FCC TEST REPORT

REPORT NO.: RF960724L02A

MODEL NO.: TEW-623PI H/W:v3.0R

RECEIVED: Oct. 03, 2008

TESTED: Oct. 06 ~ Oct. 07, 2008

ISSUED: Oct. 14, 2008

APPLICANT: TRENDware International Inc

ADDRESS: 20675 Manhattan Place, Torrance, CA 90501

ISSUED BY: Advance Data Technology Corporation

LAB ADDRESS: No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou Hsiang, Taipei Hsien 244, 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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1. CERTIFICATION

PRODUCT:	802.11n Wireless LAN PCI Adapter
MODEL:	TEW-623PI H/W:v3.0R
BRAND:	TRENDnet
APPLICANT:	TRENDware International Inc
TEST SAMPLE:	ENGINEERING SAMPLE
TESTED:	Oct. 06 ~ Oct. 07, 2008
STANDARDS:	**FCC Part 15, Subpart C (Section 15.247)**
	ANSI C63.4-2003

The above equipment (Model: TEW-623PI H/W:v3.0R) 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 : _____ **, DATE :** Oct. 14, 2008
Joanna Wang / Senior Specialist

TECHNICAL ACCEPTANCE : _____ **, DATE :** Oct. 14, 2008
Responsible for RF Long Chen / Senior Engineer

APPROVED BY : _____ **, DATE :** Oct. 14, 2008
Gary Chang / Assistant Manager

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART C (SECTION 15.247)			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**REMARK**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -18.52dB at 1.207MHz.
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum SystemLimit: 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)	Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -1.00dB at 877.000MHz.
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 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz ~ 30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	2.93 dB
	200MHz ~1000MHz	2.95 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	802.11n Wireless LAN PCI Adapter
MODEL NO.	TEW-623PI H/W:v3.0R
FCC ID	S9ZTEW623PIV3
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:11.0/ 5.5/ 2.0/ 1.0Mbps 802.11g: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps Draft 802.11n: up to 300.0Mbps
FREQUENCY RANGE	2400.0 ~ 2483.5MHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, draft 802.11n (20MHz) 7 for draft 802.11n (40MHz)
OUTPUT POWER	103.522mW
ANTENNA TYPE	Dipole antenna with 2dBi gain
DATA CABLE	NA
I/O PORTS	NA
ACCESSORY DEVICES	NA

NOTE:

1. The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and three receivers..

MODULATION MODE	TX FUNCTION
802.11b	1TX
802.11g	1TX
Draft 802.11n (20MHz)	2TX
Draft 802.11n (40MHz)	2TX

2. 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

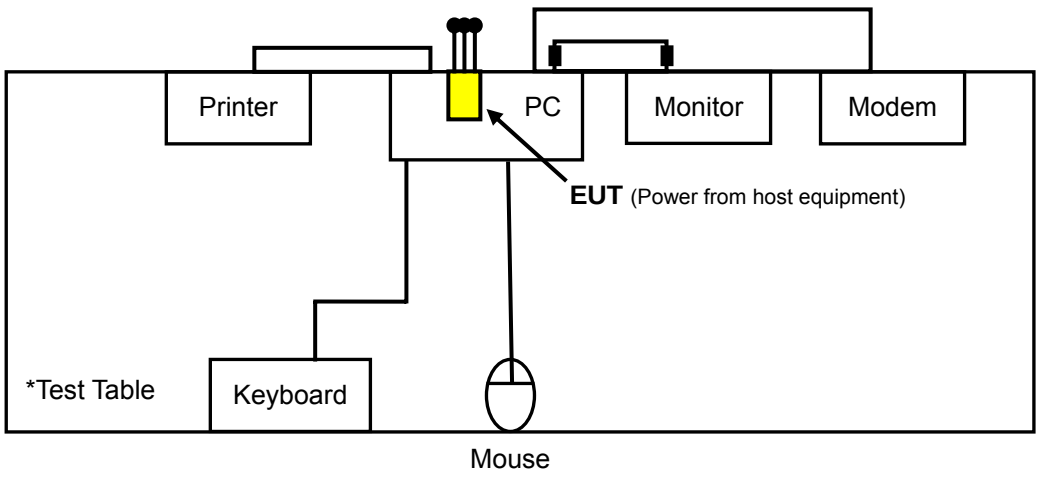
11 channels are provided for 802.11b, 802.11g and draft 802.11n (20MHz):

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		

7 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
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where **RE≥1G:** Radiated Emission above 1GHz **RE<1G:** Radiated Emission below 1GHz

PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

RADIATED EMISSION TEST (ABOVE 1GHz):

☒ 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)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	7.2
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	15.0

RADIATED EMISSION TEST (BELOW 1GHz):

☒ 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)
Draft 802.11n (20MHz)	1 to 11	6	OFDM	BPSK	7.2

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)
Draft 802.11n (20MHz)	1 to 11	6	OFDM	BPSK	7.2

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)
802.11b	1 to 11	1, 11	DSSS	DBPSK	1.0
802.11g	1 to 11	1, 11	OFDM	BPSK	6.0
Draft 802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	7.2
Draft 802.11n (40MHz)	1 to 7	1, 7	OFDM	BPSK	15.0

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)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	7.2
Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	15.0

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

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

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

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

3.4 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	PC	MSI	Hetis 865G Giga	3AS0119581	FCC DoC Approved
2	MONITOR	ACER	AL1511 bm	ET.L1408.0433480 013APK01	FCC DoC Approved
3	PRINTER	EPSON	LQ-300+	DCGY047265	FCC DoC Approved
4	MODEM	ACEEX	1414V/3	0401008269	IFAXDM1414
5	KEYBOARD	DELL	RT7D20	TH-04N454-37171-333-N867	AQ6-7D20
6	MOUSE	Logitech	M-S43	LZE00703157	DZL211106

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.8m braid shielded wire, DVI connector, with two cores.
3	1.8m braid shielded wire, DB25 connector, w/o core.
4	1.2m braid shielded wire, DB25 & DB9 connector, w/o core.
5	2m foil shielded wire,PS/2 connector, w/o core.
6	1.8 m foil shielded wire, terminated with PS2 connector via drain wire, w/o core.

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

4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION MEASUREMENT

4.1.1 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.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100212	May 28, 2008	May 27, 2009
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Aug. 08, 2008	Aug. 07, 2009
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Apr. 25, 2008	Apr. 24, 2009
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-563	Aug. 06, 2008	Aug. 05, 2009
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 07, 2008	Jan. 06, 2009
Preamplifier Agilent	8449B	3008A01911	Sep. 10, 2008	Sep. 09, 2009
Preamplifier Agilent	8447D	2944A10634	Dec. 13, 2007	Dec. 12, 2008
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	274039/223650	Nov. 08, 2007	Nov. 07, 2008
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 09, 2008	Aug. 08, 2009
Software	ADT_Radiated_V7.6	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower &Turn Table Controller EMCO	2090	NA	NA	NA

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Chamber 9.

3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.

4. The FCC Site Registration No. is 215374.

5. The IC Site Registration No. is IC3789B-9.

4.1.3 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.

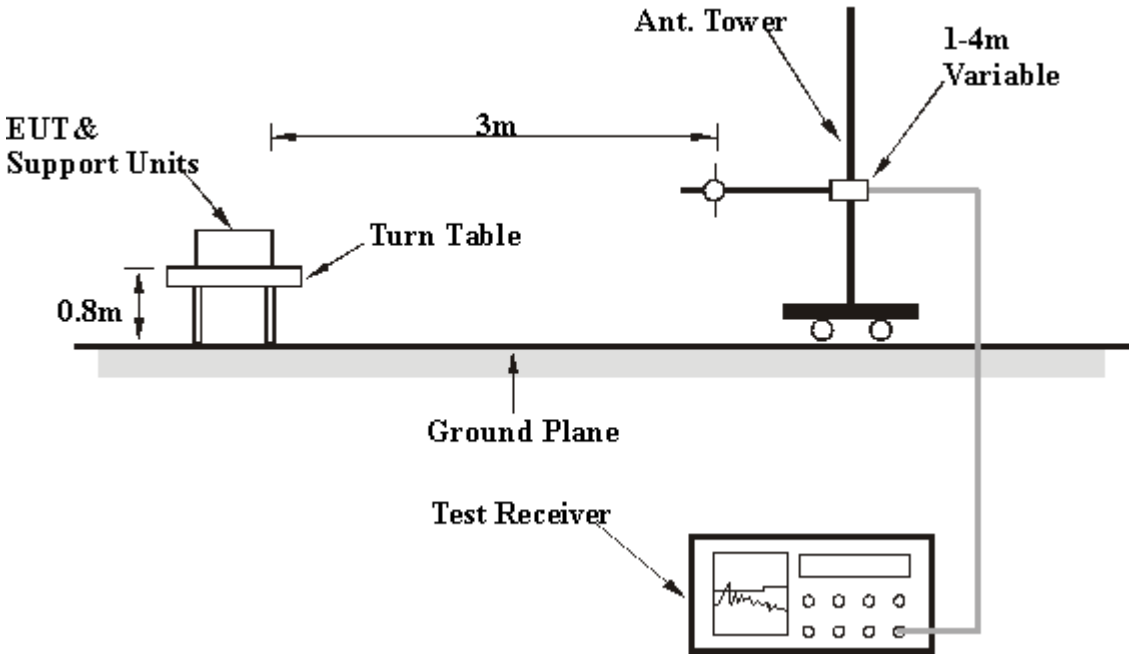
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation.

4.1.5 TEST SETUP



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

4.1.6 EUT OPERATING CONDITIONS

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

4.1.7 TEST RESULTS

802.11b DSSS MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1000hPa	TESTED BY	Antony Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	59.53 PK	74.00	-14.47	1.00 H	118	26.20	33.33
2	2390.00	49.17 AV	54.00	-4.83	1.00 H	118	15.84	33.33
3	*2412.00	102.08 PK			1.00 H	139	68.67	33.41
4	*2412.00	97.51 AV			1.00 H	139	64.10	33.41
5	4824.00	47.29 PK	74.00	-26.71	1.00 H	36	7.53	39.76
6	4824.00	34.38 AV	54.00	-19.62	1.00 H	36	-5.38	39.76
7	#6432.00	54.83 PK	82.08	-27.25	1.00 H	204	10.96	43.86
8	#6432.00	46.48 AV	77.51	-31.03	1.00 H	204	2.61	43.86
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	2390.00	61.15 PK	74.00	-12.85	1.06 V	160	27.82	33.33
2	2390.00	49.22 AV	54.00	-4.78	1.06 V	160	15.89	33.33
3	*2412.00	108.25 PK			1.00 V	148	74.84	33.41
4	*2412.00	103.69 AV			1.00 V	148	70.28	33.41
5	4824.00	48.20 PK	74.00	-25.80	1.05 V	13	8.44	39.76
6	4824.00	34.78 AV	54.00	-19.22	1.05 V	13	-4.98	39.76
7	#6432.00	54.68 PK	88.25	-33.57	1.00 V	142	10.81	43.86
8	#6432.00	45.29 AV	83.69	-38.40	1.00 V	142	1.42	43.86

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1000hPa	TESTED BY	Antony Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	102.05 PK			1.00 H	140	68.56	33.49
2	*2437.00	97.19 AV			1.00 H	140	63.70	33.49
3	4874.00	47.95 PK	74.00	-26.05	1.00 H	68	8.07	39.88
4	4874.00	35.95 AV	54.00	-18.05	1.00 H	68	-3.93	39.88
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	*2437.00	108.65 PK			1.00 V	179	75.16	33.49
2	*2437.00	104.11 AV			1.00 V	179	70.62	33.49
3	4874.00	48.01 PK	74.00	-25.99	1.00 V	34	8.13	39.88
4	4874.00	37.57 AV	54.00	-16.43	1.00 V	34	-2.31	39.88

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1000hPa	TESTED BY	Antony Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	101.63 PK			1.67 H	138	68.06	33.57
2	*2462.00	97.52 AV			1.67 H	138	63.95	33.57
3	2483.50	59.81 PK	74.00	-14.19	1.00 H	246	26.17	33.64
4	2483.50	48.56 AV	54.00	-5.44	1.00 H	246	14.92	33.64
5	4924.00	47.40 PK	74.00	-26.60	1.00 H	59	7.36	40.03
6	4924.00	34.35 AV	54.00	-19.65	1.00 H	59	-5.69	40.03
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	108.50 PK			1.00 V	142	74.93	33.57
2	*2462.00	103.53 AV			1.00 V	142	69.96	33.57
3	2483.50	63.29 PK	74.00	-10.71	1.00 V	146	29.65	33.64
4	2483.50	51.85 AV	54.00	-2.15	1.00 V	146	18.21	33.64
5	4924.00	50.74 PK	74.00	-23.26	1.02 V	49	10.70	40.03
6	4924.00	36.23 AV	54.00	-17.77	1.02 V	49	-3.81	40.03

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1000hPa	TESTED BY	Antony Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	66.31 PK	74.00	-7.69	1.00 H	306	32.98	33.33
2	2390.00	49.96 AV	54.00	-4.04	1.00 H	306	16.63	33.33
3	*2412.00	100.08 PK			1.00 H	265	66.67	33.41
4	*2412.00	90.37 AV			1.00 H	265	56.96	33.41
5	4824.00	46.82 PK	74.00	-27.18	1.00 H	10	7.06	39.76
6	4824.00	36.82 AV	54.00	-17.18	1.00 H	10	-2.94	39.76
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	2390.00	72.01 PK	74.00	-1.99	1.00 V	102	38.68	33.33
2	2390.00	51.98 AV	54.00	-2.02	1.00 V	102	18.65	33.33
3	*2412.00	109.41 PK			1.00 V	149	76.00	33.41
4	*2412.00	99.67 AV			1.00 V	149	66.26	33.41
5	4824.00	47.82 PK	74.00	-26.18	1.00 V	89	8.06	39.76
6	4824.00	35.82 AV	54.00	-18.18	1.00 V	89	-3.94	39.76

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1000hPa	TESTED BY	Antony Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	102.01 PK			1.00 H	160	68.52	33.49
2	*2437.00	91.62 AV			1.00 H	160	58.13	33.49
3	4874.00	48.95 PK	74.00	-25.05	1.00 H	23	9.07	39.88
4	4874.00	36.95 AV	54.00	-17.05	1.00 H	23	-2.93	39.88
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	*2437.00	110.74 PK			1.00 V	166	77.25	33.49
2	*2437.00	100.55 AV			1.00 V	166	67.06	33.49
3	4874.00	47.95 PK	74.00	-26.05	1.02 V	36	8.07	39.88
4	4874.00	36.95 AV	54.00	-17.05	1.02 V	36	-2.93	39.88

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1000hPa	TESTED BY	Antony Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	101.63 PK			1.00 H	169	68.06	33.57
2	*2462.00	91.16 AV			1.00 H	169	57.59	33.57
3	2483.50	49.52 PK	74.00	-24.48	1.00 H	119	15.88	33.64
4	2483.50	49.66 AV	54.00	-4.34	1.00 H	119	16.02	33.64
5	4924.00	47.12 PK	74.00	-26.88	1.02 H	32	7.09	40.03
6	4924.00	36.12 AV	54.00	-17.88	1.02 H	32	-3.91	40.03
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	109.13 PK			1.00 V	302	75.56	33.57
2	*2462.00	99.73 AV			1.00 V	302	66.16	33.57
3	2483.50	72.26 PK	74.00	-1.74	1.00 V	236	38.62	33.64
4	2483.50	51.62 AV	54.00	-2.38	1.00 V	236	17.98	33.64
5	4924.00	49.12 PK	74.00	-24.88	1.00 V	301	9.09	40.03
6	4924.00	37.12 AV	54.00	-16.88	1.00 V	301	-2.91	40.03

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

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1000hPa	TESTED BY	Antony Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	61.29 PK	74.00	-12.71	1.10 H	28	27.96	33.33
2	2390.00	49.29 AV	54.00	-4.71	1.10 H	28	15.96	33.33
3	*2412.00	101.29 PK			1.10 H	75	67.88	33.41
4	*2412.00	91.61 AV			1.10 H	75	58.20	33.41
5	4824.00	50.82 PK	74.00	-23.18	1.00 H	36	11.06	39.76
6	4824.00	38.82 AV	54.00	-15.18	1.00 H	36	-0.94	39.76
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	2390.00	72.85 PK	74.00	-1.15	1.00 V	316	39.52	33.33
2	2390.00	51.32 AV	54.00	-2.68	1.00 V	316	17.99	33.33
3	*2412.00	112.36 PK			1.00 V	309	78.95	33.41
4	*2412.00	102.29 AV			1.00 V	309	68.88	33.41
5	4824.00	50.82 PK	74.00	-23.18	1.00 V	2	11.06	39.76
6	4824.00	36.82 AV	54.00	-17.18	1.00 V	2	-2.94	39.76

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1000hPa	TESTED BY	Antony Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	101.47 PK			1.20 H	112	67.98	33.49
2	*2437.00	91.72 AV			1.20 H	112	58.23	33.49
3	4874.00	49.31 PK	74.00	-24.69	1.00 H	236	9.43	39.88
4	4874.00	37.79 AV	54.00	-16.21	1.00 H	236	-2.09	39.88
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	*2437.00	112.11 PK			1.00 V	301	78.62	33.49
2	*2437.00	102.59 AV			1.00 V	301	69.10	33.49
3	4874.00	50.96 PK	74.00	-23.04	1.00 V	236	11.08	39.88
4	4874.00	39.91 AV	54.00	-14.09	1.00 V	236	0.03	39.88

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1000hPa	TESTED BY	Antony Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	101.59 PK			1.00 H	253	68.02	33.57
2	*2462.00	91.96 AV			1.00 H	253	58.39	33.57
3	2483.50	60.62 PK	74.00	-13.38	1.00 H	200	26.98	33.64
4	2483.50	48.65 AV	54.00	-5.35	1.00 H	200	15.01	33.64
5	4924.00	49.38 PK	74.00	-24.62	1.00 H	123	9.34	40.03
6	4924.00	38.00 AV	54.00	-16.00	1.00 H	123	-2.04	40.03
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	112.39 PK			1.00 V	359	78.82	33.57
2	*2462.00	102.11 AV			1.00 V	359	68.54	33.57
3	2483.50	69.59 PK	74.00	-4.41	1.00 V	36	35.95	33.64
4	2483.50	51.97 AV	54.00	-2.03	1.00 V	36	18.33	33.64
5	4924.00	49.28 PK	74.00	-24.72	1.00 V	240	9.24	40.03
6	4924.00	38.08 AV	54.00	-15.92	1.00 V	240	-1.96	40.03

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

DRAFT 802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1000hPa	TESTED BY	Antony Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	63.42 PK	74.00	-10.58	1.00 H	225	30.09	33.33
2	2390.00	50.58 AV	54.00	-3.42	1.00 H	225	17.25	33.33
3	*2422.00	101.22 PK			1.00 H	240	67.78	33.44
4	*2422.00	91.43 AV			1.00 H	240	57.99	33.44
5	4844.00	48.13 PK	74.00	-25.87	1.06 H	201	8.33	39.81
6	4844.00	34.63 AV	54.00	-19.37	1.06 H	201	-5.17	39.81
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	2390.00	67.40 PK	74.00	-6.60	1.02 V	226	34.07	33.33
2	2390.00	52.82 AV	54.00	-1.18	1.02 V	226	19.49	33.33
3	*2422.00	108.47 PK			1.02 V	228	75.03	33.44
4	*2422.00	97.56 AV			1.02 V	228	64.12	33.44
5	4844.00	48.11 PK	74.00	-25.89	1.00 V	56	8.31	39.81
6	4844.00	34.26 AV	54.00	-19.74	1.00 V	56	-5.54	39.81

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1000hPa	TESTED BY	Antony Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	101.48 PK			1.00 H	300	67.99	33.49
2	*2437.00	91.35 AV			1.00 H	300	57.86	33.49
3	4874.00	48.21 PK	74.00	-25.79	1.00 H	201	8.33	39.88
4	4874.00	37.83 AV	54.00	-16.17	1.00 H	201	-2.05	39.88
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	*2437.00	108.36 PK			1.00 V	29	74.87	33.49
2	*2437.00	98.18 AV			1.00 V	29	64.69	33.49
3	4874.00	50.97 PK	74.00	-23.03	1.00 V	230	11.09	39.88
4	4874.00	38.18 AV	54.00	-15.82	1.00 V	230	-1.70	39.88

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1000hPa	TESTED BY	Antony Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	100.60 PK			1.40 H	228	67.06	33.54
2	*2452.00	90.70 AV			1.40 H	228	57.16	33.54
3	2483.50	59.18 PK	74.00	-14.82	1.00 H	240	25.54	33.64
4	2483.50	48.70 AV	54.00	-5.30	1.00 H	240	15.06	33.64
5	4904.00	48.39 PK	74.00	-25.61	1.00 H	220	8.43	39.96
6	4904.00	34.68 AV	54.00	-19.32	1.00 H	220	-5.28	39.96
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	107.28 PK			1.00 V	228	73.74	33.54
2	*2452.00	96.27 AV			1.00 V	228	62.73	33.54
3	2483.50	63.24 PK	74.00	-10.76	1.00 V	226	29.60	33.64
4	2483.50	51.39 AV	54.00	-2.61	1.00 V	226	17.75	33.64
5	4904.00	47.81 PK	74.00	-26.19	1.00 V	263	7.85	39.96
6	4904.00	34.77 AV	54.00	-19.23	1.00 V	263	-5.19	39.96

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1000hPa	TESTED BY	Mitch Tsui

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	298.21	36.74 QP	46.00	-9.26	2.00 H	166	22.33	14.41
2	375.98	36.81 QP	46.00	-9.19	1.00 H	58	18.93	17.87
3	399.31	37.96 QP	46.00	-8.04	2.50 H	181	19.05	18.91
4	438.20	38.91 QP	46.00	-7.09	2.50 H	82	19.06	19.85
5	607.35	38.38 QP	46.00	-7.62	2.00 H	118	14.51	23.87
6	630.69	38.29 QP	46.00	-7.71	1.25 H	43	13.76	24.52
7	671.52	37.55 QP	46.00	-8.45	1.00 H	145	11.86	25.68
8	834.84	38.22 QP	46.00	-7.78	2.50 H	61	9.85	28.37
9	**877.00**	**45.00 QP**	**46.00**	**-1.00**	**1.28 H**	**229**	**15.64**	**29.36**

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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	26deg. C, 67%RH 1000hPa	TESTED BY	Mitch Tsui

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	302.10	43.83 QP	46.00	-2.17	1.25 V	265	29.32	14.51
2	399.31	43.67 QP	46.00	-2.33	1.25 V	166	24.76	18.91
3	488.75	39.89 QP	46.00	-6.11	1.25 V	1	18.72	21.17
4	603.47	39.03 QP	46.00	-6.97	1.25 V	256	15.28	23.76
5	630.69	42.92 QP	46.00	-3.08	1.00 V	10	18.40	24.52
6	671.52	41.18 QP	46.00	-4.82	1.25 V	205	15.50	25.68
7	834.84	44.36 QP	46.00	-1.64	1.50 V	58	15.99	28.37
8	846.50	37.06 QP	46.00	-8.94	1.25 V	205	8.41	28.65
9	877.61	44.39 QP	46.00	-1.61	1.25 V	301	15.01	29.38
10	933.99	40.04 QP	46.00	-5.96	1.25 V	355	9.77	30.27
11	945.66	37.27 QP	46.00	-8.73	1.00 V	205	6.87	30.40

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.

4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

NOTE: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

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.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100291	Nov. 22, 2007	Nov. 21, 2008
RF signal cable Woken	5D-FB	Cable-HYC01-01	Jan. 04, 2008	Jan. 03, 2009
LISN ROHDE & SCHWARZ	ESH3-Z5	100312	Jun. 13, 2008	Jun. 12, 2009
V-LISN SCHWARZBECK	NNBL 8226-2	8226-142	Jun. 10, 2008	Jun. 09, 2009
Software ADT	ADT_Cond_V3	NA	NA	NA

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Shielded Room 1.

3. The VCCI Site Registration No. is C-2040.

4.2.3 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.

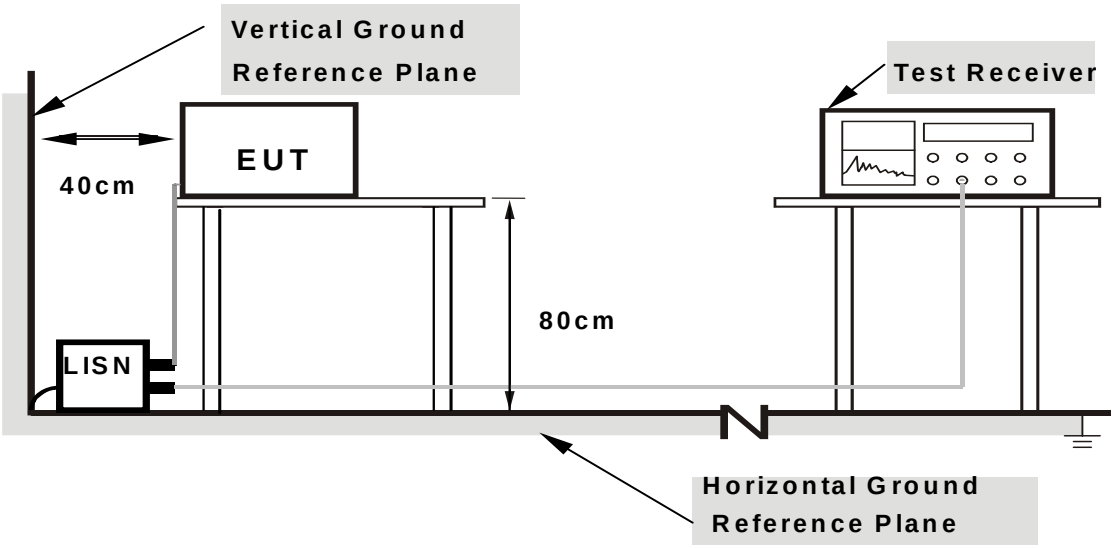
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: All modes of operation were investigated and the worst-case emissions are reported.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

4.2.5 TEST SETUP



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

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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

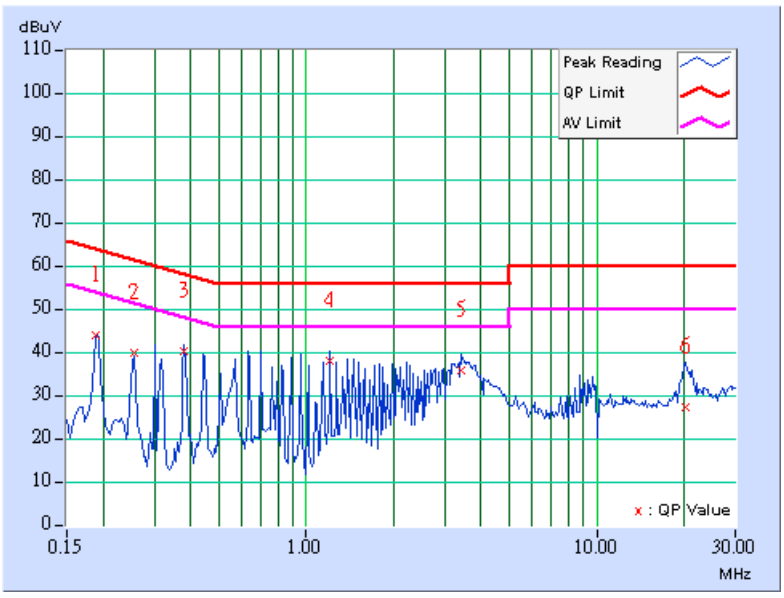
4.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA：DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	**PHASE**	Line 1
MODULATION TYPE	BPSK	**INPUT POWER (SYSTEM)**	120Vac, 60Hz
TRANSFER RATE	7.2Mbps	**6dB BANDWIDTH**	9kHz
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH, 1007hPa	**TESTED BY**	Mark Liao

No	Freq. [MHz]	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.189	0.20	43.01	-	43.21	-	64.08	54.08	-20.87	-
2	0.255	0.20	38.90	-	39.10	-	61.58	51.58	-22.48	-
3	0.380	0.20	39.27	-	39.47	-	58.27	48.27	-18.80	-
4	**1.207**	**0.20**	**37.28**	**-**	**37.48**	**-**	**56.00**	**46.00**	**-18.52**	**-**
5	3.430	0.34	35.03	-	35.37	-	56.00	46.00	-20.63	-
6	20.329	1.04	26.38	-	27.42	-	60.00	50.00	-32.58	-

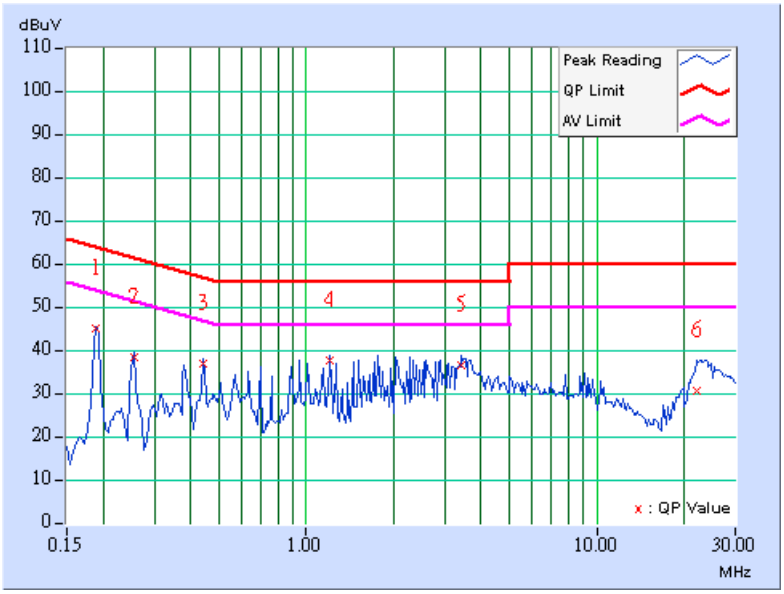
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission 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	INPUT POWER (SYSTEM)	120Vac, 60Hz
TRANSFER RATE	7.2Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH, 1007hPa	TESTED BY	Mark Liao

No	Freq. [MHz]	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.189	0.20	44.60	-	44.80	-	64.06	54.06	-19.26	-
2	0.255	0.20	37.79	-	37.99	-	61.58	51.58	-23.59	-
3	0.443	0.20	36.67	-	36.87	-	57.01	47.01	-20.14	-
4	1.206	0.20	37.16	-	37.36	-	56.00	46.00	-18.64	-
5	3.428	0.34	35.96	-	36.30	-	56.00	46.00	-19.70	-
6	22.094	0.54	30.05	-	30.59	-	60.00	50.00	-29.41	-

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



4.3 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.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
R&S SPECTRUM ANALYZER	FSP40	100041	Apr. 22, 2008	Apr. 21, 2009

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

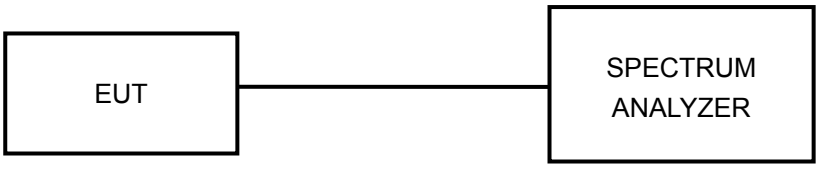
4.3.3 TEST PROCEDURE

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 300kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation.

4.3.5 TEST SETUP



4.3.6 EUT OPERATING CONDITIONS

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

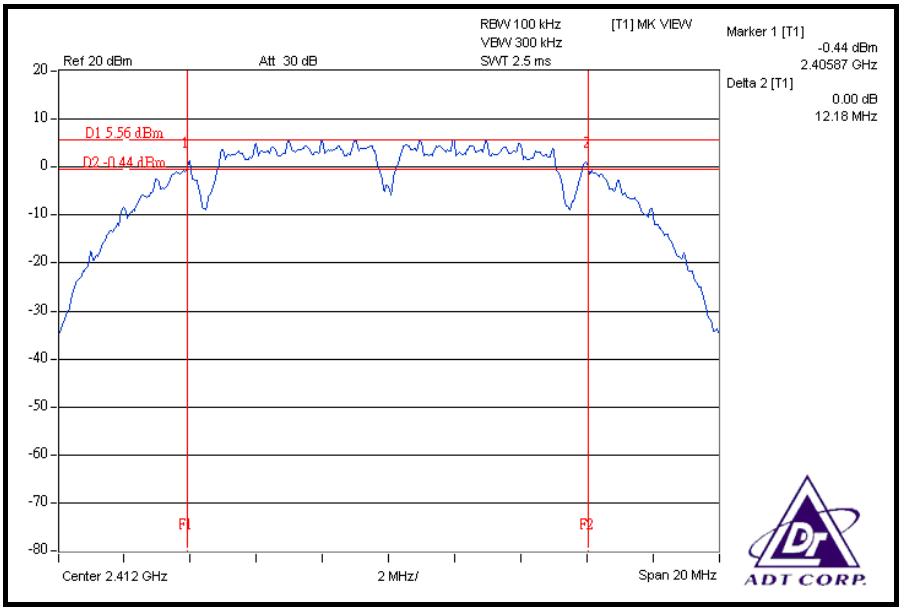
4.3.7 TEST RESULTS

802.11b DSSS MODULATION

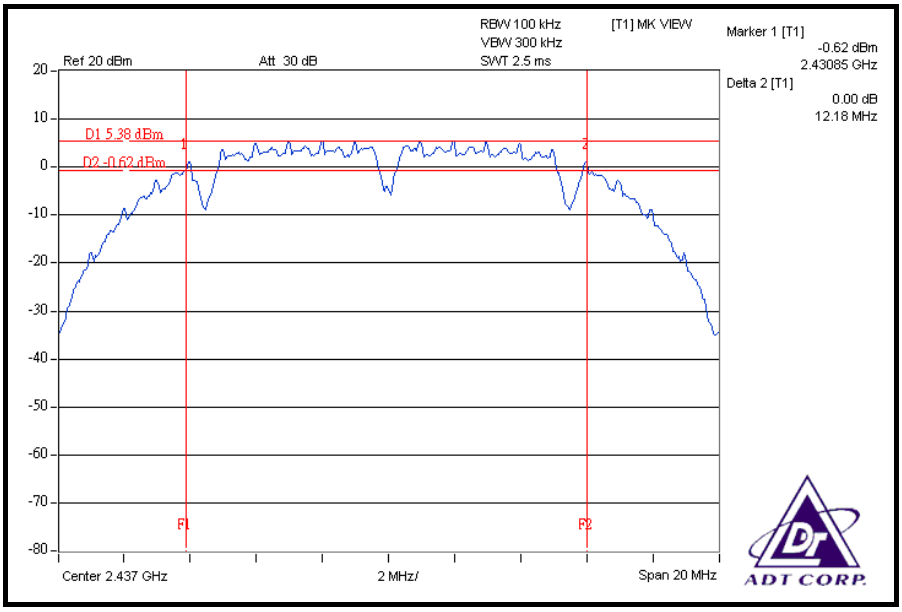
MODULATION TYPE	DBPSK	**TRANSFER RATE**	1.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1009hPa
TESTED BY	Dean Wang		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	12.18	0.5	PASS
6	2437	12.18	0.5	PASS
11	2462	12.18	0.5	PASS

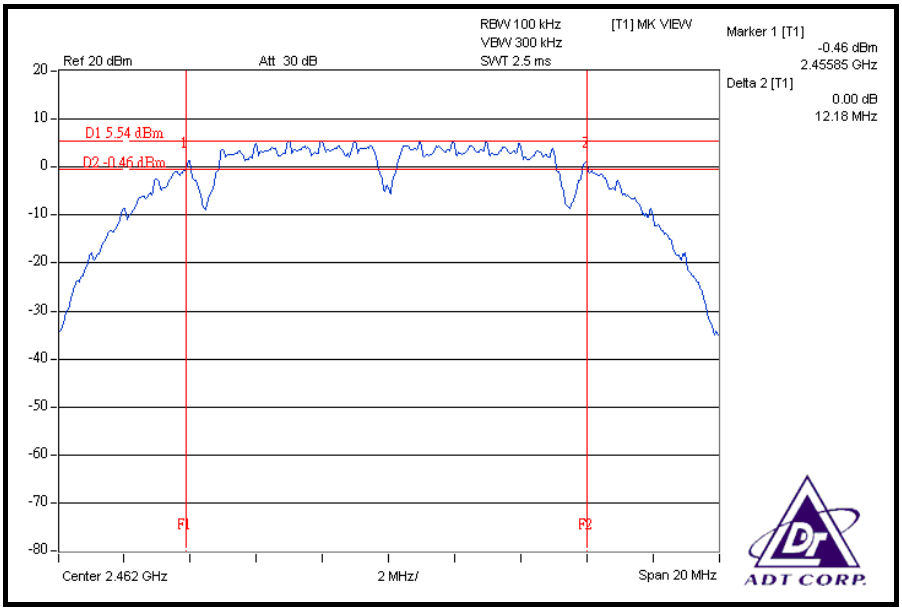
CH 1



CH 6


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-0.62 dBm
2.43085 GHz
Delta 2 [T1]
0.00 dB
12.18 MHz
Ref 20 dBm
Att 30 dB
D1 5.38 dBm
D2 -6.62 dBm
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz
ADT CORP.

CH 11

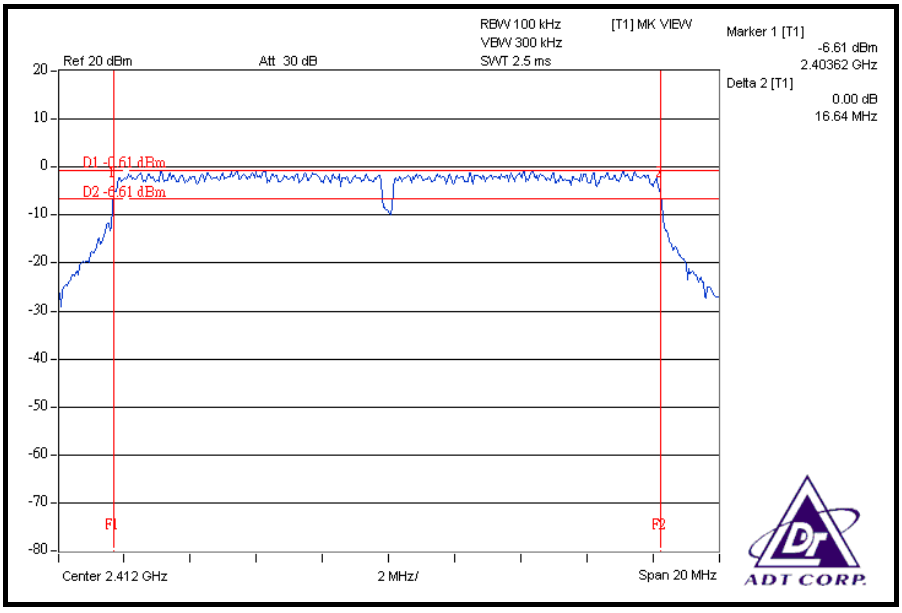

RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-0.46 dBm
2.45585 GHz
Delta 2 [T1]
0.00 dB
12.18 MHz
Ref 20 dBm
Att 30 dB
D1 5.54 dBm
D2 -6.46 dBm
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
ADT CORP.

802.11g OFDM MODULATION

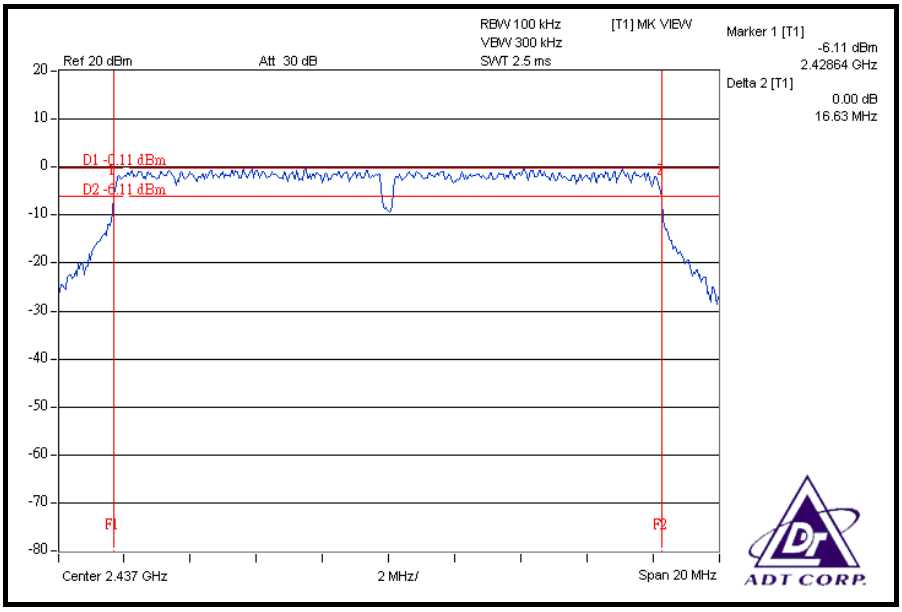
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	24 deg.C, 64 %RH, 1009hPa
TESTED BY	Dean Wang		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.64	0.5	PASS
6	2437	16.63	0.5	PASS
11	2462	16.62	0.5	PASS

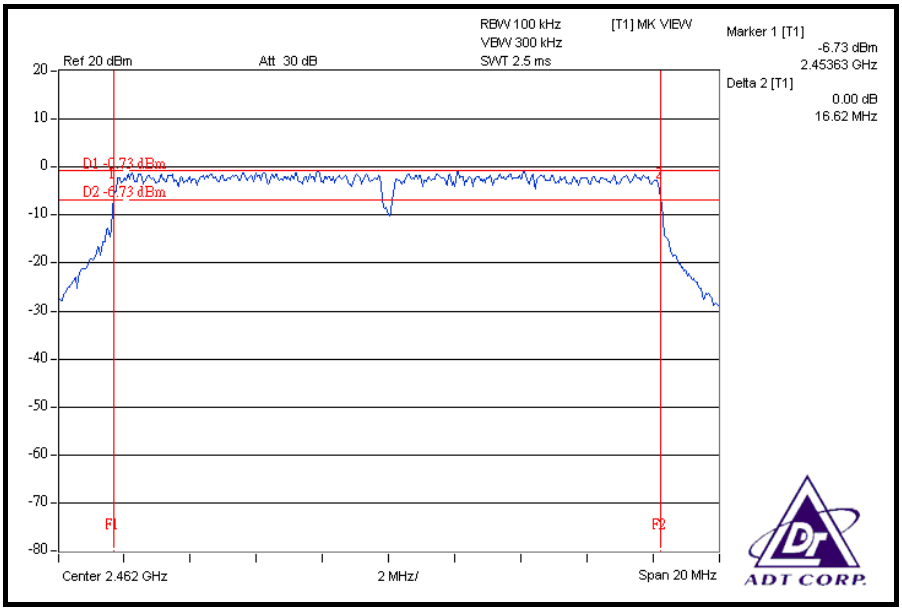
CH 1



CH 6


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-6.11 dBm
2.42864 GHz
Delta 2 [T1]
0.00 dB
16.63 MHz
Ref 20 dBm
Att 30 dB
D1 -6.11 dBm
D2 -6.11 dBm
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz
ADT CORP.

CH 11

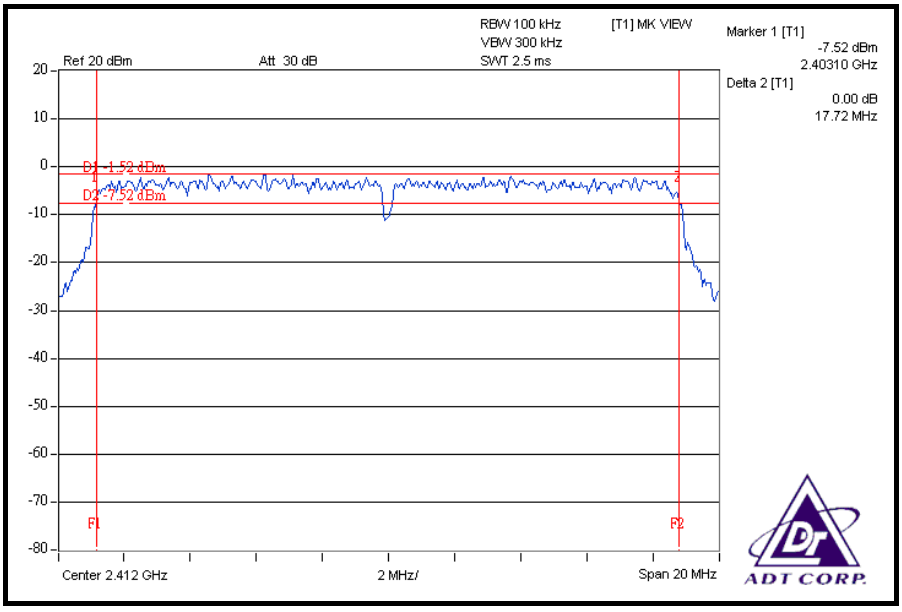

RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-6.73 dBm
2.45363 GHz
Delta 2 [T1]
0.00 dB
16.62 MHz
Ref 20 dBm
Att 30 dB
D1 -6.73 dBm
D2 -6.73 dBm
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
ADT CORP.

DRAFT 802.11n (20MHz) OFDM MODULATION

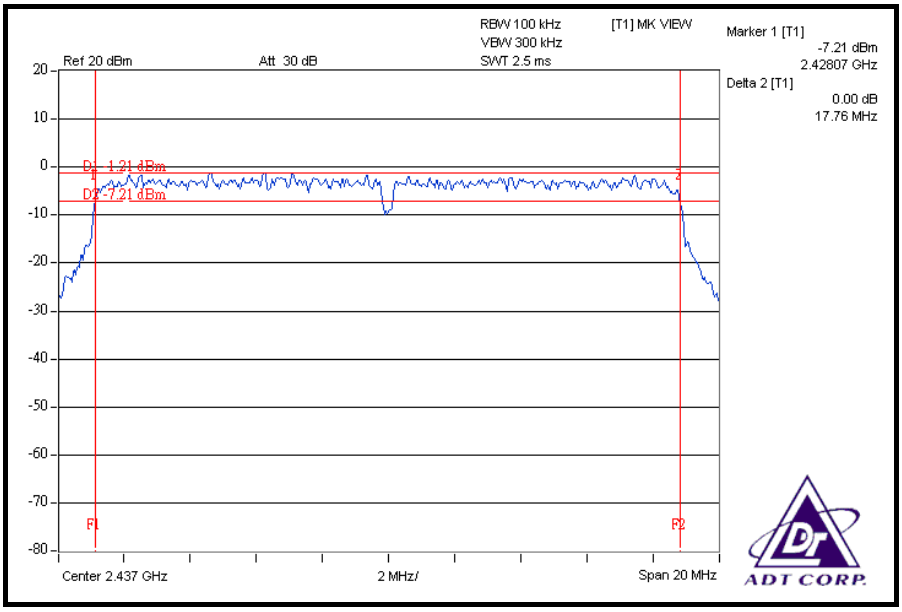
MODULATION TYPE	BPSK	**TRANSFER RATE**	7.2Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1009hPa
TESTED BY	Dean Wang		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	17.72	17.79	0.5	PASS
6	2437	17.76	17.75	0.5	PASS
11	2462	17.74	17.72	0.5	PASS

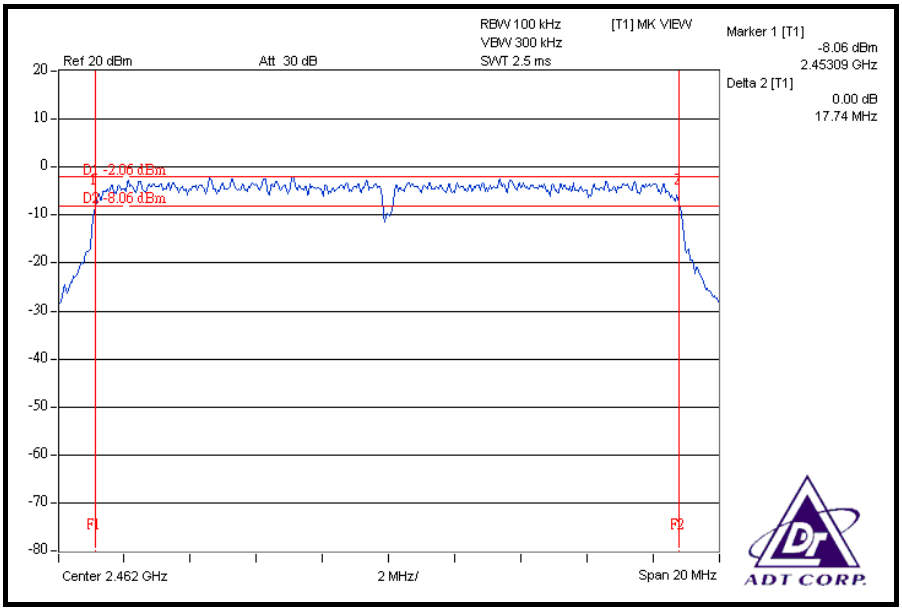
FOR CHAIN 0: CH 1



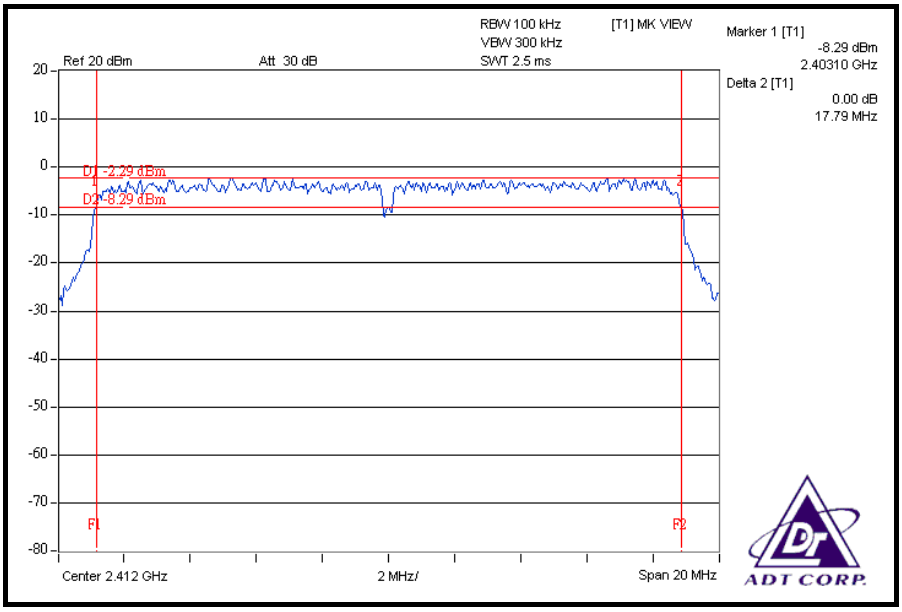
CH 6


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-7.21 dBm
2.42807 GHz
Delta 2 [T1]
0.00 dB
17.76 MHz
Ref 20 dBm
Att 30 dB
D1 -1.21 dBm
D2 -7.21 dBm
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz
ADT CORP.

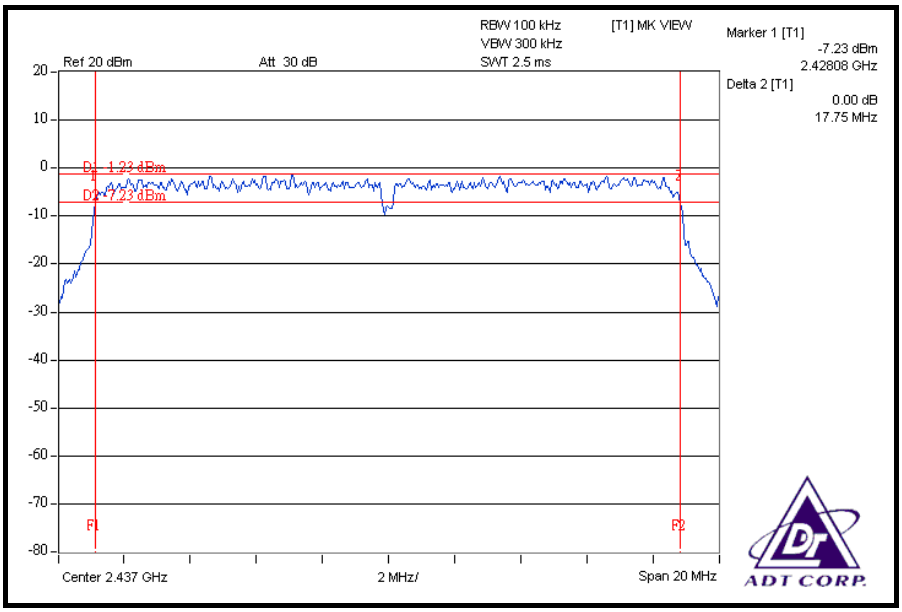
CH 11


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-8.06 dBm
2.45309 GHz
Delta 2 [T1]
0.00 dB
17.74 MHz
Ref 20 dBm
Att 30 dB
D1 -2.06 dBm
D2 -8.06 dBm
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
ADT CORP.

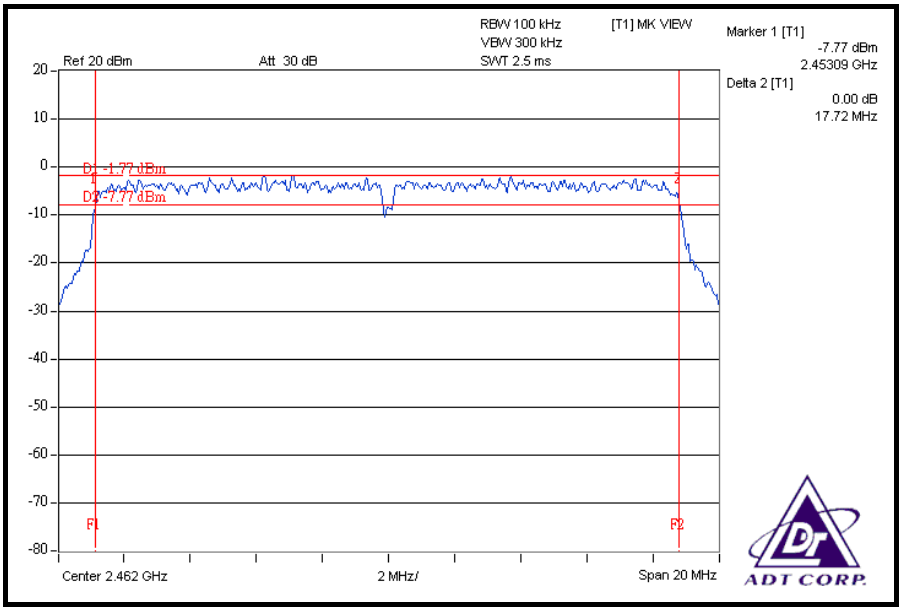
FOR CHAIN 1: CH 1



CH 6



CH 11

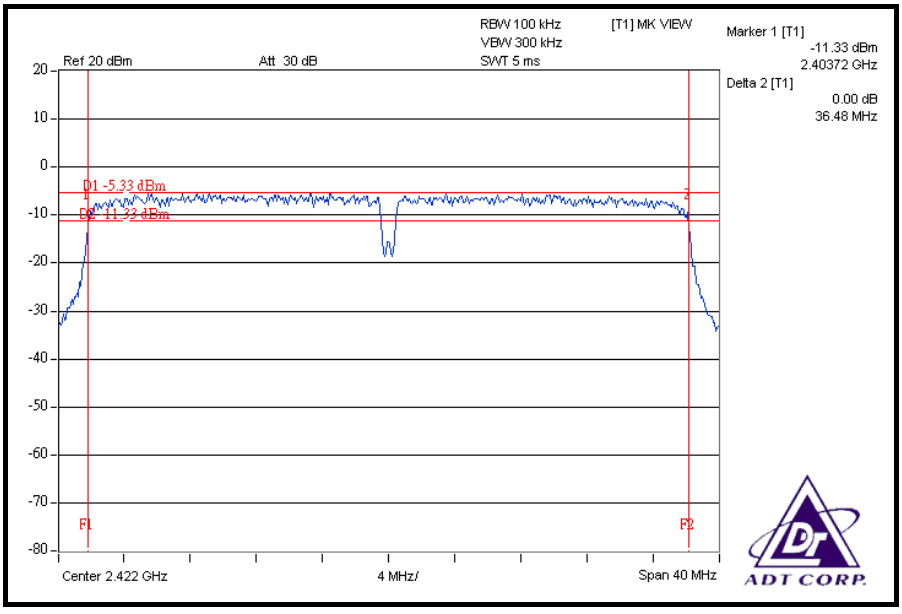

RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-7.77 dBm
2.45309 GHz
Delta 2 [T1]
0.00 dB
17.72 MHz
Ref 20 dBm
Att 30 dB
D1 -1.77 dBm
D2 -7.77 dBm
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
ADT CORP.

DRAFT 802.11n (40MHz) OFDM MODULATION

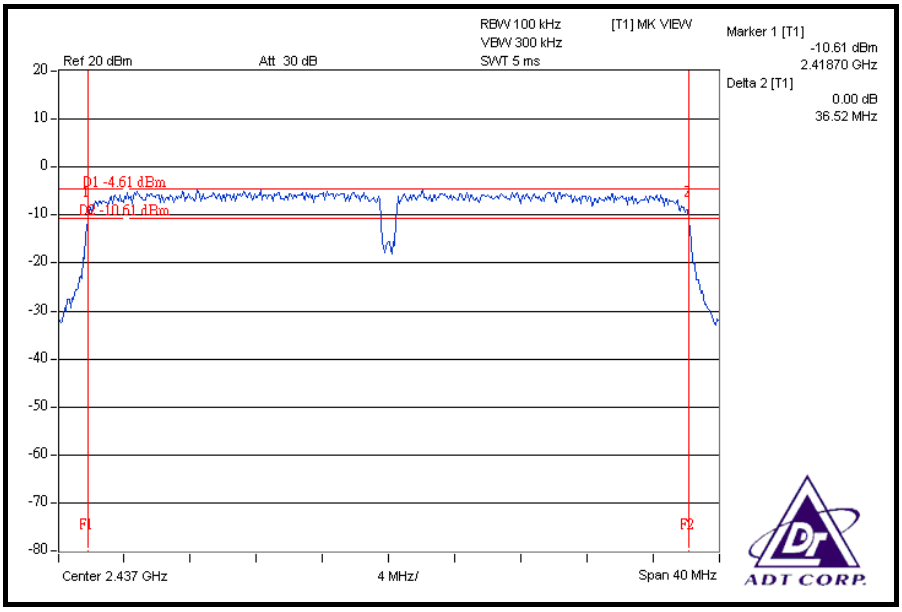
MODULATION TYPE	BPSK	**TRANSFER RATE**	15.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1009hPa
TESTED BY	Dean Wang		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2422	36.48	36.45	0.5	PASS
4	2437	36.52	36.54	0.5	PASS
7	2452	36.49	36.52	0.5	PASS

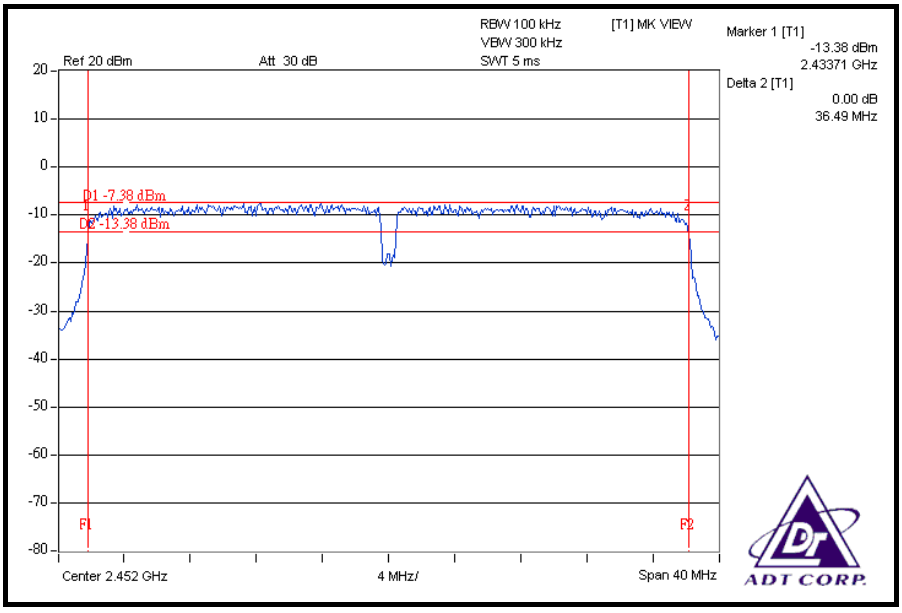
FOR CHAIN 0: CH 1



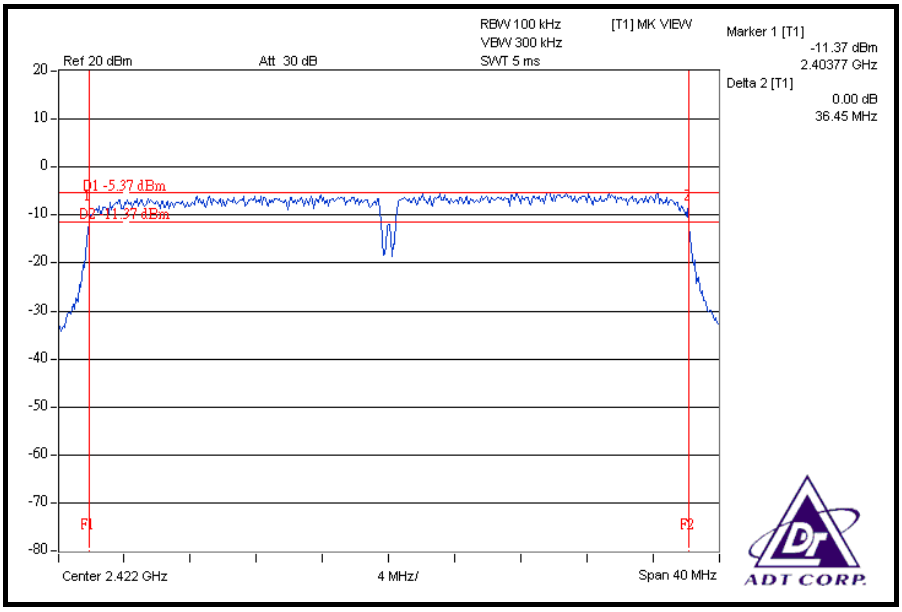
CH 4


RBW 100 kHz
VBW 300 kHz
SWT 5 ms
[T1] MK VIEW
Marker 1 [T1]
-10.61 dBm
2.41870 GHz
Delta 2 [T1]
0.00 dB
36.52 MHz
Ref 20 dBm
Att 30 dB
D1 -4.61 dBm
D2 -10.61 dBm
F1
F2
Center 2.437 GHz
4 MHz/
Span 40 MHz
ADT CORP.

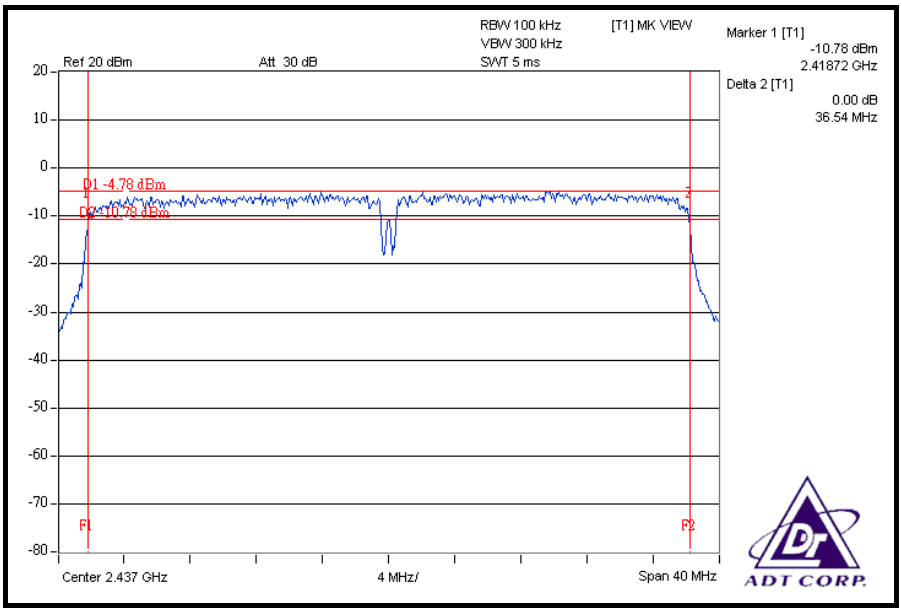
CH 7


RBW 100 kHz
VBW 300 kHz
SWT 5 ms
[T1] MK VIEW
Marker 1 [T1]
-13.38 dBm
2.43371 GHz
Delta 2 [T1]
0.00 dB
36.49 MHz
Ref 20 dBm
Att 30 dB
D1 -7.38 dBm
D2 -13.38 dBm
F1
F2
Center 2.452 GHz
4 MHz/
Span 40 MHz
ADT CORP.

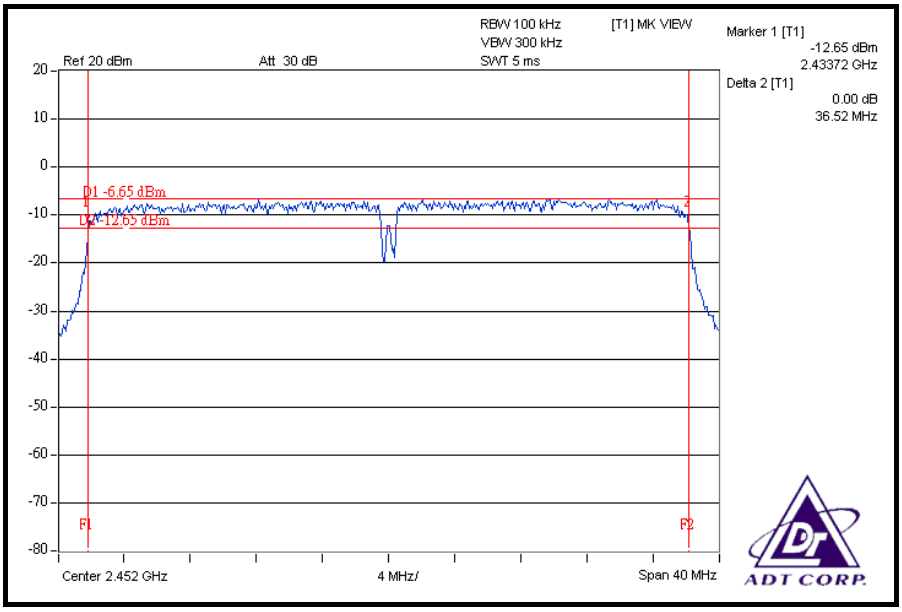
FOR CHAIN 1: CH 1



CH 4



CH 7


RBW 100 kHz
VBW 300 kHz
SWT 5 ms
[T1] MK VIEW
Marker 1 [T1]
-12.65 dBm
2.43372 GHz
Delta 2 [T1]
0.00 dB
36.52 MHz
Ref 20 dBm
Att 30 dB
D1 -6.65 dBm
D2 -12.65 dBm
F1
F2
Center 2.452 GHz
4 MHz/
Span 40 MHz
ADT CORP.

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	FSP40	100041	Apr. 21, 2009
AGILENT SYNTHESIZED SIGNAL GENERATOR	E8257C	MY43320668	Dec. 25, 2008
DIGITAL RT OSCILLOSCOPE	TDS1012	C037299	Nov. 21, 2008
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

a. A detector was used on the output port of the EUT. An oscilloscope was used to read the response of the detector.

b. Replaced the EUT by the signal generator. The center frequency of the S.G was adjusted to the center frequency of the measured channel.

c. 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

MODULATION TYPE	DBPSK	**TRANSFER RATE**	1.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1009hPa
TESTED BY	Dean Wang		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	72.778	18.62	30	PASS
6	2437	73.282	18.65	30	PASS
11	2462	72.277	18.59	30	PASS

802.11g OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1009hPa
TESTED BY	Dean Wang		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
1	2412	57.810	17.62	30	PASS
6	2437	65.013	18.13	30	PASS
11	2462	56.885	17.55	30	PASS

DRAFT 802.11n (20MHz) OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	7.2Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1009hPa
TESTED BY	Dean Wang		

CHAN.	CHAN. FREQ. (MHz)	PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	16.59	16.10	86.342	19.36	30	PASS
6	2437	17.12	17.16	103.522	20.15	30	PASS
11	2462	16.63	16.52	90.900	19.59	30	PASS

DRAFT 802.11n (40MHz) OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	15.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1009hPa
TESTED BY	Dean Wang		

CHAN.	CHAN. FREQ. (MHz)	PEAK POWER OUTPUT (dBm)		TOTAL PEAK POWER (mW)	TOTAL PEAK POWER (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2422	16.18	16.10	82.233	19.15	30	PASS
4	2437	16.59	16.65	91.842	19.63	30	PASS
7	2452	14.13	14.68	55.259	17.42	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.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
R&S SPECTRUM ANALYZER	FSP40	100041	Apr. 22, 2008	Apr. 21, 2009

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

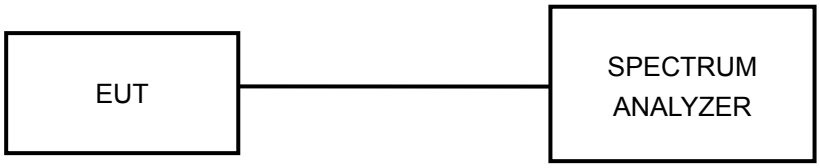
The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

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.

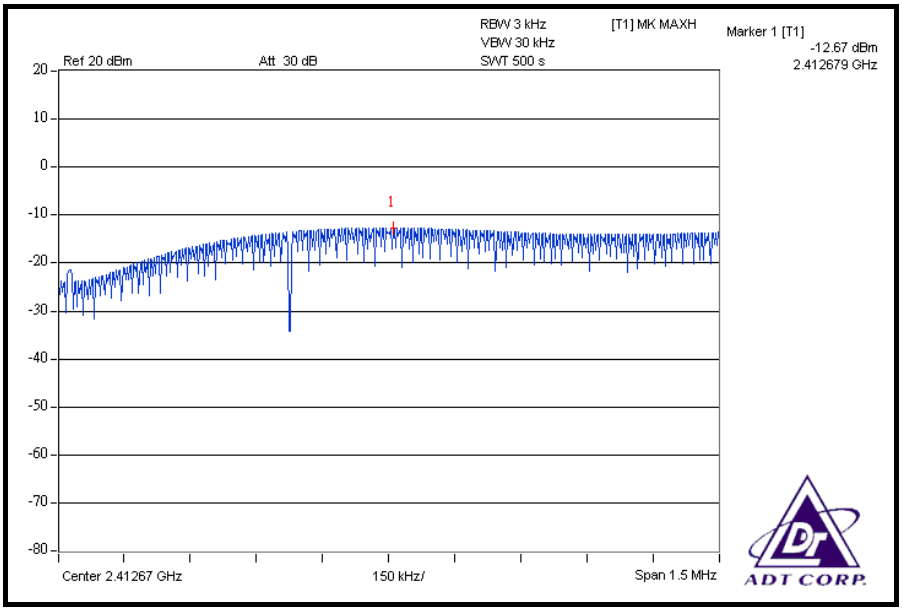
4.5.7 TEST RESULTS

802.11b DSSS MODULATION

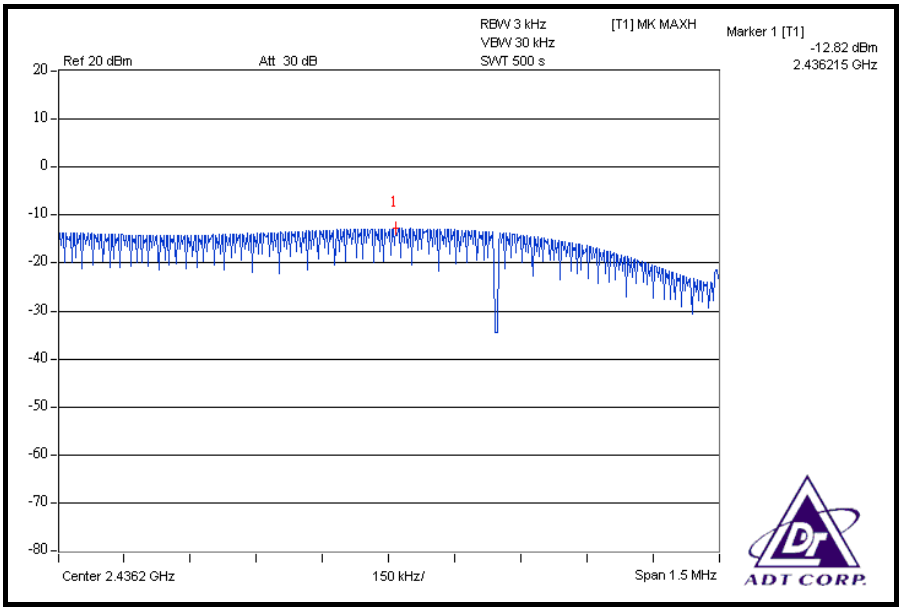
MODULATION TYPE	DBPSK	TRANSFER RATE	1.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	24 deg.C, 64 %RH, 1009hPa
TESTED BY	Dean Wang		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-12.67	8	PASS
6	2437	-12.82	8	PASS
11	2462	-12.69	8	PASS

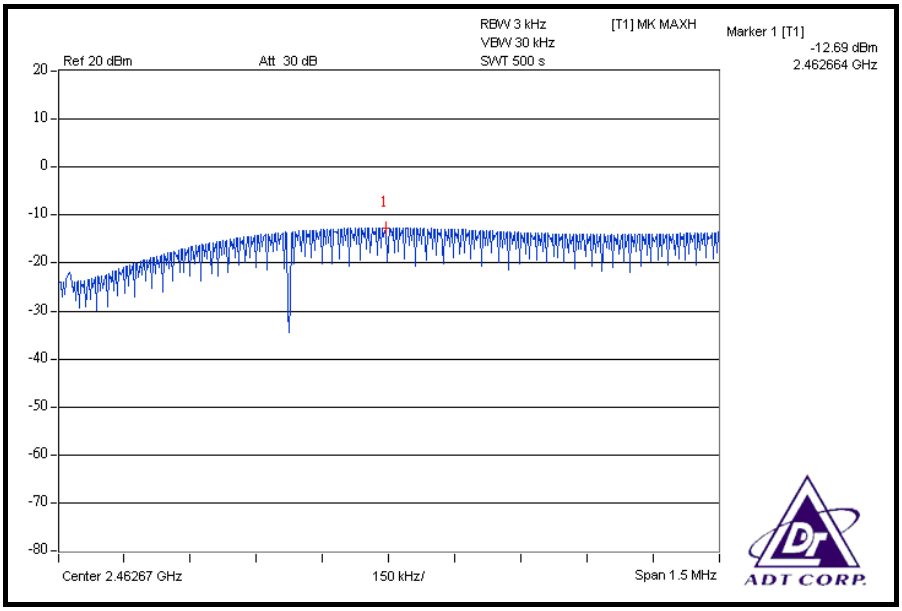
CH 1



CH 6


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-12.82 dBm
2.436215 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.4362 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

CH 11

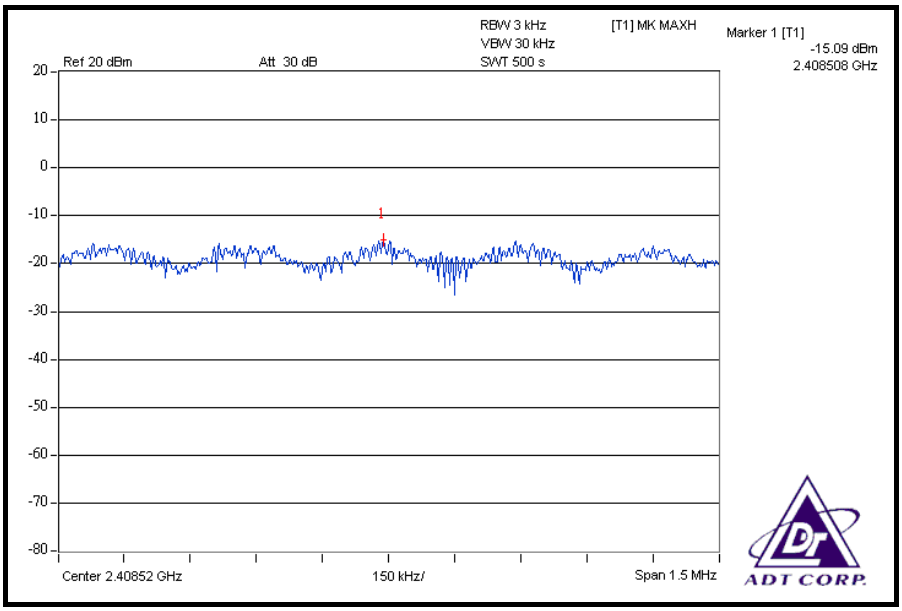

RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-12.69 dBm
2.462664 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.46267 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

802.11g OFDM MODULATION

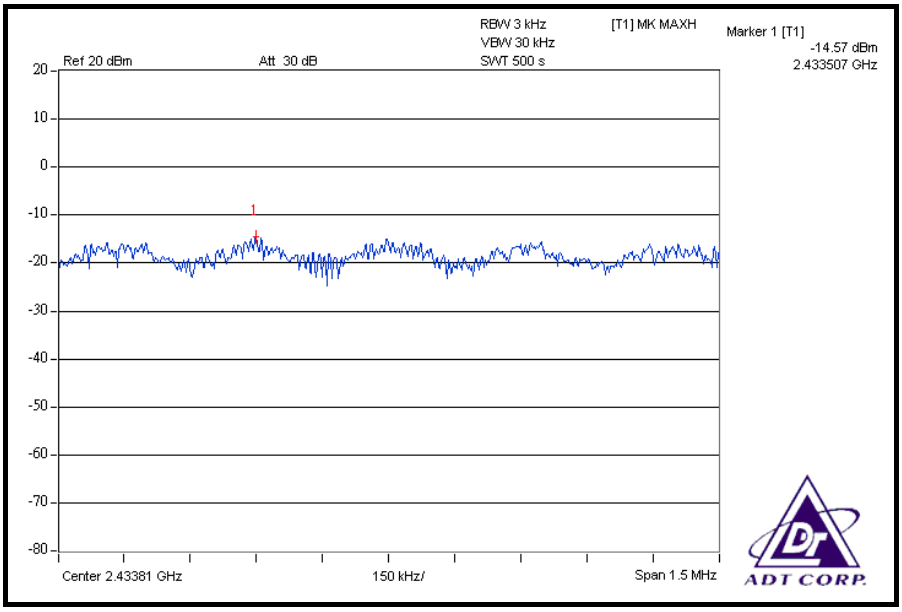
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	25 deg.C, 63 %RH, 1008hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
1	2412	-15.09	8	PASS
6	2437	-14.57	8	PASS
11	2462	-14.93	8	PASS

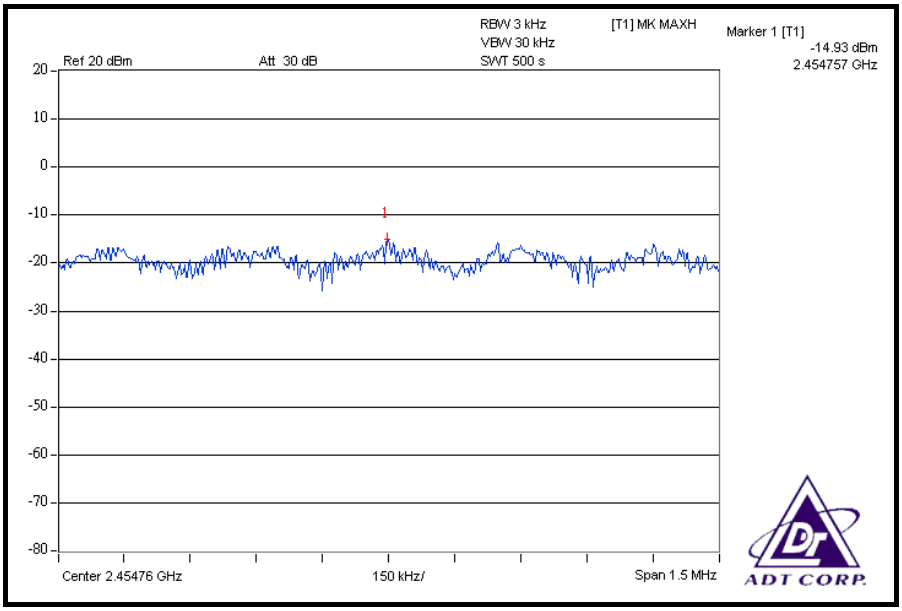
CH 1



CH 6


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-14.57 dBm
2.433507 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.43381 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

CH 11

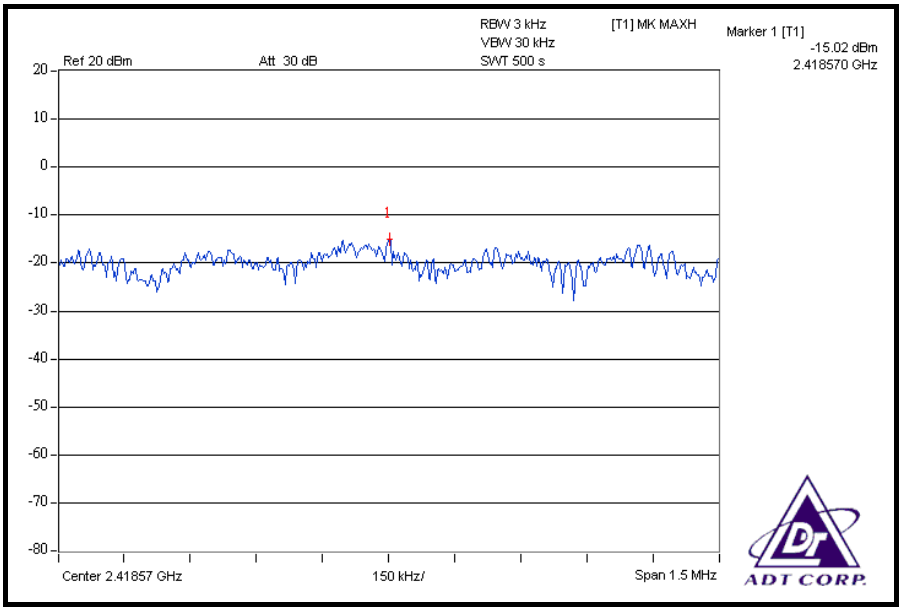

RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-14.93 dBm
2.454757 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.45476 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

DRAFT 802.11n (20MHz) OFDM MODULATION

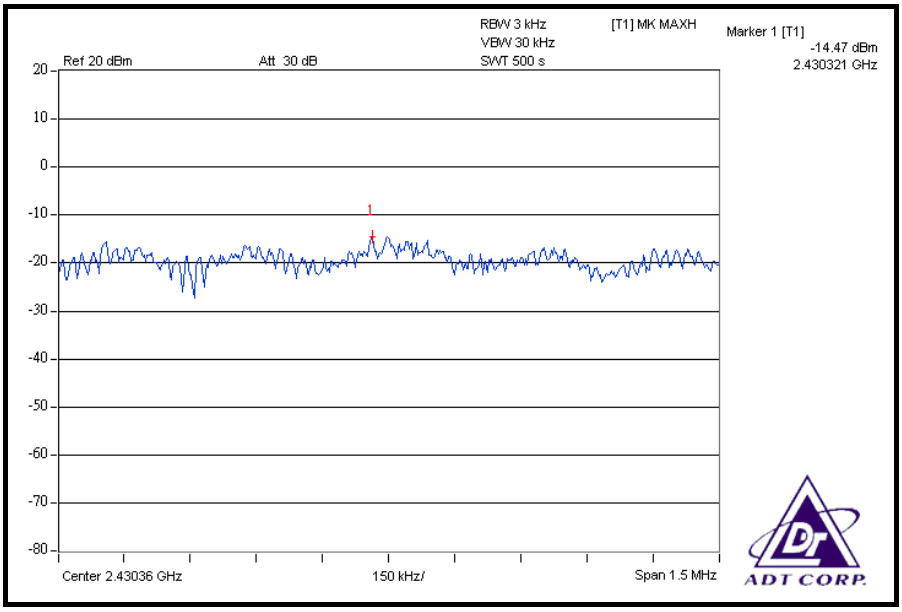
MODULATION TYPE	BPSK	**TRANSFER RATE**	7.2Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25 deg.C, 63 %RH, 1008hPa
TESTED BY	Dean Wang		

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (mW)	TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	-15.02	-14.63	0.066	-11.81	8	PASS
6	2437	-14.47	-13.63	0.079	-11.02	8	PASS
11	2462	-15.53	-14.14	0.067	-11.77	8	PASS

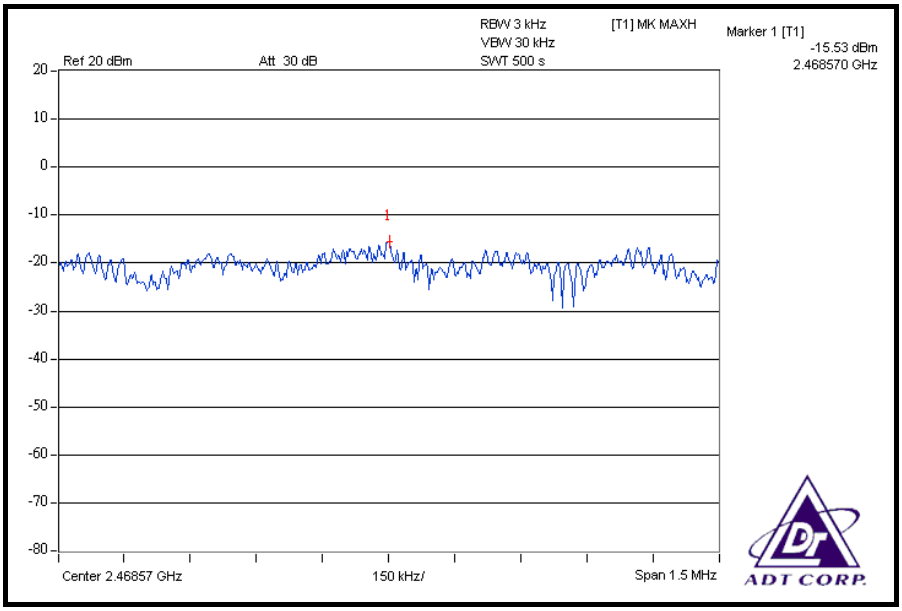
FOR CHAIN 0: CH 1



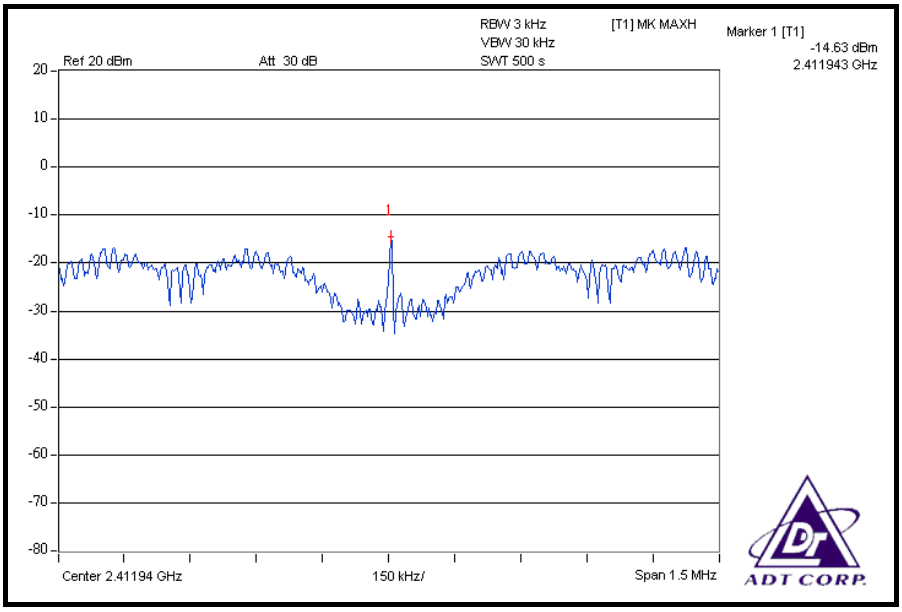
CH 6


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-14.47 dBm
2.430321 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.43036 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

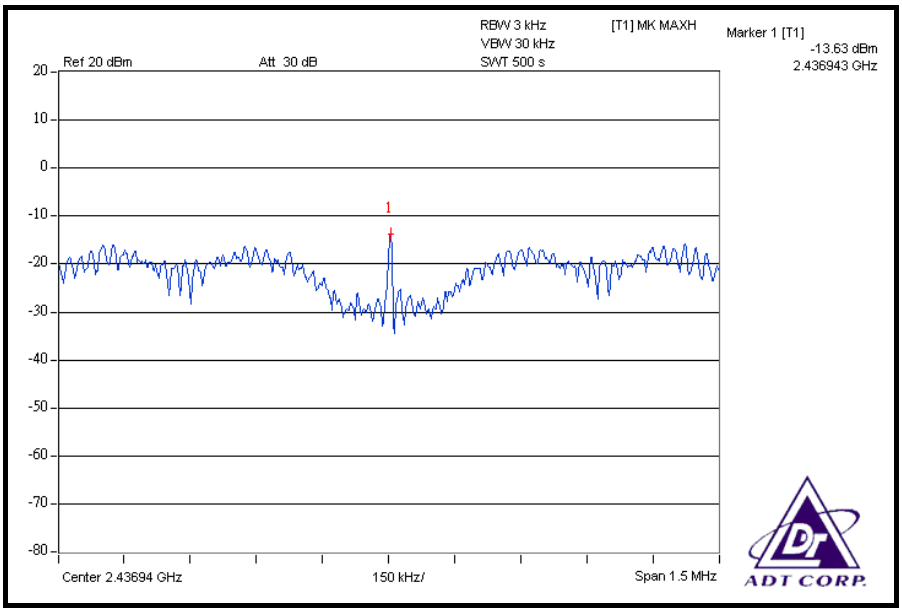
CH 11


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-15.53 dBm
2.468570 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.46857 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

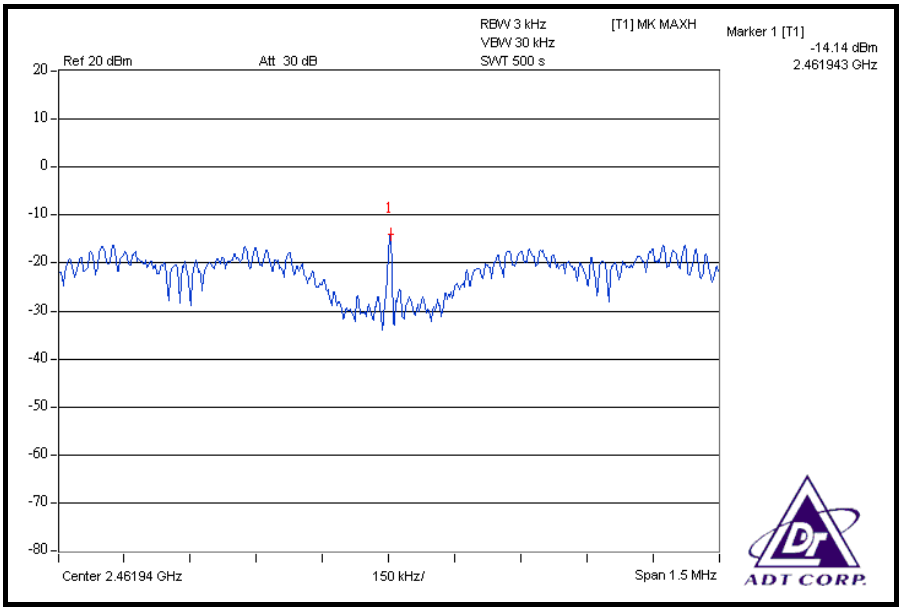
FOR CHAIN 1: CH 1



CH 6



CH 11

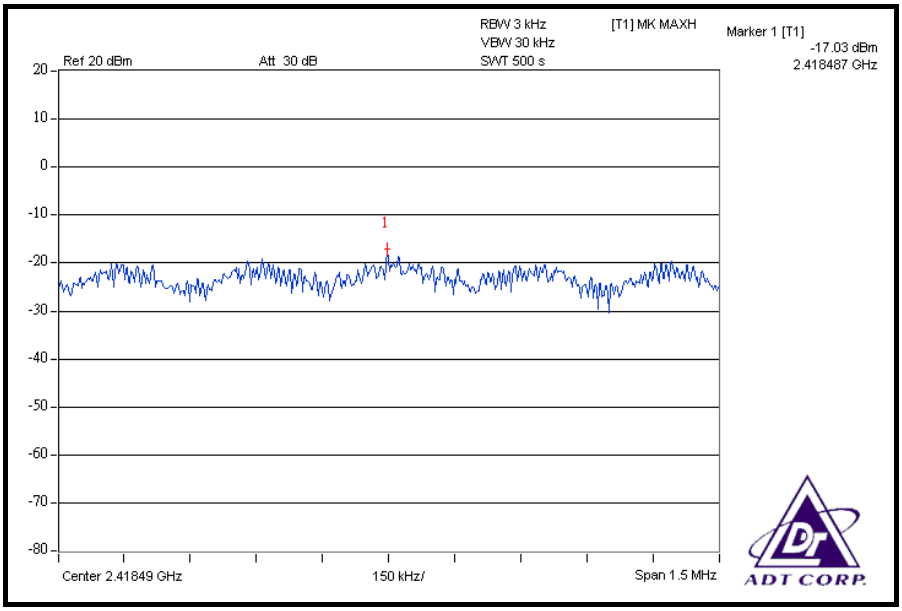

RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-14.14 dBm
2.461943 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.46194 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

DRAFT 802.11n (40MHz) OFDM MODULATION

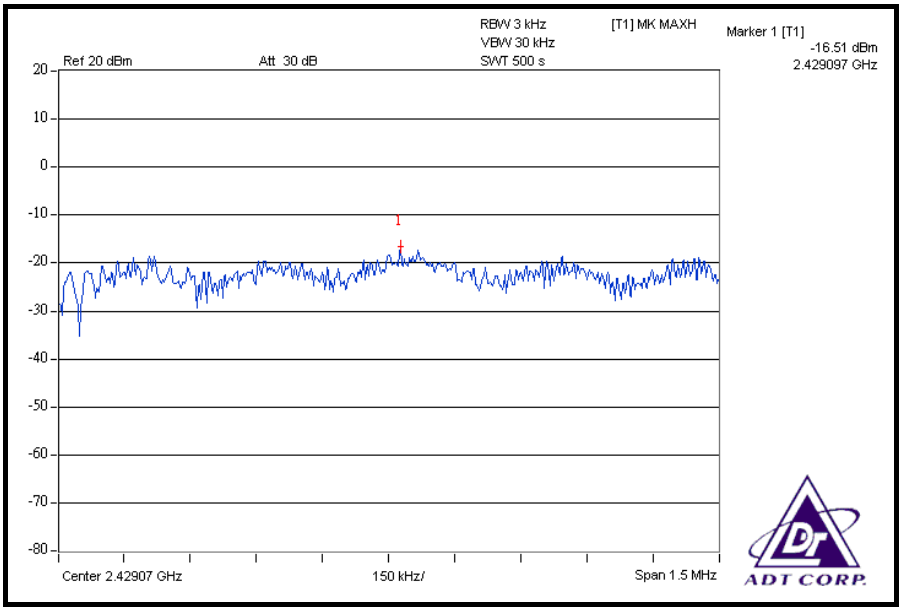
MODULATION TYPE	BPSK	**TRANSFER RATE**	15.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1009hPa
TESTED BY	Dean Wang		

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (mW)	TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2422	-17.03	-14.64	0.054	-12.66	8	PASS
4	2437	-16.51	-14.27	0.060	-12.24	8	PASS
7	2452	-18.83	-15.97	0.038	-14.16	8	PASS

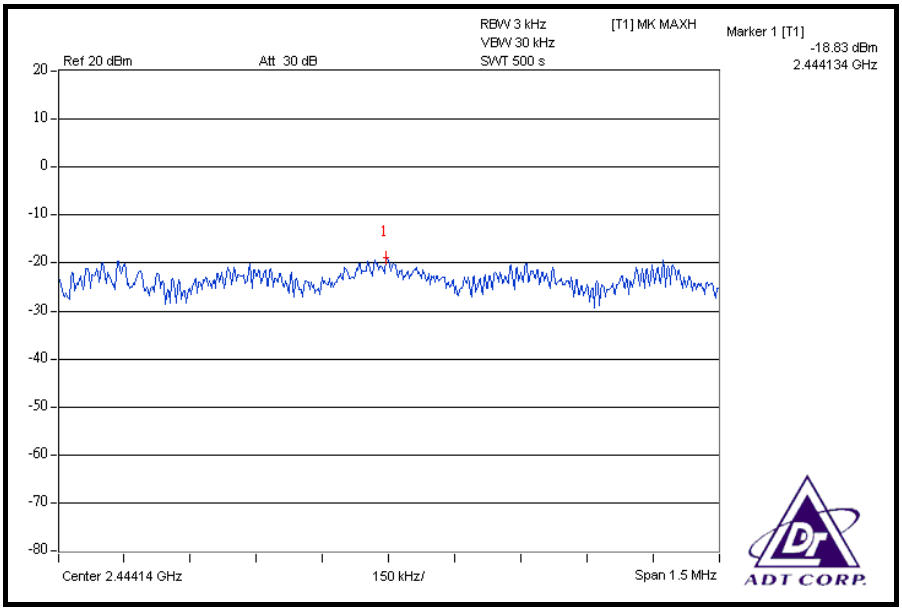
FOR CHAIN 0: CH 1



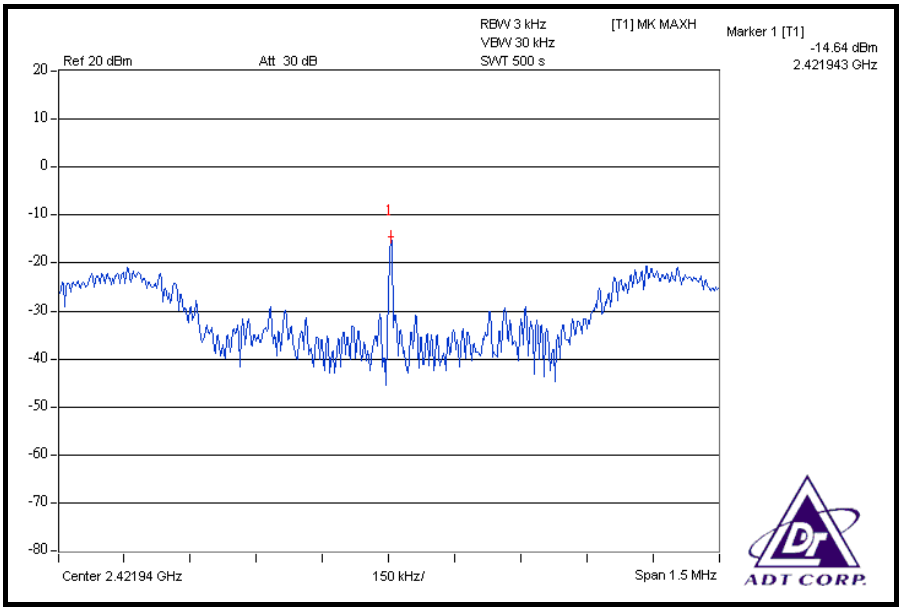
CH 4


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-16.51 dBm
2.429097 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.42907 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

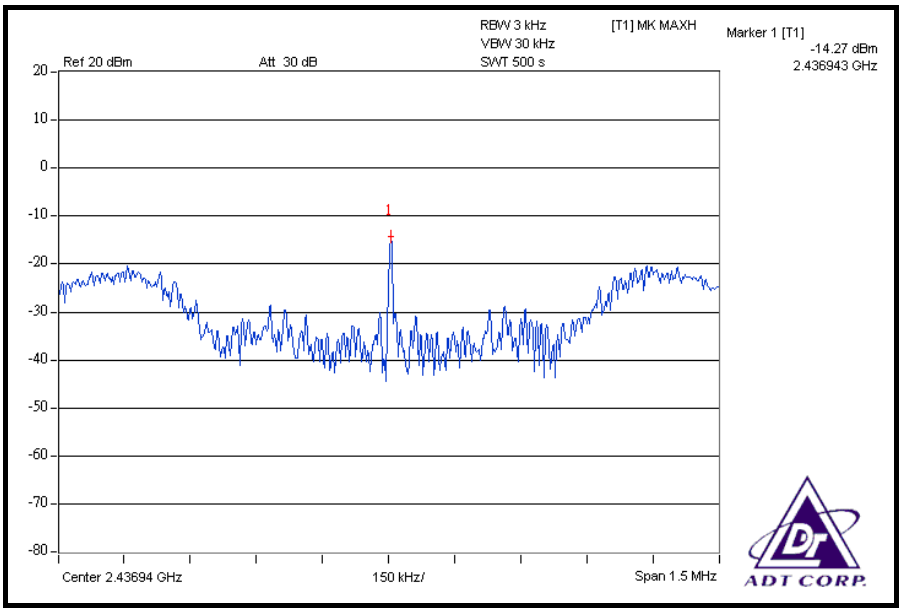
CH 7


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-18.83 dBm
2.444134 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.44414 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

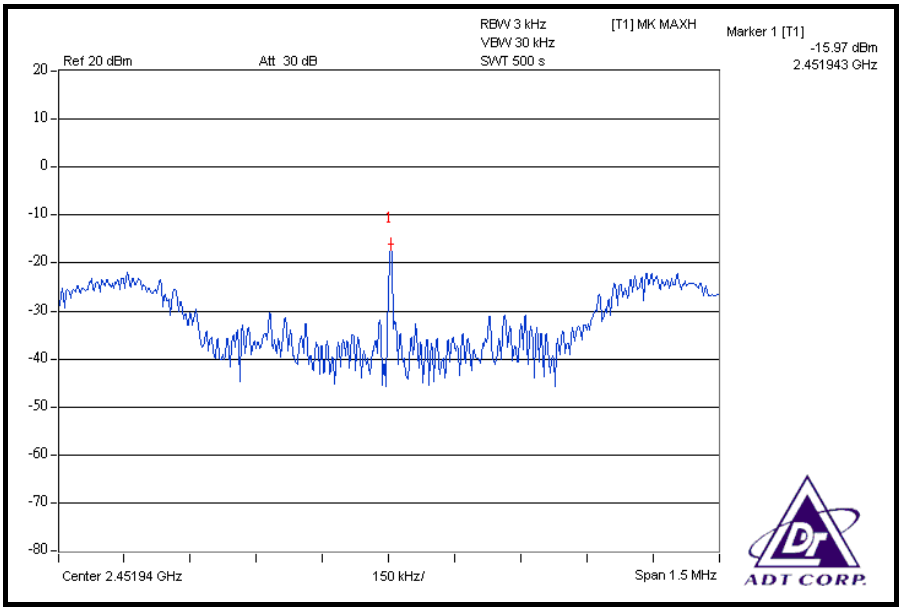
FOR CHAIN 1: CH 1



CH 4



CH 7


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-15.97 dBm
2.451943 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.45194 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

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.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
FOR CONDUCTED MEASUREMENT:				
R&S SPECTRUM ANALYZER	FSP40	100041	Apr. 22, 2008	Apr. 21, 2009
FOR RADIATED MEASUREMENT:				
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Dec. 03, 2007	Dec. 02, 2008
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-408	Jan. 22, 2008	Jan. 21, 2009
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 07, 2008	Jan. 06, 2009
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	274397/4	Nov. 08, 2007	Nov. 07, 2008
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	283401/4	Nov. 08, 2007	Nov. 07, 2008
Software ADT.	ADT_Radiated_V7.6	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	019303	NA	NA
Turn Table ADT.	TT100.	TT93021704	NA	NA
Turn Table Controller ADT.	SC100.	SC93021704	NA	NA

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

4.6.3 TEST PROCEDURE

FOR CONDUCTED MEASUREMENT:

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100kHz and 300kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

The spectrum plots (Peak RBW = 100kHz, VBW = 300kHz) are attached on the following pages.

FOR RADIATED MEASUREMENT:

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 and 300kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

The spectrum plots (Peak RBW = 100kHz, VBW = 300kHz) are attached on the following pages.

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

4.6.4 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 pages. 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).

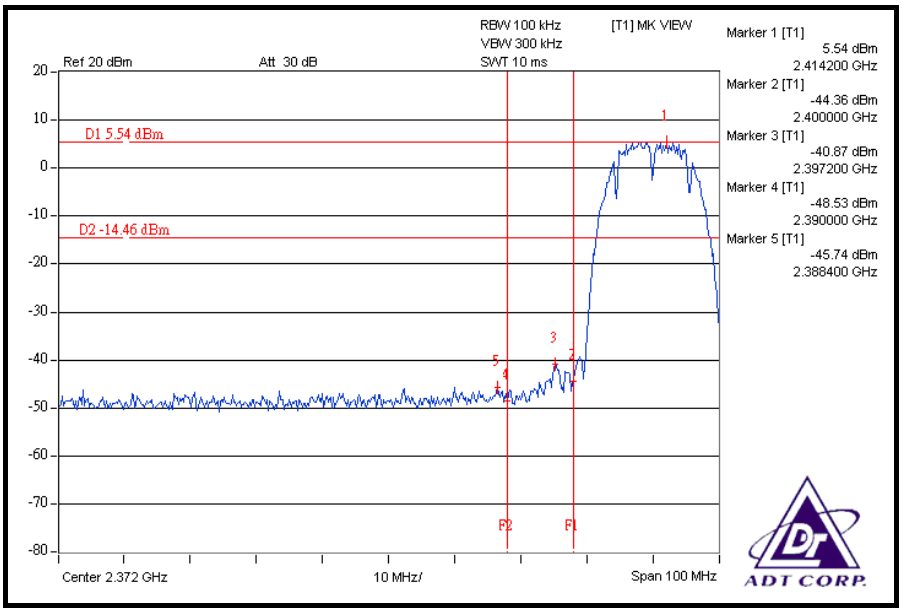
802.11b DSSS MODULATION

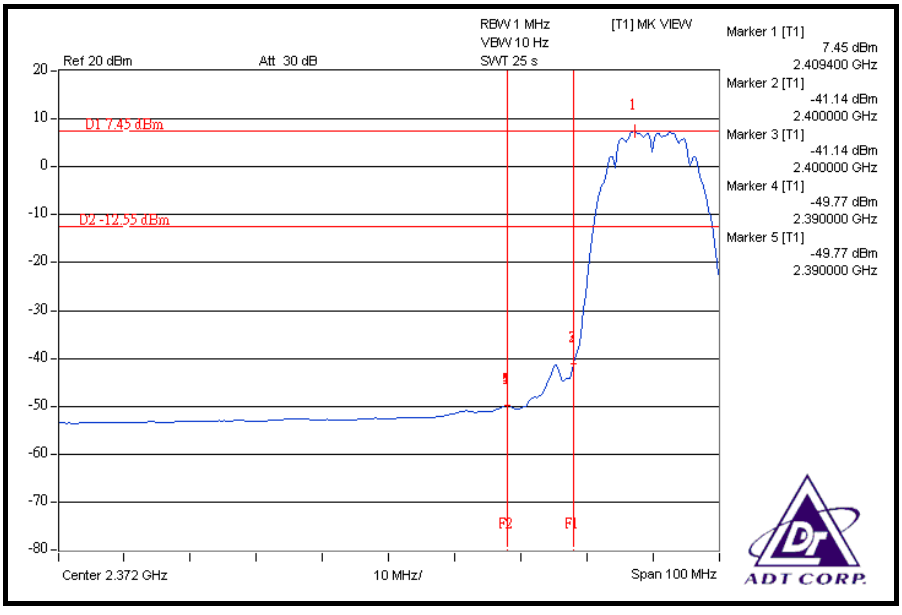
NOTE 1: The band edge emission plot on the next page shows 51.28dBc between carrier maximum power and local maximum emission in restrict band (2.38840GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 108.25dBuV/m (Peak), so the maximum field strength in restrict band is 108.25 – 51.28 = 56.97dBuV/m which is under 74dBuV/m limit.

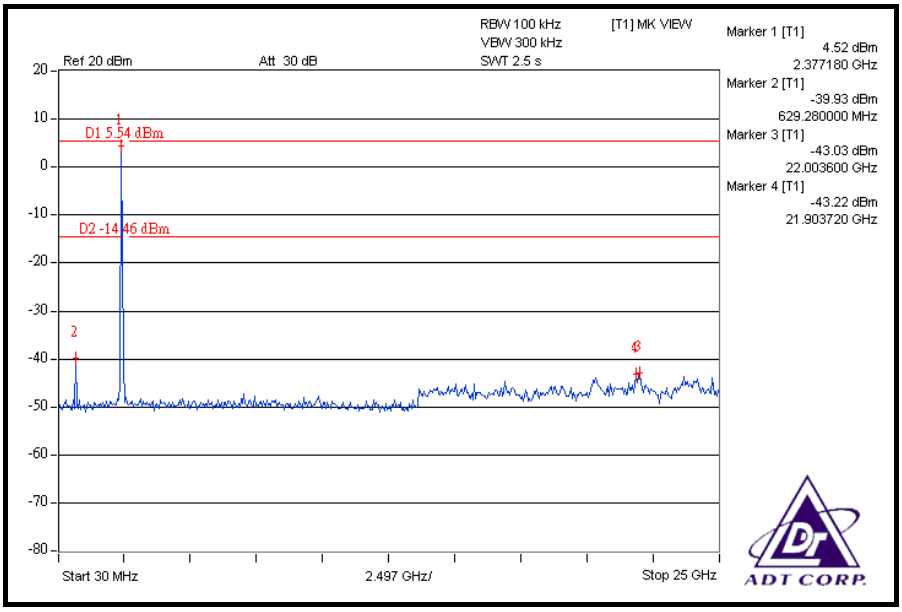
The band edge emission plot on the next page shows 57.22dBc between carrier maximum power and local maximum emission in restrict band (2.39000GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 103.69dBuV/m (Average), so the maximum field strength in restrict band is 103.69 – 57.22 = 46.47dBuV/m which is under 54dBuV/m limit.

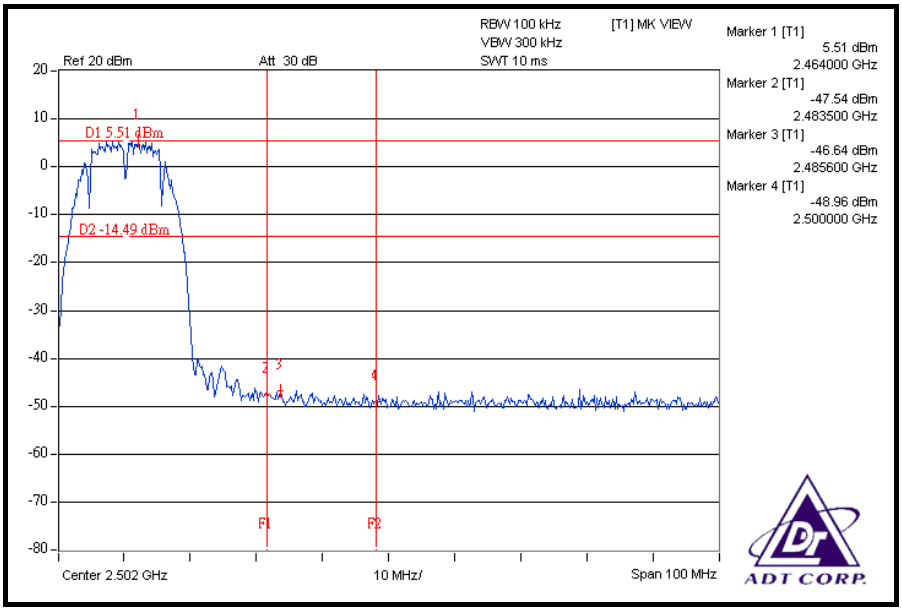
NOTE 2: The band edge emission plot on the next second page shows 52.15dBc between carrier maximum power and local maximum emission in restrict band (2.48560GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 108.50dBuV/m (Peak), so the maximum field strength in restrict band is 108.50 – 52.15 = 56.35dBuV/m which is under 74dBuV/m limit.

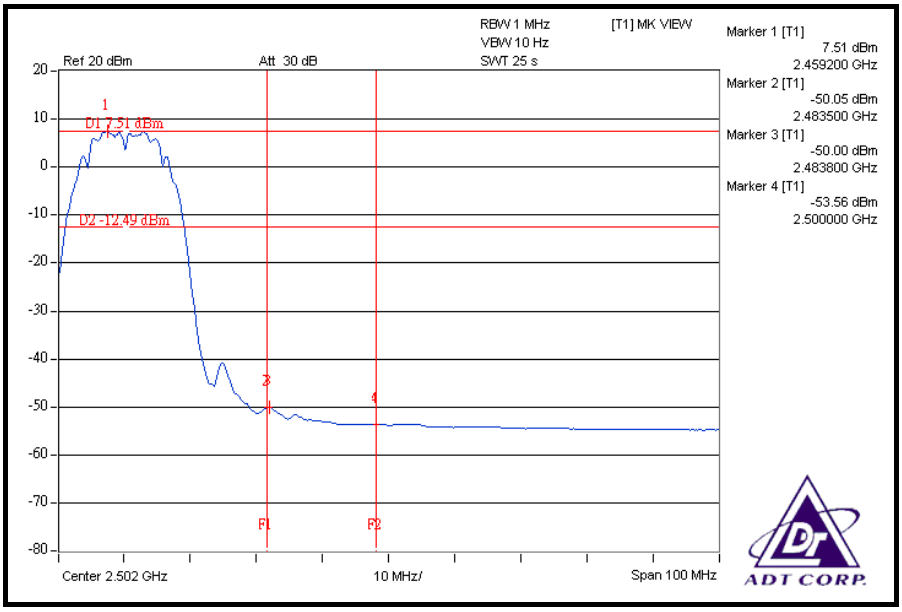
The band edge emission plot on the next third page shows 57.51dBc between carrier maximum power and local maximum emission in restrict band (2.48380GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 103.53dBuV/m (Average), so the maximum field strength in restrict band is 103.53 – 57.51 = 46.02dBuV/m which is under 54dBuV/m limit.

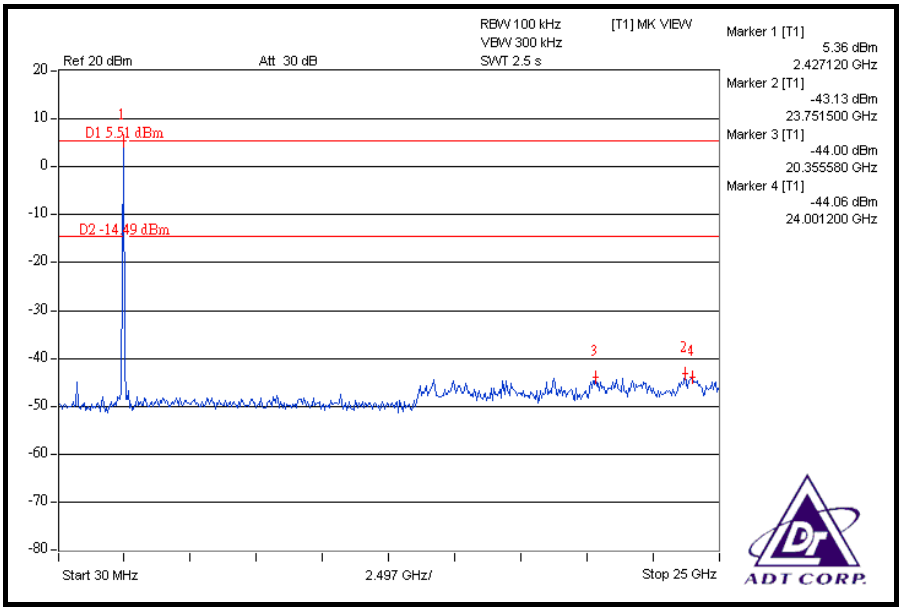

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 5.54 dBm
D2 -14.46 dBm
Marker 1 [T1]
5.54 dBm
2.414200 GHz
Marker 2 [T1]
-44.36 dBm
2.400000 GHz
Marker 3 [T1]
-40.87 dBm
2.397200 GHz
Marker 4 [T1]
-48.53 dBm
2.390000 GHz
Marker 5 [T1]
-45.74 dBm
2.388400 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 7.45 dBm
D2 -12.55 dBm
Marker 1 [T1]
7.45 dBm
2.409400 GHz
Marker 2 [T1]
-41.14 dBm
2.400000 GHz
Marker 3 [T1]
-41.14 dBm
2.400000 GHz
Marker 4 [T1]
-49.77 dBm
2.390000 GHz
Marker 5 [T1]
-49.77 dBm
2.390000 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 5.54 dBm
D2 -14.46 dBm
Marker 1 [T1]
4.52 dBm
2.377180 GHz
Marker 2 [T1]
-39.93 dBm
629.280000 MHz
Marker 3 [T1]
-43.03 dBm
22.003600 GHz
Marker 4 [T1]
-43.22 dBm
21.903720 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz
ADT CORP.


RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 5.51 dBm
D2 -14.49 dBm
Marker 1 [T1]
5.51 dBm
2.464000 GHz
Marker 2 [T1]
-47.54 dBm
2.483500 GHz
Marker 3 [T1]
-46.64 dBm
2.485600 GHz
Marker 4 [T1]
-48.96 dBm
2.500000 GHz
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 7.51 dBm
D2 -12.49 dBm
Marker 1 [T1]
7.51 dBm
2.459200 GHz
Marker 2 [T1]
-50.05 dBm
2.483500 GHz
Marker 3 [T1]
-50.00 dBm
2.483800 GHz
Marker 4 [T1]
-53.56 dBm
2.500000 GHz
Center 2.502 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 5.51 dBm
D2 -14.49 dBm
Marker 1 [T1]
5.36 dBm
2.427120 GHz
Marker 2 [T1]
-43.13 dBm
23.751500 GHz
Marker 3 [T1]
-44.00 dBm
20.355580 GHz
Marker 4 [T1]
-44.06 dBm
24.001200 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz
ADT CORP.

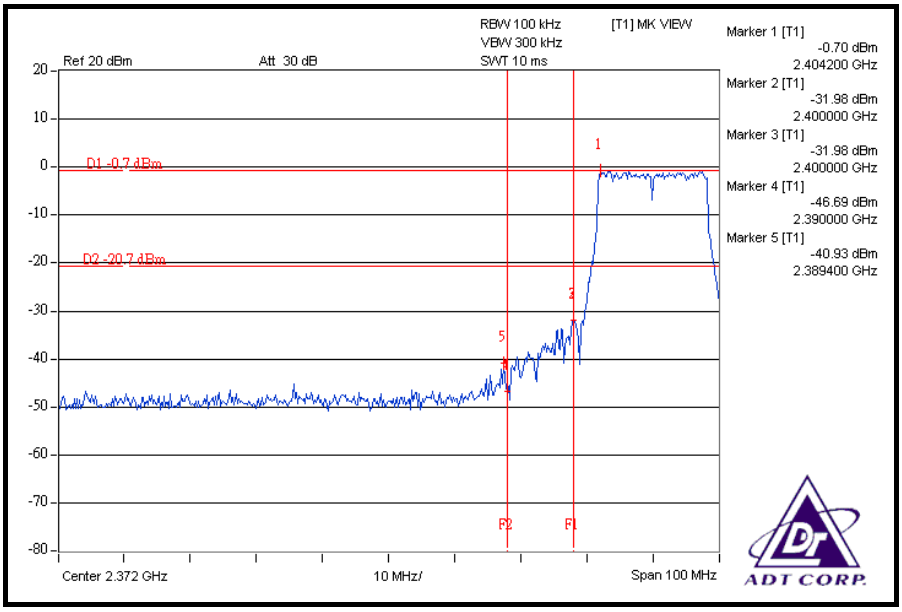
802.11g OFDM MODULATION

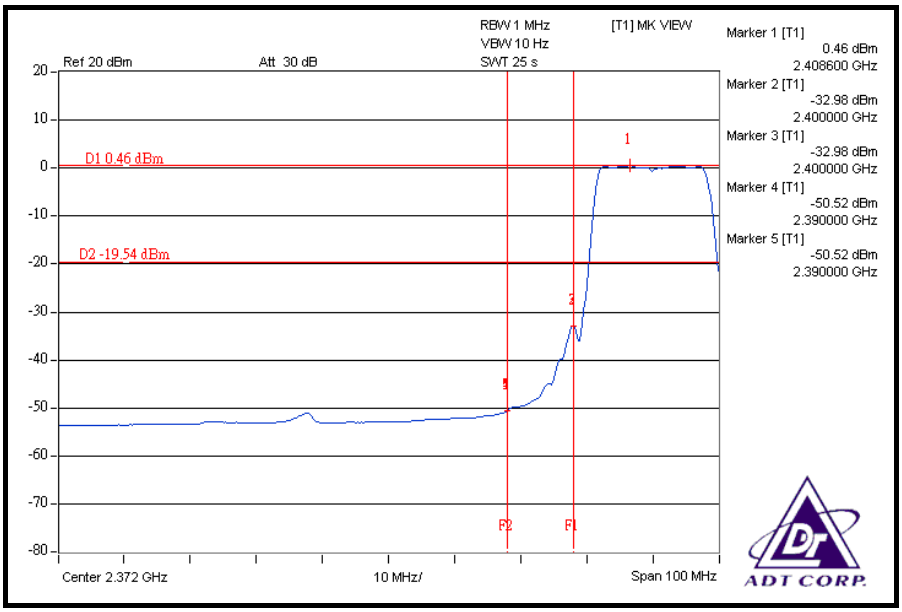
NOTE 1: The band edge emission plot on the next page shows 40.23dBc between carrier maximum power and local maximum emission in restrict band (2.38940GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 109.41dBuV/m (Peak), so the maximum field strength in restrict band is 109.41 – 40.23 = 69.18dBuV/m which is under 74dBuV/m limit.

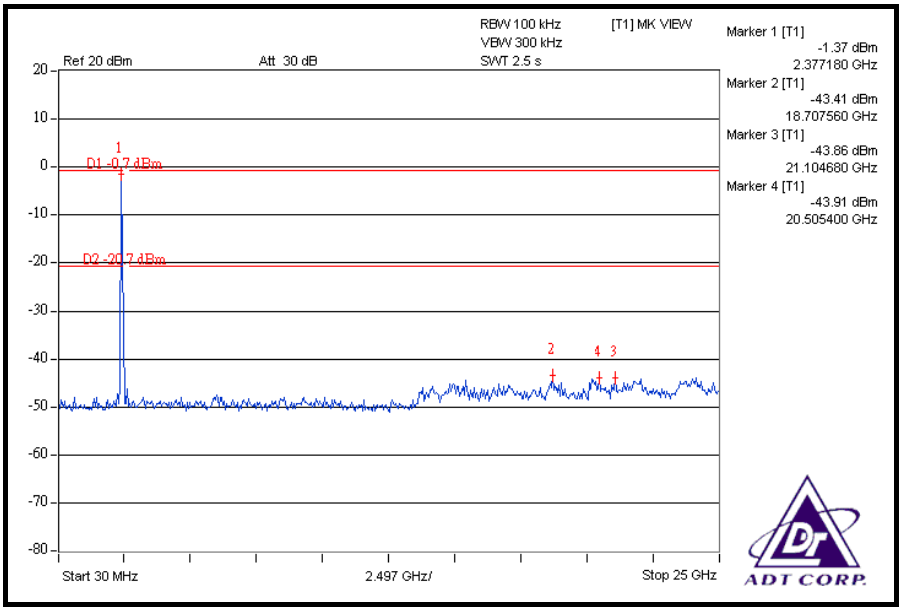
The band edge emission plot on the next page shows 50.98dBc between carrier maximum power and local maximum emission in restrict band (2.39000GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 99.67dBuV/m (Average), so the maximum field strength in restrict band is 99.67 – 50.98 = 48.69dBuV/m which is under 54dBuV/m limit.

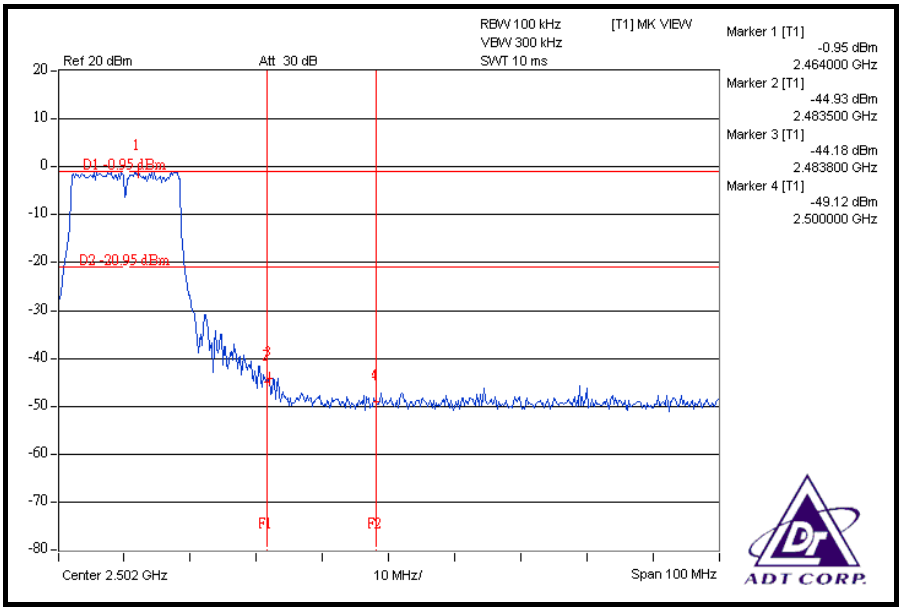
NOTE 2: The band edge emission plot on the next second page shows 43.23dBc between carrier maximum power and local maximum emission in restrict band (2.48380GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 109.13dBuV/m (Peak), so the maximum field strength in restrict band is 109.13 – 43.23 = 65.90dBuV/m which is under 74dBuV/m limit.

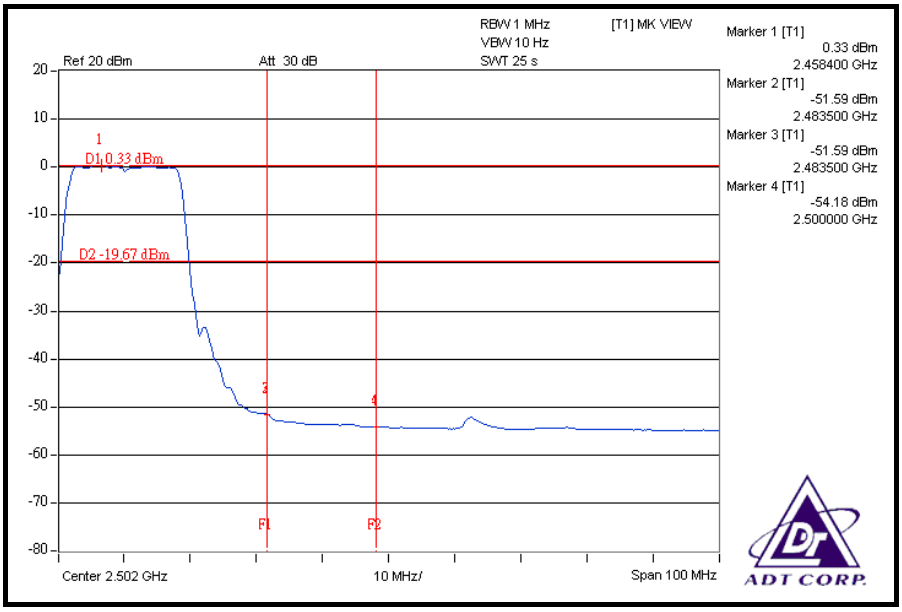
The band edge emission plot on the next third page shows 51.92dBc between carrier maximum power and local maximum emission in restrict band (2.48350GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 99.73dBuV/m (Average), so the maximum field strength in restrict band is 99.73 – 51.92 = 47.81dBuV/m which is under 54dBuV/m limit.

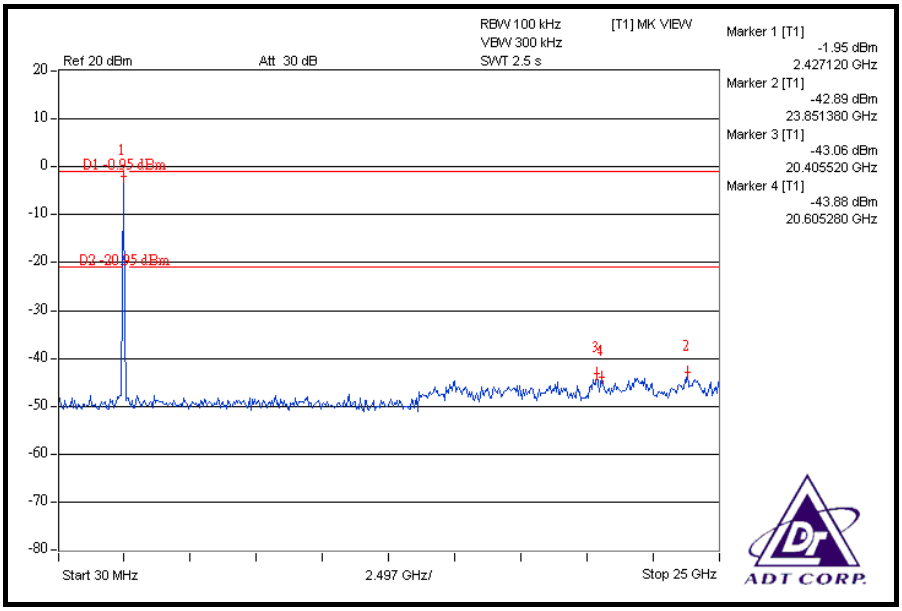

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 -0.7 dBm
D2 -20.7 dBm
Marker 1 [T1]
-0.70 dBm
2.404200 GHz
Marker 2 [T1]
-31.98 dBm
2.400000 GHz
Marker 3 [T1]
-31.98 dBm
2.400000 GHz
Marker 4 [T1]
-46.69 dBm
2.390000 GHz
Marker 5 [T1]
-40.93 dBm
2.389400 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
D1 0.46 dBm
D2 -19.54 dBm
Marker 1 [T1]
0.46 dBm
2.408600 GHz
Marker 2 [T1]
-32.98 dBm
2.400000 GHz
Marker 3 [T1]
-32.98 dBm
2.400000 GHz
Marker 4 [T1]
-50.52 dBm
2.390000 GHz
Marker 5 [T1]
-50.52 dBm
2.390000 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
Marker 1 [T1]
-1.37 dBm
2.377180 GHz
Marker 2 [T1]
-43.41 dBm
18.707560 GHz
Marker 3 [T1]
-43.86 dBm
21.104680 GHz
Marker 4 [T1]
-43.91 dBm
20.505400 GHz
D1 -0.7 dBm
D2 -20.7 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz
ADT CORP.


RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
Marker 1 [T1]
-0.95 dBm
2.464000 GHz
Marker 2 [T1]
-44.93 dBm
2.483500 GHz
Marker 3 [T1]
-44.18 dBm
2.483800 GHz
Marker 4 [T1]
-49.12 dBm
2.500000 GHz
D1 -0.95 dBm
D2 -20.95 dBm
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
Marker 1 [T1]
0.33 dBm
2.458400 GHz
Marker 2 [T1]
-51.59 dBm
2.483500 GHz
Marker 3 [T1]
-51.59 dBm
2.483500 GHz
Marker 4 [T1]
-54.18 dBm
2.500000 GHz
D1 0.33 dBm
D2 -19.67 dBm
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 20 dBm
Att 30 dB
Marker 1 [T1]
-1.95 dBm
2.427120 GHz
Marker 2 [T1]
-42.89 dBm
23.851380 GHz
Marker 3 [T1]
-43.06 dBm
20.405520 GHz
Marker 4 [T1]
-43.88 dBm
20.605280 GHz
D1 -0.05 dBm
D2 -20.05 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz
ADT CORP.

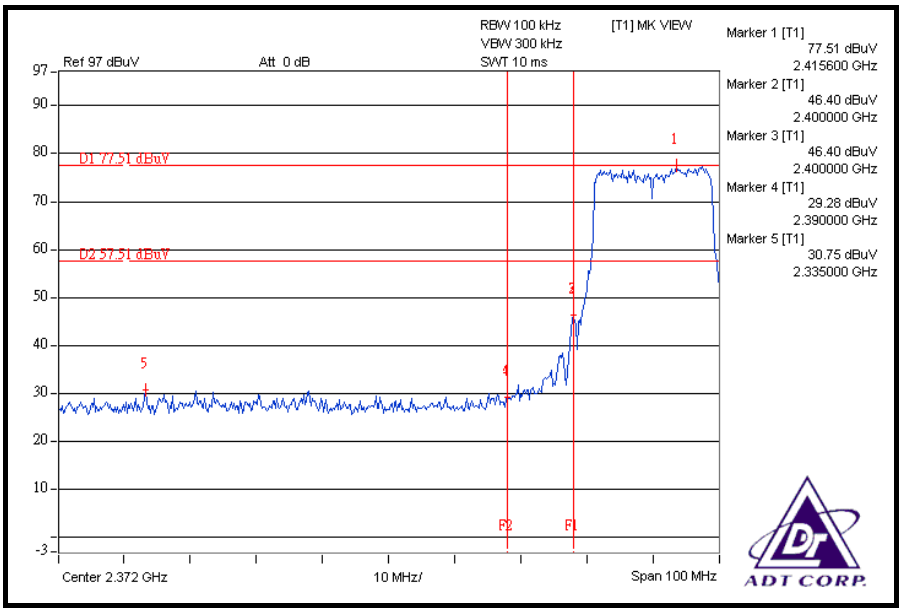
DRAFT 802.11n (20MHz) OFDM MODULATION

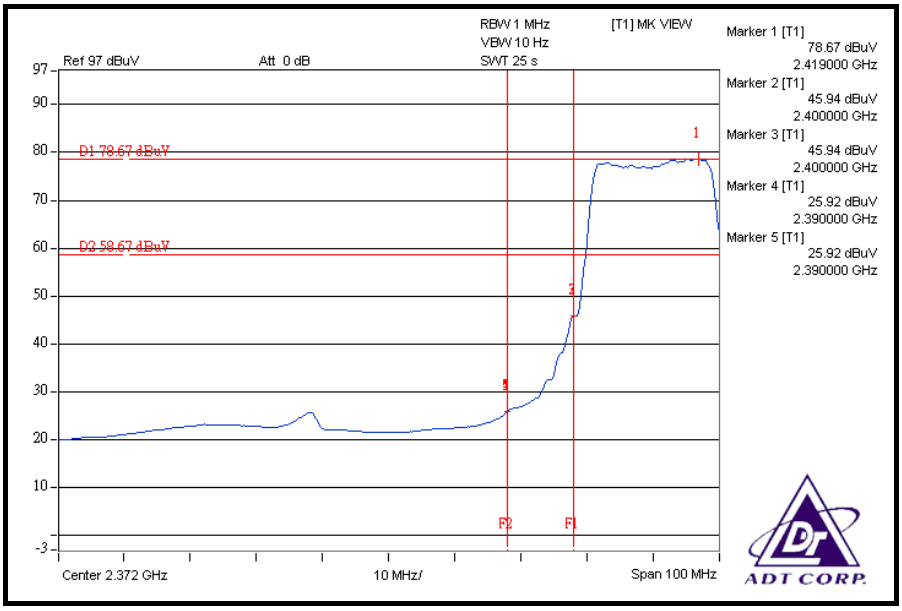
NOTE 1: The band edge emission plot on the next page shows 46.76dBc between carrier maximum power and local maximum emission in restrict band (2.33500GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 112.36dBuV/m (Peak), so the maximum field strength in restrict band is 112.36 – 46.76 = 65.60dBuV/m which is under 74dBuV/m limit.

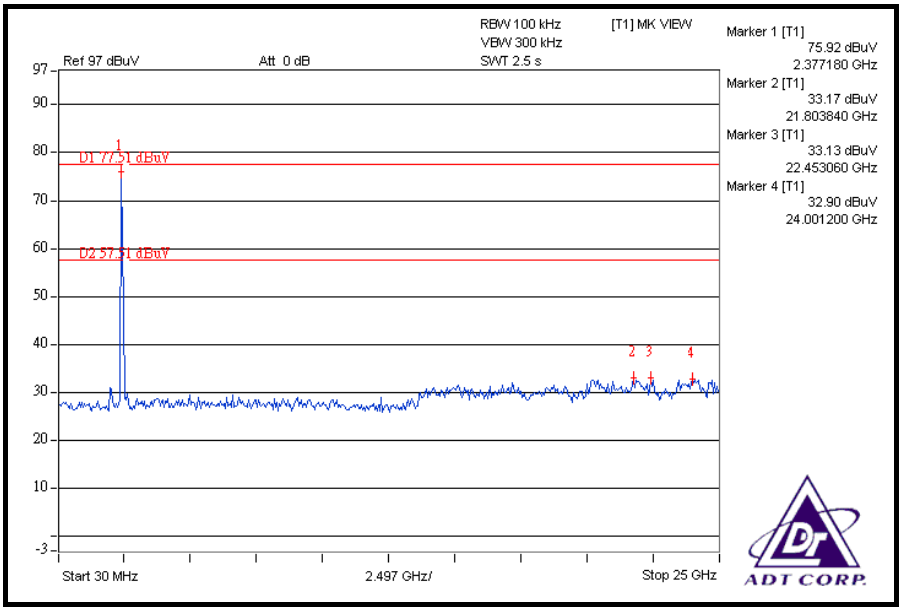
The band edge emission plot on the next page shows 52.75dBc between carrier maximum power and local maximum emission in restrict band (2.39000GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 102.29dBuV/m (Average), so the maximum field strength in restrict band is 102.29 – 52.75 = 49.54dBuV/m which is under 54dBuV/m limit.

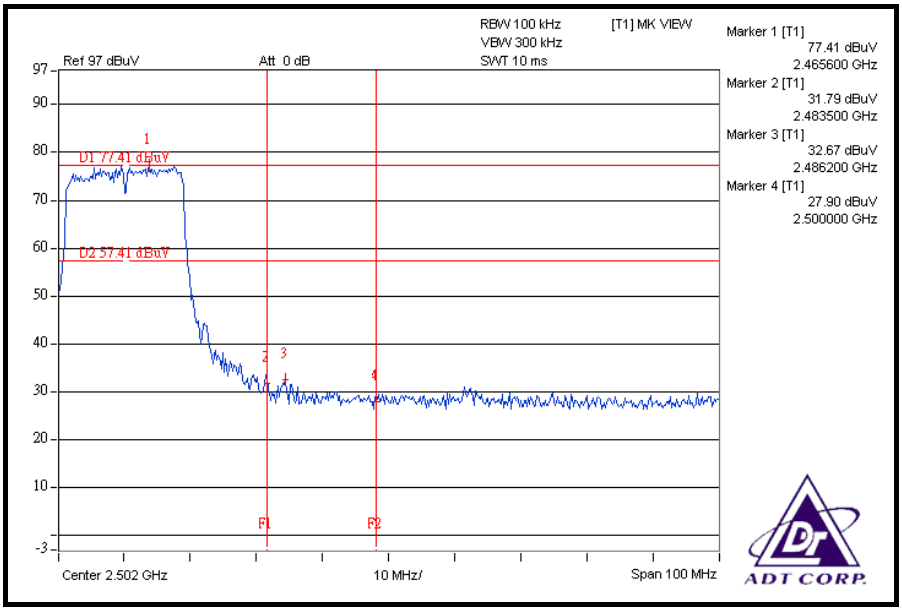
NOTE 2: The band edge emission plot on the next second page shows 44.74dBc between carrier maximum power and local maximum emission in restrict band (2.48620GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 112.39dBuV/m (Peak), so the maximum field strength in restrict band is 112.39 – 44.74 = 67.65dBuV/m which is under 74dBuV/m limit.

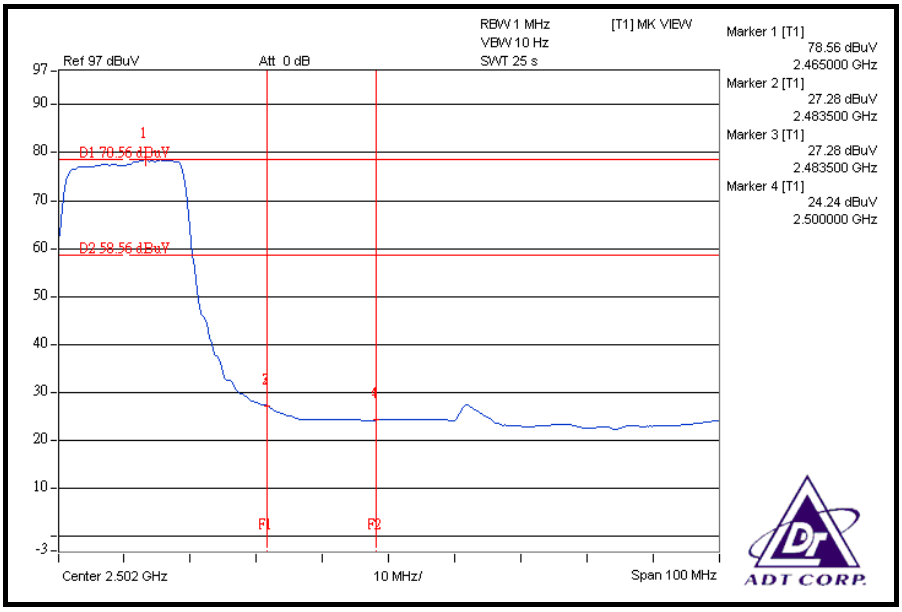
The band edge emission plot on the next third page shows 51.28dBc between carrier maximum power and local maximum emission in restrict band (2.48350GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 102.11dBuV/m (Average), so the maximum field strength in restrict band is 102.11 – 51.28 = 50.83dBuV/m which is under 54dBuV/m limit.

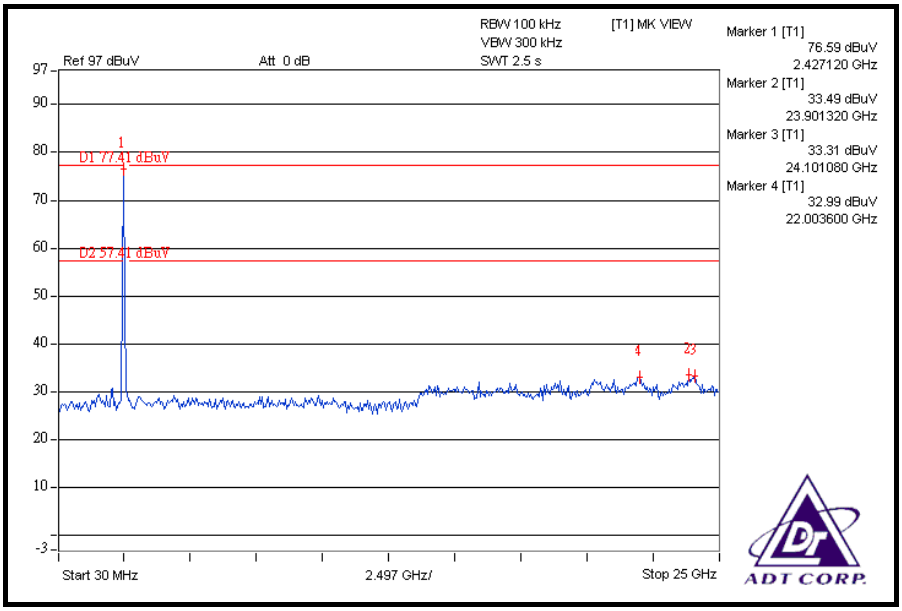

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 77.51 dBuV
D2 57.51 dBuV
Marker 1 [T1]
77.51 dBuV
2.415600 GHz
Marker 2 [T1]
46.40 dBuV
2.400000 GHz
Marker 3 [T1]
46.40 dBuV
2.400000 GHz
Marker 4 [T1]
29.28 dBuV
2.390000 GHz
Marker 5 [T1]
30.75 dBuV
2.335000 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 78.67 dBuV
D2 58.67 dBuV
Marker 1 [T1]
78.67 dBuV
2.419000 GHz
Marker 2 [T1]
45.94 dBuV
2.400000 GHz
Marker 3 [T1]
45.94 dBuV
2.400000 GHz
Marker 4 [T1]
25.92 dBuV
2.390000 GHz
Marker 5 [T1]
25.92 dBuV
2.390000 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
75.92 dBuV
2.377180 GHz
Marker 2 [T1]
33.17 dBuV
21.803840 GHz
Marker 3 [T1]
33.13 dBuV
22.453060 GHz
Marker 4 [T1]
32.90 dBuV
24.001200 GHz
D1 77.41 dBuV
D2 57.41 dBuV
Start 30 MHz
2.497 GHz/
Stop 25 GHz
ADT CORP.


RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
77.41 dBuV
2.465600 GHz
Marker 2 [T1]
31.79 dBuV
2.483500 GHz
Marker 3 [T1]
32.67 dBuV
2.486200 GHz
Marker 4 [T1]
27.90 dBuV
2.500000 GHz
D1 77.41 dBuV
D2 57.41 dBuV
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 70.56 dBuV
D2 58.56 dBuV
Marker 1 [T1]
78.56 dBuV
2.465000 GHz
Marker 2 [T1]
27.28 dBuV
2.483500 GHz
Marker 3 [T1]
27.28 dBuV
2.483500 GHz
Marker 4 [T1]
24.24 dBuV
2.500000 GHz
Center 2.502 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 77.41 dBuV
D2 57.41 dBuV
Marker 1 [T1]
76.59 dBuV
2.427120 GHz
Marker 2 [T1]
33.49 dBuV
23.901320 GHz
Marker 3 [T1]
33.31 dBuV
24.101080 GHz
Marker 4 [T1]
32.99 dBuV
22.003600 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz

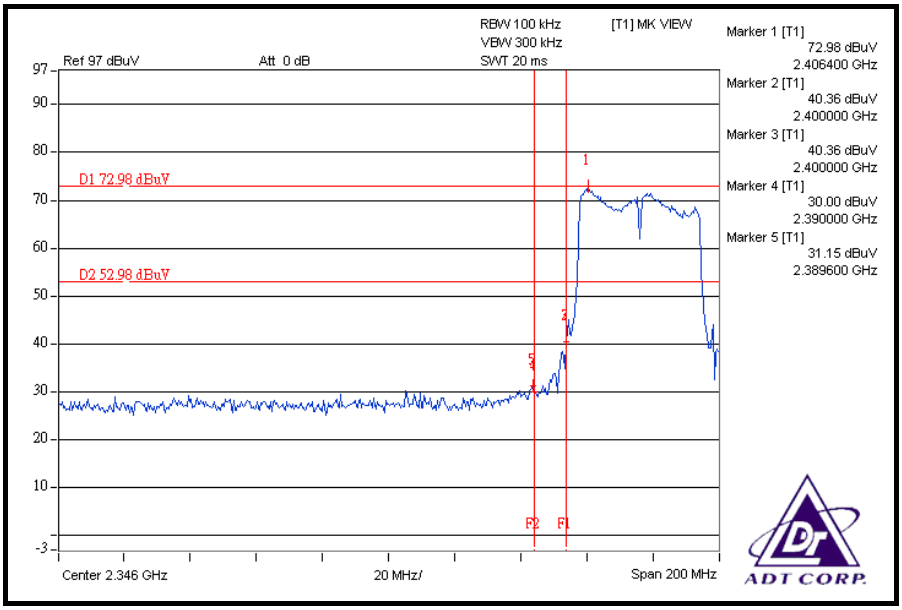
DRAFT 802.11n (40MHz) OFDM MODULATION

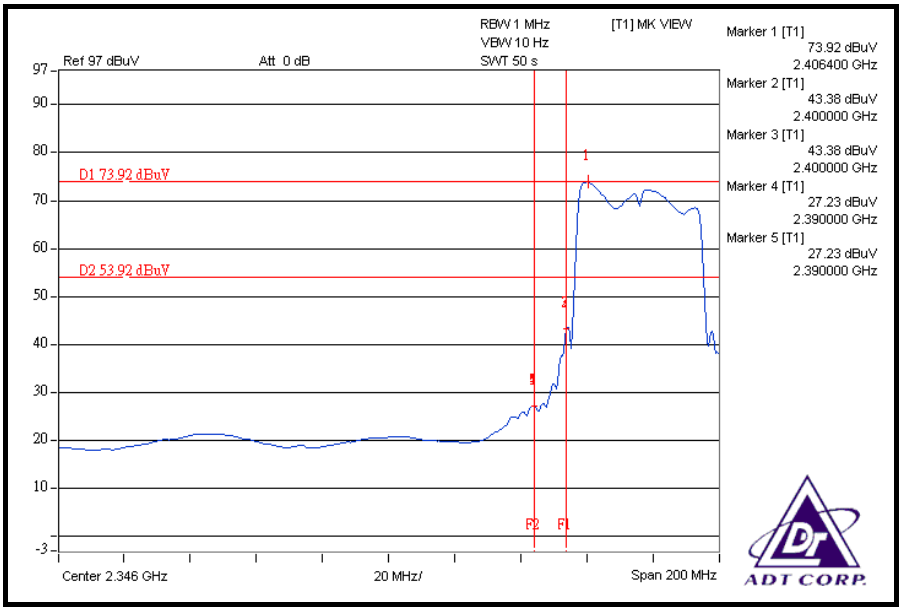
NOTE 1: The band edge emission plot on the next page shows 41.83dBc between carrier maximum power and local maximum emission in restrict band (2.38960GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 108.47dBuV/m (Peak), so the maximum field strength in restrict band is 108.47 – 41.83 = 66.64dBuV/m which is under 74dBuV/m limit.

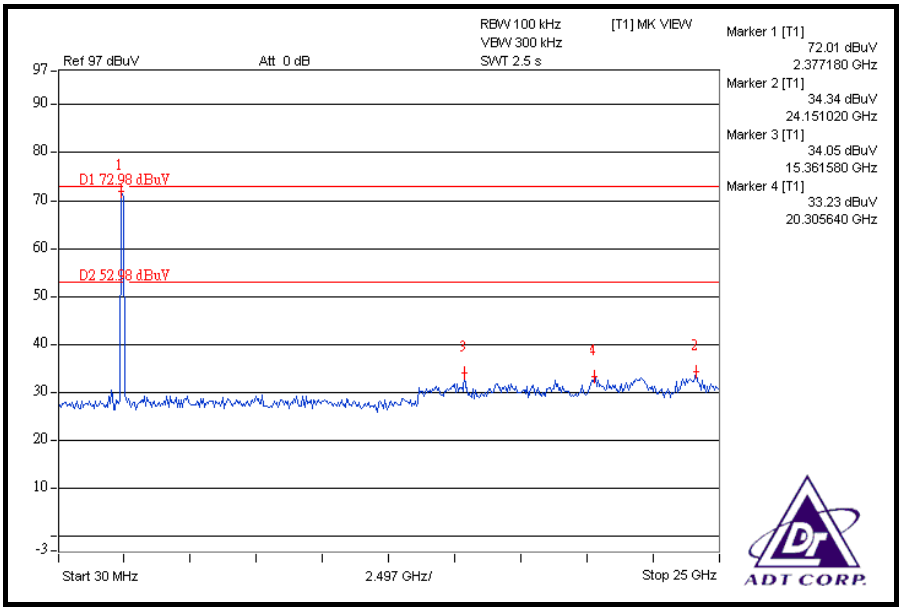
The band edge emission plot on the next page shows 46.69dBc between carrier maximum power and local maximum emission in restrict band (2.39000GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 97.56dBuV/m (Average), so the maximum field strength in restrict band is 97.56 – 46.69 = 50.87dBuV/m which is under 54dBuV/m limit.

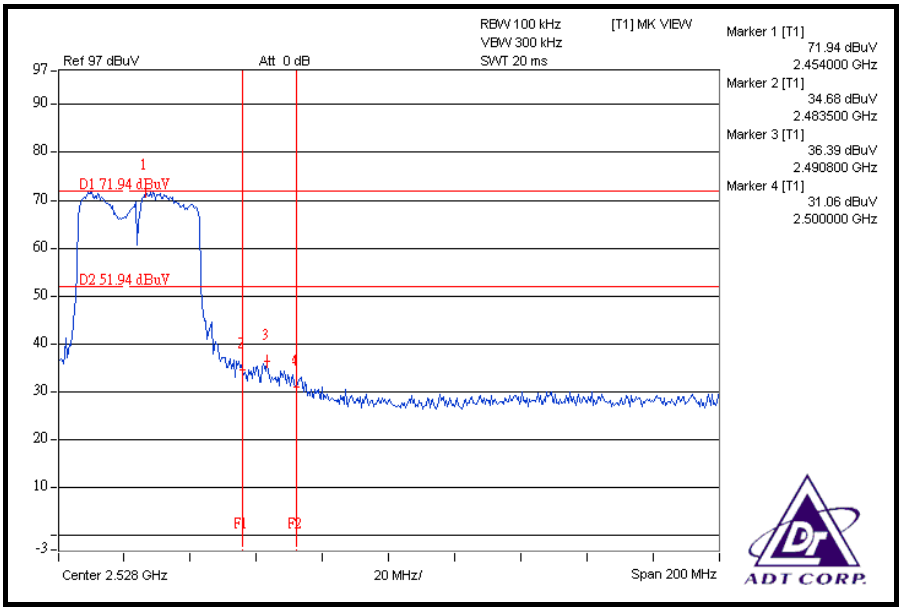
NOTE 2: The band edge emission plot on the next second page shows 35.55dBc between carrier maximum power and local maximum emission in restrict band (2.49080GHz). The emission of carrier strength list in the test result of channel 7 at the item 4.1.7 is 107.28dBuV/m (Peak), so the maximum field strength in restrict band is 107.28 – 35.55 = 71.73dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next third page shows 43.40dBc between carrier maximum power and local maximum emission in restrict band (2.48360GHz). The emission of carrier strength list in the test result of channel 7 at the item 4.1.7 is 96.27dBuV/m (Average), so the maximum field strength in restrict band is 96.27 – 43.40 = 52.87dBuV/m which is under 54dBuV/m limit.

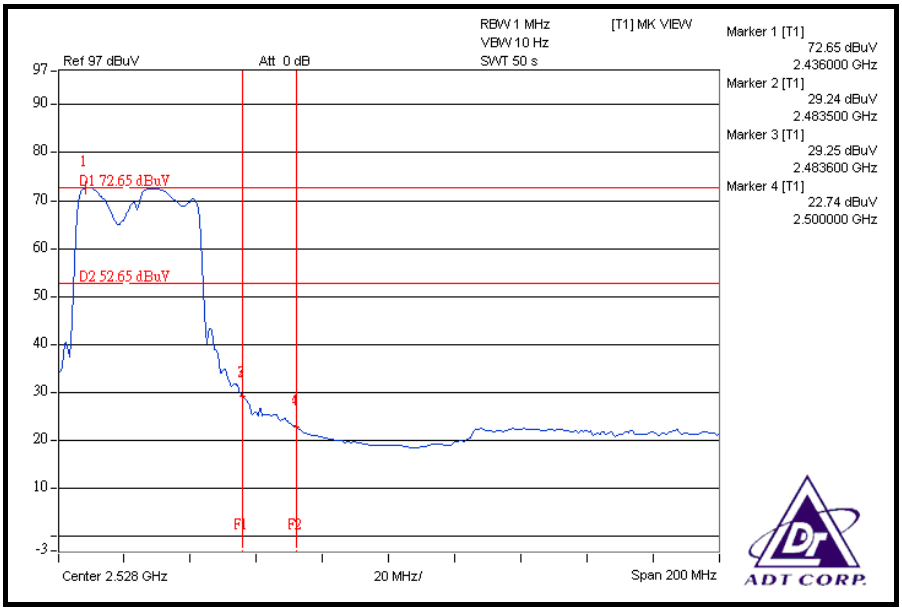

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 72.98 dBuV
D2 52.98 dBuV
Marker 1 [T1]
72.98 dBuV
2.406400 GHz
Marker 2 [T1]
40.36 dBuV
2.400000 GHz
Marker 3 [T1]
40.36 dBuV
2.400000 GHz
Marker 4 [T1]
30.00 dBuV
2.390000 GHz
Marker 5 [T1]
31.15 dBuV
2.389600 GHz
Center 2.346 GHz
20 MHz/
Span 200 MHz
ADT CORP.

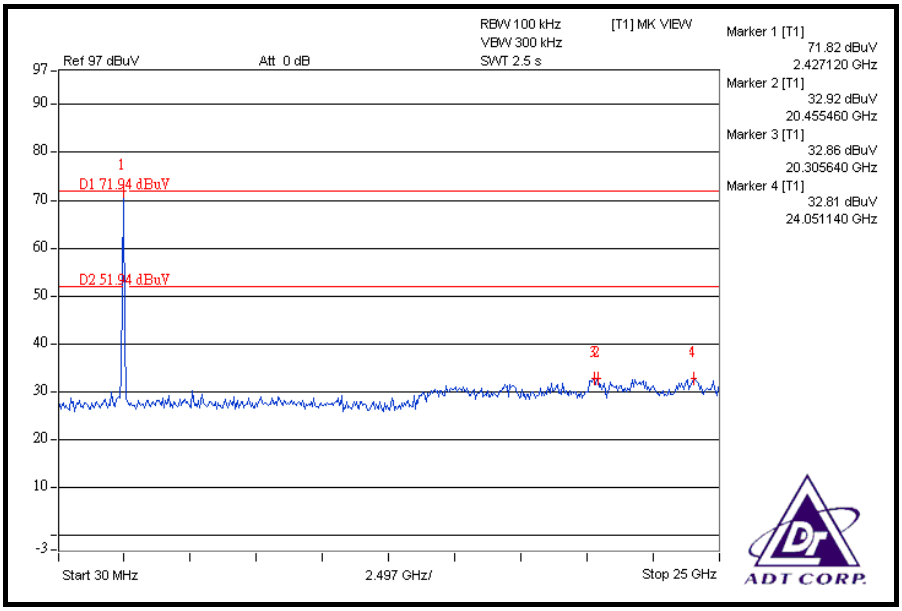

RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 73.92 dBuV
D2 53.92 dBuV
Marker 1 [T1]
73.92 dBuV
2.406400 GHz
Marker 2 [T1]
43.38 dBuV
2.400000 GHz
Marker 3 [T1]
43.38 dBuV
2.400000 GHz
Marker 4 [T1]
27.23 dBuV
2.390000 GHz
Marker 5 [T1]
27.23 dBuV
2.390000 GHz
Center 2.346 GHz
20 MHz/
Span 200 MHz
ADT CORP.


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
72.01 dBuV
2.377180 GHz
Marker 2 [T1]
34.34 dBuV
24.151020 GHz
Marker 3 [T1]
34.05 dBuV
15.361580 GHz
Marker 4 [T1]
33.23 dBuV
20.305640 GHz
D1 72.98 dBuV
D2 52.98 dBuV
Start 30 MHz
2.497 GHz/
Stop 25 GHz
ADT CORP.


RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
71.94 dBuV
2.454000 GHz
Marker 2 [T1]
34.68 dBuV
2.483500 GHz
Marker 3 [T1]
36.39 dBuV
2.490800 GHz
Marker 4 [T1]
31.06 dBuV
2.500000 GHz
D1 71.94 dBuV
D2 51.94 dBuV
F1
F2
Center 2.528 GHz
20 MHz/
Span 200 MHz
ADT CORP.

.


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
72.65 dBuV
2.436000 GHz
Marker 2 [T1]
29.24 dBuV
2.483500 GHz
Marker 3 [T1]
29.25 dBuV
2.483600 GHz
Marker 4 [T1]
22.74 dBuV
2.500000 GHz
D1 72.65 dBuV
D2 52.65 dBuV
Center 2.528 GHz
20 MHz/
Span 200 MHz
ADT CORP.


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
71.82 dBuV
2.427120 GHz
Marker 2 [T1]
32.92 dBuV
20.455460 GHz
Marker 3 [T1]
32.86 dBuV
20.305640 GHz
Marker 4 [T1]
32.81 dBuV
24.051140 GHz
D1 71.94 dBuV
D2 51.94 dBuV
Start 30 MHz
2.497 GHz/
Stop 25 GHz
ADT CORP.

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 R-SMA connector. The maximum gain of the antenna is 2dBi.

5. PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).

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
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA , CSA
R.O.C.	TAF, BSMI, NCC
Netherlands	Telefication
Singapore	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: 886-2-26051924

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

Web Site: www.adt.com.tw

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

7. 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.

---END---