FCC TEST REPORT (15.247)

REPORT NO.: RF971021L03

MODEL NO.: DIR-825

RECEIVED: Oct. 20, 2008

TESTED: Oct. 20 ~ Oct. 31, 2008

ISSUED: Nov. 04, 2008

APPLICANT: D-Link Corporation

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

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: Xtreme N DUAL BAND GIGABIT ROUTER
MODEL: DIR-825
BRAND: D-Link
APPLICANT: D-Link Corporation
TEST SAMPLE: ENGINEERING SAMPLE
TESTED: Oct. 20 ~ Oct. 31, 2008
STANDARDS: **FCC Part 15, Subpart C (Section 15.247)**
ANSI C63.4-2003

The above equipment (Model: DIR-825) 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 : Ivy Lin , **DATE:** Nov. 04, 2008
Ivy Lin / Specialist

TECHNICAL ACCEPTANCE : Long Chen , **DATE:** Nov. 04, 2008
Responsible for RF Long Chen / Senior Engineer

APPROVED BY : Gary Chang , **DATE:** Nov. 04, 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 -10.38dB at 0.197MHz
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)	Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -1.00dB at 751.23MHz
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	2.44dB
Radiated emissions	30MHz ~ 200MHz	3.34 dB
	200MHz ~1000MHz	3.35 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	Xtreme N DUAL BAND GIGABIT ROUTER
MODEL NO.	DIR-825
FCC ID	KA2DIR825B1
POWER SUPPLY	12Vdc from AC adapter
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 802.11a: 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	2.4GHz: 2400.0 ~ 2483.5MHz 5.0GHz: 5150.0 ~ 5250.0MHz, 5725.0 ~ 5825.0MHz
NUMBER OF CHANNEL	2.4GHz: 11 for 802.11b, 802.11g, draft 802.11n (20MHz) 7 for draft 802.11n (40MHz) 5.0GHz: 9 for 802.11a, draft 802.11n (20MHz) 4 for draft 802.11n (40MHz)
OUTPUT POWER	455.544mW for 2400.0 ~ 2483.5MHz 32.511mW for 5150.0 ~ 5250.0MHz 321.019mW for 5725.0 ~ 5825.0MHz
ANTENNA TYPE	2.4GHz: Dipole antenna with 2.0dBi gain 5.0GHz: Dipole antenna with 2.0dBi gain
DATA CABLE	NA
I/O PORTS	RJ45, USB
ASSOCIATED DEVICES	Adapter

NOTE:

1. The EUT is a Xtreme N dual band gigabit router. The functions of EUT listed as below:

	TEST STANDARD	REFERENCE REPORT
WLAN 802.11b/g, draft 802.11n	FCC Part 15, Subpart C (Section 15.247)	RF971021L03
WLAN 802.11a, draft 802.11n (5725~5825 MHz)		
WLAN 802.11a, draft 802.11n (5150~ 5250MHz)	FCC Part 15, Subpart E (Section 15.407)	RF971021L03-1

2. The frequency bands used in this EUT are listed as follows:

Frequency Band (MHz)	2400~2483.5	5150~5250	5725~5825
802.11b	√		
802.11g	√		
802.11a		√	√
Draft 802.11n (20MHz)	√	√	√
Draft 802.11n (40MHz)	√	√	√

3. The EUT was powered by the following adapters:

Adapter 1	
BRAND:	D-Link
MODEL:	AG2412-B
INPUT:	100-240Vac, 50-60Hz, 0.5A
OUTPUT:	12Vdc, 2A
POWER LINE:	1.8m non-shielded cable without core

Adapter 2	
BRAND:	D-Link
MODEL:	CG2412-B
INPUT:	100-120Vac, 50-60Hz, 0.5A
OUTPUT:	12Vdc, 2A
POWER LINE:	1.8m non-shielded cable without core

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

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

5. 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

FOR 2.4GHz:

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		

FOR 5.0GHz (5725 ~ 5825MHz):

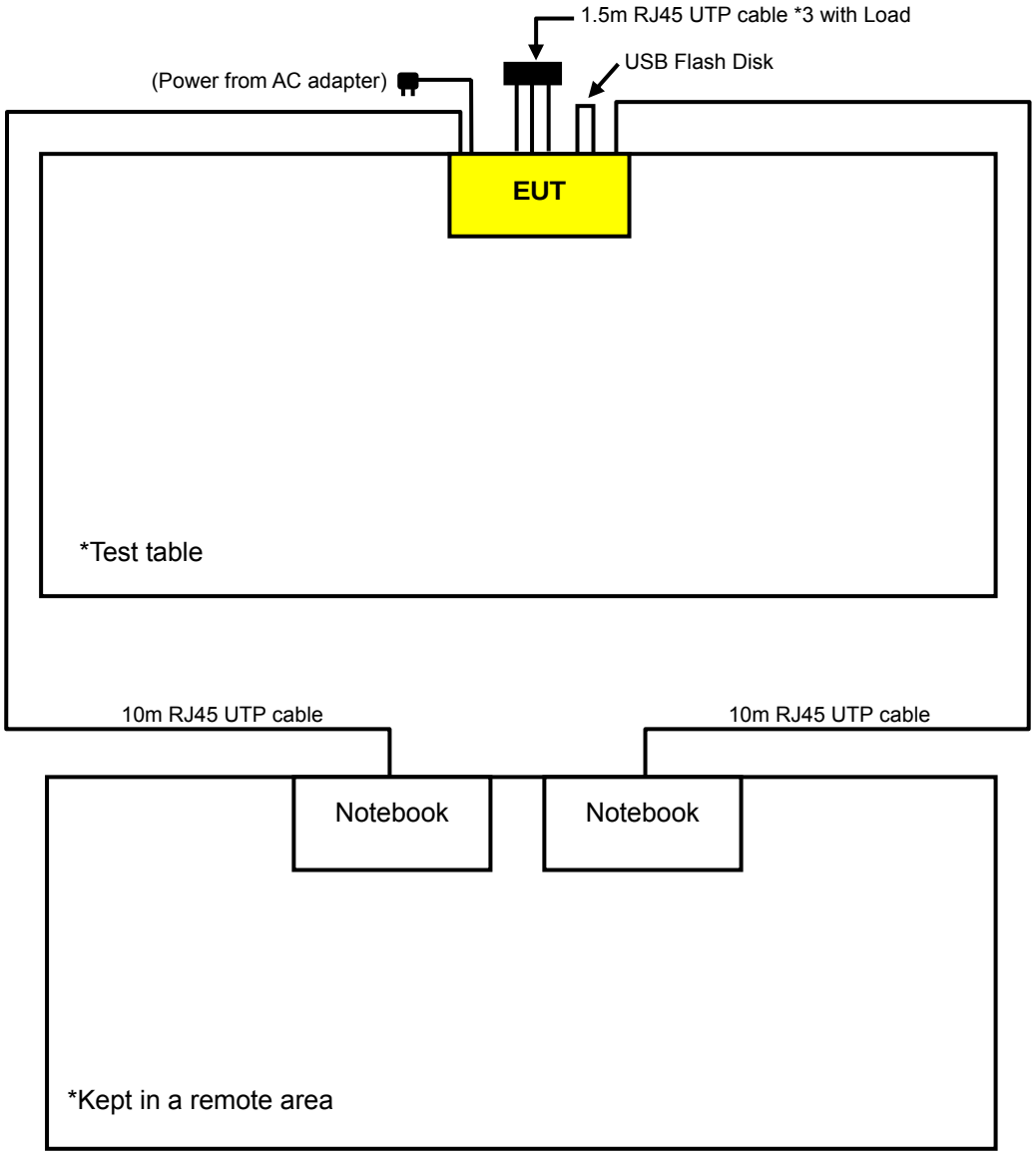
5 channels are provided for 802.11a, draft 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
149	5745MHz	161	5805MHz
153	5765MHz	165	5825MHz
157	5785MHz		

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755MHz	159	5795MHz

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

FOR 2.400 ~ 2.4835GHz:

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	With adapter 1
B	-	√	√	-	With adapter 2

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

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

Note: "-" means no effect.

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.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	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.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, B	802.11g	1 to 11	6	OFDM	BPSK	6.0

POWER LINE CONDUCTED EMISSION TEST:

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, B	802.11g	1 to 11	6	OFDM	BPSK	6.0

BANDEDGE MEASUREMENT:

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	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.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	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

FOR 5.725 ~ 5.825GHz:

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE<1G	RE≥1G	APCM	
A	√	√	√	√	With adapter 1
B	√	√	-	-	With adapter 2

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

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

Note: "-" means no effect.

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.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	149 to 165	149, 157, 165	OFDM	BPSK	6.0
	Draft 802.11n (20MHz)	149 to 165	149, 157, 165	OFDM	BPSK	7.2
	Draft 802.11n (40MHz)	151 to 159	151, 159	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.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, B	Draft 802.11n (40MHz)	151 to 159	151	OFDM	BPSK	15.0

POWER LINE CONDUCTED EMISSION TEST:

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, B	Draft 802.11n (40MHz)	151 to 159	151	OFDM	BPSK	15.0

BANDEDGE MEASUREMENT:

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	149 to 165	149, 165	OFDM	BPSK	6.0
	Draft 802.11n (20MHz)	149 to 165	149, 165	OFDM	BPSK	7.2
	Draft 802.11n (40MHz)	151 to 159	151, 159	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.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	149 to 165	149, 157, 165	OFDM	BPSK	6.0
	Draft 802.11n (20MHz)	149 to 165	149, 157, 165	OFDM	BPSK	7.2
	Draft 802.11n (40MHz)	151 to 159	151, 159	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	NOTEBOOK	DELL	PP05L	12130898320	E2K24CLNS
2	NOTEBOOK	DELL	PP05L	9954115984	E2K24CLNS
3	USB FLASH DISK	NA	NA	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	10m RJ45 UTP cable
2	10m RJ45 UTP cable
3	NA

NOTE: 1. All power cords of the above support units are non shielded (1.8m).
2. Item 1~2 acted as communication partners to transfer data.

4. TEST TYPES AND RESULTS (FOR 2.4GHz BAND)

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	ESI7	100033	Jun. 30, 2008	Jun. 29, 2009
Spectrum Analyzer Agilent	FSP	100041	Apr. 22, 2008	Apr. 21, 2009
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	May, 02, 2008	May, 01, 2009
HORN Antenna SCHWARZBECK	9120D	9120D-209	Jun. 24, 2008	Jun. 23, 2009
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 25, 2007	Dec. 24, 2008
Preamplifier Agilent	8447D	2944A10633	Oct. 29, 2007	Nov. 04, 2008
Preamplifier Agilent	8449B	3008A01964	Oct. 23, 2008	Oct. 22, 2009
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	283402/4	Dec. 07, 2007	Dec. 06, 2008
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	251644/4	Dec. 07, 2007	Dec. 06, 2008
Software ADT.	ADT_Radiated_V7.6	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	017303	NA	NA
Turn Table ADT.	TT100.	TT93021703	NA	NA
Turn Table Controller ADT.	SC100.	SC93021703	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 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 FCC Site Registration No. is 988962.

5. The IC Site Registration No. is IC3789B-3.

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.

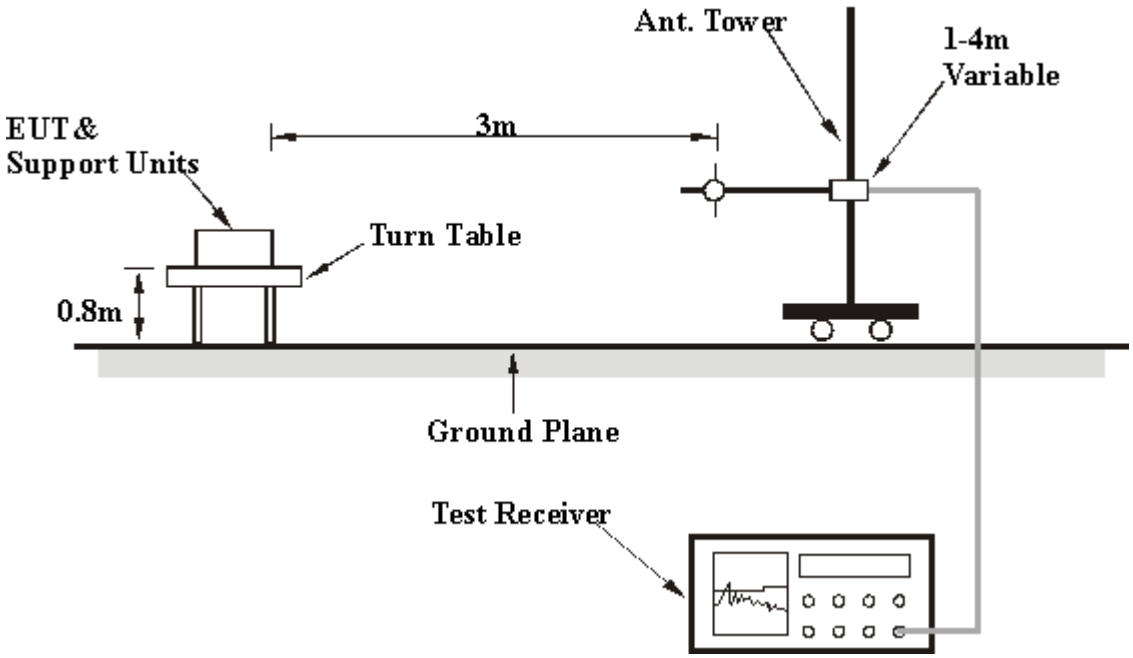
NOTE:

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. Placed the EUT on the testing table.
b. Prepared two notebook systems outside of testing area to act as a communication partners.
c. The communication partner connected with EUT via a RJ45 UTP cable and run a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
d. The communication partner sent data to EUT by command "PING".

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	23deg. C, 67%RH 1021hPa	TESTED BY	Match Tsui

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	55.72 PK	74.00	-18.28	1.06 H	18	23.28	32.44
2	2390.00	46.19 AV	54.00	-7.81	1.06 H	18	13.75	32.44
3	*2412.00	103.95 PK			1.06 H	18	71.43	32.52
4	*2412.00	99.58 AV			1.06 H	18	67.06	32.52
5	#3216.00	51.89 PK	83.95	-32.06	1.00 H	314	17.21	34.67
6	#3216.00	47.51 AV	79.58	-32.07	1.00 H	314	12.83	34.67
7	4824.00	50.85 PK	74.00	-23.15	1.00 H	145	12.55	38.30
8	4824.00	41.44 AV	54.00	-12.56	1.00 H	145	3.14	38.30
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	2288.00	60.27 PK	74.00	-13.73	1.00 V	330	28.21	32.06
2	2288.00	50.20 AV	54.00	-3.80	1.00 V	330	18.14	32.06
3	2390.00	59.02 PK	74.00	-14.98	1.11 V	161	26.58	32.44
4	2390.00	47.55 AV	54.00	-6.45	1.11 V	161	15.11	32.44
5	*2412.00	112.65 PK			1.14 V	147	80.13	32.52
6	*2412.00	108.71 AV			1.14 V	147	76.19	32.52
7	#3216.00	53.12 PK	92.65	-39.53	1.18 V	132	18.45	34.67
8	#3216.00	50.79 AV	88.71	-37.92	1.18 V	132	16.12	34.67
9	4824.00	53.04 PK	74.00	-20.96	1.17 V	150	14.74	38.30
10	4824.00	48.33 AV	54.00	-5.67	1.17 V	150	10.03	38.30

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	23deg. C, 67%RH 1021hPa	TESTED BY	Match Tsui

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	103.83 PK			1.10 H	345	71.23	32.60
2	*2437.00	99.47 AV			1.10 H	345	66.87	32.60
3	4874.00	48.50 PK	74.00	-25.50	1.00 H	7	10.00	38.50
4	4874.00	38.07 AV	54.00	-15.93	1.00 H	7	-0.43	38.50
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	112.85 PK			1.12 V	199	80.25	32.60
2	*2437.00	108.23 AV			1.12 V	199	75.63	32.60
3	#3249.00	52.19 PK	92.85	-40.66	1.00 V	167	17.49	34.70
4	#3249.00	51.86 AV	88.23	-36.37	1.00 V	167	17.16	34.70
5	4874.00	51.62 PK	74.00	-22.38	1.07 V	146	13.12	38.50
6	4874.00	43.58 AV	54.00	-10.42	1.07 V	146	5.08	38.50

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

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH 1021hPa	TESTED BY	Match Tsui

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	104.27 PK			1.32 H	17	71.59	32.68
2	*2462.00	99.94 AV			1.32 H	17	67.26	32.68
3	2483.50	55.62 PK	74.00	-18.38	1.32 H	17	22.86	32.76
4	2483.50	46.47 AV	54.00	-7.53	1.32 H	17	13.71	32.76
5	4924.00	48.34 PK	74.00	-25.66	1.00 H	300	9.70	38.64
6	4924.00	36.22 AV	54.00	-17.78	1.00 H	300	-2.42	38.64
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	112.73 PK			1.16 V	331	80.05	32.68
2	*2462.00	107.96 AV			1.16 V	331	75.28	32.68
3	2483.50	57.67 PK	74.00	-16.33	1.18 V	327	24.91	32.76
4	2483.50	47.72 AV	54.00	-6.28	1.18 V	327	14.96	32.76
5	#3282.00	52.68 PK	92.73	-40.05	1.00 V	197	17.95	34.73
6	#3282.00	48.41 AV	87.96	-39.55	1.00 V	197	13.68	34.73
7	4924.00	50.44 PK	74.00	-23.56	1.13 V	360	11.80	38.64
8	4924.00	41.55 AV	54.00	-12.45	1.13 V	360	2.91	38.64

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.

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	24deg. C, 64%RH 1021hPa	TESTED BY	Mark Liao

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	59.77 PK	74.00	-14.23	1.00 H	294	27.33	32.44
2	2390.00	46.88 AV	54.00	-7.12	1.00 H	294	14.44	32.44
3	*2412.00	102.61 PK			1.00 H	294	70.09	32.52
4	*2412.00	92.53 AV			1.00 H	294	60.01	32.52
5	#3216.00	40.38 PK	82.61	-42.23	1.00 H	250	5.71	34.67
6	#3216.00	38.59 AV	72.53	-33.94	1.00 H	250	3.92	34.67
7	4824.00	52.17 PK	74.00	-21.83	1.09 H	122	13.87	38.30
8	4824.00	39.02 AV	54.00	-14.98	1.09 H	122	0.72	38.30
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	70.72 PK	74.00	-3.28	1.29 V	321	38.28	32.44
2	2390.00	52.99 AV	54.00	-1.01	1.29 V	321	20.55	32.44
3	*2412.00	113.78 PK			1.29 V	317	81.26	32.52
4	*2412.00	103.67 AV			1.29 V	317	71.15	32.52
5	#3216.00	50.10 PK	93.78	-43.68	1.48 V	5	15.43	34.67
6	#3216.00	48.89 AV	83.67	-34.78	1.48 V	5	14.22	34.67
7	4824.00	53.64 PK	74.00	-20.36	1.45 V	334	15.34	38.30
8	4824.00	40.88 AV	54.00	-13.12	1.45 V	334	2.58	38.30

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	24deg. C, 64%RH 1021hPa	TESTED BY	Mark Liao

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	104.99 PK			1.00 H	300	72.39	32.60
2	*2437.00	94.82 AV			1.00 H	300	62.22	32.60
3	#3249.00	42.32 PK	84.99	-42.67	1.18 H	252	7.62	34.70
4	#3249.00	39.05 AV	74.82	-35.77	1.18 H	252	4.35	34.70
5	4874.00	52.46 PK	74.00	-21.54	1.06 H	98	13.96	38.50
6	4874.00	39.87 AV	54.00	-14.13	1.06 H	98	1.37	38.50
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	115.12 PK			1.38 V	45	82.52	32.60
2	*2437.00	105.09 AV			1.38 V	45	72.49	32.60
3	#3249.00	50.37 PK	95.12	-44.75	1.14 V	290	15.67	34.70
4	#3249.00	48.05 AV	85.09	-37.04	1.14 V	290	13.35	34.70
5	4874.00	57.49 PK	74.00	-16.51	1.43 V	333	18.99	38.50
6	4874.00	42.69 AV	54.00	-11.31	1.43 V	333	4.19	38.50

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

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1021hPa	TESTED BY	Mark Liao

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	101.79 PK			1.00 H	298	69.11	32.68
2	*2462.00	92.31 AV			1.00 H	298	59.63	32.68
3	2483.50	61.91 PK	74.00	-12.09	1.00 H	298	29.15	32.76
4	2483.50	46.94 AV	54.00	-7.06	1.00 H	298	14.18	32.76
5	#3282.00	40.98 PK	81.79	-40.81	1.01 H	217	6.25	34.73
6	#3282.00	37.27 AV	72.31	-35.04	1.01 H	217	2.54	34.73
7	4924.00	52.49 PK	74.00	-21.51	1.06 H	135	13.85	38.64
8	4924.00	39.67 AV	54.00	-14.33	1.06 H	135	1.03	38.64
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	113.21 PK			1.22 V	11	80.53	32.68
2	*2462.00	103.14 AV			1.22 V	11	70.46	32.68
3	2483.50	72.19 PK	74.00	-1.81	1.22 V	353	39.43	32.76
4	2483.50	52.66 AV	54.00	-1.34	1.22 V	353	19.90	32.76
5	#3282.00	51.09 PK	93.21	-42.12	1.00 V	256	16.36	34.73
6	#3282.00	48.06 AV	83.14	-35.08	1.00 V	256	13.33	34.73
7	4924.00	53.06 PK	74.00	-20.94	1.05 V	351	14.42	38.64
8	4924.00	39.79 AV	54.00	-14.21	1.05 V	351	1.15	38.64

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.

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	23deg. C, 67%RH 1021hPa	TESTED BY	Match Tsui

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	58.51 PK	74.00	-15.49	1.04 H	140	26.07	32.44
2	2390.00	46.71 AV	54.00	-7.29	1.04 H	140	14.27	32.44
3	*2412.00	102.91 PK			1.04 H	140	70.39	32.52
4	*2412.00	92.66 AV			1.04 H	140	60.14	32.52
5	#3216.00	43.17 PK	82.91	-39.74	1.04 H	208	8.50	34.67
6	#3216.00	39.00 AV	72.66	-33.66	1.04 H	208	4.33	34.67
7	4824.00	46.46 PK	74.00	-27.54	1.00 H	100	8.16	38.30
8	4824.00	33.49 AV	54.00	-20.51	1.00 H	100	-4.81	38.30
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	70.08 PK	74.00	-3.92	1.13 V	360	37.64	32.44
2	2390.00	52.68 AV	54.00	-1.32	1.13 V	360	20.24	32.44
3	*2412.00	113.59 PK			1.14 V	360	81.07	32.52
4	*2412.00	103.42 AV			1.14 V	360	70.90	32.52
5	#3216.00	50.75 PK	93.59	-42.84	1.03 V	357	16.08	34.67
6	#3216.00	48.55 AV	83.42	-34.87	1.03 V	357	13.88	34.67
7	4824.00	47.50 PK	74.00	-26.50	1.00 V	0	9.20	38.30
8	4824.00	33.93 AV	54.00	-20.07	1.00 V	0	-4.37	38.30

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	24deg. C, 64%RH 1021hPa	TESTED BY	Mark Liao

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	104.89 PK			1.00 H	302	72.29	32.60
2	*2437.00	94.13 AV			1.00 H	302	61.53	32.60
3	#3249.00	41.34 PK	84.89	-43.55	1.06 H	234	6.64	34.70
4	#3249.00	38.28 AV	74.13	-35.85	1.06 H	234	3.58	34.70
5	4874.00	52.97 PK	74.00	-21.03	1.05 H	311	14.47	38.50
6	4874.00	39.21 AV	54.00	-14.79	1.05 H	311	0.71	38.50
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	115.44 PK			1.01 V	333	82.84	32.60
2	*2437.00	105.38 AV			1.01 V	333	72.78	32.60
3	#3249.00	51.62 PK	95.44	-43.82	1.05 V	0	16.92	34.70
4	#3249.00	48.34 AV	85.38	-37.04	1.05 V	0	13.64	34.70
5	4874.00	56.83 PK	74.00	-17.17	1.43 V	333	18.33	38.50
6	4874.00	41.93 AV	54.00	-12.07	1.43 V	333	3.43	38.50

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

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1021hPa	TESTED BY	Mark Liao

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	102.30 PK			1.00 H	304	69.62	32.68
2	*2462.00	92.37 AV			1.00 H	304	59.69	32.68
3	2483.50	26.37 PK	74.00	-47.63	1.00 H	304	-6.39	32.76
4	2483.50	13.11 AV	54.00	-40.89	1.00 H	304	-19.65	32.76
5	#3282.00	40.80 PK	82.30	-41.50	1.00 H	248	6.07	34.73
6	#3282.00	38.03 AV	72.37	-34.34	1.00 H	248	3.30	34.73
7	4924.00	52.44 PK	74.00	-21.56	1.03 H	291	13.80	38.64
8	4924.00	39.63 AV	54.00	-14.37	1.03 H	291	0.99	38.64
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	113.32 PK			1.00 V	341	80.64	32.68
2	*2462.00	103.21 AV			1.00 V	341	70.53	32.68
3	2483.50	72.93 PK	74.00	-1.07	1.00 V	315	40.17	32.76
4	2483.50	52.81 AV	54.00	-1.19	1.00 V	315	20.05	32.76
5	#3282.00	51.83 PK	93.32	-41.49	1.00 V	257	17.10	34.73
6	#3282.00	48.85 AV	83.21	-34.36	1.00 V	257	14.12	34.73
7	4924.00	52.82 PK	74.00	-21.18	1.04 V	142	14.18	38.64
8	4924.00	39.73 AV	54.00	-14.27	1.04 V	142	1.09	38.64

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.

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	24deg. C, 64%RH 1021hPa	TESTED BY	Mark Liao

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	62.12 PK	74.00	-11.88	1.00 H	299	29.68	32.44
2	2390.00	46.86 AV	54.00	-7.14	1.00 H	299	14.42	32.44
3	*2422.00	97.13 PK			1.00 H	305	64.58	32.55
4	*2422.00	87.04 AV			1.00 H	305	54.49	32.55
5	#3229.00	41.38 PK	77.13	-35.75	1.00 H	257	6.69	34.69
6	#3229.00	38.41 AV	67.04	-28.63	1.00 H	257	3.72	34.69
7	4844.00	51.70 PK	74.00	-22.30	1.05 H	187	13.33	38.38
8	4844.00	38.53 AV	54.00	-15.47	1.05 H	187	0.16	38.38
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	72.46 PK	74.00	-1.54	1.03 V	4	40.02	32.44
2	2390.00	52.08 AV	54.00	-1.92	1.03 V	4	19.64	32.44
3	*2422.00	107.42 PK			1.03 V	4	74.87	32.55
4	*2422.00	97.42 AV			1.03 V	4	64.87	32.55
5	#3229.00	50.33 PK	87.42	-37.09	1.09 V	12	15.64	34.69
6	#3229.00	47.12 AV	77.42	-30.30	1.09 V	12	12.43	34.69
7	4844.00	53.08 PK	74.00	-20.92	1.03 V	305	14.71	38.38
8	4844.00	40.26 AV	54.00	-13.74	1.03 V	305	1.89	38.38

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

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	24deg. C, 64%RH 1021hPa	TESTED BY	Mark Liao

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	57.91 PK	74.00	-16.09	1.00 H	289	25.47	32.44
2	2390.00	46.31 AV	54.00	-7.69	1.00 H	289	13.87	32.44
3	*2437.00	99.72 PK			1.00 H	289	67.12	32.60
4	*2437.00	89.63 AV			1.00 H	289	57.03	32.60
5	2483.50	57.71 PK	74.00	-16.29	1.00 H	289	24.95	32.76
6	2483.50	46.82 AV	54.00	-7.18	1.00 H	289	14.06	32.76
7	#3249.00	50.18 PK	79.72	-29.54	1.00 H	106	15.48	34.70
8	#3249.00	37.70 AV	69.63	-31.93	1.00 H	106	3.00	34.70
9	4874.00	51.95 PK	74.00	-22.05	1.05 H	245	13.45	38.50
10	4874.00	38.96 AV	54.00	-15.04	1.05 H	245	0.46	38.50
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	70.82 PK	74.00	-3.18	1.00 V	327	38.38	32.44
2	2390.00	52.32 AV	54.00	-1.68	1.00 V	327	19.88	32.44
3	*2437.00	110.76 PK			1.00 V	327	78.16	32.60
4	*2437.00	100.65 AV			1.00 V	327	68.05	32.60
5	2483.50	68.41 PK	74.00	-5.59	1.00 V	327	35.65	32.76
6	2483.50	51.55 AV	54.00	-2.45	1.00 V	327	18.79	32.76
7	#3249.00	54.24 PK	90.76	-36.52	1.42 V	352	19.54	34.70
8	#3249.00	48.19 AV	80.65	-32.46	1.42 V	352	13.49	34.70
9	4874.00	52.39 PK	74.00	-21.61	1.06 V	193	13.89	38.50
10	4874.00	39.64 AV	54.00	-14.36	1.06 V	193	1.14	38.50

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 7	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1021hPa	TESTED BY	Mark Liao

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	97.58 PK			1.01 H	288	64.93	32.65
2	*2452.00	87.42 AV			1.01 H	288	54.77	32.65
3	2483.50	61.10 PK	74.00	-12.90	1.01 H	288	28.34	32.76
4	2483.50	47.12 AV	54.00	-6.88	1.01 H	288	14.36	32.76
5	#3269.00	40.35 PK	77.58	-37.23	1.07 H	266	5.63	34.72
6	#3269.00	36.73 AV	67.42	-30.69	1.07 H	266	2.00	34.72
7	4904.00	52.36 PK	74.00	-21.64	1.02 H	279	13.75	38.61
8	4904.00	39.25 AV	54.00	-14.75	1.02 H	279	0.64	38.61
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	107.66 PK			1.00 V	324	75.01	32.65
2	*2452.00	97.48 AV			1.00 V	324	64.83	32.65
3	2483.50	72.87 PK	74.00	-1.13	1.00 V	324	40.11	32.76
4	2483.50	52.83 AV	54.00	-1.17	1.00 V	324	20.07	32.76
5	#3269.00	51.76 PK	87.66	-35.90	1.11 V	322	17.03	34.72
6	#3269.00	47.02 AV	77.48	-30.46	1.11 V	322	12.30	34.72
7	4904.00	52.96 PK	74.00	-21.04	1.05 V	193	14.35	38.61
8	4904.00	39.64 AV	54.00	-14.36	1.05 V	193	1.03	38.61

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.

BELOW 1GHz WORST-CASE DATA：802.11g 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	23deg. C, 67%RH 1021hPa	TESTED BY	Match Tsui
TEST MODE	A		

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	127.11	37.13 QP	43.50	-6.37	2.00 H	178	24.77	12.36
2	177.67	39.71 QP	43.50	-3.79	2.00 H	226	26.75	12.97
3	249.60	44.60 QP	46.00	-1.40	1.00 H	211	30.20	14.40
4	374.04	40.53 QP	46.00	-5.47	1.00 H	43	22.74	17.79
5	500.42	43.85 QP	46.00	-2.15	2.00 H	346	22.38	21.48
6	624.85	41.04 QP	46.00	-4.96	1.50 H	61	16.68	24.36
7	681.24	42.81 QP	46.00	-3.19	1.25 H	307	16.85	25.96
8	751.23	44.80 QP	46.00	-1.20	1.00 H	220	17.75	27.06
9	900.94	41.03 QP	46.00	-4.97	1.50 H	10	11.12	29.91
10	933.99	43.25 QP	46.00	-2.75	1.50 H	268	12.98	30.27
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	55.18	32.64 QP	40.00	-7.36	1.00 V	346	19.30	13.34
2	62.95	31.28 QP	40.00	-8.72	1.00 V	343	17.94	13.34
3	121.28	35.11 QP	43.50	-8.39	1.25 V	10	23.23	11.88
4	177.67	37.45 QP	43.50	-6.05	1.00 V	301	24.48	12.97
5	199.05	37.73 QP	43.50	-5.77	1.00 V	166	26.65	11.08
6	249.60	42.56 QP	46.00	-3.44	2.00 V	85	28.16	14.40
7	374.04	38.23 QP	46.00	-7.77	1.25 V	136	20.44	17.79
8	500.42	43.84 QP	46.00	-2.16	1.00 V	232	22.37	21.48
9	624.85	39.79 QP	46.00	-6.21	1.50 V	94	15.43	24.36
10	681.24	39.37 QP	46.00	-6.63	1.00 V	316	13.41	25.96
11	751.23	42.76 QP	46.00	-3.24	1.25 V	127	15.70	27.06
12	875.67	42.83 QP	46.00	-3.17	1.00 V	187	13.50	29.33

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	24eg. C, 64%RH 1021hPa	TESTED BY	Match Tsui
TEST MODE	B		

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	160.17	38.11 QP	43.50	-5.39	1.50 H	157	23.28	14.83
2	183.50	39.88 QP	43.50	-3.62	1.25 H	163	27.95	11.93
3	249.60	44.98 QP	46.00	-1.02	1.25 H	211	30.58	14.40
4	263.21	39.11 QP	46.00	-6.89	1.00 H	253	24.69	14.42
5	374.04	44.54 QP	46.00	-1.46	1.00 H	64	26.75	17.79
6	407.09	40.17 QP	46.00	-5.83	1.00 H	208	21.06	19.11
7	500.42	41.93 QP	46.00	-4.07	1.50 H	160	20.45	21.48
8	599.58	39.54 QP	46.00	-6.46	1.25 H	97	15.89	23.65
9	624.85	40.29 QP	46.00	-5.71	1.25 H	211	15.93	24.36
10	**751.23**	**45.00 QP**	**46.00**	**-1.00**	**1.00 H**	**109**	**17.94**	**27.06**
11	780.40	39.91 QP	46.00	-6.09	1.00 H	97	12.57	27.35
12	811.50	41.58 QP	46.00	-4.42	1.00 H	334	13.76	27.82
13	840.67	40.51 QP	46.00	-5.49	1.50 H	205	12.00	28.51

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	39.62	33.54 QP	40.00	-6.46	1.25 V	346	18.24	15.30
2	64.90	32.05 QP	40.00	-7.95	1.00 V	151	18.63	13.42
3	160.17	39.15 QP	43.50	-4.35	1.00 V	289	24.32	14.83
4	199.05	36.87 QP	43.50	-6.63	1.00 V	157	25.78	11.08
5	249.60	43.51 QP	46.00	-2.49	2.00 V	292	29.11	14.40
6	374.04	39.40 QP	46.00	-6.60	1.50 V	268	21.61	17.79
7	500.42	44.76 QP	46.00	-1.24	1.00 V	148	23.29	21.48
8	681.24	38.28 QP	46.00	-7.72	2.00 V	61	12.32	25.96
9	751.23	44.85 QP	46.00	-1.15	1.25 V	82	17.79	27.06
10	875.67	40.10 QP	46.00	-5.90	1.00 V	184	10.77	29.33

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	100288	Sep. 22, 2008	Sep. 21, 2009
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Jan. 04, 2008	Jan. 03, 2009
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Jan. 10, 2008	Jan. 09, 2009
LISN SCHWARZBECK	ESH3-Z5	100311	Jul. 30, 2008	Jul. 29, 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 2.

3. The VCCI Site Registration No. is C-2047.

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.

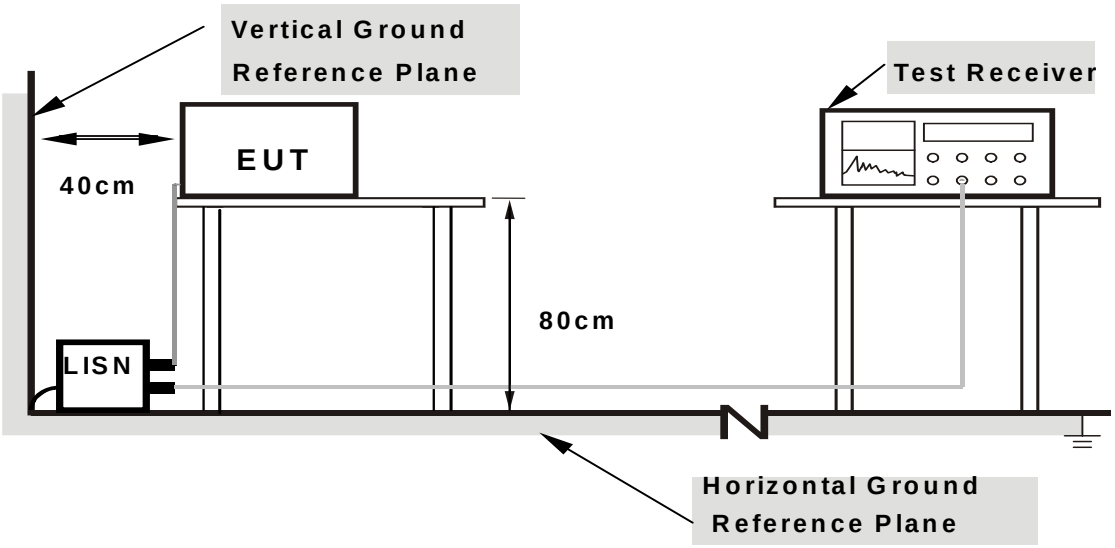
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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.

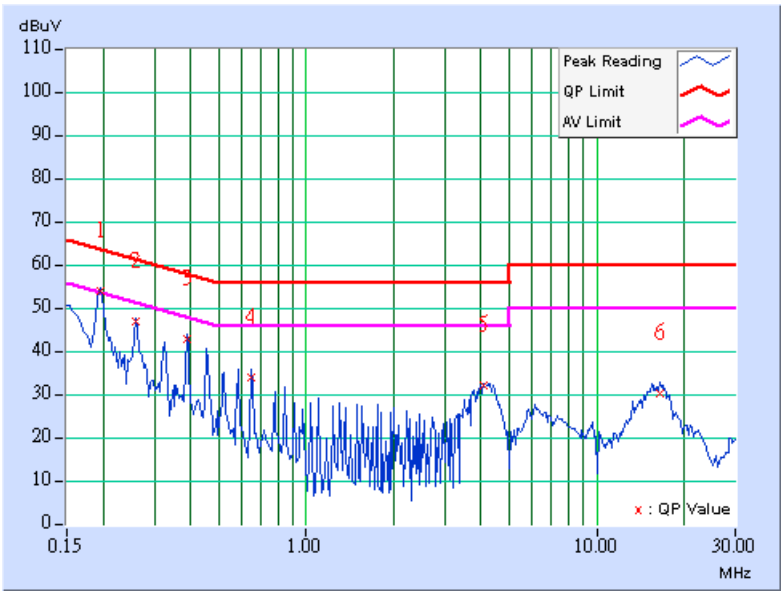
4.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA：802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	6.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH, 1021hPa	TESTED BY	Mark Liao
TEST MODE	A		

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.197	0.13	53.04	-	53.17	-	63.74	53.74	-10.57	-
2	0.259	0.13	46.10	-	46.23	-	61.45	51.45	-15.22	-
3	0.388	0.14	42.03	-	42.17	-	58.10	48.10	-15.93	-
4	0.650	0.15	33.10	-	33.25	-	56.00	46.00	-22.75	-
5	4.094	0.44	31.13	-	31.57	-	56.00	46.00	-24.43	-
6	16.578	1.01	29.38	-	30.39	-	60.00	50.00	-29.61	-

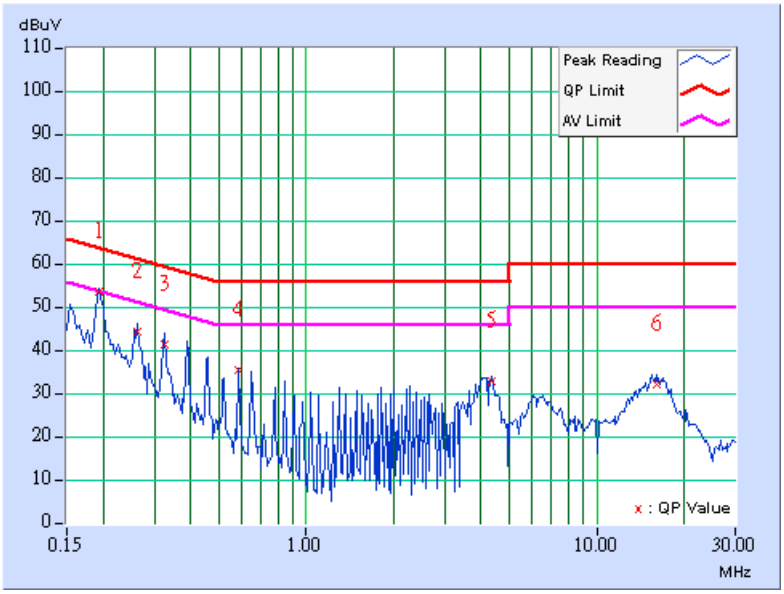
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission 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	120Vac, 60Hz
TRANSFER RATE	6.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH, 1021hPa	TESTED BY	Mark Liao
TEST MODE	A		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.193	0.14	52.98	-	53.12	-	63.91	53.91	-10.79	-
2	0.263	0.14	43.64	-	43.78	-	61.33	51.33	-17.54	-
3	0.326	0.15	40.78	-	40.93	-	59.56	49.56	-18.63	-
4	0.584	0.16	34.64	-	34.80	-	56.00	46.00	-21.20	-
5	4.355	0.44	32.35	-	32.79	-	56.00	46.00	-23.21	-
6	16.059	0.77	31.42	-	32.19	-	60.00	50.00	-27.81	-

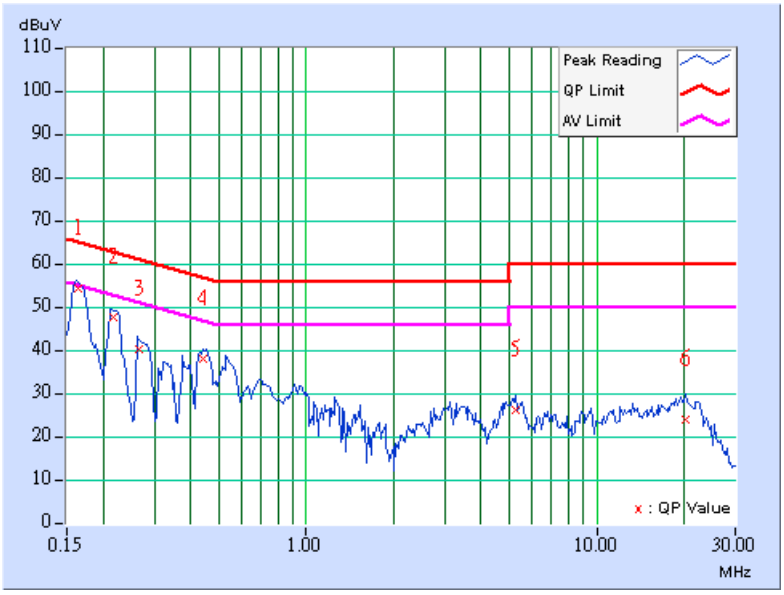
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission 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	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	6.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH, 1021hPa	TESTED BY	Mark Liao
TEST MODE	B		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.164	0.13	53.28	-	53.41	-	65.25	55.25	-11.84	-
2	0.216	0.13	46.35	-	46.48	-	62.96	52.96	-16.48	-
3	0.267	0.13	39.15	-	39.28	-	61.20	51.20	-21.92	-
4	0.443	0.14	36.79	-	36.93	-	57.01	47.01	-20.07	-
5	5.250	0.48	25.00	-	25.48	-	60.00	50.00	-34.52	-
6	20.211	1.32	22.73	-	24.05	-	60.00	50.00	-35.95	-

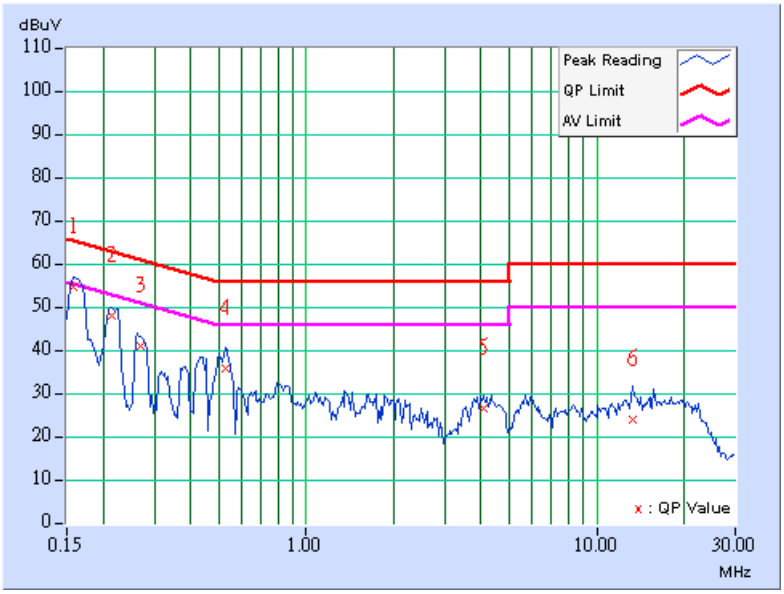
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission 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	120Vac, 60Hz
TRANSFER RATE	6.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH, 1021hPa	TESTED BY	Match Tsui
TEST MODE	B		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.158	0.14	54.16	-	54.30	-	65.58	55.58	-11.28	-
2	0.214	0.14	47.41	-	47.55	-	63.05	53.05	-15.50	-
3	0.268	0.14	40.30	-	40.44	-	61.19	51.19	-20.74	-
4	0.525	0.16	35.36	-	35.52	-	56.00	46.00	-20.48	-
5	4.090	0.43	26.16	-	26.59	-	56.00	46.00	-29.41	-
6	13.309	0.67	23.59	-	24.26	-	60.00	50.00	-35.74	-

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



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	CALIBRATED UNTIL
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.

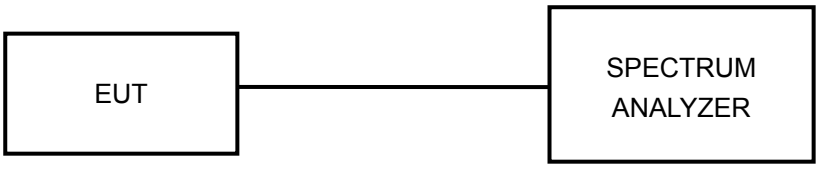
4.3.3 TEST PROCEDURE

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.

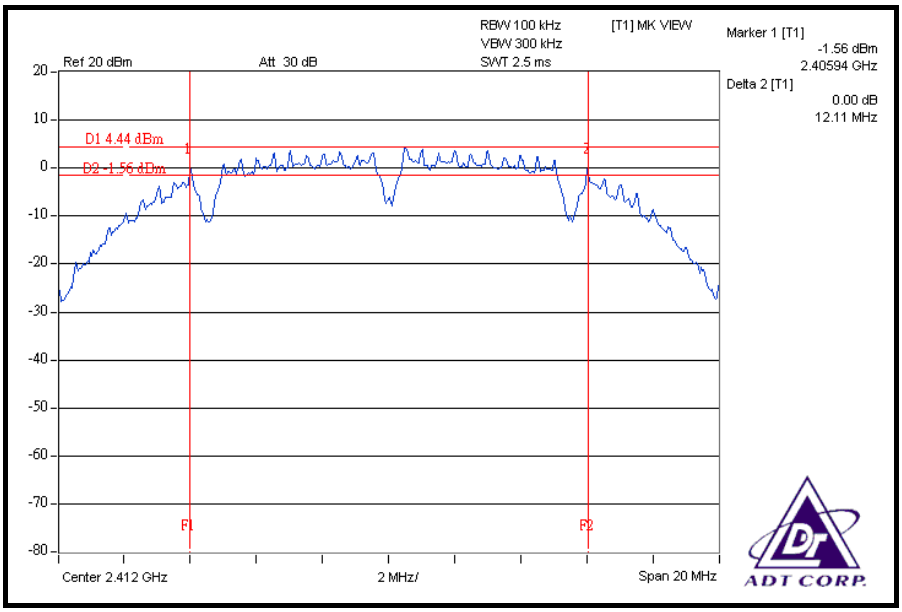
4.3.7 TEST RESULTS

802.11b DSSS MODULATION

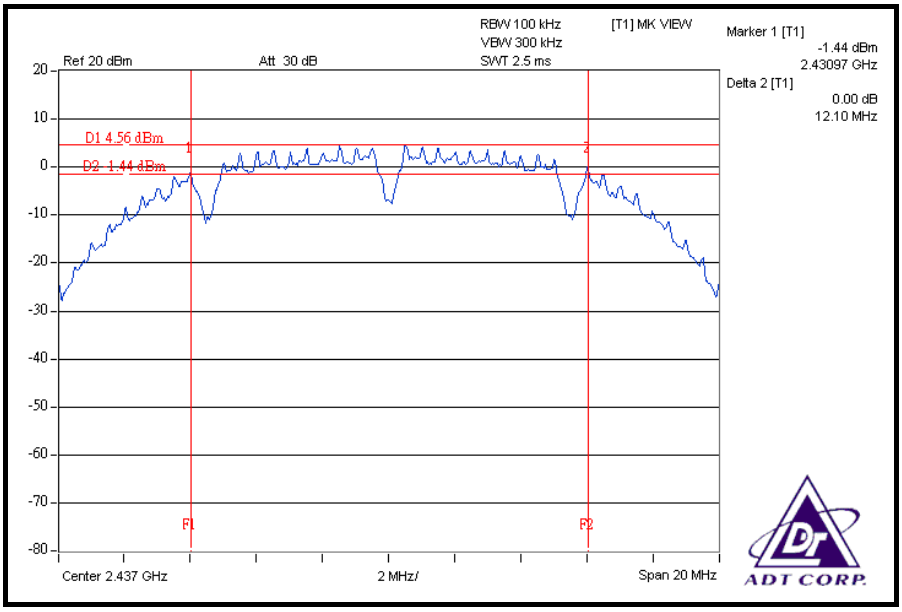
MODULATION TYPE	DBPSK	TRANSFER RATE	1.0Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	12.11	12.59	0.5	PASS
6	2437	12.10	12.07	0.5	PASS
11	2462	12.11	12.10	0.5	PASS

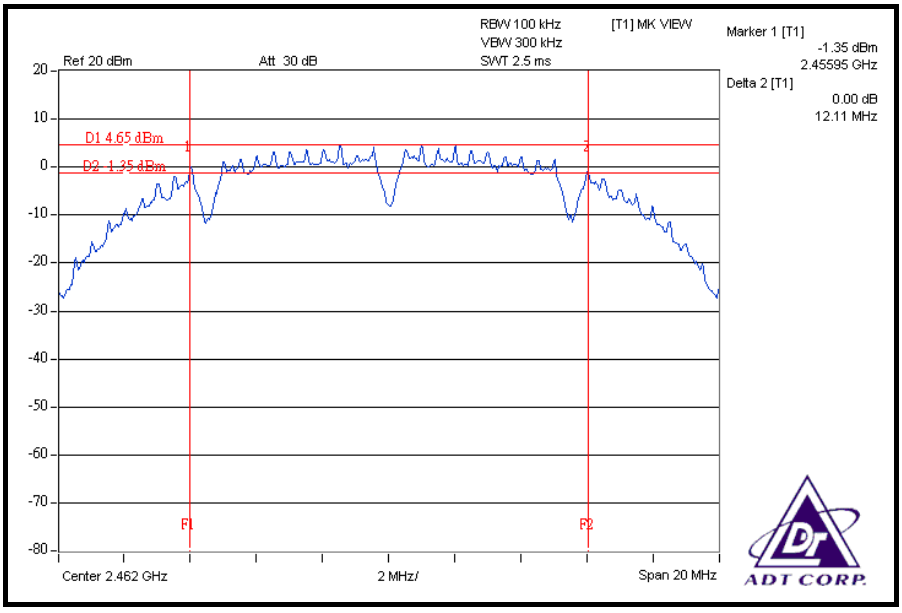
FOR CHAIN 0: CH 1



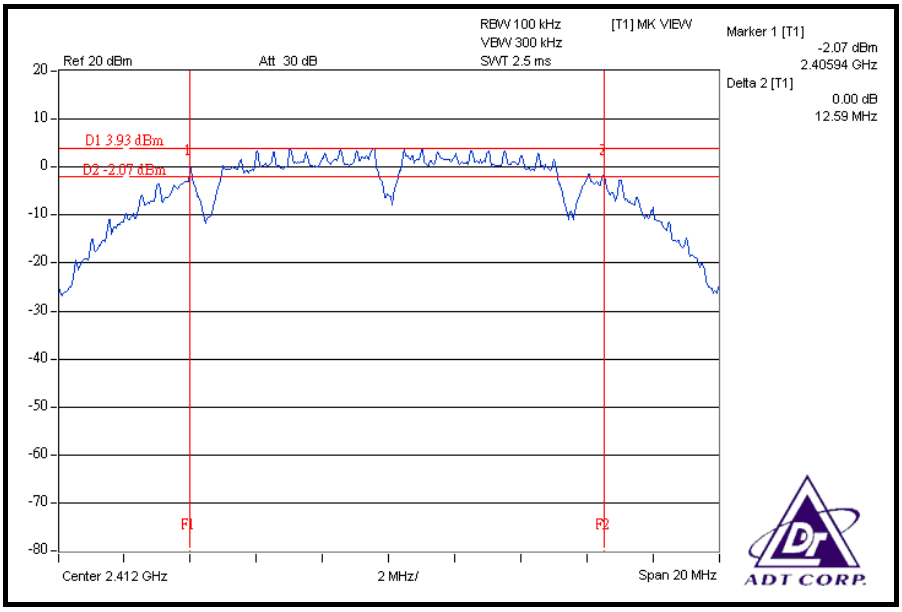
CH 6


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-1.44 dBm
2.43097 GHz
Delta 2 [T1]
0.00 dB
12.10 MHz
Ref 20 dBm
Att 30 dB
D1 4.56 dBm
D2 -1.44 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.

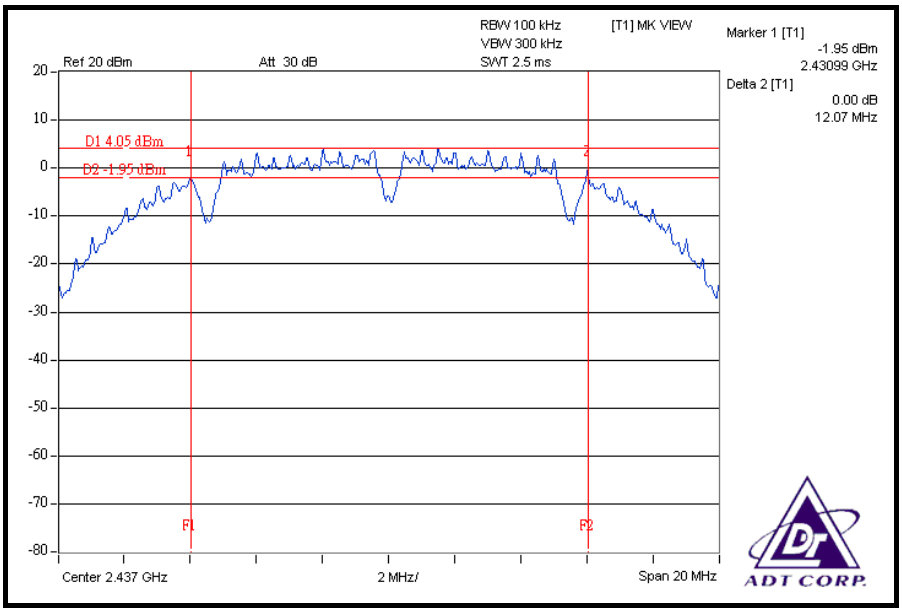
CH 11


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-1.35 dBm
2.45595 GHz
Delta 2 [T1]
0.00 dB
12.11 MHz
Ref 20 dBm
Att 30 dB
D1 4.65 dBm
D2 -1.35 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.

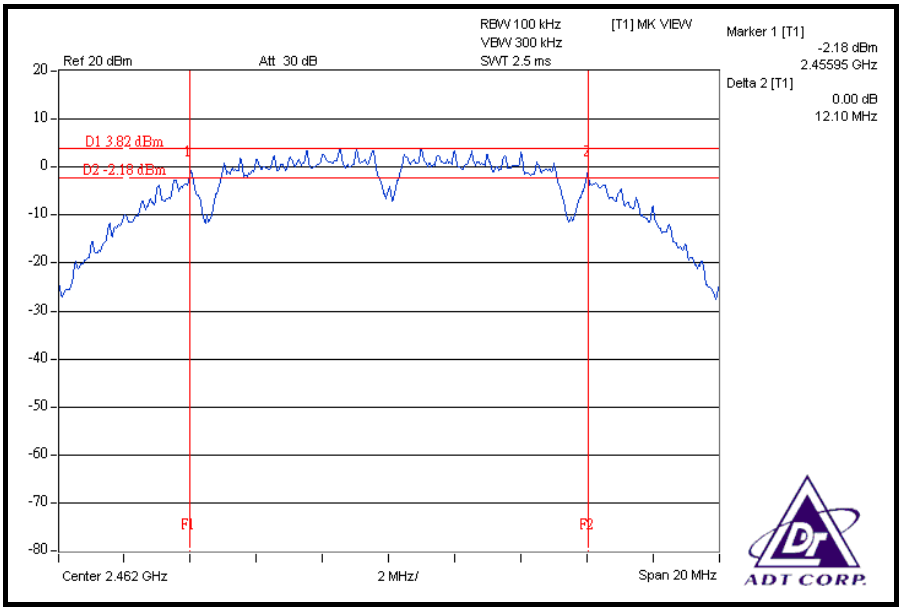
FOR CHAIN 1: CH 1



CH 6



CH 11

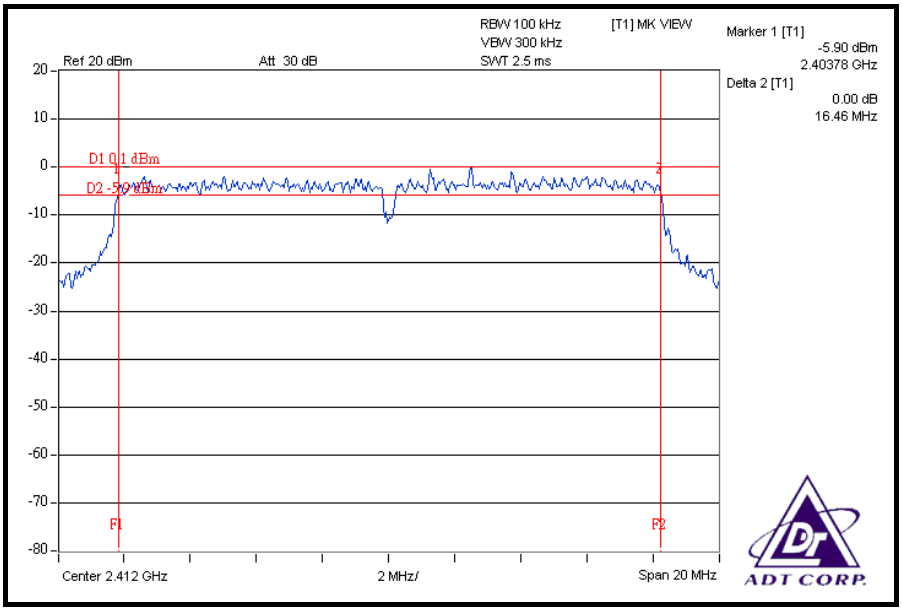

RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-2.18 dBm
2.45595 GHz
Delta 2 [T1]
0.00 dB
12.10 MHz
Ref 20 dBm
Att 30 dB
D1 3.82 dBm
D2 -2.18 dBm
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
ADT CORP.

802.11g OFDM MODULATION

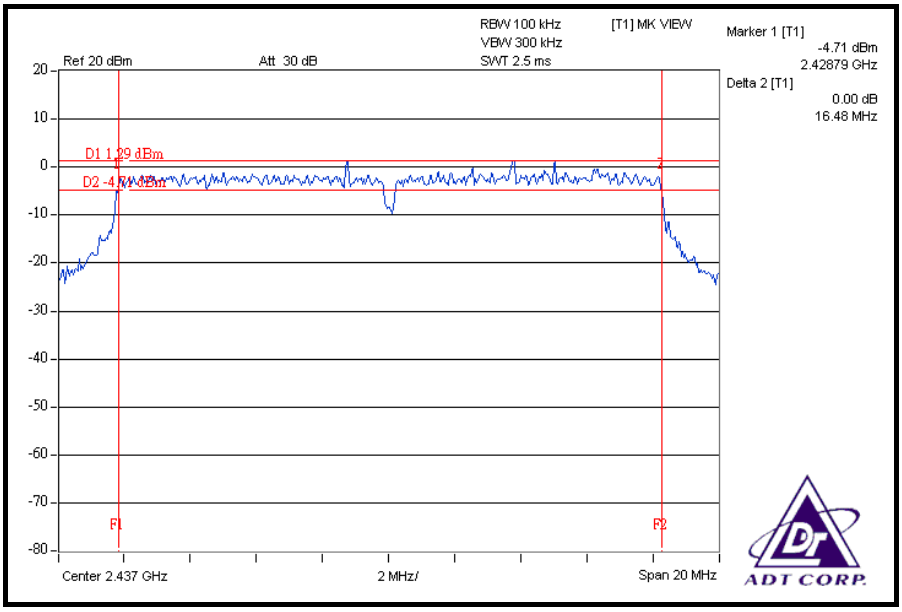
MODULATION TYPE	BPSK	**TRANSFER RATE**	6.0Mbps
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	16.46	16.48	0.5	PASS
6	2437	16.48	16.46	0.5	PASS
11	2462	16.48	16.46	0.5	PASS

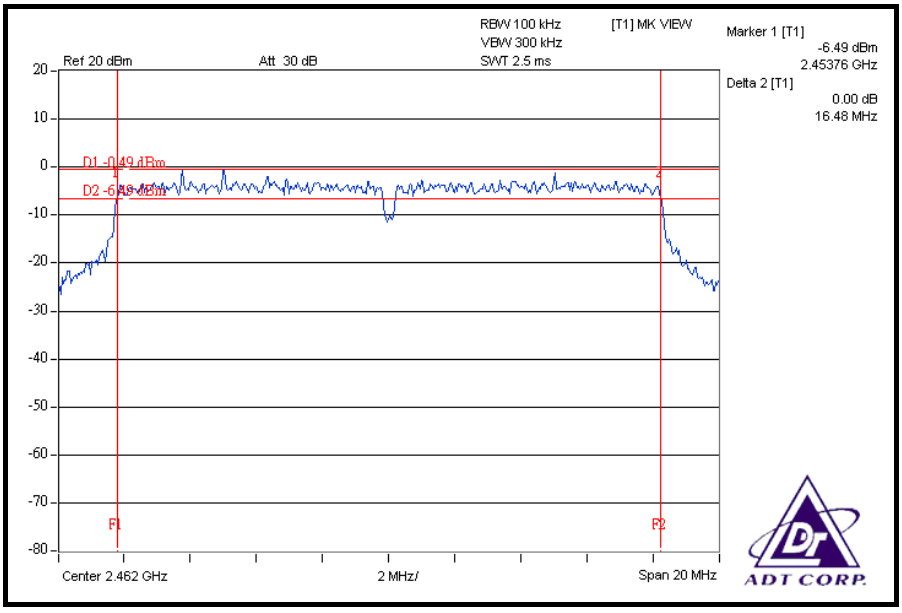
FOR CHAIN 0: CH 1



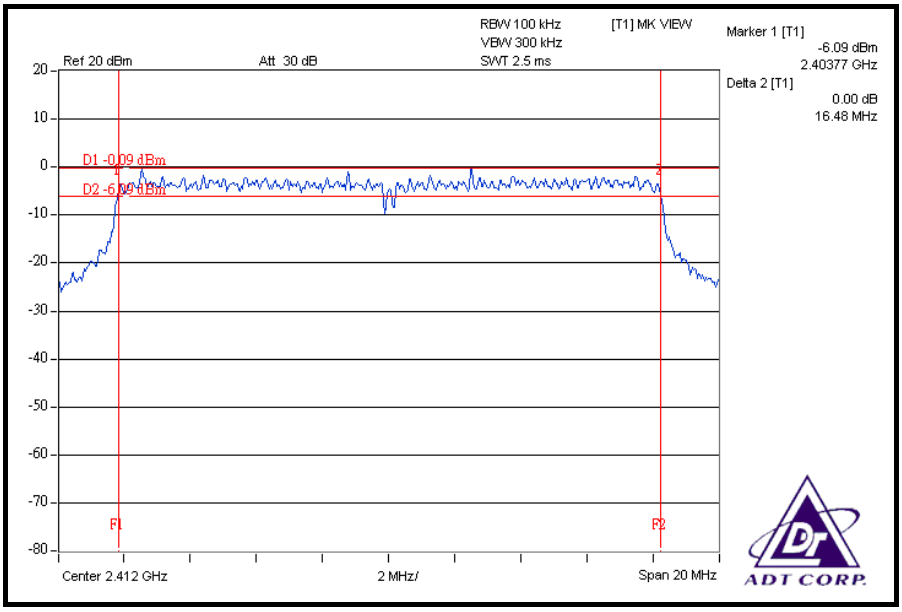
CH 6


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-4.71 dBm
2.42879 GHz
Delta 2 [T1]
0.00 dB
16.48 MHz
Ref 20 dBm
Att 30 dB
D1 1.29 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.

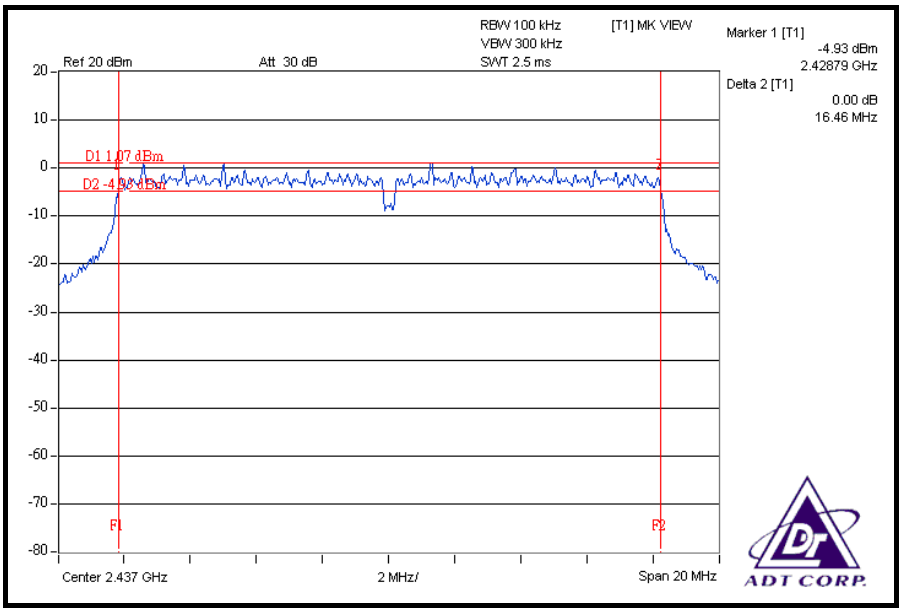
CH 11


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-6.49 dBm
2.45376 GHz
Delta 2 [T1]
0.00 dB
16.48 MHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
ADT CORP.

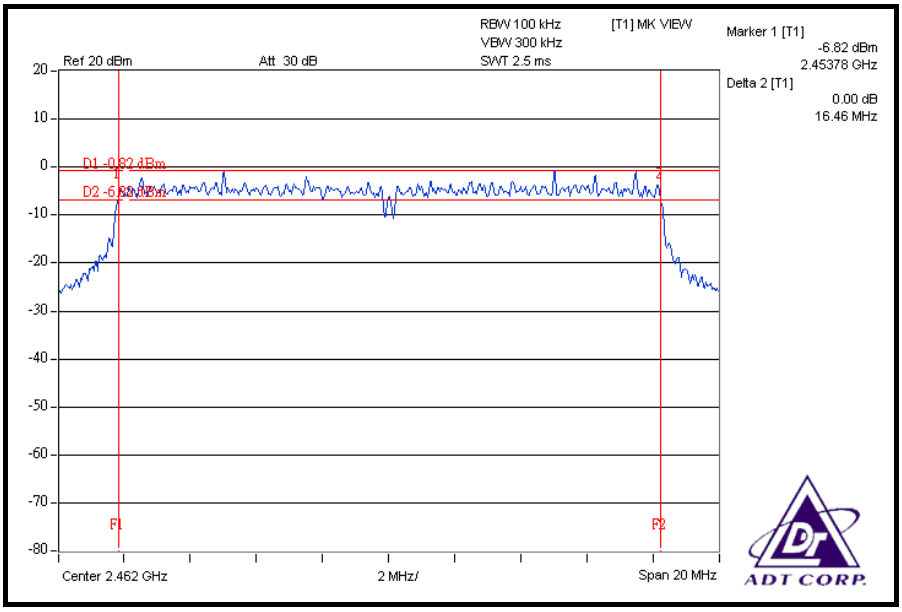
FOR CHAIN 1: CH 1



CH 6



CH 11

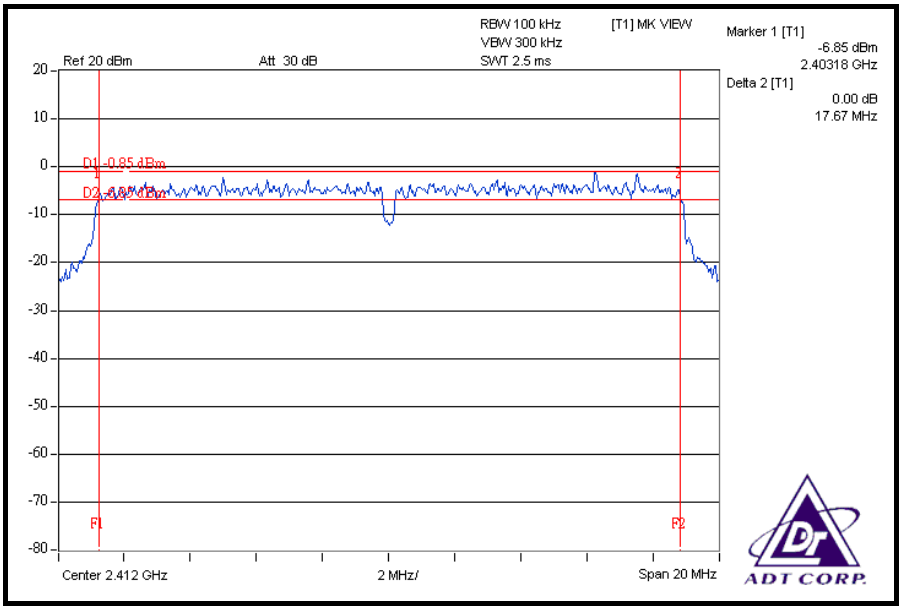

RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-6.82 dBm
2.45378 GHz
Delta 2 [T1]
0.00 dB
16.46 MHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
D1 -0.82 dBm
D2 -6.82 dBm
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
ADT CORP.

DRAFT 802.11n (20MHz) OFDM MODULATION

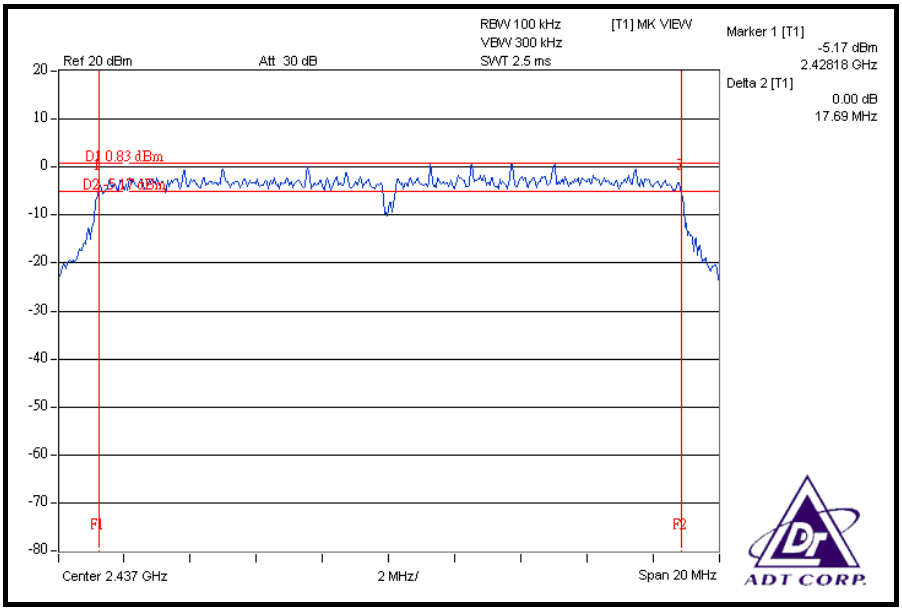
MODULATION TYPE	BPSK	**TRANSFER RATE**	7.2Mbps
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	17.67	17.67	0.5	PASS
6	2437	17.69	17.67	0.5	PASS
11	2462	17.68	17.67	0.5	PASS

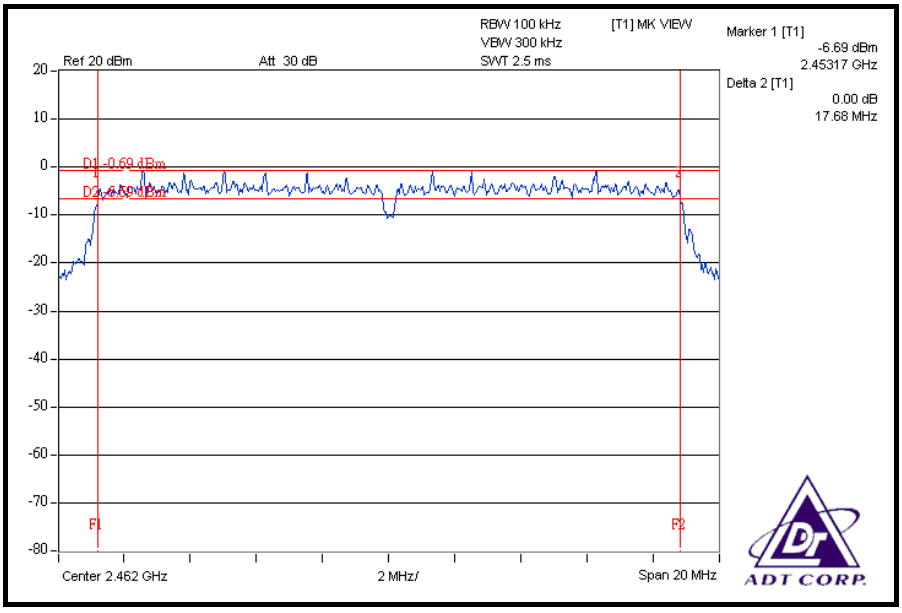
FOR CHAIN 0: CH 1



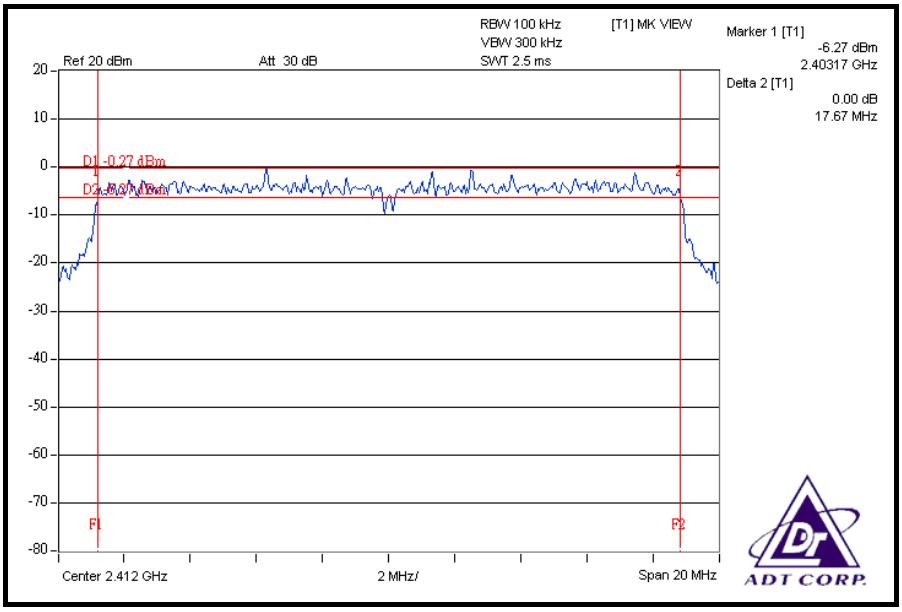
CH 6


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-5.17 dBm
2.42818 GHz
Delta 2 [T1]
0.00 dB
17.69 MHz
Ref 20 dBm
Att 30 dB
D1 0.83 dBm
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz
ADT CORP.

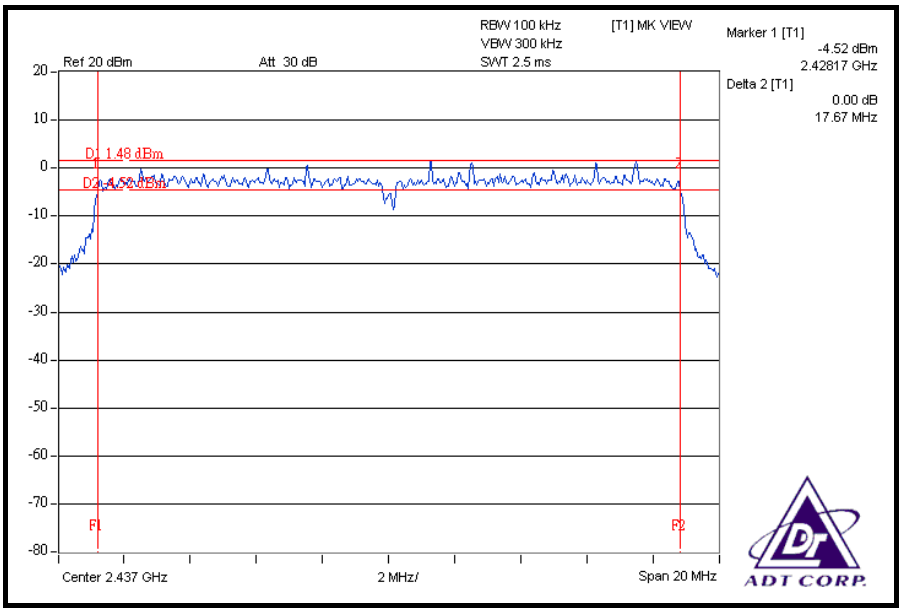
CH 11


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-6.69 dBm
2.45317 GHz
Delta 2 [T1]
0.00 dB
17.68 MHz
Ref 20 dBm
Att 30 dB
D1 -0.69 dBm
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
ADT CORP.

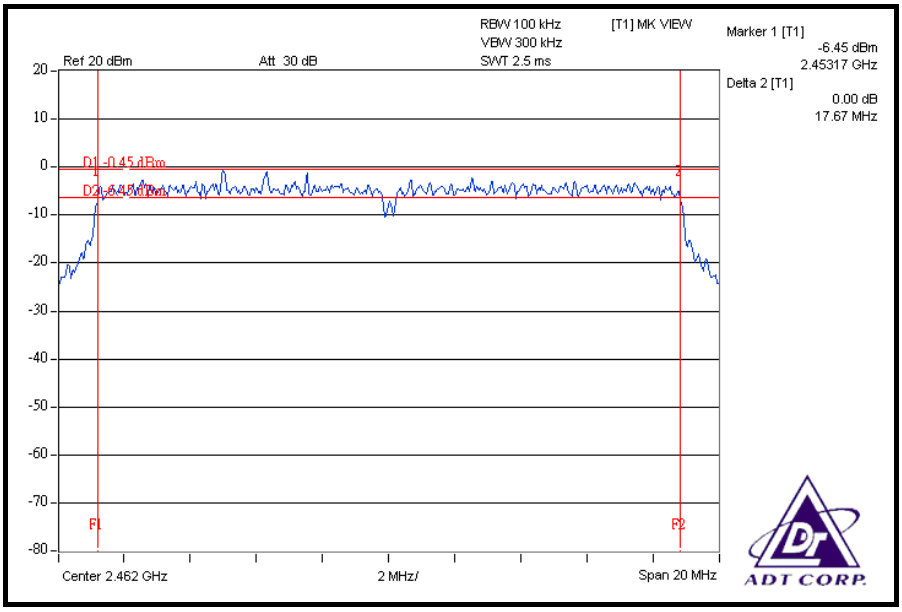
FOR CHAIN 1: CH 1



CH 6



CH 11

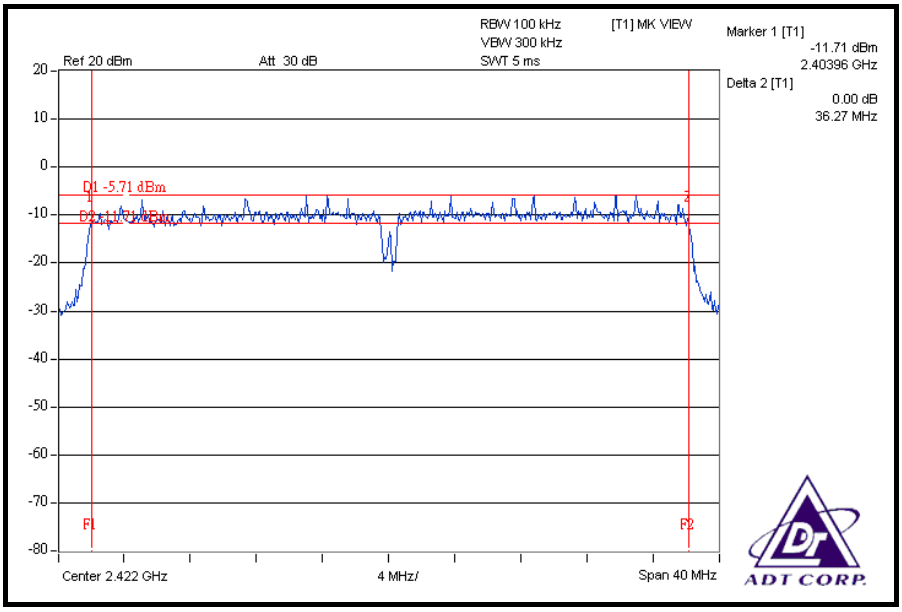

RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
[T1] MK VIEW
Marker 1 [T1]
-6.45 dBm
2.45317 GHz
Delta 2 [T1]
0.00 dB
17.67 MHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
D1 -6.45 dBm
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
ADT CORP.

DRAFT 802.11n (40MHz) OFDM MODULATION

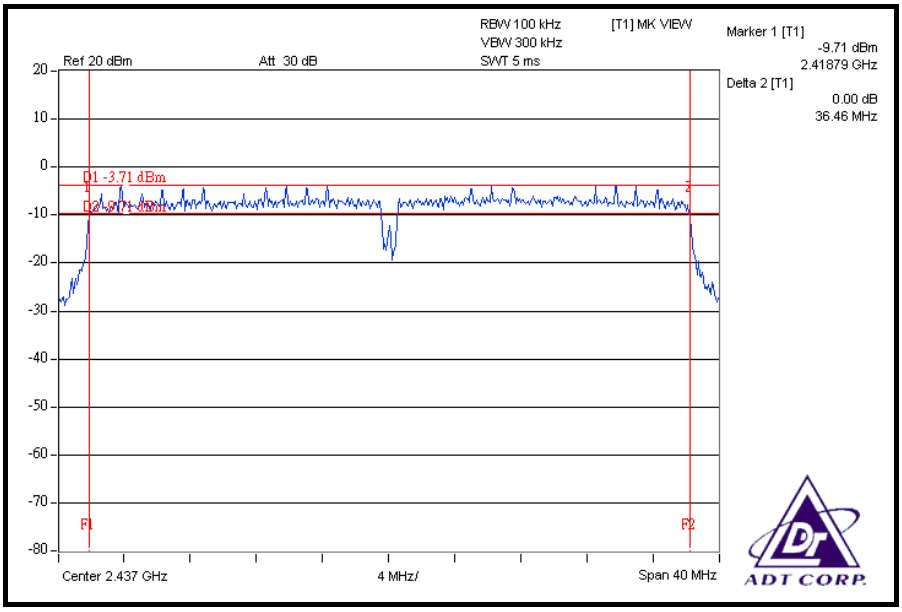
MODULATION TYPE	BPSK	**TRANSFER RATE**	15.0Mbps
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2422	36.27	36.43	0.5	PASS
4	2437	36.46	36.45	0.5	PASS
7	2452	36.46	36.47	0.5	PASS

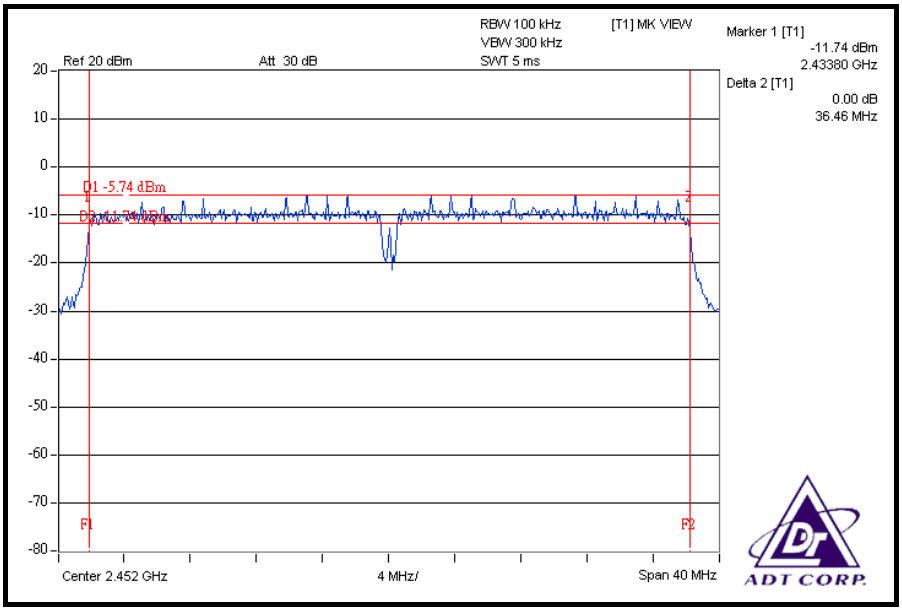
FOR CHAIN 0: CH 1



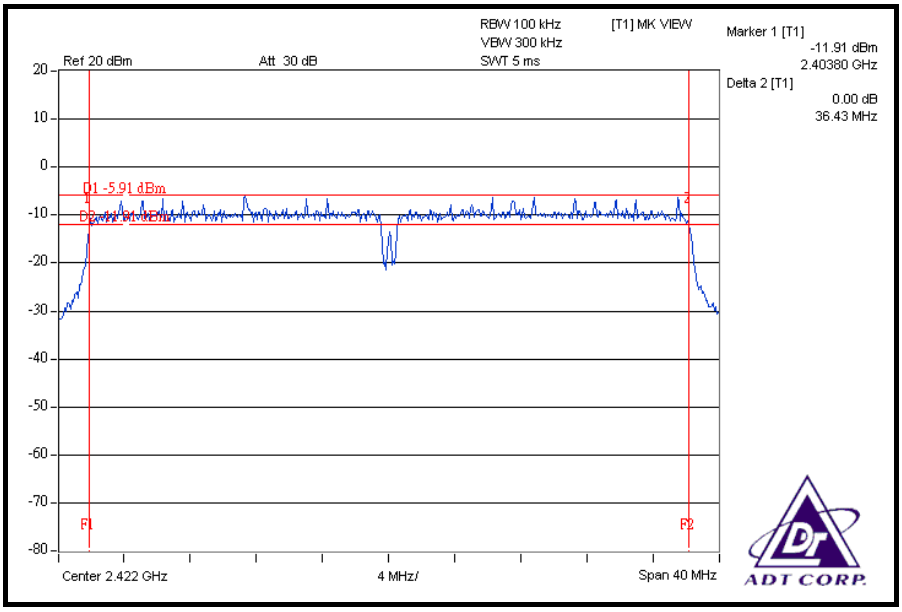
CH 4


RBW 100 kHz
VBW 300 kHz
SWT 5 ms
[T1] MK VIEW
Marker 1 [T1]
-9.71 dBm
2.41879 GHz
Delta 2 [T1]
0.00 dB
36.46 MHz
Ref 20 dBm
Att 30 dB
D1 -3.71 dBm
Center 2.437 GHz
4 MHz/
Span 40 MHz

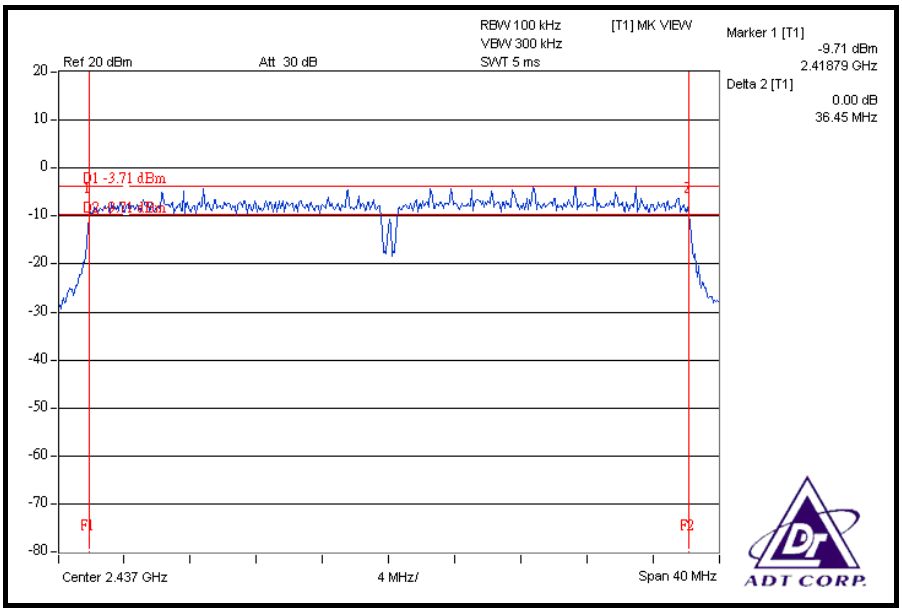
CH 7


RBW 100 kHz
VBW 300 kHz
SWT 5 ms
[T1] MK VIEW
Marker 1 [T1]
-11.74 dBm
2.43380 GHz
Delta 2 [T1]
0.00 dB
36.46 MHz
Ref 20 dBm
Att 30 dB
D1 -5.74 dBm
Center 2.452 GHz
4 MHz/
Span 40 MHz

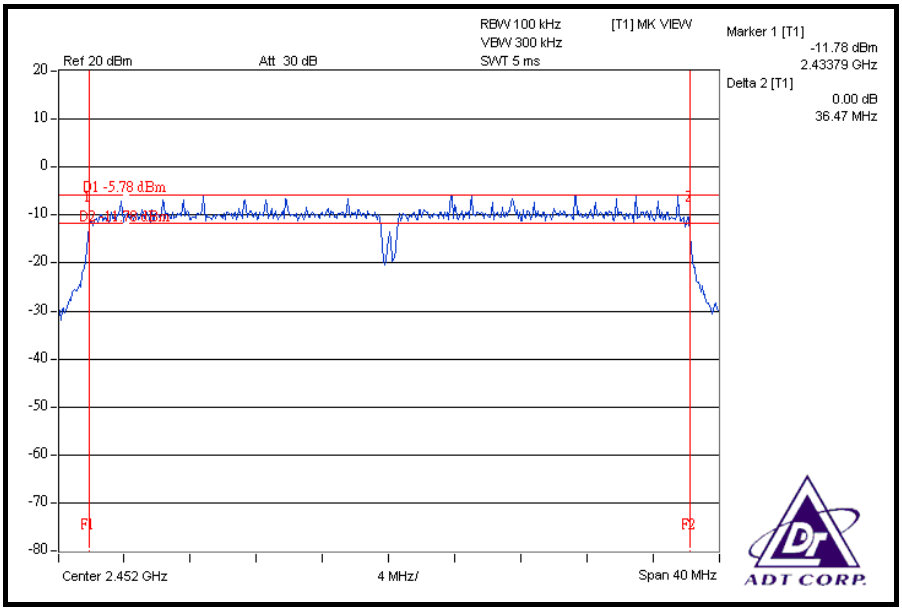
FOR CHAIN 1: CH 1



CH 4



CH 7


RBW 100 kHz
VBW 300 kHz
SWT 5 ms
[T1] MK VIEW
Marker 1 [T1]
-11.78 dBm
2.43379 GHz
Delta 2 [T1]
0.00 dB
36.47 MHz
Ref 20 dBm
Att 30 dB
D1 -5.78 dBm
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
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.	DATE OF CALIBRATION	CALIBRATED UNTIL
High Speed Peak Power Meter	ML2495A	0824012	Aug. 04, 2008	Aug. 03, 2009
Power Sensor	MA2444B	0738138	Aug. 04, 2008	Aug. 03, 2009

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. Measurement Bandwidth of ML2495A is 65MHz greater than 6dB bandwidth of emission.

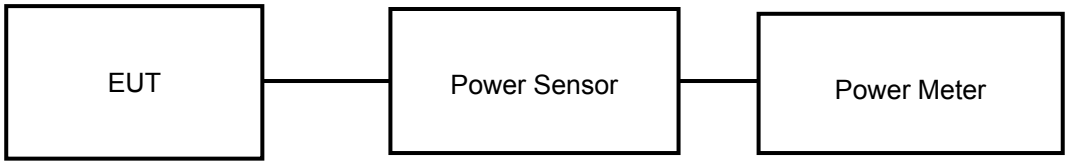
4.4.3 TEST PROCEDURES

A power sensor was used on the output port of the EUT. A power meter was used to read the response of the power sensor. 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	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

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	18.59	18.57	144.222	21.59	30	PASS
6	2437	18.60	18.56	144.223	21.59	30	PASS
11	2462	18.55	18.54	143.064	21.56	30	PASS

802.11g OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	6.0Mbps
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

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	22.61	22.59	363.941	25.61	30	PASS
6	2437	23.58	23.57	455.544	26.59	30	PASS
11	2462	22.04	22.05	320.280	25.06	30	PASS

DRAFT 802.11n (20MHz) OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	7.2Mbps
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

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	22.06	22.08	322.130	25.08	30	PASS
6	2437	23.54	23.59	454.503	26.58	30	PASS
11	2462	22.12	22.14	326.611	25.14	30	PASS

DRAFT 802.11n (40MHz) OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	15.0Mbps
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

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	21.57	21.52	285.455	24.56	30	PASS
4	2437	23.52	23.58	452.940	26.56	30	PASS
7	2452	21.54	21.56	285.780	24.56	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	CALIBRATED UNTIL
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

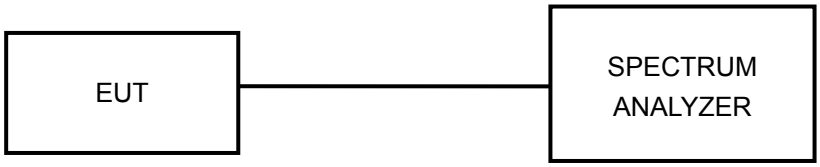
The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

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

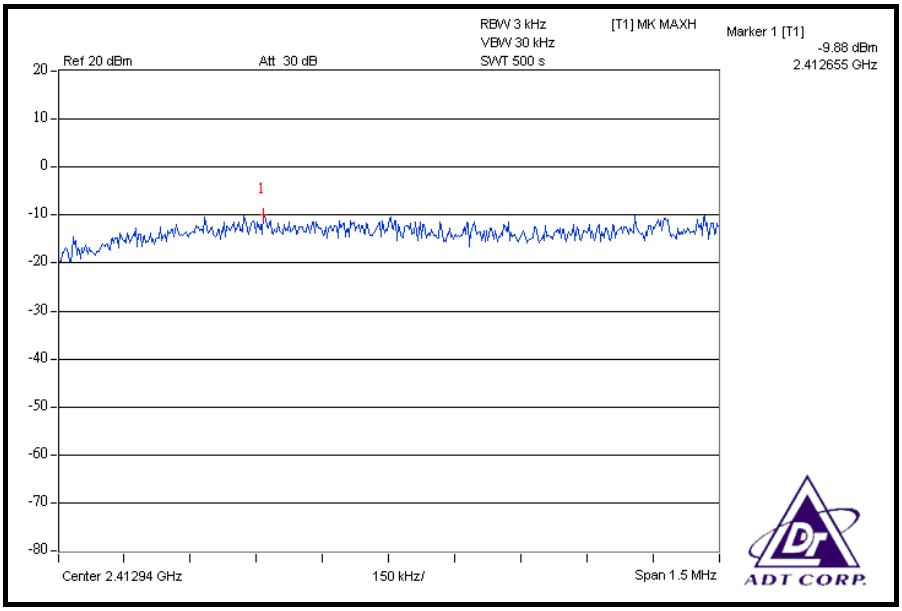
4.5.7 TEST RESULTS

802.11b DSSS MODULATION

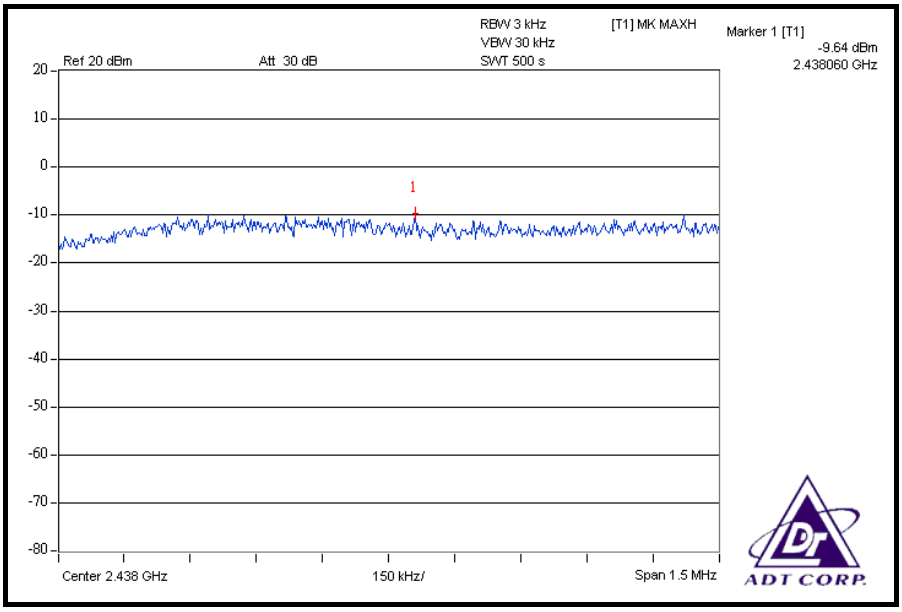
MODULATION TYPE	DBPSK	TRANSFER RATE	1.0Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

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	-9.88	-9.38	0.218	-6.61	8	PASS
6	2437	-9.64	-9.44	0.222	-6.53	8	PASS
11	2462	-9.99	-9.54	0.211	-6.75	8	PASS

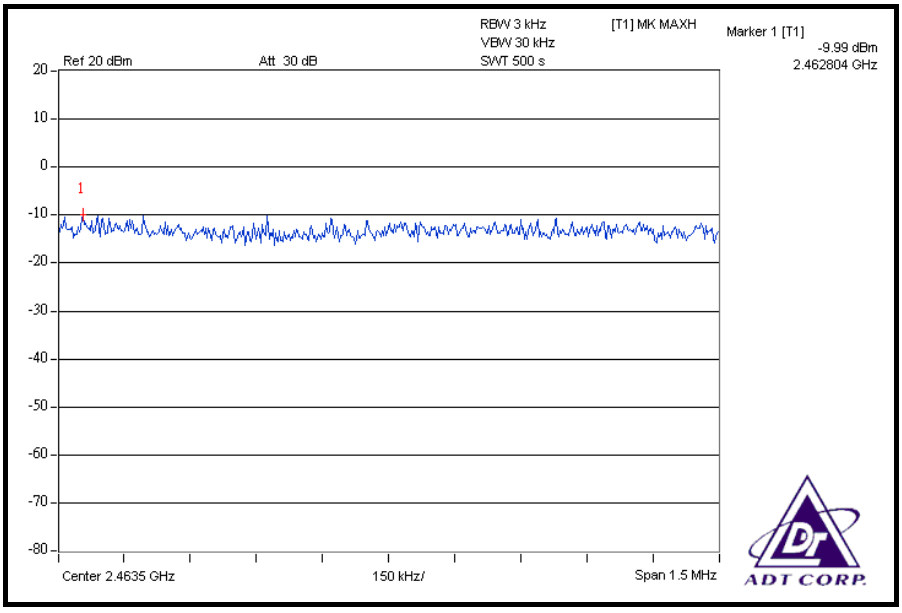
FOR CHAIN 0: CH 1



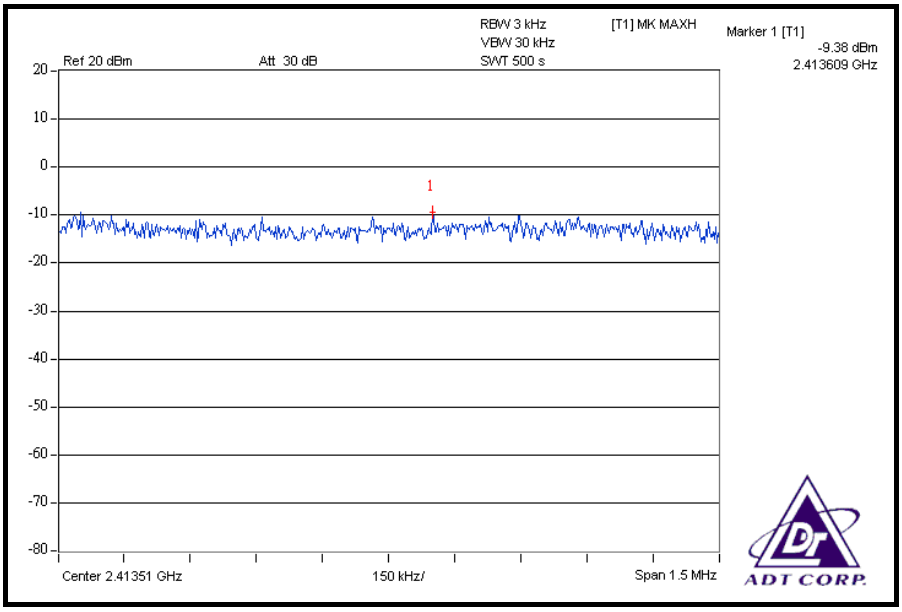
CH 6


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-9.64 dBm
2.438060 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.438 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

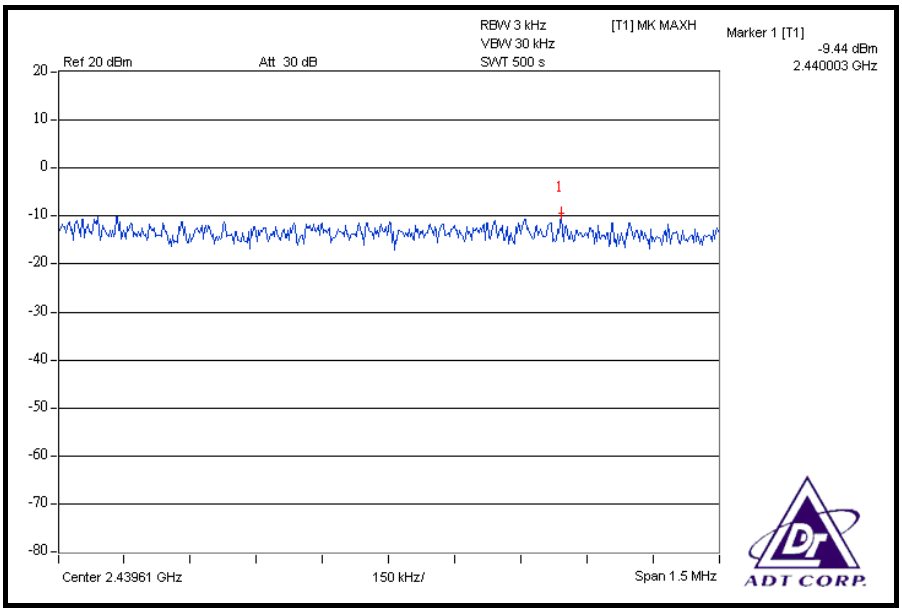
CH 11


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-9.99 dBm
2.462804 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.4635 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

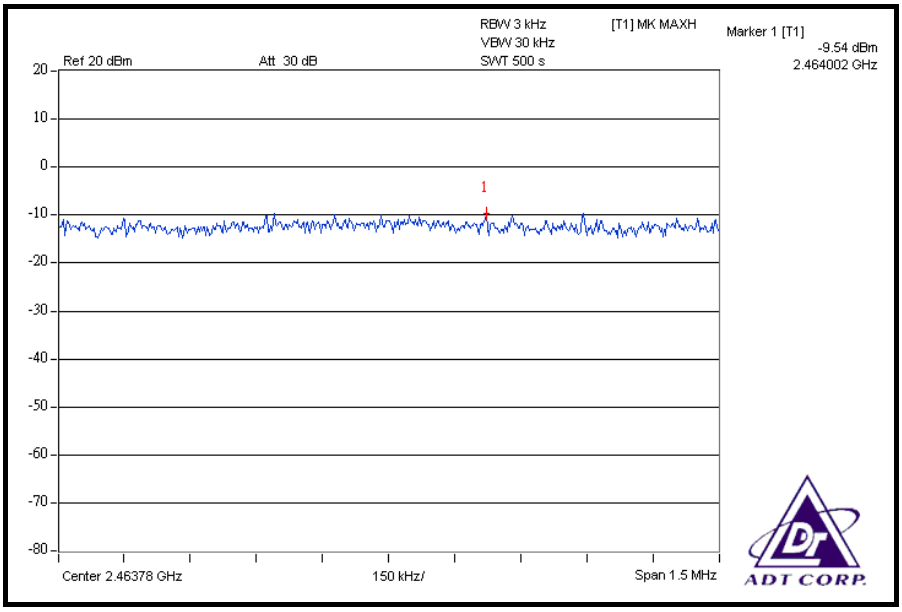
FOR CHAIN 1: CH 1



CH 6



CH 11

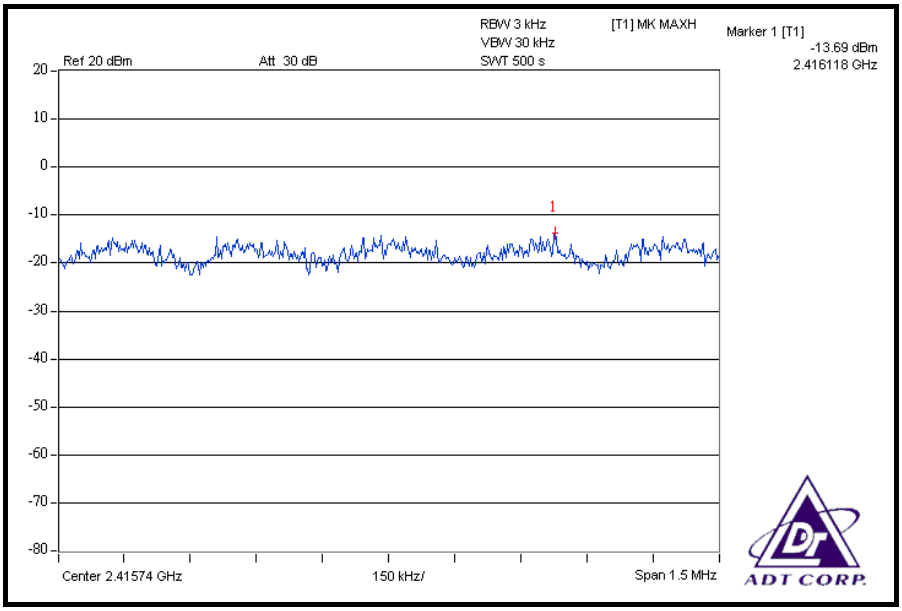

RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-9.54 dBm
2.464002 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.46378 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

802.11g OFDM MODULATION

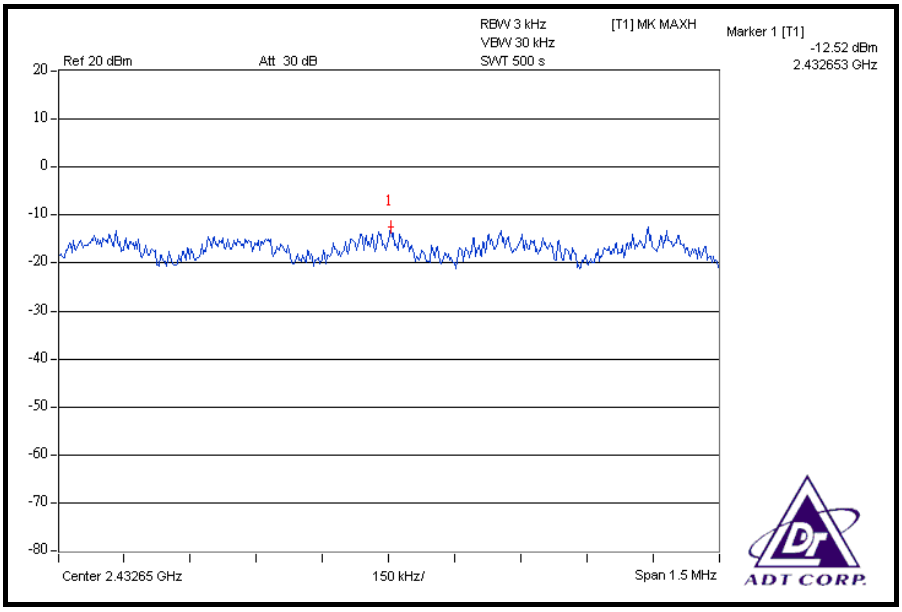
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	24deg.C, 64%RH, 1021hPa
TESTED BY	Match Tsui		

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	-13.69	-8.44	0.186	-7.31	8	PASS
6	2437	-12.52	-7.40	0.238	-6.24	8	PASS
11	2462	-14.22	-8.89	0.167	-7.77	8	PASS

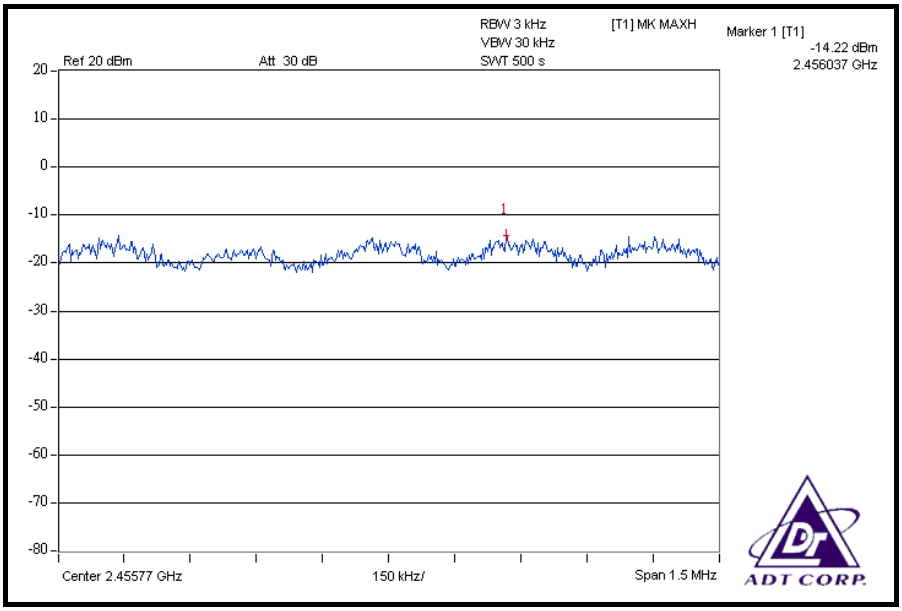
FOR CHAIN 0: CH 1



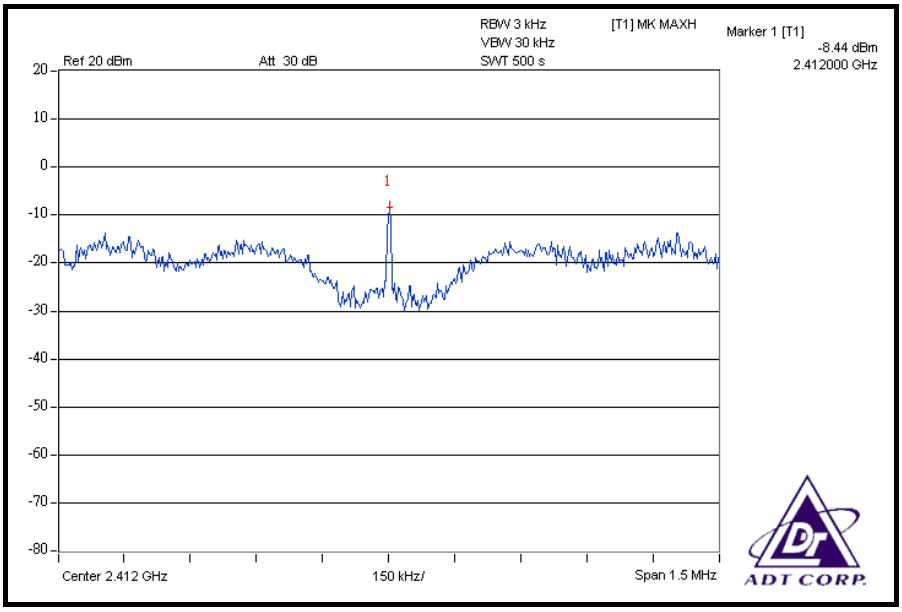
CH 6


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-12.52 dBm
2.432653 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.43265 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

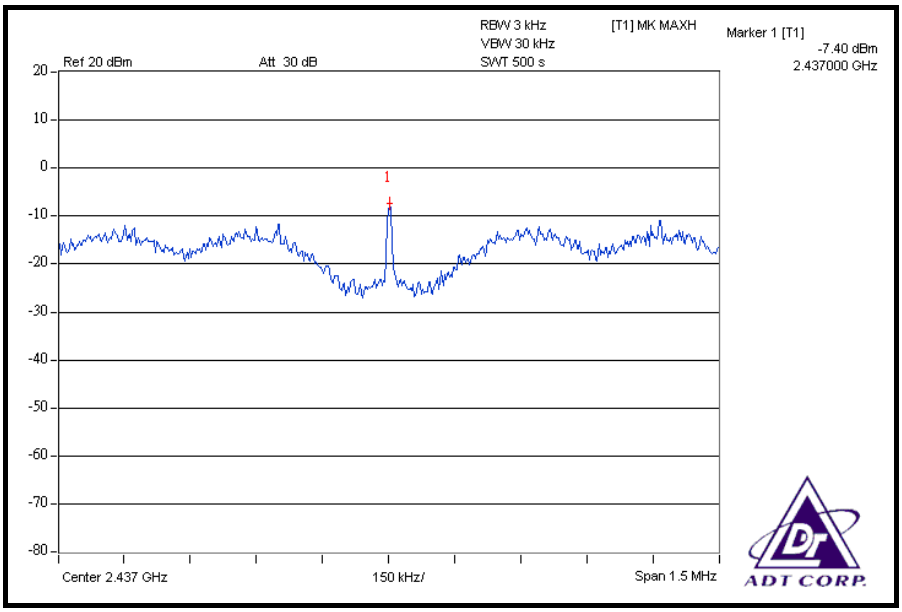
CH 11


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-14.22 dBm
2.456037 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.45577 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

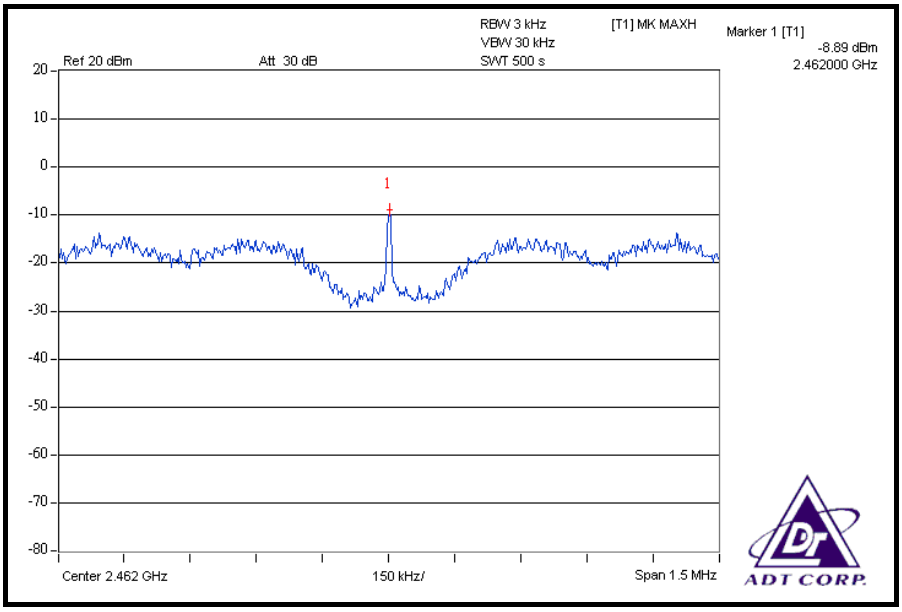
FOR CHAIN 1: CH 1



CH 6



CH 11

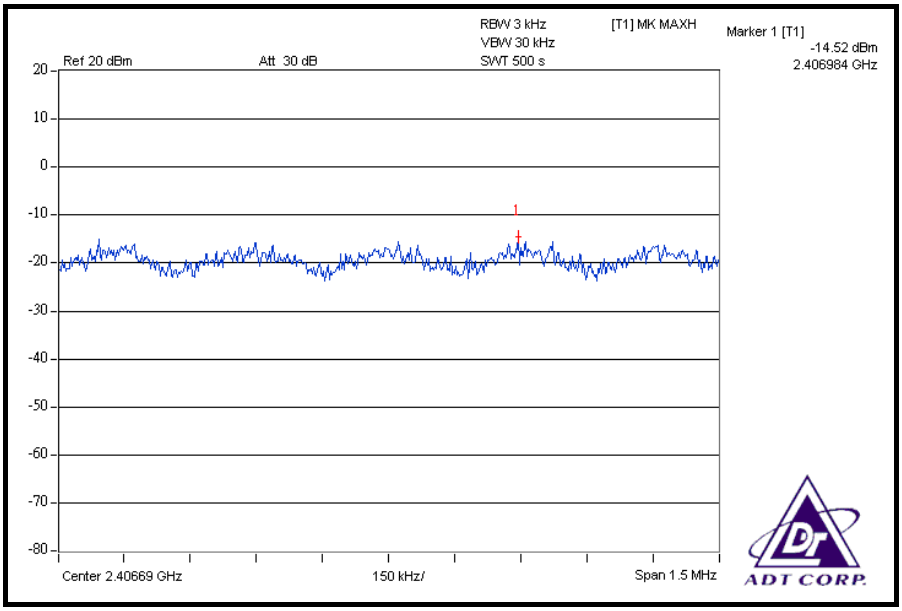

RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-8.89 dBm
2.462000 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.462 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

DRAFT 802.11n (20MHz) OFDM MODULATION

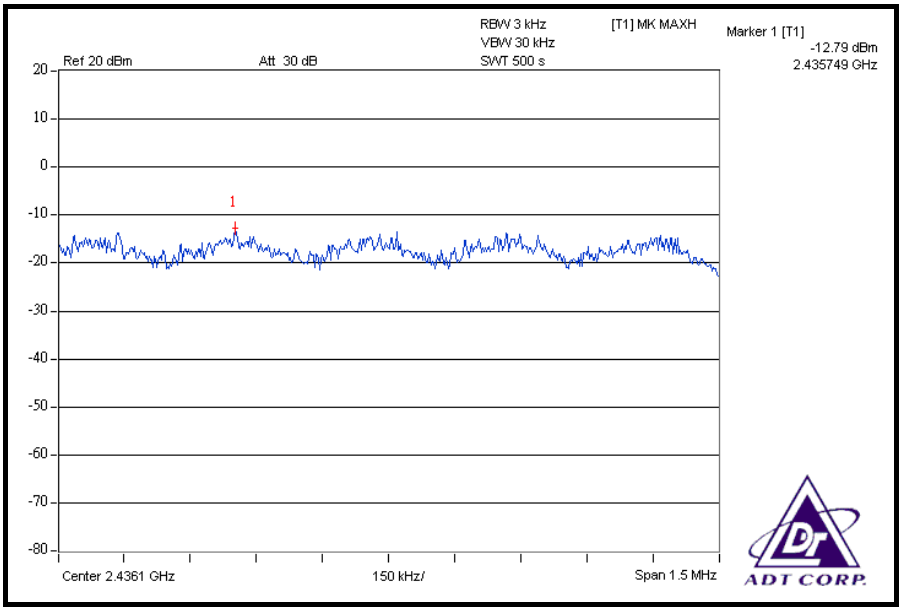
MODULATION TYPE	BPSK	**TRANSFER RATE**	7.2Mbps
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

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	-14.52	-9.59	0.145	-8.38	8	PASS
6	2437	-12.79	-8.17	0.205	-6.88	8	PASS
11	2462	-14.44	-9.61	0.145	-8.38	8	PASS

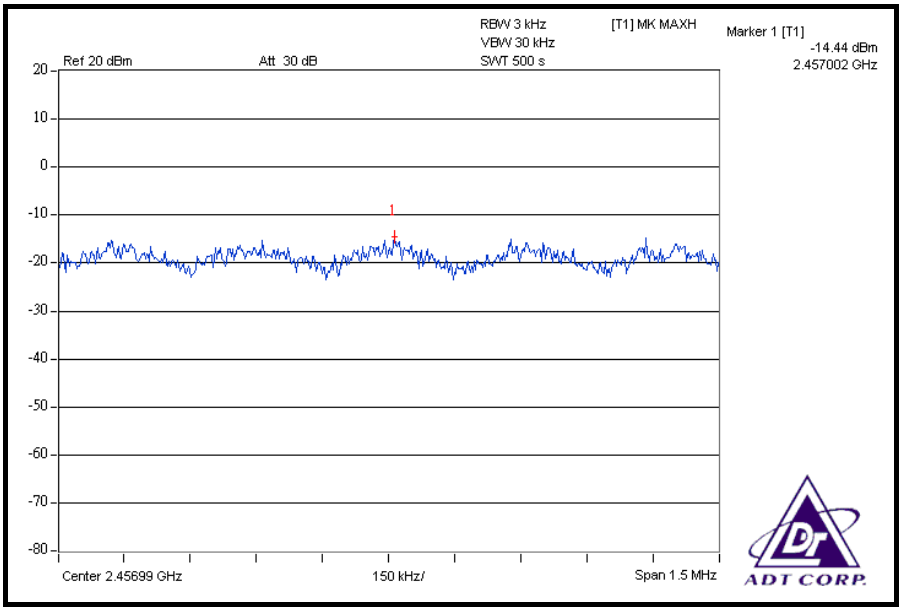
FOR CHAIN 0: CH 1



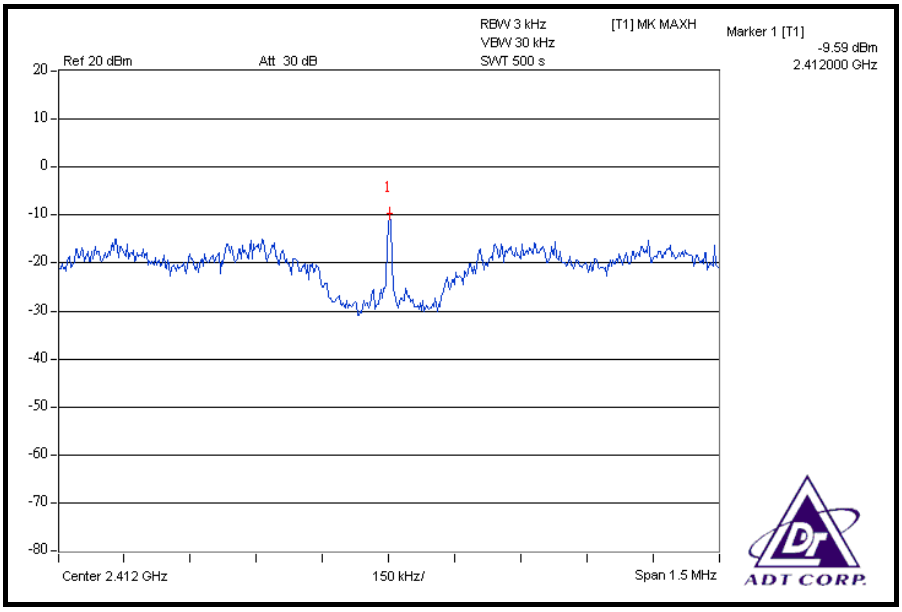
CH 6


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-12.79 dBm
2.435749 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.4361 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

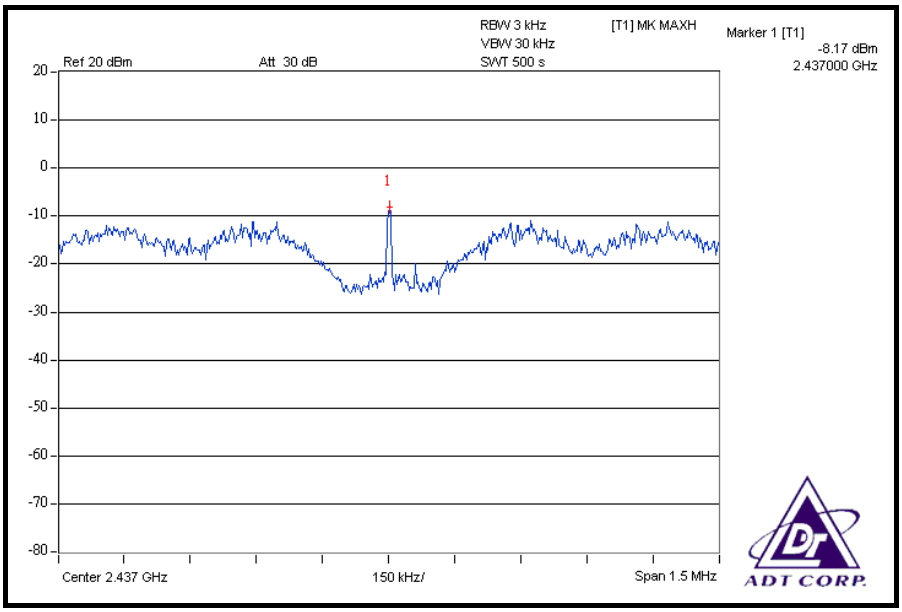
CH 11


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-14.44 dBm
2.457002 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.45699 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

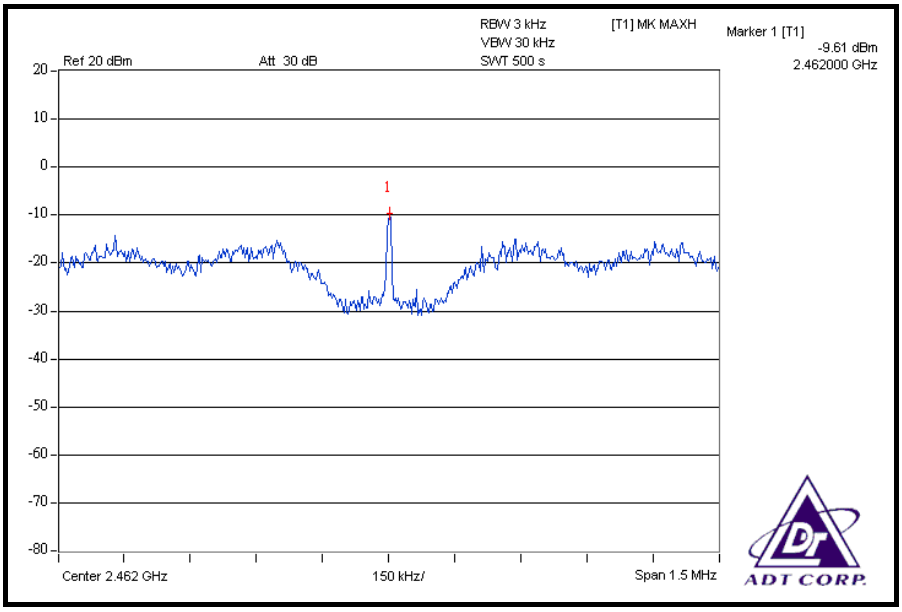
FOR CHAIN 1: CH 1



CH 6



CH 11

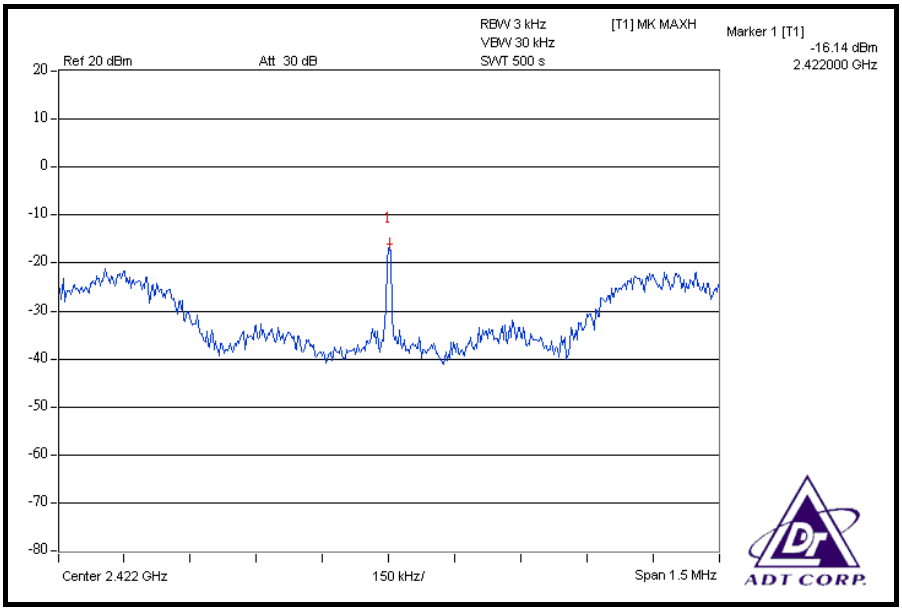

RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-9.61 dBm
2.462000 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.462 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

DRAFT 802.11n (40MHz) OFDM MODULATION

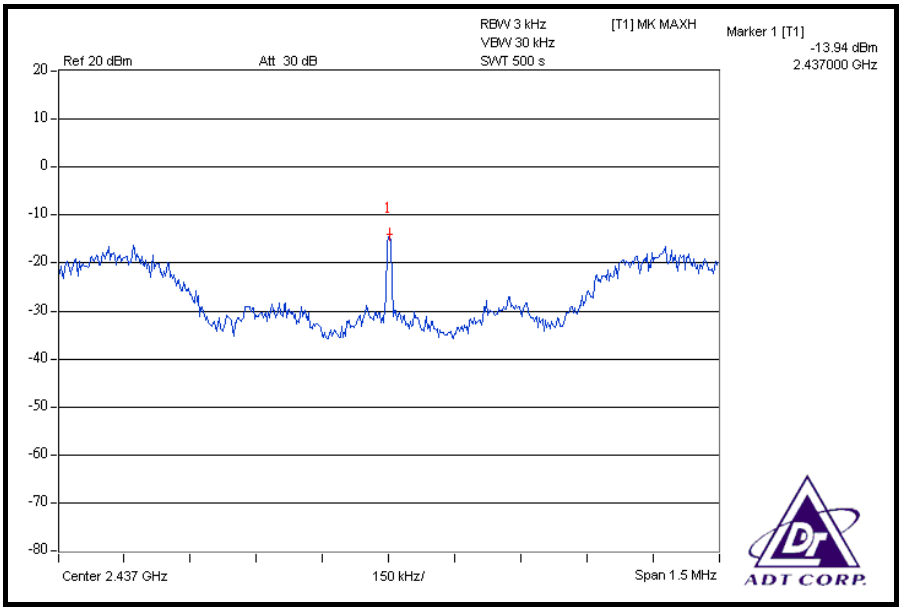
MODULATION TYPE	BPSK	**TRANSFER RATE**	15.0Mbps
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

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	-16.14	-13.47	0.069	-11.59	8	PASS
4	2437	-13.94	-11.41	0.113	-9.48	8	PASS
7	2452	-15.94	-13.30	0.072	-11.41	8	PASS

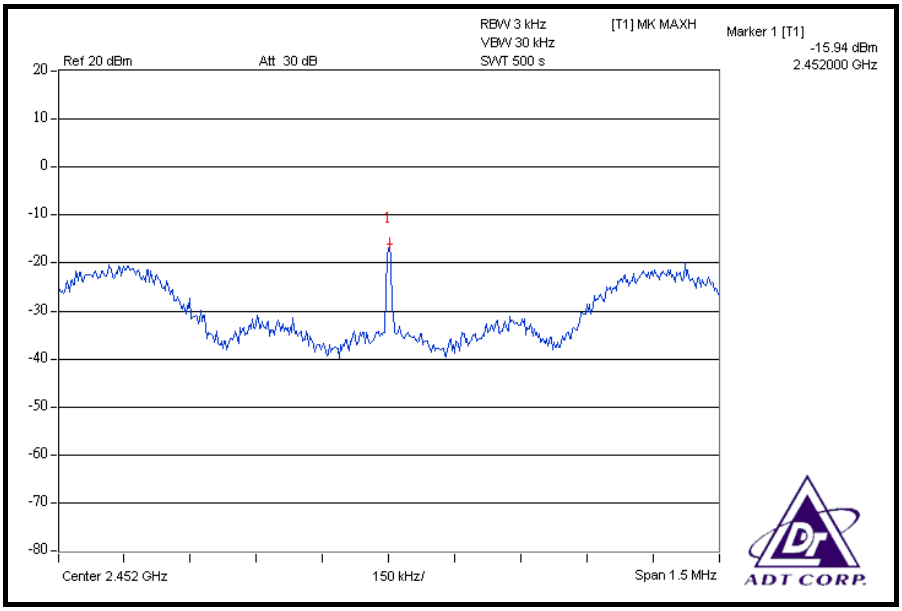
FOR CHAIN 0: CH 1



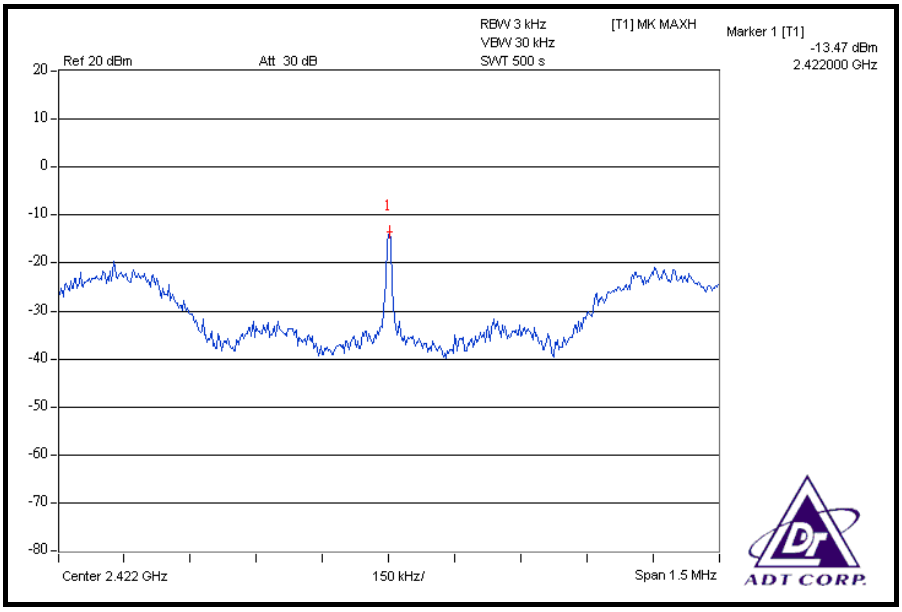
CH 6


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-13.94 dBm
2.437000 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.437 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

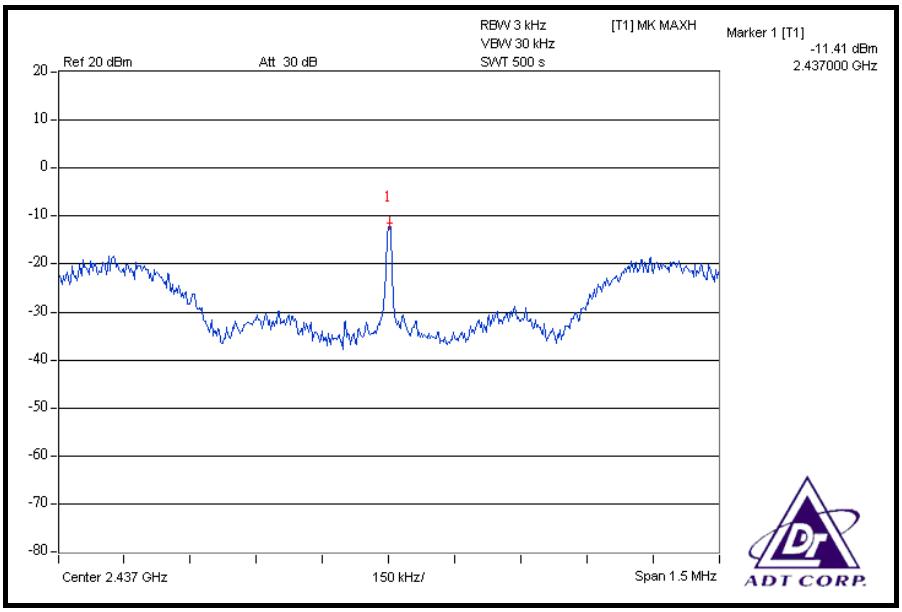
CH 11


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-15.94 dBm
2.452000 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.452 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

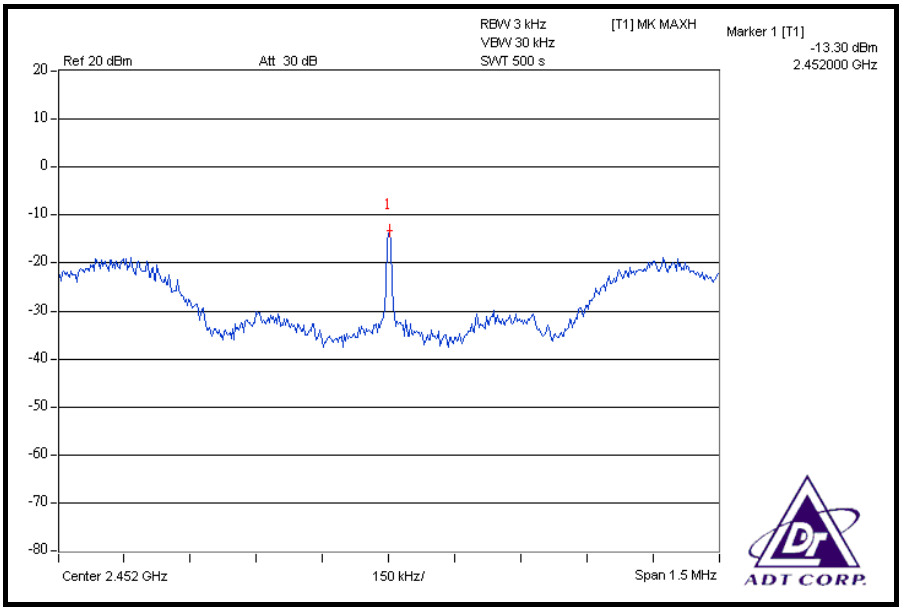
FOR CHAIN 1: CH 1



CH 6



CH 11


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-13.30 dBm
2.452000 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.452 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
Test Receiver ROHDE & SCHWARZ	ESI7	100033	Jun. 30, 2008	Jun. 29, 2009
Spectrum Analyzer Agilent	FSP	100041	Apr. 22, 2008	Apr. 21, 2009
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	May, 02, 2008	May, 01, 2009
HORN Antenna SCHWARZBECK	9120D	9120D-209	Jun. 24, 2008	Jun. 23, 2009
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 25, 2007	Dec. 24, 2008
Preamplifier Agilent	8447D	2944A10633	Oct. 29, 2007	Nov. 04, 2008
Preamplifier Agilent	8449B	3008A01964	Oct. 23, 2008	Oct. 22, 2009
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	283402/4	Dec. 07, 2007	Dec. 06, 2008
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	251644/4	Dec. 07, 2007	Dec. 06, 2008
Software ADT.	ADT_Radiated_V7.6	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	017303	NA	NA
Turn Table ADT.	TT100.	TT93021703	NA	NA
Turn Table Controller ADT.	SC100.	SC93021703	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 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 FCC Site Registration No. is 988962.
5. The IC Site Registration No. is IC3789B-3.

4.6.3 TEST PROCEDURE

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).

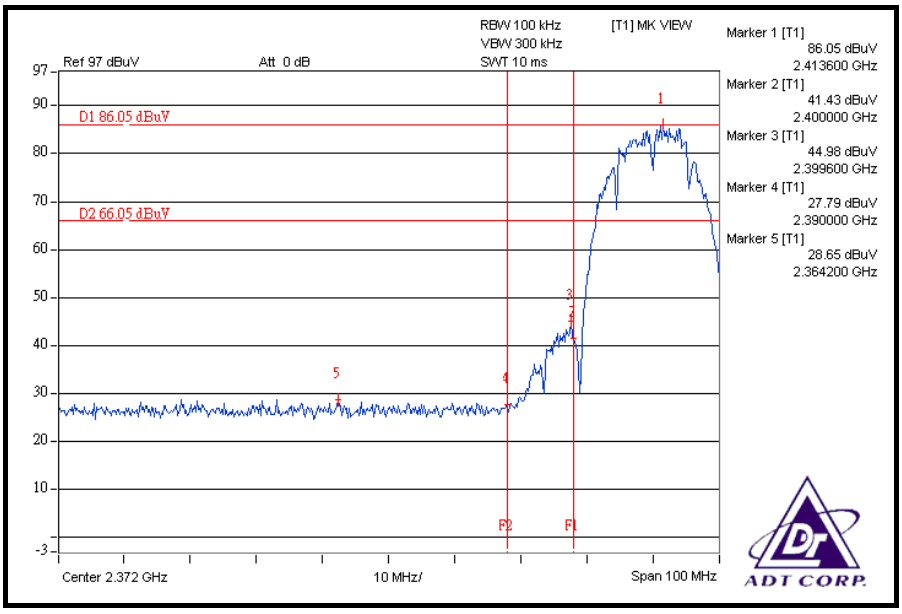
802.11b DSSS MODULATION

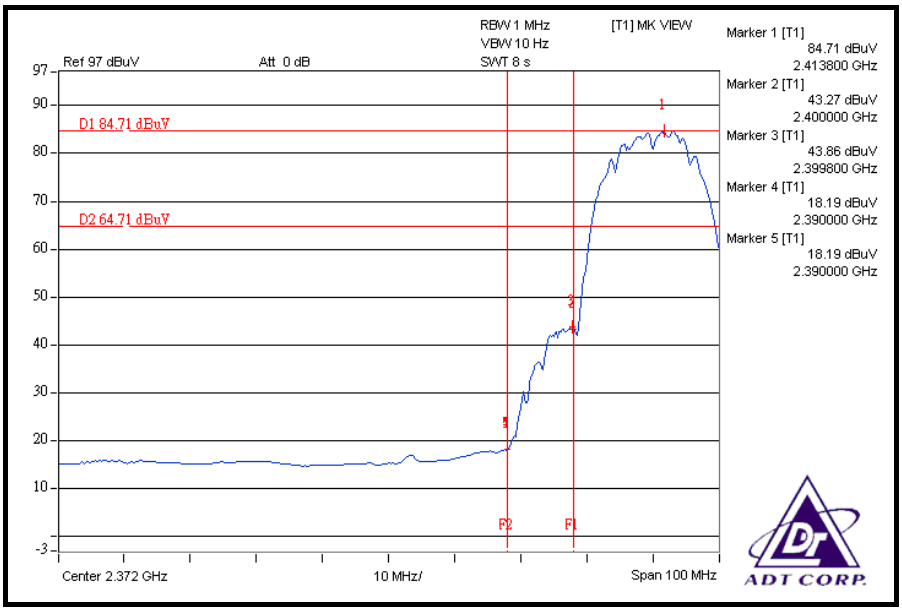
NOTE 1: The band edge emission plot on the next page shows 57.40dBc between carrier maximum power and local maximum emission in restrict band (2.36420GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 112.65dBuV/m (Peak), so the maximum field strength in restrict band is 112.65 – 57.40 = 55.25dBuV/m which is under 74dBuV/m limit.

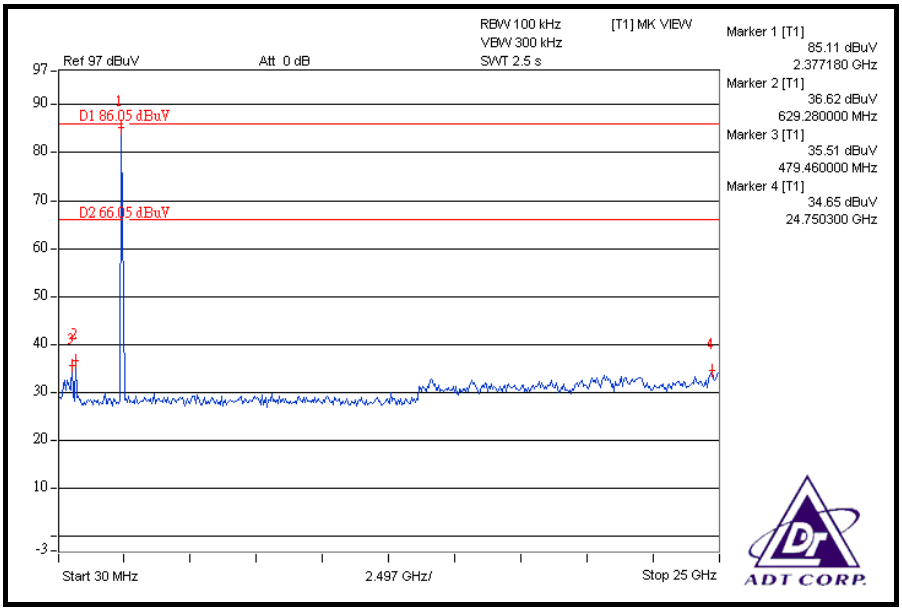
The band edge emission plot of on the next page shows 66.52dBc between carrier maximum power and local maximum emission in restrict band (2.39000GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 108.71dBuV/m (Average), so the maximum field strength in restrict band is 108.71 – 66.52 = 42.19dBuV/m which is under 54dBuV/m limit.

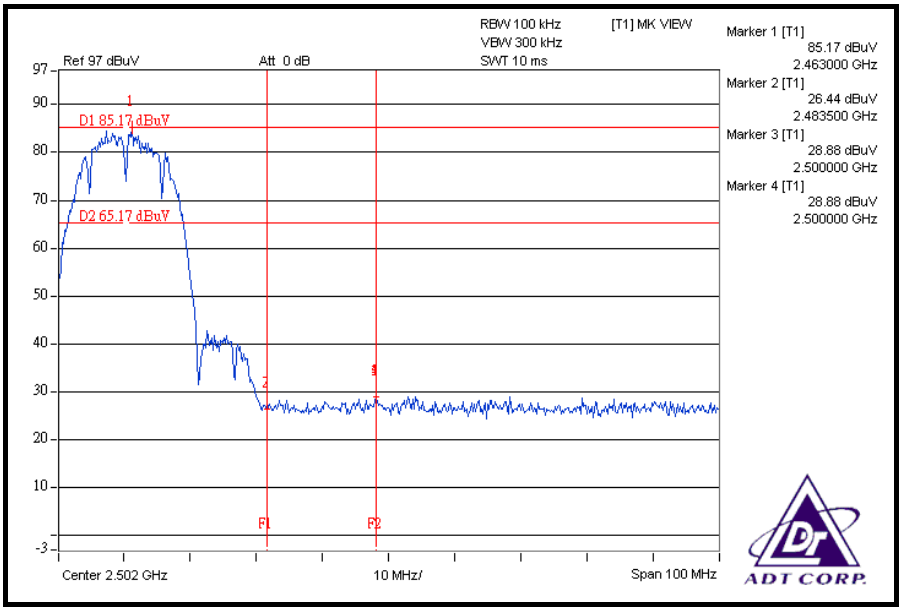
NOTE 2: The band edge emission plot on the next second page shows 56.29dBc between carrier maximum power and local maximum emission in restrict band (2.50000GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 112.73dBuV/m (Peak), so the maximum field strength in restrict band is 112.73 – 56.29 = 56.44dBuV/m which is under 74dBuV/m limit.

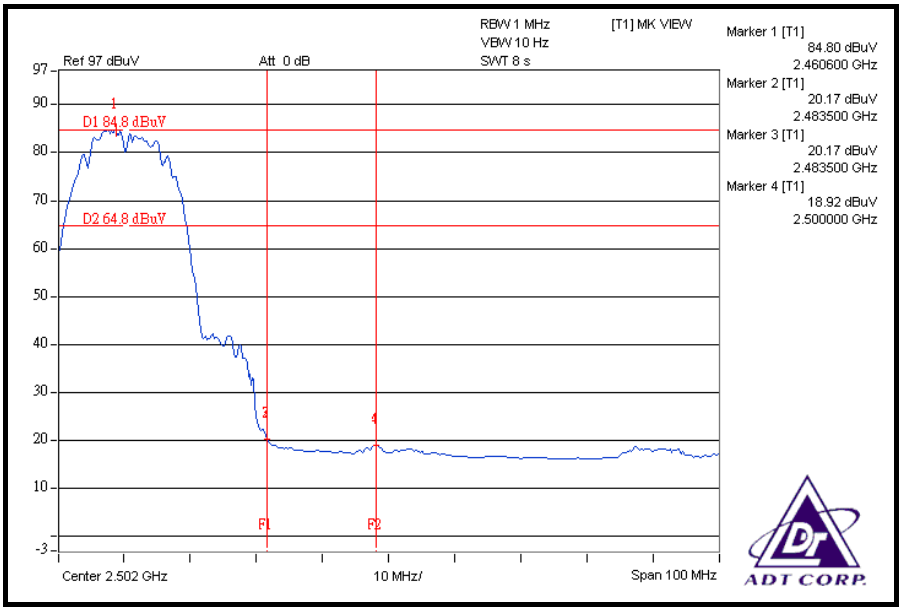
The band edge emission plot on the next third page shows 64.63dBc between carrier maximum power and local maximum emission in restrict band (2.48350GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 107.96dBuV/m (Average), so the maximum field strength in restrict band is 107.96 – 64.63 = 43.33dBuV/m which is under 54dBuV/m limit.

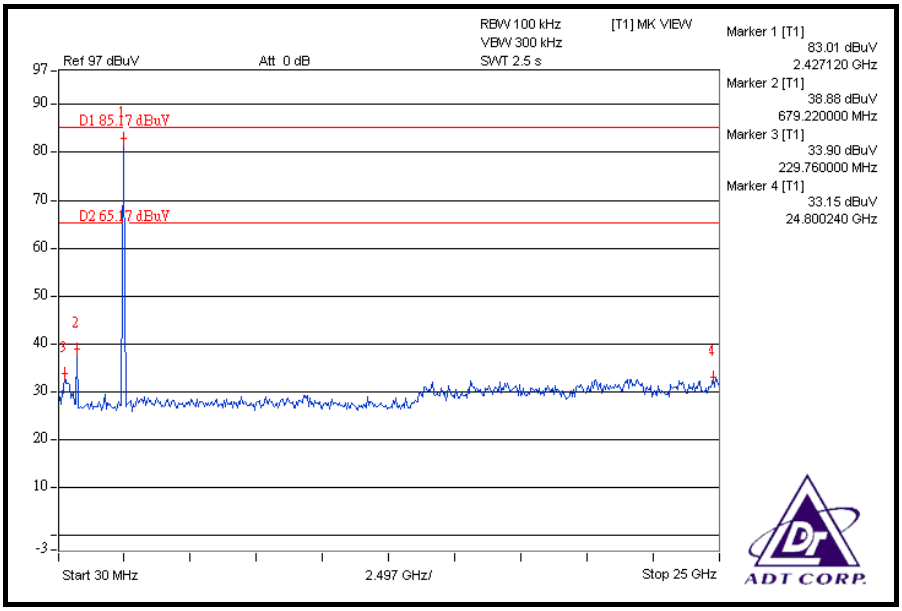

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 86.05 dBuV
D2 66.05 dBuV
Marker 1 [T1]
86.05 dBuV
2.413600 GHz
Marker 2 [T1]
41.43 dBuV
2.400000 GHz
Marker 3 [T1]
44.98 dBuV
2.399600 GHz
Marker 4 [T1]
27.79 dBuV
2.390000 GHz
Marker 5 [T1]
28.65 dBuV
2.364200 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 84.71 dBuV
D2 64.71 dBuV
Marker 1 [T1]
84.71 dBuV
2.413800 GHz
Marker 2 [T1]
43.27 dBuV
2.400000 GHz
Marker 3 [T1]
43.86 dBuV
2.399800 GHz
Marker 4 [T1]
18.19 dBuV
2.390000 GHz
Marker 5 [T1]
18.19 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
D1 86.05 dBuV
D2 66.05 dBuV
Marker 1 [T1]
85.11 dBuV
2.377180 GHz
Marker 2 [T1]
36.62 dBuV
629.280000 MHz
Marker 3 [T1]
35.51 dBuV
479.460000 MHz
Marker 4 [T1]
34.65 dBuV
24.750300 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 97 dBuV
Att 0 dB
D1 85.17 dBuV
D2 65.17 dBuV
Marker 1 [T1]
85.17 dBuV
2.463000 GHz
Marker 2 [T1]
26.44 dBuV
2.483500 GHz
Marker 3 [T1]
28.88 dBuV
2.500000 GHz
Marker 4 [T1]
28.88 dBuV
2.500000 GHz
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 84.8 dBuV
D2 64.8 dBuV
Marker 1 [T1]
84.80 dBuV
2.460600 GHz
Marker 2 [T1]
20.17 dBuV
2.483500 GHz
Marker 3 [T1]
20.17 dBuV
2.483500 GHz
Marker 4 [T1]
18.92 dBuV
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 97 dBuV
Att 0 dB
D1 85.17 dBuV
D2 65.17 dBuV
Marker 1 [T1]
83.01 dBuV
2.427120 GHz
Marker 2 [T1]
38.88 dBuV
679.220000 MHz
Marker 3 [T1]
33.90 dBuV
229.760000 MHz
Marker 4 [T1]
33.15 dBuV
24.800240 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz
ADT CORP.

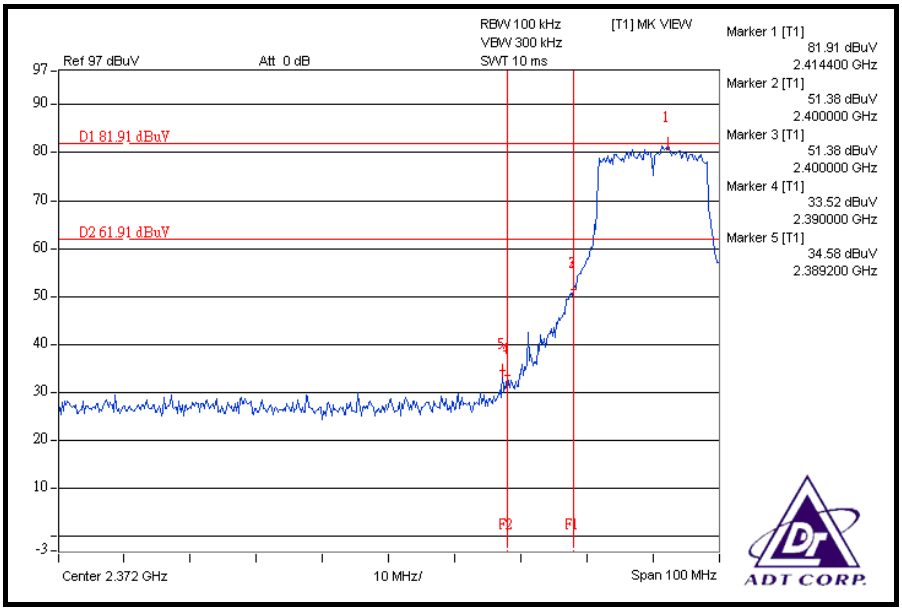
802.11g OFDM MODULATION

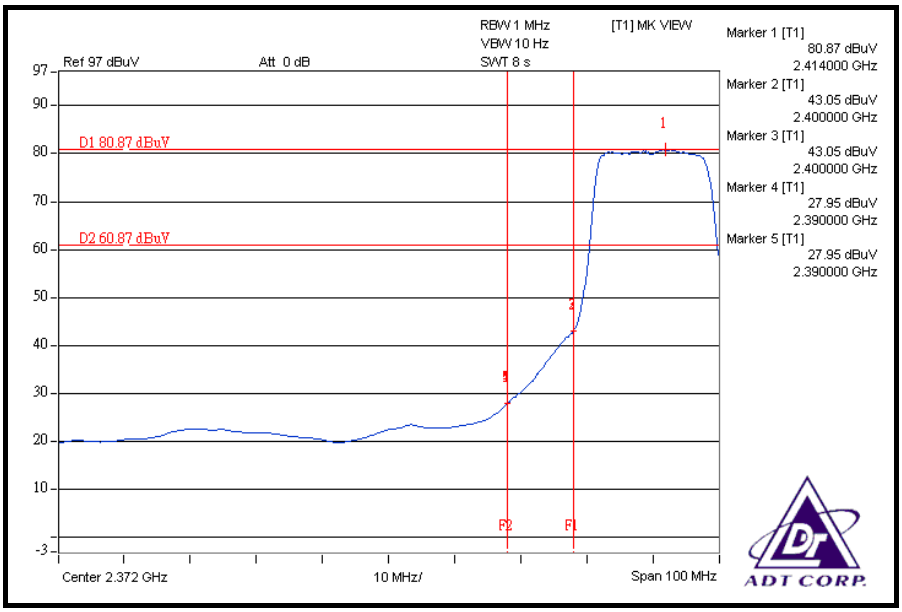
NOTE 1: The band edge emission plot on the next page shows 47.33dBc between carrier maximum power and local maximum emission in restrict band (2.38920GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 113.78dBuV/m (Peak), so the maximum field strength in restrict band is 113.78 – 47.33 = 66.45dBuV/m which is under 74dBuV/m limit.

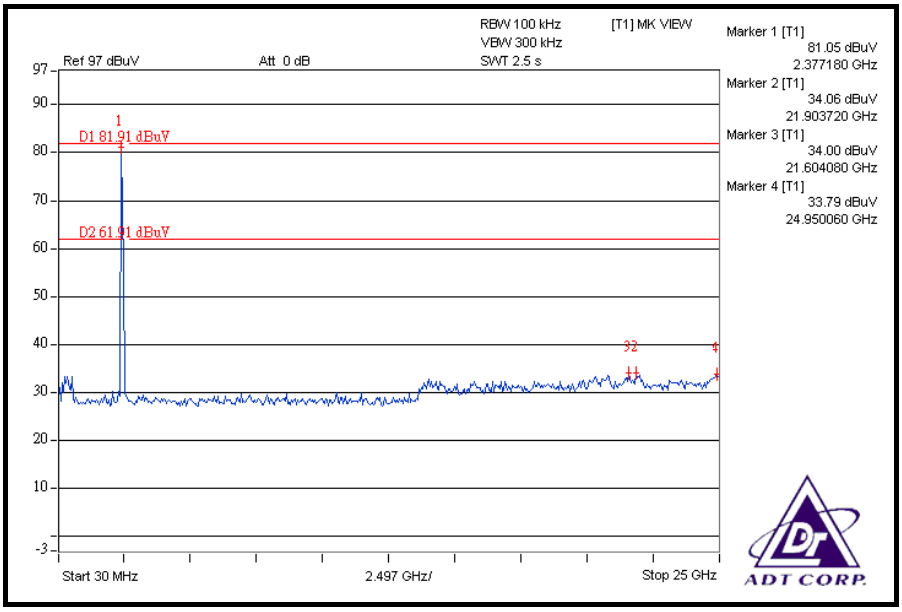
The band edge emission plot of on the next page shows 52.92dBc between carrier maximum power and local maximum emission in restrict band (2.39000GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 103.67dBuV/m (Average), so the maximum field strength in restrict band is 103.67 – 52.92 = 50.75dBuV/m which is under 54dBuV/m limit.

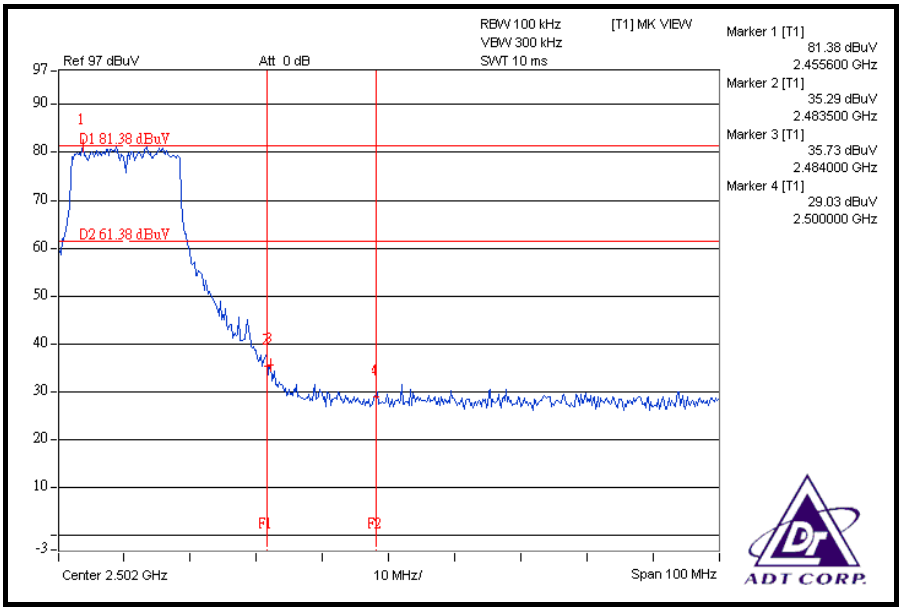
NOTE 2: The band edge emission plot on the next second page shows 45.65dBc between carrier maximum power and local maximum emission in restrict band (2.48400GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 113.21dBuV/m (Peak), so the maximum field strength in restrict band is 113.21 – 45.65 = 67.56dBuV/m which is under 74dBuV/m limit.

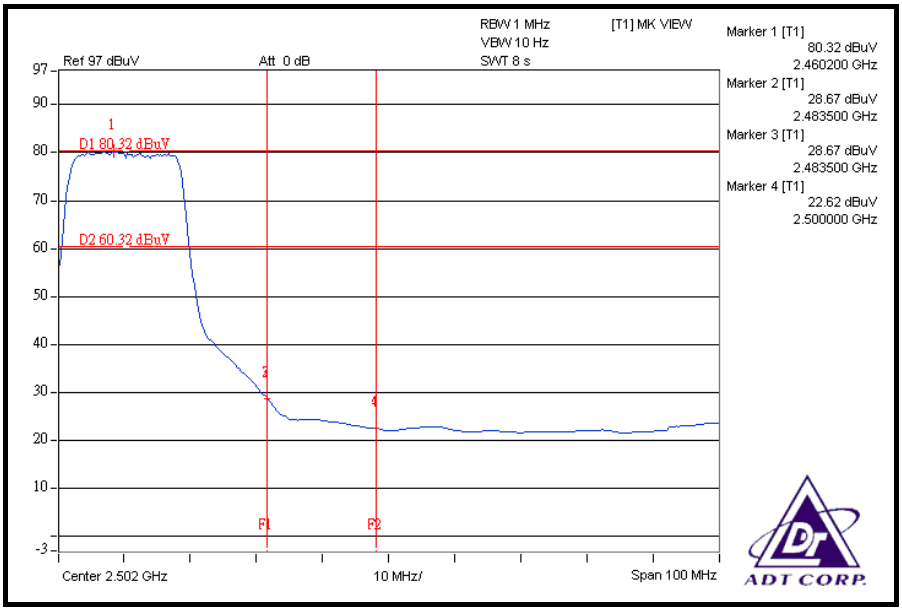
The band edge emission plot on the next third page shows 51.65dBc between carrier maximum power and local maximum emission in restrict band (2.48350GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 103.14dBuV/m (Average), so the maximum field strength in restrict band is 103.14 – 51.65 = 51.49dBuV/m which is under 54dBuV/m limit.

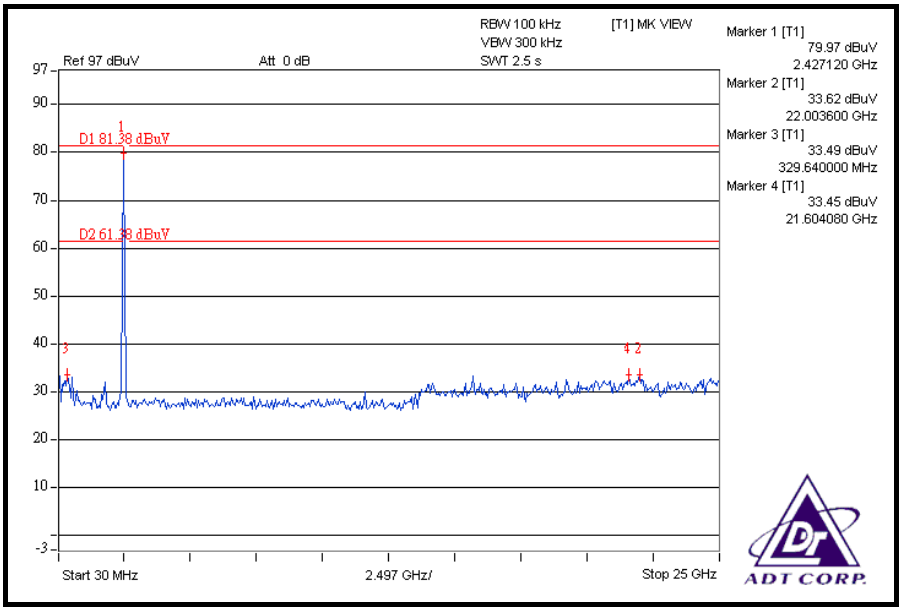

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 81.91 dBuV
D2 61.91 dBuV
Marker 1 [T1]
81.91 dBuV
2.414400 GHz
Marker 2 [T1]
51.38 dBuV
2.400000 GHz
Marker 3 [T1]
51.38 dBuV
2.400000 GHz
Marker 4 [T1]
33.52 dBuV
2.390000 GHz
Marker 5 [T1]
34.58 dBuV
2.389200 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 80.87 dBuV
D2 60.87 dBuV
Marker 1 [T1]
80.87 dBuV
2.414000 GHz
Marker 2 [T1]
43.05 dBuV
2.400000 GHz
Marker 3 [T1]
43.05 dBuV
2.400000 GHz
Marker 4 [T1]
27.95 dBuV
2.390000 GHz
Marker 5 [T1]
27.95 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
D1 81.91 dBuV
D2 61.91 dBuV
Marker 1 [T1]
81.05 dBuV
2.377180 GHz
Marker 2 [T1]
34.06 dBuV
21.903720 GHz
Marker 3 [T1]
34.00 dBuV
21.604080 GHz
Marker 4 [T1]
33.79 dBuV
24.950060 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 97 dBuV
Att 0 dB
D1 81.38 dBuV
D2 61.38 dBuV
Marker 1 [T1]
81.38 dBuV
2.455600 GHz
Marker 2 [T1]
35.29 dBuV
2.483500 GHz
Marker 3 [T1]
35.73 dBuV
2.484000 GHz
Marker 4 [T1]
29.03 dBuV
2.500000 GHz
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
80.32 dBuV
2.460200 GHz
Marker 2 [T1]
28.67 dBuV
2.483500 GHz
Marker 3 [T1]
28.67 dBuV
2.483500 GHz
Marker 4 [T1]
22.62 dBuV
2.500000 GHz
D1 80.32 dBuV
D2 60.32 dBuV
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 97 dBuV
Att 0 dB
Marker 1 [T1]
79.97 dBuV
2.427120 GHz
Marker 2 [T1]
33.62 dBuV
22.003600 GHz
Marker 3 [T1]
33.49 dBuV
329.640000 MHz
Marker 4 [T1]
33.45 dBuV
21.604080 GHz
D1 81.38 dBuV
D2 61.38 dBuV
Start 30 MHz
2.497 GHz/
Stop 25 GHz
ADT CORP.

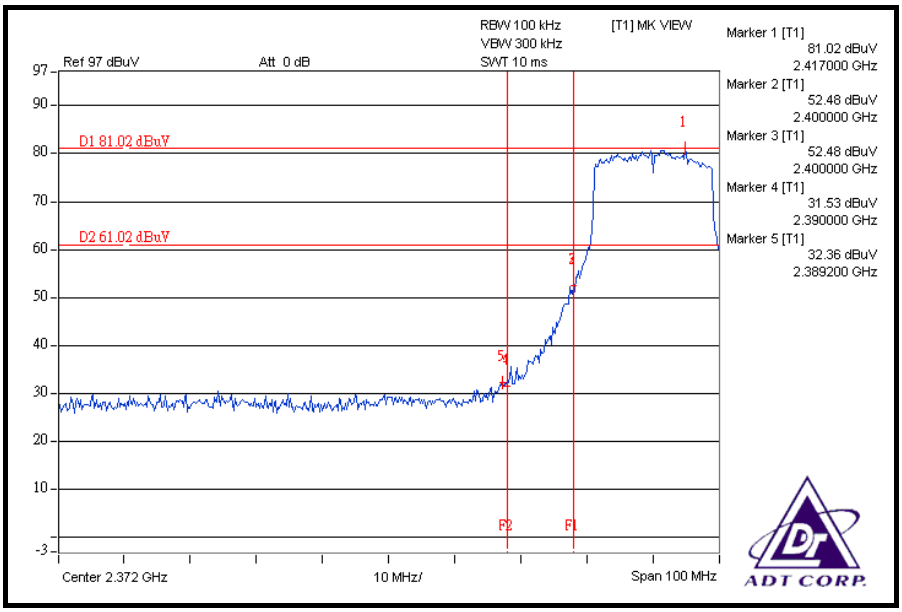
DRAFT 802.11n (20MHz) OFDM MODULATION

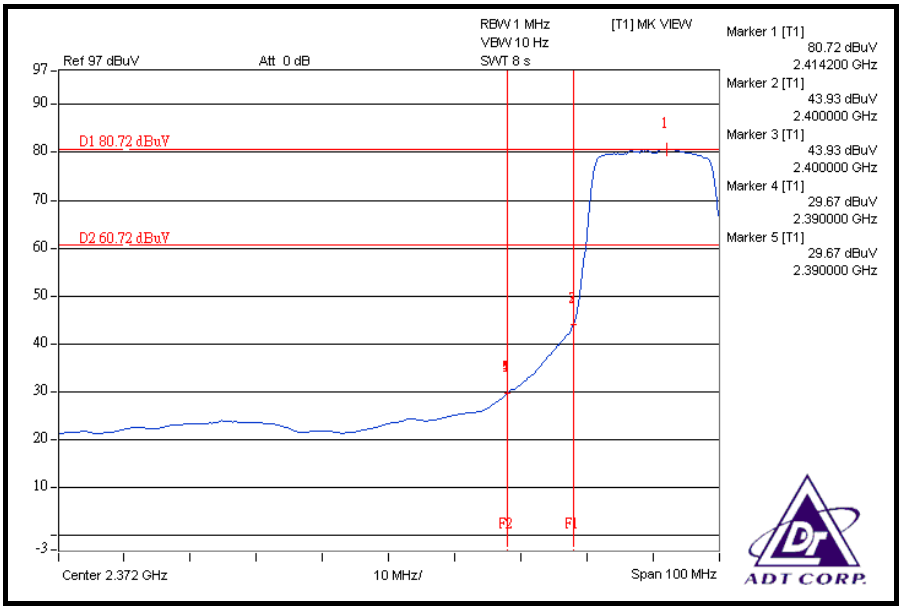
NOTE 1: The band edge emission plot on the next page shows 48.66dBc between carrier maximum power and local maximum emission in restrict band (2.38920GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 113.59dBuV/m (Peak), so the maximum field strength in restrict band is 113.59 – 48.66 = 64.93dBuV/m which is under 74dBuV/m limit.

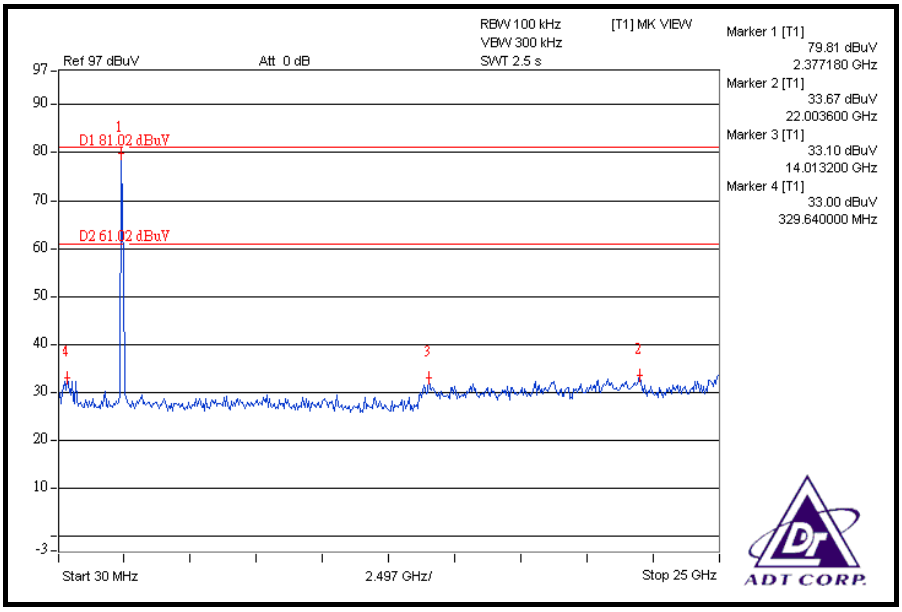
The band edge emission plot of on the next page shows 51.05dBc between carrier maximum power and local maximum emission in restrict band (2.39000GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 103.42dBuV/m (Average), so the maximum field strength in restrict band is 103.42 – 51.05 = 52.37dBuV/m which is under 54dBuV/m limit.

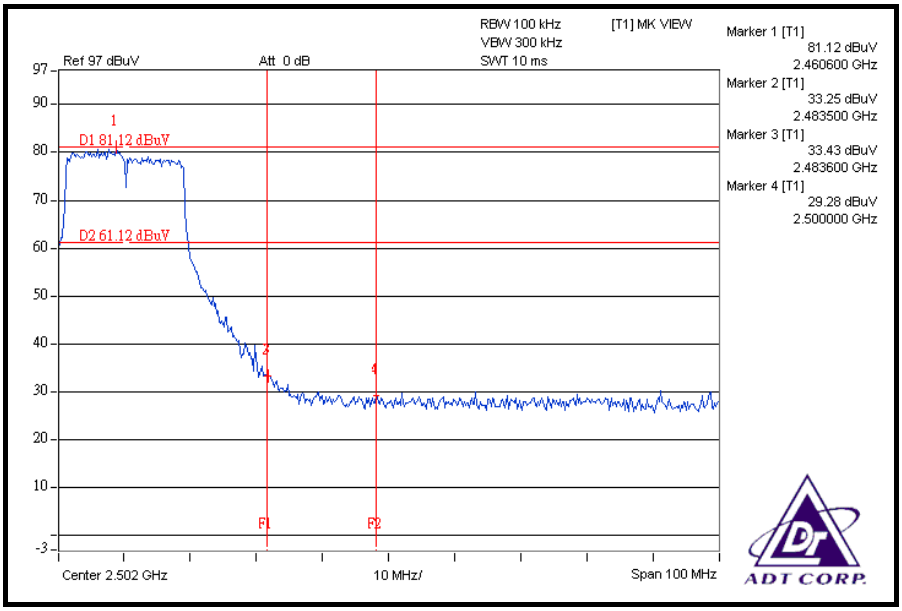
NOTE 2: The band edge emission plot on the next second page shows 47.69dBc between carrier maximum power and local maximum emission in restrict band (2.48360GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 113.32dBuV/m (Peak), so the maximum field strength in restrict band is 113.32 – 47.69 = 65.63dBuV/m which is under 74dBuV/m limit.

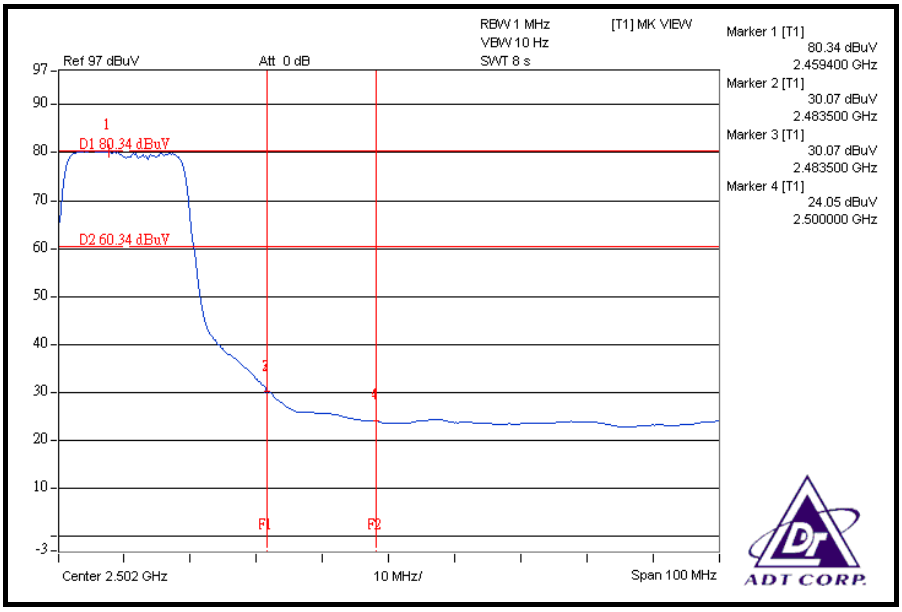
The band edge emission plot on the next third page shows 50.27dBc between carrier maximum power and local maximum emission in restrict band (2.48350GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 103.21dBuV/m (Average), so the maximum field strength in restrict band is 103.21 – 50.27 = 52.94dBuV/m which is under 54dBuV/m limit.

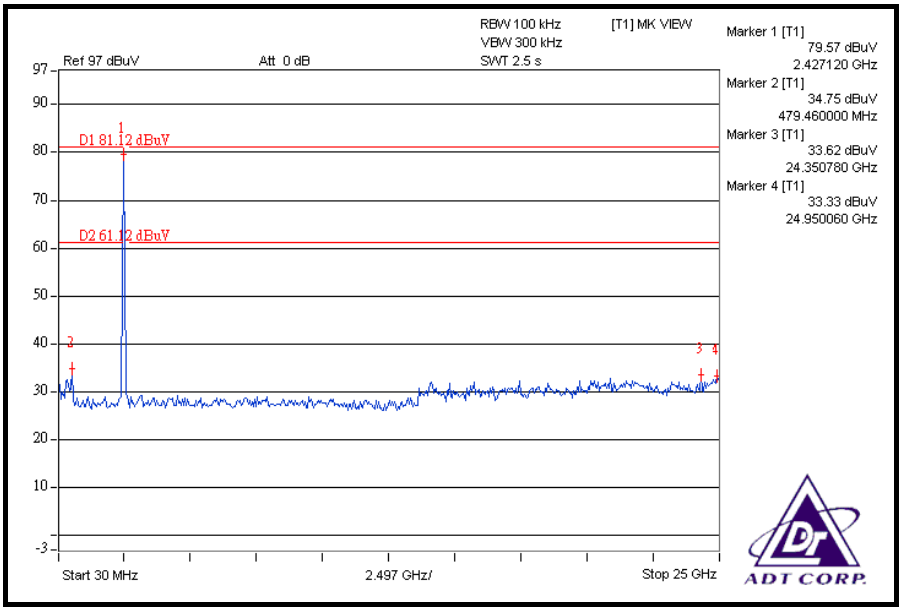

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 81.02 dBuV
D2 61.02 dBuV
Marker 1 [T1]
81.02 dBuV
2.417000 GHz
Marker 2 [T1]
52.48 dBuV
2.400000 GHz
Marker 3 [T1]
52.48 dBuV
2.400000 GHz
Marker 4 [T1]
31.53 dBuV
2.390000 GHz
Marker 5 [T1]
32.36 dBuV
2.389200 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 80.72 dBuV
D2 60.72 dBuV
Marker 1 [T1]
80.72 dBuV
2.414200 GHz
Marker 2 [T1]
43.93 dBuV
2.400000 GHz
Marker 3 [T1]
43.93 dBuV
2.400000 GHz
Marker 4 [T1]
29.67 dBuV
2.390000 GHz
Marker 5 [T1]
29.67 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
D1 81.02 dBuV
D2 61.02 dBuV
Marker 1 [T1]
79.81 dBuV
2.377180 GHz
Marker 2 [T1]
33.67 dBuV
22.003600 GHz
Marker 3 [T1]
33.10 dBuV
14.013200 GHz
Marker 4 [T1]
33.00 dBuV
329.640000 MHz
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
D1 81.12 dBuV
D2 61.12 dBuV
Marker 1 [T1]
81.12 dBuV
2.460600 GHz
Marker 2 [T1]
33.25 dBuV
2.483500 GHz
Marker 3 [T1]
33.43 dBuV
2.483600 GHz
Marker 4 [T1]
29.28 dBuV
2.500000 GHz
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
80.34 dBuV
2.459400 GHz
Marker 2 [T1]
30.07 dBuV
2.483500 GHz
Marker 3 [T1]
30.07 dBuV
2.483500 GHz
Marker 4 [T1]
24.05 dBuV
2.500000 GHz
D1 80.34 dBuV
D2 60.34 dBuV
97
90
80
70
60
50
40
30
20
10
-3
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 97 dBuV
Att 0 dB
Marker 1 [T1]
79.57 dBuV
2.427120 GHz
Marker 2 [T1]
34.75 dBuV
479.460000 MHz
Marker 3 [T1]
33.62 dBuV
24.350780 GHz
Marker 4 [T1]
33.33 dBuV
24.950060 GHz
D1 81.12 dBuV
D2 61.12 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Start 30 MHz
2.497 GHz/
Stop 25 GHz
ADT CORP.

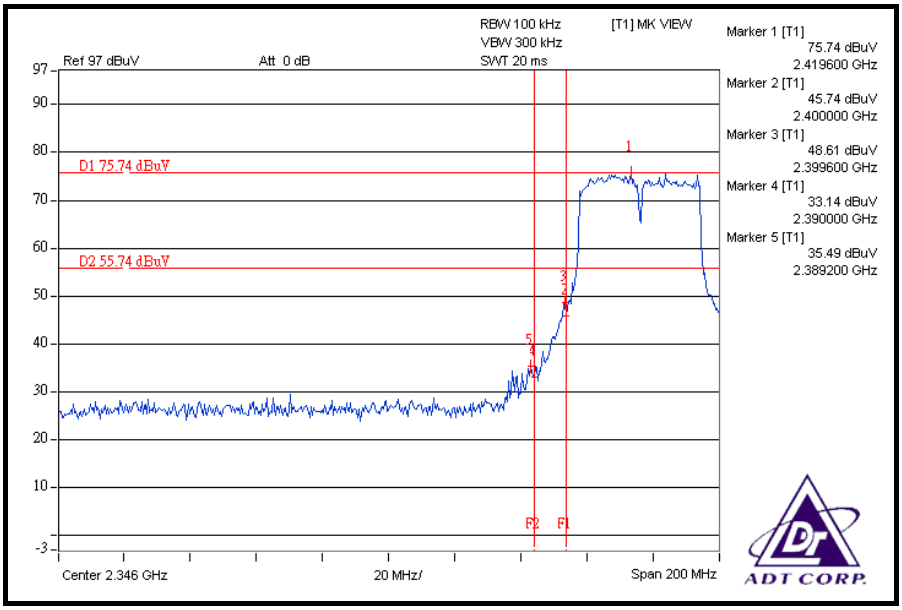
DRAFT 802.11n (40MHz) OFDM MODULATION

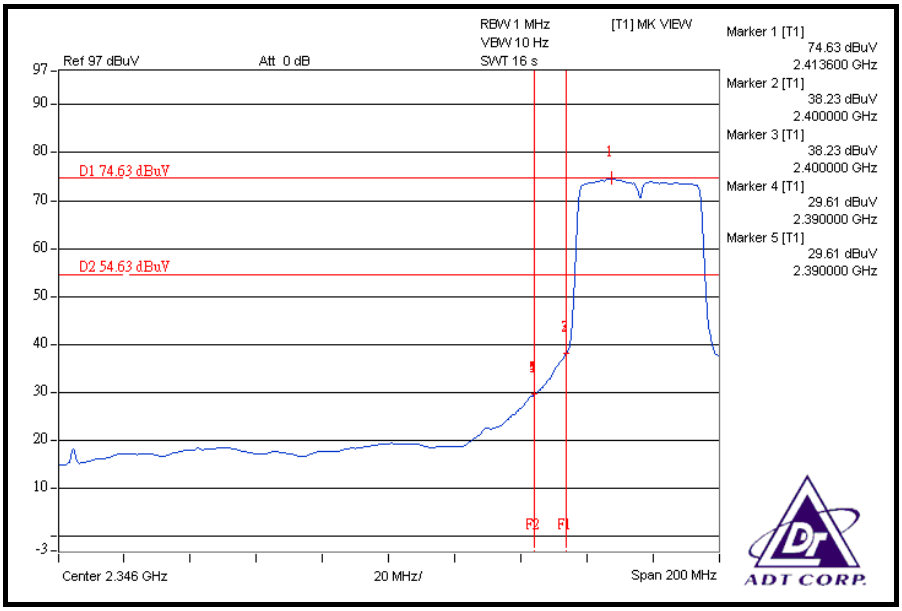
NOTE 1: The band edge emission plot on the next page shows 40.25dBc between carrier maximum power and local maximum emission in restrict band (2.38920GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 107.42dBuV/m (Peak), so the maximum field strength in restrict band is 107.42 – 40.25 = 67.17dBuV/m which is under 74dBuV/m limit.

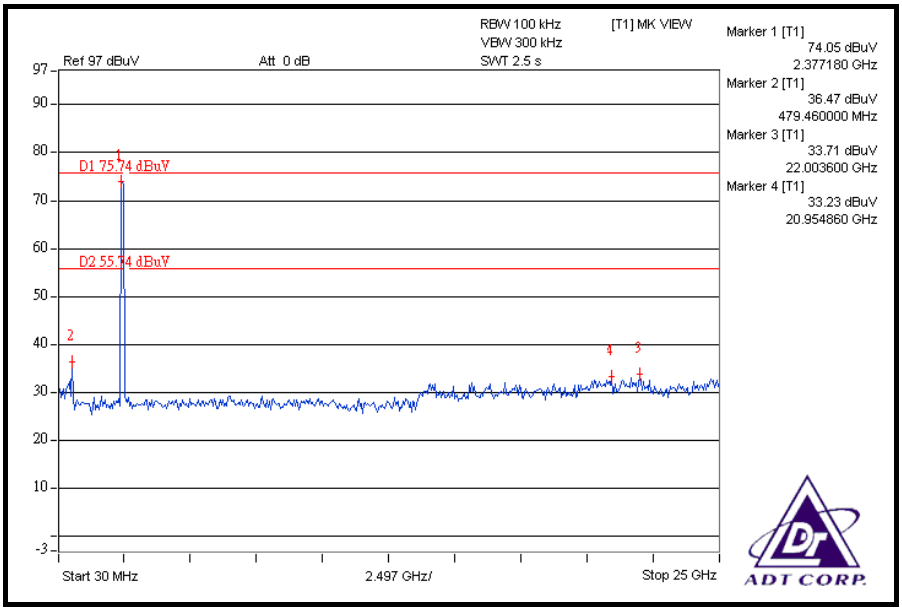
The band edge emission plot of on the next page shows 45.02dBc between carrier maximum power and local maximum emission in restrict band (2.39000GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 97.42dBuV/m (Average), so the maximum field strength in restrict band is 97.42 – 45.02 = 52.40dBuV/m which is under 54dBuV/m limit.

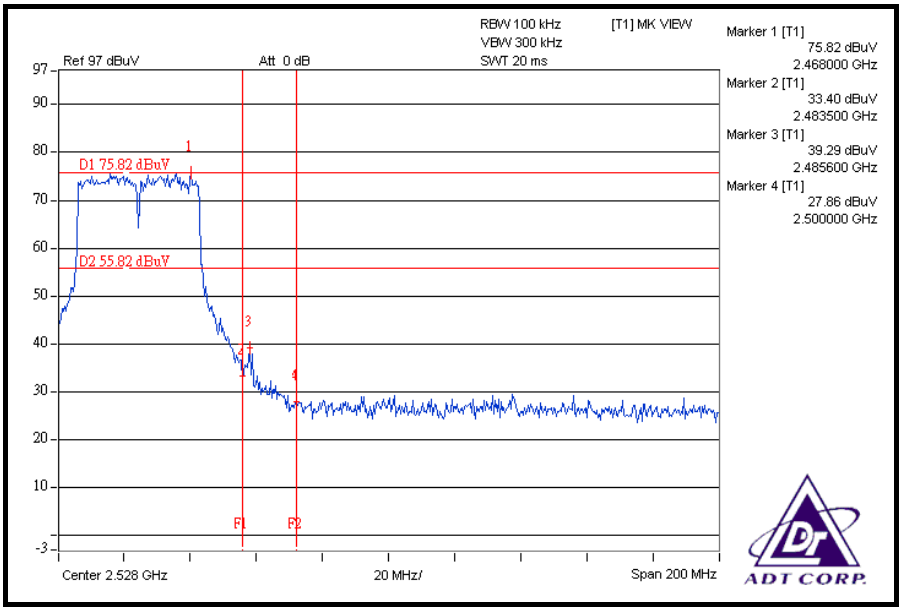
NOTE 2: The band edge emission plot on the next second page shows 36.53dBc between carrier maximum power and local maximum emission in restrict band (2.48560GHz). The emission of carrier strength list in the test result of channel 7 at the item 4.1.7 is 107.66dBuV/m (Peak), so the maximum field strength in restrict band is 107.66 – 36.53 = 71.13dBuV/m which is under 74dBuV/m limit.

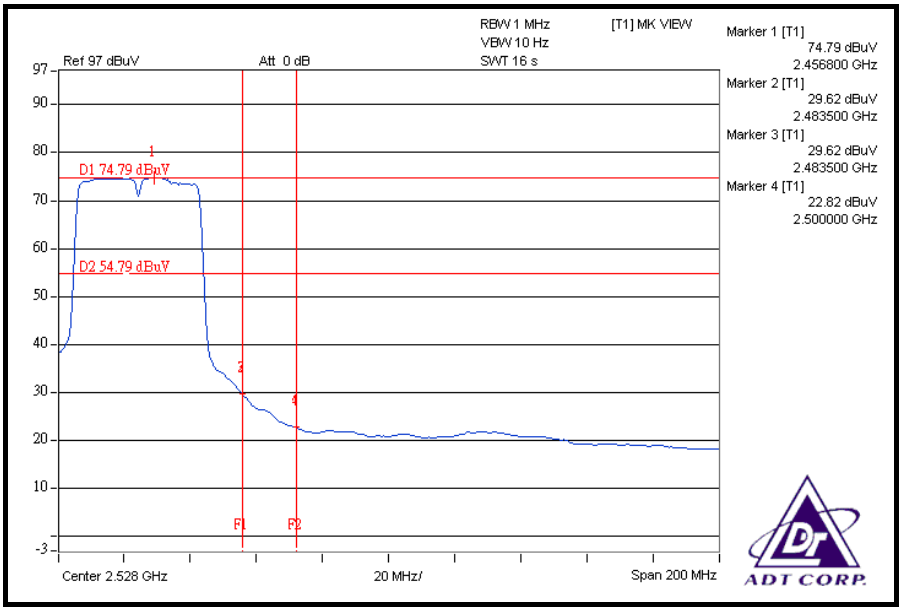
The band edge emission plot on the next third page shows 45.17dBc between carrier maximum power and local maximum emission in restrict band (2.48350GHz). The emission of carrier strength list in the test result of channel 7 at the item 4.1.7 is 97.48dBuV/m (Average), so the maximum field strength in restrict band is 97.48 – 45.17 = 52.31dBuV/m which is under 54dBuV/m limit.

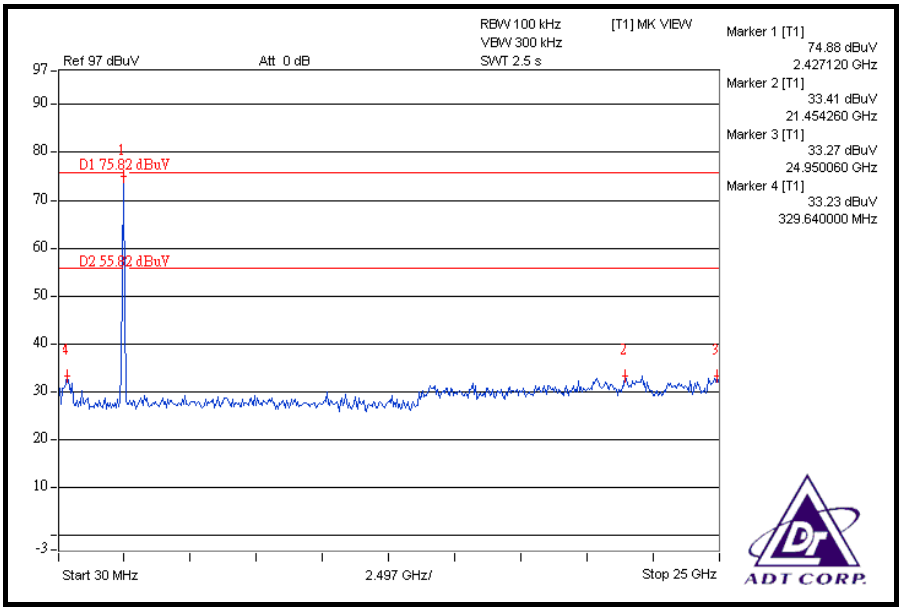

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 75.74 dBuV
D2 55.74 dBuV
Marker 1 [T1]
75.74 dBuV
2.419600 GHz
Marker 2 [T1]
45.74 dBuV
2.400000 GHz
Marker 3 [T1]
48.61 dBuV
2.399600 GHz
Marker 4 [T1]
33.14 dBuV
2.390000 GHz
Marker 5 [T1]
35.49 dBuV
2.389200 GHz
Center 2.346 GHz
20 MHz/
Span 200 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 74.63 dBuV
D2 54.63 dBuV
Marker 1 [T1]
74.63 dBuV
2.413600 GHz
Marker 2 [T1]
38.23 dBuV
2.400000 GHz
Marker 3 [T1]
38.23 dBuV
2.400000 GHz
Marker 4 [T1]
29.61 dBuV
2.390000 GHz
Marker 5 [T1]
29.61 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]
74.05 dBuV
2.377180 GHz
Marker 2 [T1]
36.47 dBuV
479.460000 MHz
Marker 3 [T1]
33.71 dBuV
22.003600 GHz
Marker 4 [T1]
33.23 dBuV
20.954860 GHz
D1 75.74 dBuV
D2 55.74 dBuV
97
90
80
70
60
50
40
30
20
10
-3
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]
75.82 dBuV
2.468000 GHz
Marker 2 [T1]
33.40 dBuV
2.483500 GHz
Marker 3 [T1]
39.29 dBuV
2.485600 GHz
Marker 4 [T1]
27.86 dBuV
2.500000 GHz
D1 75.82 dBuV
D2 55.82 dBuV
97
90
80
70
60
50
40
30
20
10
-3
F1
F2
Center 2.528 GHz
20 MHz/
Span 200 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 74.79 dBuV
D2 54.79 dBuV
Marker 1 [T1]
74.79 dBuV
2.456800 GHz
Marker 2 [T1]
29.62 dBuV
2.483500 GHz
Marker 3 [T1]
29.62 dBuV
2.483500 GHz
Marker 4 [T1]
22.82 dBuV
2.500000 GHz
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
D1 75.82 dBuV
D2 55.82 dBuV
Marker 1 [T1]
74.88 dBuV
2.427120 GHz
Marker 2 [T1]
33.41 dBuV
21.454260 GHz
Marker 3 [T1]
33.27 dBuV
24.950060 GHz
Marker 4 [T1]
33.23 dBuV
329.640000 MHz
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. TEST TYPES AND RESULTS (FOR 5.0GHz BAND)

5.1 RADIATED EMISSION MEASUREMENT

5.1.1 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.

5.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESI7	100033	Jun. 30, 2008	Jun. 29, 2009
Spectrum Analyzer Agilent	FSP	100041	Apr. 22, 2008	Apr. 21, 2009
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	May, 02, 2008	May, 01, 2009
HORN Antenna SCHWARZBECK	9120D	9120D-209	Jun. 24, 2008	Jun. 23, 2009
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 25, 2007	Dec. 24, 2008
Preamplifier Agilent	8447D	2944A10633	Oct. 29, 2007	Nov. 04, 2008
Preamplifier Agilent	8449B	3008A01964	Oct. 24, 2007	Oct. 23, 2008
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	283402/4	Dec. 07, 2007	Dec. 06, 2008
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	251644/4	Dec. 07, 2007	Dec. 06, 2008
Software ADT.	ADT_Radiated_V7.6	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	017303	NA	NA
Turn Table ADT.	TT100.	TT93021703	NA	NA
Turn Table Controller ADT.	SC100.	SC93021703	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 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 FCC Site Registration No. is 988962.

5. The IC Site Registration No. is IC3789B-3.

5.1.3 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.

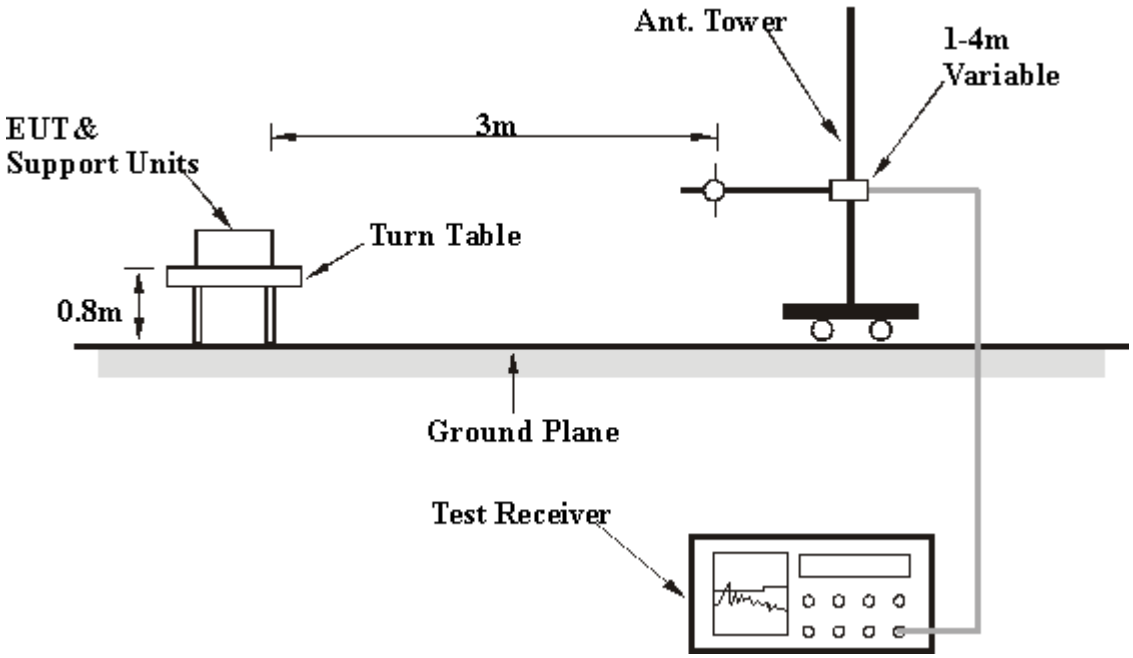
NOTE:

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.

5.1.4 DEVIATION FROM TEST STANDARD

No deviation.

5.1.5 TEST SETUP



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

5.1.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

5.1.7 TEST RESULTS

802.11a OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 149	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1021hPa	TESTED BY	Mark Liao

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	#5725.00	62.19 PK	80.01	-17.82	1.00 H	324	22.35	39.84
2	#5725.00	44.93 AV	70.14	-25.21	1.00 H	324	5.09	39.84
3	*5745.00	100.01 PK			1.00 H	324	60.14	39.87
4	*5745.00	90.14 AV			1.00 H	324	50.27	39.87
5	11490.00	64.91 PK	74.00	-9.09	1.05 H	276	14.91	50.00
6	11490.00	51.59 AV	54.00	-2.41	1.05 H	276	1.59	50.00
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	#5725.00	76.07 PK	92.05	-15.98	1.00 V	41	36.23	39.84
2	#5725.00	56.91 AV	82.66	-25.75	1.00 V	41	17.07	39.84
3	*5745.00	112.05 PK			1.00 V	40	72.18	39.87
4	*5745.00	102.66 AV			1.00 V	40	62.79	39.87
5	11490.00	66.71 PK	74.00	-7.29	1.56 V	293	16.71	50.00
6	11490.00	52.82 AV	54.00	-1.18	1.56 V	293	2.82	50.00

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 157	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1021hPa	TESTED BY	Mark Liao

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	*5785.00	100.79 PK			1.02 H	297	60.86	39.93
2	*5785.00	90.55 AV			1.02 H	297	50.62	39.93
3	11570.00	64.03 PK	74.00	-9.97	1.05 H	310	14.13	49.89
4	11570.00	51.34 AV	54.00	-2.66	1.05 H	310	1.44	49.89
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	*5785.00	112.15 PK			1.00 V	45	72.22	39.93
2	*5785.00	102.17 AV			1.00 V	45	62.24	39.93
3	11570.00	64.96 PK	74.00	-9.04	1.51 V	289	15.06	49.89
4	11570.00	52.88 AV	54.00	-1.12	1.51 V	289	2.99	49.89

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 limit value is defined as per 15.247.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 165	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1021hPa	TESTED BY	Mark Liao

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	*5825.00	100.86 PK			1.05 H	299	60.83	40.03
2	*5825.00	90.61 AV			1.05 H	299	50.58	40.03
3	#5850.00	51.76 PK	80.86	-29.10	1.05 H	299	11.66	40.10
4	#5850.00	37.66 AV	70.61	-32.95	1.05 H	299	-2.44	40.10
5	11650.00	64.02 PK	74.00	-9.98	1.08 H	330	14.18	49.84
6	11650.00	51.42 AV	54.00	-2.58	1.08 H	330	1.58	49.84
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	*5825.00	112.53 PK			1.36 V	16	72.50	40.03
2	*5825.00	102.66 AV			1.36 V	16	62.63	40.03
3	#5850.00	61.80 PK	92.53	-30.73	1.36 V	16	21.70	40.10
4	#5850.00	47.56 AV	82.66	-35.10	1.36 V	16	7.46	40.10
5	11650.00	64.66 PK	74.00	-9.34	1.37 V	286	14.82	49.84
6	11650.00	52.89 AV	54.00	-1.11	1.37 V	286	3.05	49.84

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 limit value is defined as per 15.247.
7. "#":The radiated frequency is out the restricted band.

DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 149	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1021hPa	TESTED BY	Match Tusi

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	3830.00	46.61 PK	74.00	-27.39	1.21 H	16	10.79	35.81
2	3830.00	33.89 AV	54.00	-20.11	1.21 H	16	-1.93	35.81
3	#5725.00	62.97 PK	84.12	-21.15	1.47 H	301	23.13	39.84
4	#5725.00	44.64 AV	74.13	-29.49	1.47 H	301	4.80	39.84
5	*5745.00	104.12 PK			1.47 H	301	64.25	39.87
6	*5745.00	94.13 AV			1.47 H	301	54.26	39.87
7	11490.00	60.16 PK	74.00	-13.84	1.00 H	360	10.16	50.00
8	11490.00	47.01 AV	54.00	-6.99	1.00 H	360	-2.99	50.00
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	3830.00	48.84 PK	74.00	-25.16	1.00 V	153	13.02	35.81
2	3830.00	39.93 AV	54.00	-14.07	1.00 V	153	4.11	35.81
3	#5725.00	72.93 PK	92.85	-19.92	1.29 V	194	33.09	39.84
4	#5725.00	55.48 AV	82.50	-27.02	1.29 V	194	15.64	39.84
5	*5745.00	112.85 PK			1.29 V	194	72.98	39.87
6	*5745.00	102.50 AV			1.29 V	194	62.63	39.87
7	11490.00	66.33 PK	74.00	-7.67	1.34 V	104	16.33	50.00
8	11490.00	52.53 AV	54.00	-1.47	1.34 V	104	2.53	50.00

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 157	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1021hPa	TESTED BY	Match Tusi

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	*5785.00	104.34 PK			1.34 H	271	64.41	39.93
2	*5785.00	94.06 AV			1.34 H	271	54.13	39.93
3	11570.00	60.56 PK	74.00	-13.44	1.20 H	360	10.66	49.89
4	11570.00	47.04 AV	54.00	-6.96	1.20 H	360	-2.86	49.89
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	3856.00	48.40 PK	74.00	-25.60	1.17 V	214	12.50	35.89
2	3856.00	39.42 AV	54.00	-14.58	1.17 V	214	3.52	35.89
3	*5785.00	112.97 PK			1.37 V	194	73.04	39.93
4	*5785.00	102.73 AV			1.37 V	194	62.80	39.93
5	11570.00	65.66 PK	74.00	-8.34	1.57 V	70	15.76	49.89
6	11570.00	52.56 AV	54.00	-1.44	1.57 V	70	2.66	49.89

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 limit value is defined as per 15.247.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 165	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1021hPa	TESTED BY	Match Tusi

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	*5825.00	104.66 PK			1.40 H	318	64.63	40.03
2	*5825.00	94.40 AV			1.40 H	318	54.37	40.03
3	#5850.00	59.92 PK	84.66	-24.74	1.40 H	318	19.82	40.10
4	#5850.00	43.06 AV	74.40	-31.34	1.40 H	318	2.96	40.10
5	11650.00	60.21 PK	74.00	-13.79	1.03 H	0	10.37	49.84
6	11650.00	47.19 AV	54.00	-6.81	1.03 H	0	-2.65	49.84
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	3883.00	49.11 PK	74.00	-24.89	1.00 V	161	13.13	35.98
2	3883.00	40.05 AV	54.00	-13.95	1.00 V	161	4.07	35.98
3	*5825.00	112.77 PK			1.47 V	193	72.74	40.03
4	*5825.00	102.53 AV			1.47 V	193	62.51	40.03
5	#5850.00	57.50 PK	92.77	-35.27	1.47 V	193	17.40	40.10
6	#5850.00	44.81 AV	82.53	-37.72	1.47 V	193	4.71	40.10
7	11650.00	68.02 PK	74.00	-5.98	1.56 V	98	18.18	49.84
8	11650.00	52.79 AV	54.00	-1.21	1.56 V	98	2.95	49.84

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 limit value is defined as per 15.247.
7. "#":The radiated frequency is out the restricted band.

DRAFT 802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 151	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1021hPa	TESTED BY	Match Tsui

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5725.00	72.72 PK	82.19	-9.47	1.44 H	299	32.88	39.84
2	#5725.00	51.20 AV	71.78	-20.58	1.44 H	299	11.36	39.84
3	*5755.00	102.19 PK			1.44 H	299	62.31	39.88
4	*5755.00	91.78 AV			1.44 H	299	51.90	39.88
5	11510.00	60.60 PK	74.00	-13.40	1.60 H	360	10.62	49.98
6	11510.00	48.03 AV	54.00	-5.97	1.60 H	360	-1.95	49.98
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	3836.00	47.54 PK	74.00	-26.46	1.10 V	127	11.70	35.83
2	3836.00	38.55 AV	54.00	-15.45	1.10 V	127	2.71	35.83
3	#5725.00	81.20 PK	90.02	-8.82	1.41 V	174	41.36	39.84
4	#5725.00	61.44 AV	80.21	-18.77	1.41 V	174	21.60	39.84
5	*5755.00	110.02 PK			1.41 V	174	70.14	39.88
6	*5755.00	100.21 AV			1.41 V	174	60.33	39.88
7	11510.00	65.17 PK	74.00	-8.83	1.33 V	101	15.19	49.98
8	11510.00	52.83 AV	54.00	-1.17	1.33 V	101	2.85	49.98

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 limit value is defined as per 15.247.
7. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 159	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1021hPa	TESTED BY	Match Tsui

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5795.00	102.18 PK			1.24 H	301	62.24	39.94
2	*5795.00	91.79 AV			1.24 H	301	51.85	39.94
3	#5850.00	53.61 PK	82.18	-28.57	1.24 H	301	13.51	40.10
4	#5850.00	40.26 AV	71.79	-31.53	1.24 H	301	0.16	40.10
5	11590.00	60.60 PK	74.00	-13.40	1.17 H	97	10.73	49.87
6	11590.00	48.21 AV	54.00	-5.79	1.17 H	97	-1.66	49.87
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	3863.00	49.10 PK	74.00	-24.90	1.14 V	150	13.19	35.92
2	3863.00	40.09 AV	54.00	-13.91	1.14 V	150	4.18	35.92
3	*5795.00	110.08 PK			1.27 V	192	70.14	39.94
4	*5795.00	100.22 AV			1.27 V	192	60.28	39.94
5	#5850.00	59.88 PK	90.08	-30.20	1.27 V	192	19.78	40.10
6	#5850.00	46.28 AV	80.22	-33.94	1.27 V	192	6.18	40.10
7	11590.00	66.50 PK	74.00	-7.50	1.55 V	96	16.63	49.87
8	11590.00	52.80 AV	54.00	-1.20	1.55 V	96	2.93	49.87

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. " * ": Fundamental frequency.
6. The limit value is defined as per 15.247.
7. "#":The radiated frequency is out the restricted band.

BELOW 1GHz WORST-CASE DATA：DRAFT 802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 151	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1021hPa	TESTED BY	Match Tsui
TEST MODE	A		

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	148.50	37.39 QP	43.50	-6.11	1.00 H	130	23.03	14.36
2	187.39	39.24 QP	43.50	-4.26	1.25 H	145	27.52	11.72
3	249.60	43.55 QP	46.00	-2.45	1.25 H	43	29.15	14.40
4	374.04	43.29 QP	46.00	-2.71	1.00 H	346	25.51	17.79
5	399.31	38.11 QP	46.00	-7.89	1.00 H	340	19.20	18.91
6	500.42	41.41 QP	46.00	-4.59	1.50 H	169	19.94	21.48
7	624.85	42.18 QP	46.00	-3.82	1.50 H	352	17.82	24.36
8	681.24	43.87 QP	46.00	-2.13	1.25 H	331	17.91	25.96
9	751.23	42.11 QP	46.00	-3.89	1.00 H	151	15.05	27.06
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	31.84	38.21 QP	40.00	-1.79	1.50 V	319	24.92	13.29
2	66.84	35.49 QP	40.00	-4.51	1.50 V	82	21.98	13.50
3	121.28	39.41 QP	43.50	-4.09	1.50 V	40	27.52	11.88
4	150.45	38.10 QP	43.50	-5.40	1.00 V	10	23.56	14.54
5	185.44	36.47 QP	43.50	-7.03	1.00 V	79	24.65	11.82
6	249.60	38.56 QP	46.00	-7.44	1.50 V	94	24.16	14.40
7	374.04	38.43 QP	46.00	-7.57	1.00 V	148	20.65	17.79
8	500.42	40.08 QP	46.00	-5.92	1.00 V	196	18.61	21.48
9	624.85	40.92 QP	46.00	-5.08	1.50 V	151	16.56	24.36
10	681.24	39.44 QP	46.00	-6.56	1.50 V	214	13.48	25.96
11	751.23	44.19 QP	46.00	-1.81	1.00 V	196	17.14	27.06
12	875.67	40.12 QP	46.00	-5.88	1.00 V	166	10.79	29.33

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 151	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH 1021hPa	TESTED BY	Match Tsui
TEST MODE	B		

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	160.17	41.65 QP	43.50	-1.85	1.50 H	160	26.82	14.83
2	249.60	44.98 QP	46.00	-1.02	1.00 H	220	30.58	14.40
3	374.04	42.52 QP	46.00	-3.48	1.00 H	295	24.74	17.79
4	428.48	38.85 QP	46.00	-7.15	2.00 H	175	19.23	19.62
5	500.42	43.17 QP	46.00	-2.83	1.50 H	190	21.69	21.48
6	624.85	39.74 QP	46.00	-6.26	1.50 H	253	15.38	24.36
7	681.24	41.77 QP	46.00	-4.23	1.50 H	172	15.81	25.96
8	751.23	44.54 QP	46.00	-1.46	1.00 H	100	17.48	27.06
9	764.84	39.62 QP	46.00	-6.38	2.00 H	208	12.43	27.19
10	811.50	38.96 QP	46.00	-7.04	2.00 H	286	11.14	27.82
11	825.11	40.82 QP	46.00	-5.18	1.00 H	346	12.68	28.14
12	850.39	38.46 QP	46.00	-7.54	1.50 H	256	9.72	28.74
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	59.06	36.05 QP	40.00	-3.95	1.00 V	10	22.81	13.24
2	62.95	34.43 QP	40.00	-5.57	1.00 V	31	21.09	13.34
3	121.28	41.98 QP	43.50	-1.52	1.00 V	232	30.09	11.88
4	160.17	36.20 QP	43.50	-7.30	1.00 V	250	21.37	14.83
5	183.50	42.00 QP	43.50	-1.50	1.00 V	160	30.07	11.93
6	249.60	43.31 QP	46.00	-2.69	2.00 V	112	28.91	14.40
7	374.04	39.42 QP	46.00	-6.58	1.50 V	358	21.63	17.79
8	500.42	43.36 QP	46.00	-2.64	1.00 V	142	21.89	21.48
9	751.23	44.64 QP	46.00	-1.36	1.50 V	76	17.58	27.06
10	875.67	39.95 QP	46.00	-6.05	1.00 V	145	10.62	29.33

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.

5.2 CONDUCTED EMISSION MEASUREMENT

5.2.1 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.

5.2.2 T EST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Sep. 22, 2008	Sep. 21, 2009
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Jan. 04, 2008	Jan. 03, 2009
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Jan. 10, 2008	Jan. 09, 2009
LISN SCHWARZBECK	ESH3-Z5	100311	Jul. 30, 2008	Jul. 29, 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 2.

3. The VCCI Site Registration No. is C-2047.

5.2.3 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.

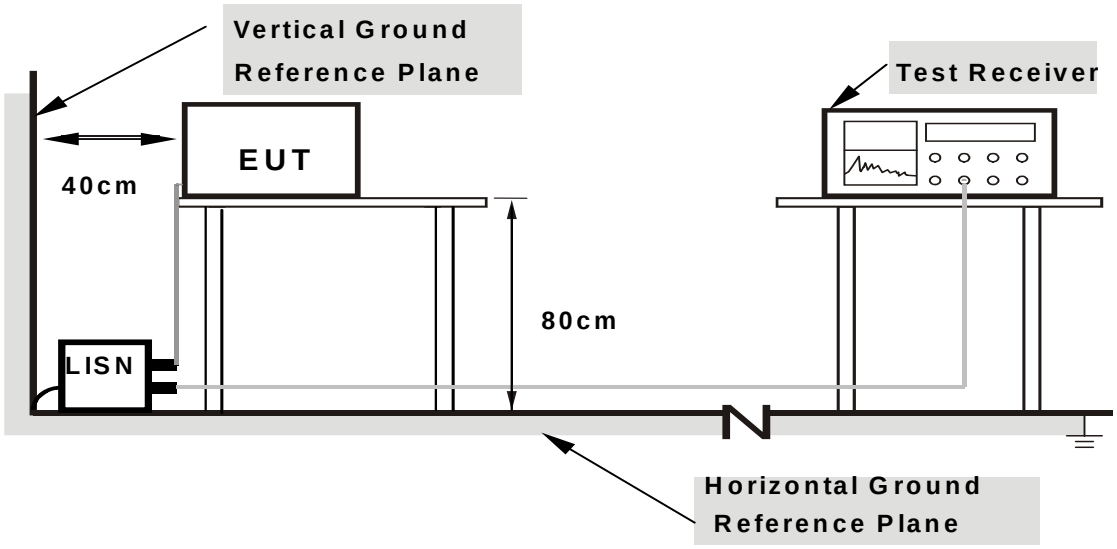
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

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

5.2.4 DEVIATION FROM TEST STANDARD

No deviation.

5.2.5 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).

5.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6

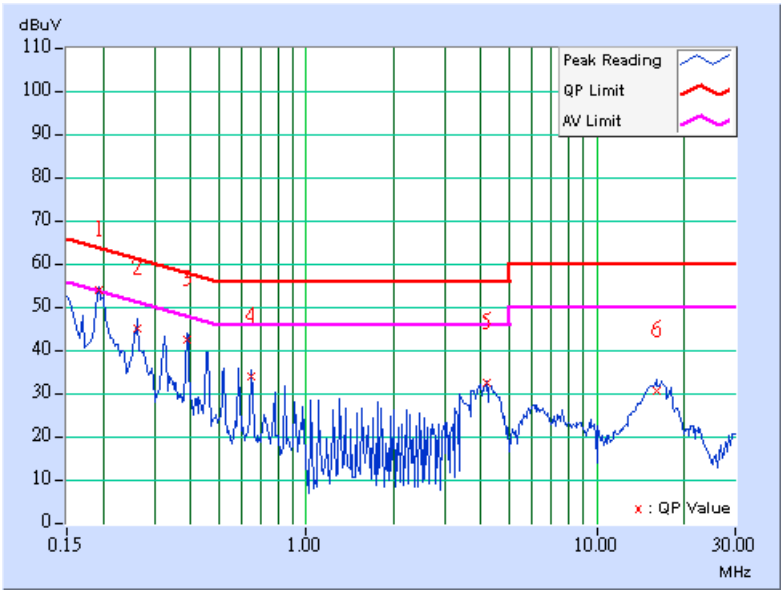
5.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA：DRAFT 802.11n (40MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 151	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	15.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH, 1021hPa	TESTED BY	Mark Liao
TEST MODE	A		

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.193	0.13	53.28	-	53.41	-	63.91	53.91	-10.50	-
2	0.263	0.13	44.27	-	44.40	-	61.33	51.33	-16.92	-
3	0.388	0.14	41.63	-	41.77	-	58.10	48.10	-16.33	-
4	0.650	0.15	33.10	-	33.25	-	56.00	46.00	-22.75	-
5	4.160	0.44	31.73	-	32.17	-	56.00	46.00	-23.83	-
6	16.059	0.96	29.93	-	30.89	-	60.00	50.00	-29.11	-

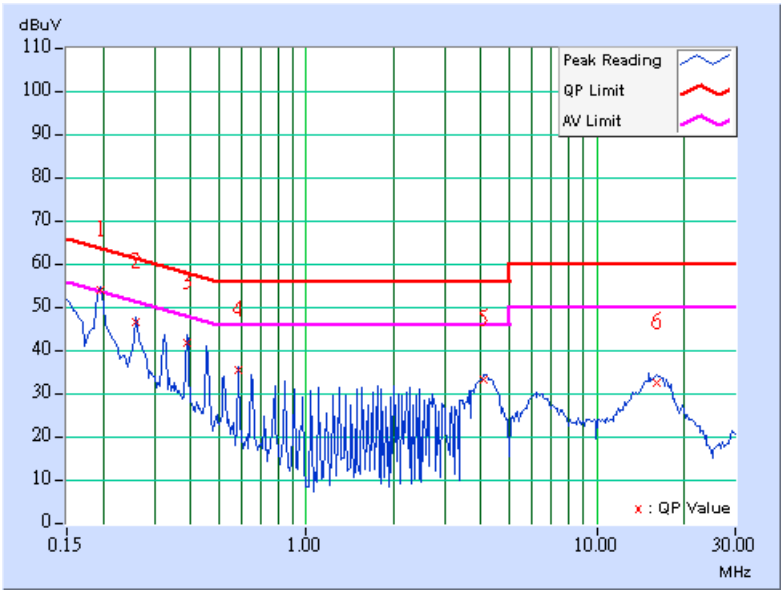
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 151	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	15.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH, 1021hPa	TESTED BY	Mark Liao
TEST MODE	A		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	**0.197**	**0.14**	**53.22**	**-**	**53.36**	**-**	**63.74**	**53.74**	**-10.38**	**-**
2	0.259	0.14	45.95	-	46.09	-	61.45	51.45	-15.36	-
3	0.388	0.15	40.96	-	41.11	-	58.10	48.10	-16.99	-
4	0.584	0.16	34.88	-	35.04	-	56.00	46.00	-20.96	-
5	4.098	0.43	32.53	-	32.96	-	56.00	46.00	-23.04	-
6	16.055	0.77	31.69	-	32.46	-	60.00	50.00	-27.54	-

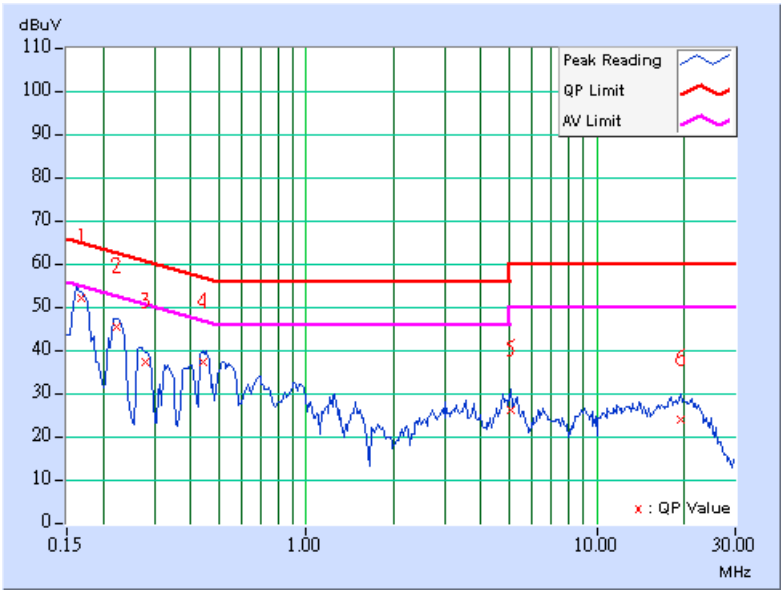
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 151	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	15.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH, 1021hPa	TESTED BY	Mark Liao
TEST MODE	B		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.168	0.13	51.01	-	51.14	-	65.04	55.04	-13.91	-
2	0.222	0.13	44.14	-	44.27	-	62.76	52.76	-18.49	-
3	0.279	0.13	36.12	-	36.25	-	60.85	50.85	-24.60	-
4	0.443	0.14	36.24	-	36.38	-	57.01	47.01	-20.63	-
5	5.055	0.47	25.14	-	25.61	-	60.00	50.00	-34.39	-
6	19.520	1.27	22.77	-	24.04	-	60.00	50.00	-35.96	-

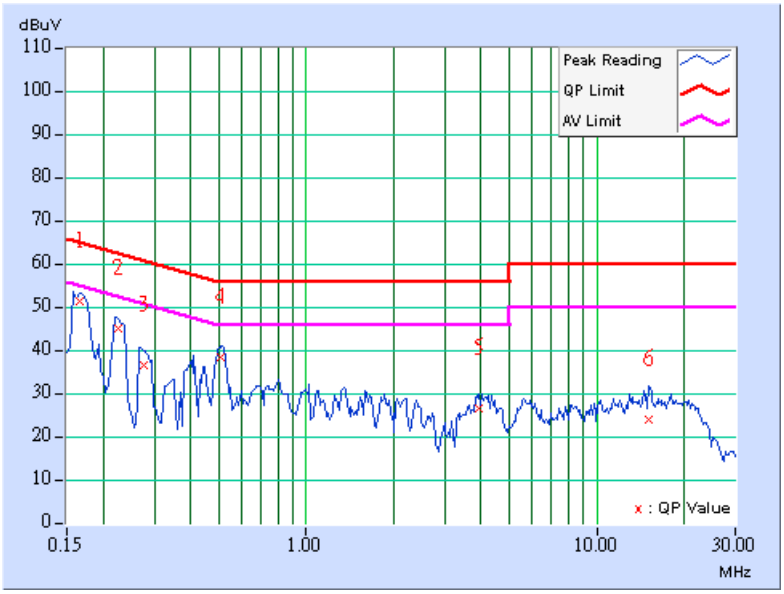
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 151	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	15.0Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	23deg. C, 67%RH, 1021hPa	TESTED BY	Mark Liao
TEST MODE	B		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.166	0.14	50.71	-	50.85	-	65.18	55.18	-14.33	-
2	0.224	0.14	44.64	-	44.78	-	62.66	52.66	-17.88	-
3	0.278	0.14	35.97	-	36.11	-	60.89	50.89	-24.77	-
4	0.505	0.16	37.65	-	37.81	-	56.00	46.00	-18.19	-
5	3.906	0.42	25.87	-	26.29	-	56.00	46.00	-29.71	-
6	15.109	0.73	23.25	-	23.98	-	60.00	50.00	-36.02	-

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.



5.3 6dB BANDWIDTH MEASUREMENT

5.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

5.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	CALIBRATED UNTIL
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.

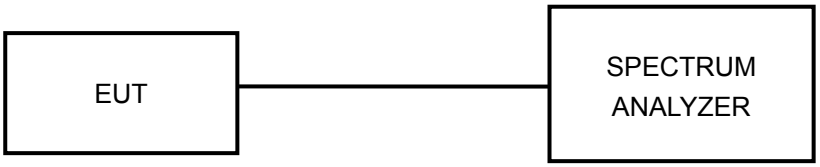
5.3.3 TEST PROCEDURE

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.

5.3.4 DEVIATION FROM TEST STANDARD

No deviation

5.3.5 TEST SETUP



5.3.6 EUT OPERATING CONDITIONS

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

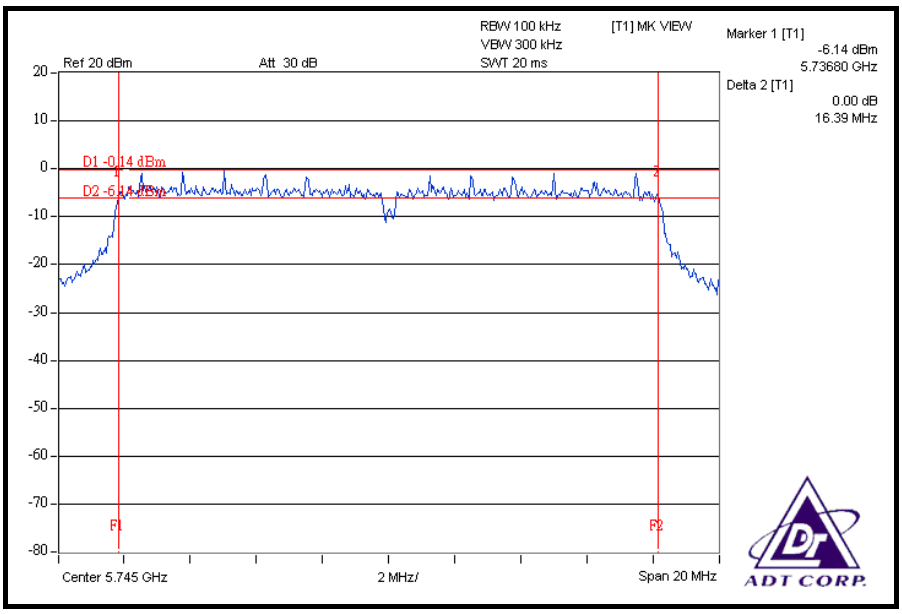
5.3.7 TEST RESULTS

802.11a OFDM MODULATION

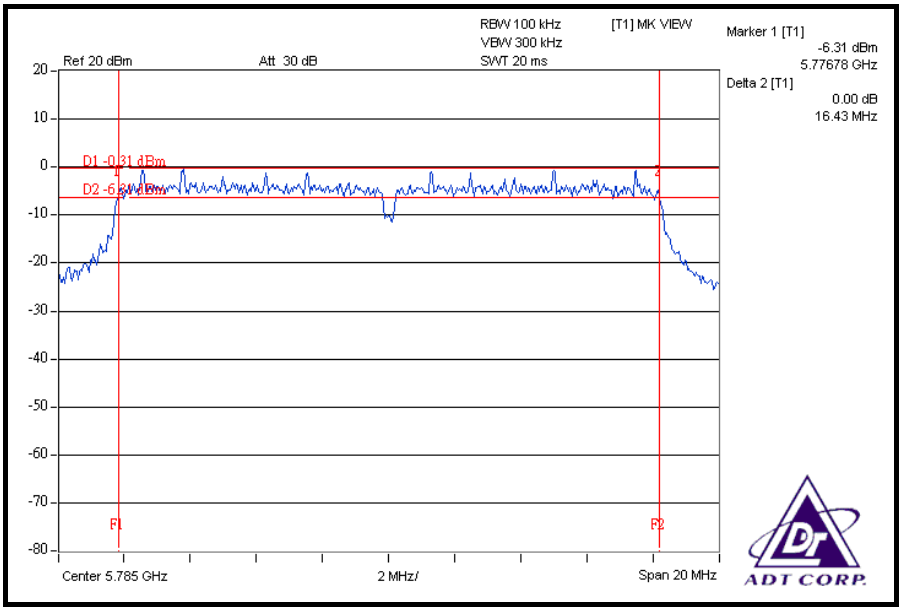
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
149	5745	16.39	16.44	0.5	PASS
157	5785	16.43	16.42	0.5	PASS
165	5825	16.41	16.44	0.5	PASS

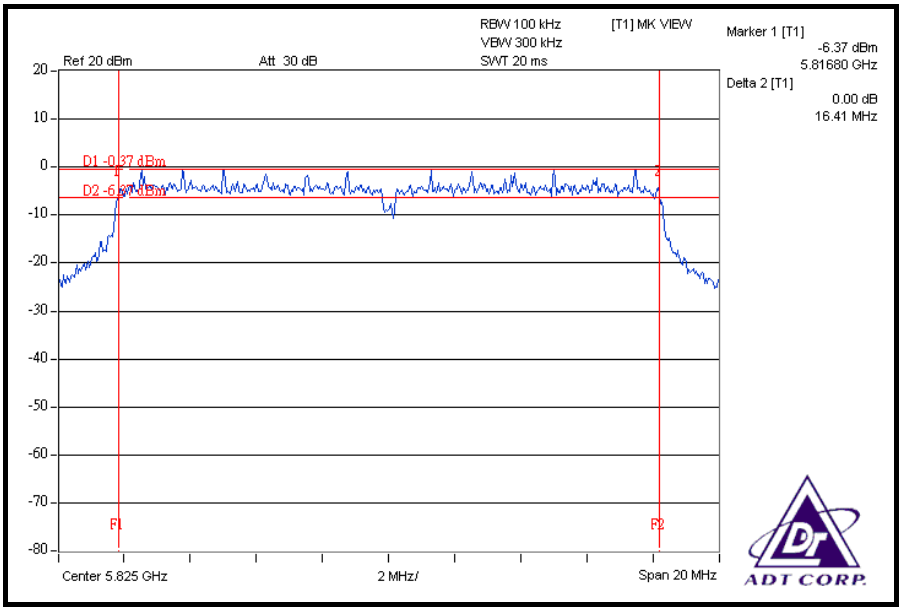
FOR CHAIN 0: CH 149



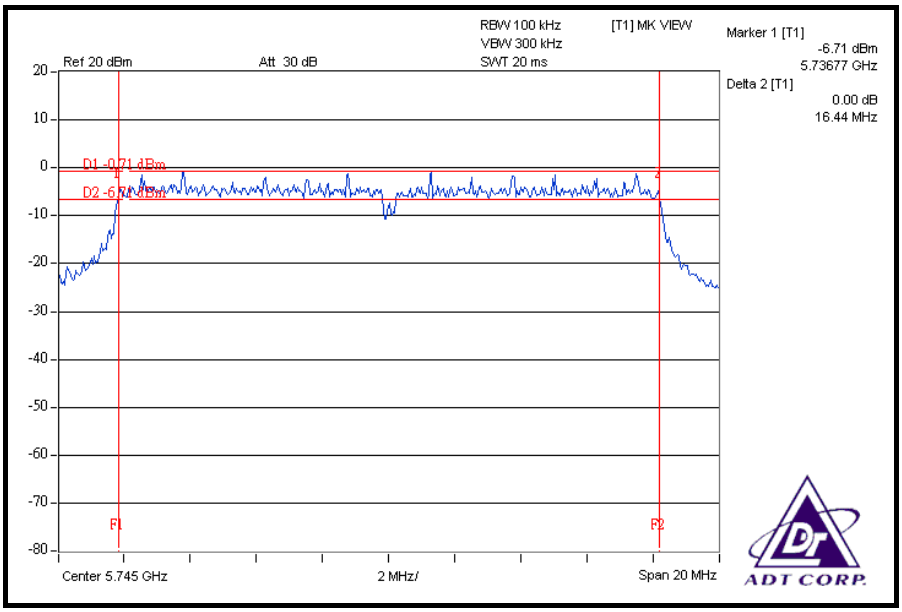
FOR CHAIN 0: CH 157



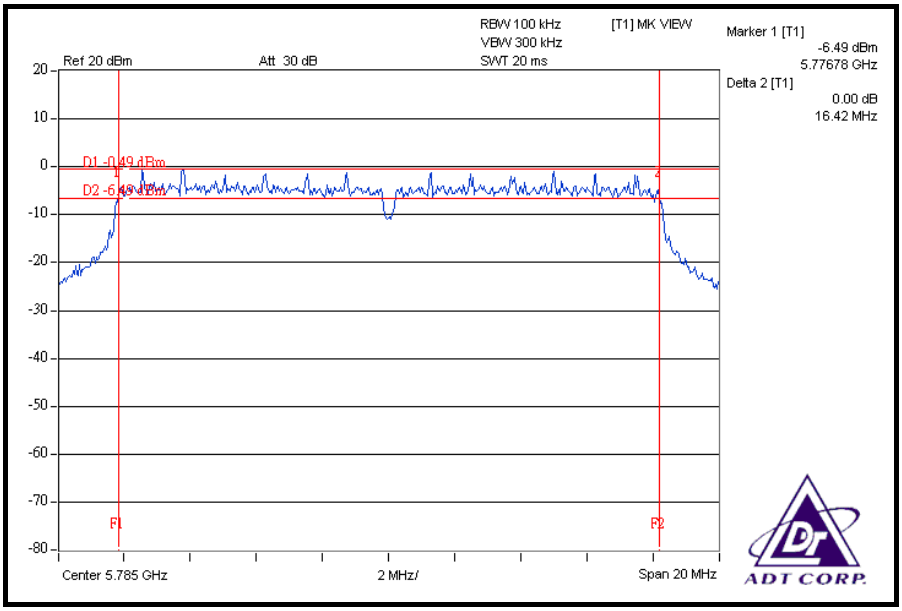
FOR CHAIN 0: CH 165



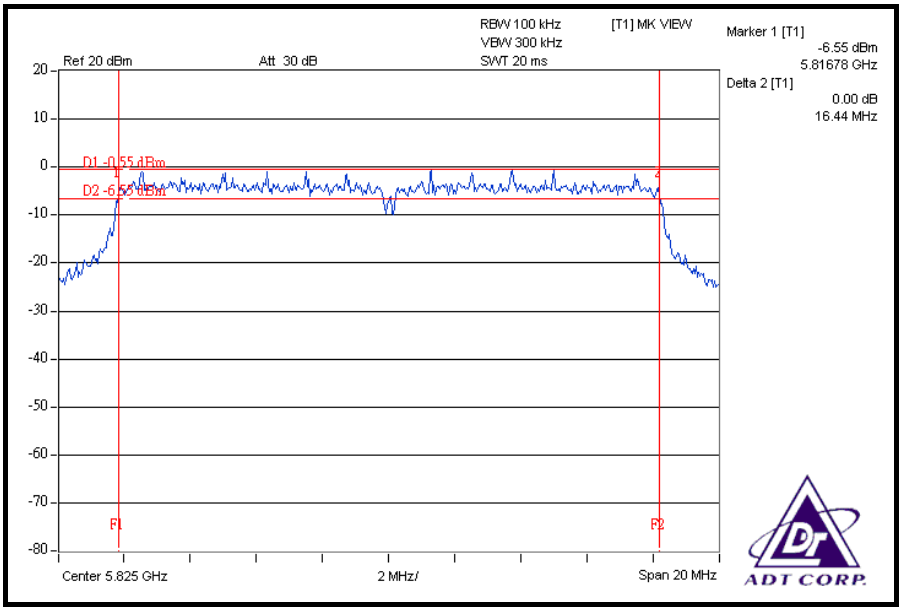
FOR CHAIN 1: CH 149



FOR CHAIN 1: CH 157



FOR CHAIN 1: CH 165

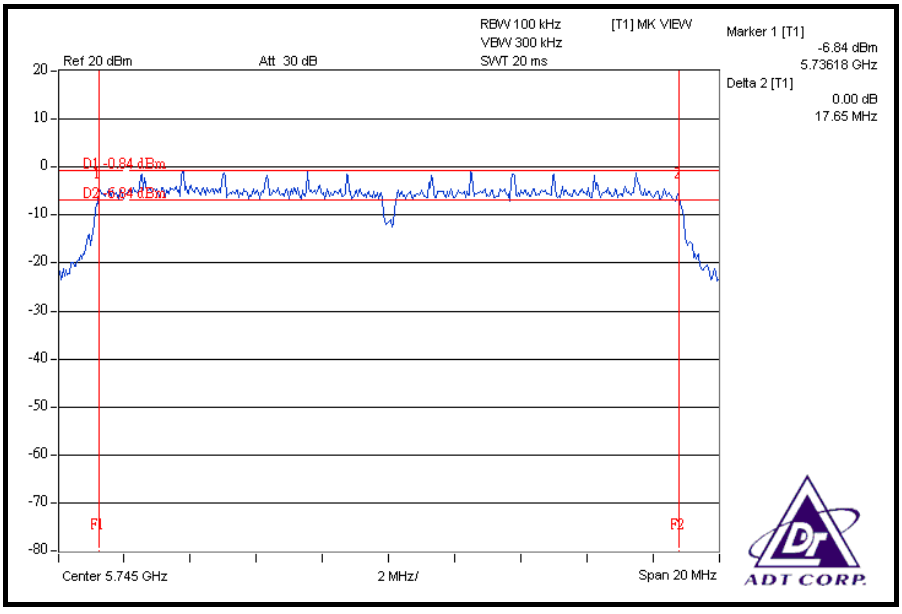


DRAFT 802.11n (20MHz) OFDM MODULATION

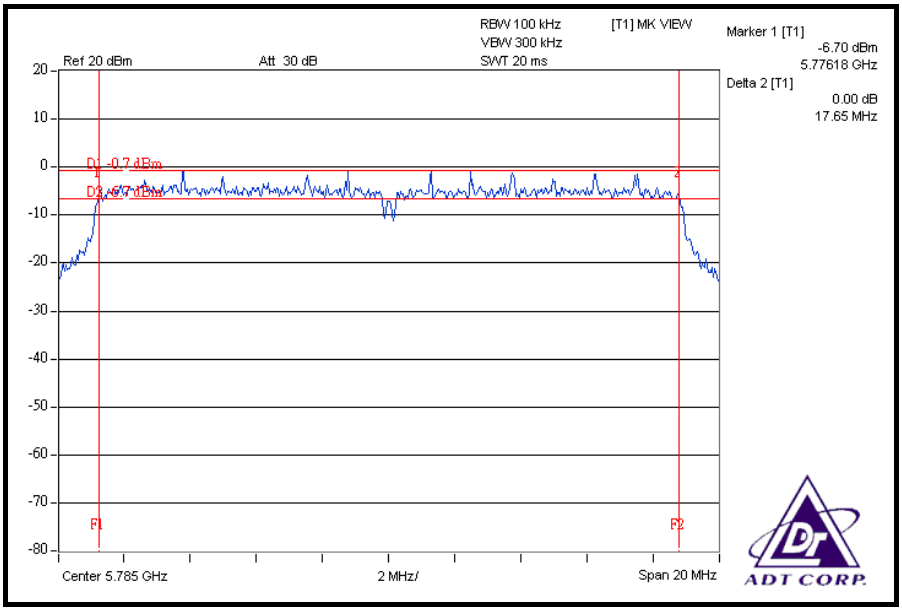
MODULATION TYPE	BPSK	**TRANSFER RATE**	7.2Mbps
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
149	5745	17.65	17.63	0.5	PASS
157	5785	17.65	17.66	0.5	PASS
165	5825	17.64	17.64	0.5	PASS

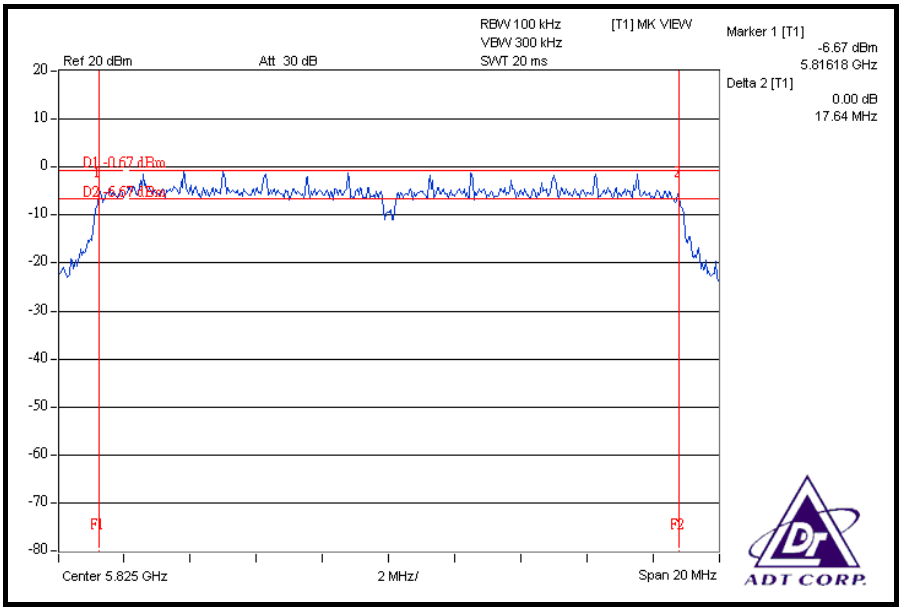
FOR CHAIN 0: CH 149



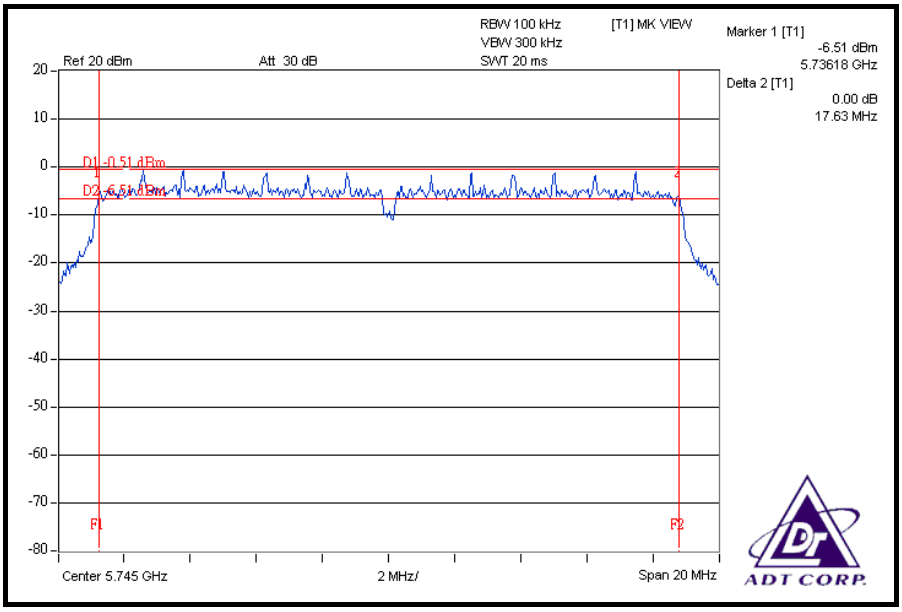
CH 157


RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-6.70 dBm
5.77618 GHz
Delta 2 [T1]
0.00 dB
17.65 MHz
Ref 20 dBm
Att 30 dB
D1 -0.7 dBm
D2 -6.7 dBm
F1
F2
Center 5.785 GHz
2 MHz/
Span 20 MHz
ADT CORP.

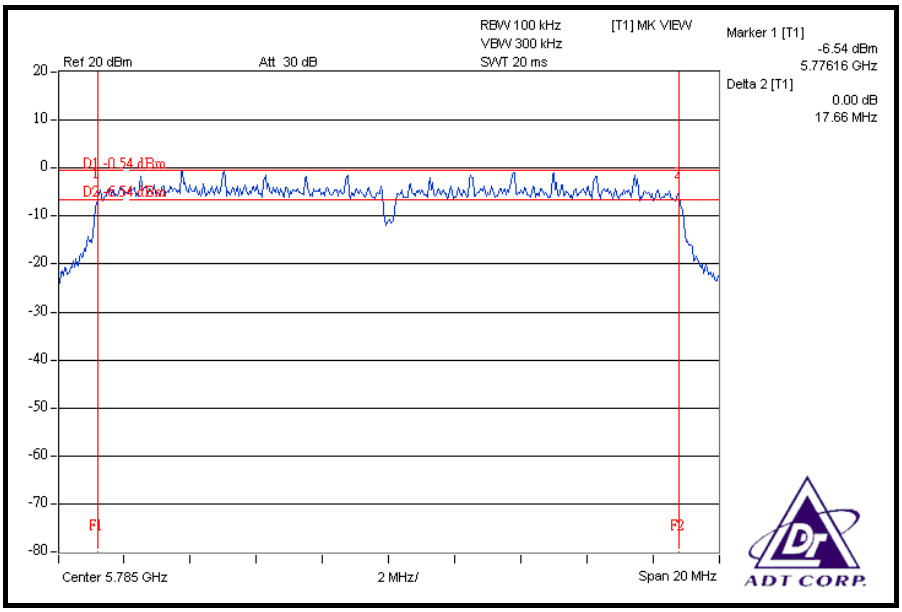
CH 165


RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-6.67 dBm
5.81618 GHz
Delta 2 [T1]
0.00 dB
17.64 MHz
Ref 20 dBm
Att 30 dB
D1 -0.67 dBm
D2 -6.67 dBm
F1
F2
Center 5.825 GHz
2 MHz/
Span 20 MHz
ADT CORP.

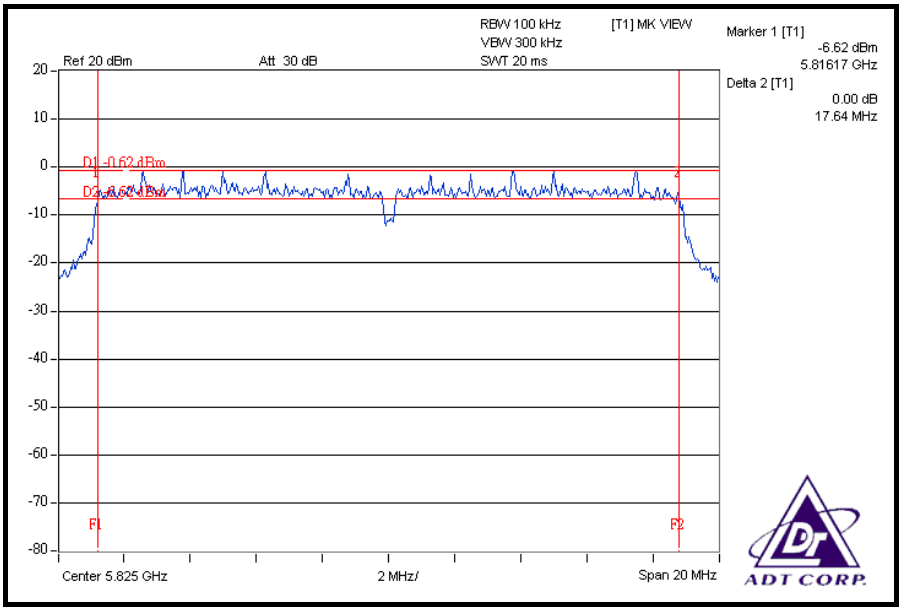
FOR CHAIN 1: CH 149



CH 157



CH 165

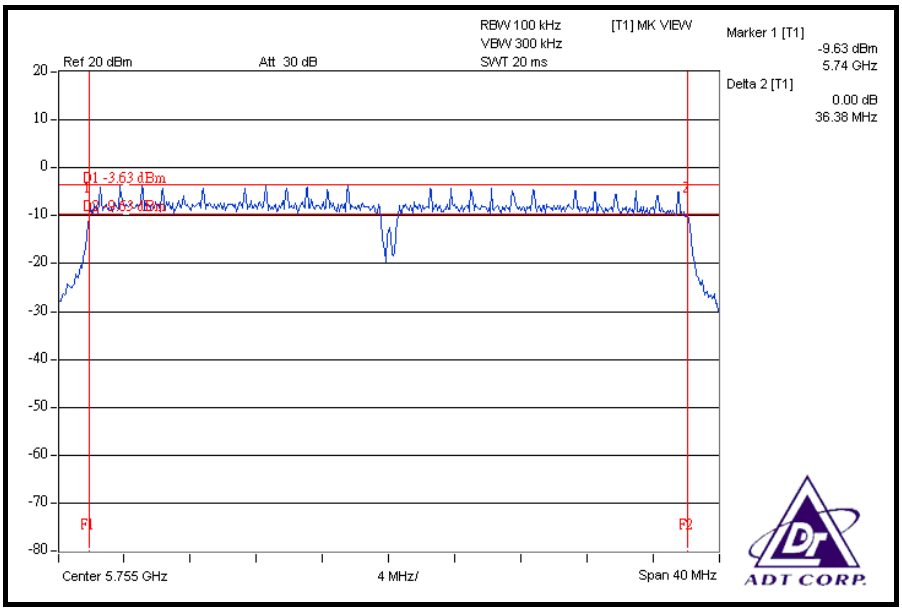

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-6.62 dBm
5.81617 GHz
Delta 2 [T1]
0.00 dB
17.64 MHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
D1 -1.62 dBm
D2 -6.62 dBm
F1
F2
Center 5.825 GHz
2 MHz/
Span 20 MHz
ADT CORP.

DRAFT 802.11n (40MHz) OFDM MODULATION

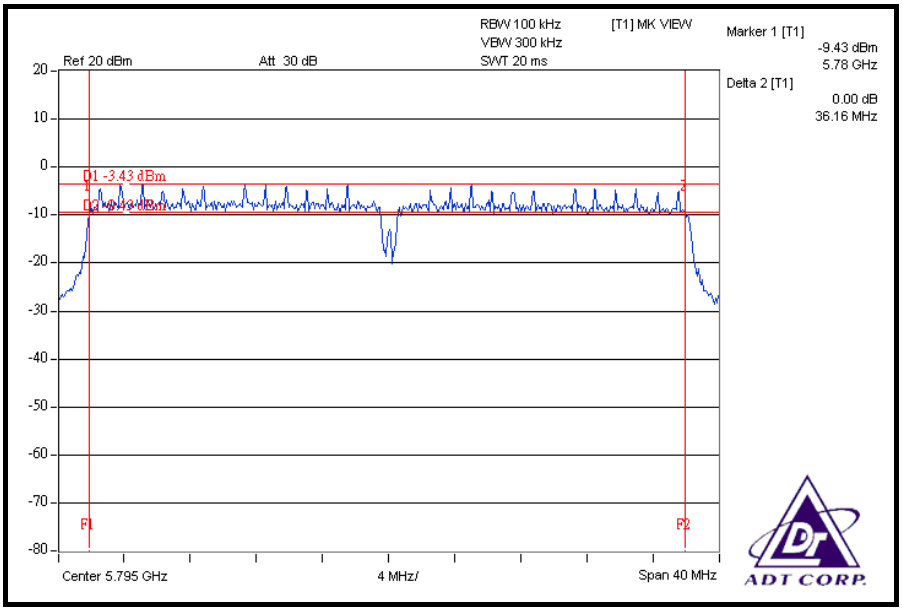
MODULATION TYPE	BPSK	**TRANSFER RATE**	15.0Mbps
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
151	5755	36.38	36.39	0.5	PASS
159	5795	36.16	36.10	0.5	PASS

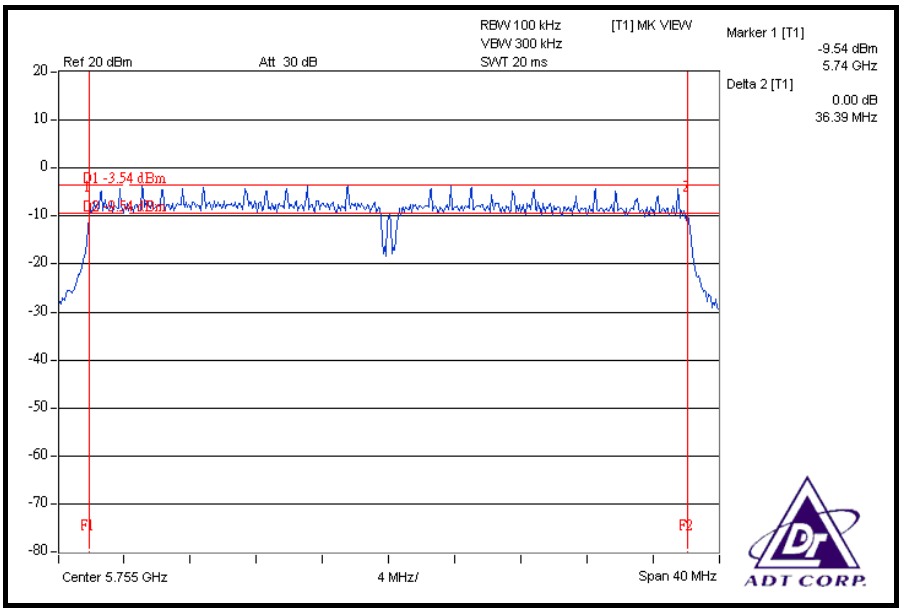
FOR CHAIN 0: CH 151



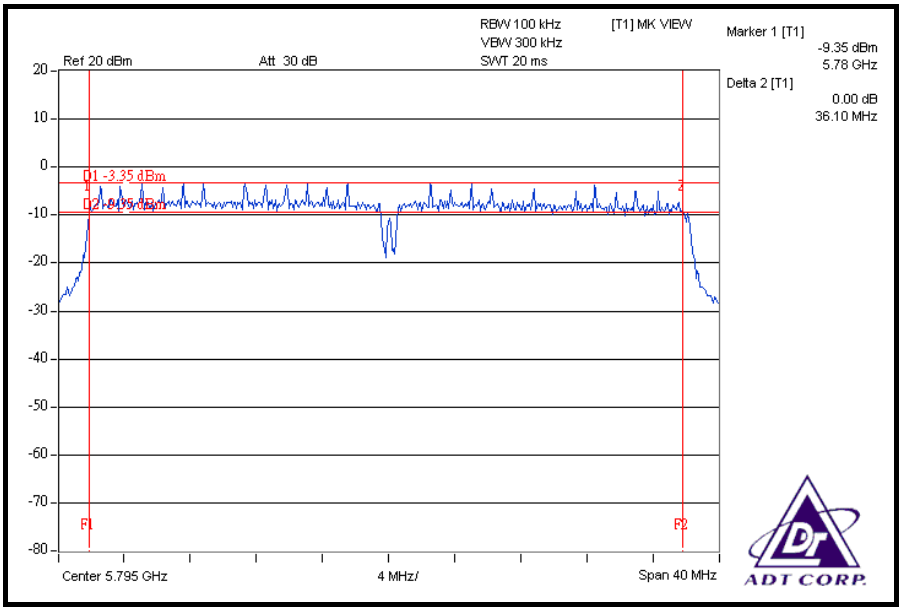
CH 159



FOR CHAIN 1: CH 151



CH 159


RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Marker 1 [T1]
-9.35 dBm
5.78 GHz
Delta 2 [T1]
0.00 dB
36.10 MHz
Ref 20 dBm
Att 30 dB
D1 -3.35 dBm
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
F1
F2
Center 5.795 GHz
4 MHz/
Span 40 MHz
ADT CORP.

5.4 MAXIMUM PEAK OUTPUT POWER

5.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

5.4.2 INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	CALIBRATED UNTIL
High Speed Peak Power Meter	ML2495A	0824012	Aug. 04, 2008	Aug. 03, 2009
Power Sensor	MA2444B	0738138	Aug. 04, 2008	Aug. 03, 2009

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. Measurement Bandwidth of ML2495A is 65MHz greater than 6dB bandwidth of emission.

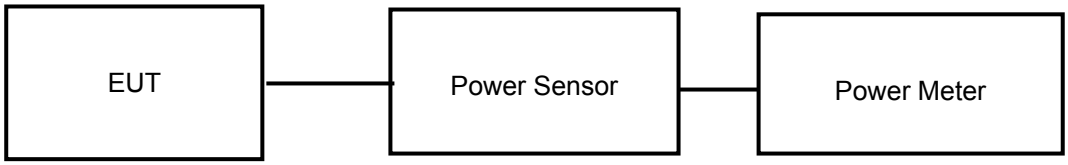
5.4.3 TEST PROCEDURES

A power sensor was used on the output port of the EUT. A power meter was used to read the response of the power sensor. Record the power level.

5.4.4 DEVIATION FROM TEST STANDARD

No deviation.

5.4.5 TEST SETUP



5.4.6 EUT OPERATING CONDITIONS

Same as Item 5.3.6

5.4.7 TEST RESULTS

802.11a OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	6.0Mbps
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

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				
149	5745	21.06	21.04	254.701	24.06	30	PASS
157	5785	21.04	21.06	254.701	24.06	30	PASS
165	5825	21.02	21.03	253.239	24.04	30	PASS

DRAFT 802.11n (20MHz) OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	7.2Mbps
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

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				
149	5745	21.09	21.05	255.879	24.08	30	PASS
157	5785	21.06	21.04	254.701	24.06	30	PASS
165	5825	21.05	21.12	256.770	24.10	30	PASS

DRAFT 802.11n (40MHz) OFDM MODULATION

MODULATION TYPE	BPSK	**TRANSFER RATE**	15.0Mbps
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

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				
151	5755	22.06	22.05	321.019	25.07	30	PASS
159	5795	22.04	22.01	318.810	25.04	30	PASS

5.5 POWER SPECTRAL DENSITY MEASUREMENT

5.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

5.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	CALIBRATED UNTIL
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.

5.5.3 TEST PROCEDURE

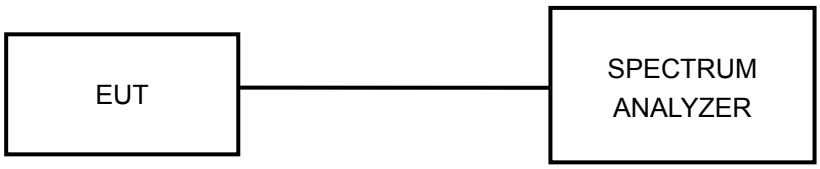
The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

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

5.5.4 DEVIATION FROM TEST STANDARD

No deviation.

5.5.5 TEST SETUP



5.5.6 EUT OPERATING CONDITION

Same as Item 5.3.6.

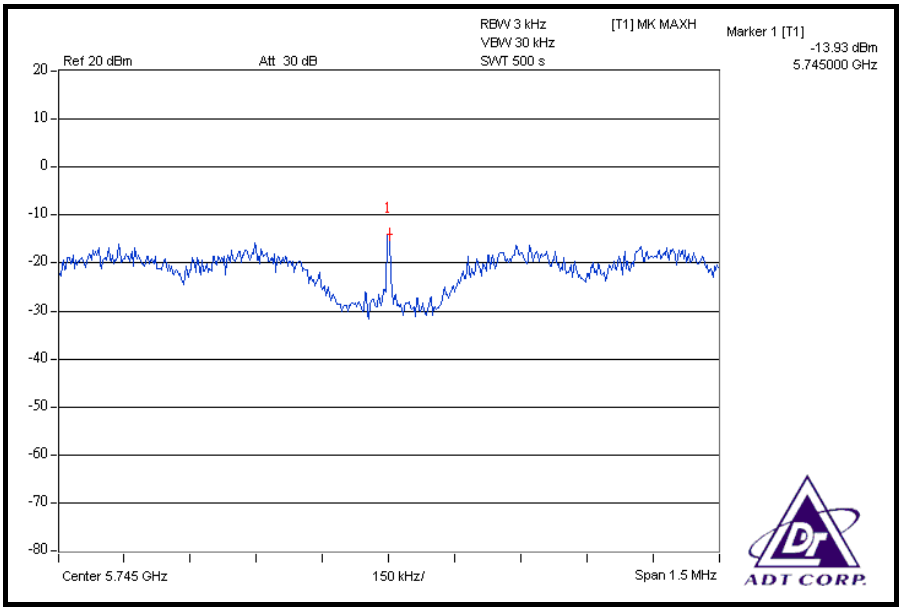
5.5.7 TEST RESULTS

802.11a OFDM MODULATION

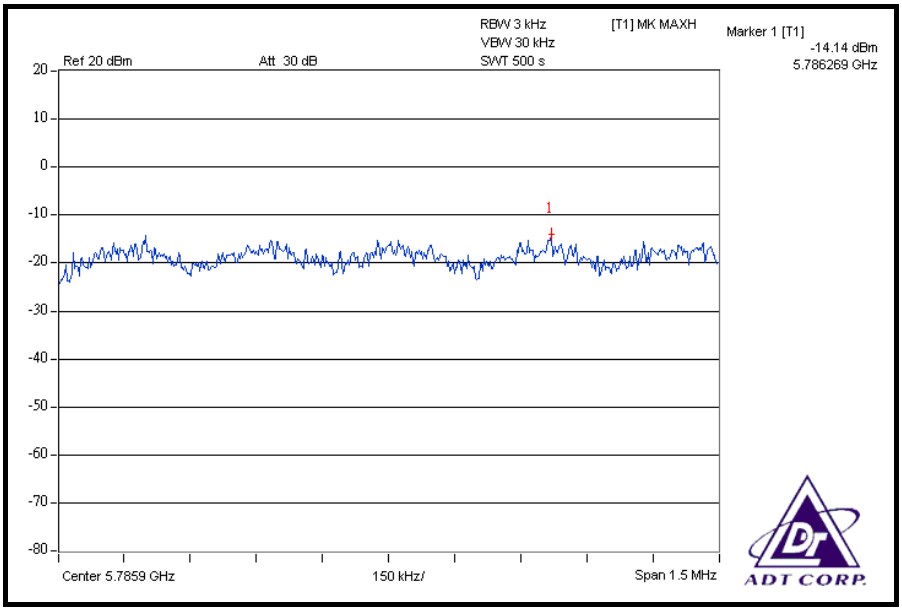
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

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				
149	5745	-13.93	-12.35	0.099	-10.06	8	PASS
157	5785	-14.14	-12.25	0.098	-10.08	8	PASS
165	5825	-13.70	-12.17	0.103	-9.86	8	PASS

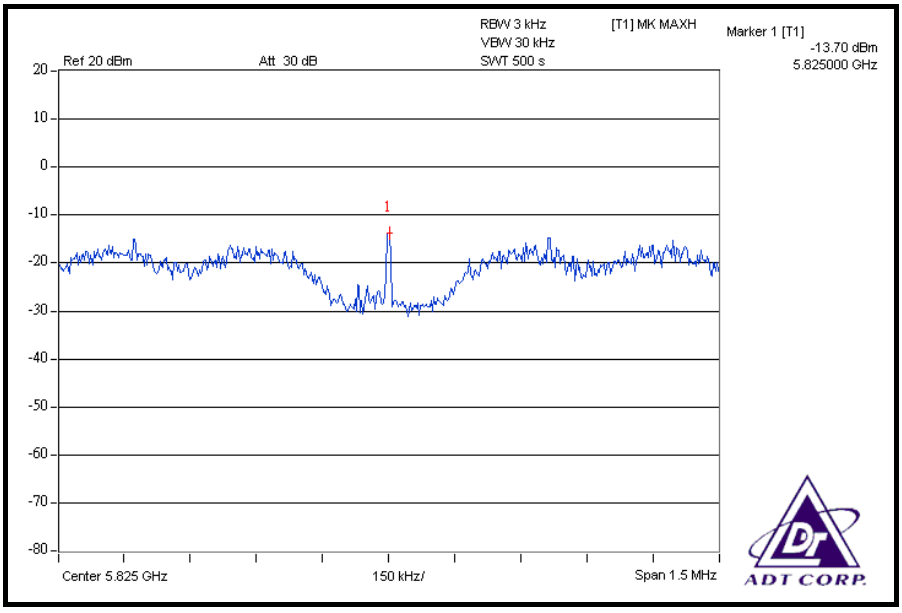
FOR CHAIN 0: CH 149



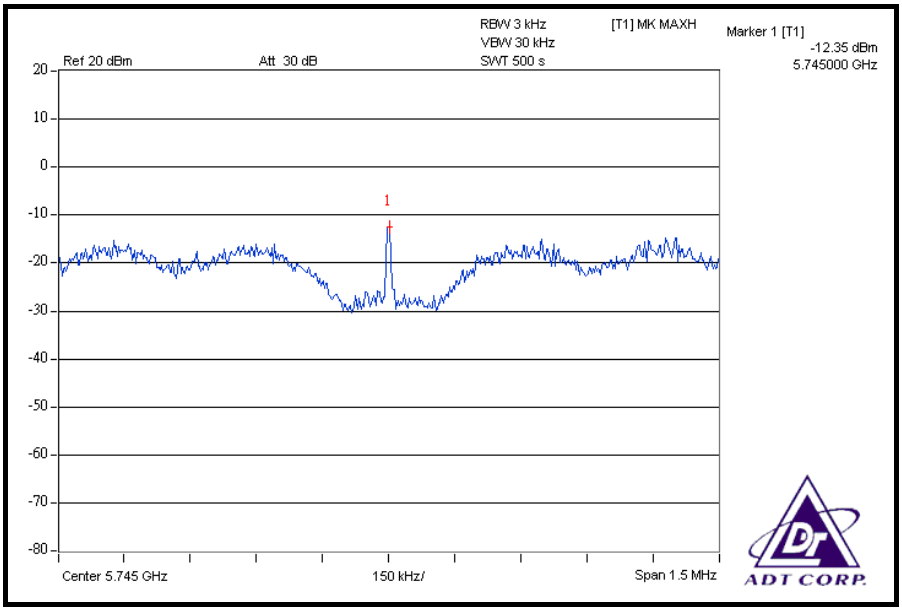
CH 157


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-14.14 dBm
5.786269 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 5.7859 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

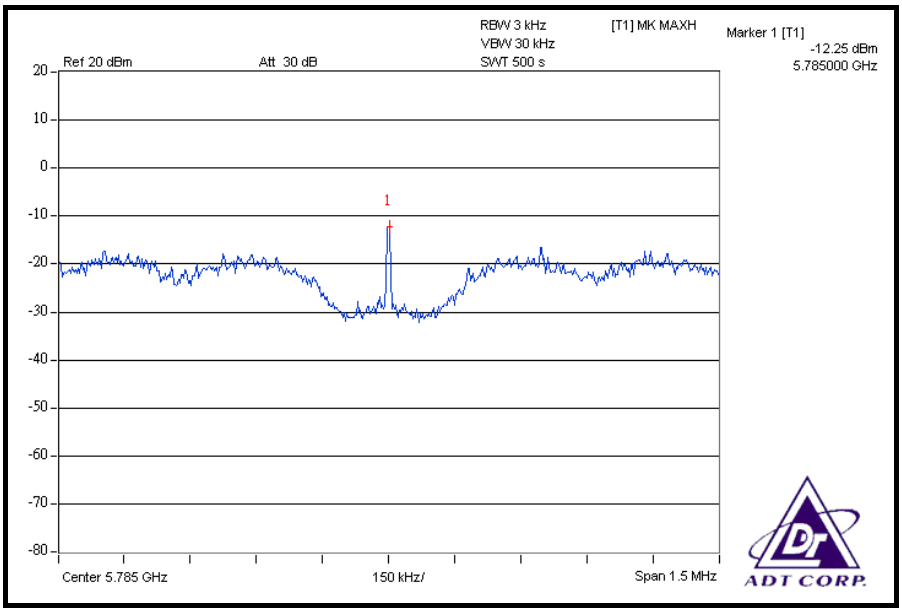
CH 165


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-13.70 dBm
5.825000 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 5.825 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

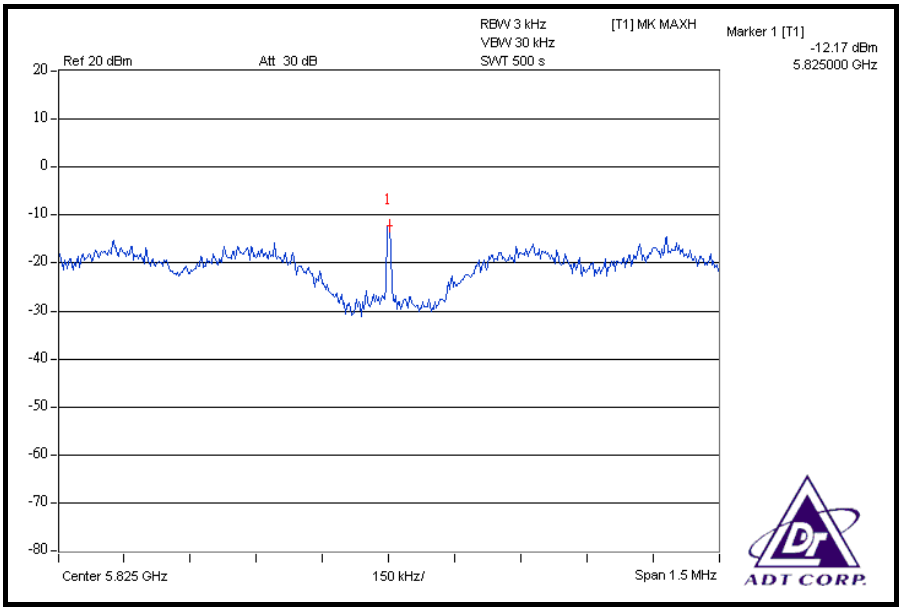
FOR CHAIN 1: CH 149



CH 157



CH 165

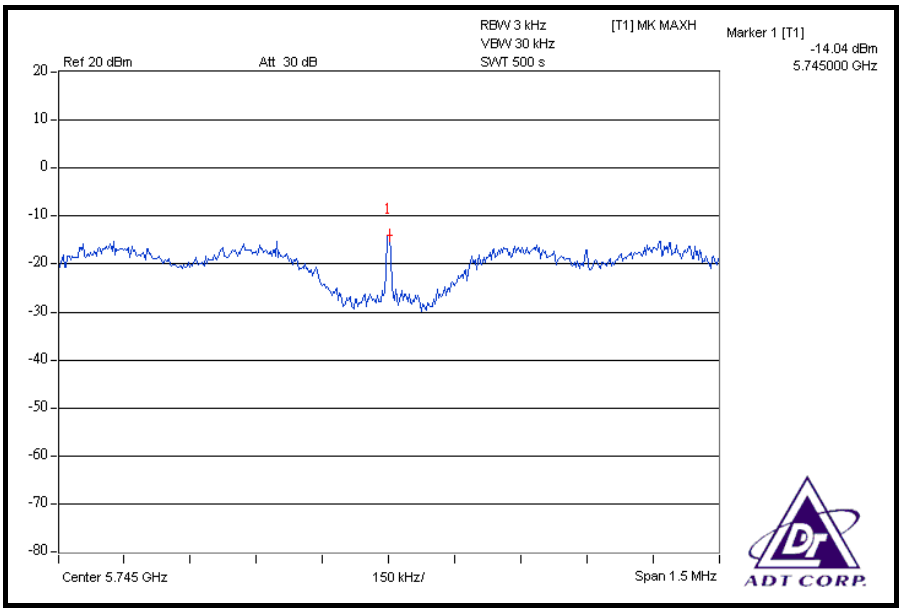

RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-12.17 dBm
5.825000 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 5.825 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

DRAFT 802.11n (20MHz) OFDM MODULATION

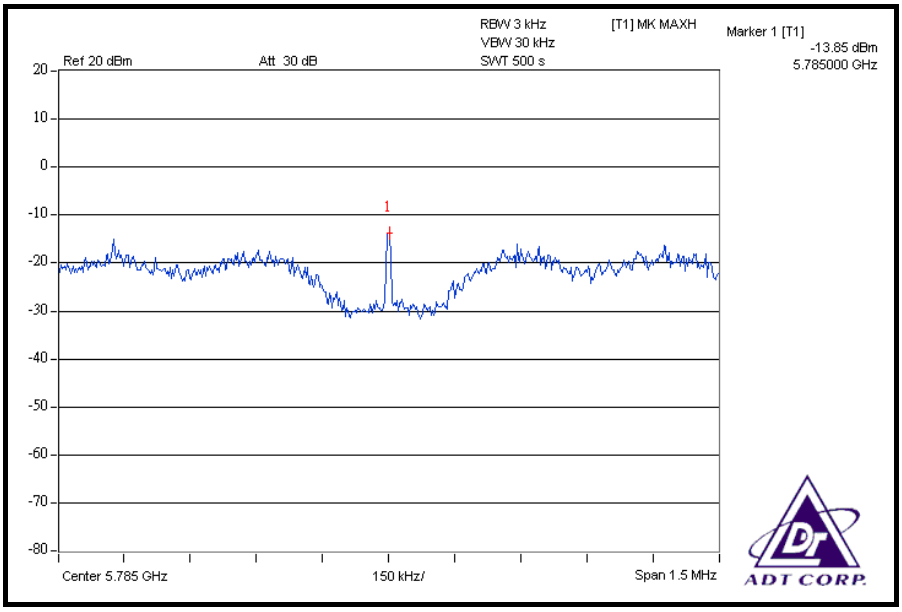
MODULATION TYPE	BPSK	**TRANSFER RATE**	7.2Mbps
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25 deg.C, 65 %RH, 991hPa
TESTED BY	Match Tsui		

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				
149	5745	-14.04	-13.13	0.088	-10.55	8	PASS
157	5785	-13.85	-13.17	0.089	-10.49	8	PASS
165	5825	-13.86	-12.96	0.092	-10.38	8	PASS

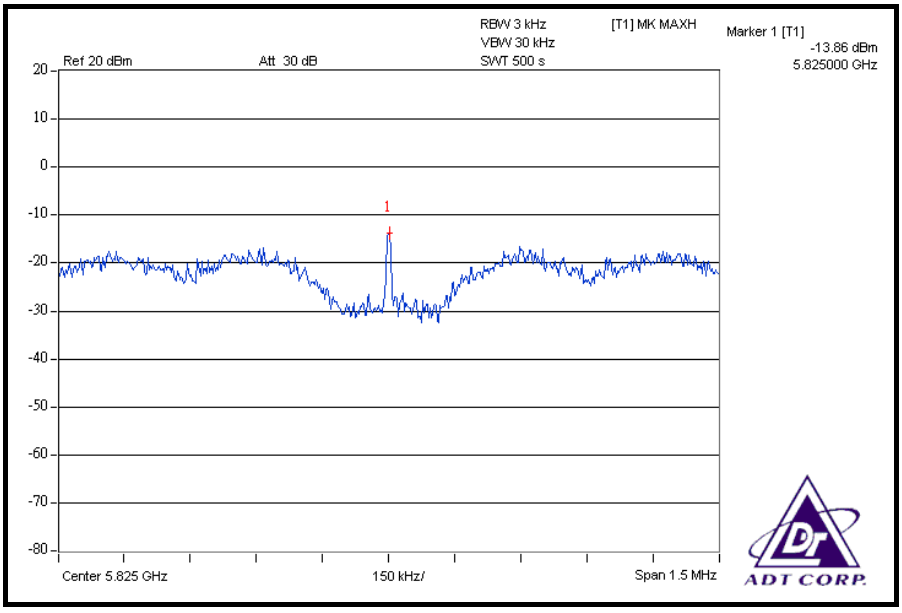
FOR CHAIN 0: CH 149



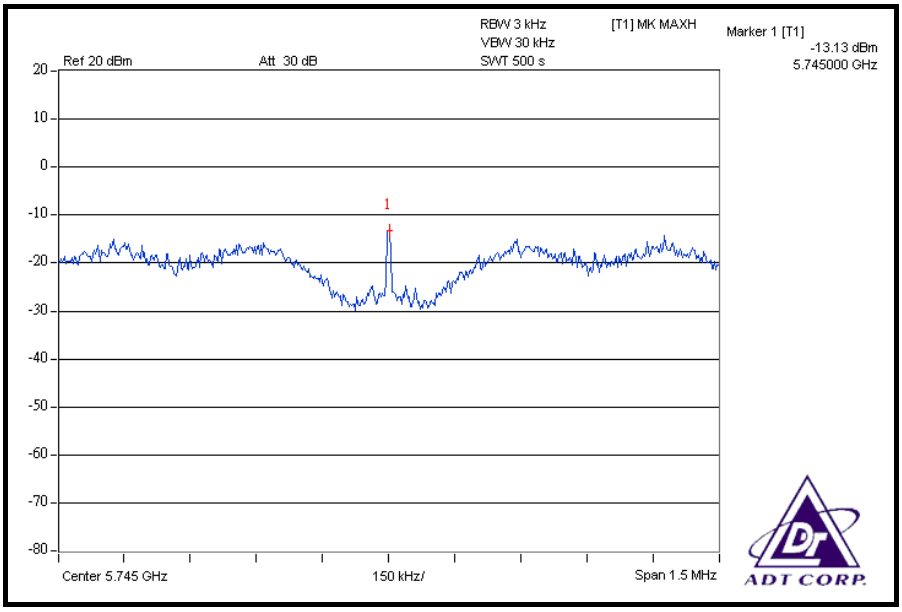
CH 157


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-13.85 dBm
5.785000 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 5.785 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

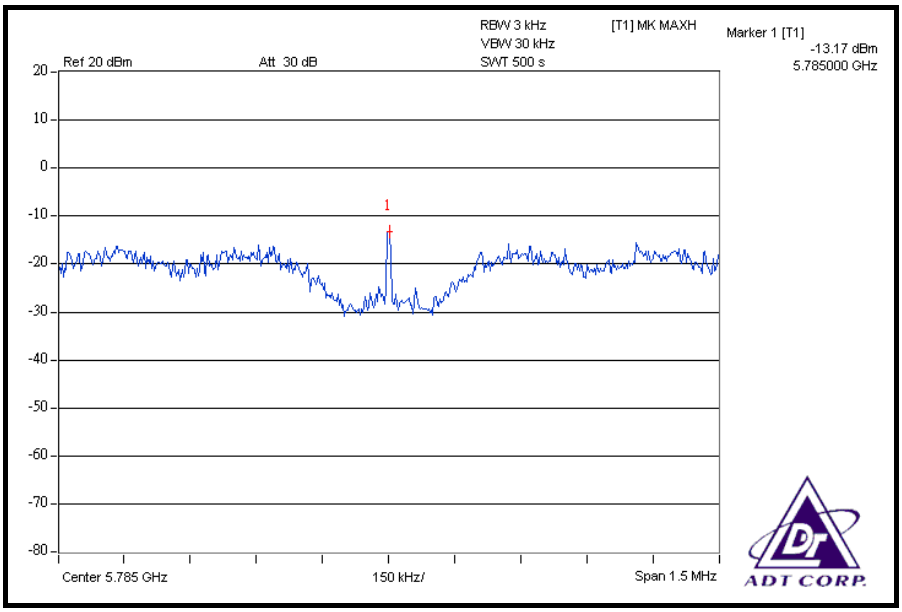
CH 165


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-13.86 dBm
5.825000 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 5.825 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

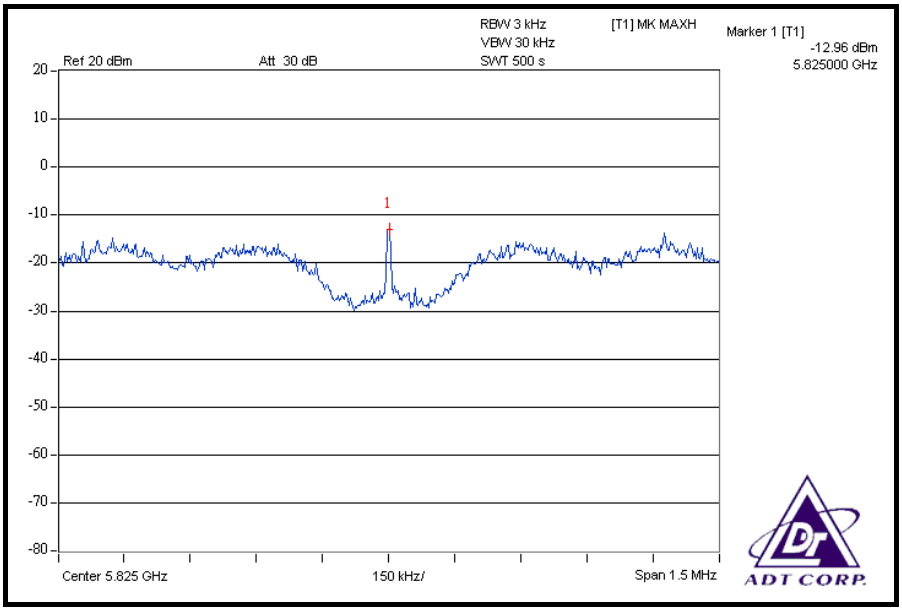
FOR CHAIN 1: CH 149



CH 157



CH 165

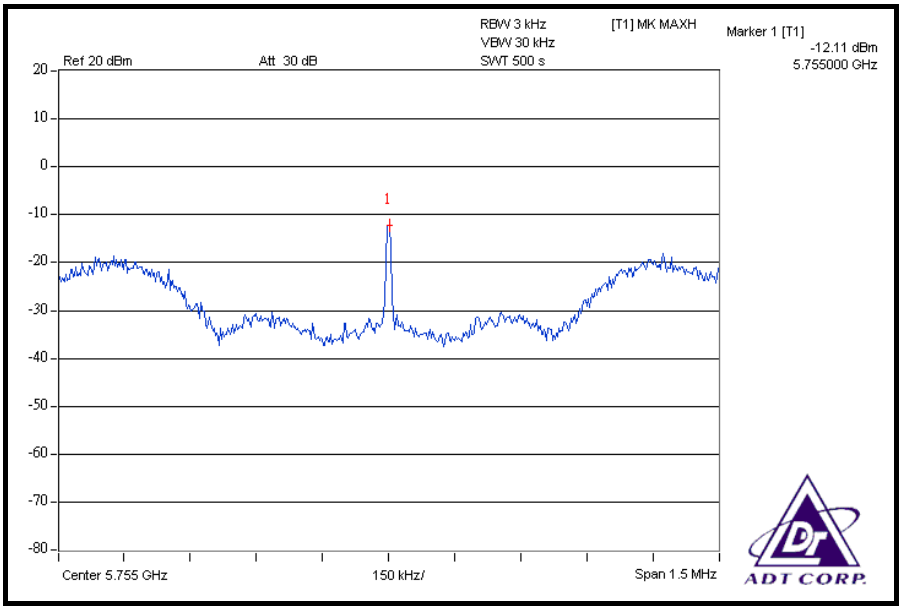

RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-12.96 dBm
5.825000 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 5.825 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

DRAFT 802.11n (40MHz) OFDM MODULATION

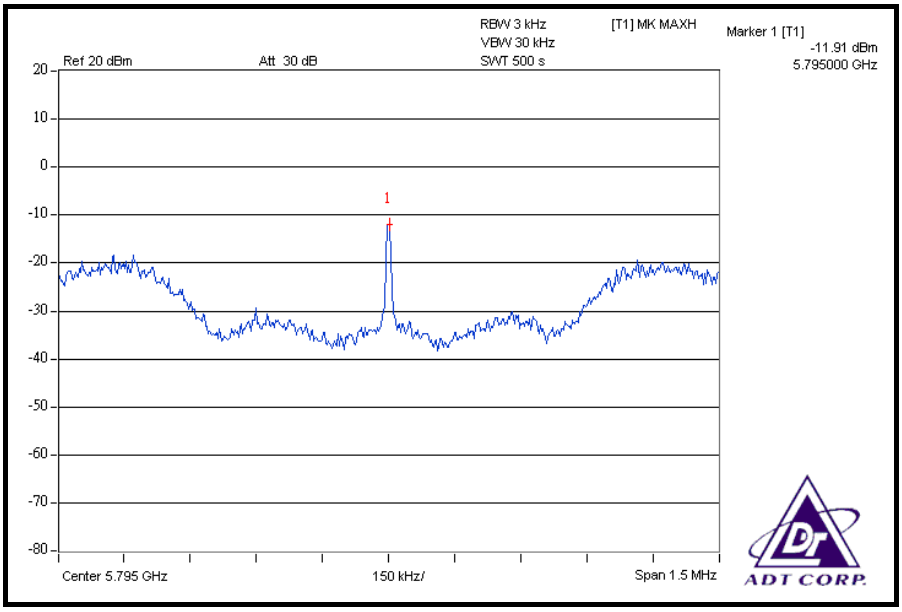
MODULATION TYPE	BPSK	**TRANSFER RATE**	15.0Mbps
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	24 deg.C, 64 %RH, 1021hPa
TESTED BY	Match Tsui		

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				
151	5755	-12.11	-11.23	0.137	-8.64	8	PASS
159	5795	-11.91	-11.01	0.144	-8.43	8	PASS

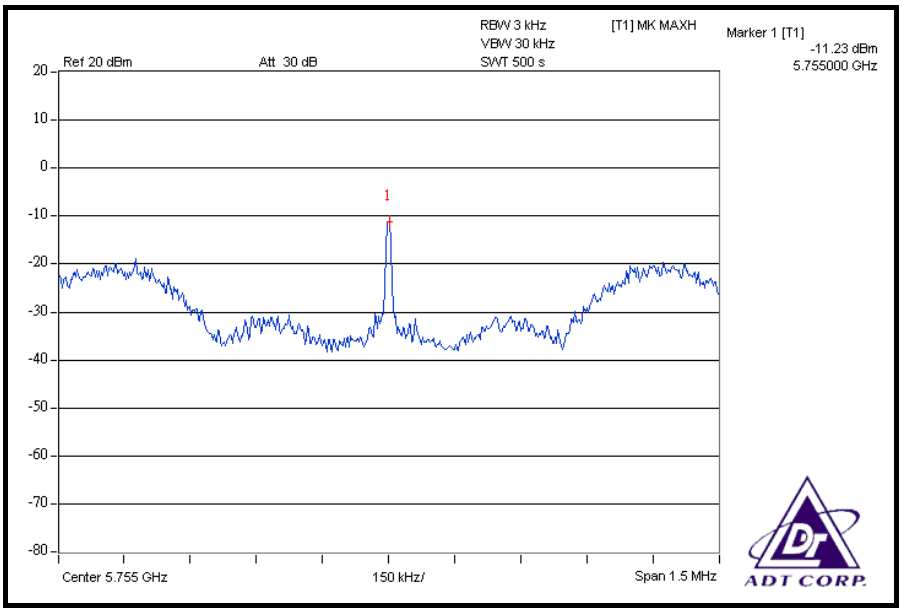
FOR CHAIN 0: CH 151



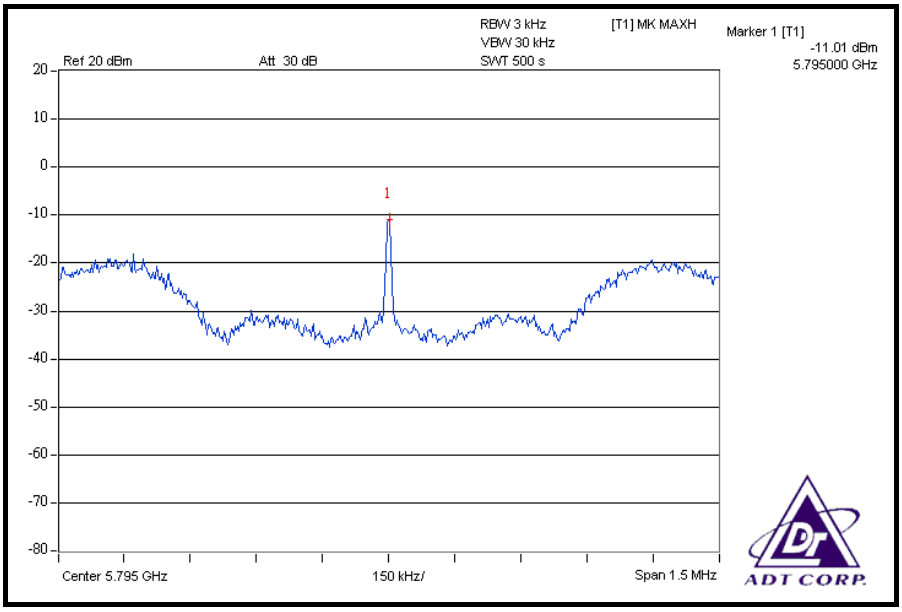
CH 159



FOR CHAIN 1: CH 151



CH 159


RBW 3 kHz
VBW 30 kHz
SWT 500 s
[T1] MK MAXH
Marker 1 [T1]
-11.01 dBm
5.795000 GHz
Ref 20 dBm
Att 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 5.795 GHz
150 kHz/
Span 1.5 MHz
ADT CORP.

5.6 BAND EDGES MEASUREMENT

5.6.1 LIMITS OF BAND EDGES MEASUREMENT

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

5.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESI7	100033	Jun. 30, 2008	Jun. 29, 2009
Spectrum Analyzer Agilent	FSP	100041	Apr. 22, 2008	Apr. 21, 2009
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	May, 02, 2008	May, 01, 2009
HORN Antenna SCHWARZBECK	9120D	9120D-209	Jun. 24, 2008	Jun. 23, 2009
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 25, 2007	Dec. 24, 2008
Preamplifier Agilent	8447D	2944A10633	Oct. 29, 2007	Nov. 04, 2008
Preamplifier Agilent	8449B	3008A01964	Oct. 23, 2008	Oct. 22, 2009
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	283402/4	Dec. 07, 2007	Dec. 06, 2008
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	251644/4	Dec. 07, 2007	Dec. 06, 2008
Software ADT.	ADT_Radiated_V7.6	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	017303	NA	NA
Turn Table ADT.	TT100.	TT93021703	NA	NA
Turn Table Controller ADT.	SC100.	SC93021703	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 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 FCC Site Registration No. is 988962.

5. The IC Site Registration No. is IC3789B-3.

5.6.3 TEST PROCEDURE

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.

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.

5.6.4 DEVIATION FROM TEST STANDARD

No deviation.

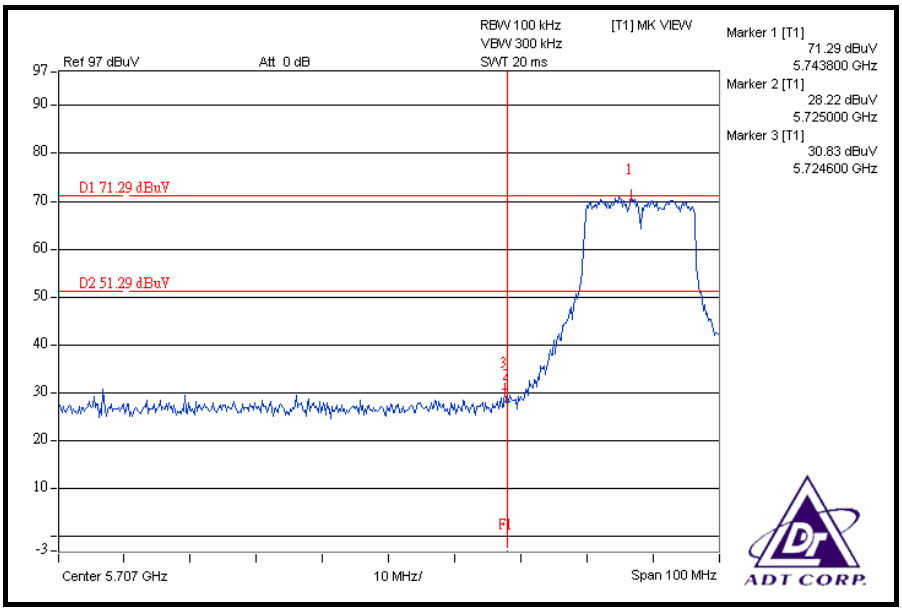
5.6.5 EUT OPERATING CONDITION

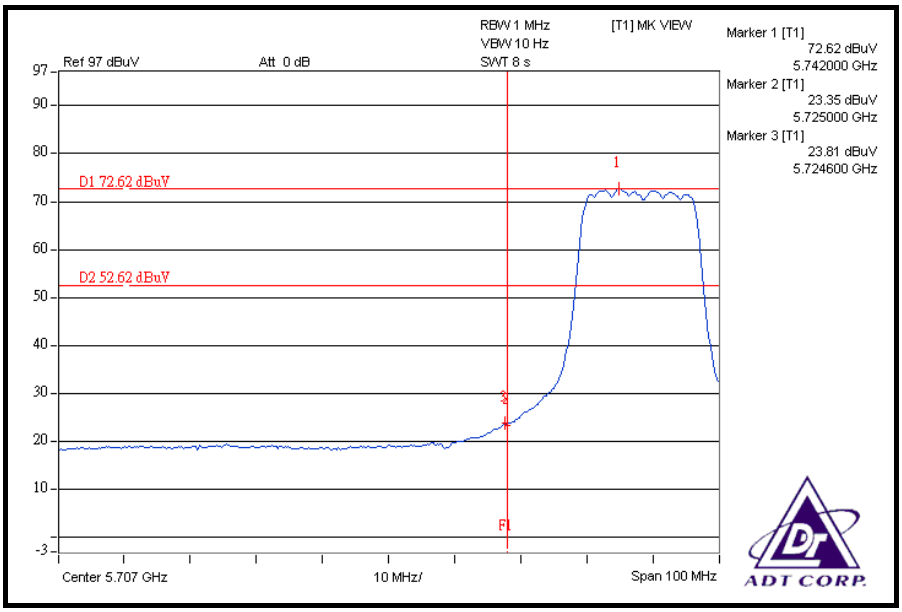
Same as Item 5.3.6.

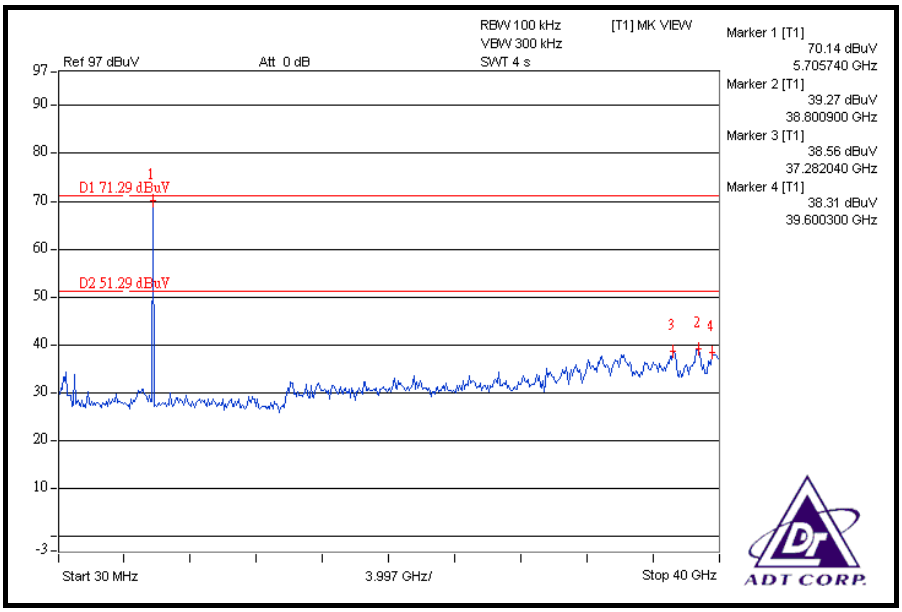
5.6.6 TEST RESULTS

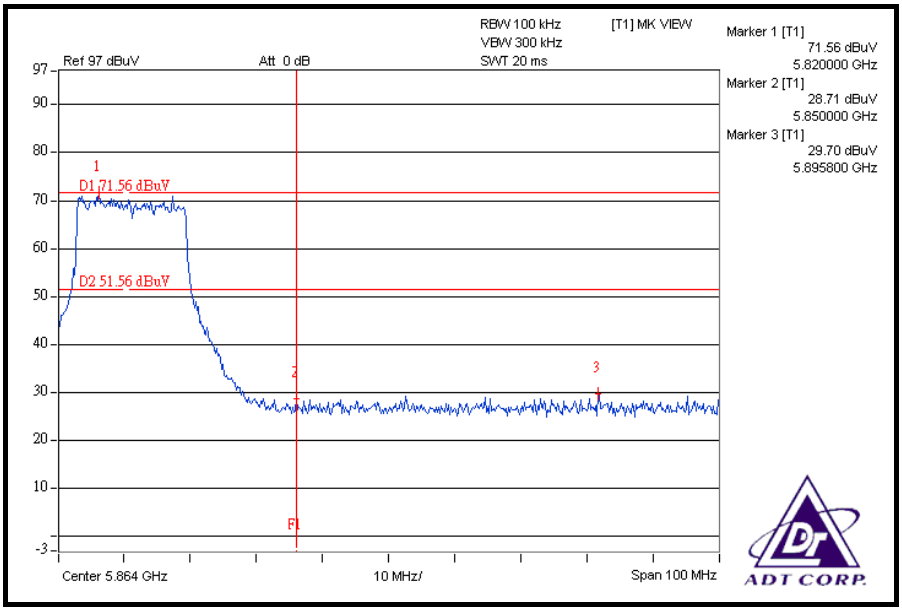
The spectrum plots are attached on the following pages. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

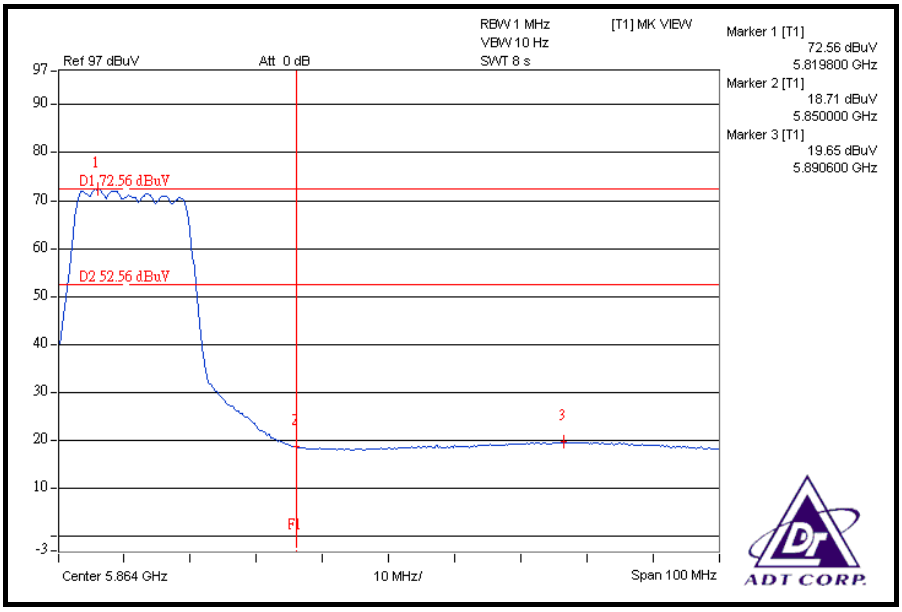
802.11a OFDM MODULATION

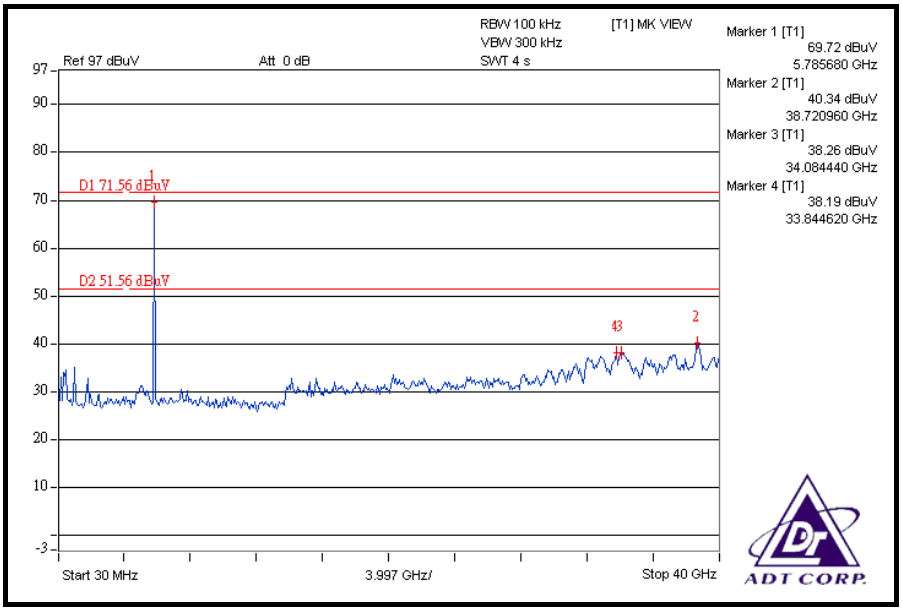




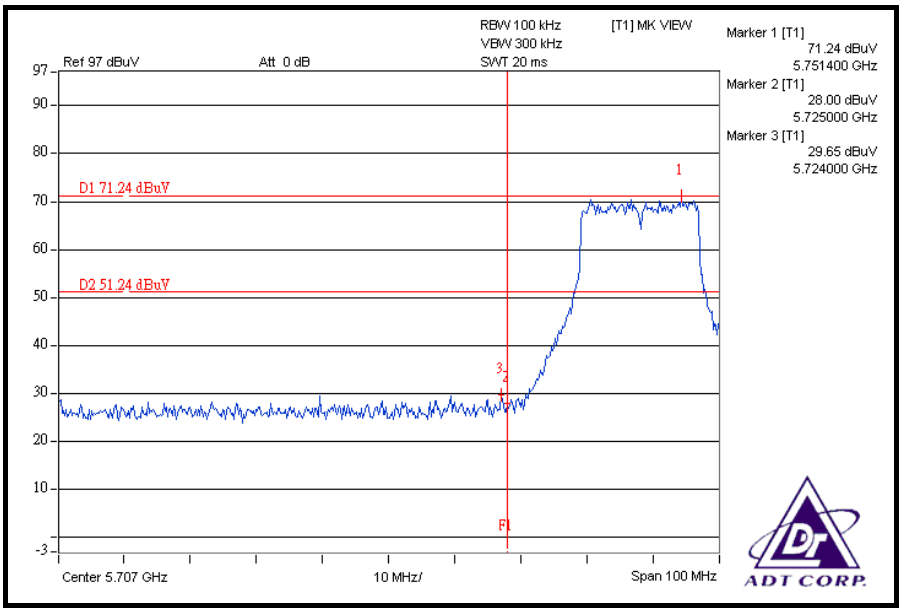

RBW 100 kHz
VBW 300 kHz
SWT 4 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
70.14 dBuV
5.705740 GHz
Marker 2 [T1]
39.27 dBuV
38.800900 GHz
Marker 3 [T1]
38.56 dBuV
37.282040 GHz
Marker 4 [T1]
38.31 dBuV
39.600300 GHz
D1 71.29 dBuV
D2 51.29 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.

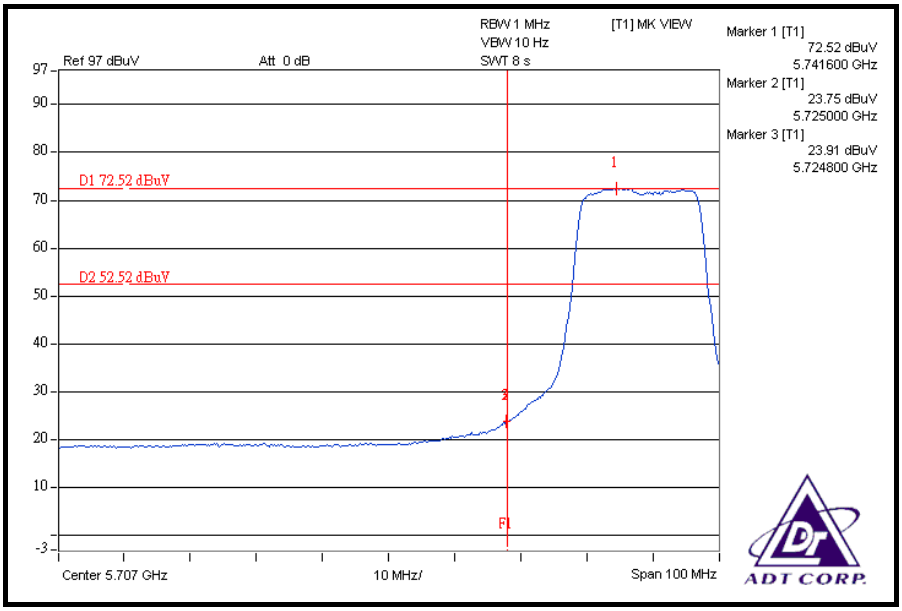

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
71.56 dBuV
5.820000 GHz
Marker 2 [T1]
28.71 dBuV
5.850000 GHz
Marker 3 [T1]
29.70 dBuV
5.895800 GHz
D1 71.56 dBuV
D2 51.56 dBuV
Center 5.864 GHz
10 MHz/
Span 100 MHz
ADT CORP.

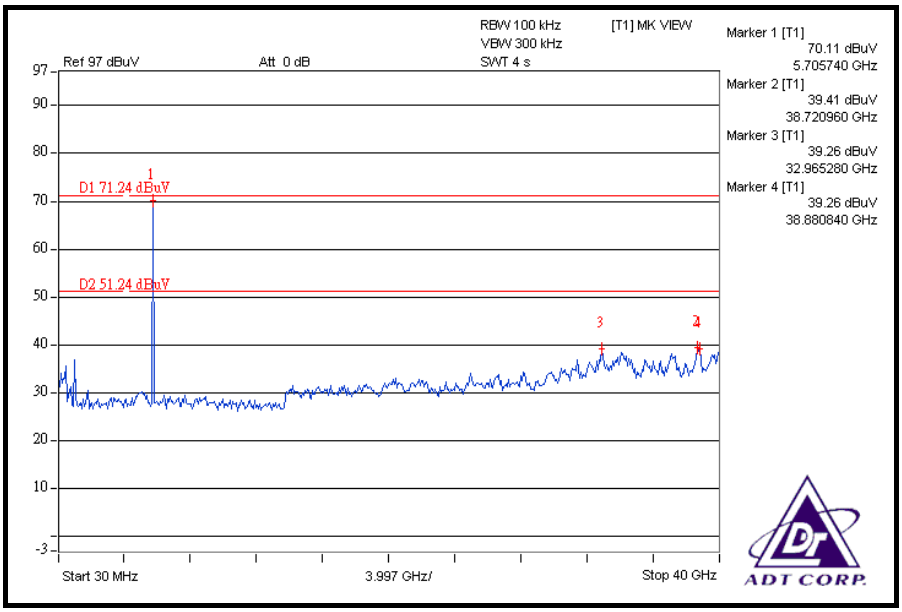

RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
72.56 dBuV
5.819800 GHz
Marker 2 [T1]
18.71 dBuV
5.850000 GHz
Marker 3 [T1]
19.65 dBuV
5.890600 GHz
D1 72.56 dBuV
D2 52.56 dBuV
Center 5.864 GHz
10 MHz/
Span 100 MHz
ADT CORP.

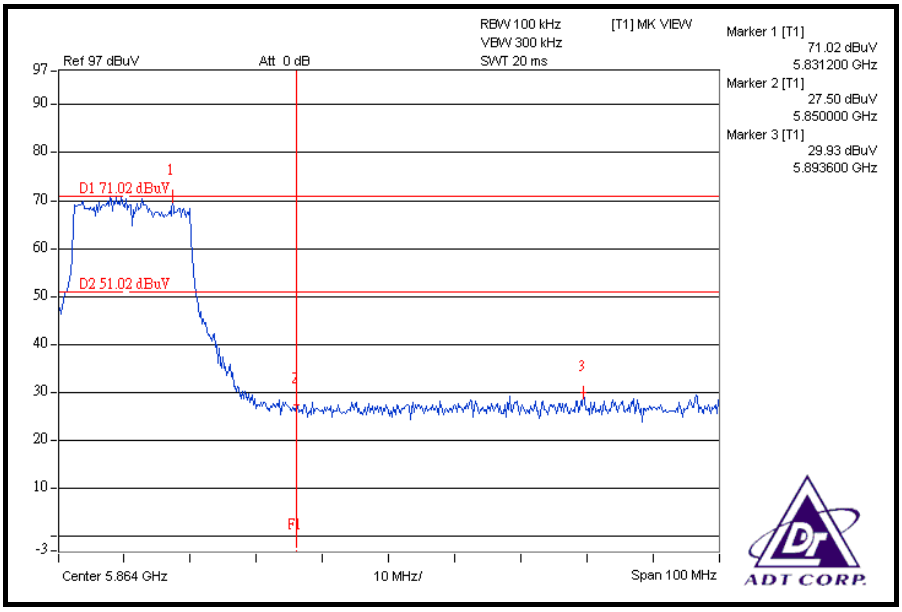

RBW 100 kHz
VBW 300 kHz
SWT 4 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
69.72 dBuV
5.785680 GHz
Marker 2 [T1]
40.34 dBuV
38.720960 GHz
Marker 3 [T1]
38.26 dBuV
34.084440 GHz
Marker 4 [T1]
38.19 dBuV
33.844620 GHz
D1 71.56 dBuV
D2 51.56 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.

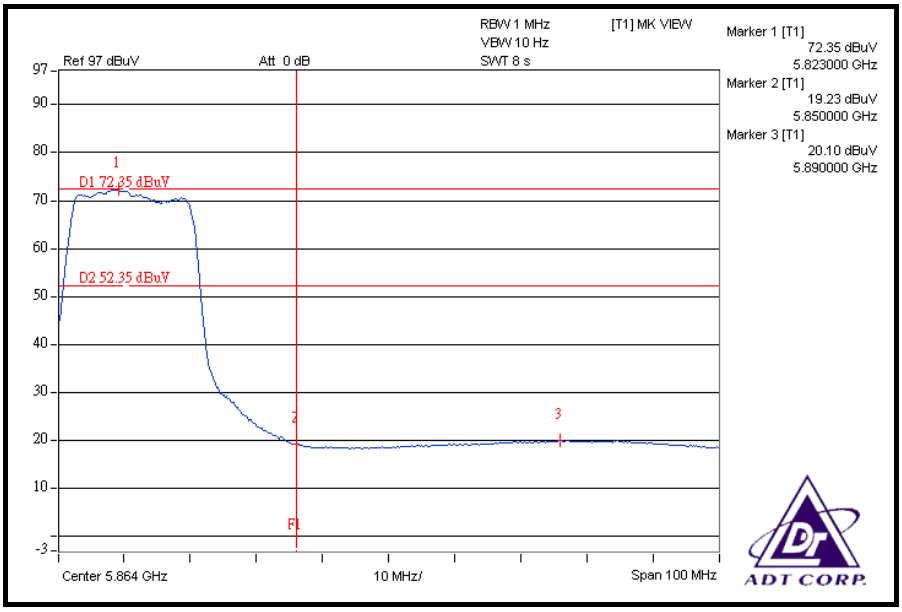
DRAFT 802.11n (20MHz) OFDM MODULATION

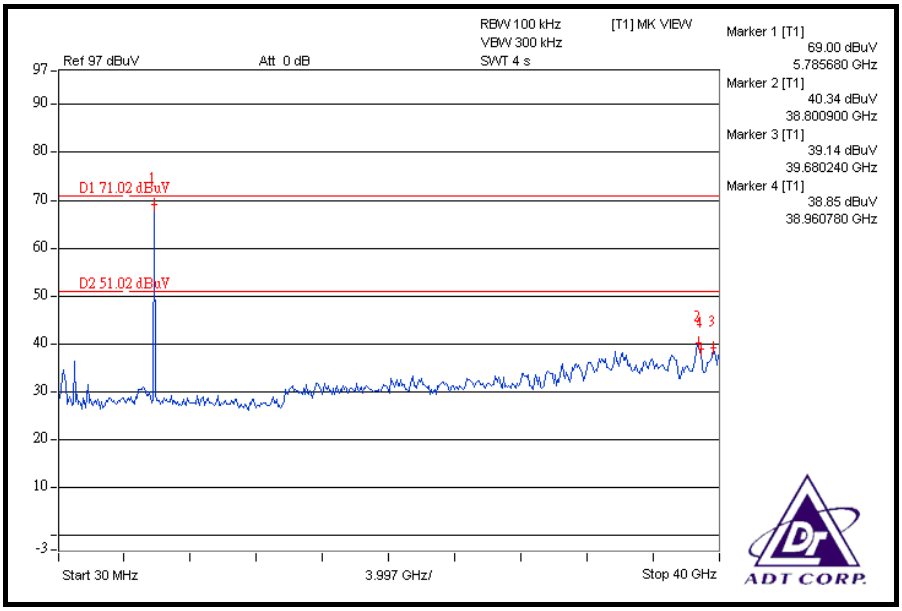




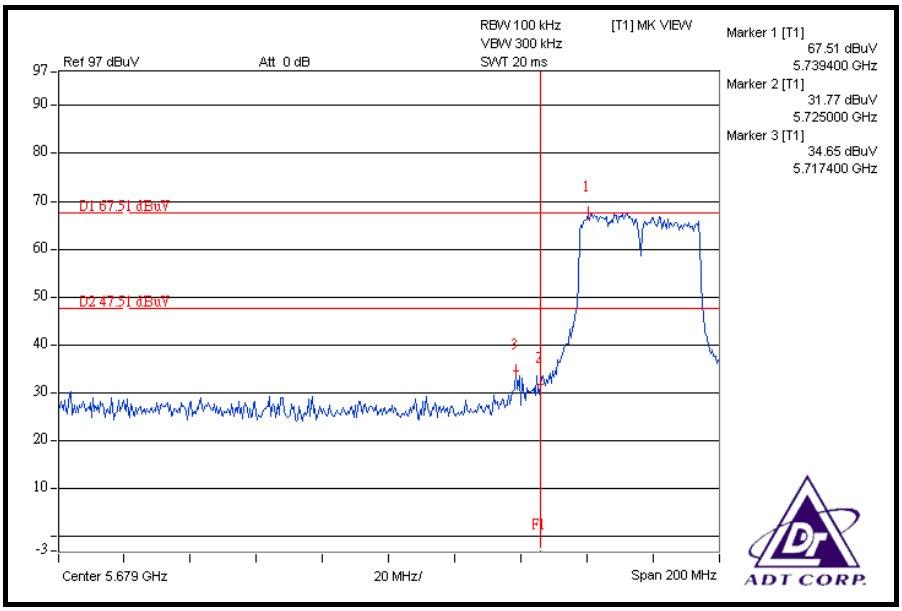

RBW 100 kHz
VBW 300 kHz
SWT 4 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
70.11 dBuV
5.705740 GHz
Marker 2 [T1]
39.41 dBuV
38.720960 GHz
Marker 3 [T1]
39.26 dBuV
32.965280 GHz
Marker 4 [T1]
39.26 dBuV
38.880840 GHz
D1 71.24 dBuV
D2 51.24 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.

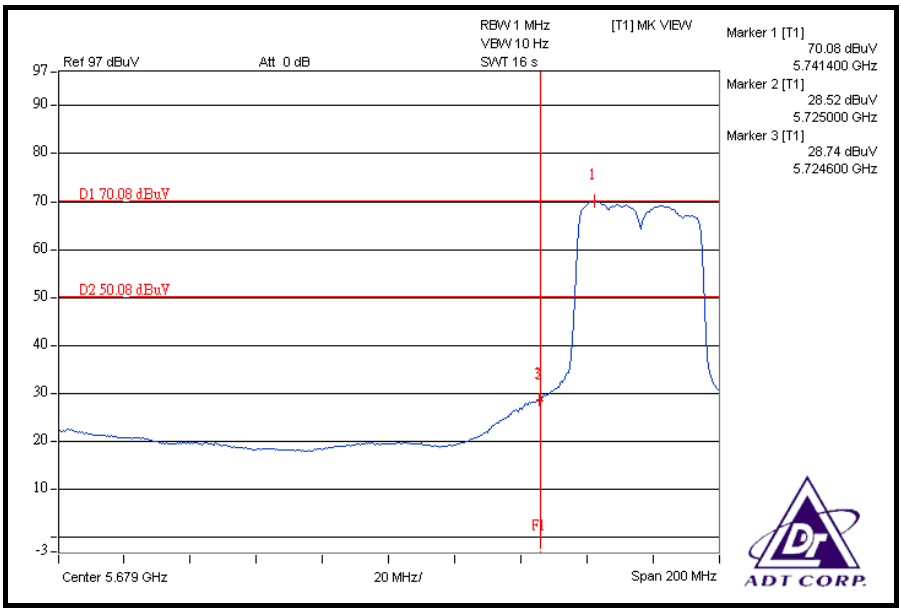

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
71.02 dBuV
5.831200 GHz
Marker 2 [T1]
27.50 dBuV
5.850000 GHz
Marker 3 [T1]
29.93 dBuV
5.893600 GHz
D1 71.02 dBuV
D2 51.02 dBuV
Center 5.864 GHz
10 MHz/
Span 100 MHz
ADT CORP.

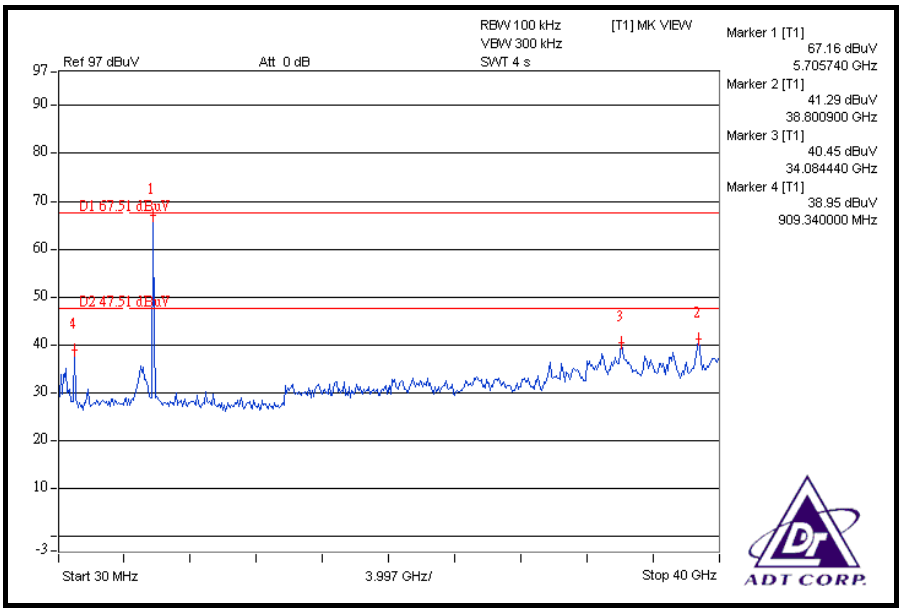

RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
72.35 dBuV
5.823000 GHz
Marker 2 [T1]
19.23 dBuV
5.850000 GHz
Marker 3 [T1]
20.10 dBuV
5.890000 GHz
D1 72.35 dBuV
D2 52.35 dBuV
Center 5.864 GHz
10 MHz/
Span 100 MHz
ADT CORP.

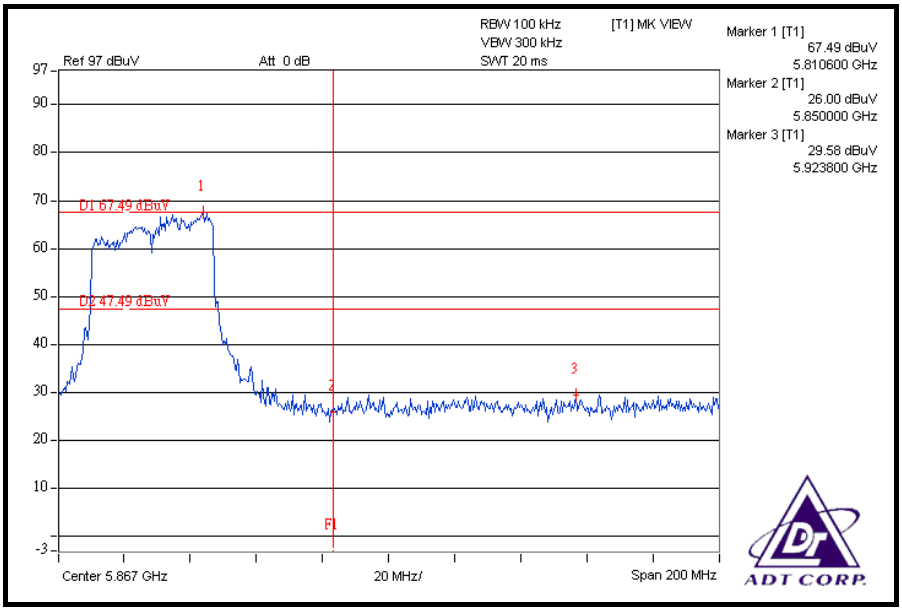

RBW 100 kHz
VBW 300 kHz
SWT 4 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
69.00 dBuV
5.785680 GHz
Marker 2 [T1]
40.34 dBuV
38.800900 GHz
Marker 3 [T1]
39.14 dBuV
39.680240 GHz
Marker 4 [T1]
38.85 dBuV
38.960780 GHz
D1 71.02 dBuV
D2 51.02 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.

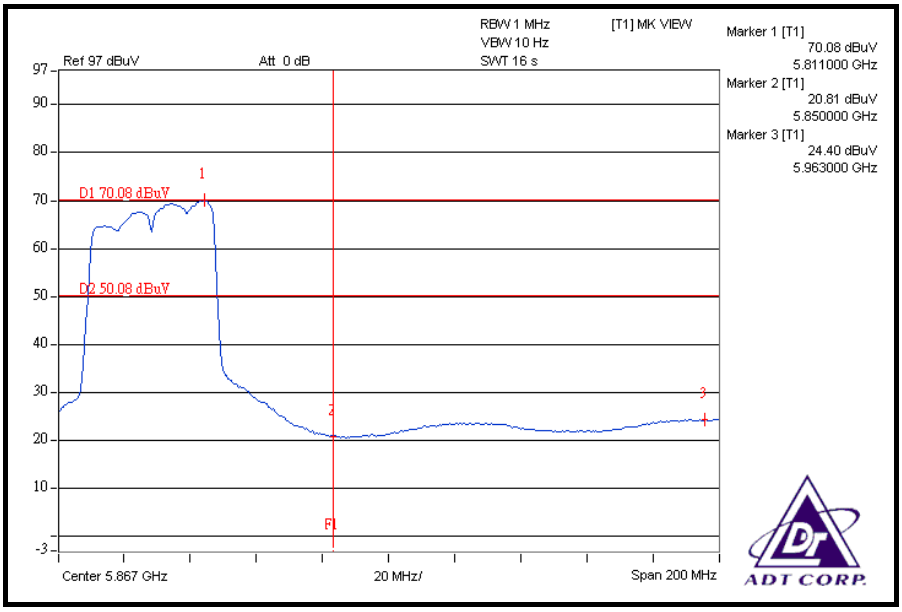
DRAFT 802.11n (40MHz) OFDM MODULATION

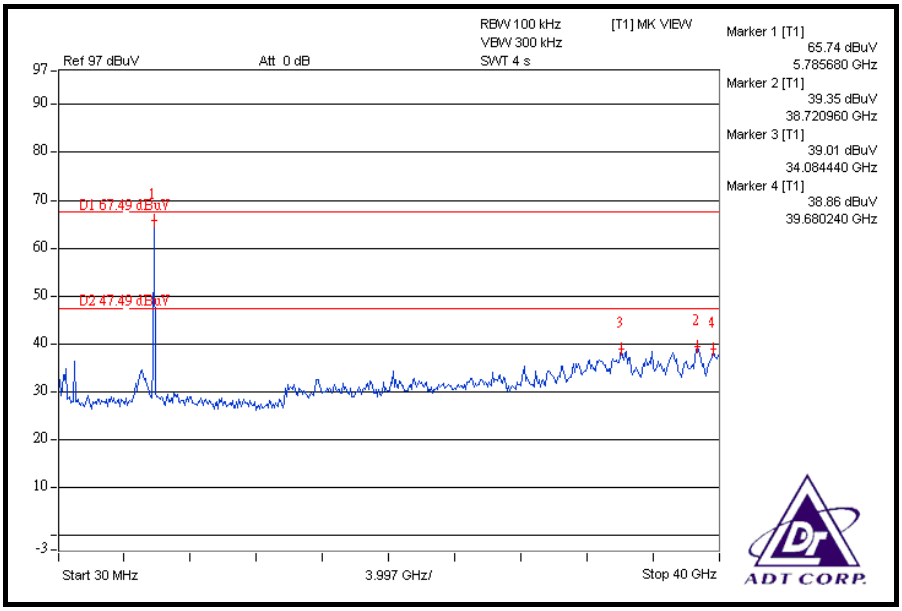





RBW 100 kHz
VBW 300 kHz
SWT 4 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
67.16 dBuV
5.705740 GHz
Marker 2 [T1]
41.29 dBuV
38.800900 GHz
Marker 3 [T1]
40.45 dBuV
34.084440 GHz
Marker 4 [T1]
38.95 dBuV
909.340000 MHz
D1 67.51 dBuV
D2 47.51 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.


RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
67.49 dBuV
5.810600 GHz
Marker 2 [T1]
26.00 dBuV
5.850000 GHz
Marker 3 [T1]
29.58 dBuV
5.923800 GHz
D1 67.49 dBuV
D2 47.49 dBuV
Center 5.867 GHz
20 MHz/
Span 200 MHz
ADT CORP.


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
70.08 dBuV
5.811000 GHz
Marker 2 [T1]
20.81 dBuV
5.850000 GHz
Marker 3 [T1]
24.40 dBuV
5.963000 GHz
D1 70.08 dBuV
D2 50.08 dBuV
Center 5.867 GHz
20 MHz/
Span 200 MHz
ADT CORP.


RBW 100 kHz
VBW 300 kHz
SWT 4 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
65.74 dBuV
5.785680 GHz
Marker 2 [T1]
39.35 dBuV
38.720960 GHz
Marker 3 [T1]
39.01 dBuV
34.084440 GHz
Marker 4 [T1]
38.86 dBuV
39.680240 GHz
D1 67.49 dBuV
D2 47.49 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz
ADT CORP.

5.7 ANTENNA REQUIREMENT

5.7.1 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(a), 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.

5.7.2 ANTENNA CONNECTED CONSTRUCTION

The antenna used in this product is Dipole antenna with R-SMA connector. The maximum gain of the antenna is 2dBi.

6. PHOTOGRAPHS OF THE TEST CONFIGURATION

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

7. 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.

8. 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---