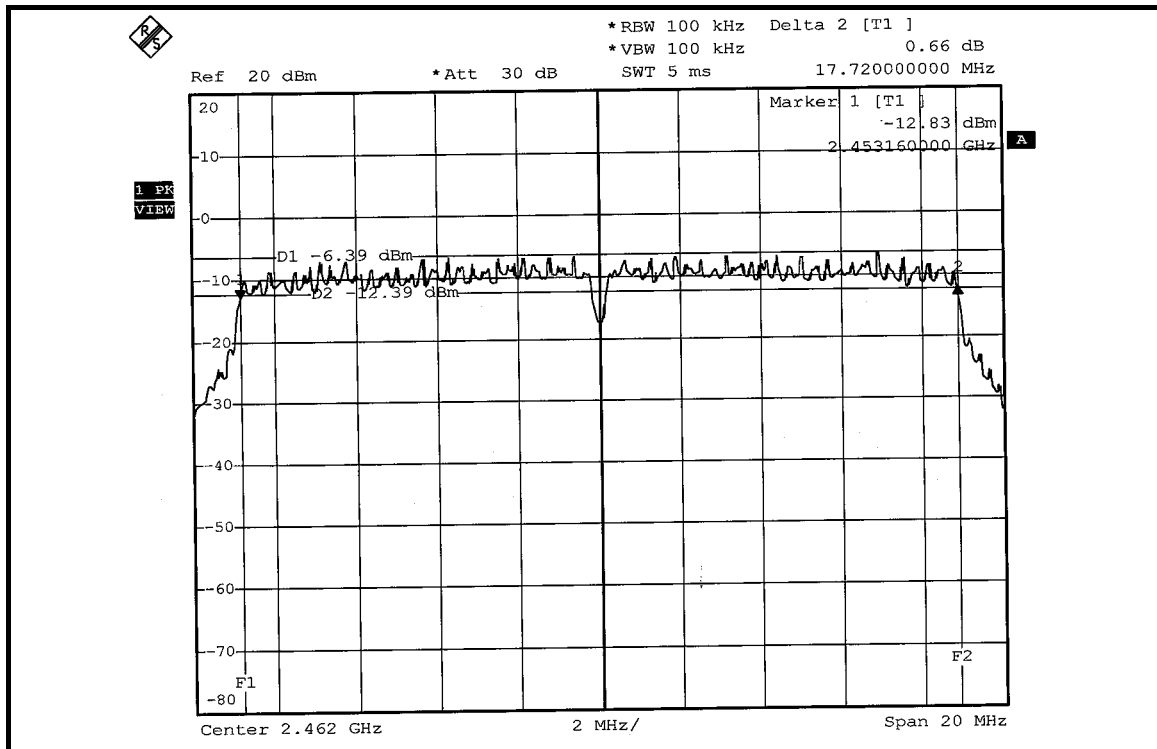
FOR CHAIN 1: CH 1



CH 6



CH 11

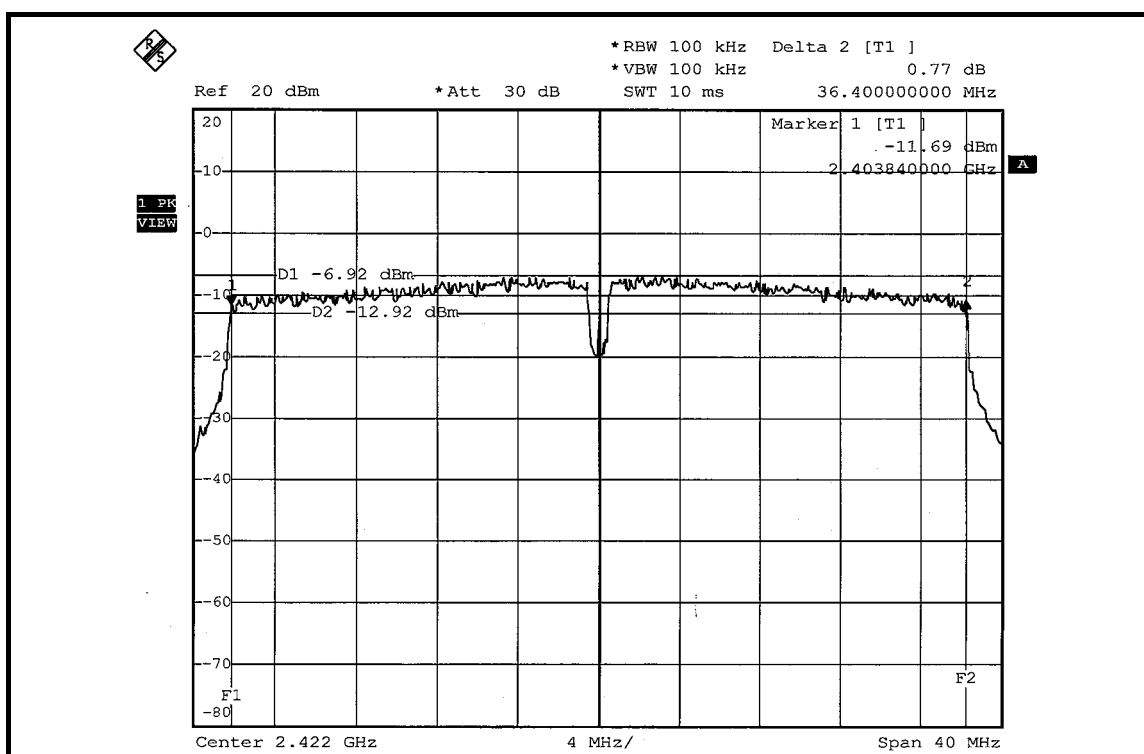


DRAFT 802.11n (40MHz) OFDM MODULATION: SINGLE TX:

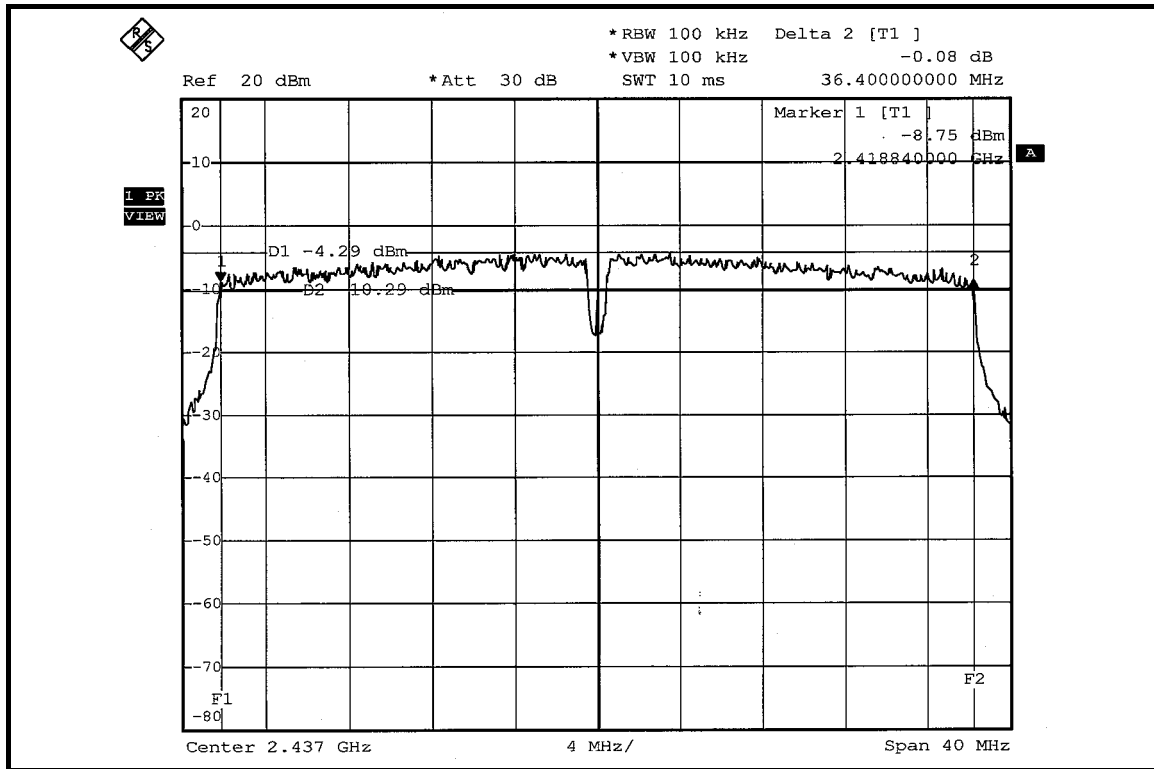
MODULATION TYPE	BPSK	TRANSFER RATE	15Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Long Chen		

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

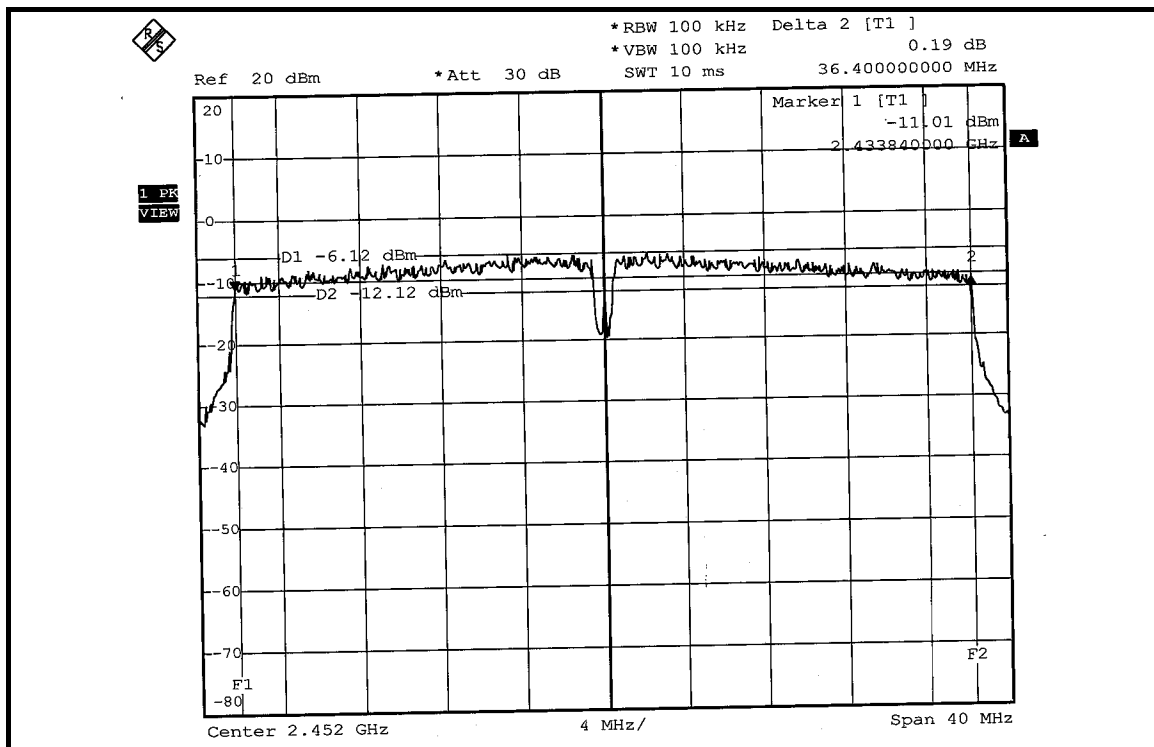
CH 1



CH 4



CH 7

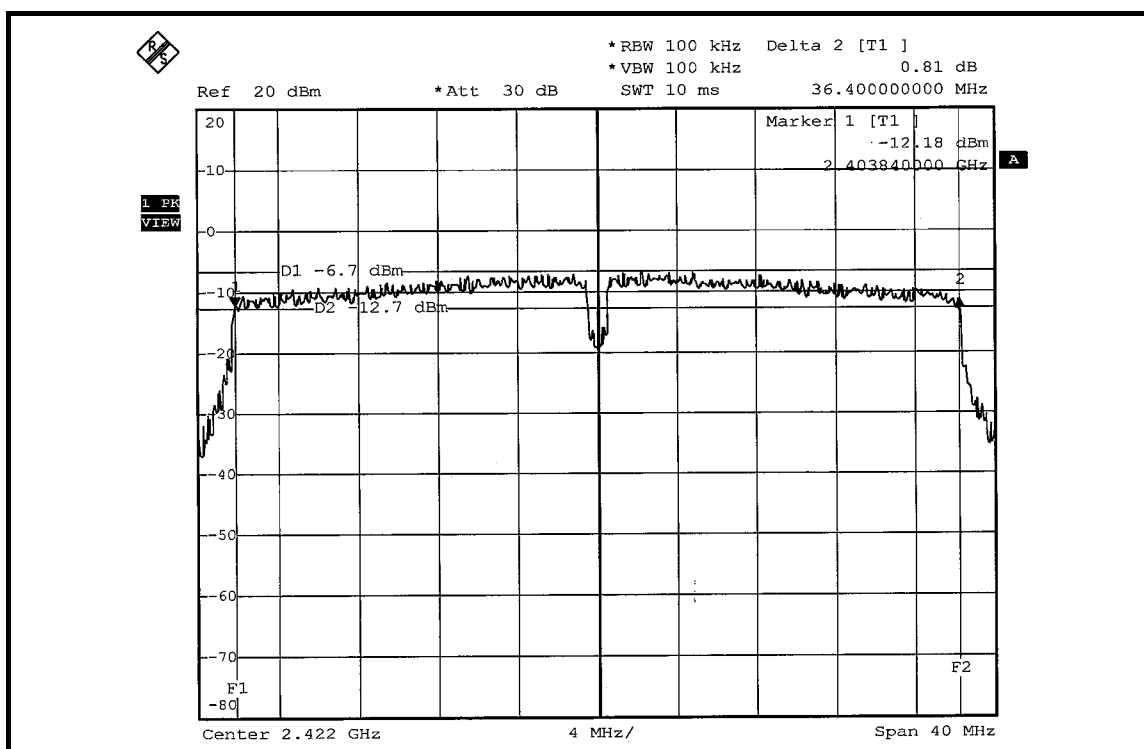


DRAFT 802.11n (40MHz) OFDM MODULATION: DUAL TX:

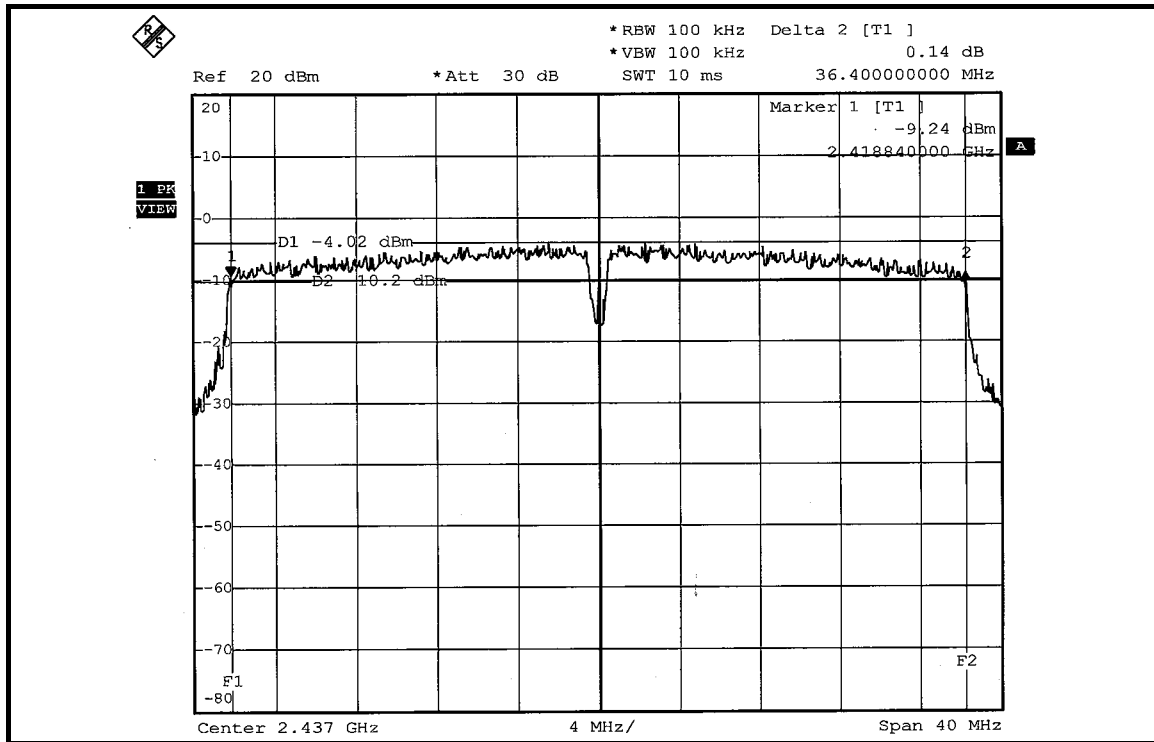
MODULATION TYPE	BPSK	TRANSFER RATE	30Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Long Chen		

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

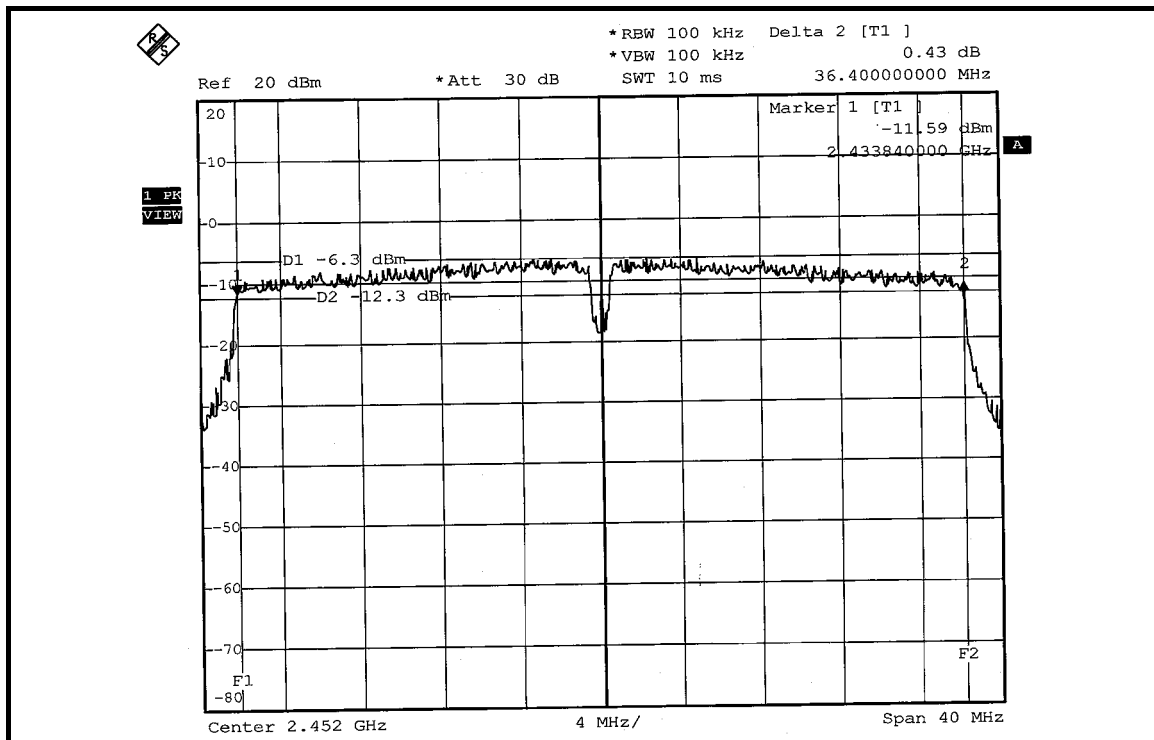
FOR CHAIN 0: CH 1



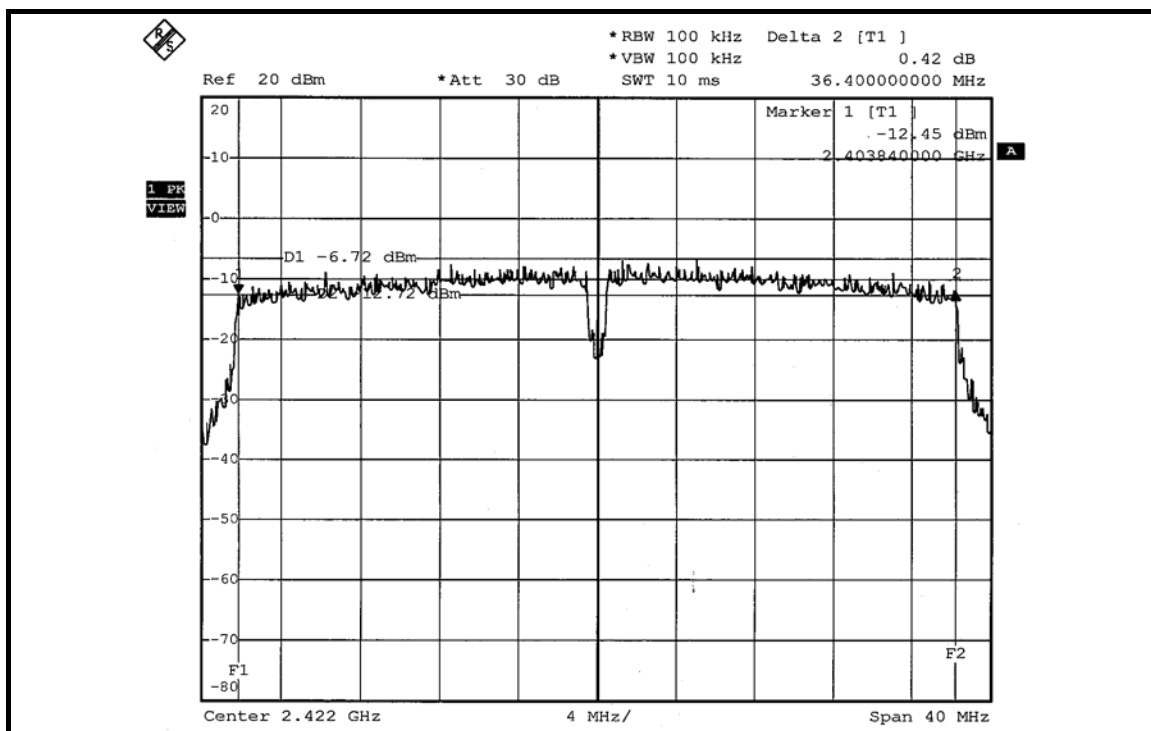
CH 4



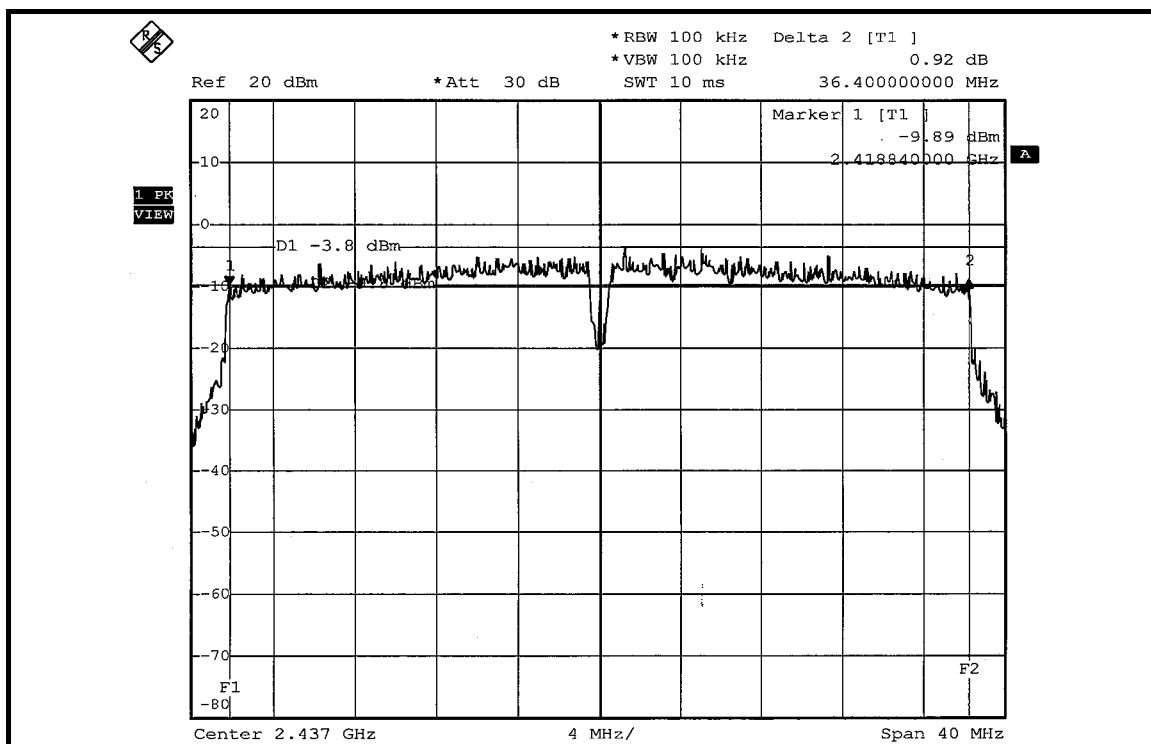
CH 7



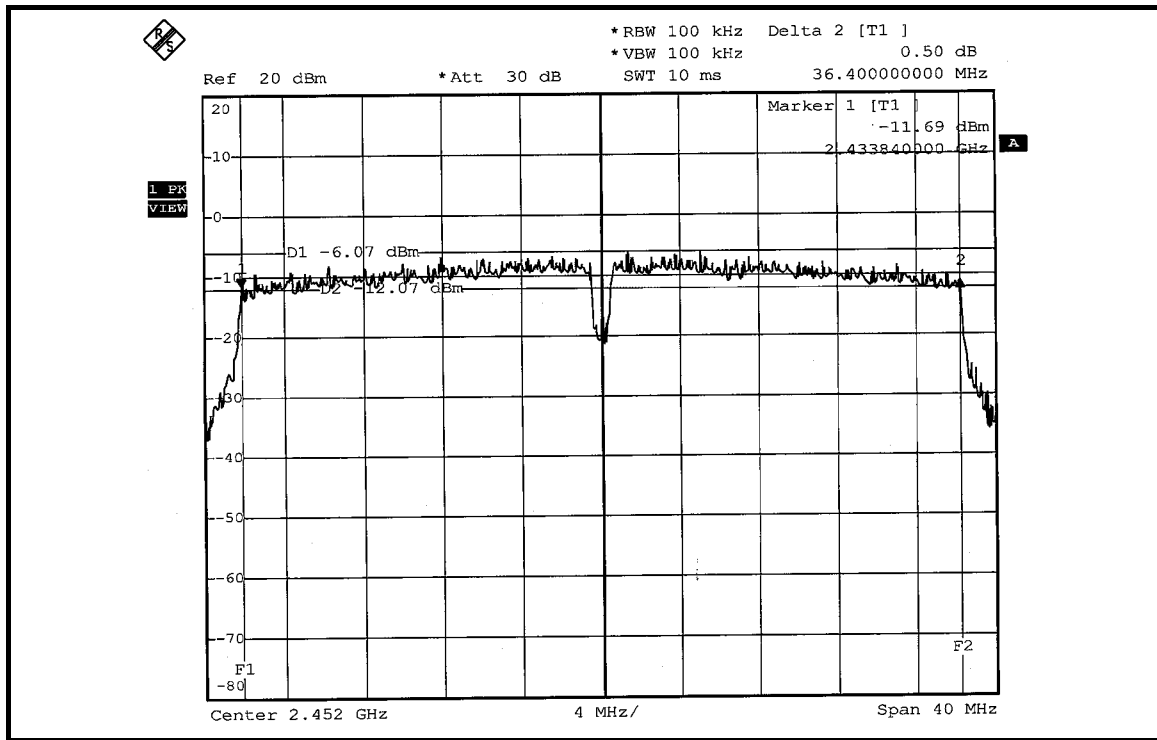
FOR CHAIN 1: CH 1



CH 4



CH 7





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.

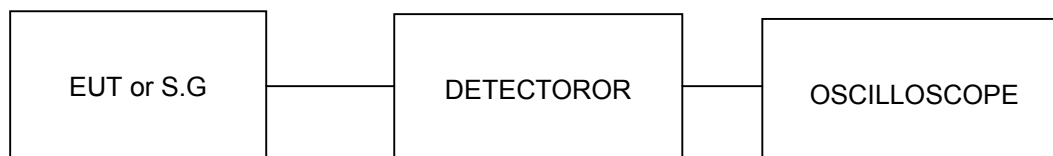
4.4.3 TEST PROCEDURES

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

4.4.7 TEST RESULTS

802.11b DSSS MODULATION: Single TX

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

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	35.563	15.51	30	PASS
6	2437	63.973	18.06	30	PASS
11	2462	32.211	15.08	30	PASS

802.11b DSSS MODULATION: Dual TX

MODULATION TYPE	DBPSK	TRANSFER RATE	1Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Morgan Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)		PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
1	2412	45.186	44.875	16.55	16.52	90.061	19.55	30	PASS
6	2437	51.404	50.699	17.11	17.05	102.103	20.09	30	PASS
11	2462	50.933	50.350	17.07	17.02	101.283	20.06	30	PASS



802.11g OFDM MODULATION: Single TX

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

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	40.179	16.04	30	PASS
6	2437	56.885	17.55	30	PASS
11	2462	39.811	16.00	30	PASS

802.11g OFDM MODULATION: Dual TX

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

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)		PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
1	2412	22.542	22.699	13.53	13.56	45.241	16.56	30	PASS
6	2437	25.351	25.586	14.04	14.08	50.937	17.07	30	PASS
11	2462	22.751	22.594	13.57	13.54	45.345	16.57	30	PASS



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	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	32.285	15.09	30	PASS
6	2437	50.699	17.05	30	PASS
11	2462	31.915	15.04	30	PASS

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	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)		PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
1	2412	22.542	22.699	13.53	13.56	45.241	16.56	30	PASS
6	2437	25.351	25.586	14.04	14.08	50.937	17.07	30	PASS
11	2462	22.751	22.594	13.57	13.54	45.345	16.57	30	PASS



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	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2422	22.439	13.51	30	PASS
4	2437	39.994	16.02	30	PASS
7	2452	25.586	14.08	30	PASS

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	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)		PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
1	2422	22.594	22.491	13.54	13.52	45.085	16.54	30	PASS
4	2437	40.365	40.179	16.06	16.04	80.544	19.06	30	PASS
7	2452	25.177	25.177	14.01	14.01	50.354	17.02	30	PASS



4.5 POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSEK30	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.

4.5.3 TEST PROCEDURE

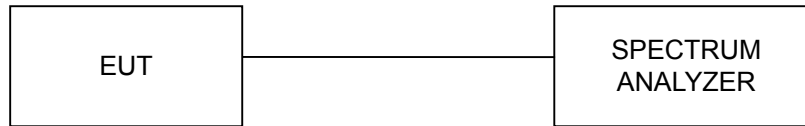
The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITION

Same as Item 4.3.6

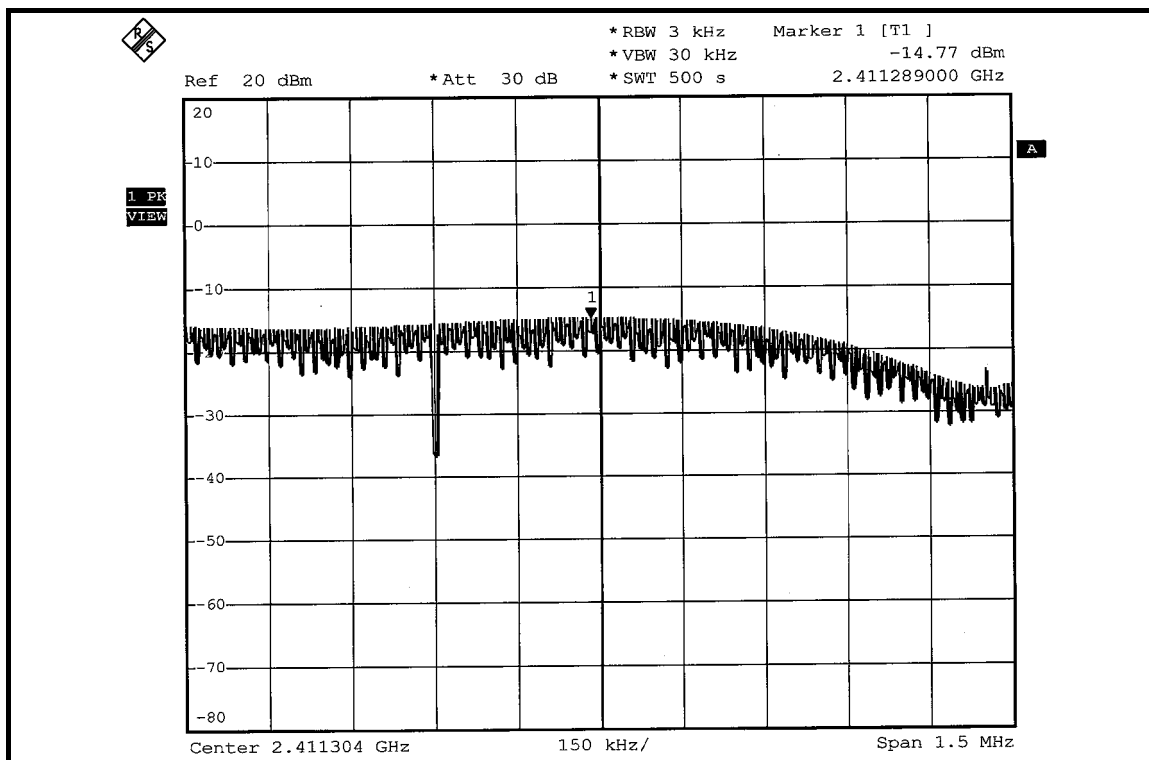
4.5.7 TEST RESULTS

802.11b DSSS MODULATION: Single TX

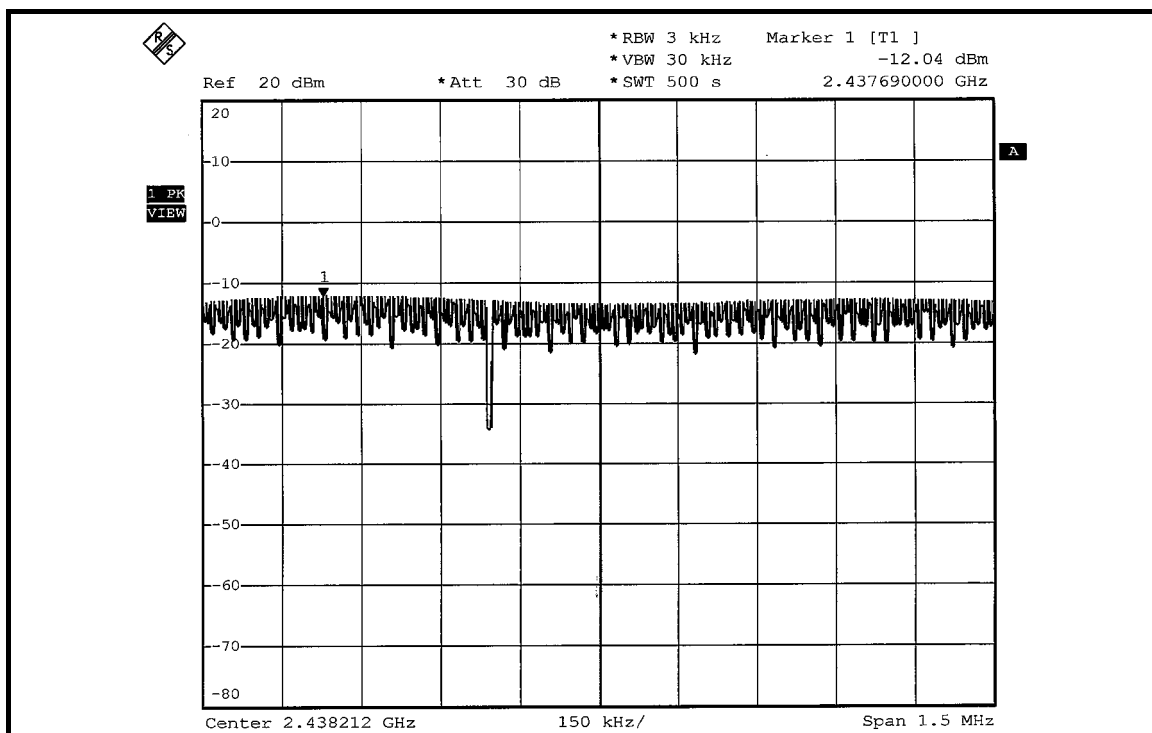
MODULATION TYPE	DBPSK	TRANSFER RATE	1Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-14.77	8	PASS
6	2437	-12.04	8	PASS
11	2462	-15.20	8	PASS

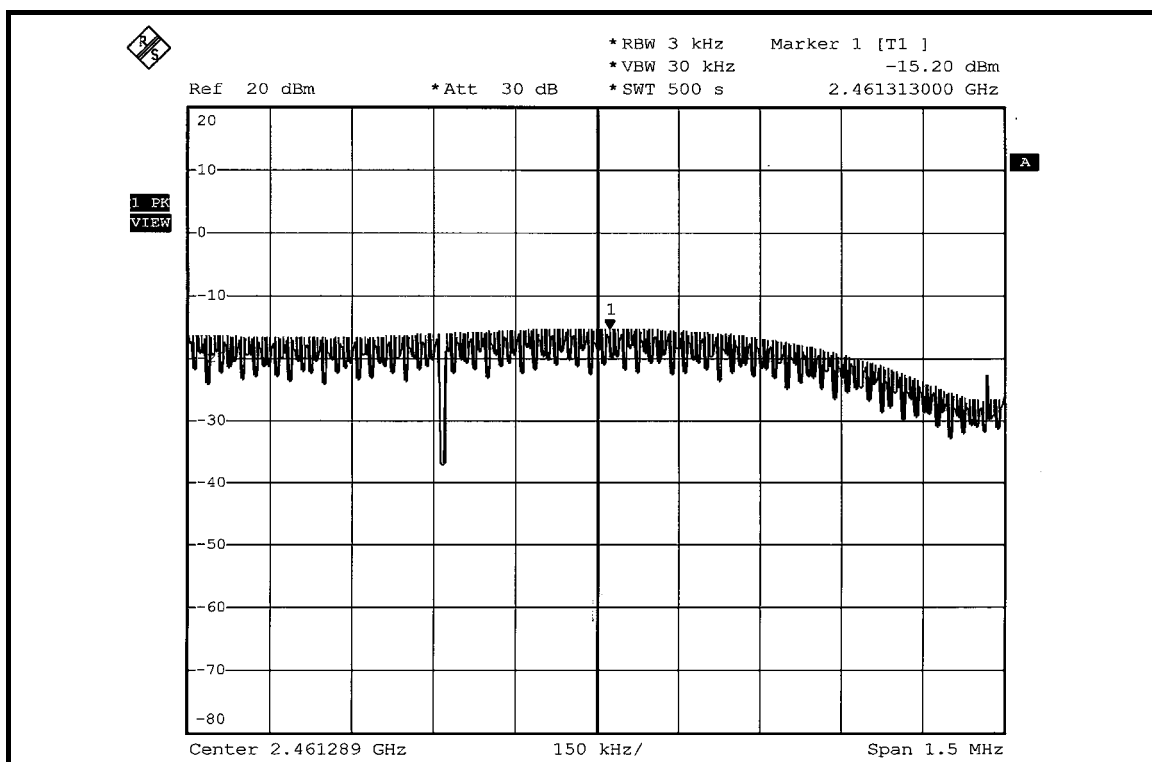
CH 1



CH 6



CH 11



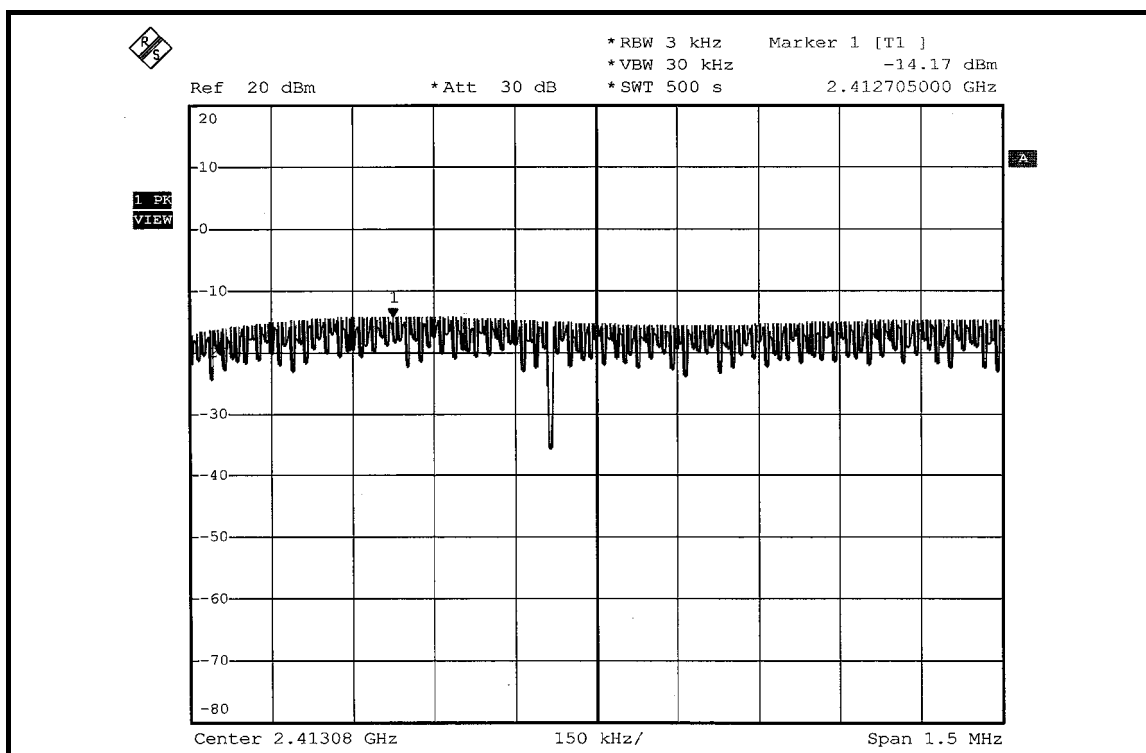


802.11b DSSS MODULATION: Dual TX

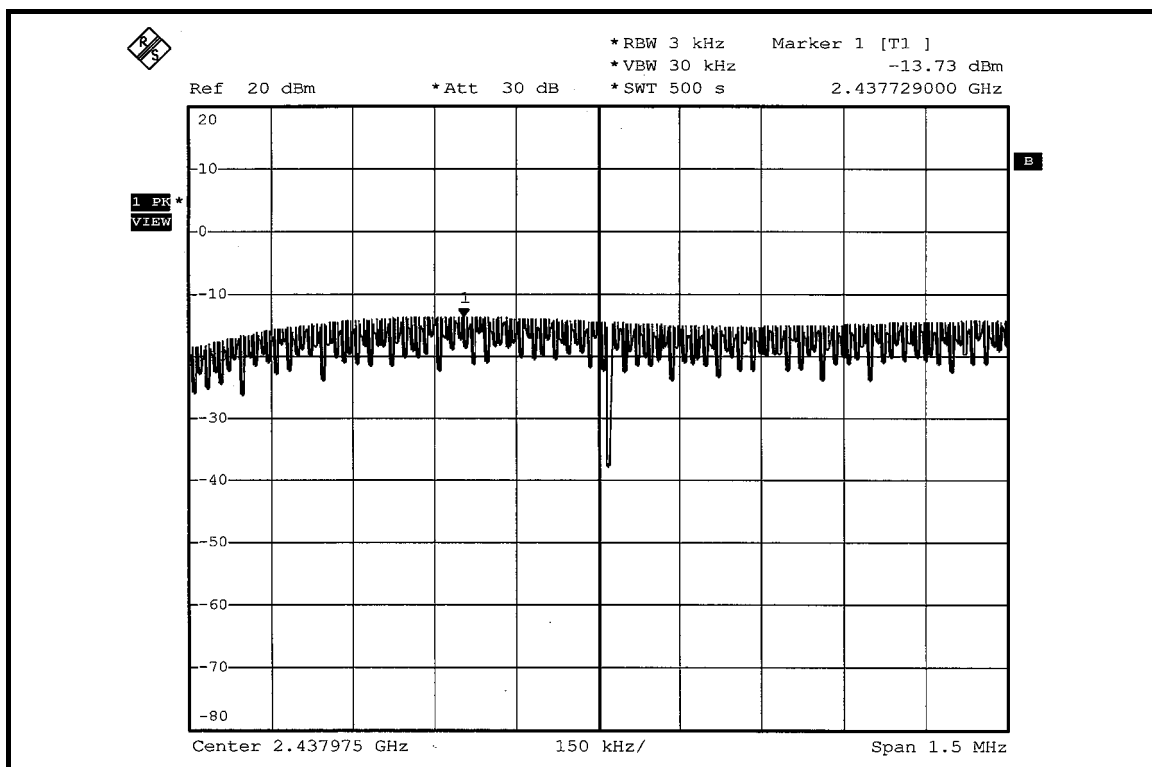
MODULATION TYPE	DBPSK	TRANSFER RATE	1Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Morgan Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		MAXIMUM LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	-14.17	-14.67	8	PASS
6	2437	-13.73	-13.49	8	PASS
11	2462	-13.80	-13.70	8	PASS

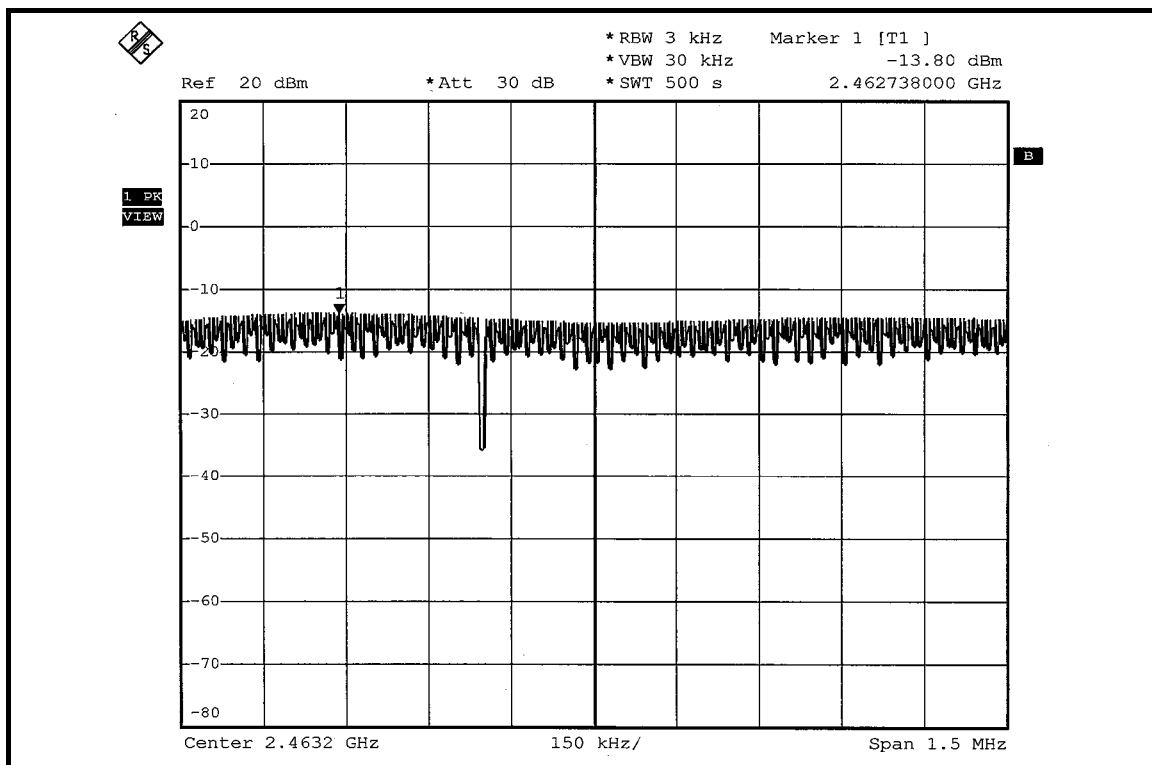
FOR CHAIN 0: CH 1



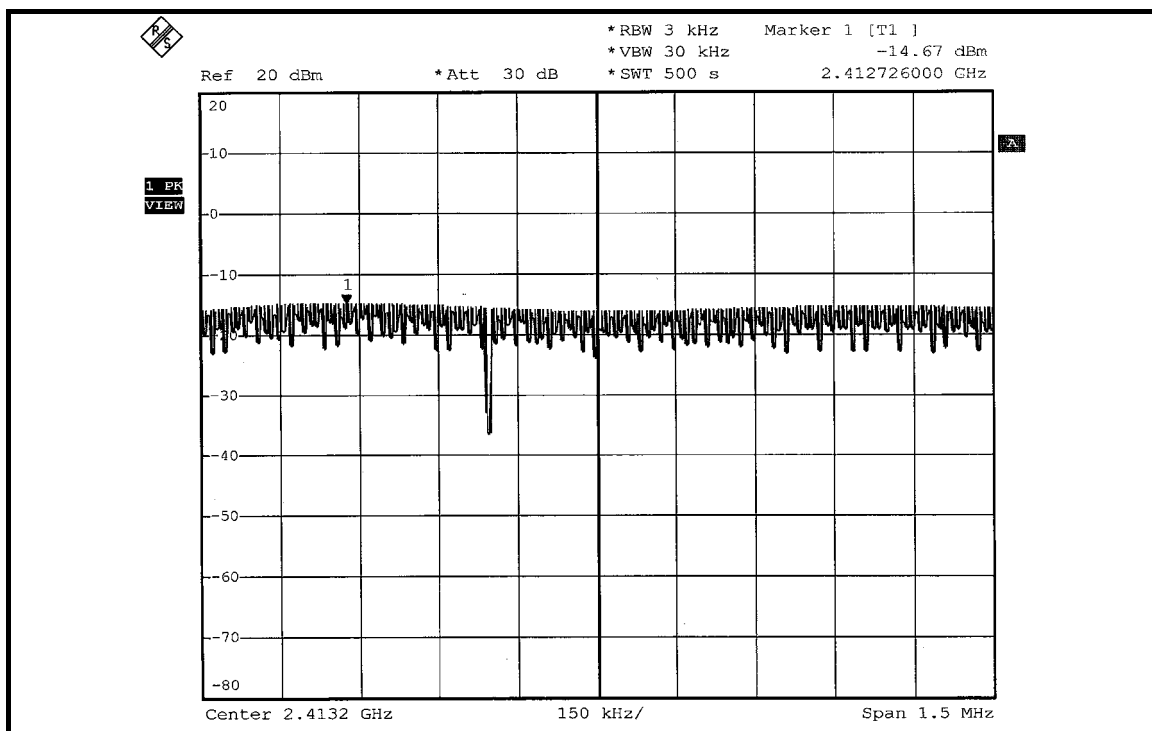
CH 6



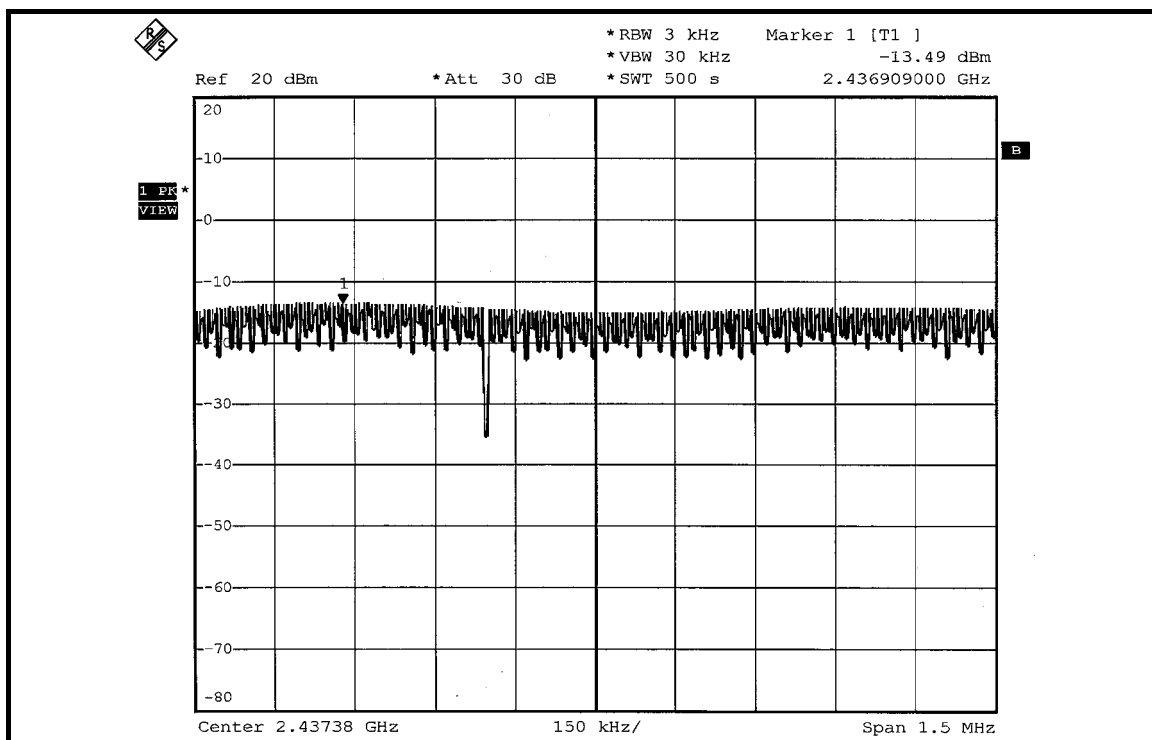
CH 11



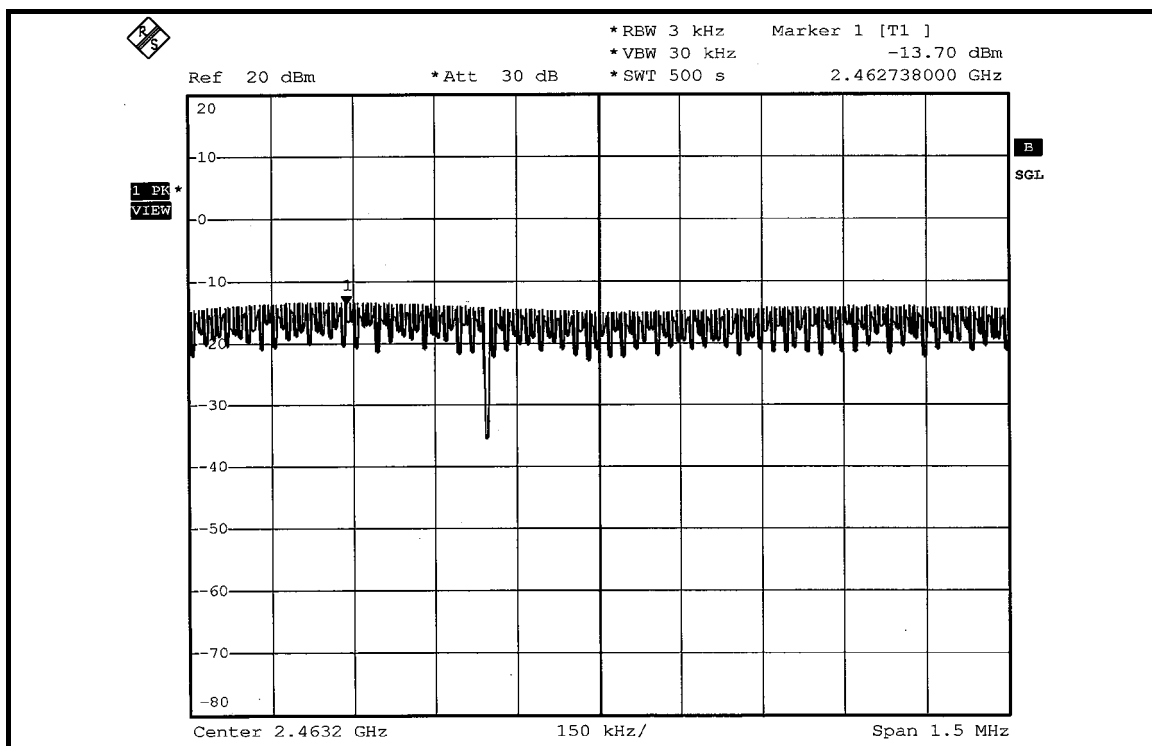
FOR CHAIN 1: CH 1



CH 6



CH 11



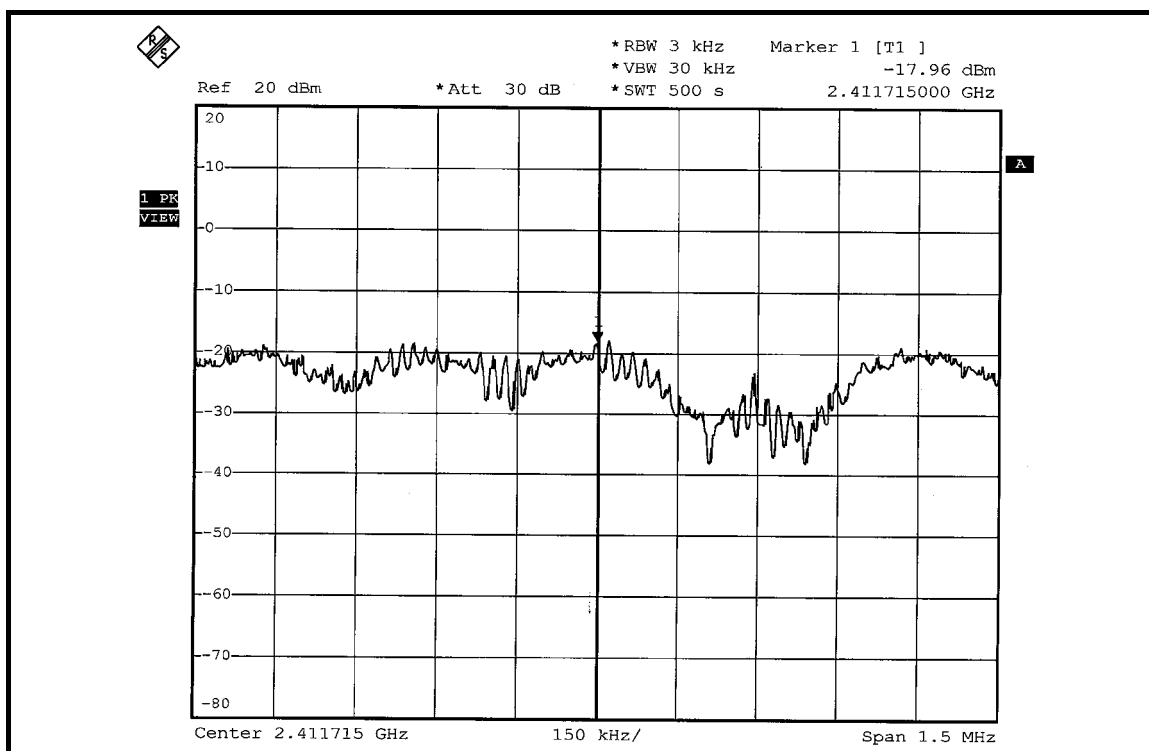


802.11g OFDM MODULATION: Single TX

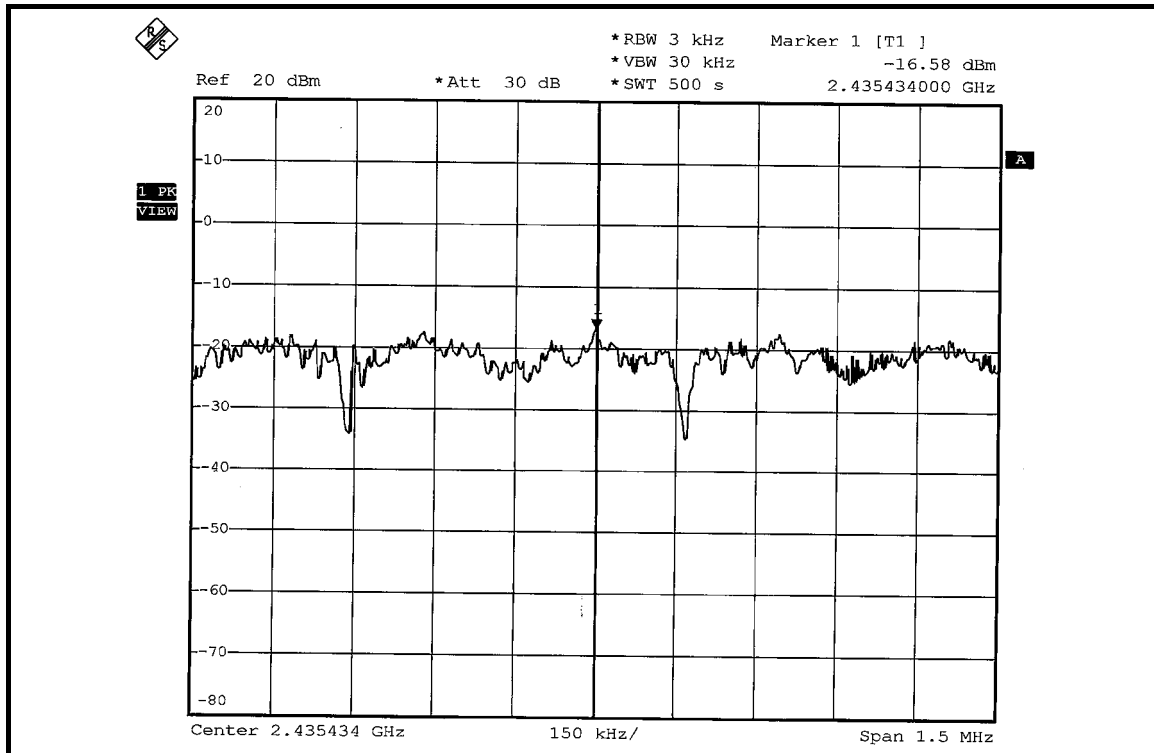
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-17.96	8	PASS
6	2437	-16.58	8	PASS
11	2462	-18.04	8	PASS

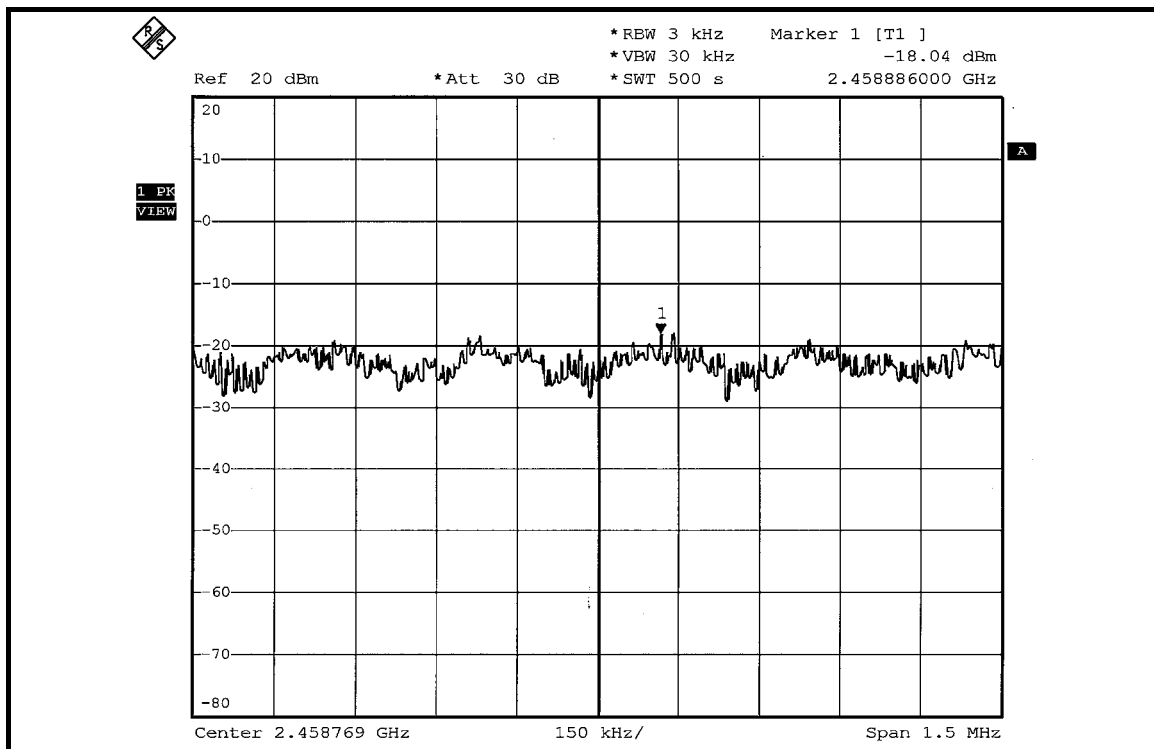
CH 1



CH 6



CH 11



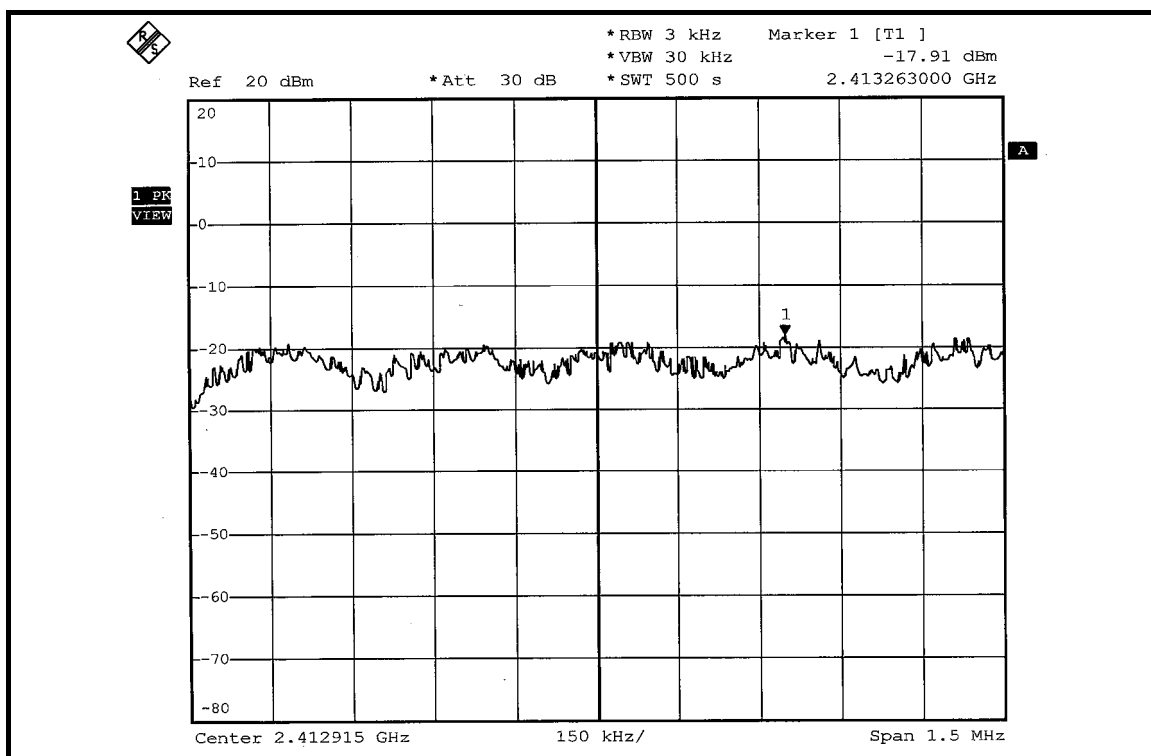


802.11g OFDM MODULATION: Dual TX

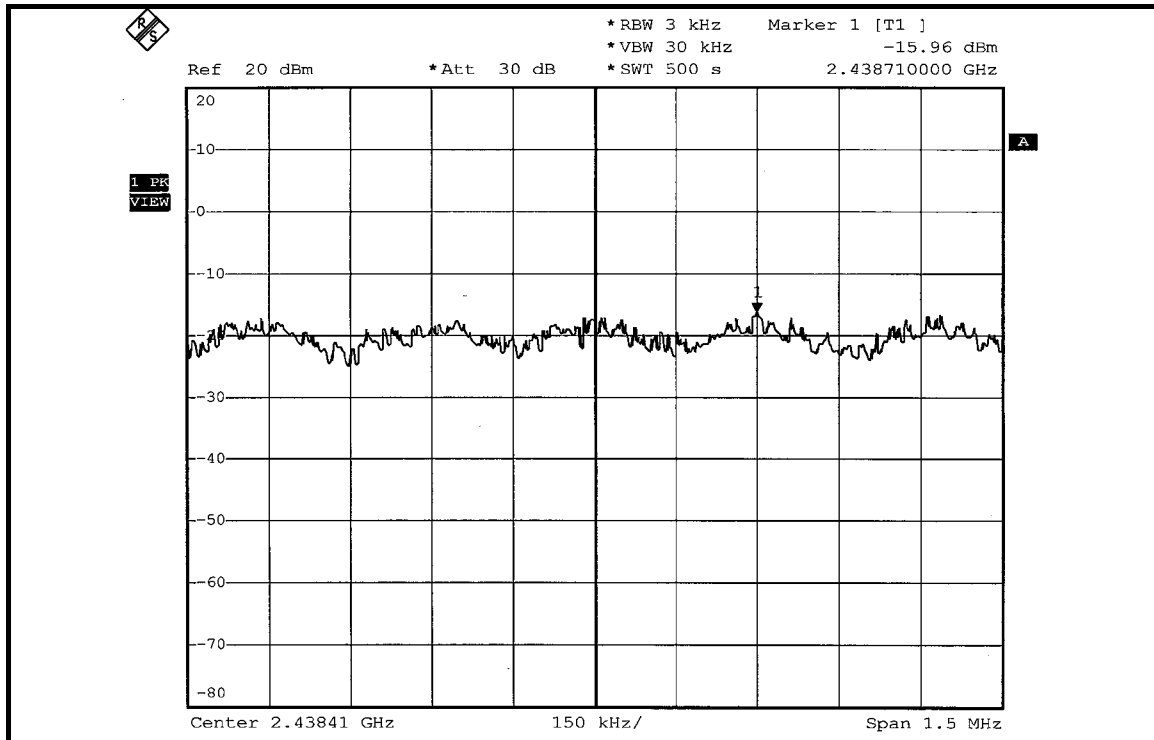
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 991hPa
TESTED BY	Morgan Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		MAXIMUM LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	-17.91	-17.98	8	PASS
6	2437	-15.96	-16.07	8	PASS
11	2462	-17.49	-17.52	8	PASS

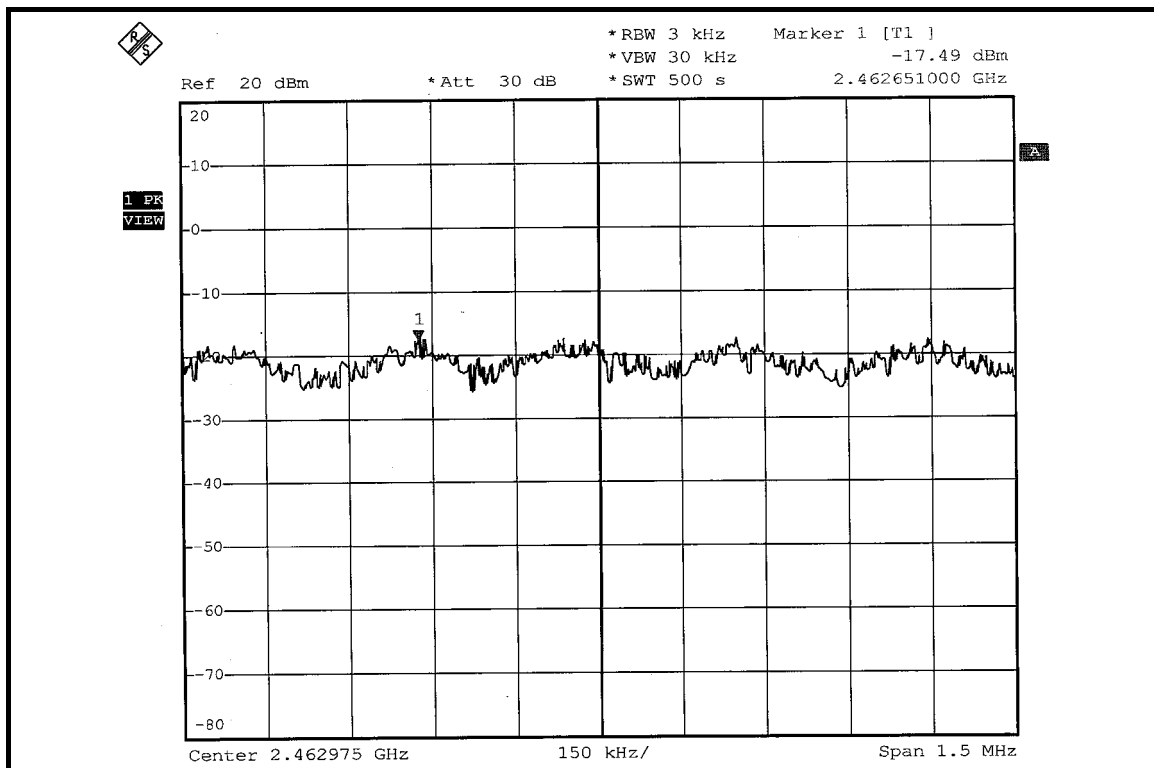
FOR CHAIN 0: CH 1



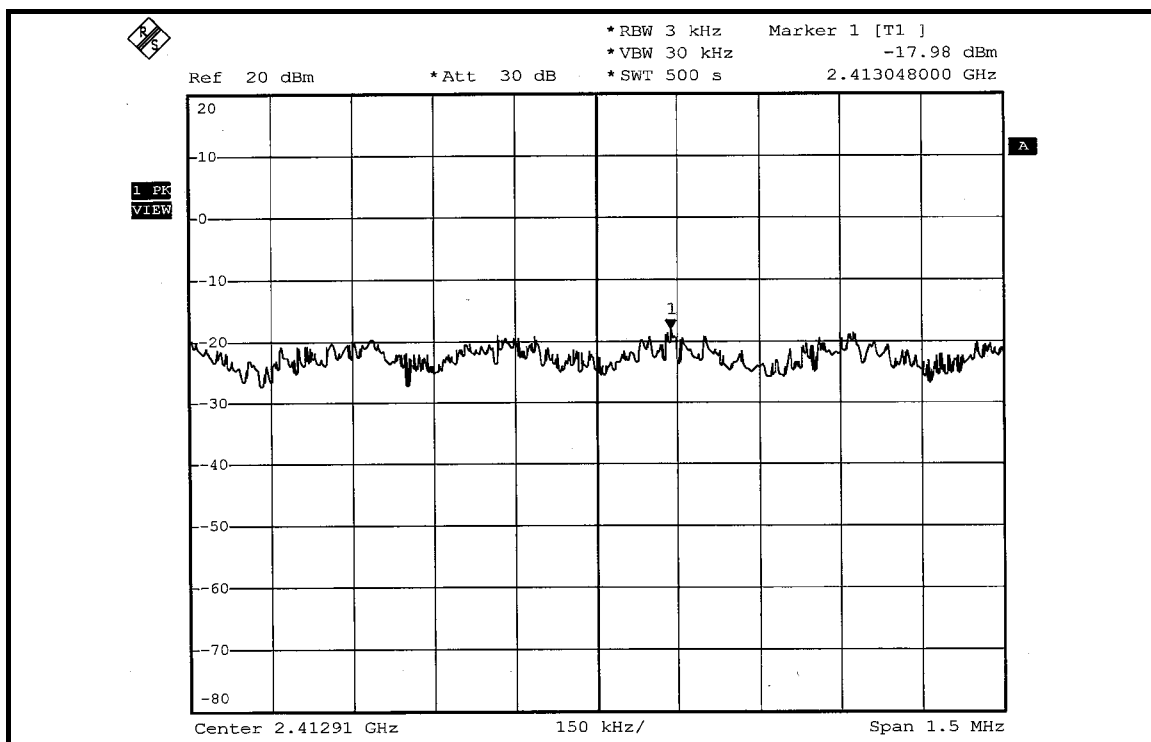
CH 6



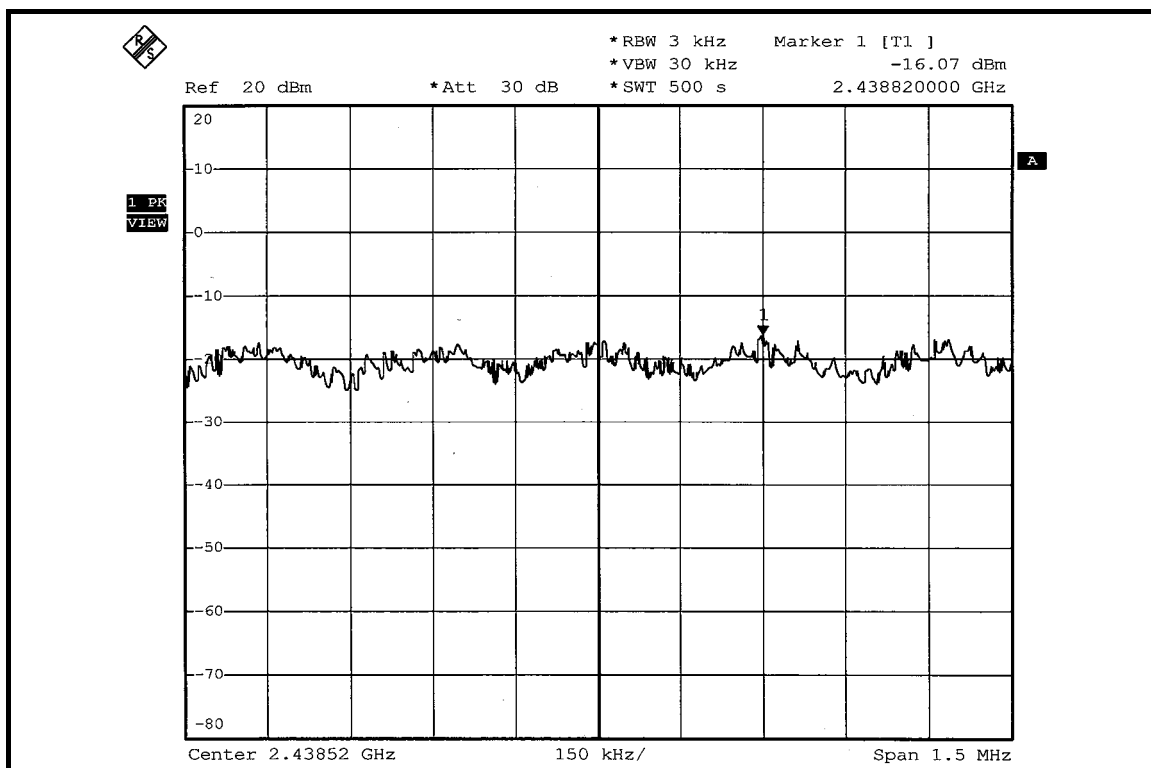
CH 11



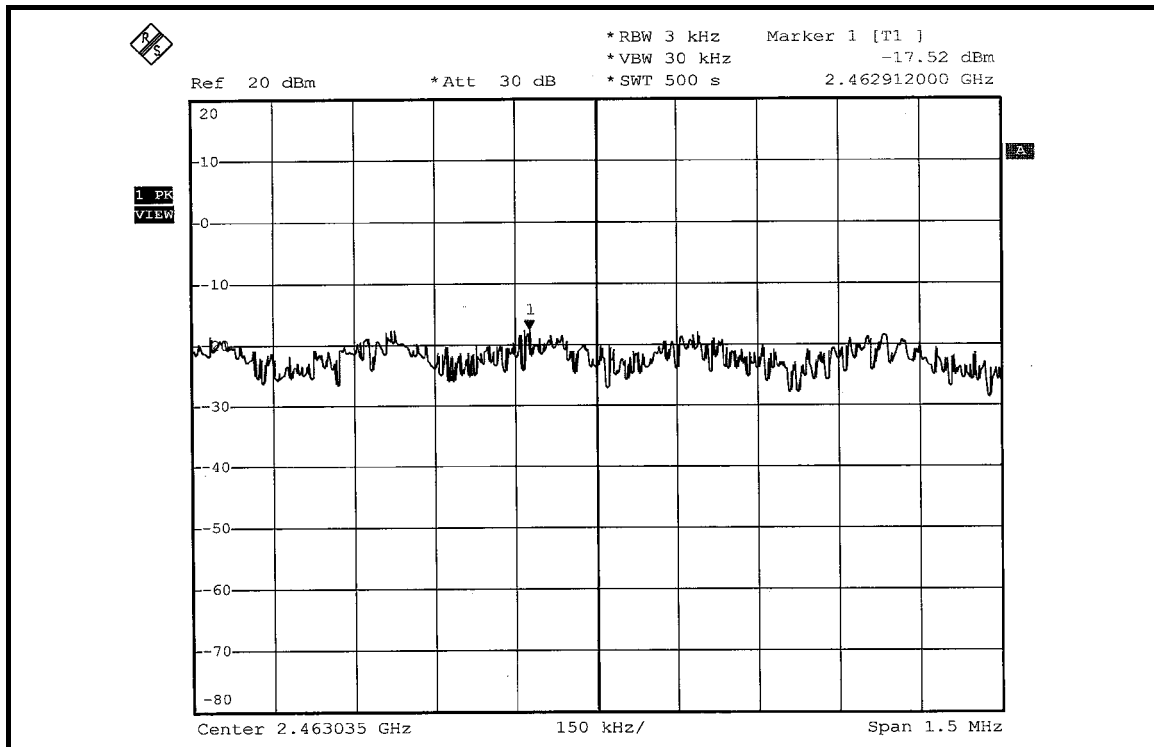
FOR CHAIN 1: CH 1



CH 6



CH 11

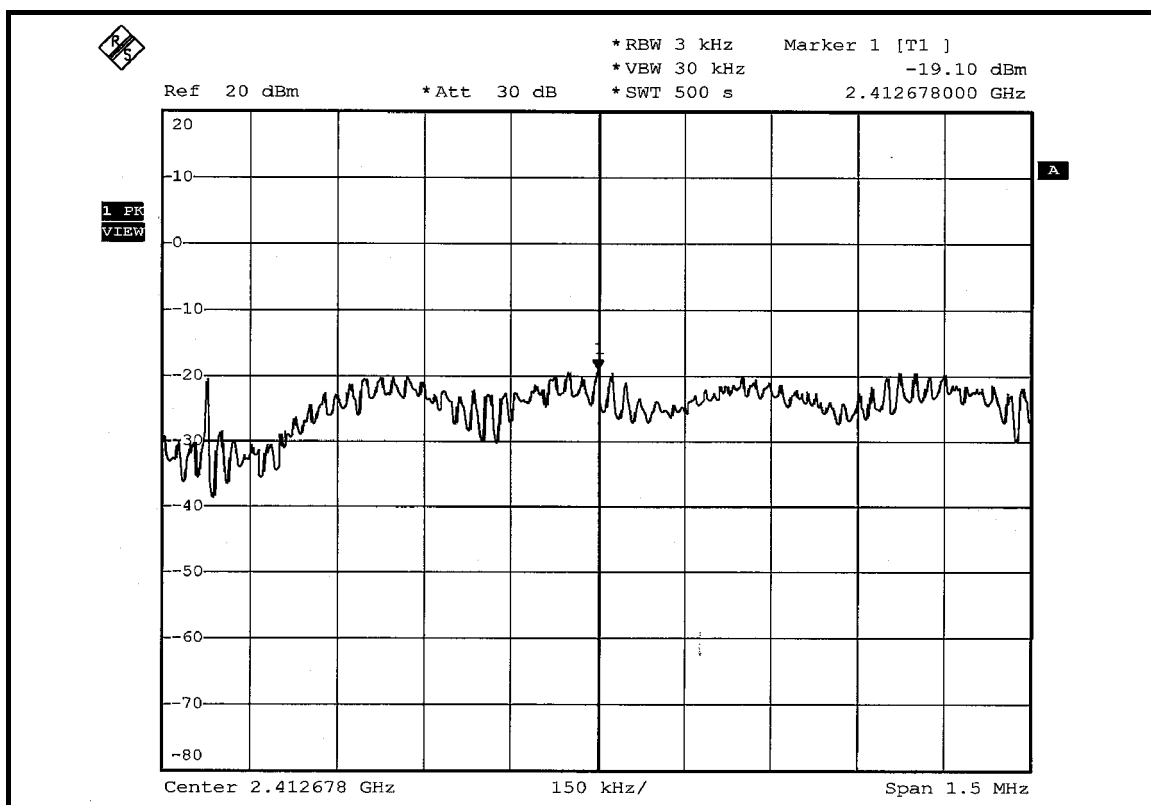


DRAFT 802.11n (20MHz) OFDM MODULATION: SINGLE TX:

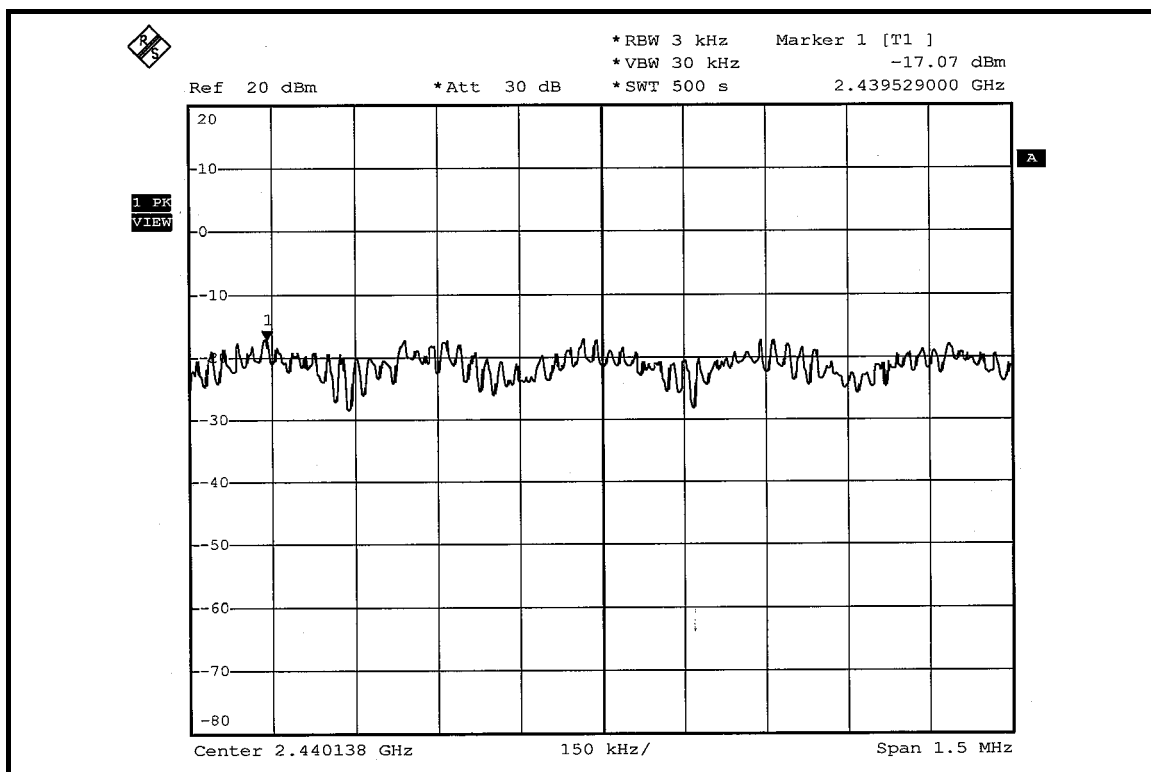
MODULATION TYPE	BPSK	TRANSFER RATE	7.2Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-19.10	8	PASS
6	2437	-17.07	8	PASS
11	2462	-19.16	8	PASS

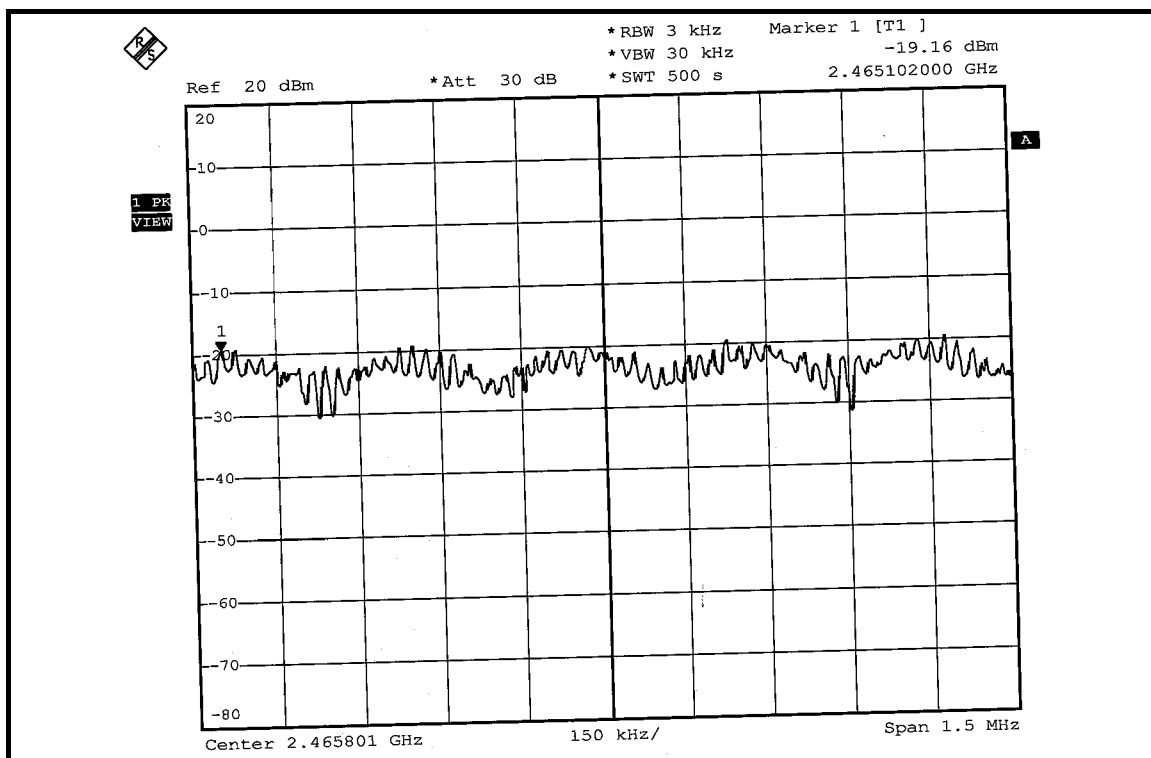
CH 1



CH 6



CH 11

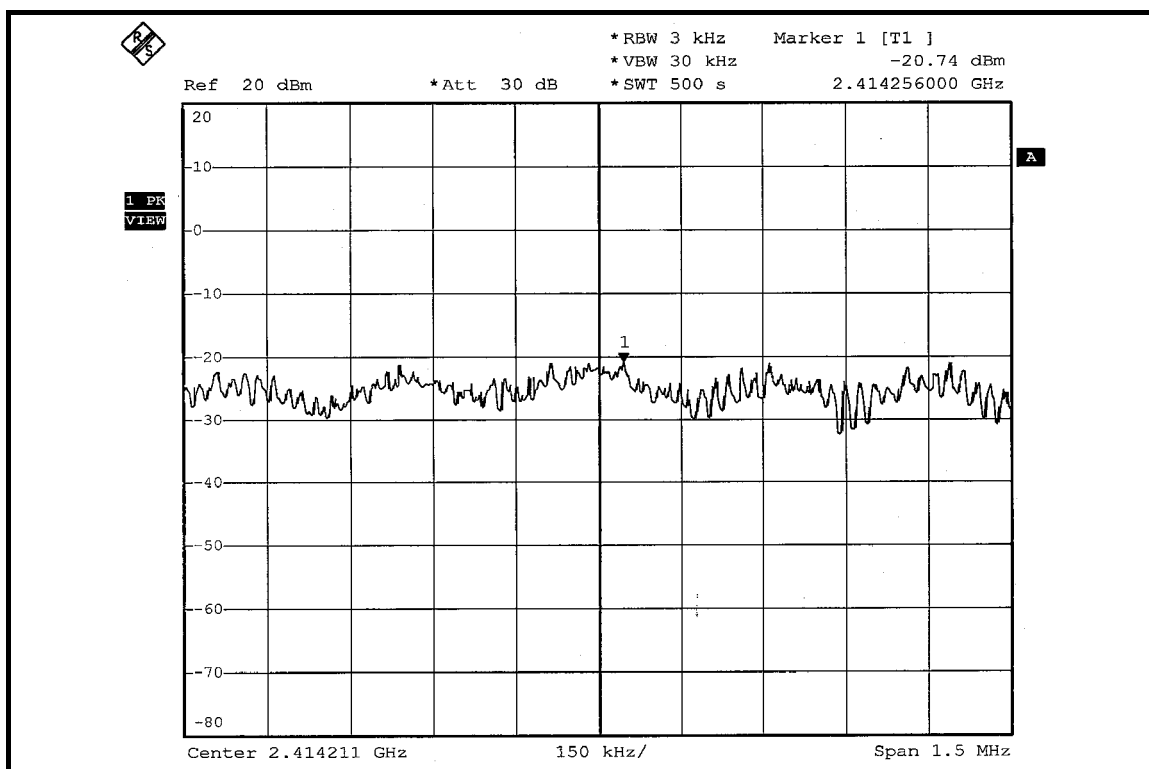


DRAFT 802.11n (20MHz) OFDM MODULATION: DUAL TX:

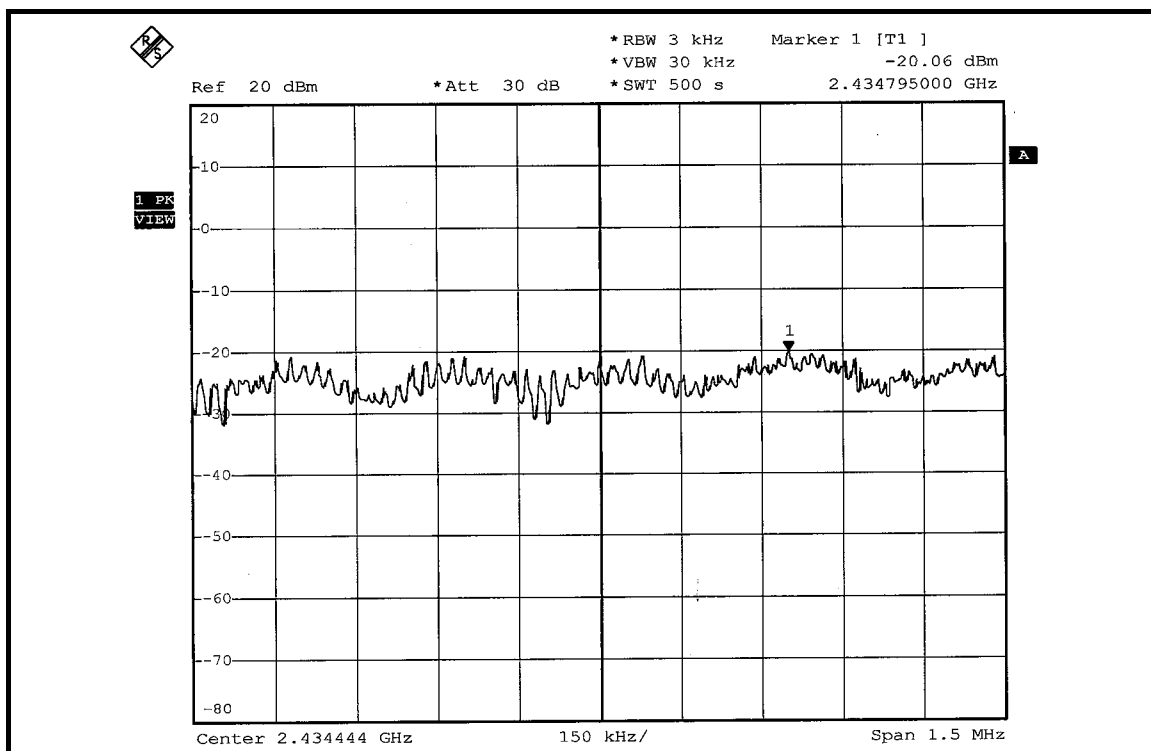
MODULATION TYPE	BPSK	TRANSFER RATE	14.444Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		MAXIMUM LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	-20.74	-20.84	8	PASS
6	2437	-20.06	-20.29	8	PASS
11	2462	-20.80	-20.72	8	PASS

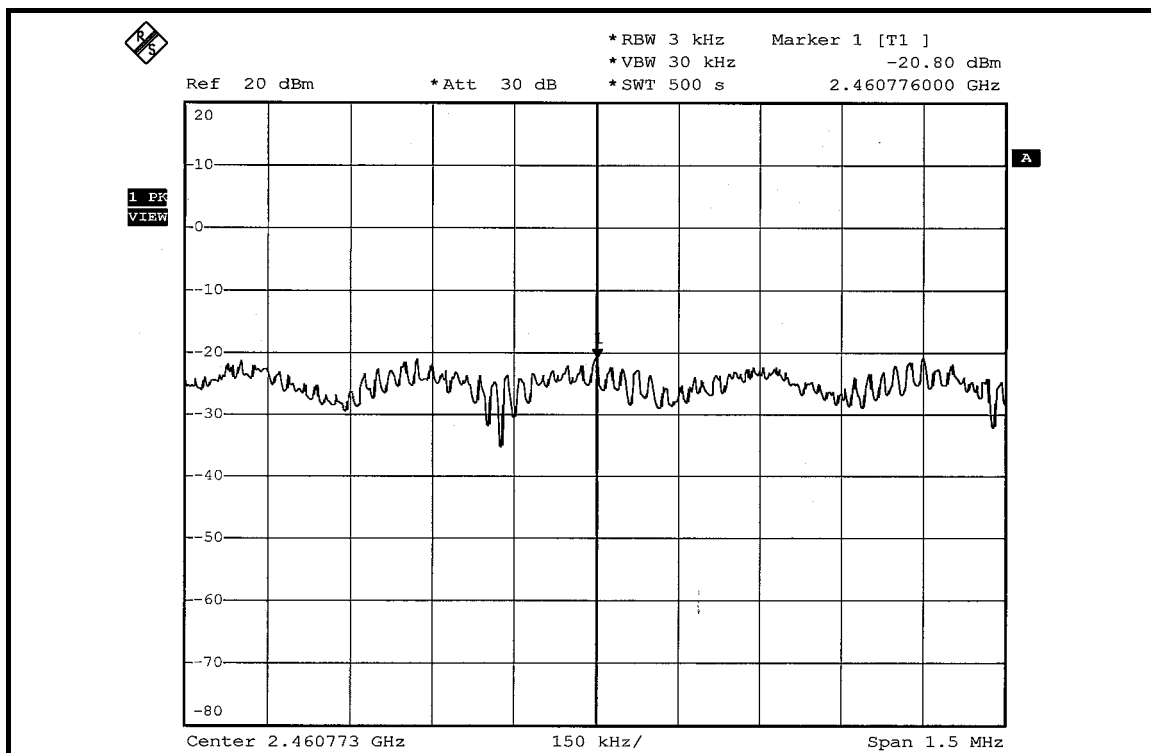
FOR CHAIN 0: CH 1



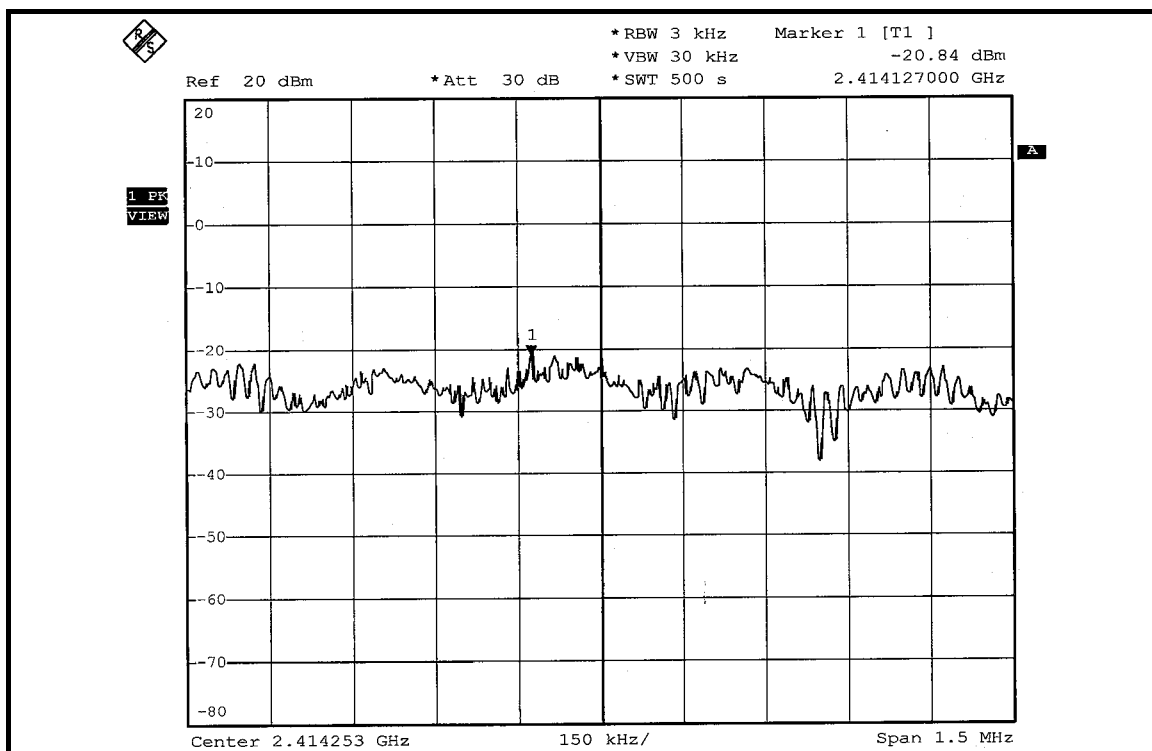
CH 6



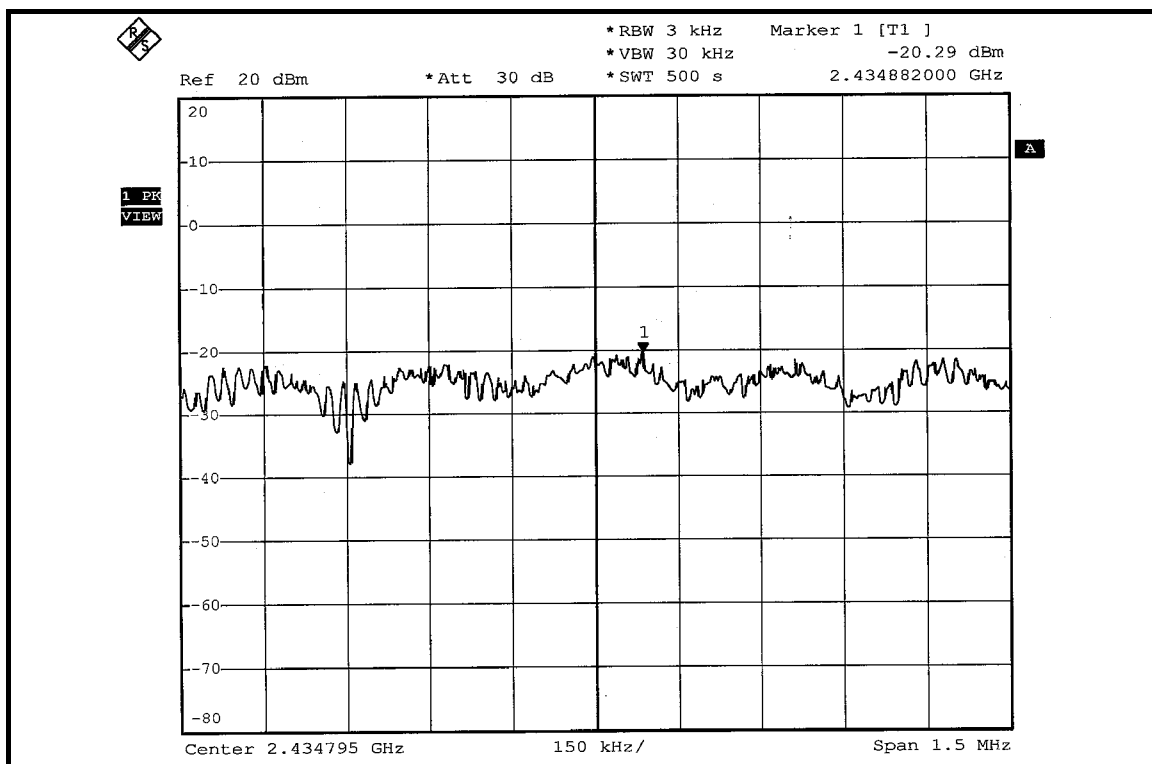
CH 11



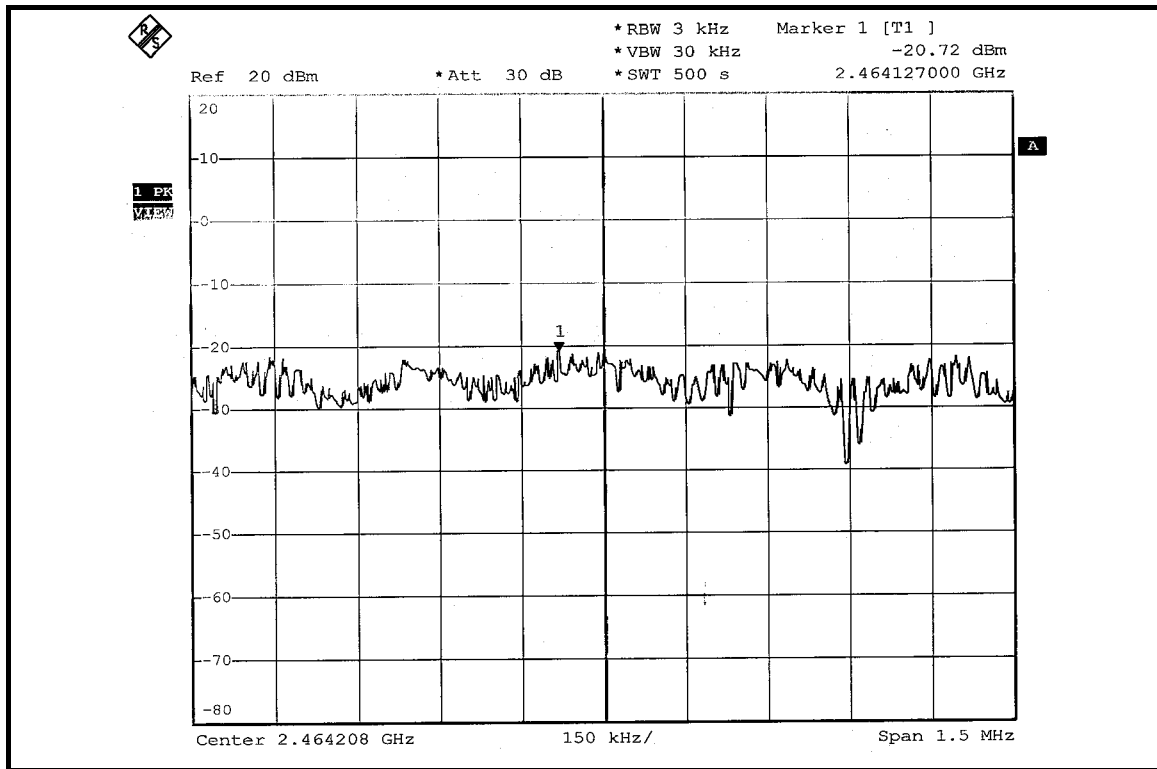
FOR CHAIN 1: CH 1



CH 6



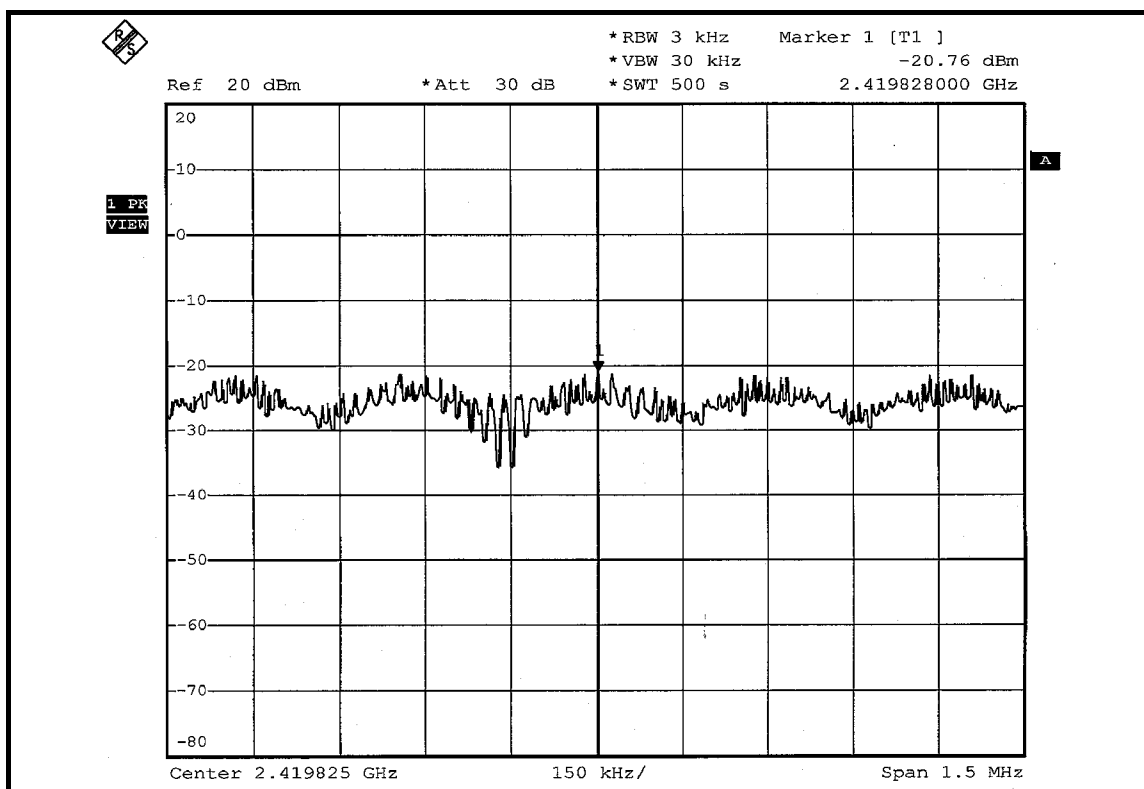
CH 11



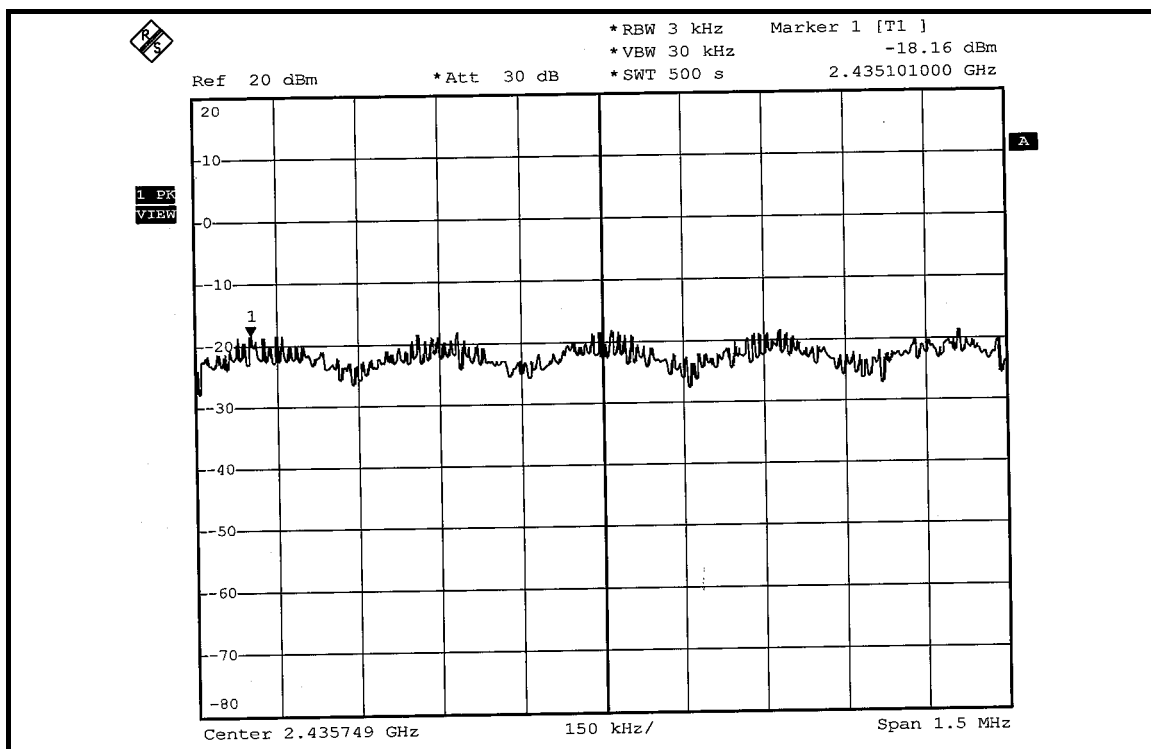
DRAFT 802.11n (40MHz) OFDM MODULATION: SINGLE TX:

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

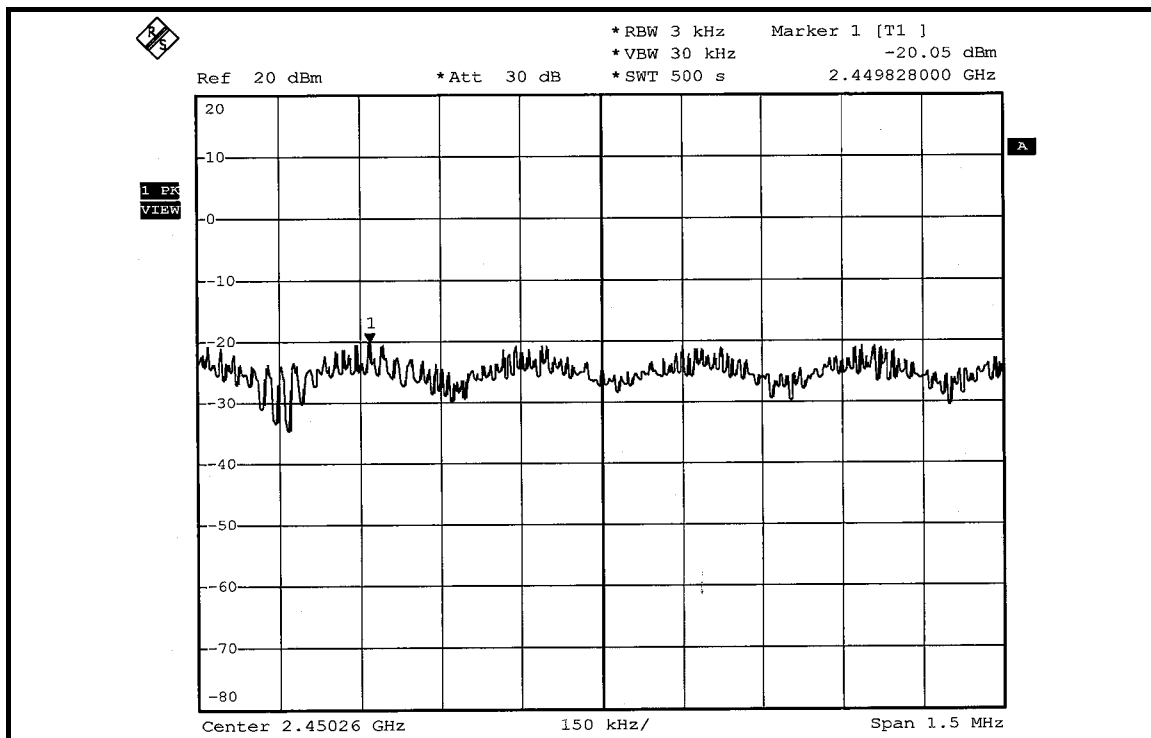
CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2422	-20.76	8	PASS
4	2437	-18.16	8	PASS
7	2452	-20.05	8	PASS

CH 1


CH 4



CH 7



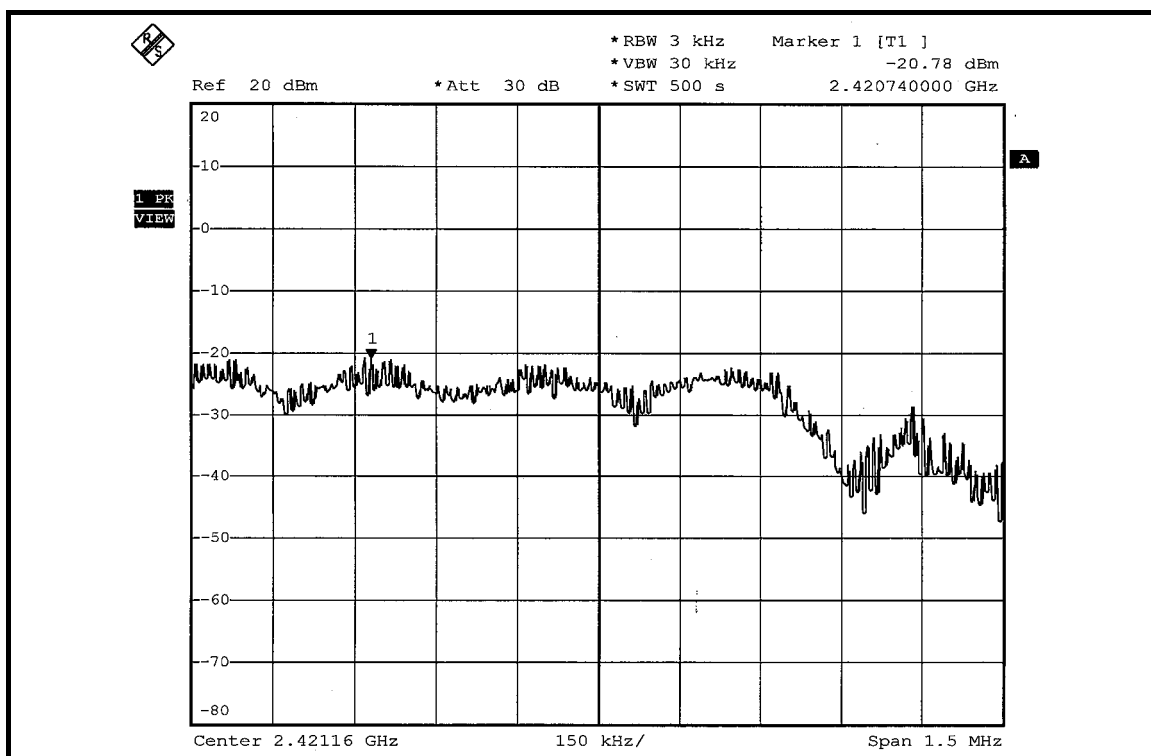


DRAFT 802.11n (40MHz) OFDM MODULATION: DUAL TX:

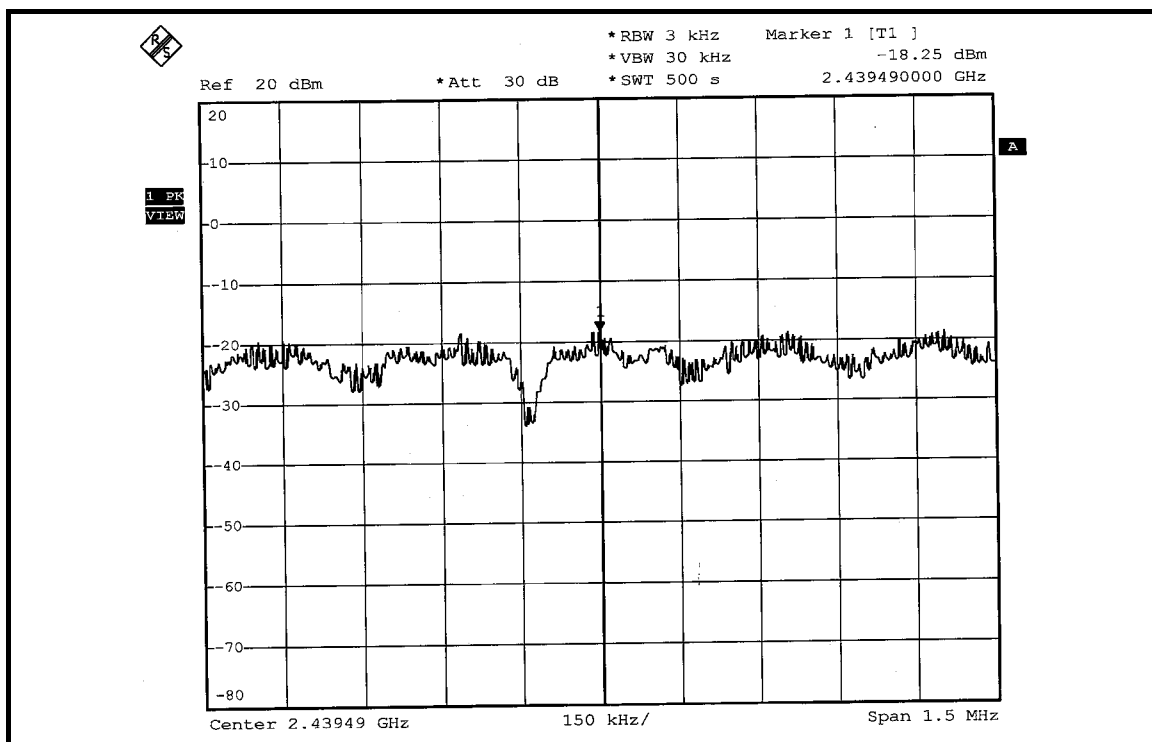
MODULATION TYPE	BPSK	TRANSFER RATE	30Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 63%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		MAXIMUM LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2422	-20.78	-20.84	8	PASS
4	2437	-18.25	-18.28	8	PASS
7	2452	-20.28	-20.12	8	PASS

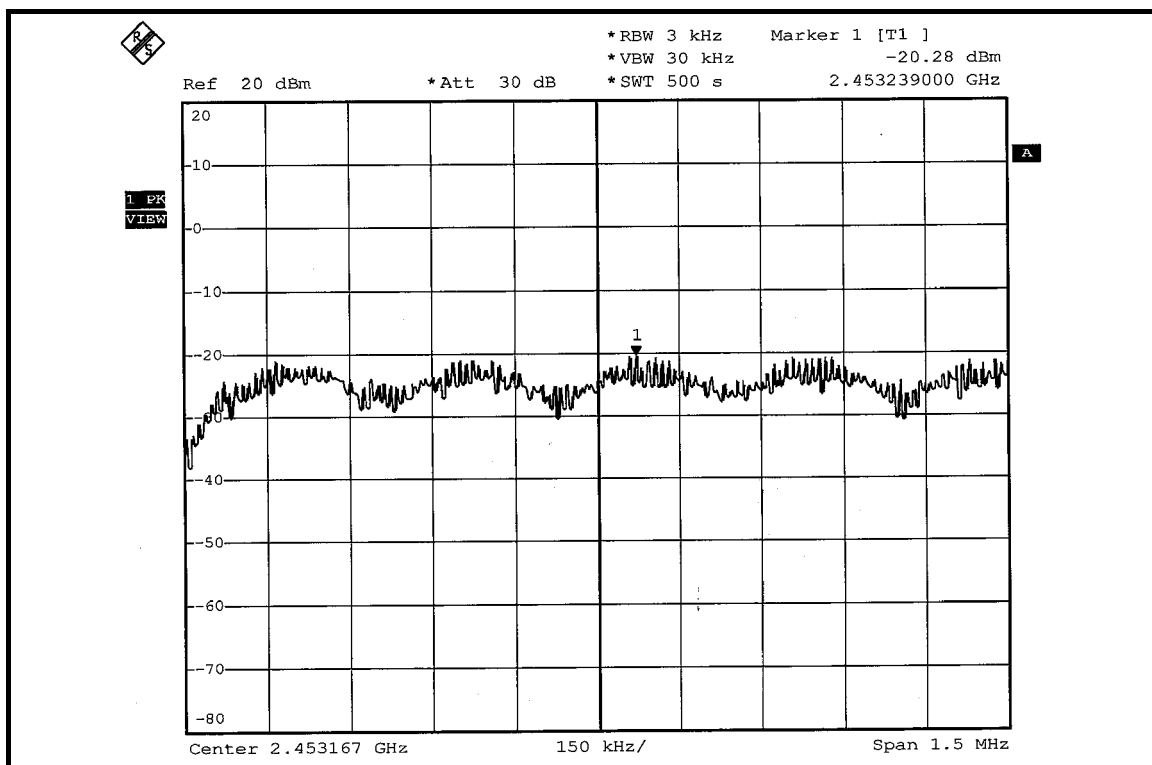
FOR CHAIN 0: CH 1



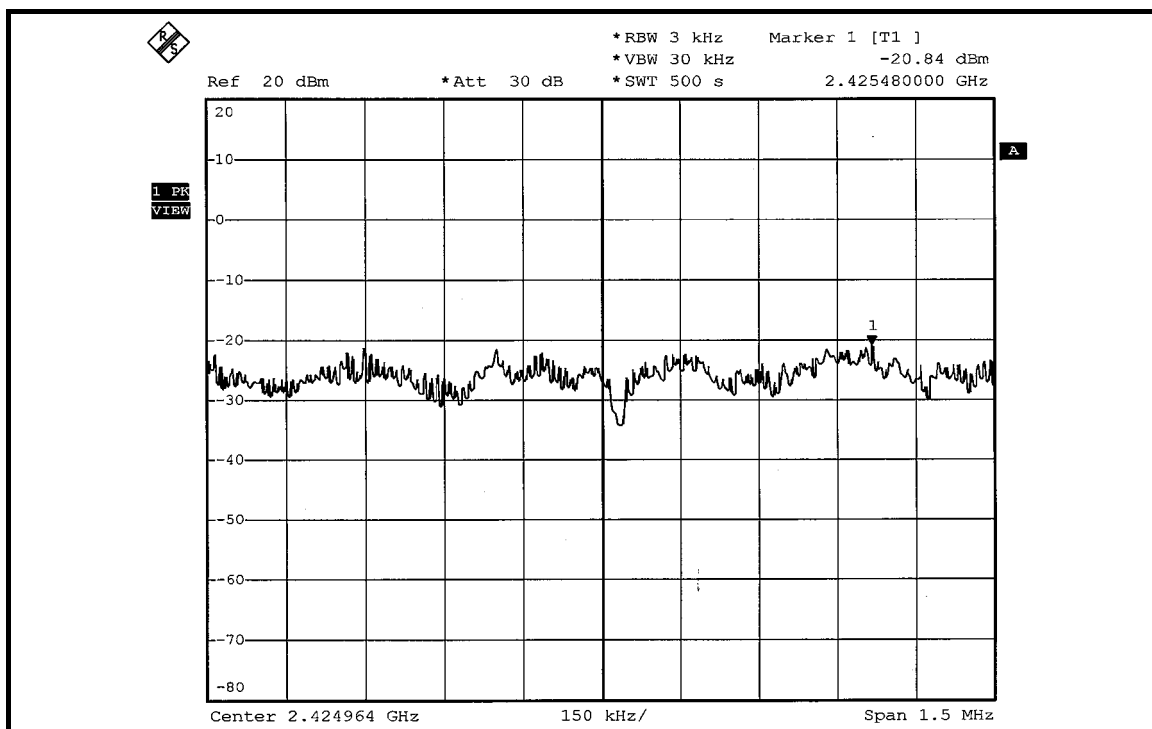
CH 4



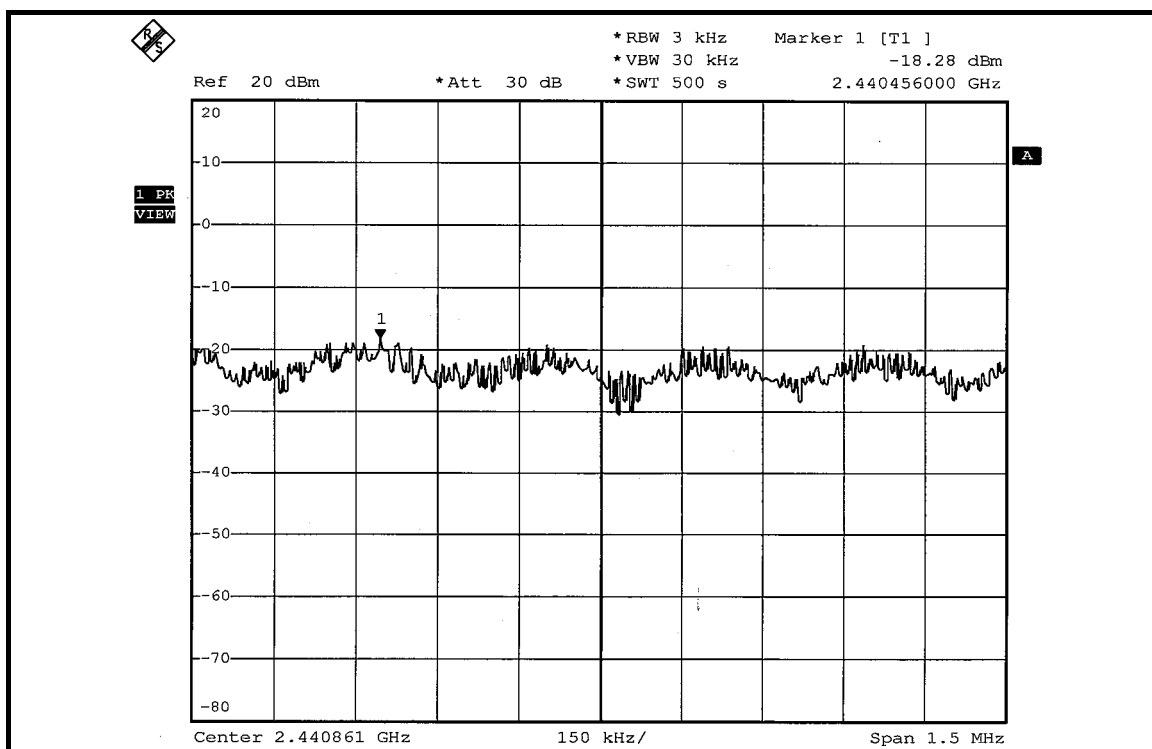
CH 7



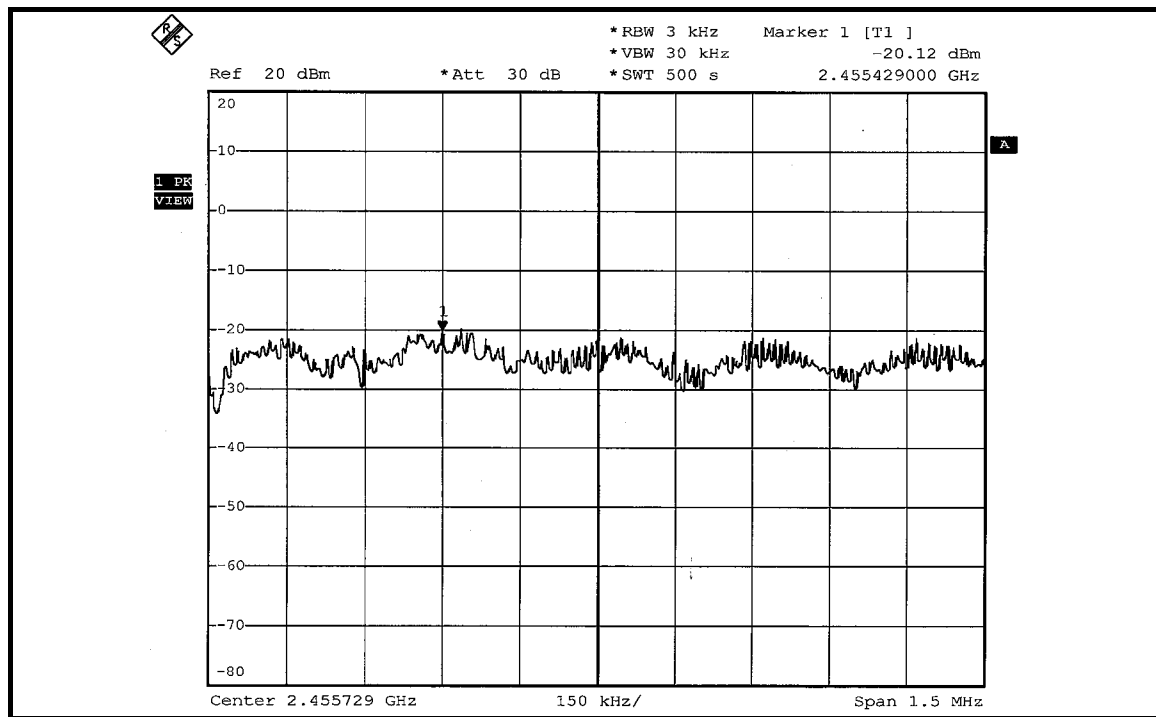
FOR CHAIN 1: CH 1



CH 4



CH 7





4.6 BAND EDGES MEASUREMENT

4.6.1 LIMITS OF BAND EDGES MEASUREMENT

Below -20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSEK30	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.

4.6.3 TEST PROCEDURE

For Single TX:

The transmitter output was connected to the spectrum analyzer via a low loss cable. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 10Hz bandwidth from band edge. The band edges was measured and recorded.

The spectrum plots (Peak RBW = VBW = 100kHz; Average RBW = 1MHz, VBW = 10Hz) are attached on the following pages.

For Dual TX:

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

The spectrum plots (Peak RBW = VBW = 100kHz; Average RBW = 1MHz, VBW = 10Hz)

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

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 EUT OPERATING CONDITION

Same as Item 4.3.6



4.6.6 TEST RESULTS

The spectrum plots are attached on the following 36 images. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

802.11b DSSS MODULATION: Single TX

NOTE 1:

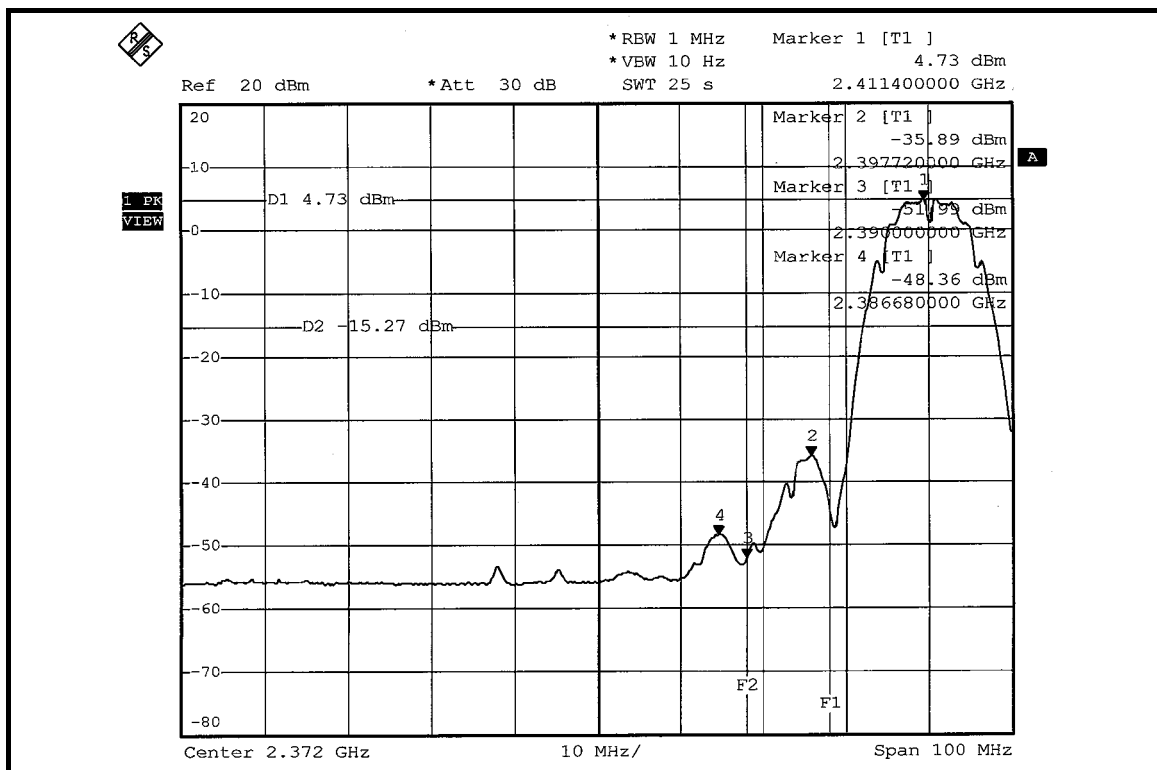
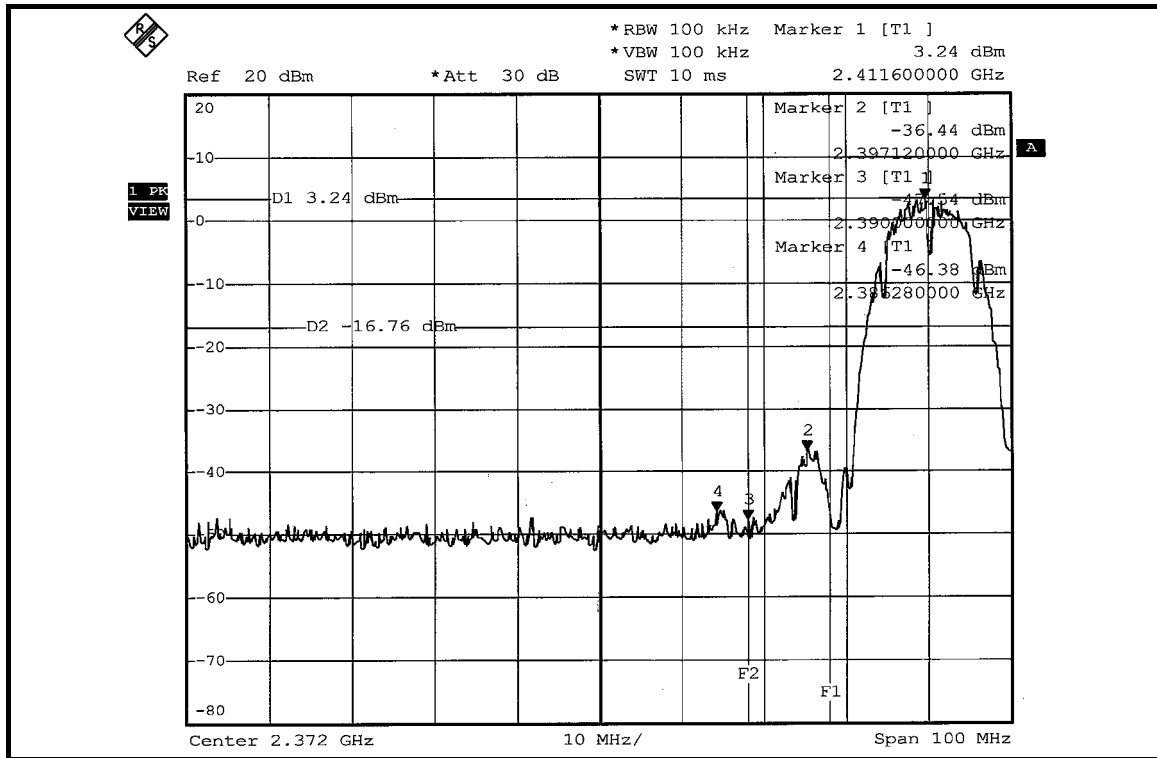
The band edge emission plot of DSSS technique on the next page shows 49.62dBc between carrier maximum power and local maximum emission in restrict band (2.38628GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 109.12dBuV/m (Peak), so the maximum field strength in restrict band is $109.12 - 49.62 = 59.50$ dBuV/m which is under 74dBuV/m limit.

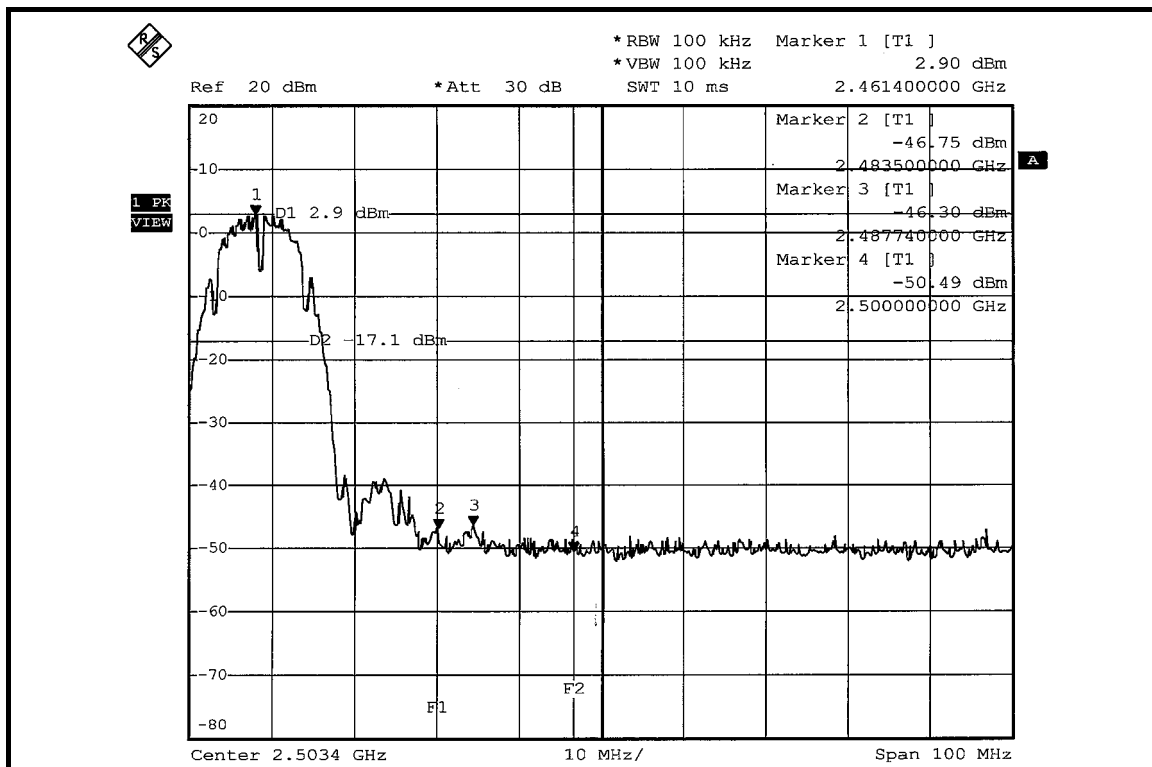
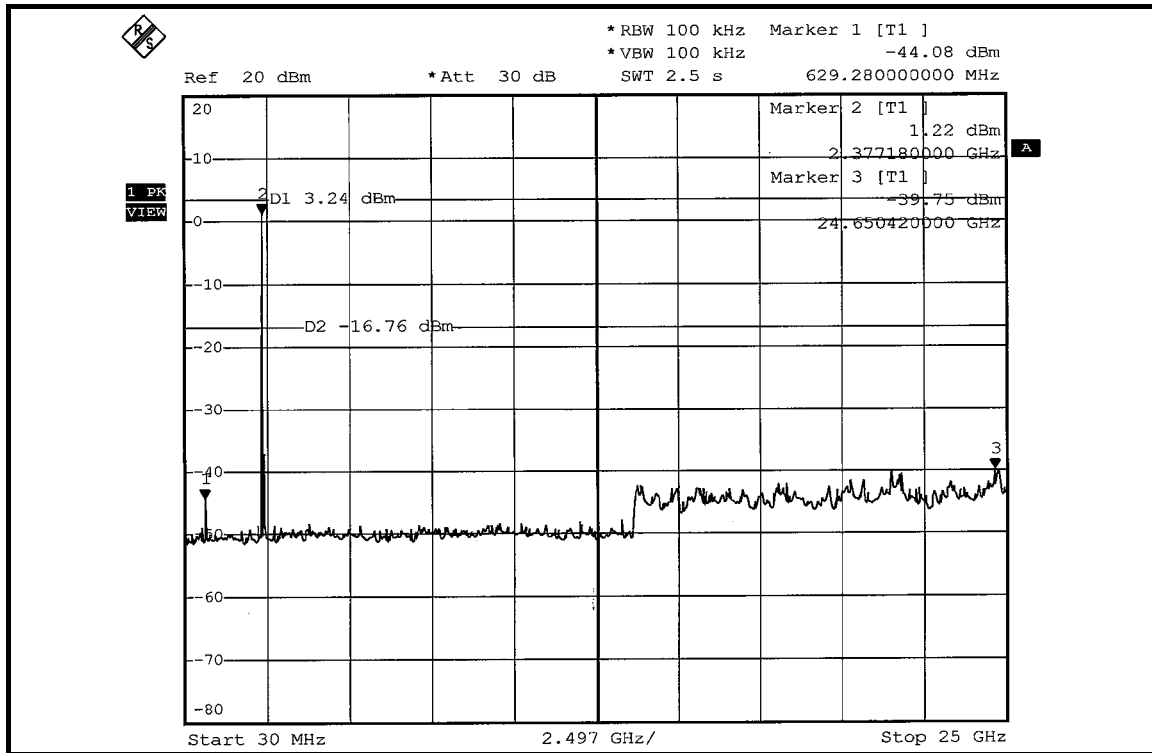
The band edge emission plot of DSSS technique on the next page shows 53.09dBc between carrier maximum power and local maximum emission in restrict band (2.38668GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 105.39dBuV/m (Average), so the maximum field strength in restrict band is $105.39 - 53.09 = 52.30$ dBuV/m which is under 54dBuV/m limit.

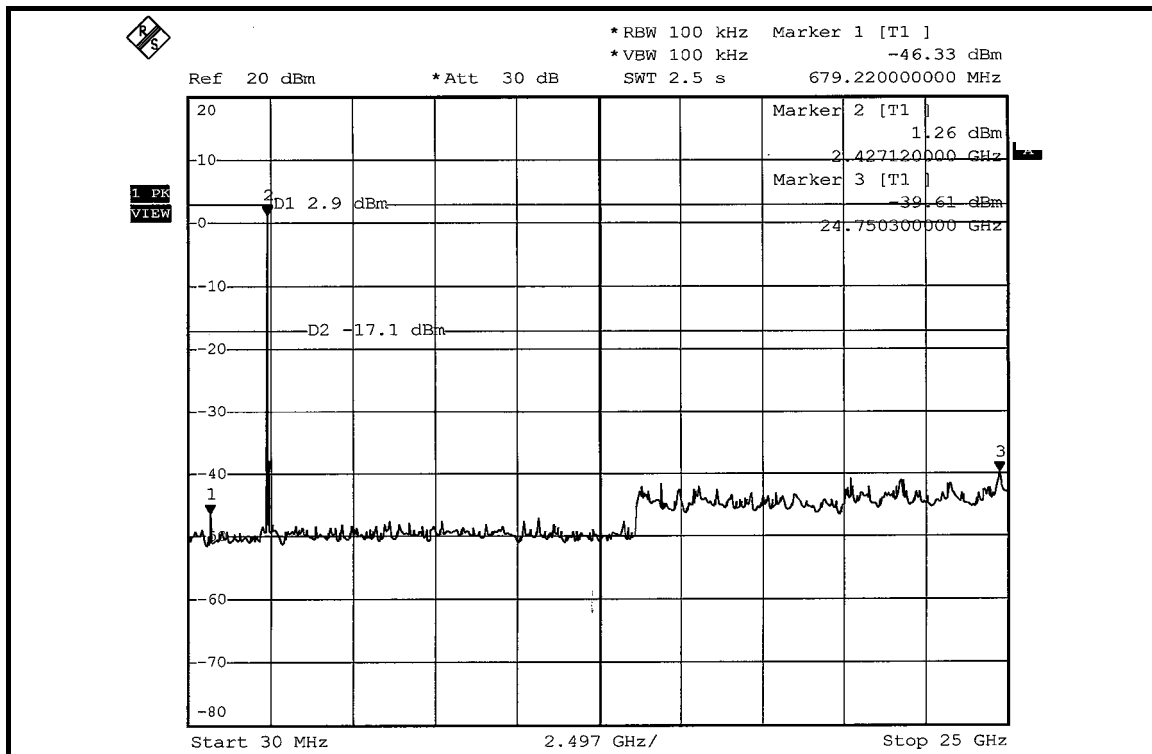
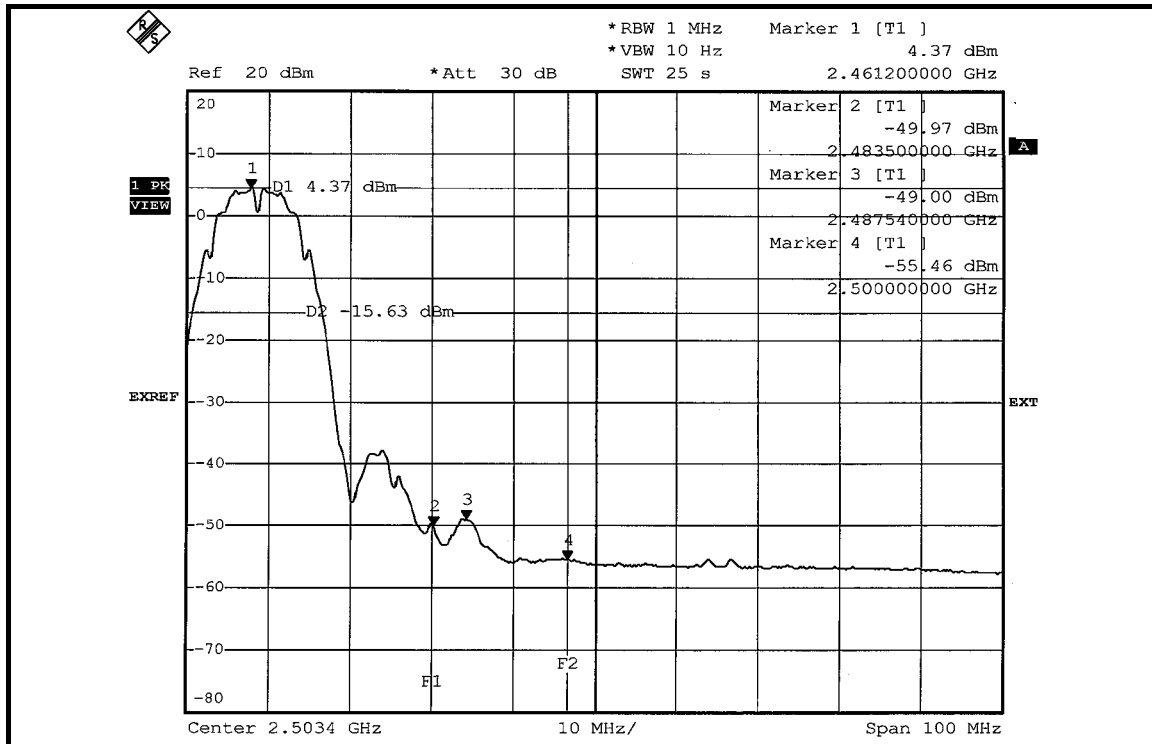
NOTE 2:

The band edge emission plot of DSSS technique on the next second page shows 49.20dBc between carrier maximum power and local maximum emission in restrict band (2.48774GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 108.45dBuV/m (Peak), so the maximum field strength in restrict band is $108.45 - 49.20 = 59.25$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot of DSSS technique on the next third page shows 53.37dBc between carrier maximum power and local maximum emission in restrict band (2.48754GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 104.89dBuV/m (Average), so the maximum field strength in restrict band is $104.89 - 53.37 = 51.52$ dBuV/m which is under 54dBuV/m limit.









802.11b DSSS MODULATION: Dual TX

NOTE 1:

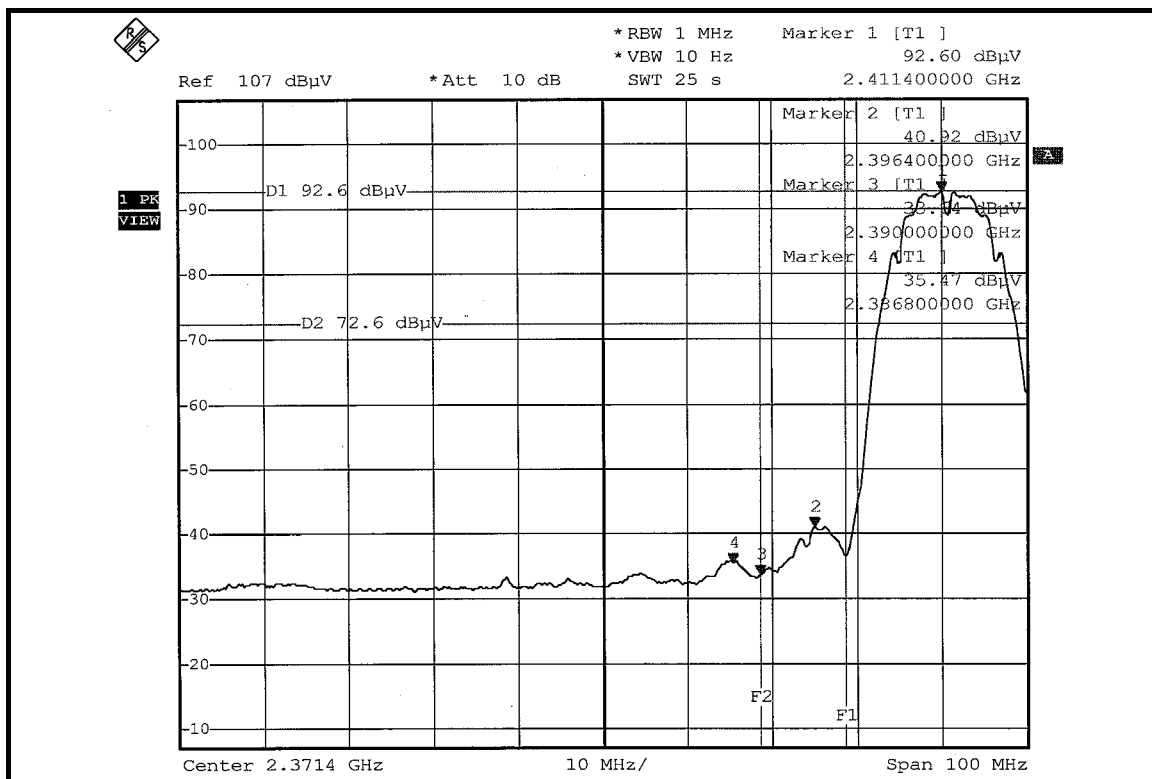
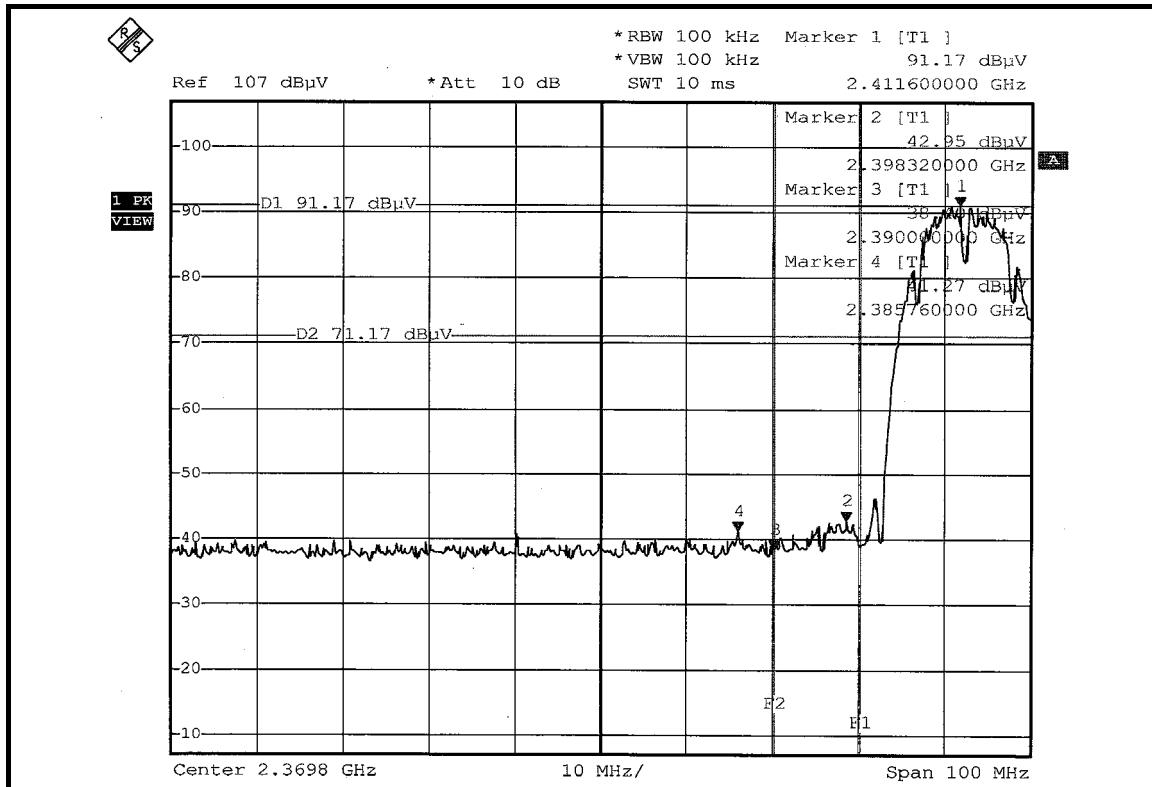
The band edge emission plot of DSSS technique on the next page shows 49.90dBc between carrier maximum power and local maximum emission in restrict band (2.3858GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 114.12dBuV/m (Peak), so the maximum field strength in restrict band is $114.12 - 49.90 = 64.22$ dBuV/m which is under 74dBuV/m limit.

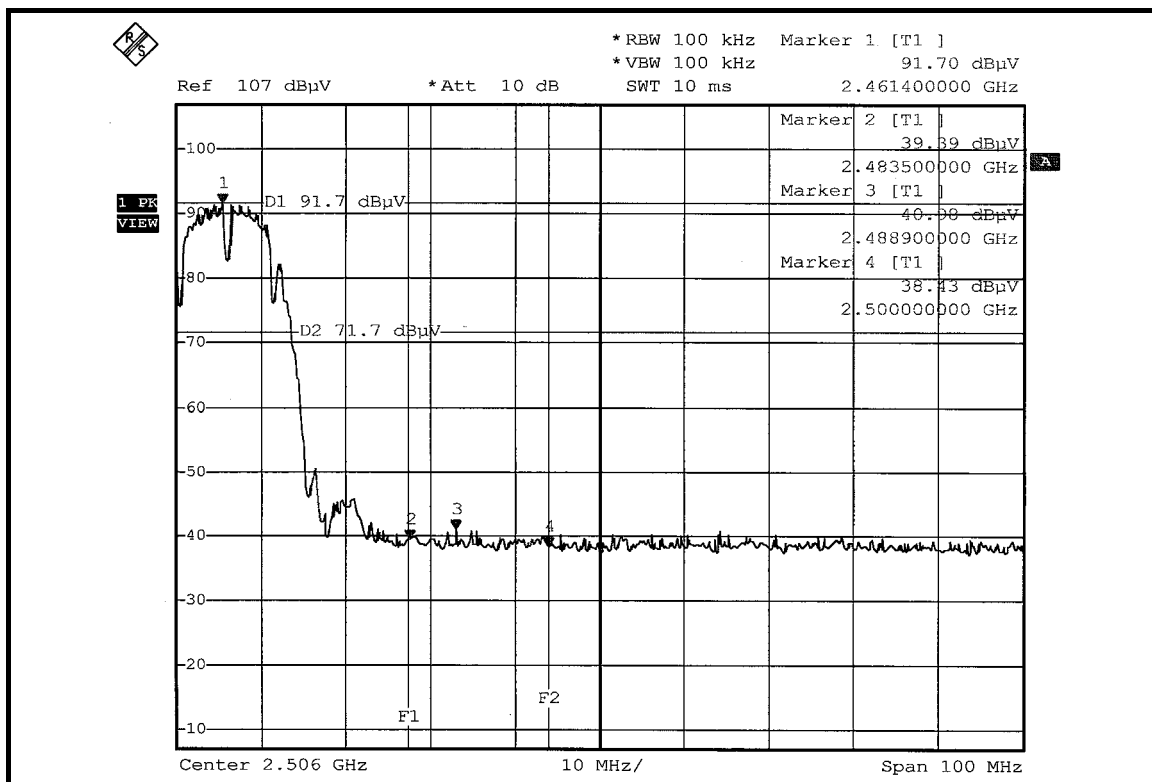
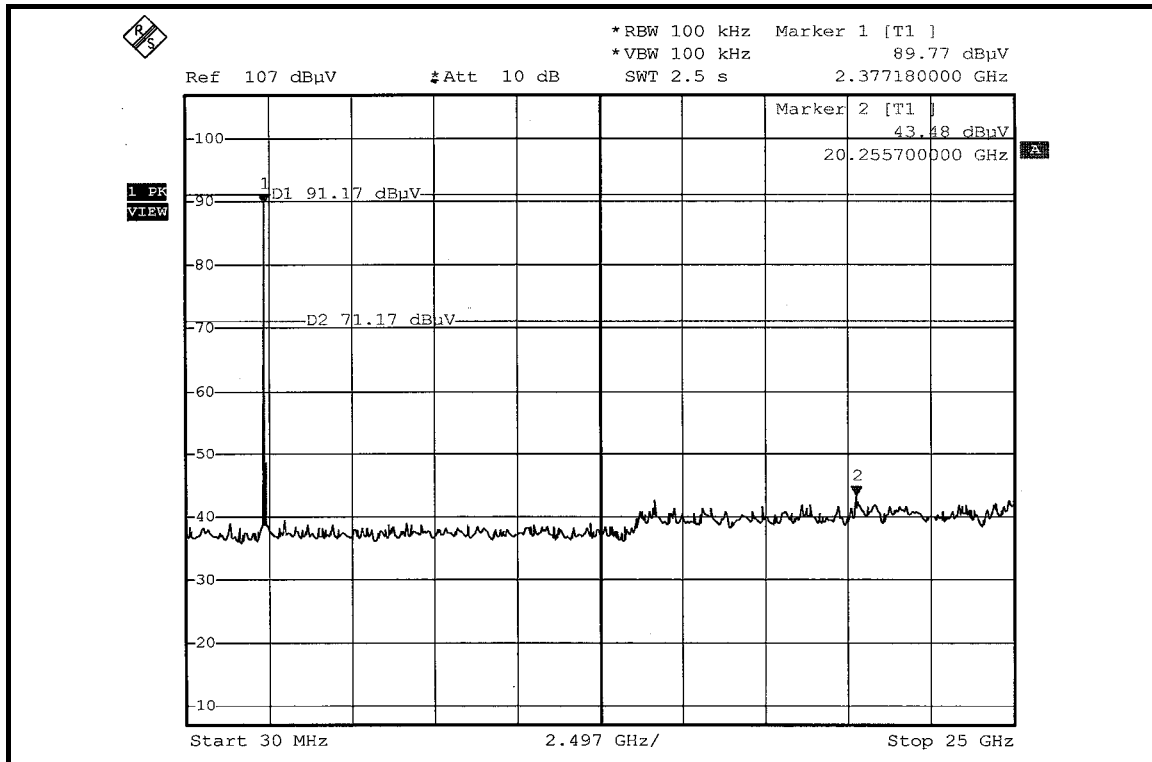
The band edge emission plot of DSSS technique on the next page shows 57.13dBc between carrier maximum power and local maximum emission in restrict band (2.3868GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 110.08dBuV/m (Average), so the maximum field strength in restrict band is $110.08 - 57.13 = 52.95$ dBuV/m which is under 54dBuV/m limit.

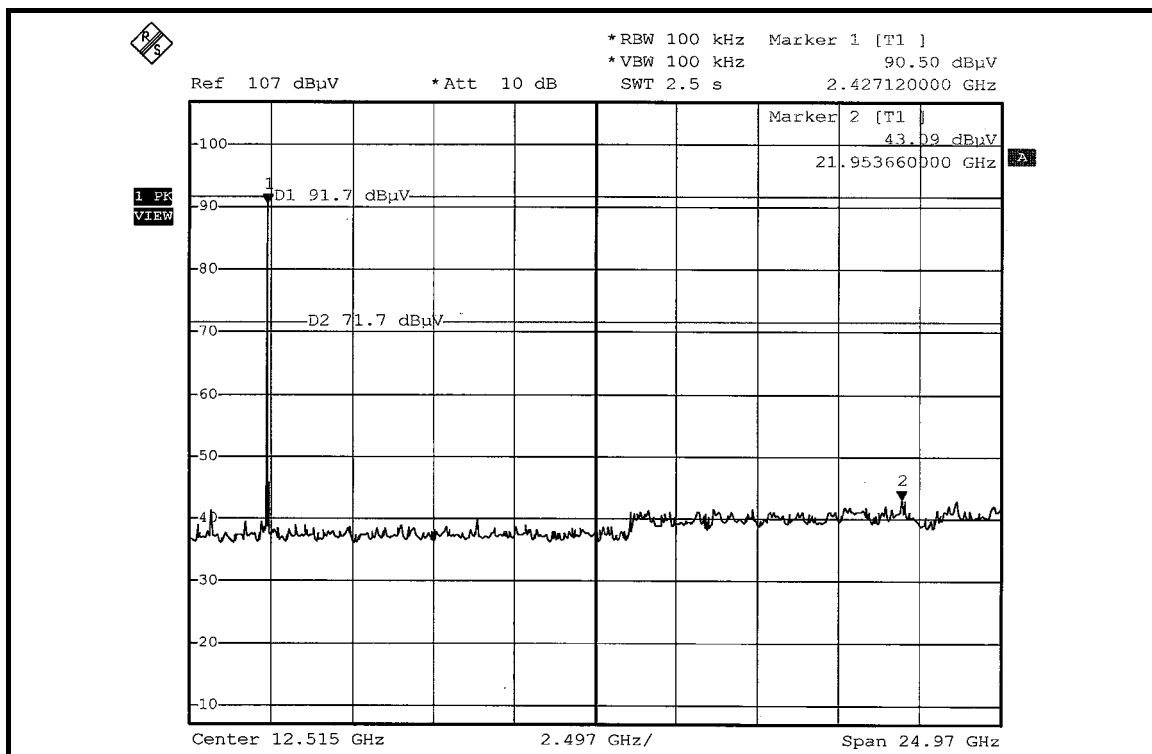
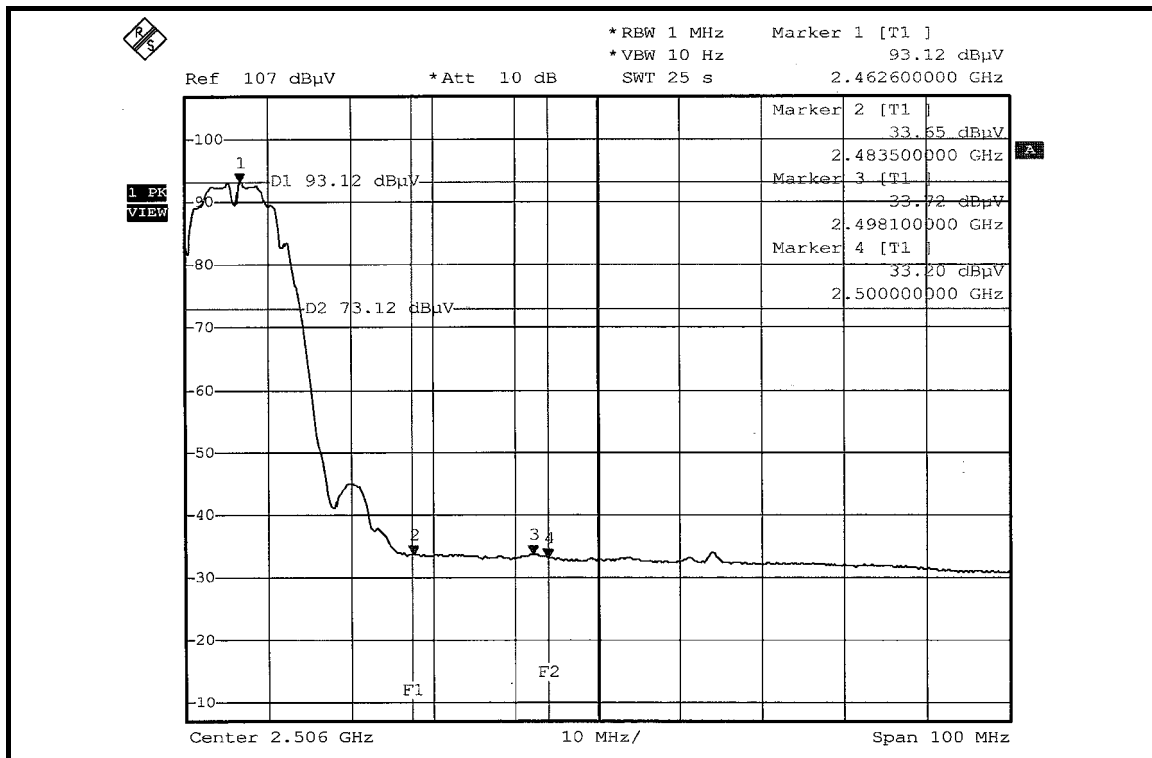
NOTE 2:

The band edge emission plot of DSSS technique on the next second page shows 50.72dBc between carrier maximum power and local maximum emission in restrict band (2.4889GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 114.68dBuV/m (Peak), so the maximum field strength in restrict band is $114.68 - 50.72 = 63.96$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot of DSSS technique on the next third page shows 59.40dBc between carrier maximum power and local maximum emission in restrict band (2.4981GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 110.59dBuV/m (Average), so the maximum field strength in restrict band is $110.59 - 59.40 = 51.19$ dBuV/m which is under 54dBuV/m limit.







802.11g OFDM MODULATION: Single TX

NOTE 1:

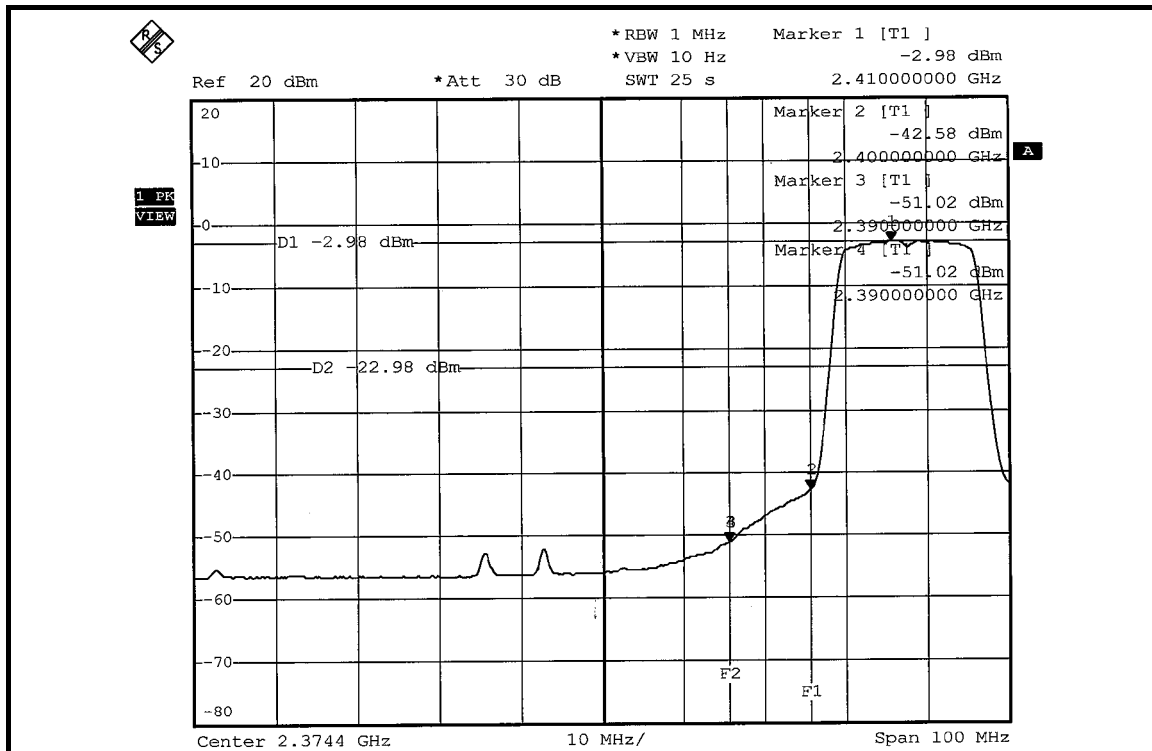
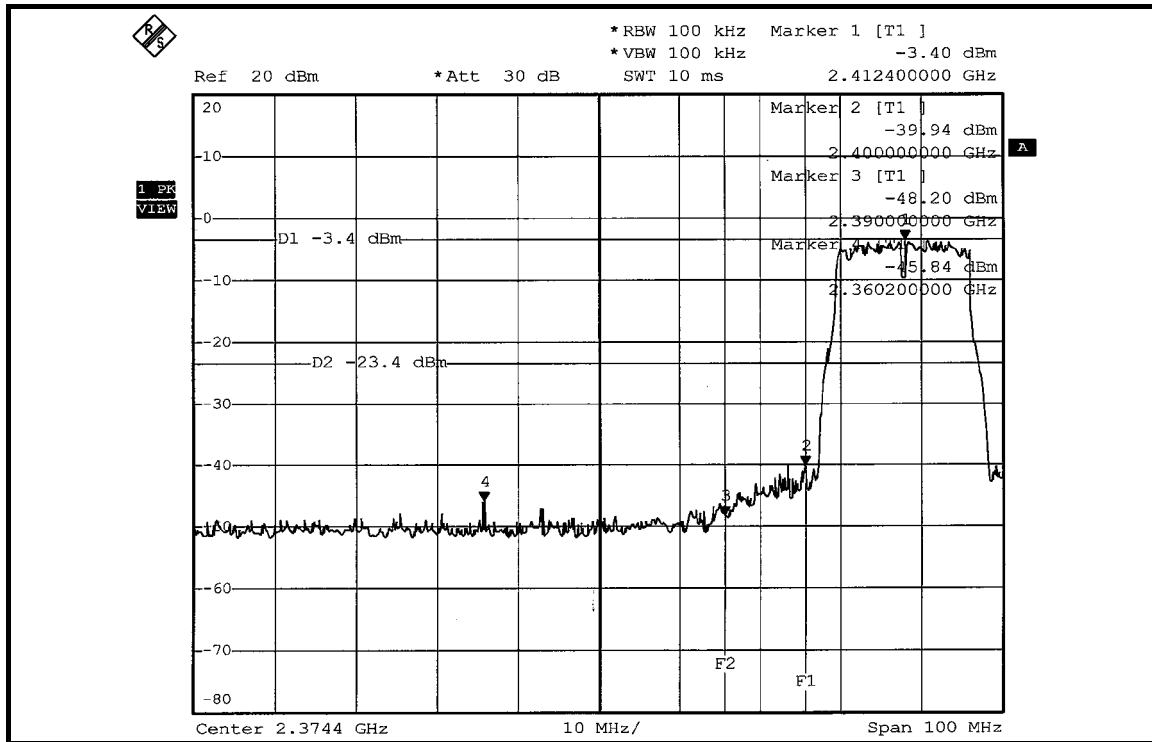
The band edge emission plot of OFDM technique on the next page shows 42.44dBc between carrier maximum power and local maximum emission in restrict band (2.3602GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 108.93dBuV/m (Peak), so the maximum field strength in restrict band is $108.93 - 42.44 = 66.49$ dBuV/m which is under 74dBuV/m limit.

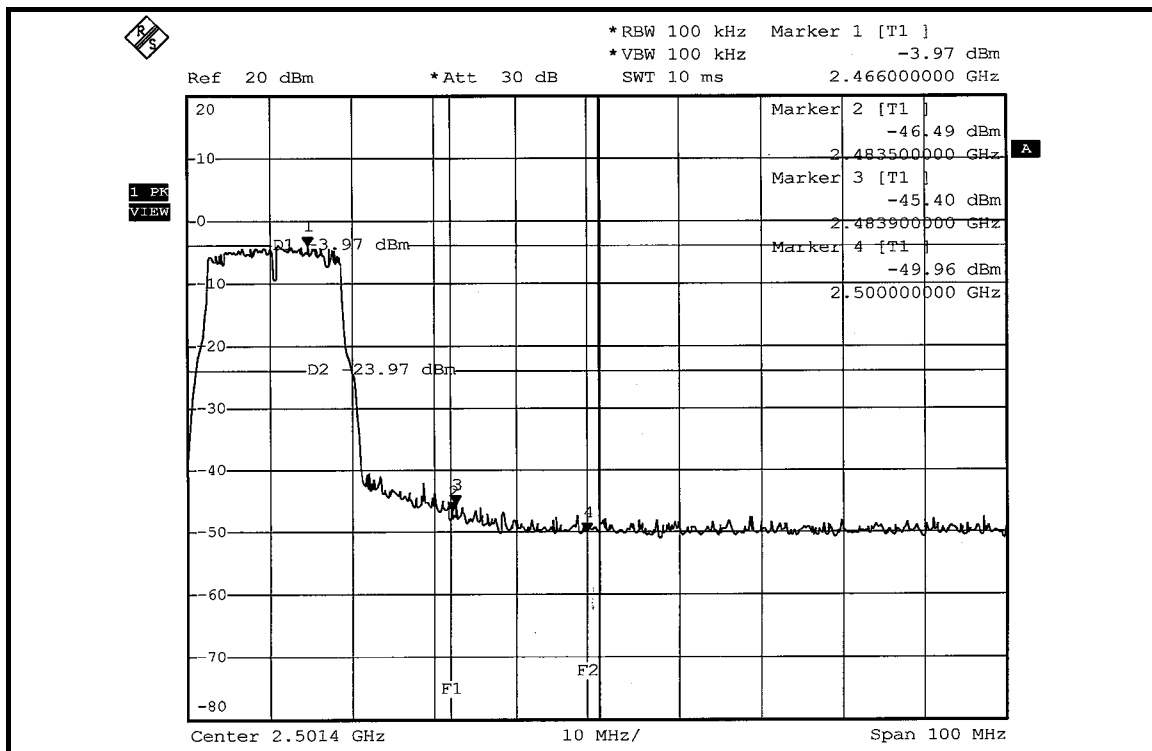
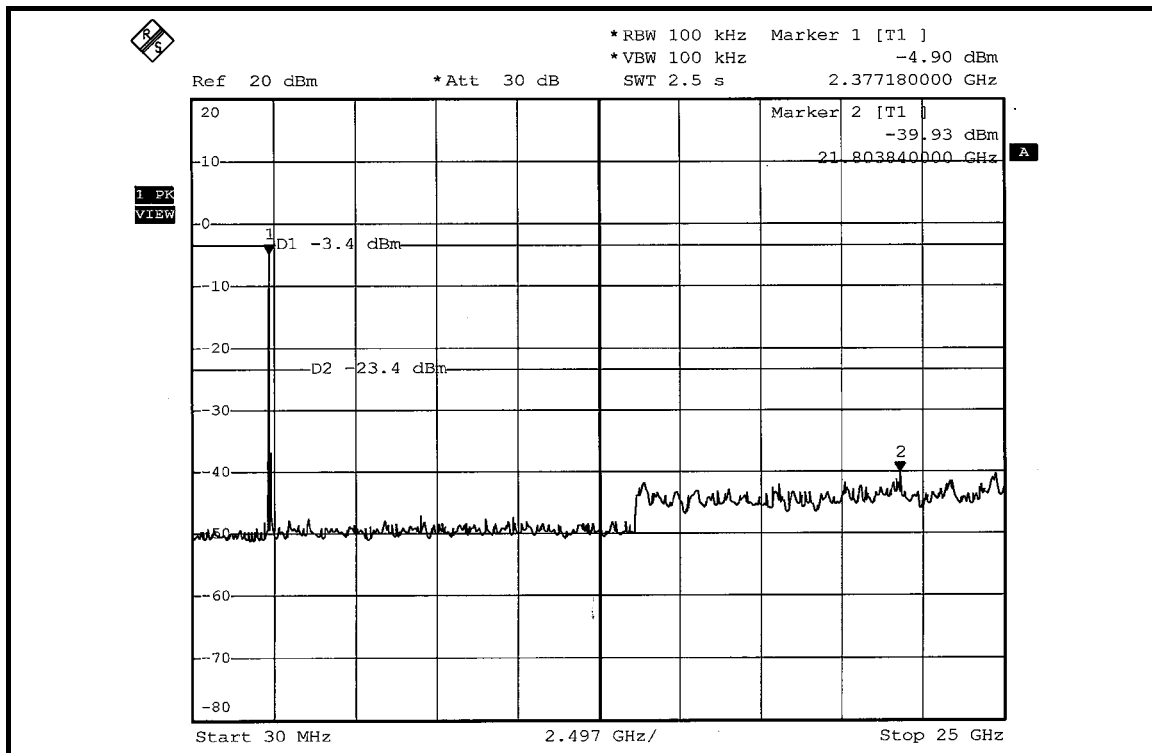
The band edge emission plot of OFDM technique on the next page shows 48.04dBc between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 98.84dBuV/m (Average), so the maximum field strength in restrict band is $98.84 - 48.04 = 50.80$ dBuV/m which is under 54dBuV/m limit.

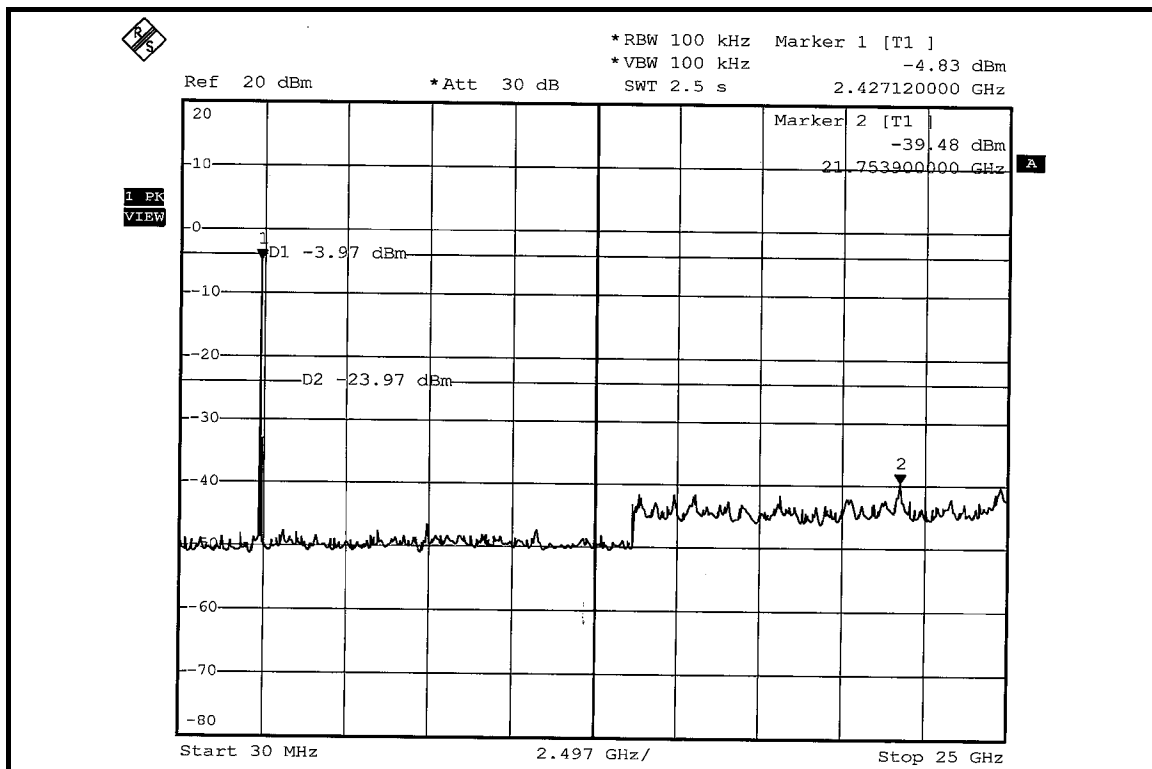
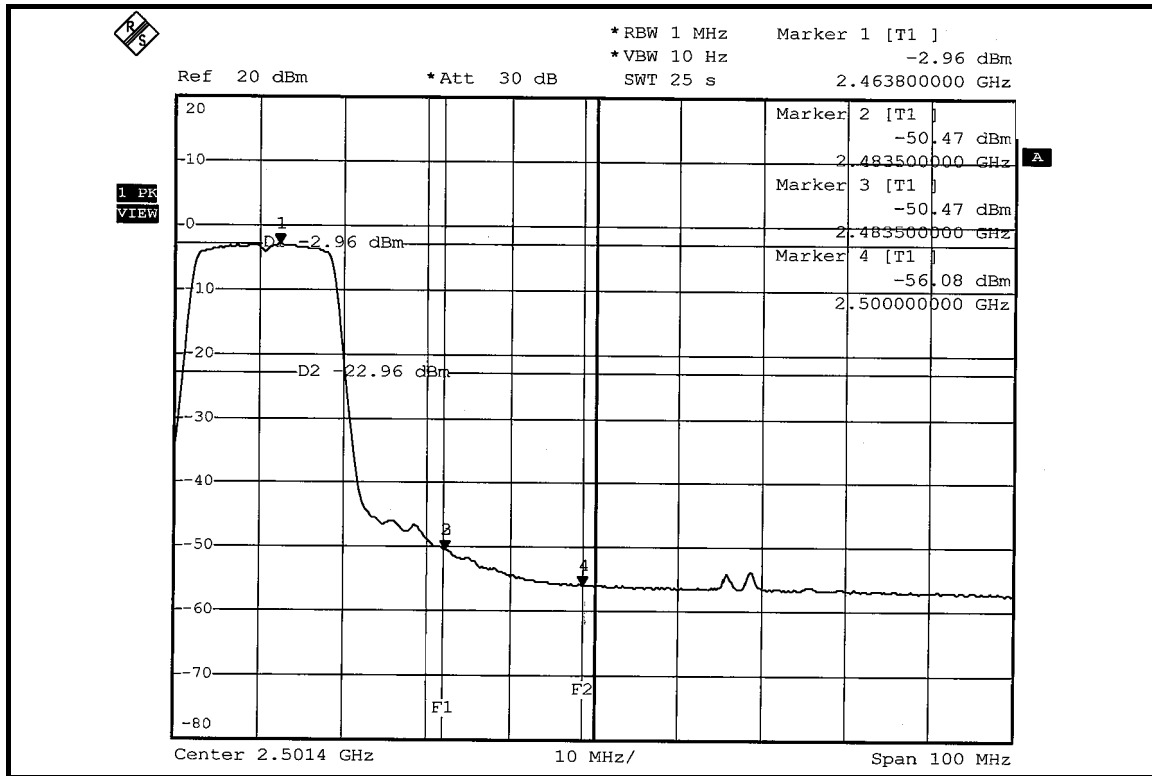
NOTE 2:

The band edge emission plot of OFDM technique on the next second page shows 41.43dBc between carrier maximum power and local maximum emission in restrict band (2.4839GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 108.13dBuV/m (Peak), so the maximum field strength in restrict band is $108.13 - 41.43 = 66.70$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot of OFDM technique on the next third page shows 47.51dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 98.11dBuV/m (Average), so the maximum field strength in restrict band is $98.11 - 47.51 = 50.60$ dBuV/m which is under 54dBuV/m limit.







802.11g OFDM MODULATION: Dual TX

NOTE 1:

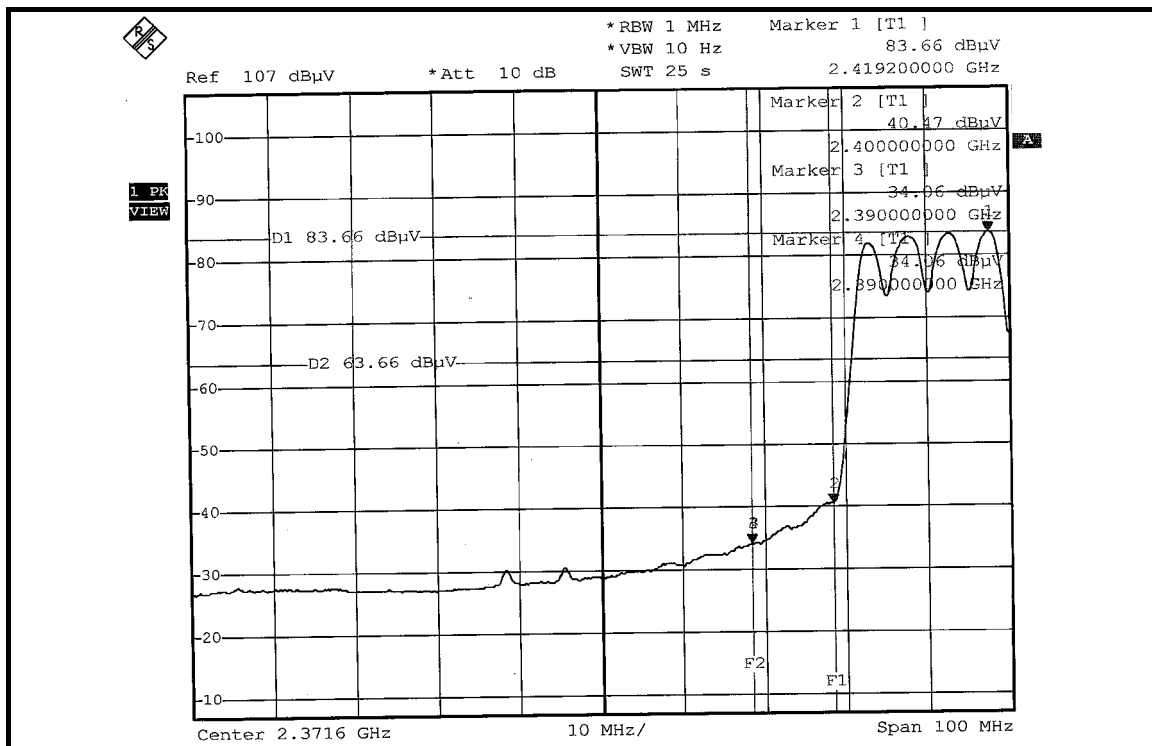
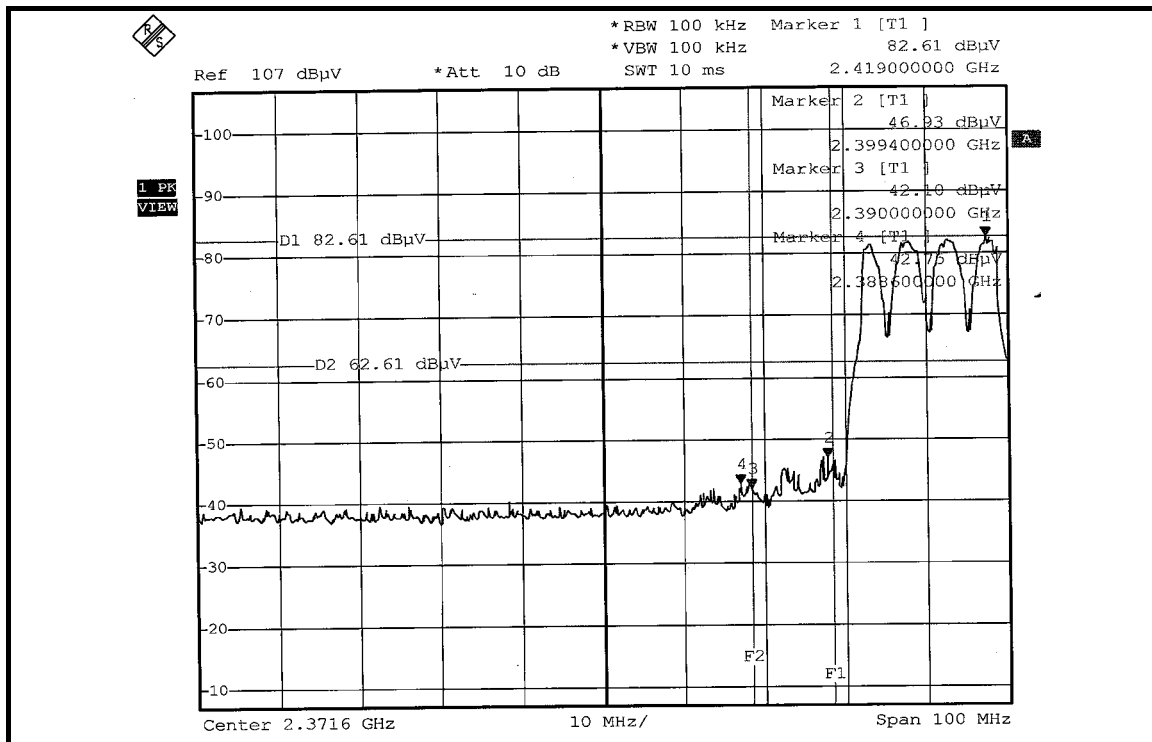
The band edge emission plot of OFDM technique on the next page shows 39.86dBc between carrier maximum power and local maximum emission in restrict band (2.3886GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 111.51dBuV/m (Peak), so the maximum field strength in restrict band is $111.51 - 39.86 = 71.65$ dBuV/m which is under 74dBuV/m limit.

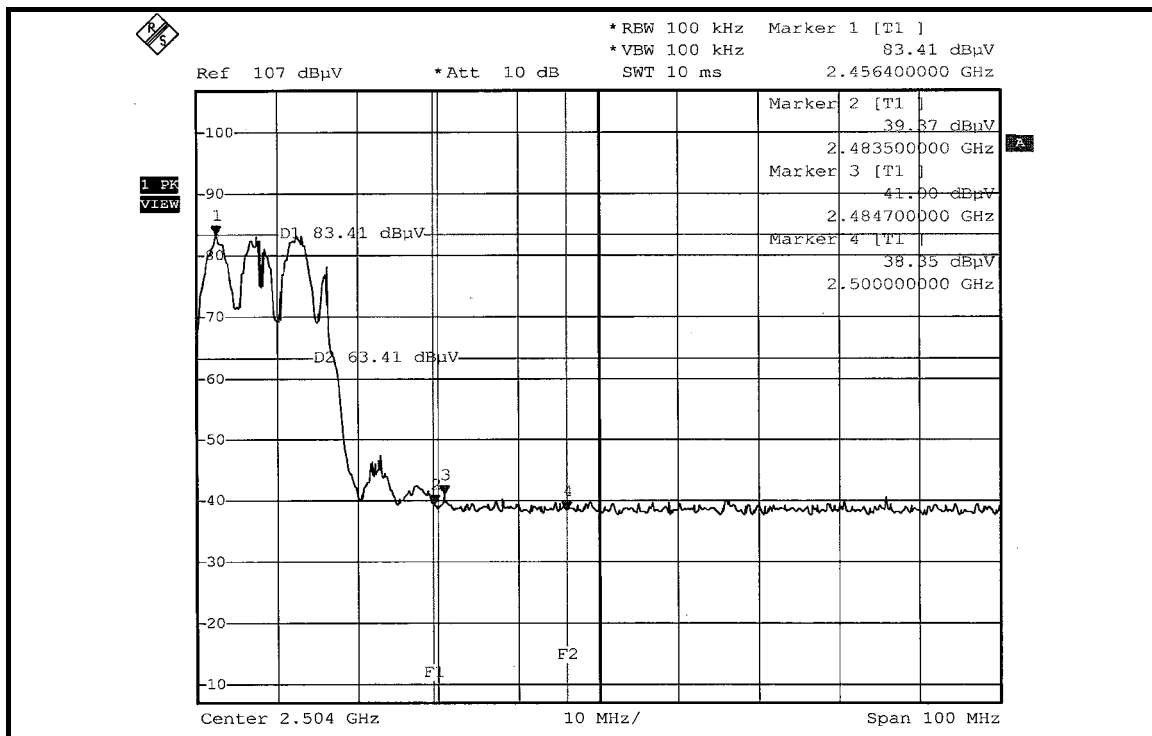
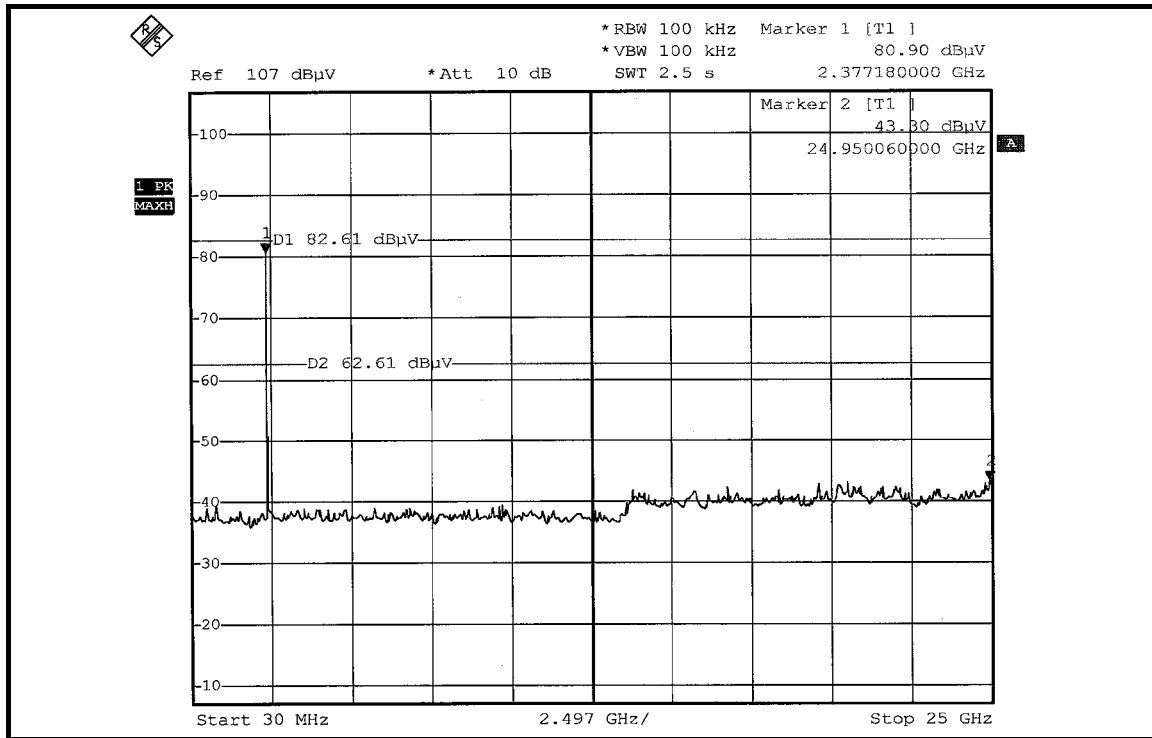
The band edge emission plot of OFDM technique on the next page shows 49.60dBc between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 101.38dBuV/m (Average), so the maximum field strength in restrict band is $101.38 - 49.60 = 51.78$ dBuV/m which is under 54dBuV/m limit.

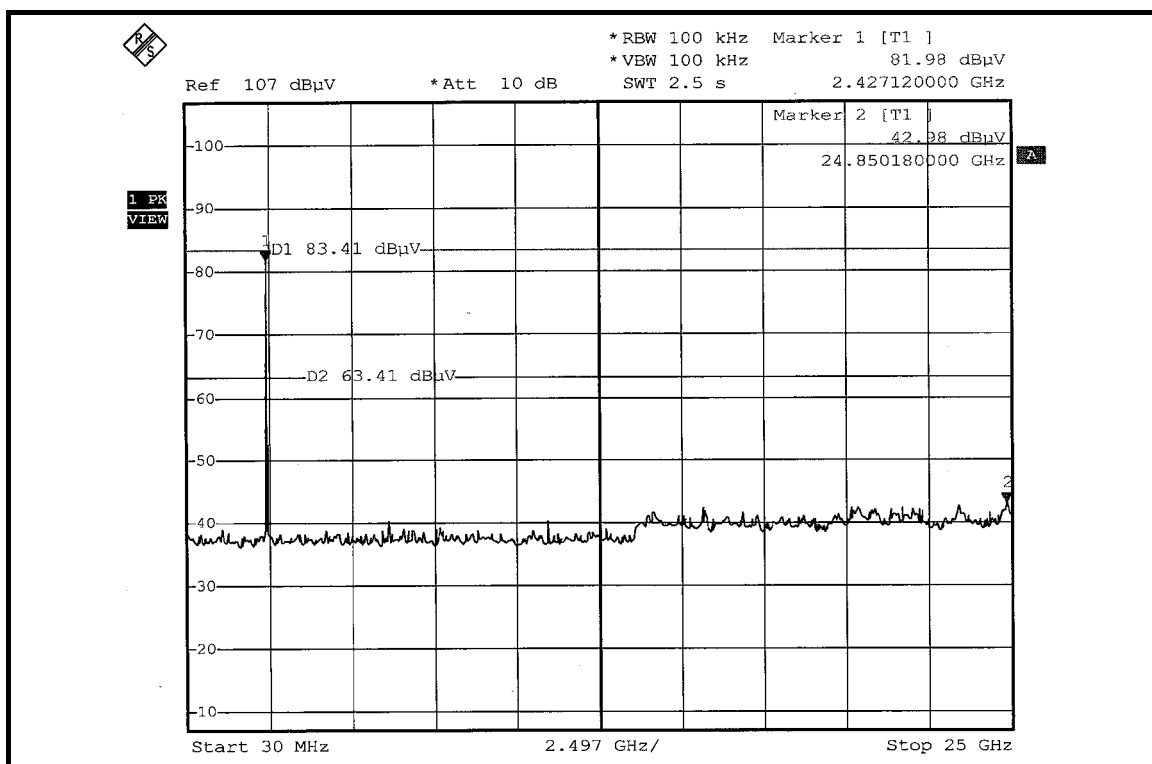
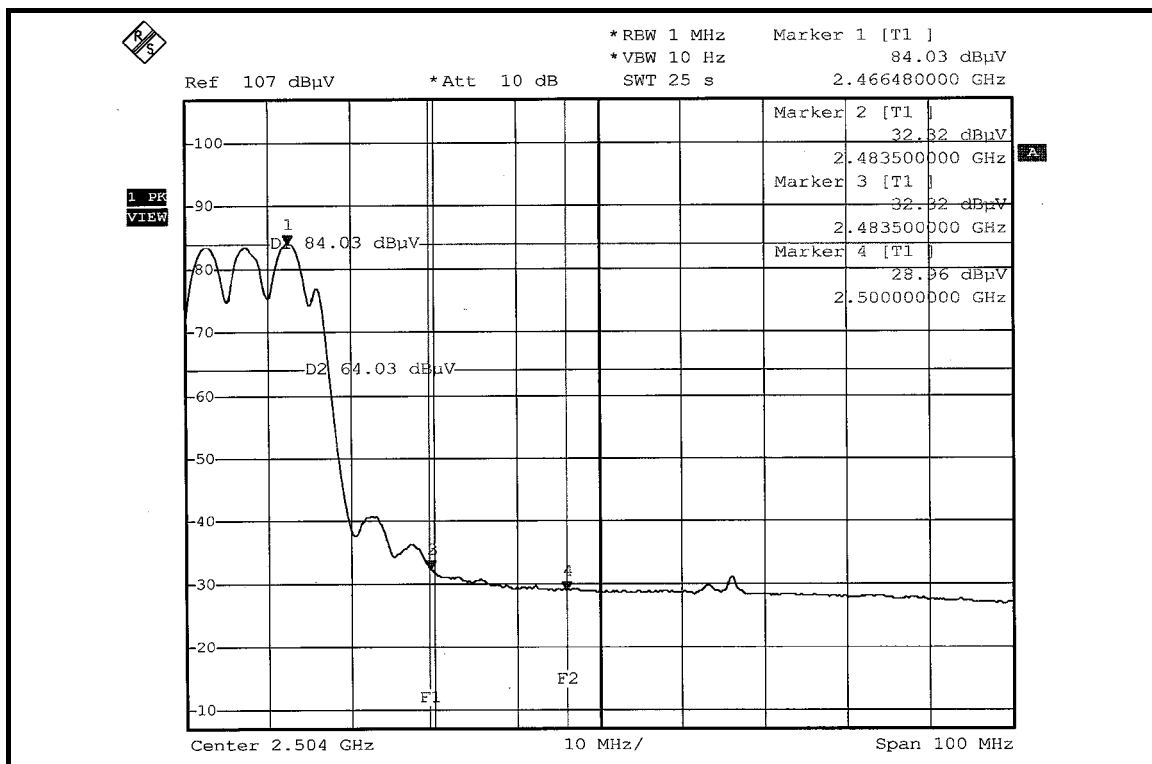
NOTE 2:

The band edge emission plot of OFDM technique on the next second page shows 42.41dBc between carrier maximum power and local maximum emission in restrict band (2.4847GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 111.98dBuV/m (Peak), so the maximum field strength in restrict band is $111.98 - 42.41 = 69.57$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot of OFDM technique on the next third page shows 51.71dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 101.88dBuV/m (Average), so the maximum field strength in restrict band is $101.88 - 51.71 = 50.17$ dBuV/m which is under 54dBuV/m limit.







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

NOTE 1:

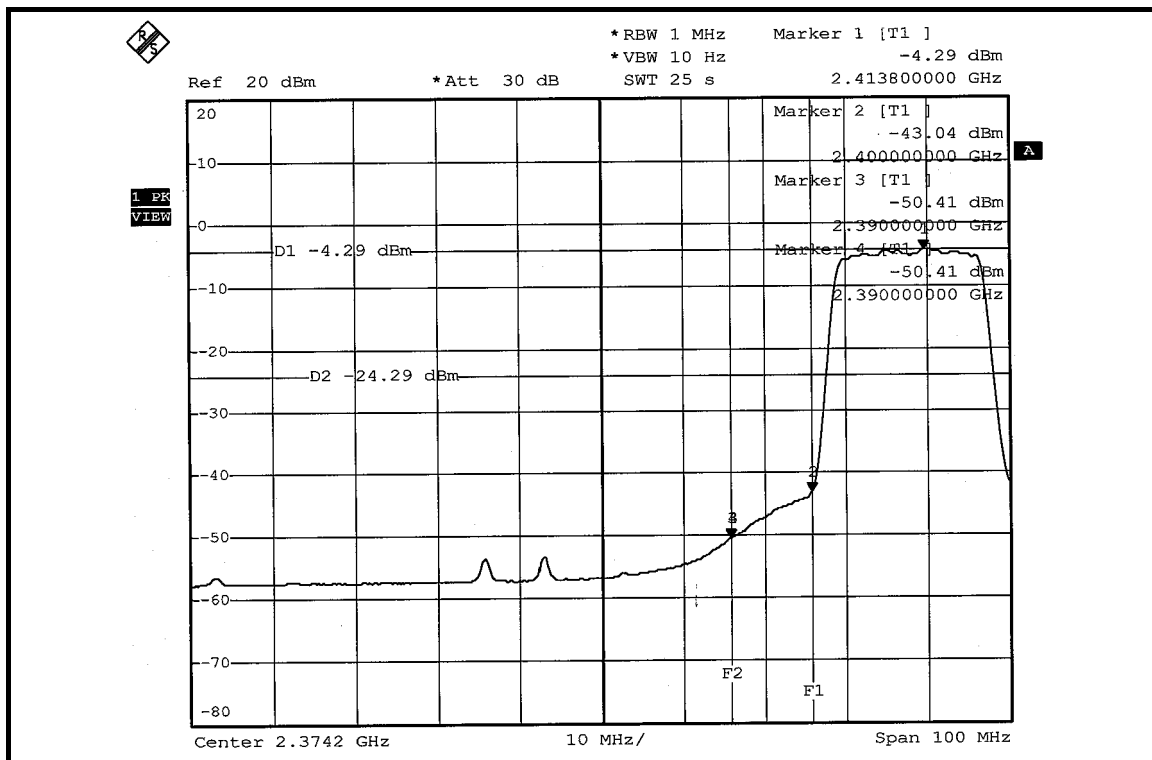
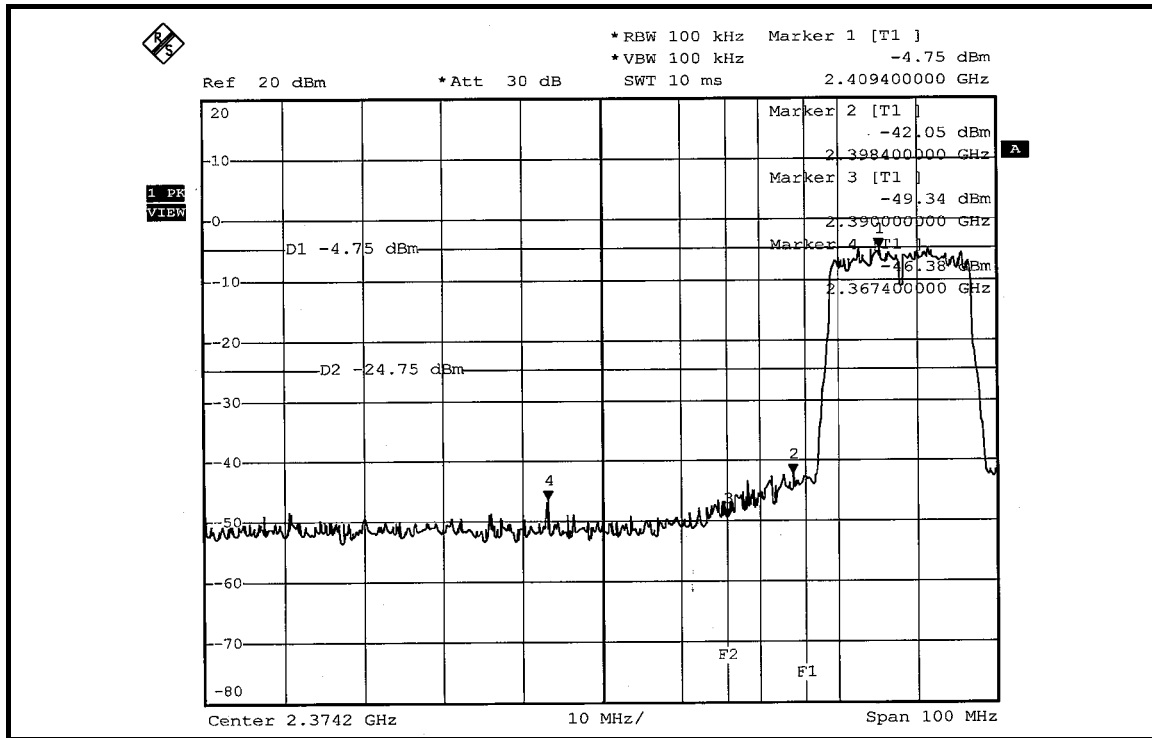
The band edge emission plot of OFDM technique on the next page shows 41.63dBc between carrier maximum power and local maximum emission in restrict band (2.3674GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 107.62dBuV/m (Peak), so the maximum field strength in restrict band is $107.62 - 41.63 = 65.99$ dBuV/m which is under 74dBuV/m limit.

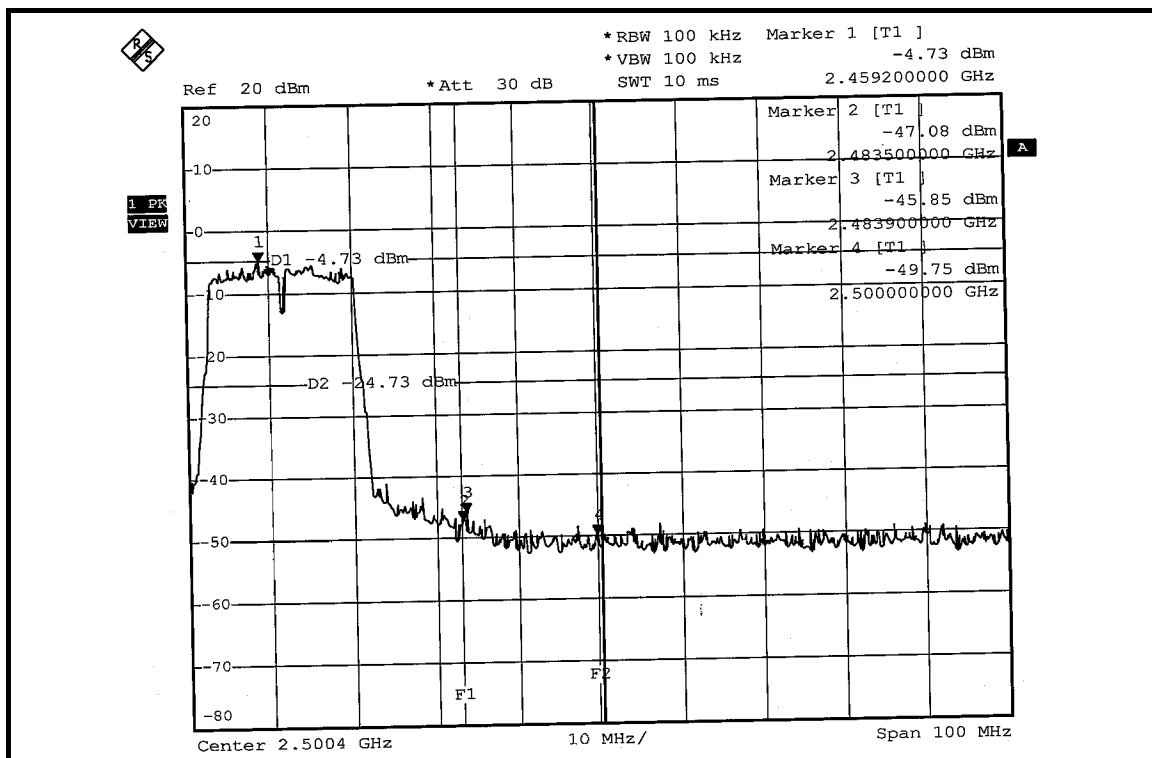
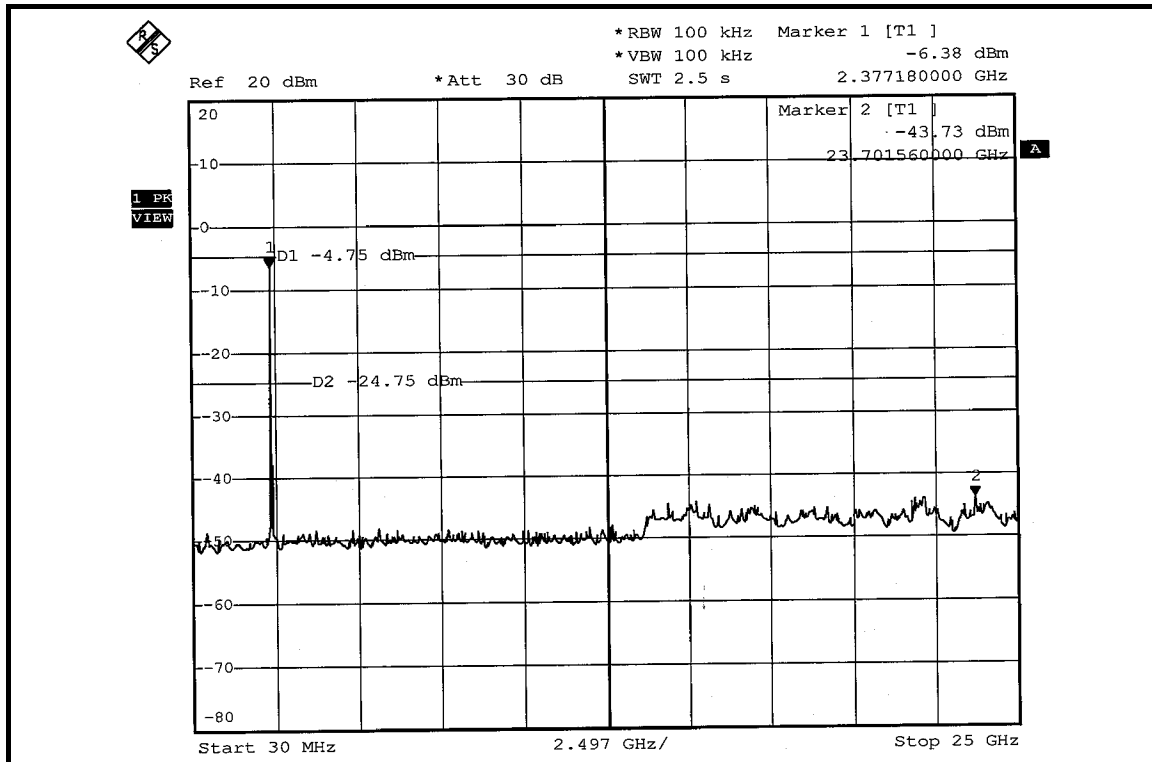
The band edge emission plot of OFDM technique on the next page shows 46.12dBc between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 98.33dBuV/m (Average), so the maximum field strength in restrict band is $98.33 - 46.12 = 52.21$ dBuV/m which is under 54dBuV/m limit.

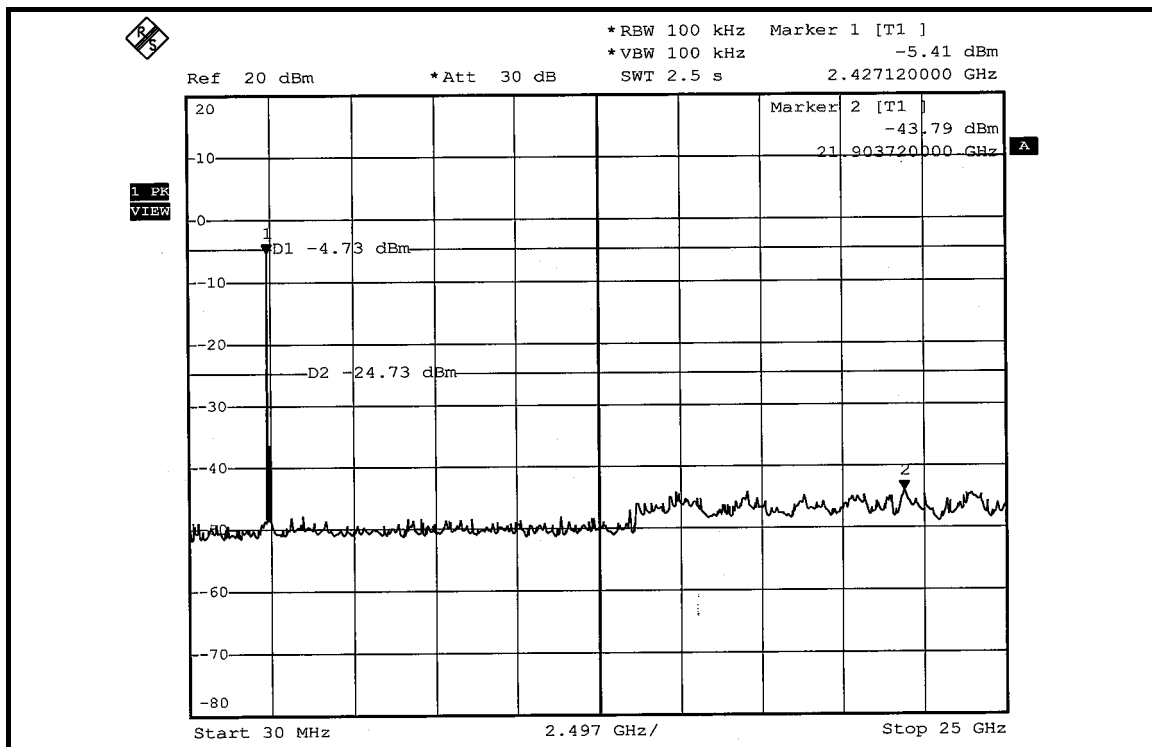
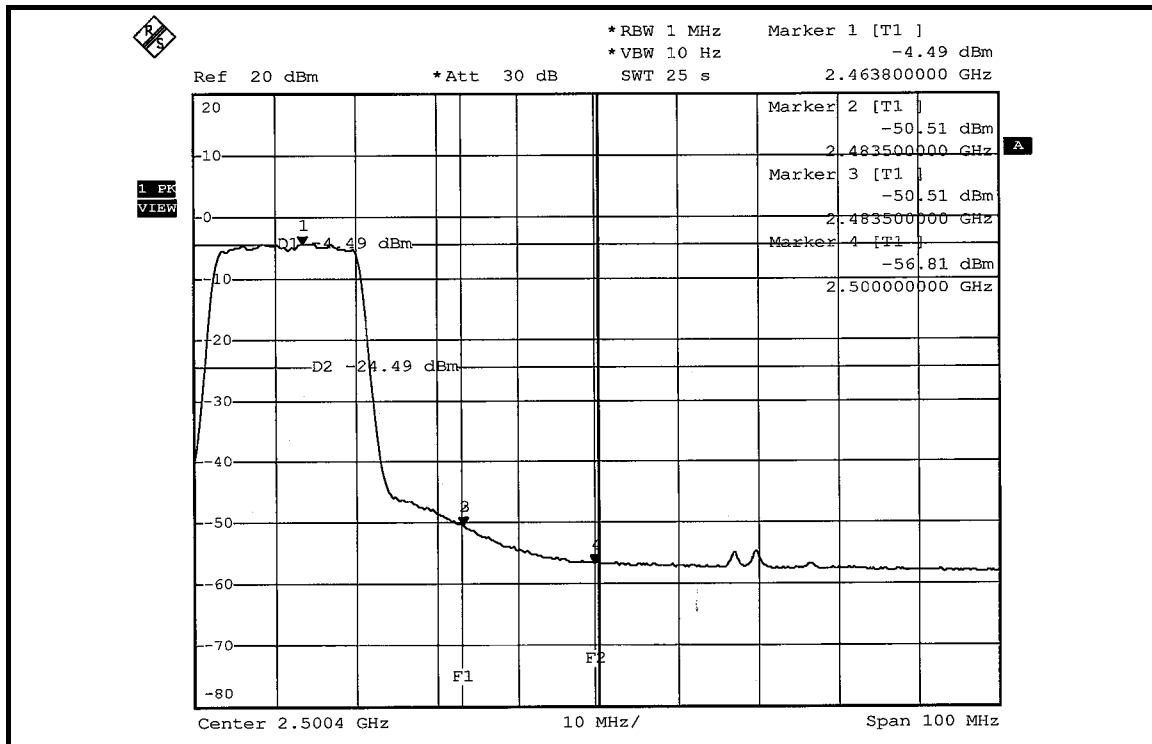
NOTE 2:

The band edge emission plot of OFDM technique on the next second page shows 41.12dBc between carrier maximum power and local maximum emission in restrict band (2.4839GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 107.95dBuV/m (Peak), so the maximum field strength in restrict band is $107.95 - 41.12 = 66.83$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot of OFDM technique on the next third page shows 46.02dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 98.64dBuV/m (Average), so the maximum field strength in restrict band is $98.64 - 46.02 = 52.62$ dBuV/m which is under 54dBuV/m limit.







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

NOTE 1:

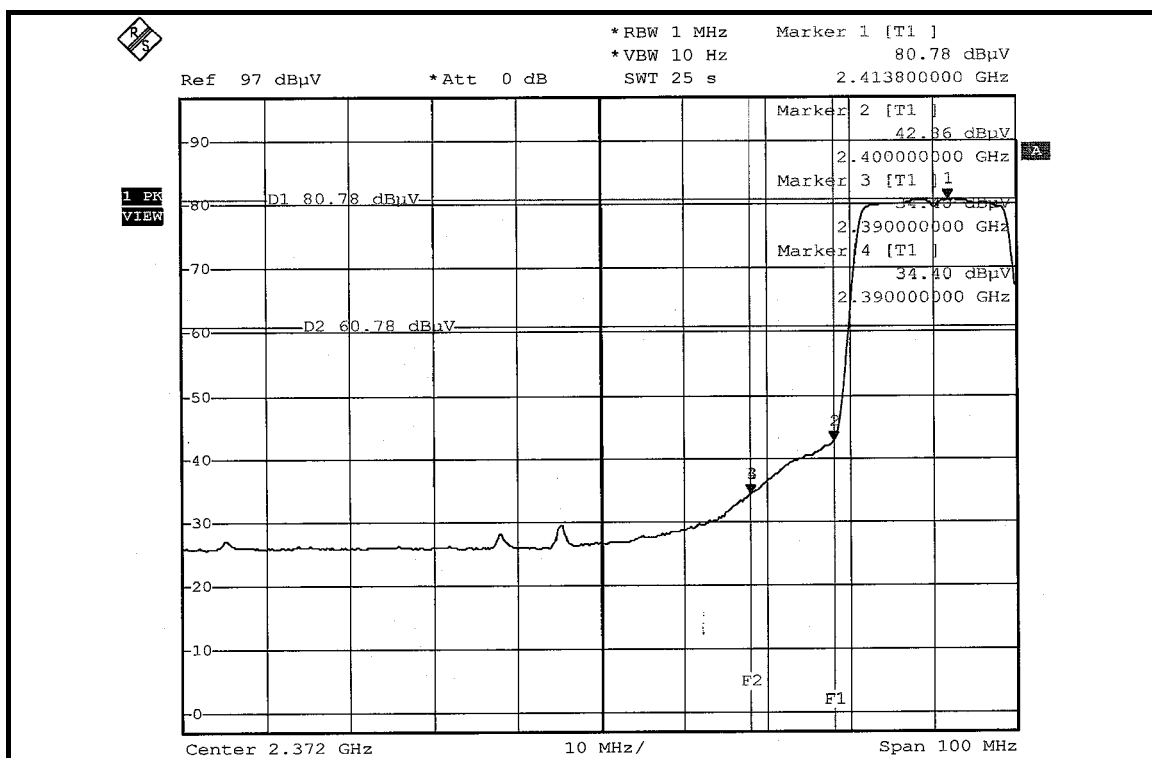
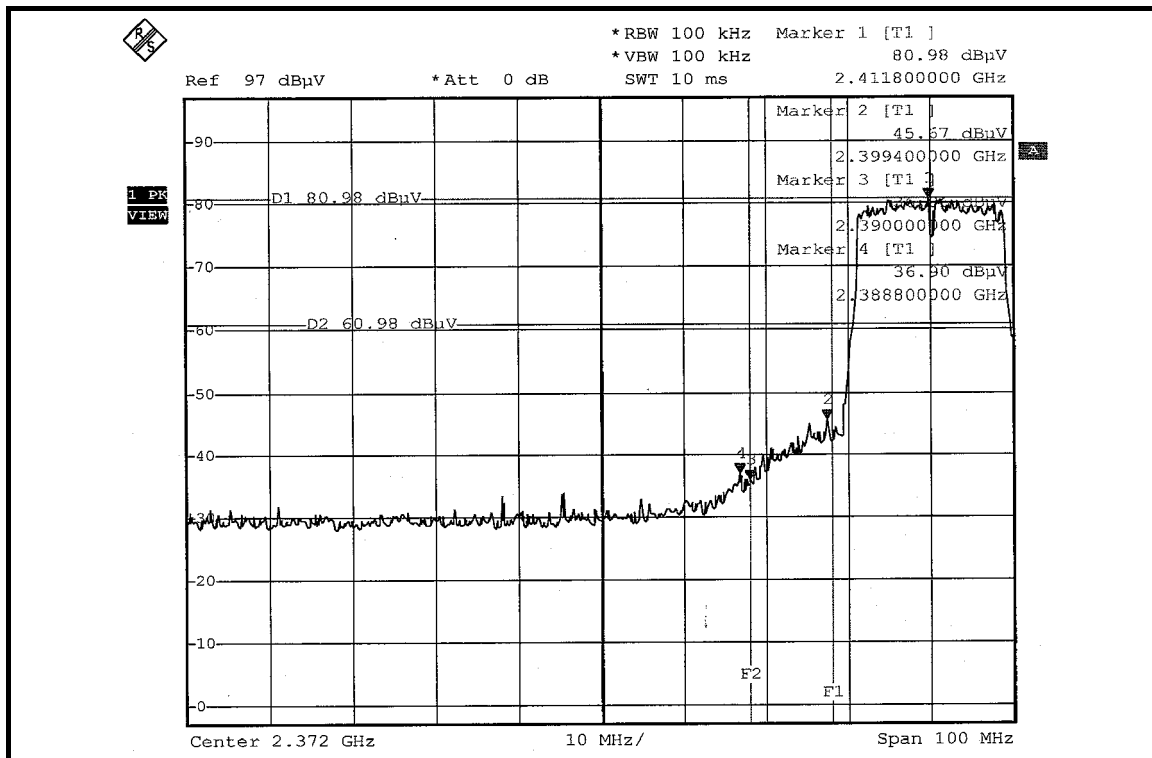
The band edge emission plot of OFDM technique on the next page shows 44.08dBc between carrier maximum power and local maximum emission in restrict band (2.3888GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 107.93dBuV/m (Peak), so the maximum field strength in restrict band is $107.93 - 44.08 = 63.85$ dBuV/m which is under 74dBuV/m limit.

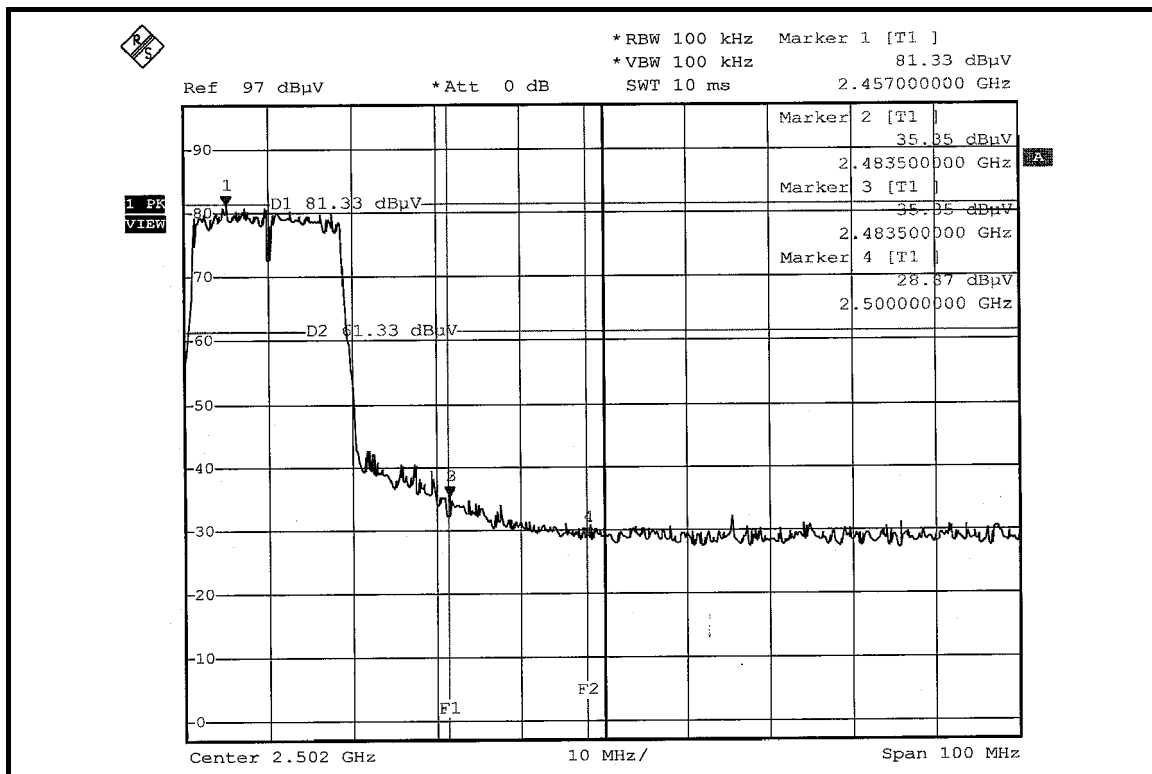
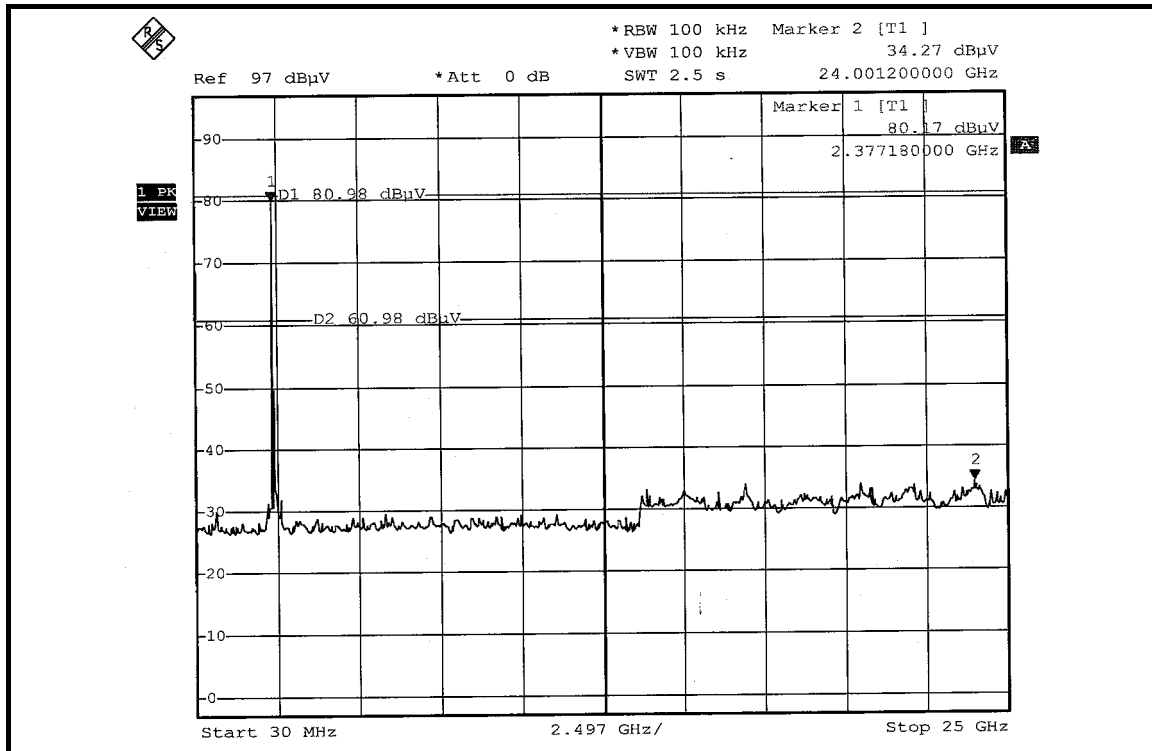
The band edge emission plot of OFDM technique on the next page shows 46.38dBc between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 97.90dBuV/m (Average), so the maximum field strength in restrict band is $97.90 - 46.38 = 51.52$ dBuV/m which is under 54dBuV/m limit.

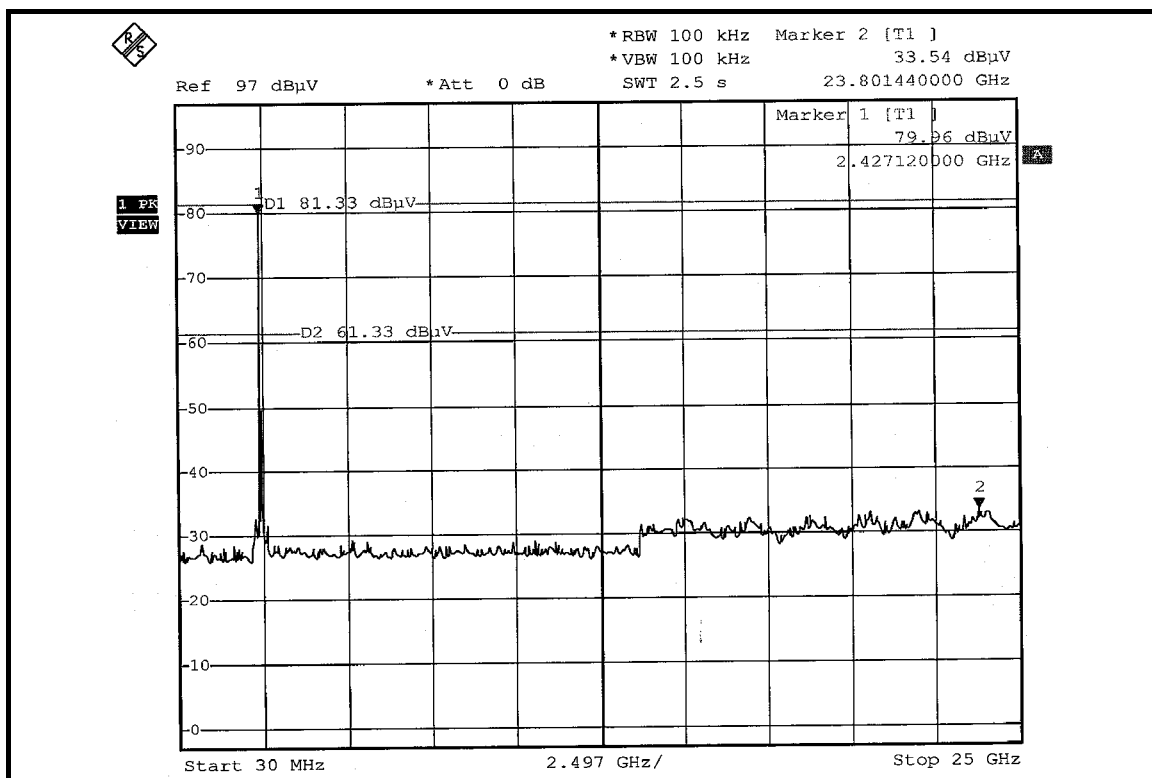
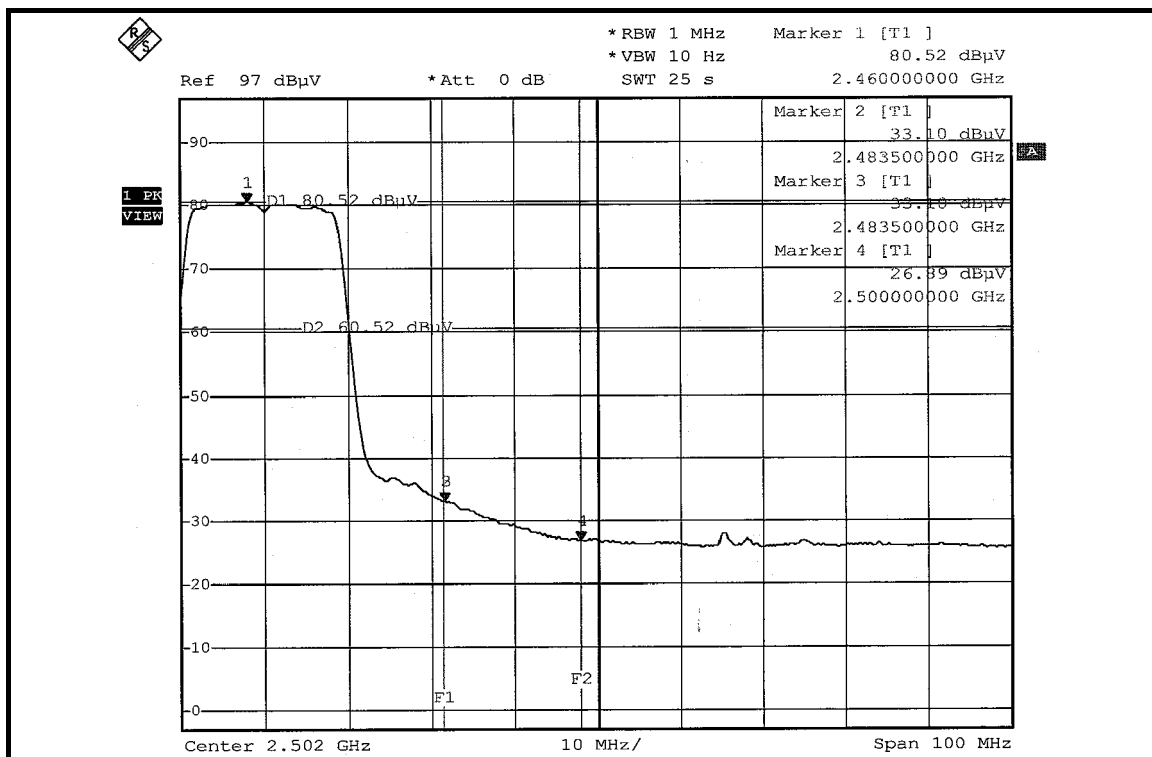
NOTE 2:

The band edge emission plot of OFDM technique on the next second page shows 45.98dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz) is 108.46dBuV/m (Peak), so the maximum field strength in restrict band is $108.46 - 45.98 = 62.48$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot of OFDM technique on the next third page shows 47.42dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 98.31dBuV/m (Average), so the maximum field strength in restrict band is $98.31 - 47.42 = 50.90$ dBuV/m which is under 54dBuV/m limit.







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

NOTE 1:

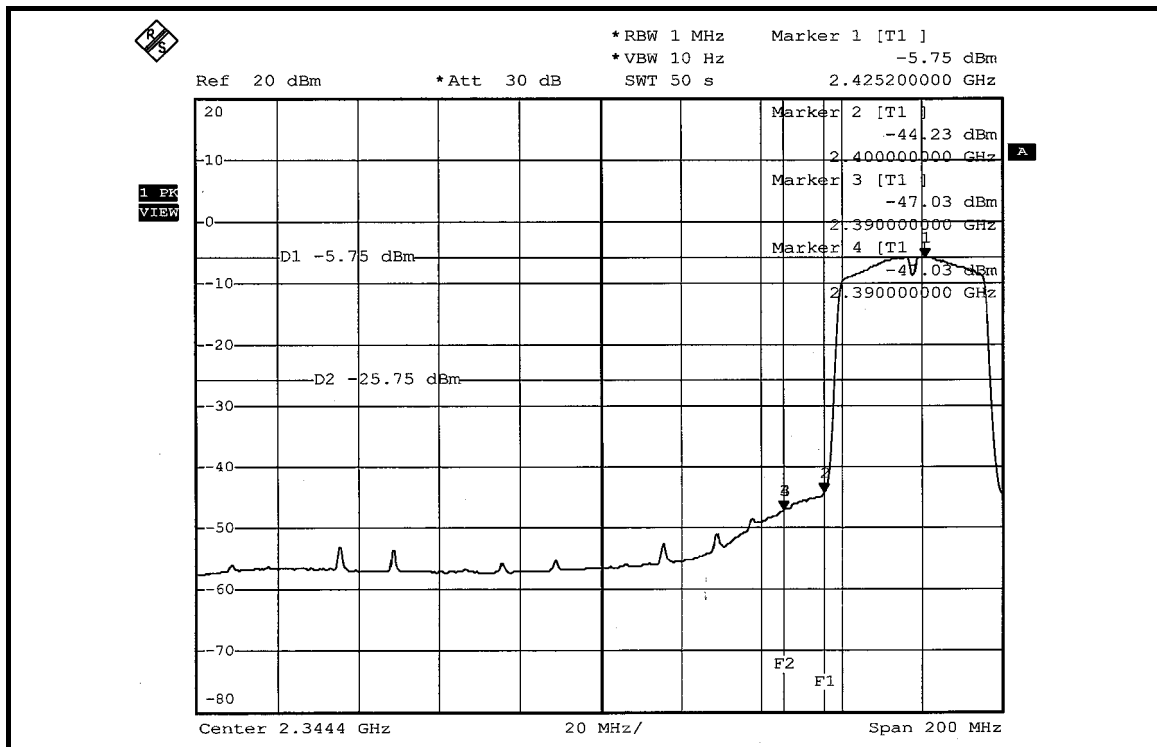
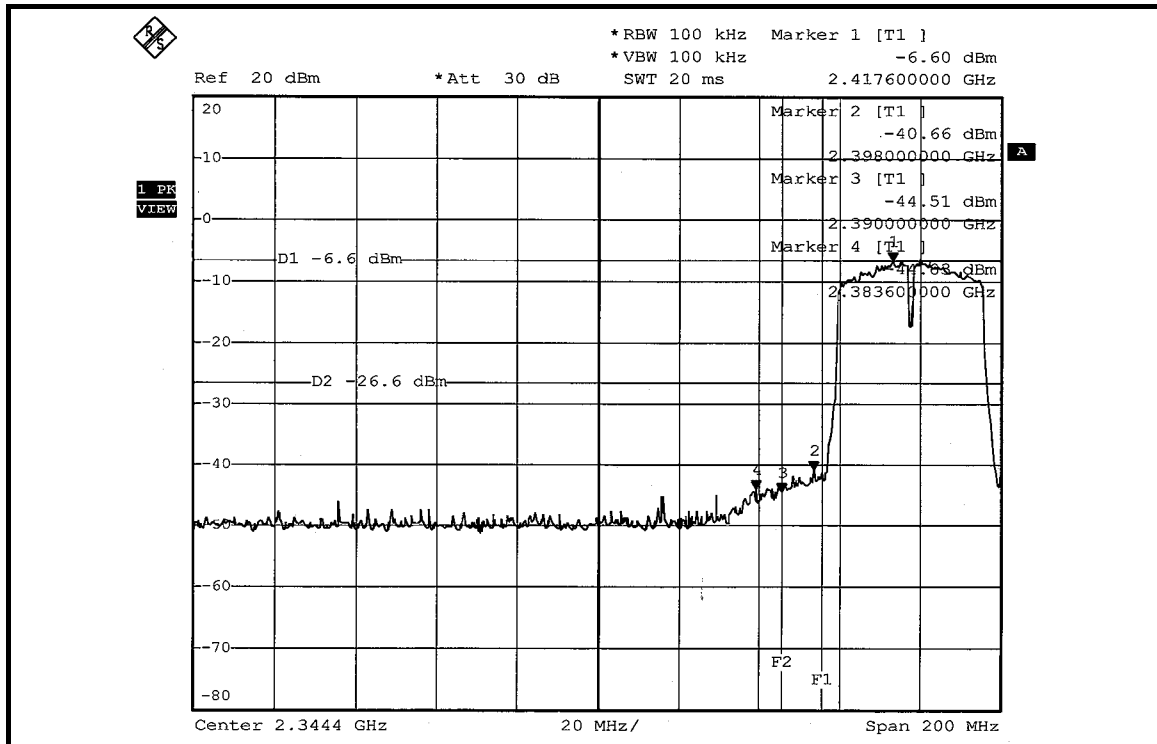
The band edge emission plot of OFDM technique on the next page shows 37.43dBc between carrier maximum power and local maximum emission in restrict band (2.3836GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 103.40dBuV/m (Peak), so the maximum field strength in restrict band is $103.40 - 37.43 = 65.97$ dBuV/m which is under 74dBuV/m limit.

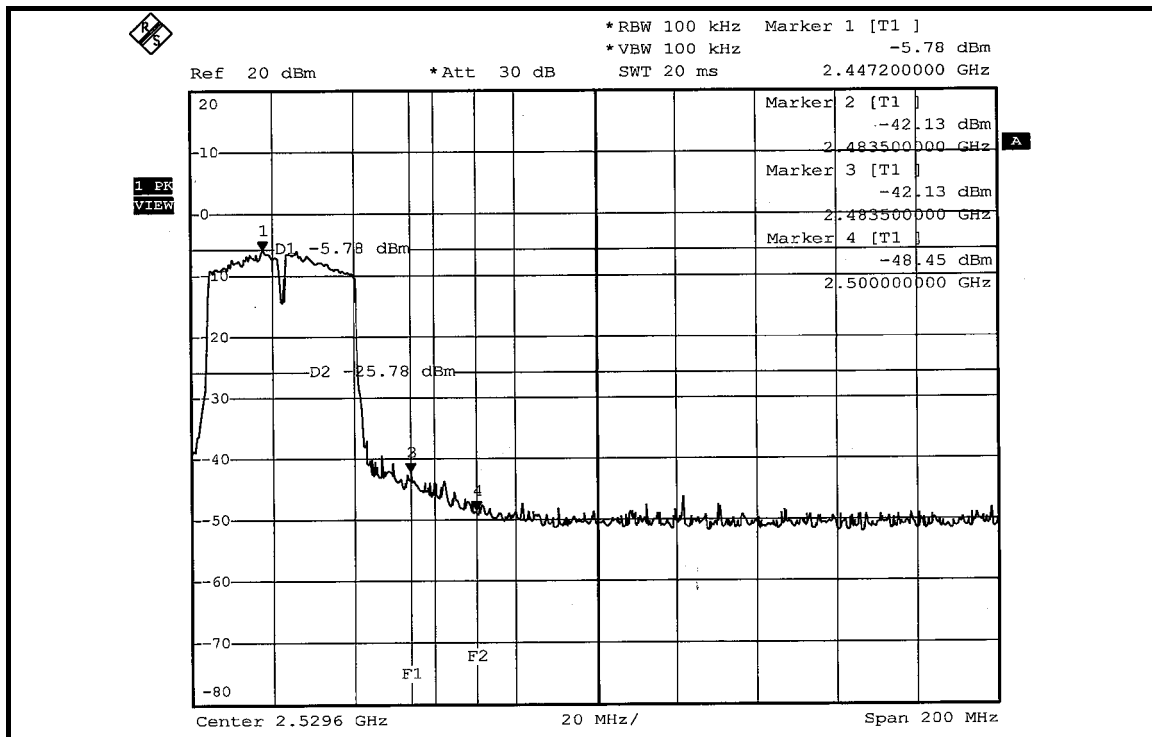
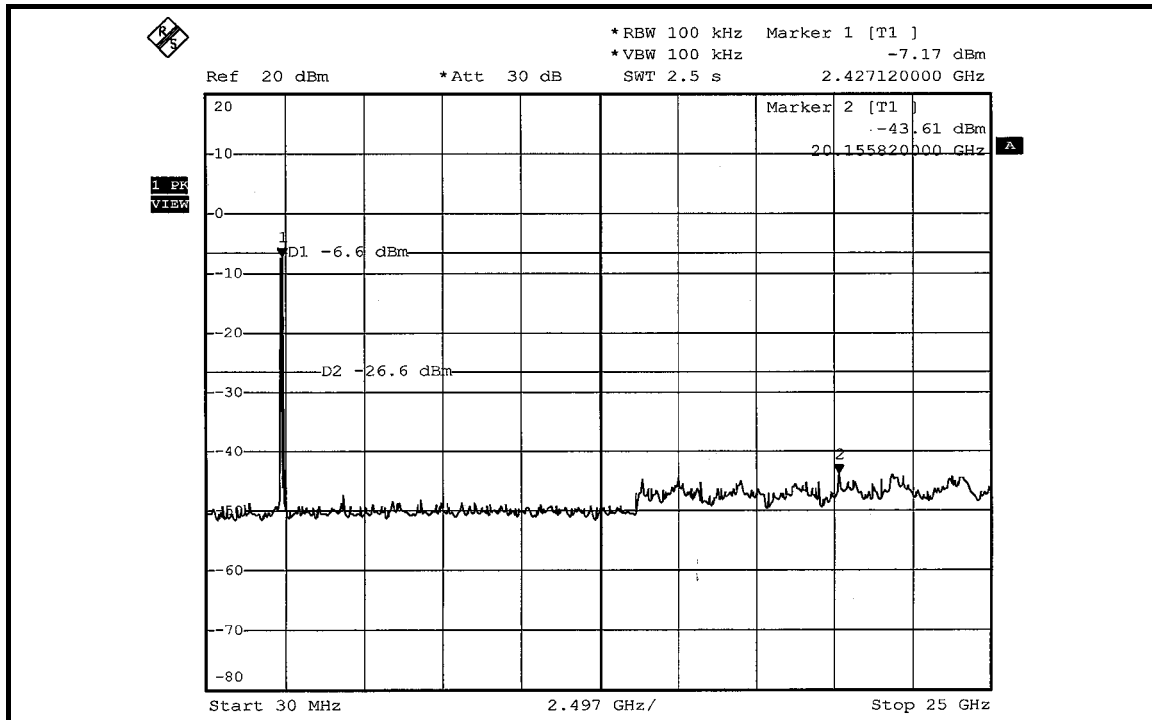
The band edge emission plot of OFDM technique on the next page shows 41.28dBc between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 94.01dBuV/m (Average), so the maximum field strength in restrict band is $94.01 - 41.28 = 52.73$ dBuV/m which is under 54dBuV/m limit.

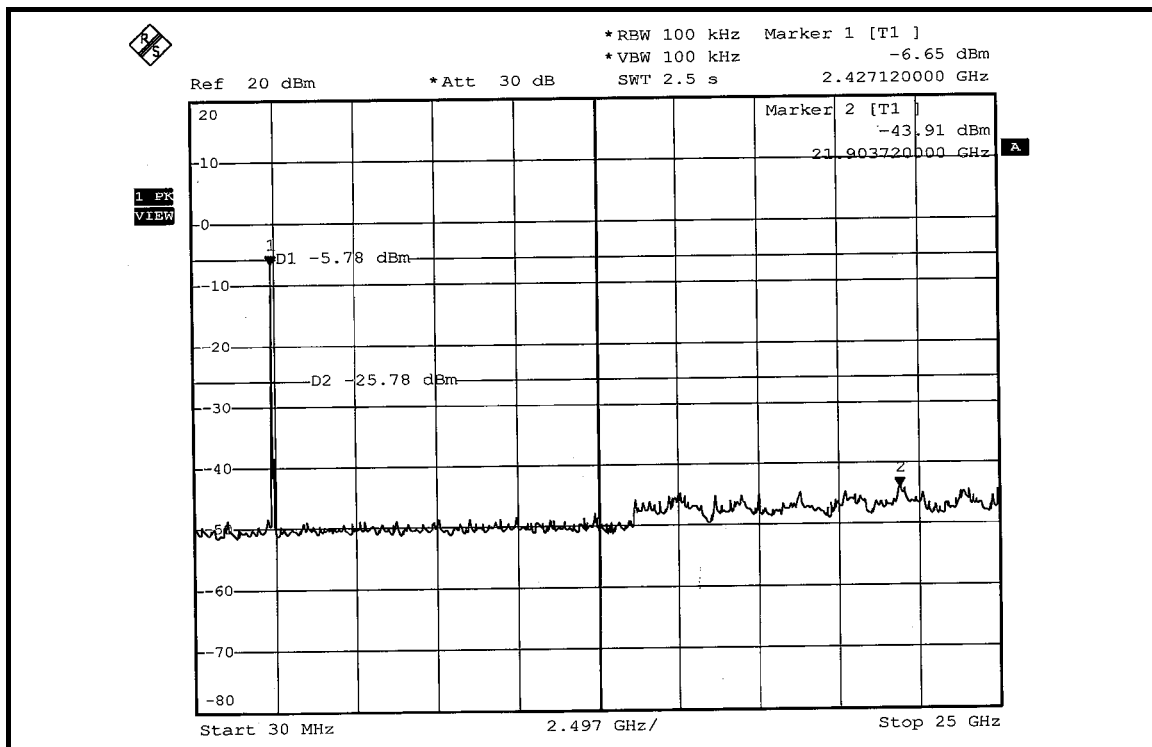
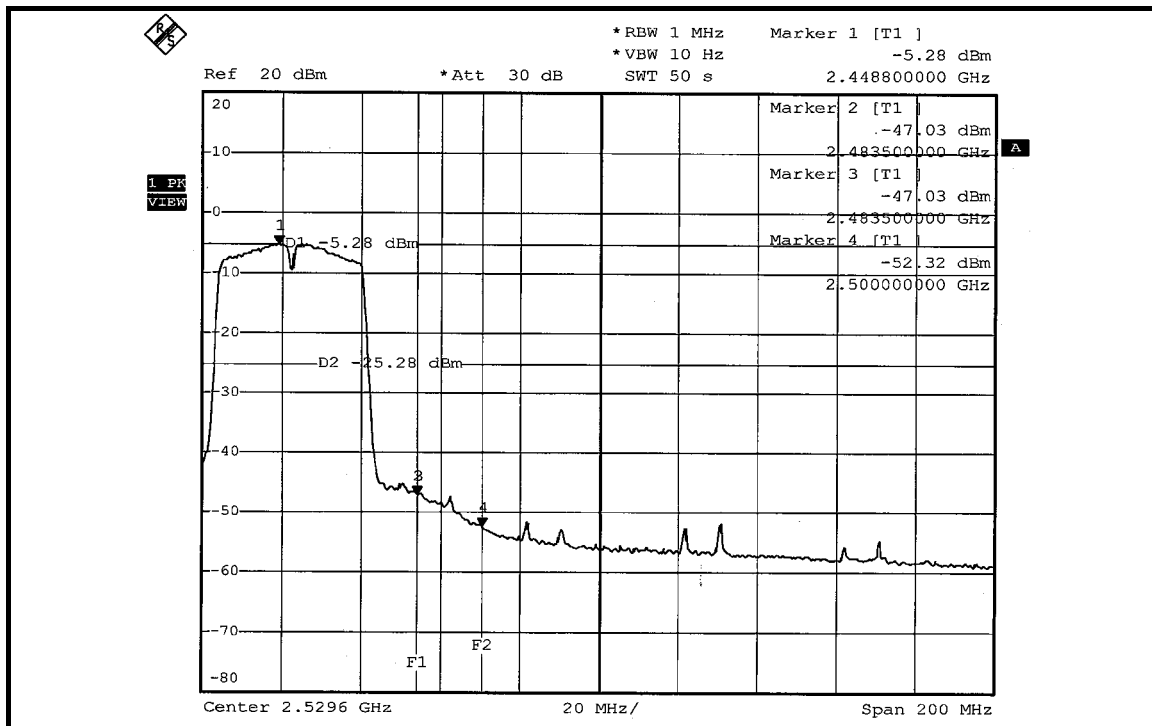
NOTE 2:

The band edge emission plot of OFDM technique on the next second page shows 36.35dBc between carrier maximum power and local maximum emission in restrict band (2.48350GHz). The emission of carrier strength list in the test result of channel 7 at the item 4.2.7 is 104.05dBuV/m (Peak), so the maximum field strength in restrict band is $104.05 - 36.35 = 67.77$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot of OFDM technique on the next third page shows 41.75dBc between carrier maximum power and local maximum emission in restrict band (2.48350GHz). The emission of carrier strength list in the test result of channel 7 at the item 4.2.7 is 94.57dBuV/m (Average), so the maximum field strength in restrict band is $94.57 - 41.75 = 52.82$ dBuV/m which is under 54dBuV/m limit.







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

NOTE 1:

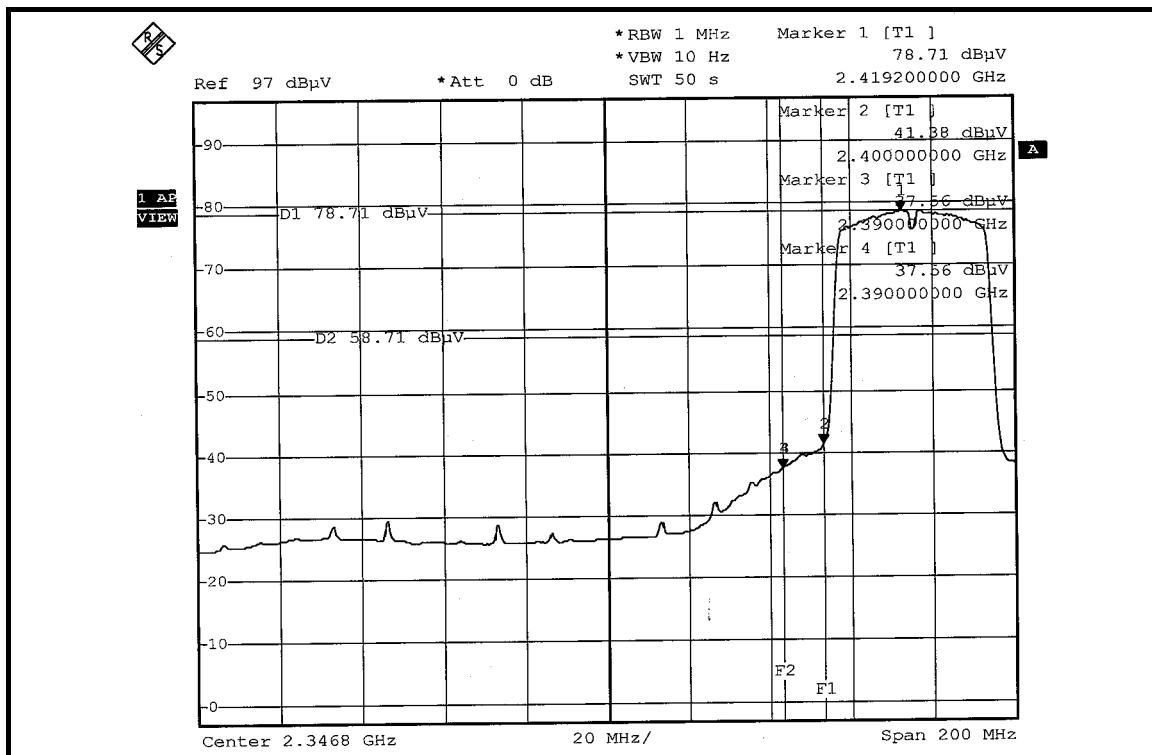
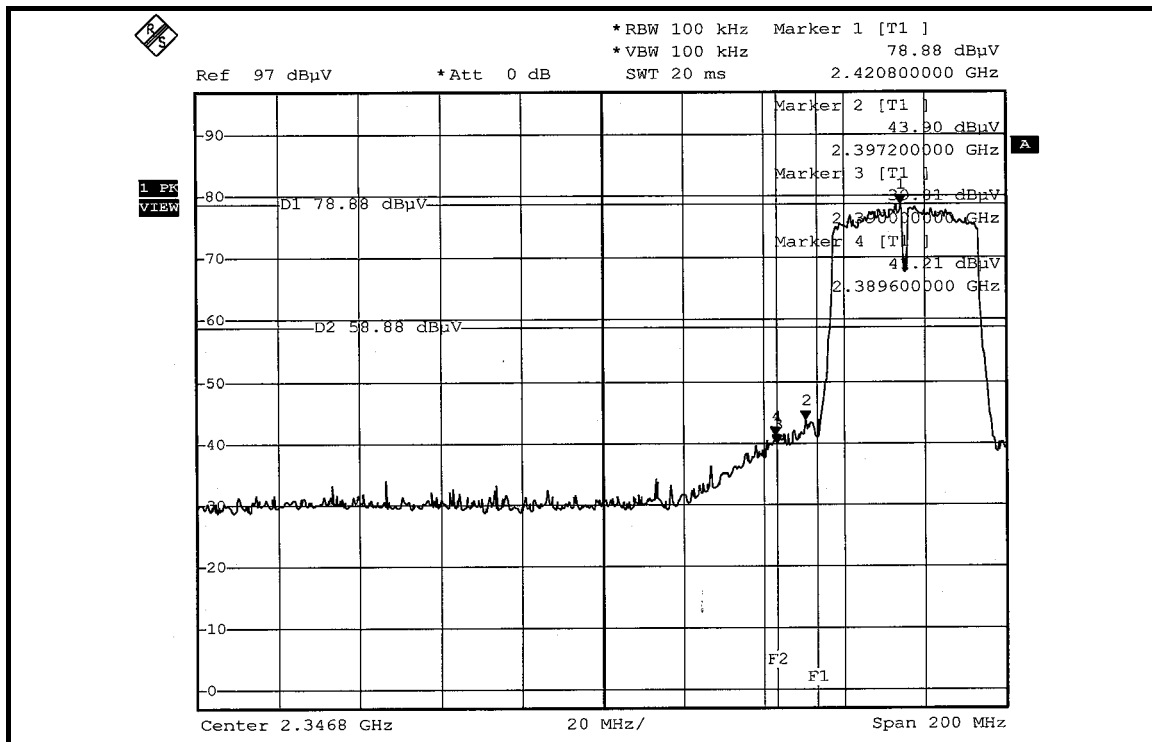
The band edge emission plot of OFDM technique on the next page shows 37.67dBc between carrier maximum power and local maximum emission in restrict band (2.3896GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 104.28dBuV/m (Peak), so the maximum field strength in restrict band is $104.28 - 37.67 = 66.61$ dBuV/m which is under 74dBuV/m limit.

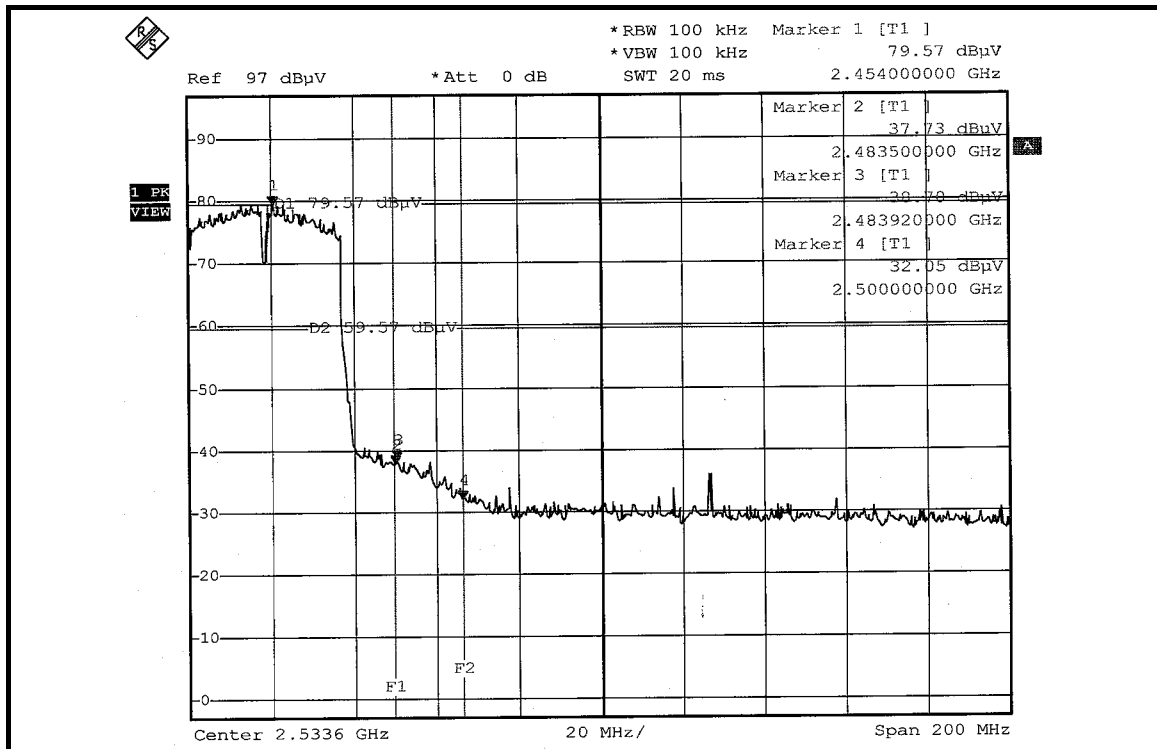
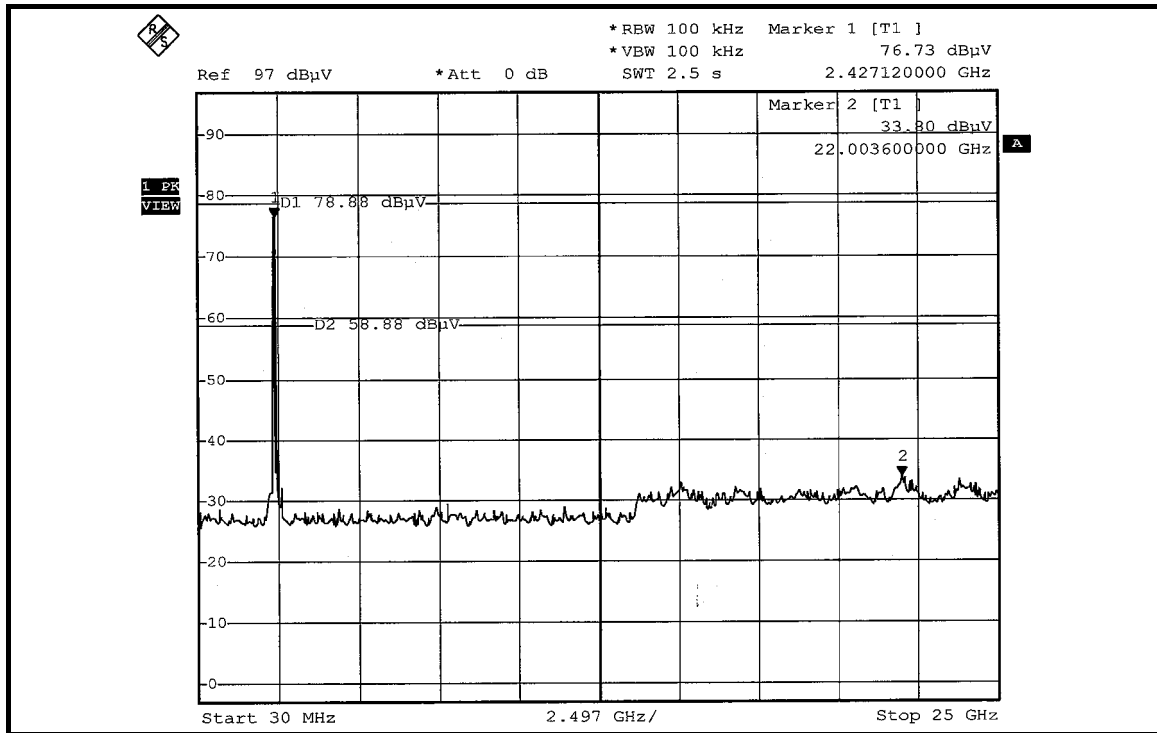
The band edge emission plot of OFDM technique on the next page shows 41.15dBc between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 94.03dBuV/m (Average), so the maximum field strength in restrict band is $94.03 - 41.15 = 52.88$ dBuV/m which is under 54dBuV/m limit.

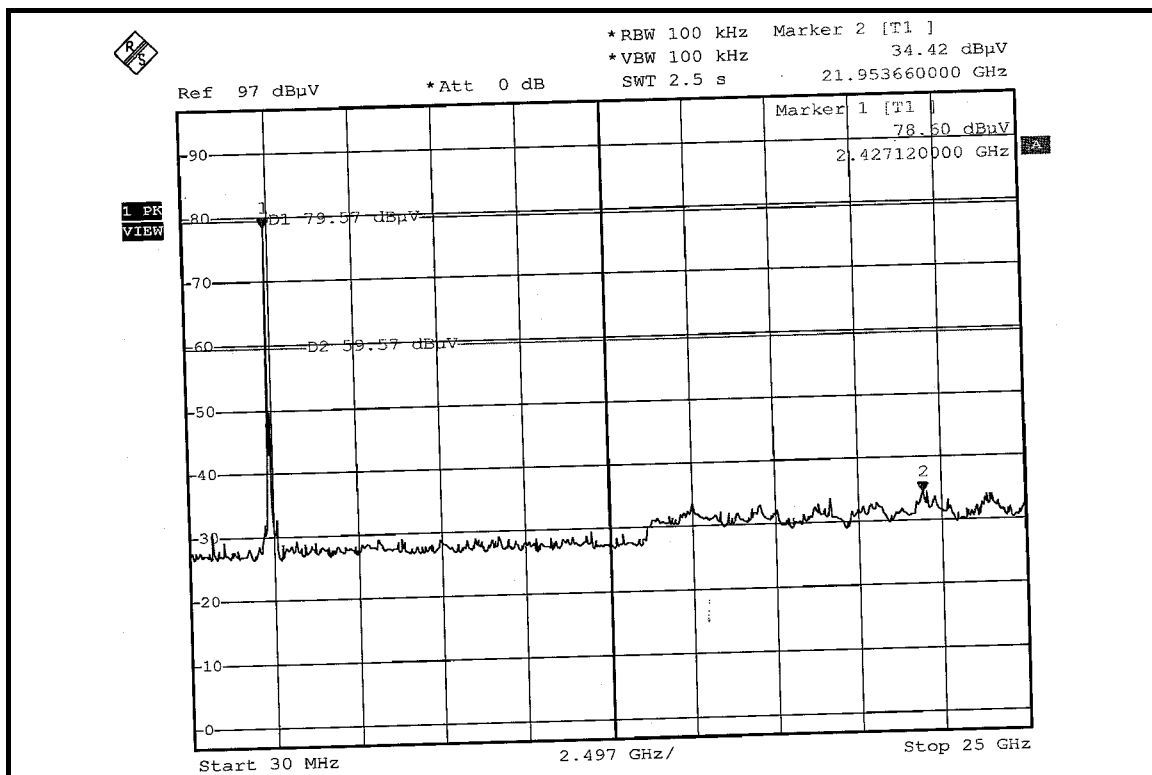
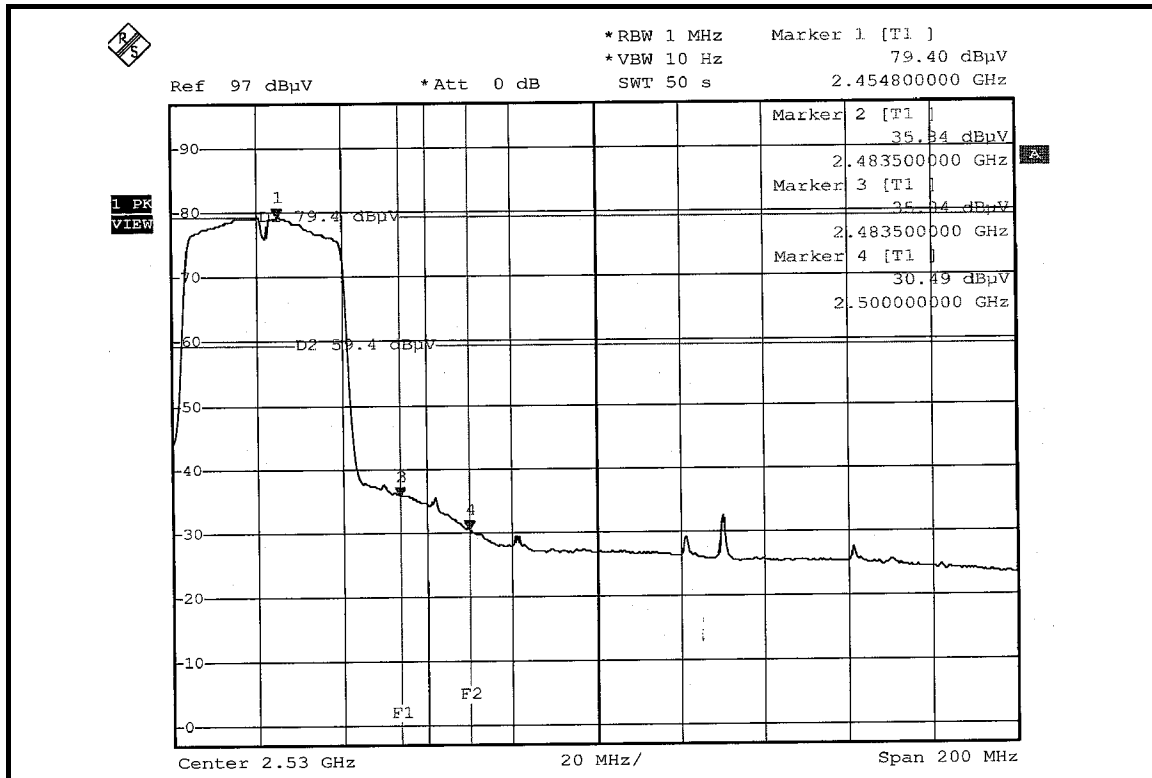
NOTE 2:

The band edge emission plot of OFDM technique on the next second page shows 40.87dBc between carrier maximum power and local maximum emission in restrict band (2.48392GHz). The emission of carrier strength list in the test result of channel 7 at the item 4.2.7 is 105.49dBuV/m (Peak), so the maximum field strength in restrict band is $105.49 - 40.87 = 64.62$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot of OFDM technique on the next third page shows 43.56dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 7 at the item 4.2.7 is 95.26dBuV/m (Average), so the maximum field strength in restrict band is $95.26 - 43.56 = 51.70$ dBuV/m which is under 54dBuV/m limit.









4.7 ANTENNA REQUIREMENT

4.7.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

4.7.2 ANTENNA CONNECTED CONSTRUCTION

The antenna used in this product is Dipole antenna with UFL connector. The maximum Gain of the antenna is 2.18dBi.

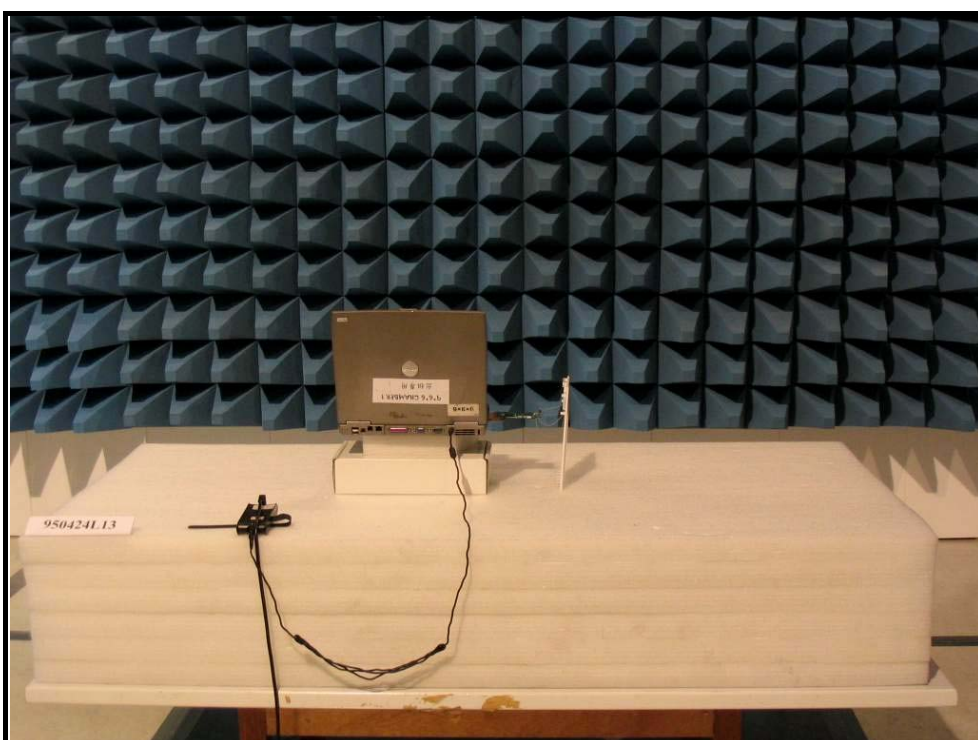
5. PHOTOGRAPHS OF THE TEST CONFIGURATION

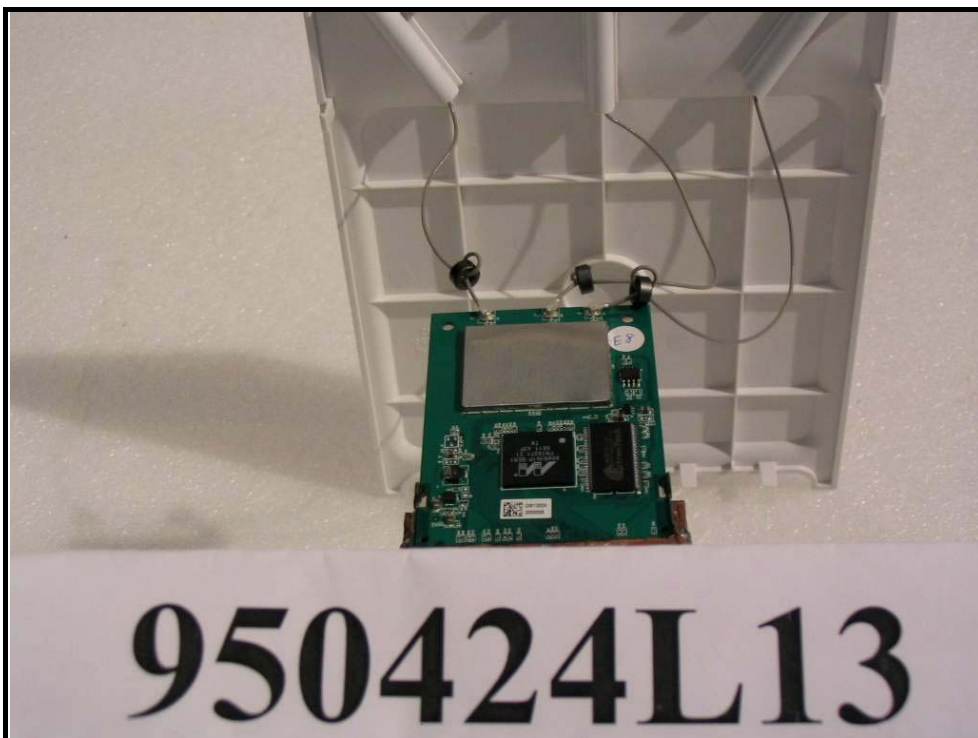
CONDUCTED EMISSION TEST





RADIATED EMISSION TEST







6. INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA	FCC, UL, A2LA
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA , CSA
R.O.C.	CNLA, BSMI, DGT
Netherlands	Telefication
Singapore	PSB , GOST-ASIA(MOU)
Russia	CERTIS(MOU)

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site:

www.adt.com.tw/index.5/phtml. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:

Tel: 886-2-26052180

Fax: 886-2-26052943

Hsin Chu EMC/RF Lab:

Tel: 886-3-5935343

Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Telecom Lab:

Tel: 886-3-3183232

Fax: 886-3-3185050

Linko RF Lab.

Tel: 886-3-3270910

Fax: 886-3-3270892

Web Site: www.adt.com.tw

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



APPENDIX-A

MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.