



FCC TEST REPORT

REPORT NO.: RF980630L01

MODEL NO.: TG585 v8 DSLWBC683JE

RECEIVED: Jun. 30, 2009

TESTED: Jul. 09 ~ Aug. 24, 2009

ISSUED: Aug. 27, 2009

APPLICANT: Thomson Telecom Belgium

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Belgium

ISSUED BY: Bureau Veritas Consumer Products Services
(H.K.) Ltd., Taoyuan Branch

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R.O.C.

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1. CERTIFICATION

PRODUCT: ADSL MODEM

MODEL: TG585 v8 DSLWBC683JE

BRAND: THOMSON

APPLICANT: Thomson Telecom Belgium

TESTED: Jul. 09 ~ Aug. 24, 2009

TEST SAMPLE: PEM2

SOFTWARE VERSION: Batch #11 (File name: #autobuild_CPE_QUAL_R82P
_IANT-E_20090701194312_iant-e_Generic_GoLinux_ian
t-e_AA_linux.bli)

BOOT LOADER VERSION: 1.0.3

WIRELESS VERSION: 2.1.5.3

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

The above equipment (model: TG585 v8 DSLWBC683JE) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Peggy Chen , **DATE** : Aug. 27, 2009
Peggy Chen / Specialist

TECHNICAL ACCEPTANCE : Long Chen , **DATE** : Aug. 27, 2009
Responsible for RF Long Chen / Senior Engineer

APPROVED BY : Gary Chang , **DATE** : Aug. 27, 2009
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			
Standard Section	Test Type and Limit	Result	Remark
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -16.98dB at 2.023MHz.
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 -1.05dB at 2483.5MHz.
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	150kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	2.93 dB
	200MHz ~1000MHz	2.95 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

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



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	ADSL MODEM
MODEL NO.	TG585 v8 DSLWBC683JE
FCC ID	RSE-TG585V8
POWER SUPPLY	22Vdc 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 Draft 802.11n: up to 65Mbps
OPERATING FREQUENCY	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, draft 802.11n (20MHz)
MAXIMUM OUTPUT POWER	317.69mW
ANTENNA TYPE	Refer to Note
DATA CABLE	NA
I/O PORTS	RJ45, RJ11
ACCESSORY DEVICES	AC adapter

NOTE:

1. The EUT provides one completed transmitter and one receiver.

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

2. The EUT was operated with following power adapter:

BRAND:	THOMSON
MODEL:	MU09-2220041-A1
PSU P/N:	DSL36675820
INPUT:	100~240Vac, 50~60Hz, 300mA
OUTPUT:	22Vdc, 410mA
POWER LINE:	1.8m non-shielded cable without core
PSU MANUFACTURER:	LEADER ELECTRONICS INC.

3. The following antennas were provided to the EUT.

Frequency	Antenna Gain (dBi)	
	Printed antenna	Dipole antenna
2412 MHz	3.39	2.40
2442 MHz	3.44	2.48
2462 MHz	3.13	2.03

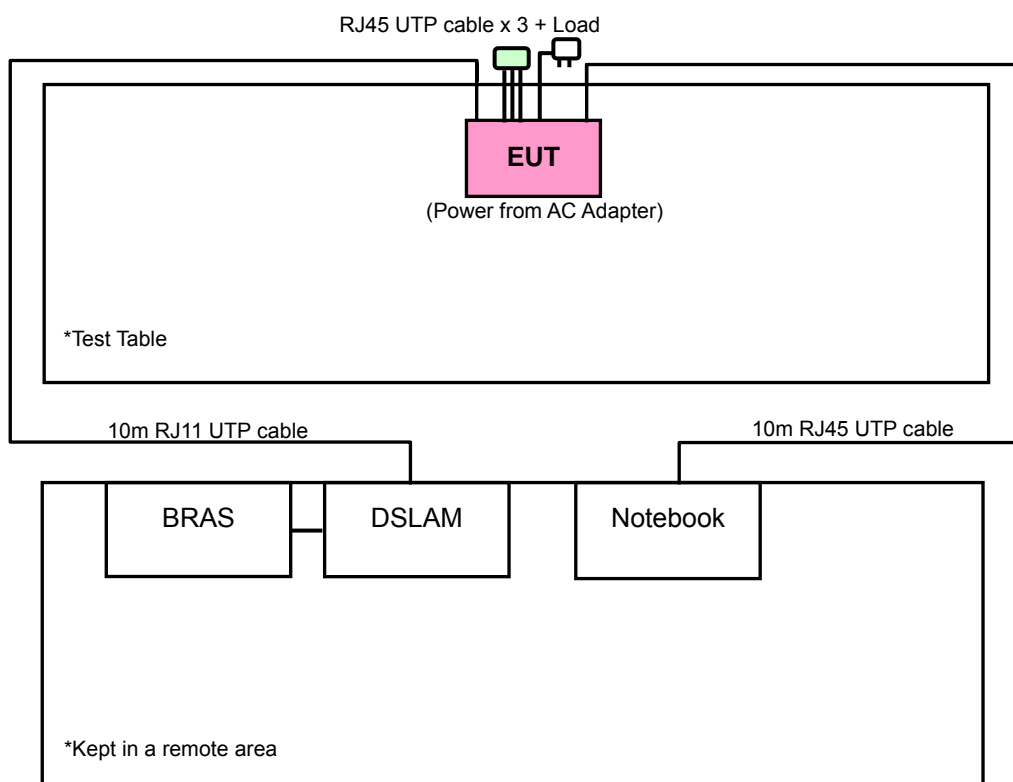
4. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 DESCRIPTION OF TEST MODES

Eleven channels are provided for 802.11b, 802.11g 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		

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE \geq 1G	RE<1G	PLC	APCM	
A	√	√	√	√	Printed antenna
B	√	√	√	-	Dipole antenna

Where **PLC**: Power Line Conducted Emission

RE<1G: Radiated Emission below 1GHz

RE \geq 1G: Radiated Emission above 1GHz

APCM: Antenna Port Conducted Measurement

NOTE: "-": Means no effect.

RADIATED EMISSION TEST (ABOVE 1 GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis 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)	AXIS
A, B	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0	Z
A, B	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0	Z
A, B	Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5	Z

RADIATED EMISSION TEST (BELOW 1 GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis 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)	AXIS
A, B	Draft 802.11n (20MHz)	1 to 11	6	OFDM	BPSK	6.5	Z

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 (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5

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, B	802.11b	1 to 11	1, 11	DSSS	DBPSK	1.0
A, B	802.11g	1 to 11	1, 11	OFDM	BPSK	6.0
A, B	Draft 802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	6.5

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
A	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
A	Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart C (15.247)

ANSI C63.4-2003

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

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

3.4 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP05L	12130898320	E2K24CLNS
2	DSLAM	Alcatel	7300ASAM	NA	NA
3	BRAS	NA	NA	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	10m UTP RJ45 cable
2	10m UTP RJ11 cable
3	3m UTP RJ45 cable

NOTE: 1. All power cords of the above support units are non shielded (1.8m).
 2. Item 1-2 acted as a communication partner to transfer data.
 3. Item 2, 3 were provided by client.

4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION MEASUREMENT

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

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

NOTE:

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

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100212	May 25, 2009	May 24, 2010
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Jul. 07, 2009	Jul. 06, 2010
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Apr. 30, 2009	Apr. 29, 2010
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-563	Aug. 10, 2009	Aug. 09, 2010
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 06, 2009	Jan. 05, 2010
Preamplifier Agilent	8449B	3008A01911	Sep. 10, 2008	Sep. 09, 2009
Preamplifier Agilent	8447D	2944A10638	Dec. 26, 2008	Dec. 25, 2009
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	218190/4 231241/4	May 13, 2009	May 12, 2010
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 17, 2009	Aug. 16, 2010
Software	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower & Turn Table Controller EMCO	2090	NA	NA	NA

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HwaYa Chamber 9.
 3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 4. The FCC Site Registration No. is 460141.
 5. The IC Site Registration No. is IC 7450F-4.

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.

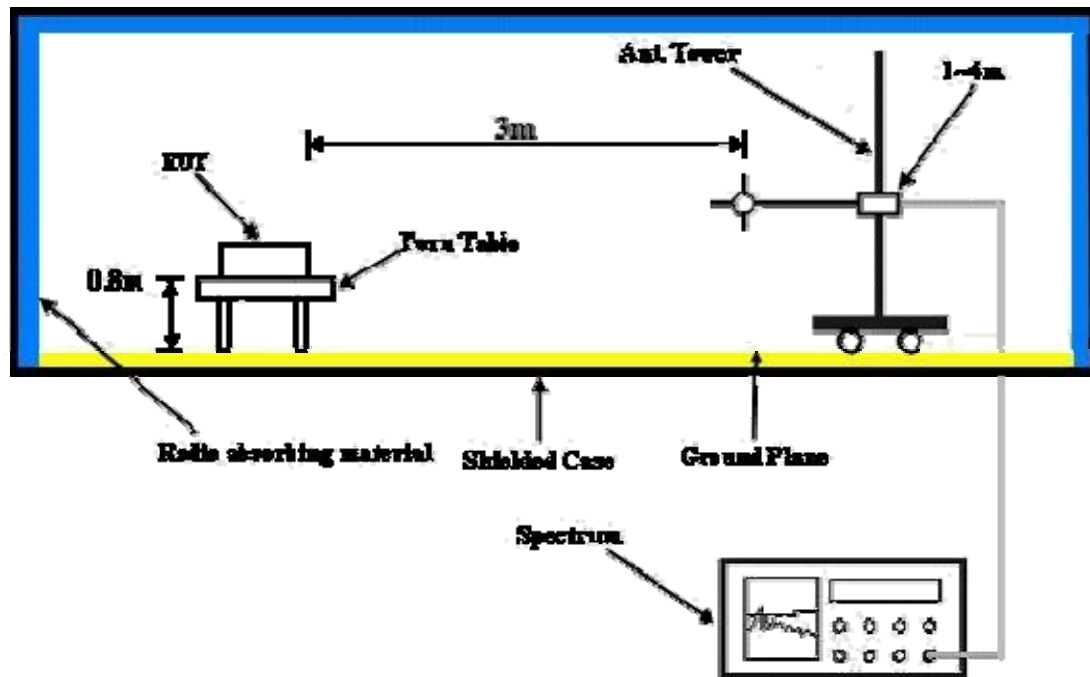
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.
4. 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 notebook system and a DSLAM to act as communication partners and placed them outside of testing area.
- c. The communication partners connected with EUT via a UTP cable and run a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
- d. The communication partners 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, 70%RH 1002 hPa	TESTED BY	Lori Chiu
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	2386.00	60.38 PK	74.00	-13.62	1.13 H	254	28.17	32.21
2	2386.00	49.69 AV	54.00	-4.31	1.13 H	254	17.48	32.21
3	*2412.00	112.37 PK			1.12 H	251	80.07	32.30
4	*2412.00	107.75 AV			1.12 H	251	75.45	32.30
5	4824.00	56.44 PK	74.00	-17.56	1.12 H	69	18.11	38.33
6	4824.00	52.81 AV	54.00	-1.19	1.12 H	69	14.48	38.33
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	2386.00	59.16 PK	74.00	-14.84	1.03 V	330	26.95	32.21
2	2386.00	49.01 AV	54.00	-4.99	1.03 V	330	16.80	32.21
3	*2412.00	108.51 PK			1.03 V	308	76.21	32.30
4	*2412.00	103.79 AV			1.03 V	308	71.49	32.30
5	4824.00	53.80 PK	74.00	-20.20	1.12 V	189	15.47	38.33
6	4824.00	48.26 AV	54.00	-5.74	1.12 V	189	9.93	38.33

- 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. “ * “: Fundamental frequency.



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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, 70%RH 1002 hPa	TESTED BY	Kevin Liang
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	*2437.00	112.96 PK			1.18 H	181	80.23	32.73
2	*2437.00	108.46 AV			1.18 H	181	75.73	32.73
3	4874.00	56.23 PK	74.00	-17.77	1.03 H	236	17.21	39.02
4	4874.00	52.50 AV	54.00	-1.50	1.03 H	236	13.48	39.02
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	109.22 PK			1.00 V	141	76.49	32.73
2	*2437.00	104.70 AV			1.00 V	141	71.97	32.73
3	4874.00	52.87 PK	74.00	-21.13	1.28 V	34	13.85	39.02
4	4874.00	47.26 AV	54.00	-6.74	1.28 V	34	8.24	39.02

- 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.



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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, 70%RH 1002 hPa	TESTED BY	Kevin Liang
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	*2462.00	113.38 PK			1.18 H	196	80.55	32.83
2	*2462.00	108.50 AV			1.18 H	196	75.67	32.83
3	2483.50	62.28 PK	74.00	-11.72	1.18 H	196	29.36	32.92
4	2483.50	52.03 AV	54.00	-1.97	1.18 H	196	19.11	32.92
5	4924.00	56.15 PK	74.00	-17.85	1.00 H	236	17.01	39.14
6	4924.00	52.70 AV	54.00	-1.30	1.00 H	236	13.56	39.14
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	110.16 PK			1.23 V	143	77.33	32.83
2	*2462.00	105.56 AV			1.23 V	143	72.73	32.83
3	2483.50	59.97 PK	74.00	-14.03	1.23 V	142	27.05	32.92
4	2483.50	49.76 AV	54.00	-4.24	1.23 V	142	16.84	32.92
5	4924.00	53.39 PK	74.00	-20.61	1.26 V	33	14.25	39.14
6	4924.00	48.97 AV	54.00	-5.03	1.26 V	33	9.83	39.14

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



A D T

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, 70%RH 1002 hPa	TESTED BY	Lori Chiu
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	2386.00	58.68 PK	74.00	-15.32	1.00 H	194	26.47	32.21
2	2386.00	48.19 AV	54.00	-5.81	1.00 H	194	15.98	32.21
3	*2412.00	106.65 PK			1.00 H	195	74.35	32.30
4	*2412.00	101.96 AV			1.00 H	195	69.66	32.30
5	4824.00	56.15 PK	74.00	-17.85	1.00 H	304	17.82	38.33
6	4824.00	52.32 AV	54.00	-1.68	1.00 H	304	13.99	38.33
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	2386.00	62.67 PK	74.00	-11.33	1.04 V	187	30.46	32.21
2	2386.00	52.59 AV	54.00	-1.41	1.04 V	187	20.38	32.21
3	*2412.00	113.87 PK			1.02 V	209	81.57	32.30
4	*2412.00	109.07 AV			1.02 V	209	76.77	32.30
5	#3216.00	46.84 PK	93.87	-47.03	1.03 V	96	12.27	34.57
6	#3216.00	37.92 AV	89.07	-51.15	1.03 V	96	3.35	34.57
7	4824.00	54.78 PK	74.00	-19.22	1.00 V	169	16.45	38.33
8	4824.00	50.41 AV	54.00	-3.59	1.00 V	169	12.08	38.33

- 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. “ * “: Fundamental frequency.
 6. “#”:The radiated frequency is out the restricted band.



A D T

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, 70%RH 1002 hPa	TESTED BY	Lori Chiu
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	*2437.00	106.40 PK			1.18 H	160	74.01	32.39
2	*2437.00	101.68 AV			1.18 H	160	69.29	32.39
3	4874.00	56.52 PK	74.00	-17.48	1.21 H	290	18.11	38.41
4	4874.00	52.54 AV	54.00	-1.46	1.21 H	290	14.13	38.41
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	114.81 PK			1.02 V	198	82.42	32.39
2	*2437.00	110.19 AV			1.02 V	198	77.80	32.39
3	4874.00	54.60 PK	74.00	-19.40	1.21 V	182	16.19	38.41
4	4874.00	49.64 AV	54.00	-4.36	1.21 V	182	11.23	38.41

- 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.



A D T

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, 70%RH 1002 hPa	TESTED BY	Lori Chiu
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	*2462.00	106.62 PK			1.18 H	160	74.14	32.48
2	*2462.00	101.98 AV			1.18 H	160	69.50	32.48
3	2483.50	57.30 PK	74.00	-16.70	1.18 H	160	24.74	32.56
4	2483.50	46.91 AV	54.00	-7.09	1.18 H	160	14.35	32.56
5	4924.00	56.25 PK	74.00	-17.75	1.23 H	295	17.73	38.51
6	4924.00	52.65 AV	54.00	-1.35	1.23 H	295	14.13	38.51
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	*2462.00	114.30 PK			1.00 V	191	81.82	32.48
2	*2462.00	109.48 AV			1.00 V	191	77.00	32.48
3	2483.50	61.47 PK	74.00	-12.53	1.00 V	197	28.91	32.56
4	2483.50	50.77 AV	54.00	-3.23	1.00 V	197	18.21	32.56
5	2500.00	61.14 PK	74.00	-12.86	1.24 V	195	28.52	32.62
6	2500.00	50.63 AV	54.00	-3.37	1.24 V	195	18.01	32.62
7	4924.00	53.72 PK	74.00	-20.28	1.57 V	179	15.20	38.51
8	4924.00	48.63 AV	54.00	-5.37	1.57 V	179	10.11	38.51

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

802.11g OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH 1002 hPa	TESTED BY	Kevin Liang
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	2390.00	66.46 PK	74.00	-7.54	1.21 H	192	33.93	32.53
2	2390.00	52.29 AV	54.00	-1.71	1.21 H	192	19.76	32.53
3	*2412.00	112.88 PK			1.21 H	192	80.26	32.62
4	*2412.00	102.78 AV			1.21 H	192	70.16	32.62
5	4824.00	50.18 PK	74.00	-23.82	1.02 H	243	11.29	38.89
6	4824.00	36.52 AV	54.00	-17.48	1.02 H	243	-2.37	38.89
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	2390.00	62.88 PK	74.00	-11.12	1.24 V	154	30.35	32.53
2	2390.00	48.95 AV	54.00	-5.05	1.24 V	154	16.42	32.53
3	*2412.00	109.96 PK			1.24 V	154	77.34	32.62
4	*2412.00	99.90 AV			1.24 V	154	67.28	32.62
5	4824.00	50.11 PK	74.00	-23.89	1.26 V	35	11.22	38.89
6	4824.00	37.08 AV	54.00	-16.92	1.26 V	35	-1.81	38.89

- 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.



A D T

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, 70%RH 1002 hPa	TESTED BY	Kevin Liang
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	2384.00	61.58 PK	74.00	-12.42	1.19 H	8	29.07	32.51
2	2384.00	50.53 AV	54.00	-3.47	1.19 H	8	18.02	32.51
3	*2437.00	113.40 PK			1.16 H	8	80.67	32.73
4	*2437.00	102.74 AV			1.16 H	8	70.01	32.73
5	2489.00	62.35 PK	74.00	-11.65	1.16 H	8	29.41	32.94
6	2489.00	52.02 AV	54.00	-1.98	1.16 H	8	19.08	32.94
7	4874.00	53.27 PK	74.00	-20.73	1.01 H	327	14.26	39.02
8	4874.00	39.93 AV	54.00	-14.07	1.01 H	327	0.91	39.02
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	2384.00	61.79 PK	74.00	-12.21	1.01 V	135	29.28	32.51
2	2384.00	51.07 AV	54.00	-2.93	1.01 V	135	18.56	32.51
3	*2437.00	109.66 PK			1.00 V	139	76.93	32.73
4	*2437.00	99.56 AV			1.00 V	139	66.83	32.73
5	2489.00	63.47 PK	74.00	-10.53	1.00 V	140	30.53	32.94
6	2489.00	52.09 AV	54.00	-1.91	1.00 V	140	19.15	32.94
7	4874.00	52.45 PK	74.00	-21.55	1.33 V	208	13.44	39.02
8	4874.00	39.55 AV	54.00	-14.45	1.33 V	208	0.53	39.02

- 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.



A D T

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, 70%RH 1002 hPa	TESTED BY	Kevin Liang
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	*2462.00	111.09 PK			1.17 H	195	78.26	32.83
2	*2462.00	100.70 AV			1.17 H	195	67.87	32.83
3	2483.50	70.96 PK	74.00	-3.04	1.17 H	195	38.04	32.92
4	2483.50	52.33 AV	54.00	-1.67	1.17 H	195	19.41	32.92
5	4924.00	49.93 PK	74.00	-24.07	1.01 H	240	10.80	39.14
6	4924.00	36.36 AV	54.00	-17.64	1.01 H	240	-2.78	39.14
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	109.39 PK			1.22 V	159	76.56	32.83
2	*2462.00	98.94 AV			1.22 V	159	66.11	32.83
3	2483.50	67.83 PK	74.00	-6.17	1.22 V	159	34.91	32.92
4	2483.50	50.29 AV	54.00	-3.71	1.22 V	159	17.37	32.92
5	4924.00	50.08 PK	74.00	-23.92	1.25 V	31	10.94	39.14
6	4924.00	37.19 AV	54.00	-16.81	1.25 V	31	-1.95	39.14

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



A D T

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, 70%RH 1002 hPa	TESTED BY	Kevin Liang
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	2390.00	61.94 PK	74.00	-12.06	1.42 H	153	29.41	32.53
2	2390.00	48.09 AV	54.00	-5.91	1.42 H	153	15.56	32.53
3	*2412.00	107.31 PK			1.42 H	153	74.69	32.62
4	*2412.00	96.80 AV			1.42 H	153	64.18	32.62
5	4824.00	51.48 PK	74.00	-22.52	1.24 H	91	12.59	38.89
6	4824.00	38.21 AV	54.00	-15.79	1.24 H	91	-0.68	38.89
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	2390.00	68.90 PK	74.00	-5.10	1.02 V	220	36.37	32.53
2	2390.00	52.89 AV	54.00	-1.11	1.02 V	220	20.36	32.53
3	*2412.00	113.67 PK			1.02 V	220	81.05	32.62
4	*2412.00	103.07 AV			1.02 V	220	70.45	32.62
5	4824.00	50.74 PK	74.00	-23.26	1.24 V	343	11.85	38.89
6	4824.00	38.47 AV	54.00	-15.53	1.24 V	343	-0.42	38.89

- 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.



A D T

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, 70%RH 1002 hPa	TESTED BY	Lori Chiu
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	2386.00	61.14 PK	74.00	-12.86	1.18 H	200	28.62	32.52
2	2386.00	49.10 AV	54.00	-4.90	1.18 H	200	16.58	32.52
3	*2437.00	108.21 PK			1.18 H	200	75.48	32.73
4	*2437.00	98.11 AV			1.18 H	200	65.38	32.73
5	2488.00	61.27 PK	74.00	-12.73	1.18 H	200	28.33	32.94
6	2488.00	49.34 AV	54.00	-4.66	1.18 H	200	16.40	32.94
7	4874.00	53.01 PK	74.00	-20.99	1.11 H	214	13.99	39.02
8	4874.00	39.84 AV	54.00	-14.16	1.11 H	214	0.83	39.02
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	2386.00	62.43 PK	74.00	-11.57	1.02 V	232	29.91	32.52
2	2386.00	52.23 AV	54.00	-1.77	1.02 V	232	19.71	32.52
3	*2437.00	114.65 PK			1.01 V	2	81.92	32.73
4	*2437.00	104.63 AV			1.01 V	2	71.90	32.73
5	2488.00	63.64 PK	74.00	-10.36	1.00 V	17	30.70	32.94
6	2488.00	52.94 AV	54.00	-1.06	1.00 V	17	20.00	32.94
7	4874.00	52.11 PK	74.00	-21.89	1.21 V	115	13.09	39.02
8	4874.00	39.41 AV	54.00	-14.59	1.21 V	115	0.39	39.02

- 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.



A D T

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, 70%RH 1002 hPa	TESTED BY	Kevin Liang
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	*2462.00	104.22 PK			1.39 H	154	71.39	32.83
2	*2462.00	94.14 AV			1.39 H	154	61.31	32.83
3	2483.50	62.50 PK	74.00	-11.50	1.39 H	155	29.58	32.92
4	2483.50	48.30 AV	54.00	-5.70	1.39 H	155	15.38	32.92
5	4924.00	49.31 PK	74.00	-24.69	1.23 H	100	10.17	39.14
6	4924.00	36.85 AV	54.00	-17.15	1.23 H	100	-2.29	39.14
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	112.13 PK			1.02 V	220	79.30	32.83
2	*2462.00	101.91 AV			1.02 V	220	69.08	32.83
3	2483.50	70.19 PK	74.00	-3.81	1.02 V	220	37.27	32.92
4	2483.50	52.28 AV	54.00	-1.72	1.02 V	220	19.36	32.92
5	4924.00	48.77 PK	74.00	-25.23	1.21 V	314	9.63	39.14
6	4924.00	36.44 AV	54.00	-17.56	1.21 V	314	-2.70	39.14

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



DRAFT 802.11n (20MHz) OFDM MODULATION

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH 1002 hPa	TESTED BY	Kevin Liang
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	2390.00	66.12 PK	74.00	-7.88	1.20 H	196	33.59	32.53
2	2390.00	51.40 AV	54.00	-2.60	1.20 H	196	18.87	32.53
3	*2412.00	111.65 PK			1.20 H	196	79.03	32.62
4	*2412.00	101.38 AV			1.20 H	196	68.76	32.62
5	4824.00	52.16 PK	74.00	-21.84	1.16 H	222	13.27	38.89
6	4824.00	38.62 AV	54.00	-15.38	1.16 H	222	-0.27	38.89
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	2390.00	62.49 PK	74.00	-11.51	1.25 V	122	29.96	32.53
2	2390.00	49.54 AV	54.00	-4.46	1.25 V	122	17.01	32.53
3	*2412.00	108.96 PK			1.25 V	122	76.34	32.62
4	*2412.00	98.15 AV			1.25 V	122	65.53	32.62
5	4824.00	51.44 PK	74.00	-22.56	1.18 V	32	12.55	38.89
6	4824.00	37.72 AV	54.00	-16.28	1.18 V	32	-1.17	38.89

- 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.



A D T

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, 70%RH 1002 hPa	TESTED BY	Lori Chiu
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	2384.00	61.41 PK	74.00	-12.59	1.00 H	151	28.90	32.51
2	2384.00	50.61 AV	54.00	-3.39	1.00 H	151	18.10	32.51
3	*2437.00	113.03 PK			1.00 H	151	80.30	32.73
4	*2437.00	102.43 AV			1.00 H	151	69.70	32.73
5	2489.00	62.95 PK	74.00	-11.05	1.01 H	156	30.01	32.94
6	2489.00	52.15 AV	54.00	-1.85	1.01 H	156	19.21	32.94
7	4874.00	53.08 PK	74.00	-20.92	1.11 H	168	14.06	39.02
8	4874.00	39.87 AV	54.00	-14.13	1.11 H	168	0.85	39.02
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	2384.00	62.02 PK	74.00	-11.98	1.00 V	171	29.51	32.51
2	2384.00	50.34 AV	54.00	-3.66	1.00 V	171	17.83	32.51
3	*2437.00	110.59 PK			1.00 V	173	77.86	32.73
4	*2437.00	100.15 AV			1.00 V	173	67.42	32.73
5	2489.00	62.52 PK	74.00	-11.48	1.16 V	184	29.58	32.94
6	2489.00	51.43 AV	54.00	-2.57	1.16 V	184	18.49	32.94
7	4874.00	53.33 PK	74.00	-20.67	1.15 V	310	14.31	39.02
8	4874.00	40.10 AV	54.00	-13.90	1.15 V	310	1.09	39.02

- 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.



A D T

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, 70%RH 1002 hPa	TESTED BY	Kevin Liang
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	*2462.00	111.34 PK			1.18 H	194	78.51	32.83
2	*2462.00	100.87 AV			1.18 H	194	68.04	32.83
3	2483.50	69.38 PK	74.00	-4.62	1.18 H	194	36.46	32.92
4	2483.50	52.95 AV	54.00	-1.05	1.18 H	194	20.03	32.92
5	4924.00	51.05 PK	74.00	-22.95	1.13 H	219	11.91	39.14
6	4924.00	37.54 AV	54.00	-16.46	1.13 H	219	-1.60	39.14
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	109.59 PK			1.21 V	125	76.76	32.83
2	*2462.00	99.16 AV			1.21 V	125	66.33	32.83
3	2483.50	66.94 PK	74.00	-7.06	1.21 V	125	34.02	32.92
4	2483.50	50.63 AV	54.00	-3.37	1.21 V	125	17.71	32.92
5	4924.00	50.62 PK	74.00	-23.38	1.19 V	31	11.48	39.14
6	4924.00	37.17 AV	54.00	-16.83	1.19 V	31	-1.97	39.14

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



A D T

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, 70%RH 1002 hPa	TESTED BY	Kevin Liang
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	2390.00	62.14 PK	74.00	-11.86	1.42 H	155	29.61	32.53
2	2390.00	48.19 AV	54.00	-5.81	1.42 H	155	15.66	32.53
3	*2412.00	106.55 PK			1.42 H	155	73.93	32.62
4	*2412.00	96.36 AV			1.42 H	155	63.74	32.62
5	4824.00	51.01 PK	74.00	-22.99	1.24 H	94	12.12	38.89
6	4824.00	37.93 AV	54.00	-16.07	1.24 H	94	-0.96	38.89
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	2390.00	68.29 PK	74.00	-5.71	1.00 V	221	35.76	32.53
2	2390.00	52.40 AV	54.00	-1.60	1.00 V	221	19.87	32.53
3	*2412.00	112.87 PK			1.00 V	221	80.25	32.62
4	*2412.00	102.64 AV			1.00 V	221	70.02	32.62
5	4824.00	50.37 PK	74.00	-23.63	1.25 V	341	11.48	38.89
6	4824.00	38.10 AV	54.00	-15.90	1.25 V	341	-0.79	38.89

- 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.



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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, 70%RH 1002 hPa	TESTED BY	Kevin Liang
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	2386.00	61.01 PK	74.00	-12.99	1.17 H	166	28.49	32.52
2	2386.00	48.96 AV	54.00	-5.04	1.17 H	166	16.44	32.52
3	*2437.00	108.76 PK			1.17 H	166	76.03	32.73
4	*2437.00	98.58 AV			1.17 H	166	65.85	32.73
5	2488.00	60.44 PK	74.00	-13.56	1.17 H	166	27.50	32.94
6	2488.00	49.66 AV	54.00	-4.34	1.17 H	166	16.72	32.94
7	4874.00	53.95 PK	74.00	-20.05	1.24 H	112	14.93	39.02
8	4874.00	39.96 AV	54.00	-14.04	1.24 H	112	0.94	39.02
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	2386.00	63.21 PK	74.00	-10.79	1.00 V	299	30.69	32.52
2	2386.00	52.14 AV	54.00	-1.86	1.00 V	299	19.62	32.52
3	*2437.00	114.23 PK			1.00 V	3	81.50	32.73
4	*2437.00	103.99 AV			1.00 V	3	71.26	32.73
5	2488.00	63.33 PK	74.00	-10.67	1.00 V	19	30.39	32.94
6	2488.00	52.86 AV	54.00	-1.14	1.00 V	19	19.92	32.94
7	4874.00	52.07 PK	74.00	-21.93	1.11 V	338	13.05	39.02
8	4874.00	39.00 AV	54.00	-15.00	1.11 V	338	-0.02	39.02

- 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.



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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, 70%RH 1002 hPa	TESTED BY	Kevin Liang
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	*2462.00	104.53 PK			1.38 H	156	71.70	32.83
2	*2462.00	94.31 AV			1.38 H	156	61.48	32.83
3	2483.50	63.25 PK	74.00	-10.75	1.38 H	156	30.33	32.92
4	2483.50	48.40 AV	54.00	-5.60	1.38 H	156	15.48	32.92
5	4924.00	49.28 PK	74.00	-24.72	1.24 H	102	10.14	39.14
6	4924.00	36.77 AV	54.00	-17.23	1.24 H	102	-2.37	39.14
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	112.36 PK			1.01 V	218	79.53	32.83
2	*2462.00	102.13 AV			1.01 V	218	69.30	32.83
3	2483.50	68.12 PK	74.00	-5.88	1.02 V	218	35.20	32.92
4	2483.50	52.41 AV	54.00	-1.59	1.02 V	218	19.49	32.92
5	4924.00	48.81 PK	74.00	-25.19	1.22 V	310	9.67	39.14
6	4924.00	36.49 AV	54.00	-17.51	1.22 V	310	-2.65	39.14

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



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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH 1000 hPa	TESTED BY	Lori Chiu
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	30.00	31.74 QP	40.00	-8.26	1.50 H	37	19.46	12.28
2	267.10	38.31 QP	46.00	-7.69	1.25 H	16	25.20	13.11
3	500.42	36.23 QP	46.00	-9.77	1.50 H	208	16.98	19.25
4	533.47	38.27 QP	46.00	-7.73	1.50 H	214	18.01	20.26
5	667.63	36.59 QP	46.00	-9.41	1.25 H	196	14.13	22.46
6	751.23	40.41 QP	46.00	-5.59	1.00 H	211	16.43	23.98
7	799.84	39.42 QP	46.00	-6.58	1.00 H	220	14.11	25.32
8	836.78	37.12 QP	46.00	-8.88	1.00 H	178	11.57	25.55
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	36.06 QP	40.00	-3.94	1.50 V	235	23.78	12.28
2	64.90	28.12 QP	40.00	-11.88	1.00 V	205	15.63	12.49
3	144.61	34.55 QP	43.50	-8.95	1.50 V	118	21.38	13.16
4	267.10	34.40 QP	46.00	-11.60	1.00 V	184	21.29	13.11
5	399.31	34.71 QP	46.00	-11.29	1.25 V	166	18.66	16.04
6	500.42	34.77 QP	46.00	-11.23	1.00 V	196	15.51	19.25
7	751.23	42.26 QP	46.00	-3.74	1.25 V	166	18.28	23.98
8	836.78	40.93 QP	46.00	-5.07	1.50 V	301	15.38	25.55

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



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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, 70%RH 1000 hPa	TESTED BY	Lori Chiu
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	30.00	31.28 QP	40.00	-8.72	2.00 H	244	19.00	12.28
2	267.10	37.32 QP	46.00	-8.68	2.00 H	118	24.20	13.11
3	500.42	37.37 QP	46.00	-8.63	1.50 H	208	18.11	19.25
4	533.47	38.05 QP	46.00	-7.95	1.50 H	205	17.79	20.26
5	751.23	41.11 QP	46.00	-4.89	1.00 H	208	17.13	23.98
6	799.84	37.98 QP	46.00	-8.02	1.00 H	208	12.66	25.32
7	836.78	38.31 QP	46.00	-7.69	1.00 H	175	12.76	25.55
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	36.49 QP	40.00	-3.51	2.00 V	136	24.21	12.28
2	144.61	35.27 QP	43.50	-8.23	1.25 V	166	22.10	13.16
3	399.31	34.65 QP	46.00	-11.35	1.00 V	154	18.61	16.04
4	500.42	37.25 QP	46.00	-8.75	1.00 V	196	18.00	19.25
5	533.47	34.25 QP	46.00	-11.75	1.00 V	316	13.99	20.26
6	751.23	42.62 QP	46.00	-3.38	2.00 V	178	18.64	23.98
7	836.78	39.30 QP	46.00	-6.70	2.00 V	301	13.75	25.55
8	933.99	34.41 QP	46.00	-11.59	1.00 V	232	8.05	26.37

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

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

4.2.2 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	Dec. 31, 2008	Dec. 30, 2009
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Dec. 29, 2008	Dec. 28, 2009
LISN ROHDE & SCHWARZ	ESH3-Z5	100311	Jul. 29, 2009	Jul. 28, 2010
Software ADT	ADT_Cond_ V7.3.7	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

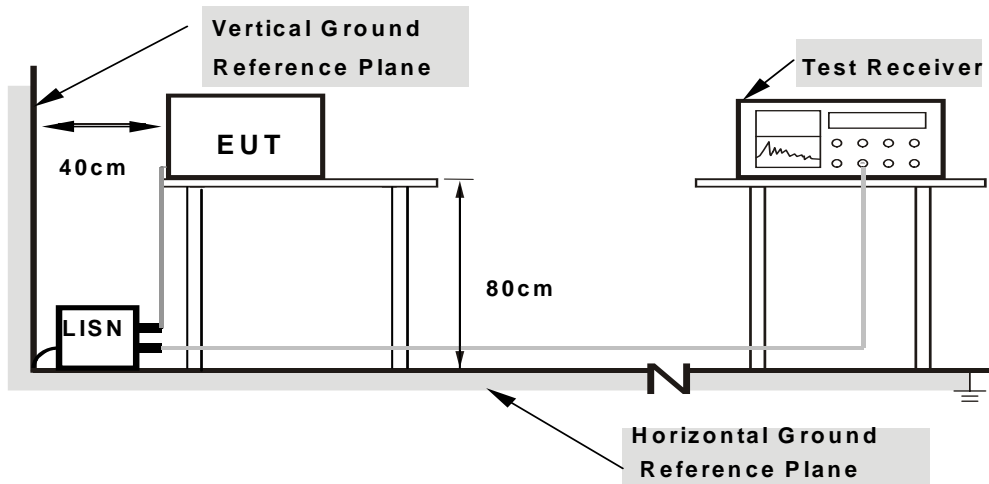
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling 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.

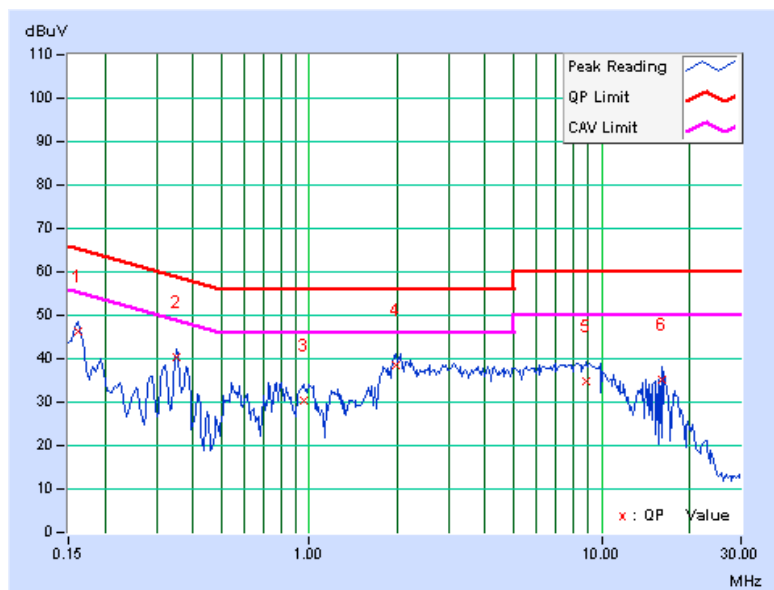
4.2.7 TEST RESULTS

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 1027hPa	TESTED BY	Match Tsui
TEST MODE	A		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.13	46.27	-	46.40	-	65.38	55.38	-18.98	-
2	0.353	0.14	40.07	-	40.21	-	58.89	48.89	-18.68	-
3	0.955	0.17	30.09	-	30.26	-	56.00	46.00	-25.74	-
4	1.980	0.19	38.36	-	38.55	-	56.00	46.00	-17.45	-
5	8.898	0.40	34.58	-	34.98	-	60.00	50.00	-25.02	-
6	16.002	0.58	34.74	-	35.32	-	60.00	50.00	-24.68	-

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



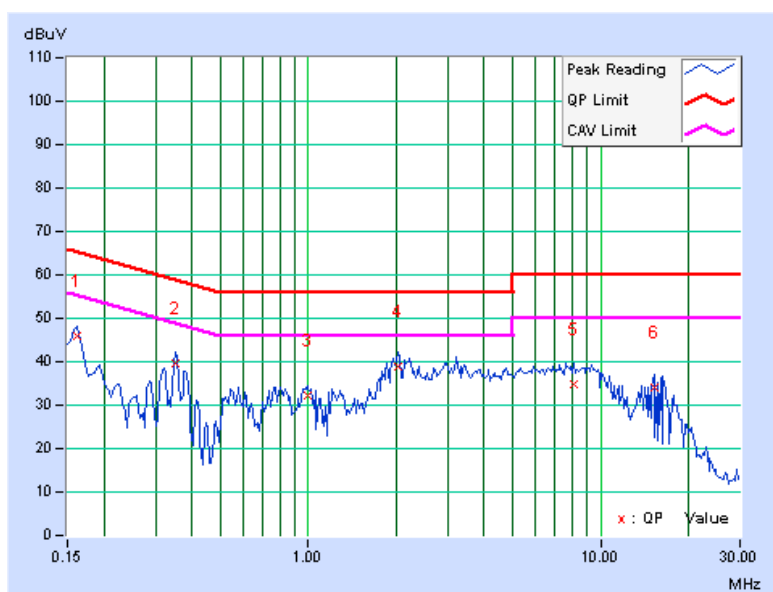


A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 1027hPa	TESTED BY	Match Tsui
TEST MODE	A		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.13	45.95	-	46.08	-	65.38	55.38	-19.30	-
2	0.349	0.14	39.48	-	39.62	-	58.98	48.98	-19.36	-
3	0.990	0.17	32.12	-	32.29	-	56.00	46.00	-23.71	-
4	2.023	0.20	38.73	-	38.93	-	56.00	46.00	-17.07	-
5	8.129	0.44	34.50	-	34.94	-	60.00	50.00	-25.06	-
6	15.262	0.67	33.38	-	34.05	-	60.00	50.00	-25.95	-

- 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.



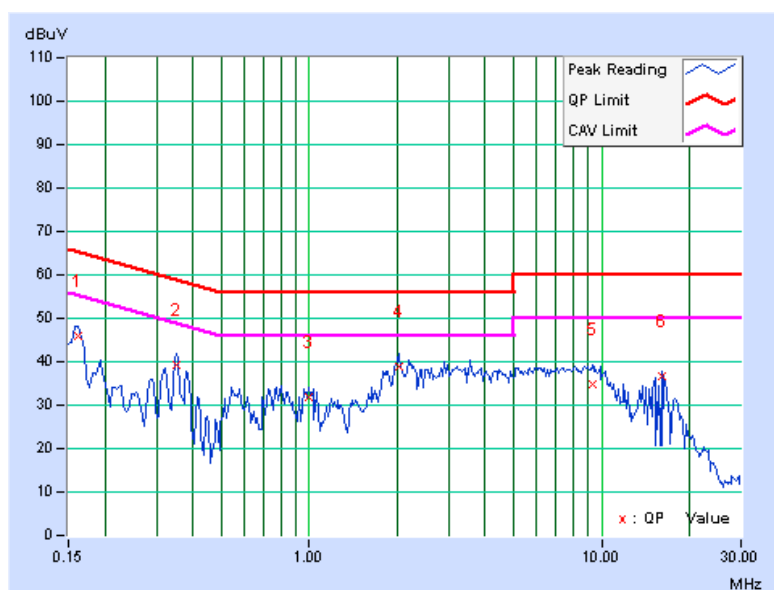


A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 1027hPa	TESTED BY	Match Tsui
TEST MODE	A		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.13	45.95	-	46.08	-	65.38	55.38	-19.30	-
2	0.349	0.14	39.21	-	39.35	-	58.98	48.98	-19.63	-
3	0.990	0.17	31.83	-	32.00	-	56.00	46.00	-24.00	-
4	2.023	0.19	38.59	-	38.78	-	56.00	46.00	-17.22	-
5	9.352	0.41	34.50	-	34.91	-	60.00	50.00	-25.09	-
6	16.004	0.58	35.98	-	36.56	-	60.00	50.00	-23.44	-

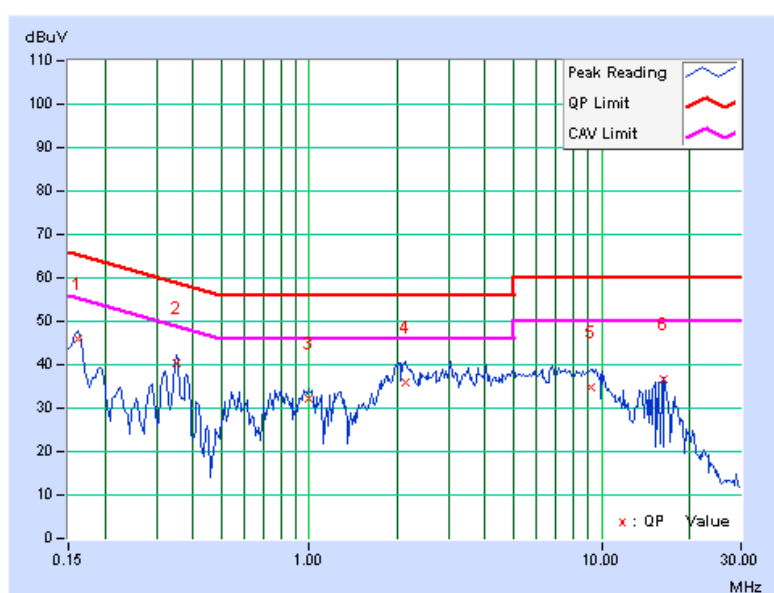
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 1027hPa	TESTED BY	Match Tsui
TEST MODE	A		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.13	45.82	-	45.95	-	65.38	55.38	-19.43	-
2	0.353	0.15	40.37	-	40.52	-	58.89	48.89	-18.37	-
3	0.994	0.17	32.12	-	32.29	-	56.00	46.00	-23.71	-
4	2.133	0.21	35.57	-	35.78	-	56.00	46.00	-20.22	-
5	9.219	0.47	34.38	-	34.85	-	60.00	50.00	-25.15	-
6	16.375	0.71	36.10	-	36.81	-	60.00	50.00	-23.19	-

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



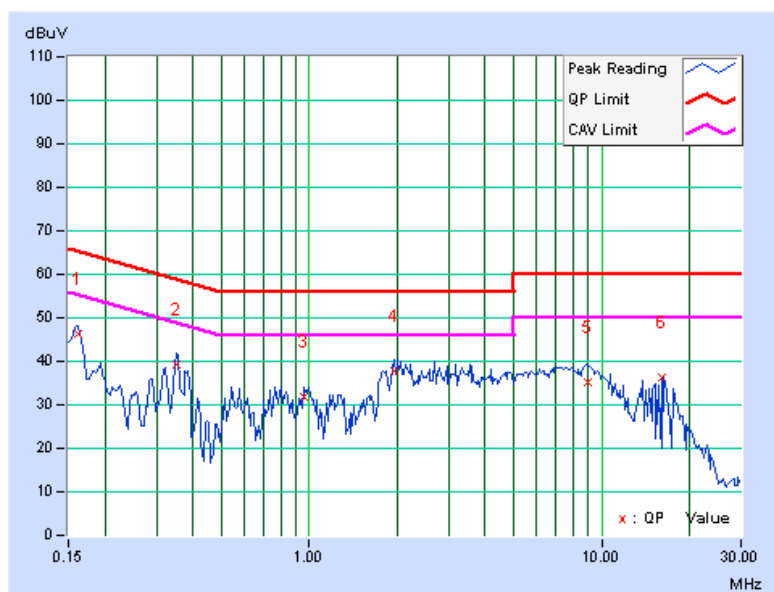


A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 1027hPa	TESTED BY	Match Tsui
TEST MODE	A		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.13	46.21	-	46.34	-	65.38	55.38	-19.04	-
2	0.349	0.14	39.23	-	39.37	-	58.98	48.98	-19.61	-
3	0.959	0.17	31.51	-	31.68	-	56.00	46.00	-24.32	-
4	1.953	0.19	37.56	-	37.75	-	56.00	46.00	-18.25	-
5	8.961	0.40	34.69	-	35.09	-	60.00	50.00	-24.91	-
6	16.004	0.58	35.68	-	36.26	-	60.00	50.00	-23.74	-

- 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.



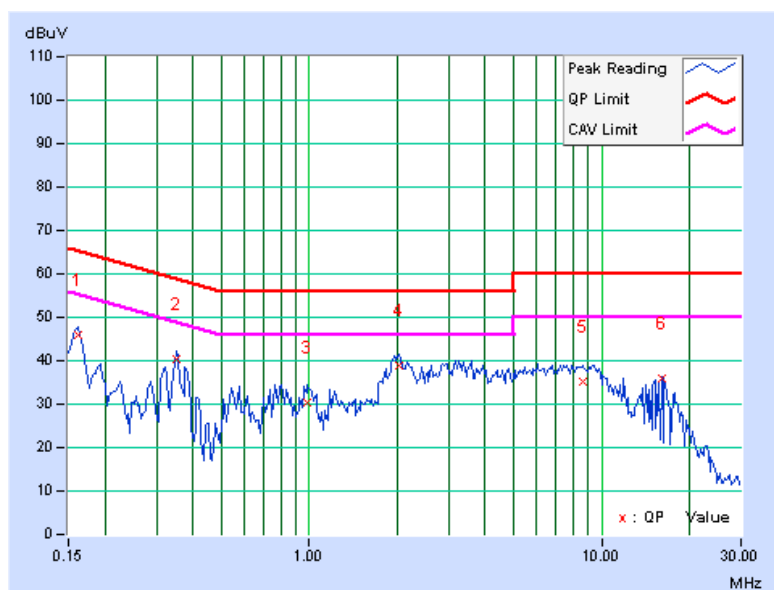


A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 1027hPa	TESTED BY	Match Tsui
TEST MODE	A		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.13	45.80	-	45.93	-	65.38	55.38	-19.45	-
2	0.353	0.15	40.37	-	40.52	-	58.89	48.89	-18.37	-
3	0.986	0.17	30.19	-	30.36	-	56.00	46.00	-25.64	-
4	2.023	0.20	38.82	-	39.02	-	56.00	46.00	-16.98	-
5	8.637	0.45	34.58	-	35.03	-	60.00	50.00	-24.97	-
6	16.004	0.70	35.38	-	36.08	-	60.00	50.00	-23.92	-

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



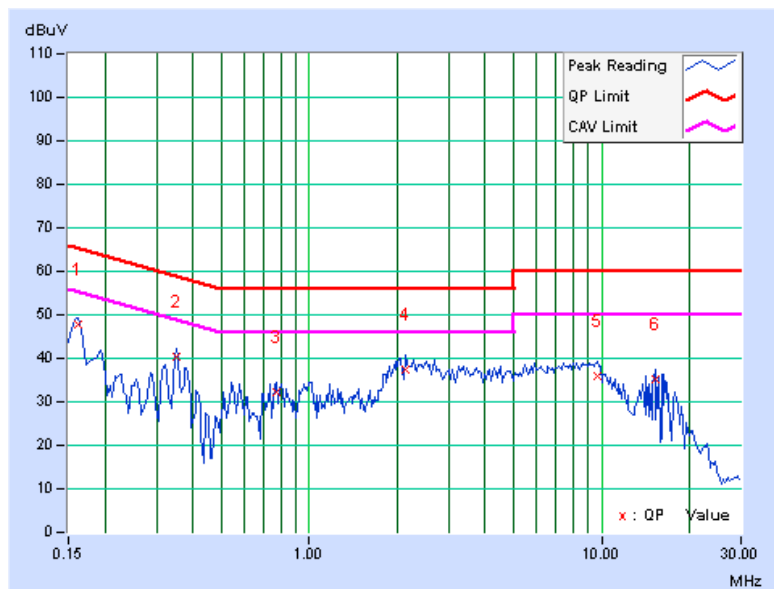


A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 1027hPa	TESTED BY	Match Tsui
TEST MODE	B		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.13	47.47	-	47.60	-	65.38	55.38	-17.78	-
2	0.353	0.14	40.27	-	40.41	-	58.89	48.89	-18.48	-
3	0.771	0.16	32.22	-	32.38	-	56.00	46.00	-23.62	-
4	2.137	0.20	37.10	-	37.30	-	56.00	46.00	-18.70	-
5	9.676	0.42	35.41	-	35.83	-	60.00	50.00	-24.17	-
6	15.262	0.56	34.66	-	35.22	-	60.00	50.00	-24.78	-

- 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.



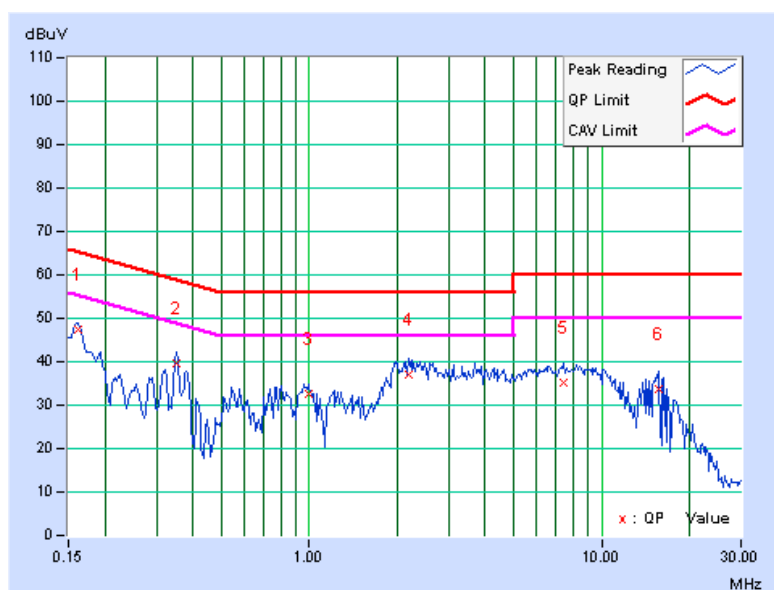


A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 1027hPa	TESTED BY	Match Tsui
TEST MODE	B		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.13	47.43	-	47.56	-	65.38	55.38	-17.82	-
2	0.349	0.14	39.60	-	39.74	-	58.98	48.98	-19.24	-
3	0.994	0.17	32.38	-	32.55	-	56.00	46.00	-23.45	-
4	2.203	0.21	36.68	-	36.89	-	56.00	46.00	-19.11	-
5	7.426	0.41	34.60	-	35.01	-	60.00	50.00	-24.99	-
6	15.645	0.68	32.98	-	33.66	-	60.00	50.00	-26.34	-

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



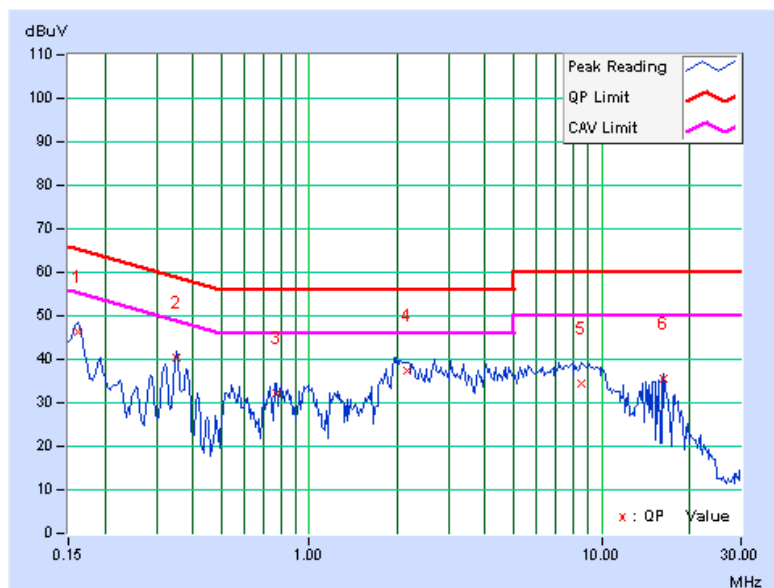


A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 1027hPa	TESTED BY	Match Tsui
TEST MODE	B		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.13	46.07	-	46.20	-	65.38	55.38	-19.18	-
2	0.353	0.14	40.11	-	40.25	-	58.89	48.89	-18.64	-
3	0.771	0.16	32.14	-	32.30	-	56.00	46.00	-23.70	-
4	2.176	0.20	37.17	-	37.37	-	56.00	46.00	-18.63	-
5	8.527	0.39	34.22	-	34.61	-	60.00	50.00	-25.39	-
6	16.379	0.59	34.83	-	35.42	-	60.00	50.00	-24.58	-

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

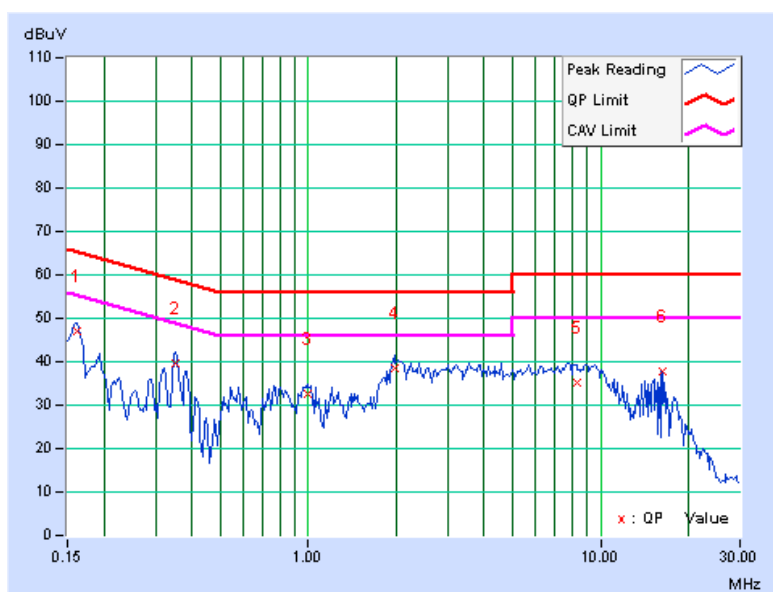




EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 1027hPa	TESTED BY	Match Tsui
TEST MODE	B		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.13	46.82	-	46.95	-	65.38	55.38	-18.43	-
2	0.349	0.14	39.60	-	39.74	-	58.98	48.98	-19.24	-
3	0.990	0.17	32.36	-	32.53	-	56.00	46.00	-23.47	-
4	1.980	0.20	38.22	-	38.42	-	56.00	46.00	-17.58	-
5	8.273	0.44	34.78	-	35.22	-	60.00	50.00	-24.78	-
6	16.379	0.71	36.93	-	37.64	-	60.00	50.00	-22.36	-

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



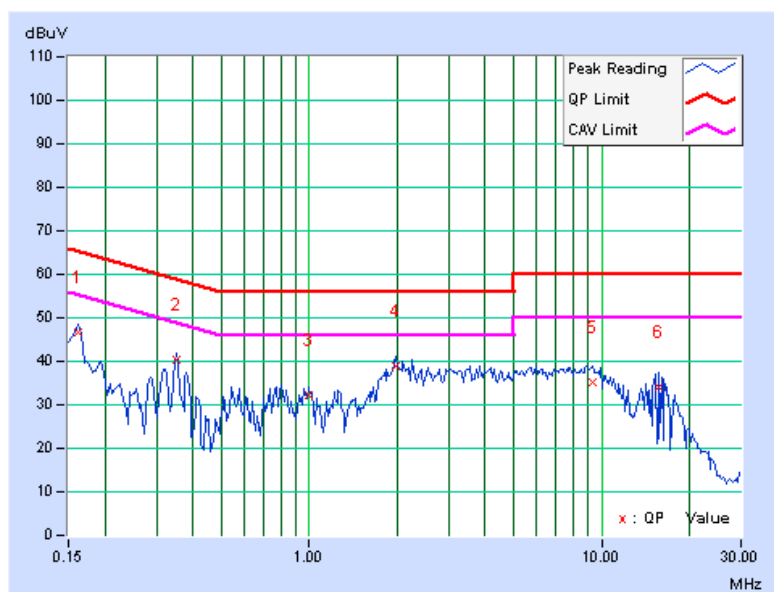


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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line 1
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 1027hPa	TESTED BY	Match Tsui
TEST MODE	B		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.13	46.53	-	46.66	-	65.38	55.38	-18.72	-
2	0.353	0.14	40.09	-	40.23	-	58.89	48.89	-18.66	-
3	0.994	0.17	31.90	-	32.07	-	56.00	46.00	-23.93	-
4	1.984	0.19	38.62	-	38.81	-	56.00	46.00	-17.19	-
5	9.301	0.41	34.84	-	35.25	-	60.00	50.00	-24.75	-
6	15.637	0.57	33.65	-	34.22	-	60.00	50.00	-25.78	-

- 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.



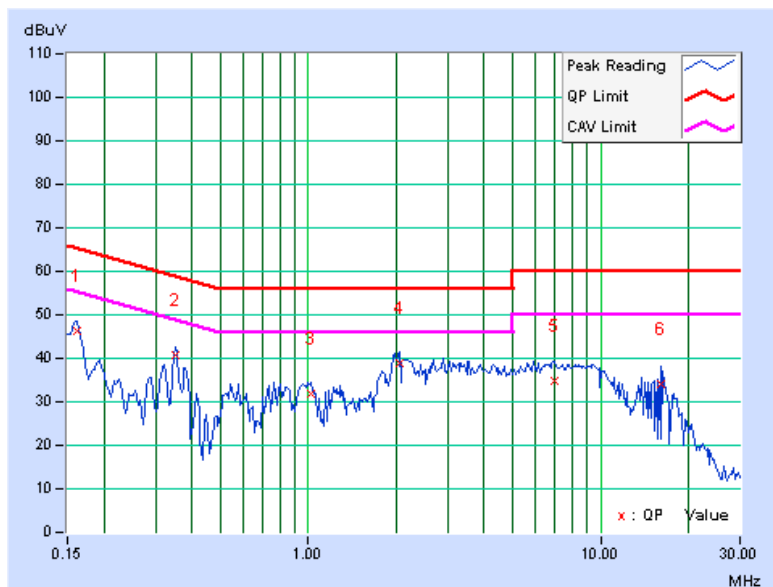


A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	PHASE	Line 2
MODULATION TYPE	BPSK	INPUT POWER	120Vac, 60Hz
TRANSFER RATE	6.5Mbps	6dB BANDWIDTH	9kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 1027hPa	TESTED BY	Match Tsui
TEST MODE	B		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.13	46.19	-	46.32	-	65.38	55.38	-19.06	-
2	0.353	0.15	40.45	-	40.60	-	58.89	48.89	-18.29	-
3	1.023	0.17	31.71	-	31.88	-	56.00	46.00	-24.12	-
4	2.059	0.20	38.65	-	38.85	-	56.00	46.00	-17.15	-
5	6.922	0.40	34.32	-	34.72	-	60.00	50.00	-25.28	-
6	16.000	0.70	33.30	-	34.00	-	60.00	50.00	-26.00	-

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



4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
R&S SPECTRUM ANALYZER	FSP40	100041	May 13, 2009	May 12, 2010

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

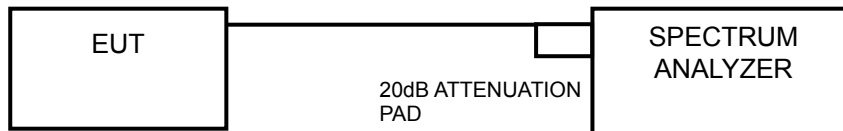
4.3.3 TEST PROCEDURE

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.



A D T

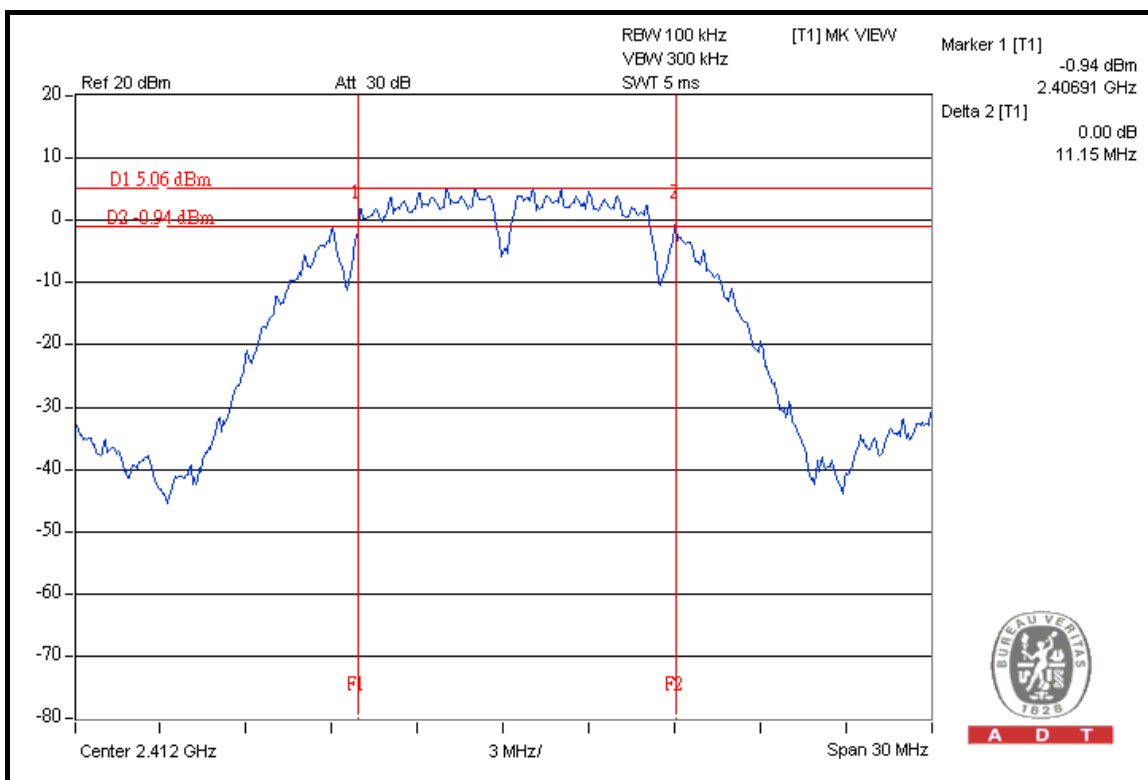
4.3.7 TEST RESULTS

802.11b DSSS MODULATION

MODULATION TYPE	DBPSK	TRANSFER RATE	1.0Mbps
INPUT POWER	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	23deg.C, 70%RH, 991hPa
TESTED BY	Lori Chiu		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	11.15	0.5	PASS
6	2437	10.22	0.5	PASS
11	2462	11.16	0.5	PASS

CH 1

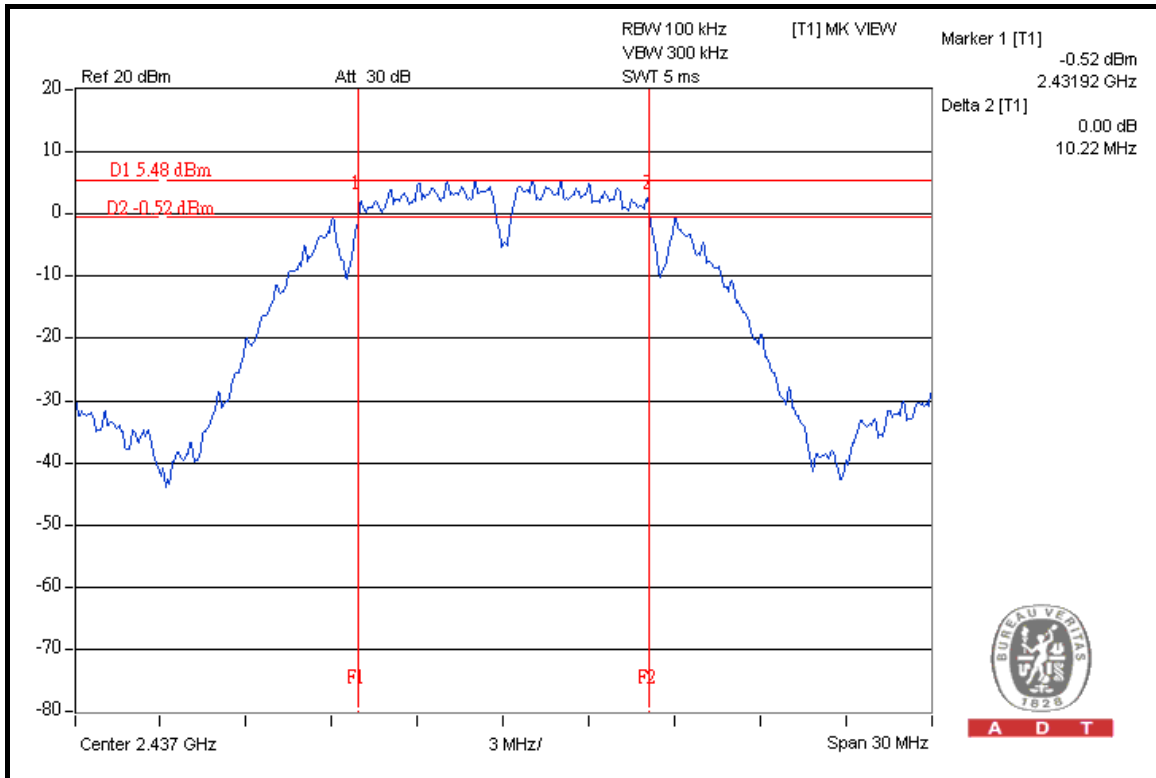


A D T

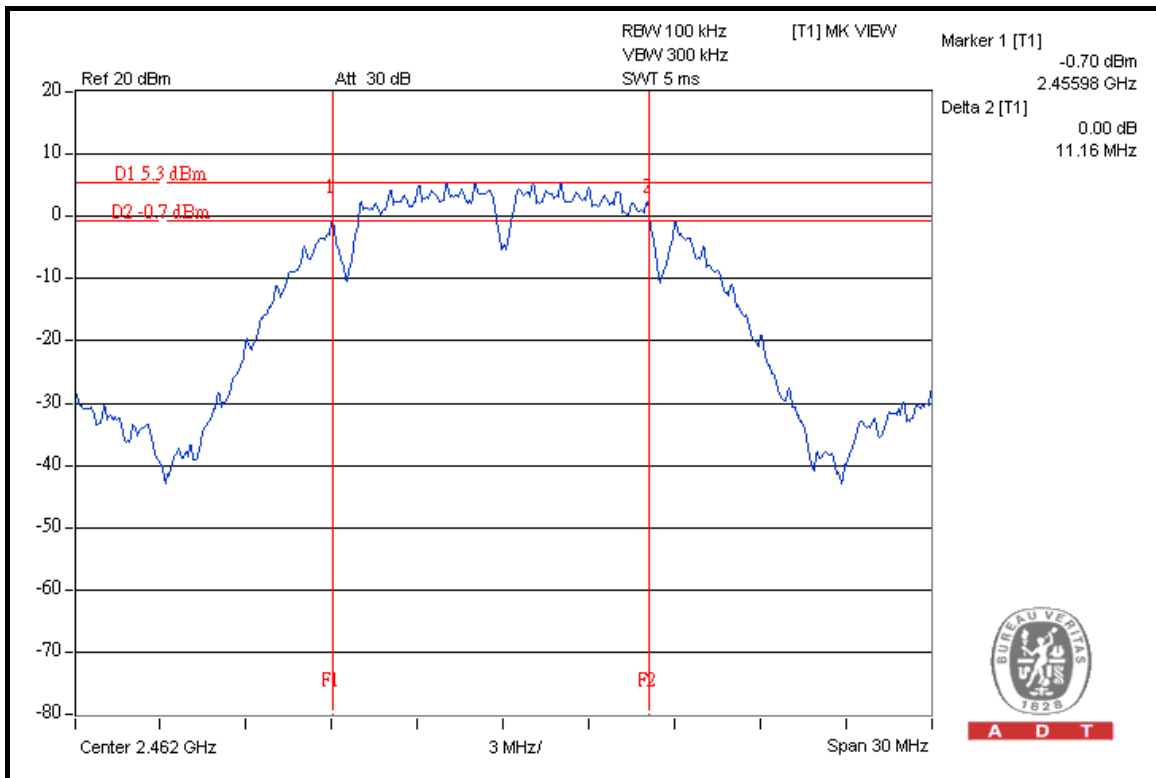


A D T

CH 6



CH 11





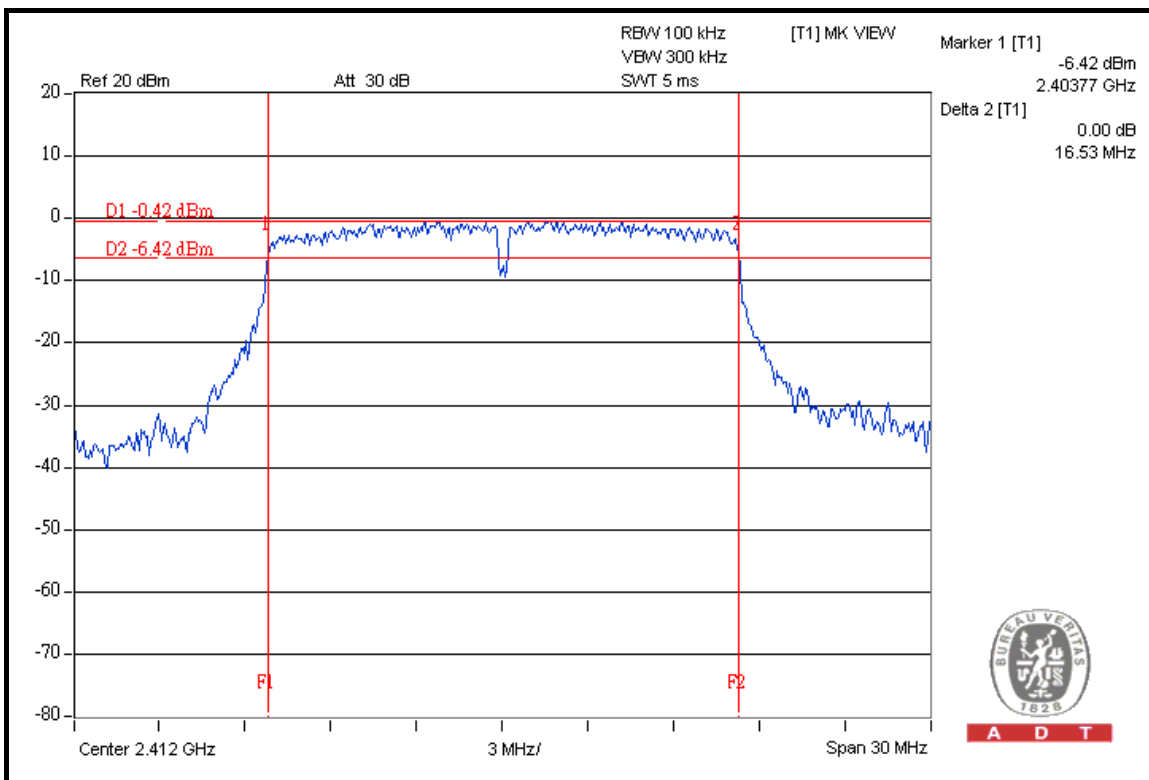
A D T

802.11g OFDM MODULATION

MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	23deg.C, 70%RH, 991hPa
TESTED BY	Lori Chiu		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.53	0.5	PASS
6	2437	16.50	0.5	PASS
11	2462	16.53	0.5	PASS

CH 1

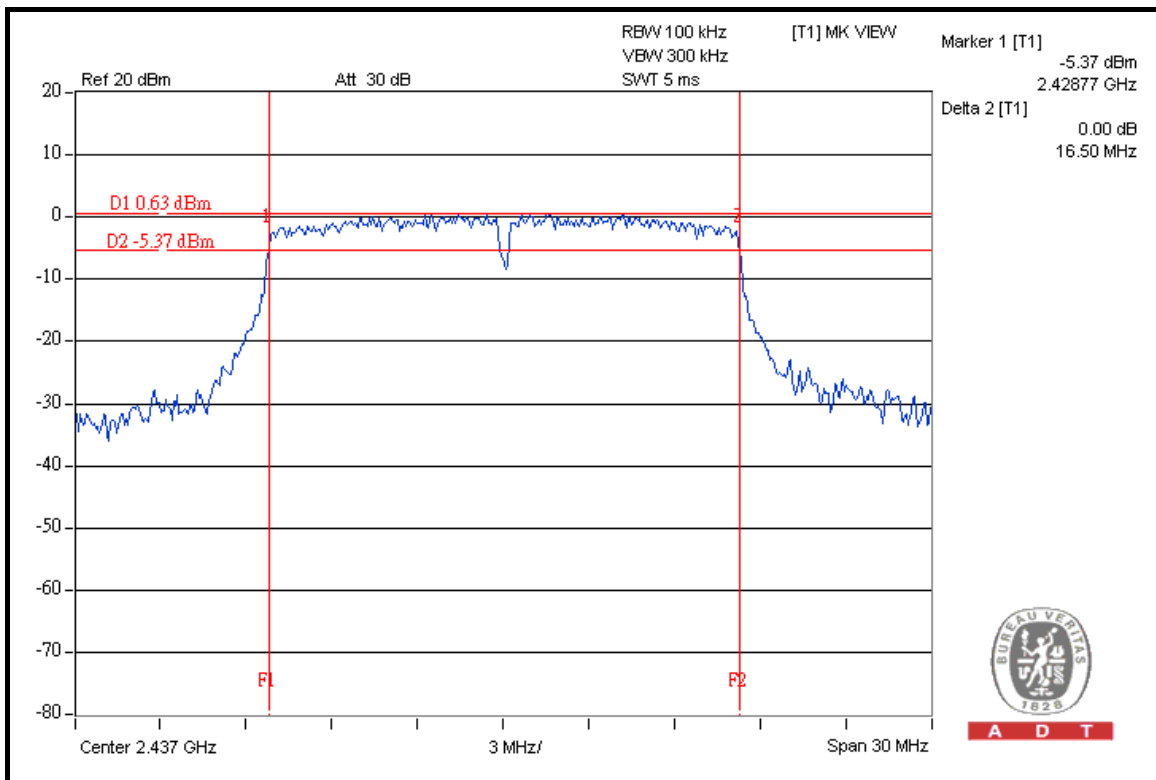


A D T

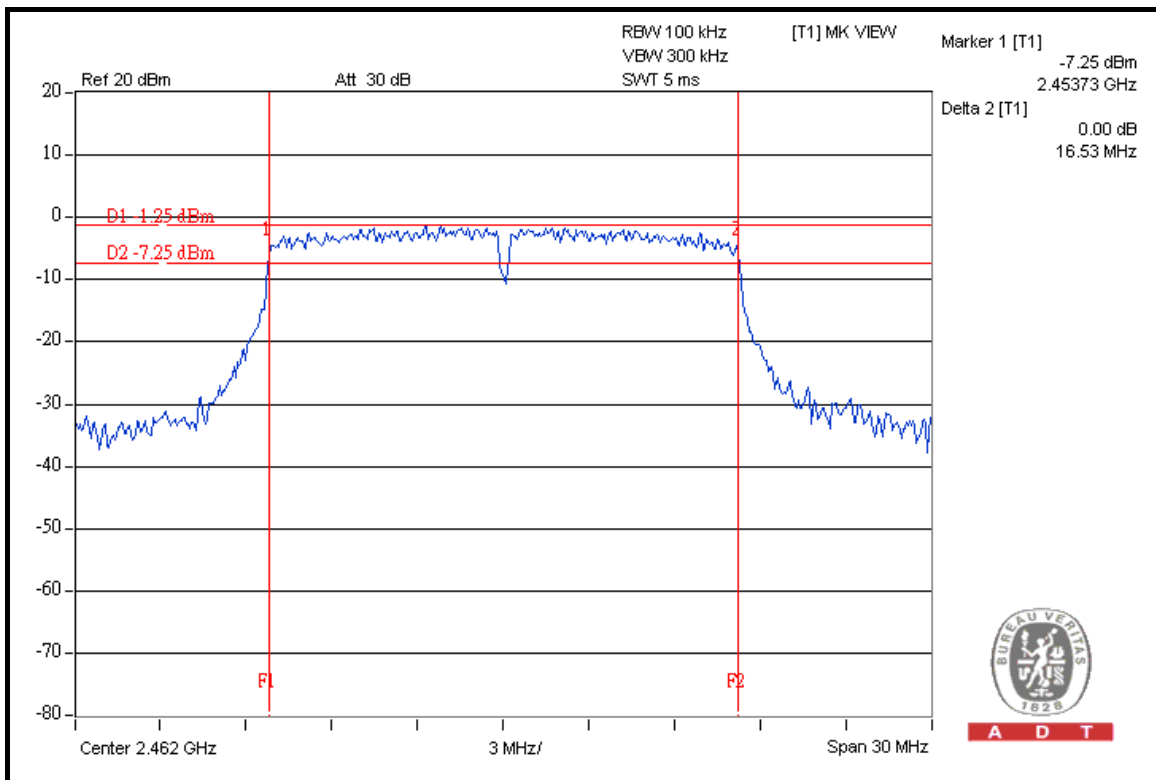


A D T

CH 6



CH 11





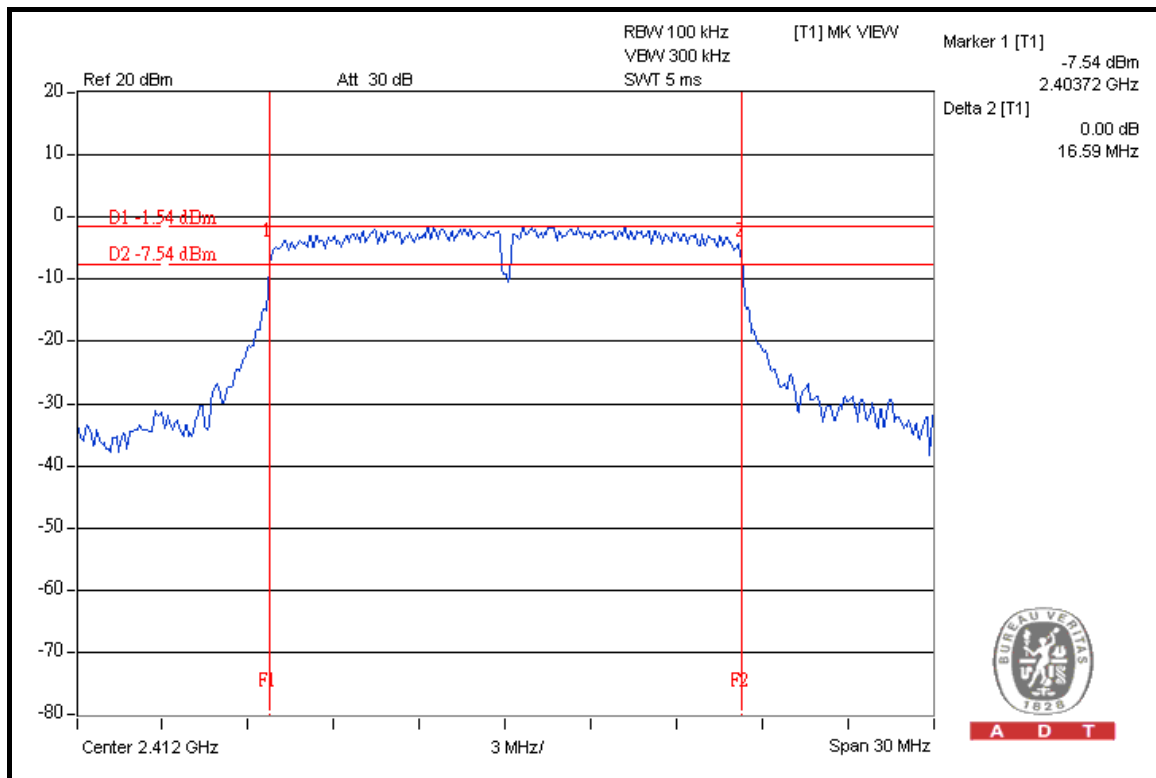
A D T

DRAFT 802.11n (20MHz) OFDM MODULATION

MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	23deg.C, 70%RH, 991hPa
TESTED BY	Lori Chiu		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.59	0.5	PASS
6	2437	16.48	0.5	PASS
11	2462	16.52	0.5	PASS

CH 1

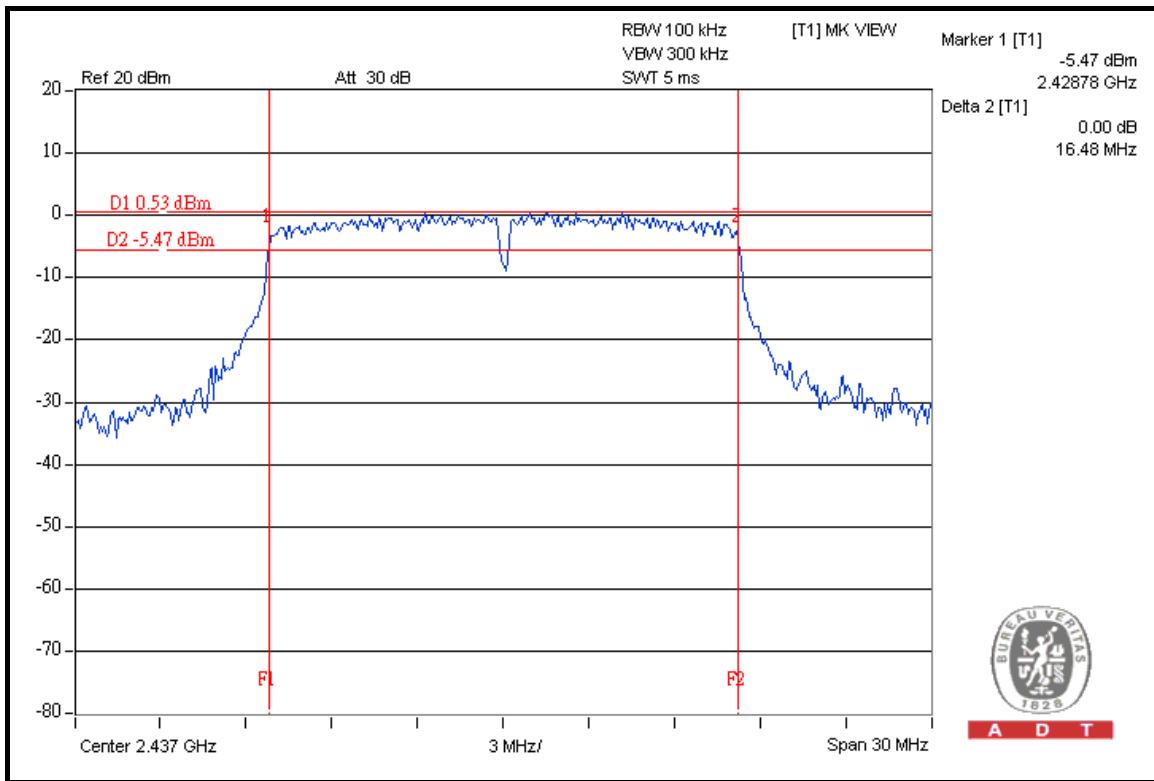


A D T



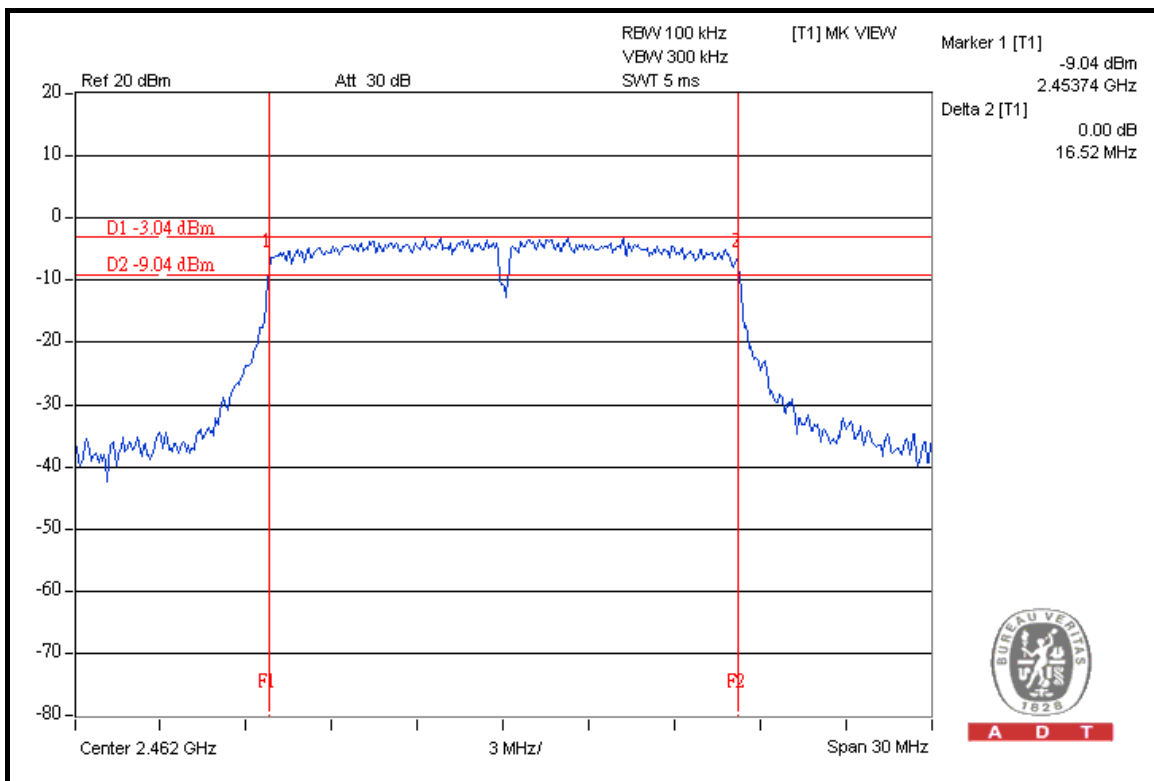
A D T

CH 6



A D T

CH 11



A D T

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	DUE DATE OF CALIBRATION
High Speed Peak Power Meter	ML2495A	0824011	Jul. 30, 2009	Jul. 29, 2010
Power Sensor	MA2411B	0738171	Jul. 30, 2009	Jul. 29, 2010

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.

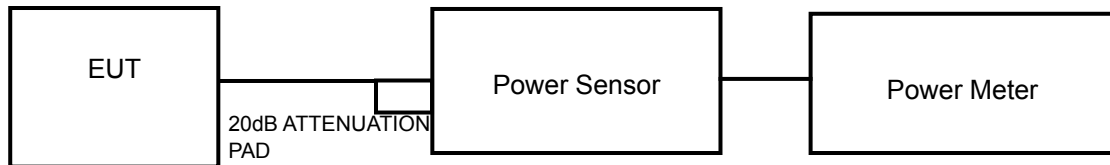
4.4.3 TEST PROCEDURES

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, 60 Hz	ENVIRONMENTAL CONDITIONS	23deg.C, 70%RH, 991hPa
TESTED BY	Lori Chiu		

CHAN	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	138.68	21.42	30	PASS
6	2437	148.25	21.71	30	PASS
11	2462	139.32	21.44	30	PASS

802.11g OFDM MODULATION

MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	23deg.C, 70%RH, 991hPa
TESTED BY	Lori Chiu		

CHAN	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	252.93	24.03	30	PASS
6	2437	317.69	25.02	30	PASS
11	2462	215.77	23.34	30	PASS



A D T

DRAFT 802.11n (20MHz) OFDM MODULATION

MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	23deg.C, 70%RH, 991hPa
TESTED BY	Lori Chiu		

CHAN	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	201.37	23.04	30	PASS
6	2437	317.69	25.02	30	PASS
11	2462	141.58	21.51	30	PASS



4.5 POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
R&S SPECTRUM ANALYZER	FSP40	100041	May 13, 2009	May 12, 2010

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

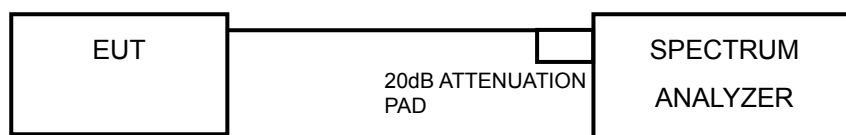
The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

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.



A D T

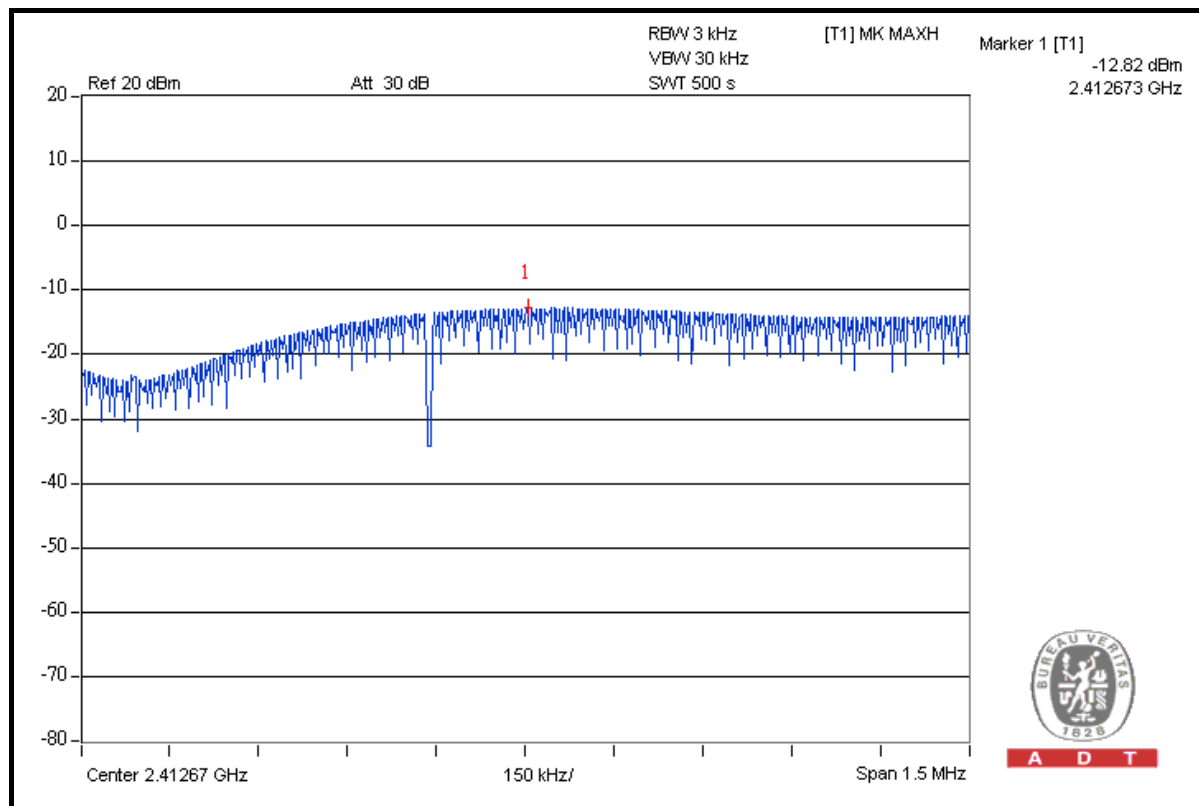
4.5.7 TEST RESULTS

802.11b DSSS MODULATION

MODULATION TYPE	DBPSK	TRANSFER RATE	1.0Mbps
INPUT POWER	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	23deg.C, 70%RH, 991hPa
TESTED BY	Lori Chiu		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-12.82	8	PASS
6	2437	-12.52	8	PASS
11	2462	-12.68	8	PASS

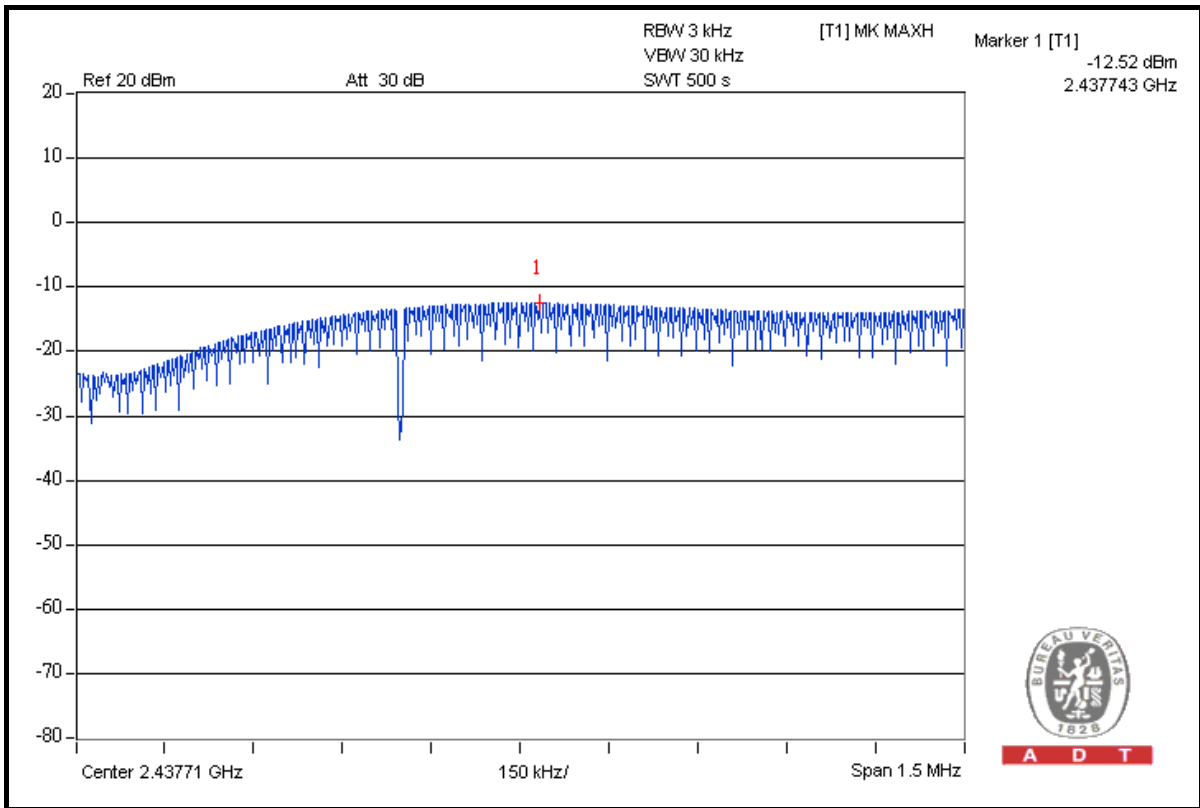
CH 1



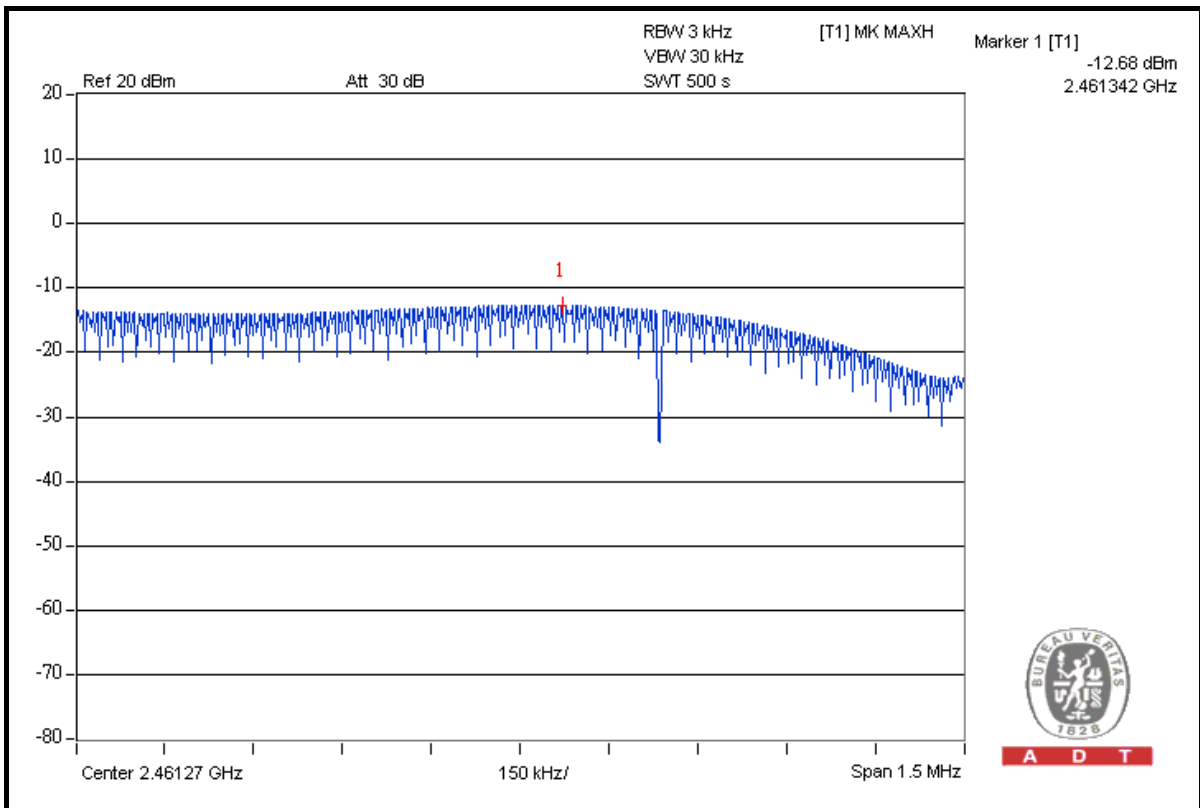


A D T

CH 6



CH 11





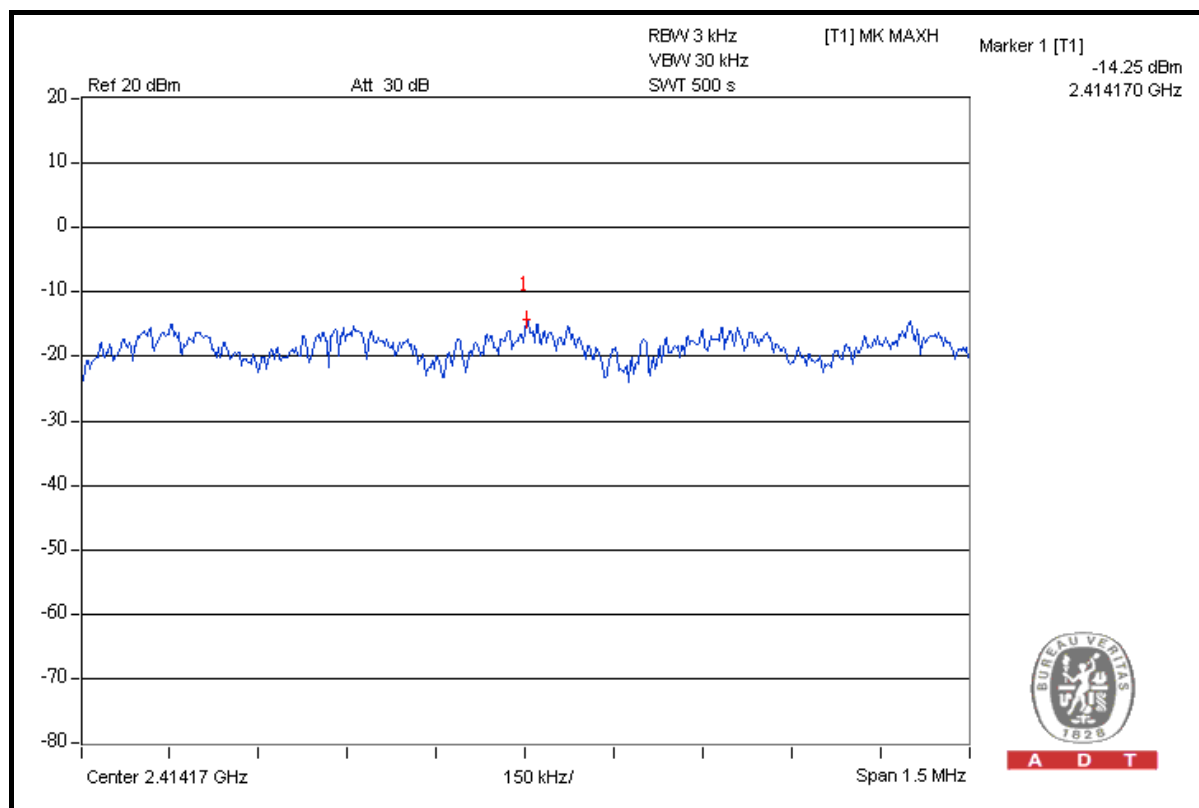
A D T

802.11g OFDM MODULATION

MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	23deg.C, 70%RH, 991hPa
TESTED BY	Lori Chiu		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-14.25	8	PASS
6	2437	-13.14	8	PASS
11	2462	-15.05	8	PASS

CH 1

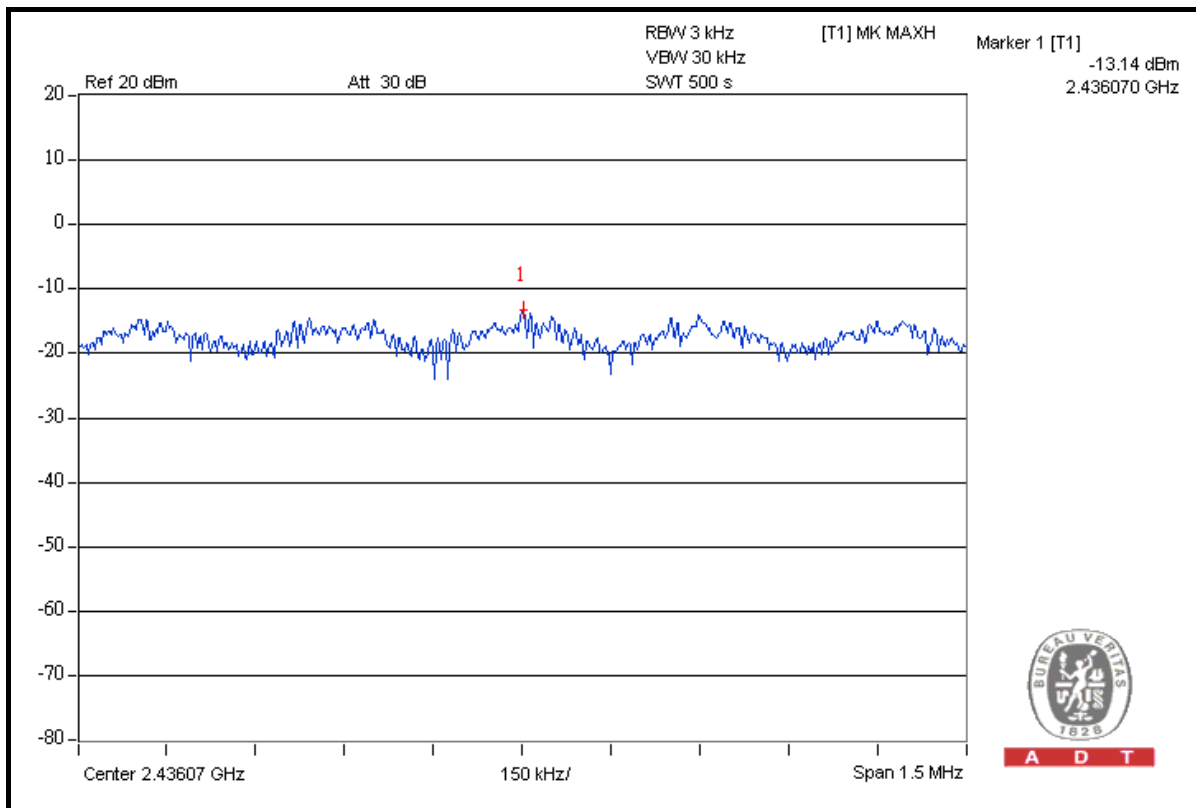


A D T

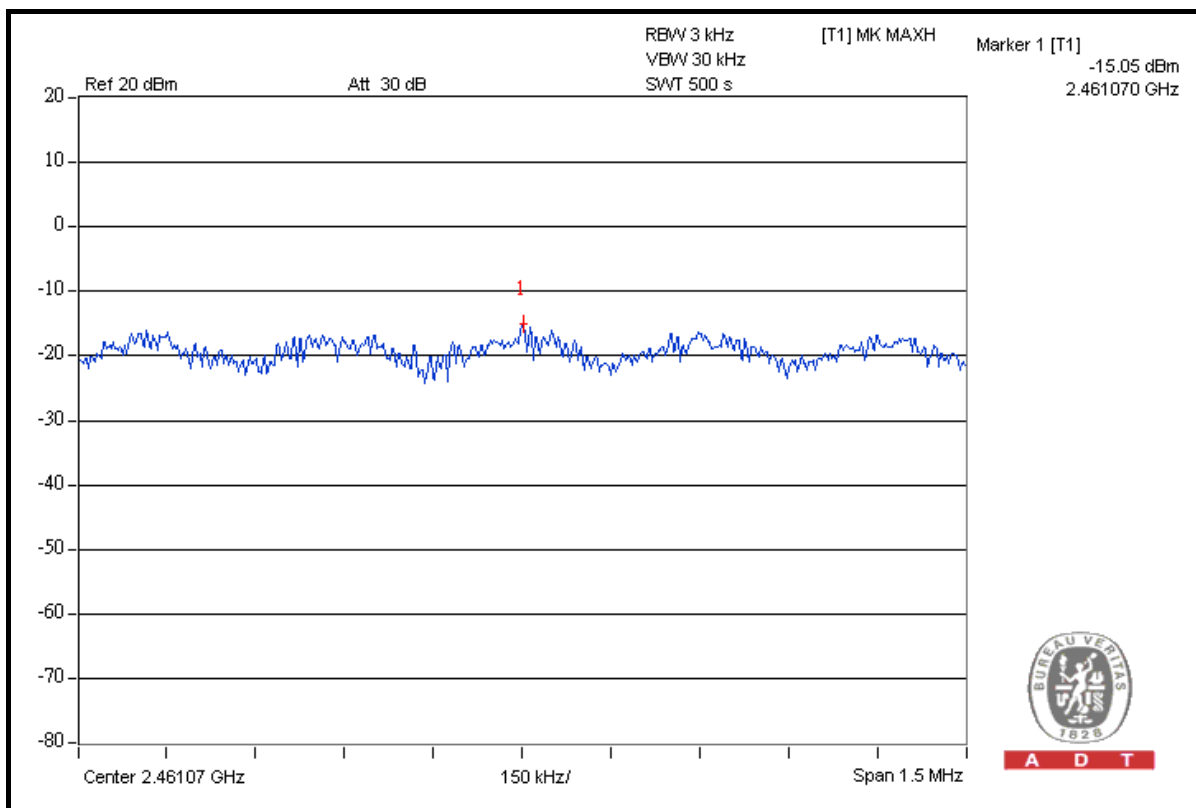


A D T

CH 6



CH 11



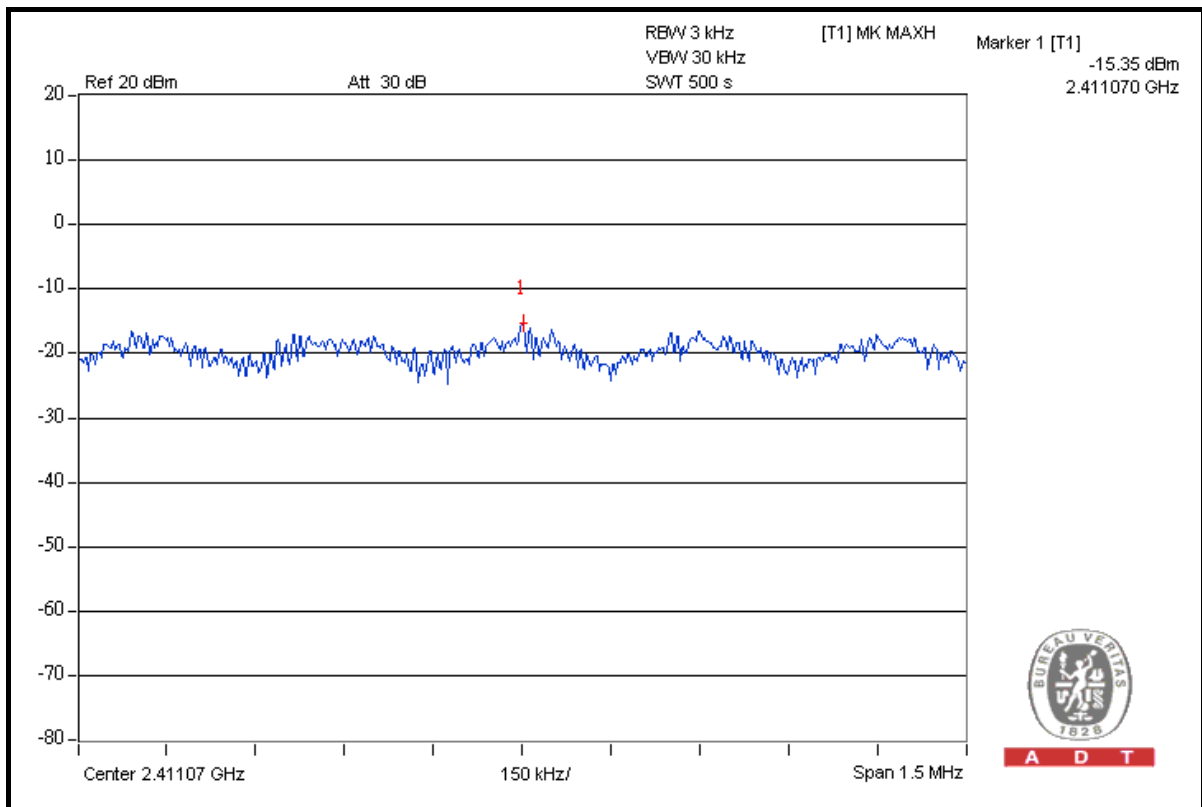


DRAFT 802.11n (20MHz) OFDM MODULATION

MODULATION TYPE	BPSK	TRANSFER RATE	6.5Mbps
INPUT POWER	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	23deg.C, 70%RH, 991hPa
TESTED BY	Lori Chiu		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-15.35	8	PASS
6	2437	-13.40	8	PASS
11	2462	-16.73	8	PASS

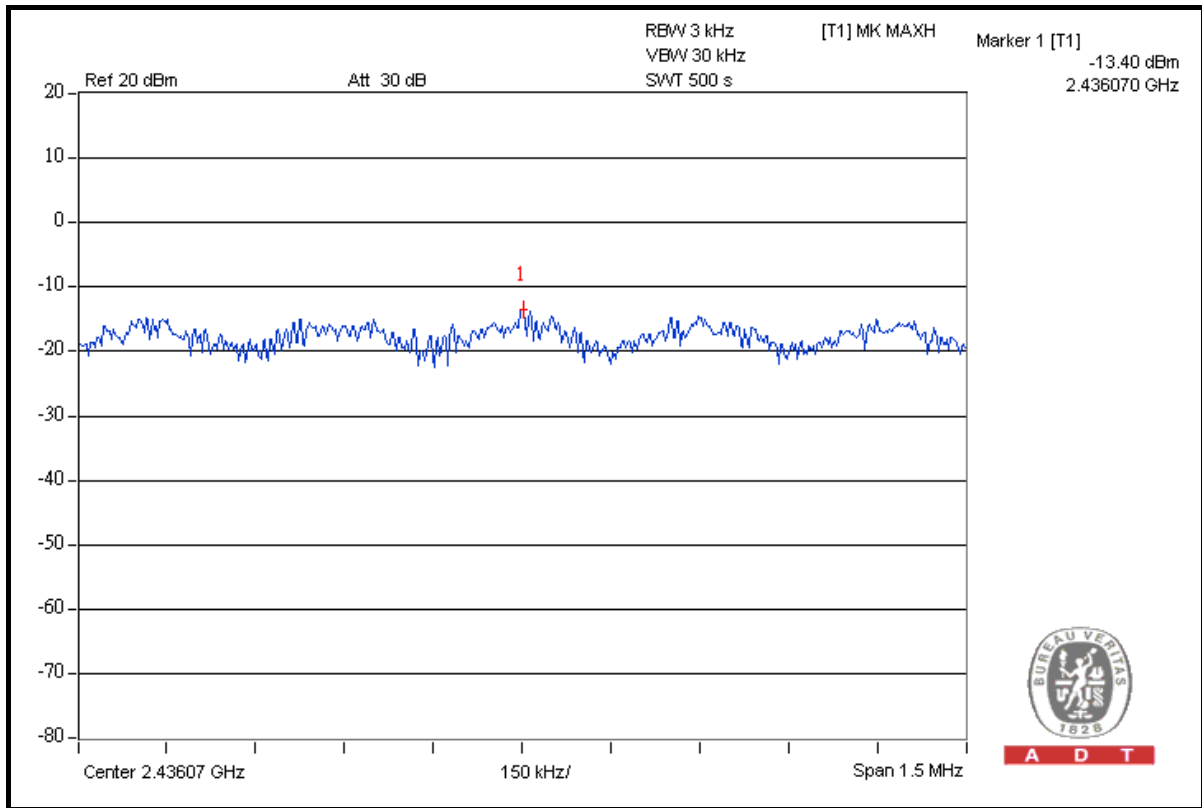
CH 1



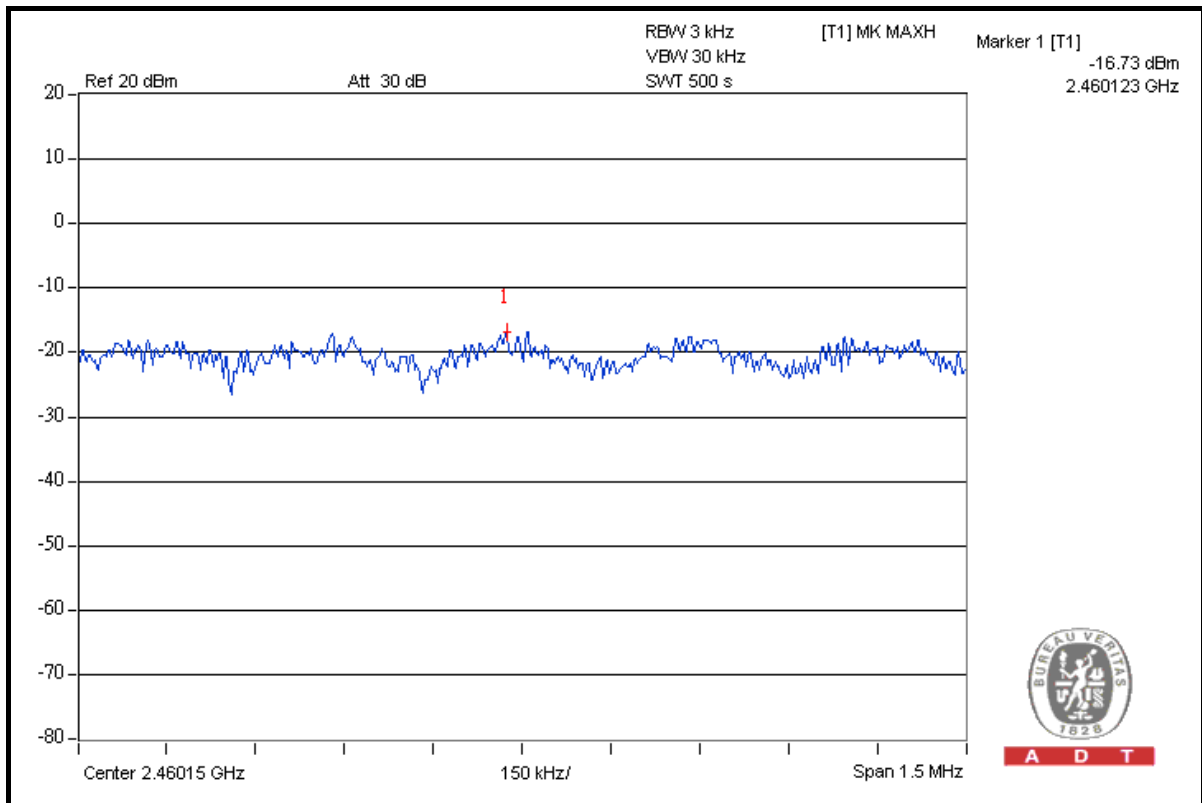


A D T

CH 6



CH 11





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
R&S SPECTRUM ANALYZER	FSP40	100041	May 13, 2009	May 12, 2010

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

4.6.3 TEST PROCEDURE

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

The spectrum plots (Peak RBW = 100kHz, VBW = 300kHz; Average RBW = 1MHz, VBW = 10Hz) are attached on the following pages.

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 24 images. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

802.11b DSSS MODULATION

TEST MODE A

NOTE 1: The band edge emission plot on the next second page shows 53.36dBc between carrier maximum power and local maximum emission in restrict band (2.3728GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 112.37dBuV/m (Peak), so the maximum field strength in restrict band is $112.37 - 53.36 = 59.01$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next second page shows 60.92dBc between carrier maximum power and local maximum emission in restrict band (2.3858GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 107.75dBuV/m (Average), so the maximum field strength in restrict band is $107.75 - 60.92 = 46.83$ dBuV/m which is under 54dBuV/m limit.

NOTE 2: The band edge emission plot on the next third page shows 53.54dBc between carrier maximum power and local maximum emission in restrict band (2.4990GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 113.38dBuV/m (Peak), so the maximum field strength in restrict band is $113.38 - 53.54 = 59.84$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next fourth page shows 62.00dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 108.50dBuV/m (Average), so the maximum field strength in restrict band is $108.50 - 62.00 = 46.50$ dBuV/m which is under 54dBuV/m limit.

TEST MODE B

NOTE 1: The band edge emission plot on the next page shows 53.36dBuV between carrier maximum power and local maximum emission in restrict band (2.3728GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 113.87dBuV/m (Peak), so the maximum field strength in restrict band is $113.87 - 53.36 = 60.51$ dBuV/m which is under 74dBuV/m limit.

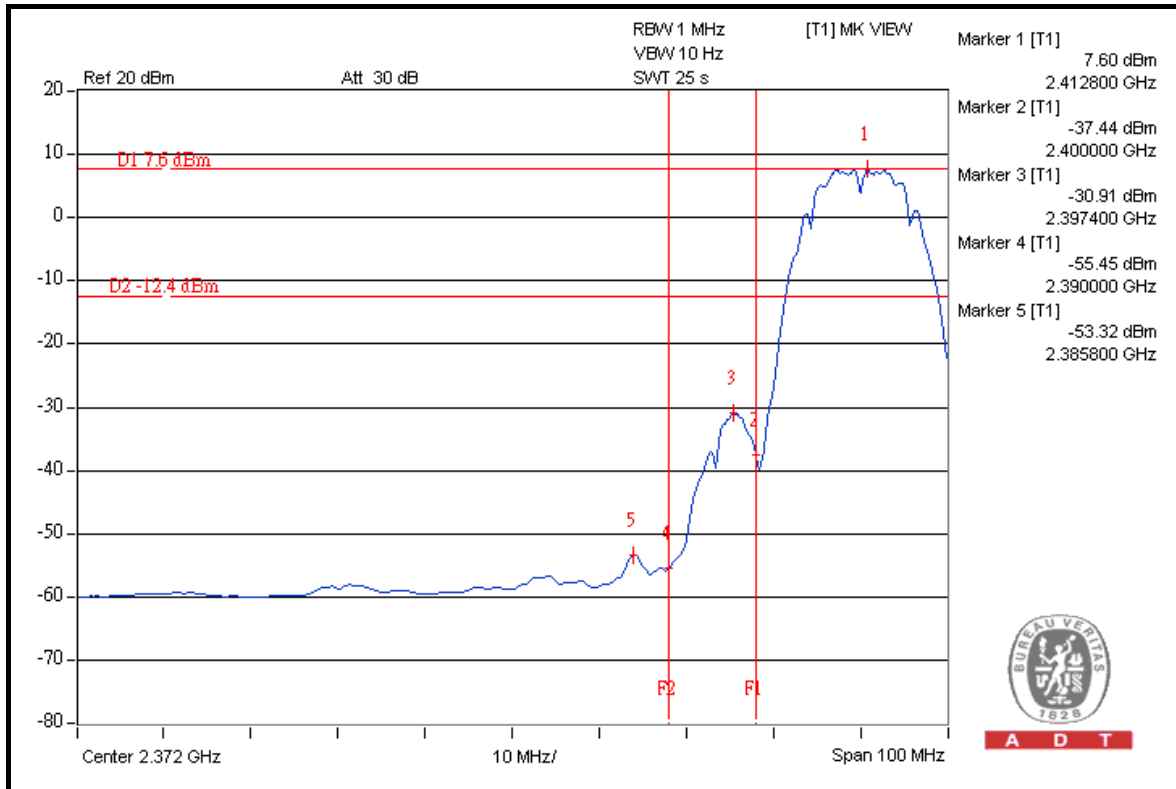
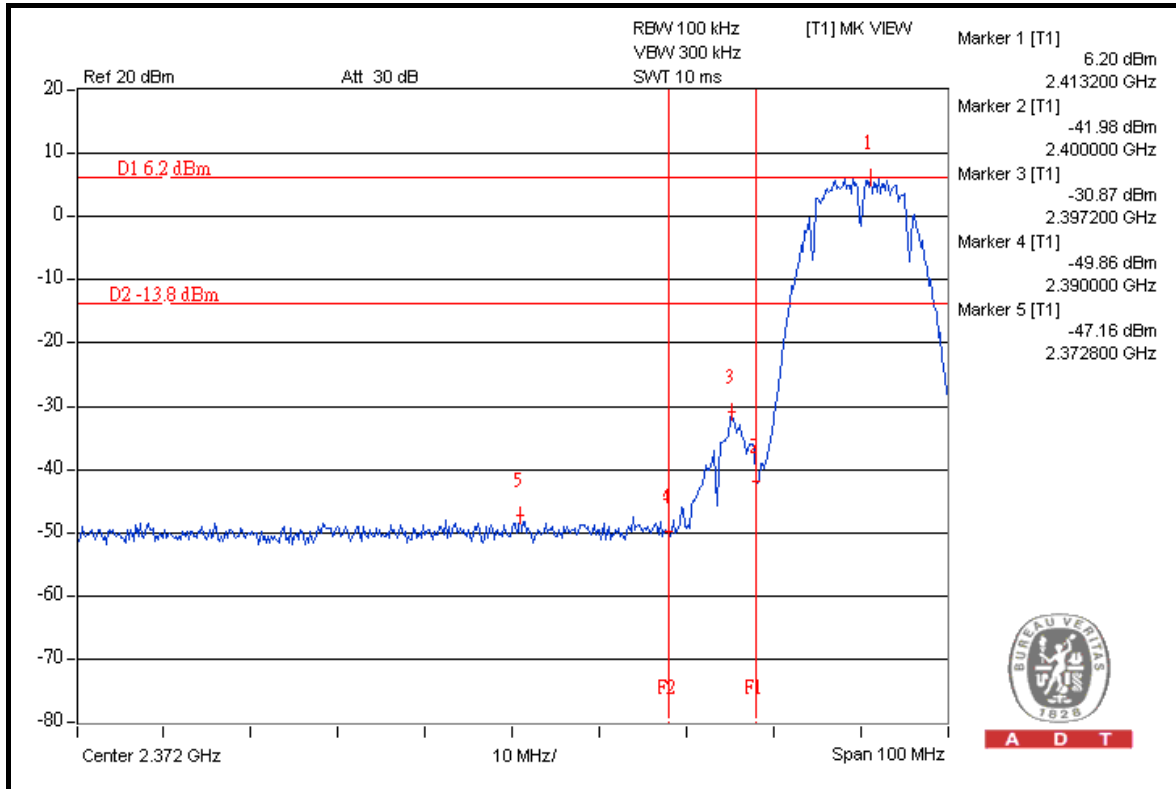
The band edge emission plot of on the next page shows 60.92dBuV between carrier maximum power and local maximum emission in restrict band (2.3858GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 109.07dBuV/m (Average), so the maximum field strength in restrict band is $109.07 - 60.92 = 48.15$ dBuV/m which is under 54dBuV/m limit.

NOTE 2: The band edge emission plot on the next second page shows 53.54dBuV between carrier maximum power and local maximum emission in restrict band (2.4990GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 114.30dBuV/m (Peak), so the maximum field strength in restrict band is $114.30 - 53.54 = 60.76$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next third page shows 62.00dBuV between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 109.48dBuV/m (Average), so the maximum field strength in restrict band is $109.48 - 62.00 = 47.48$ dBuV/m which is under 54dBuV/m limit.

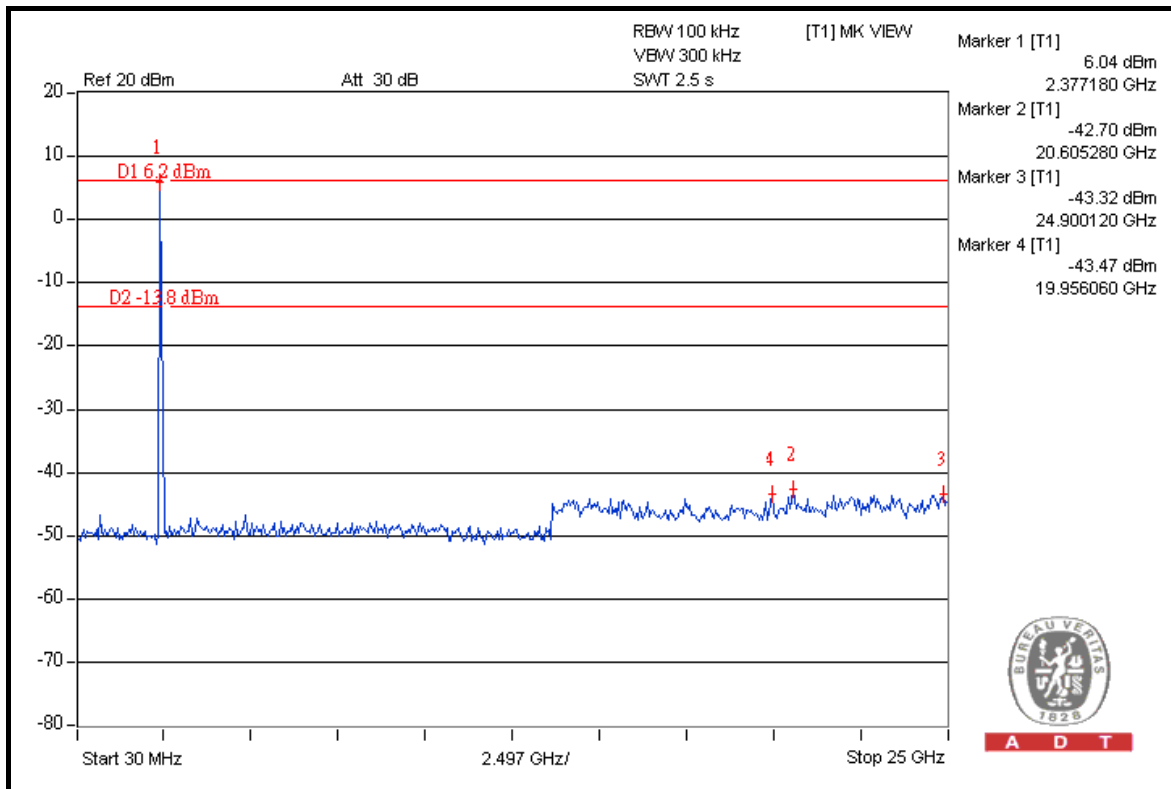


A D T

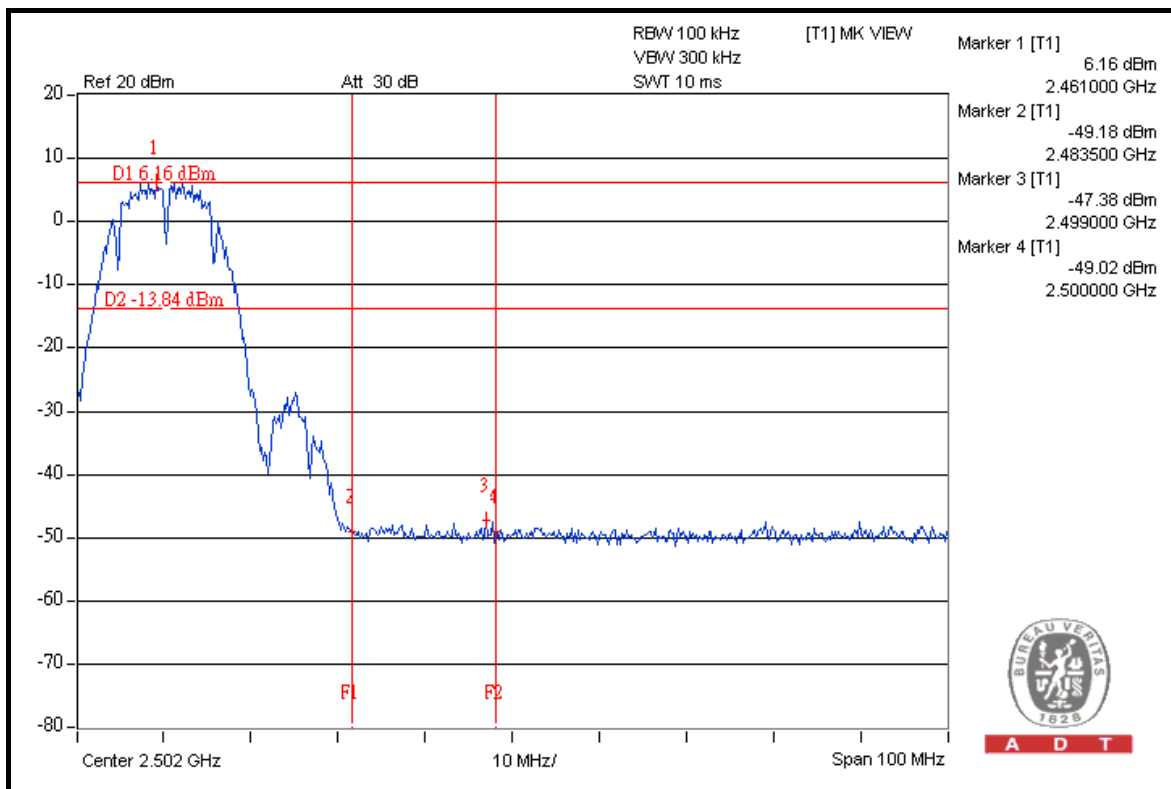




A D T



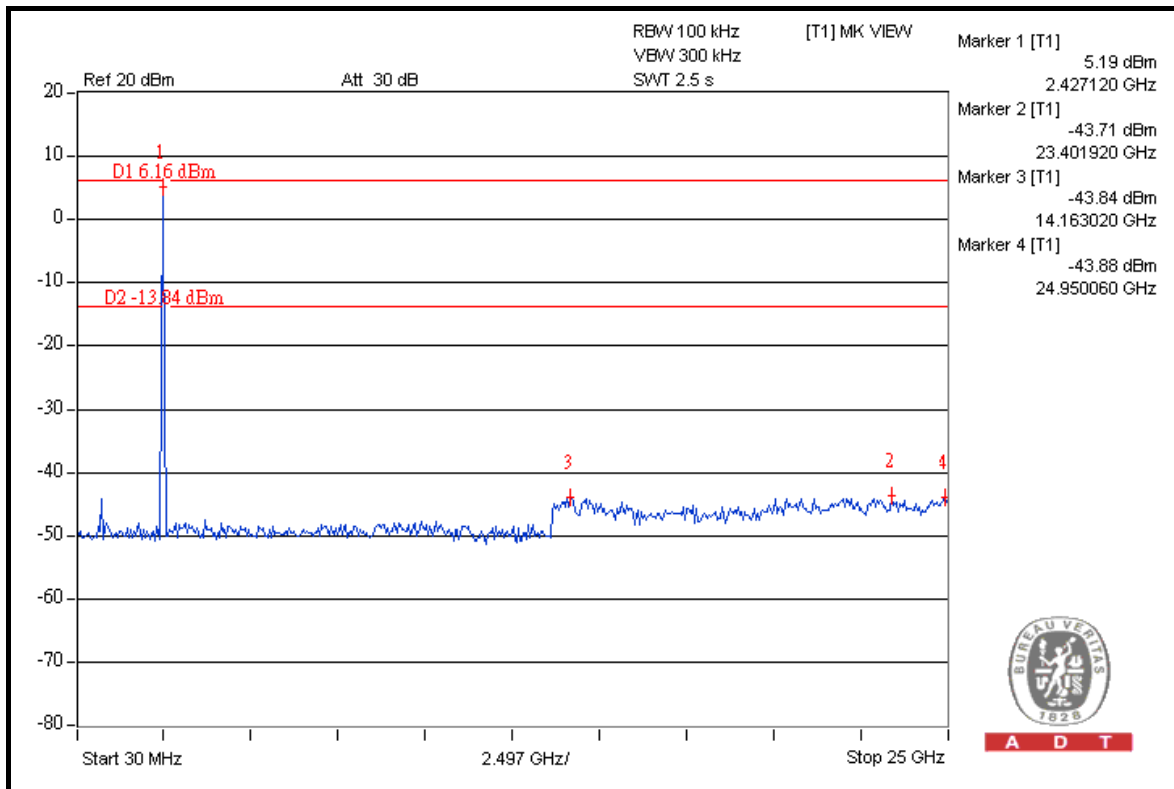
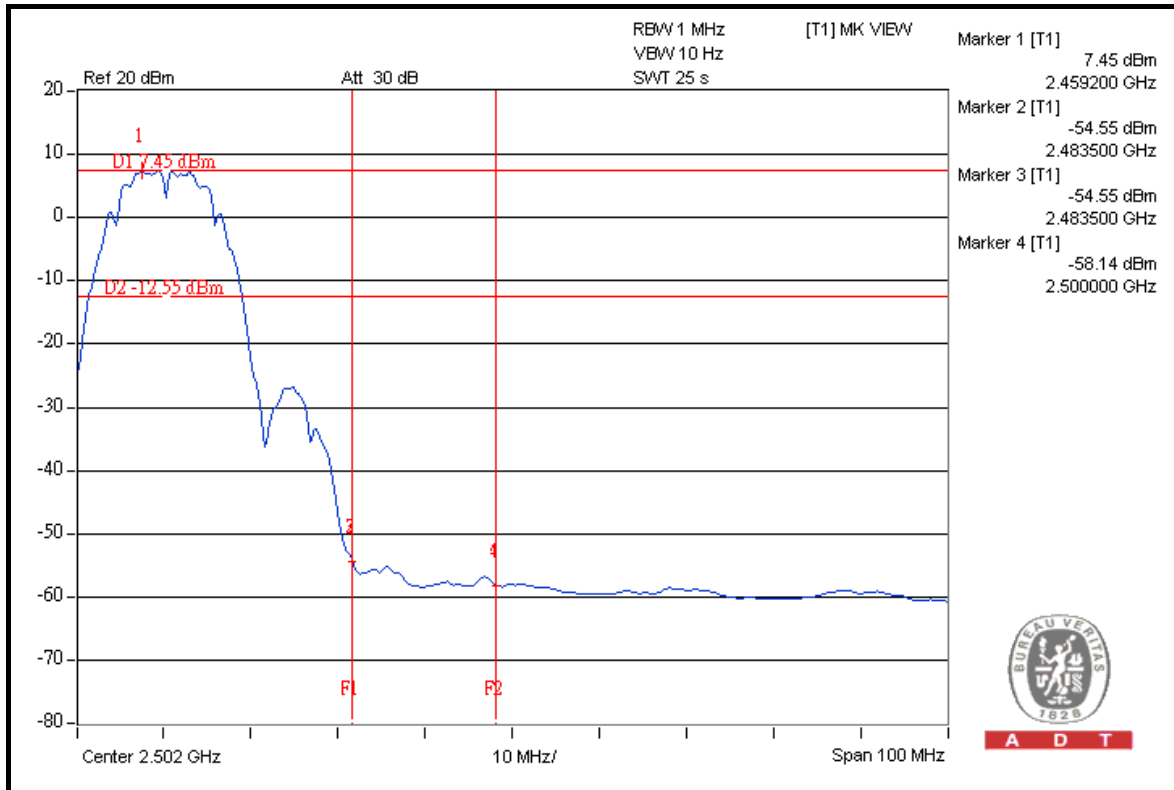
A D T



A D T



A D T



802.11g OFDM MODULATION

TEST MODE A

NOTE 1: The band edge emission plot on the next second page shows 46.98dBc between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 112.88dBuV/m (Peak), so the maximum field strength in restrict band is $112.88 - 46.98 = 65.90$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next second page shows 51.61dBc between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 102.78dBuV/m (Average), so the maximum field strength in restrict band is $102.78 - 51.61 = 51.17$ dBuV/m which is under 54dBuV/m limit.

NOTE 2: The band edge emission plot on the next third page shows 40.54dBc between carrier maximum power and local maximum emission in restrict band (2.4836GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 111.09dBuV/m (Peak), so the maximum field strength in restrict band is $111.09 - 40.54 = 70.55$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next fourth page shows 50.42dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 100.70dBuV/m (Average), so the maximum field strength in restrict band is $100.70 - 50.42 = 50.28$ dBuV/m which is under 54dBuV/m limit.

TEST MODE B

NOTE 1: The band edge emission plot on the next page shows 46.98dBuV between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 113.67dBuV/m (Peak), so the maximum field strength in restrict band is $113.67 - 46.98 = 66.69$ dBuV/m which is under 74dBuV/m limit.

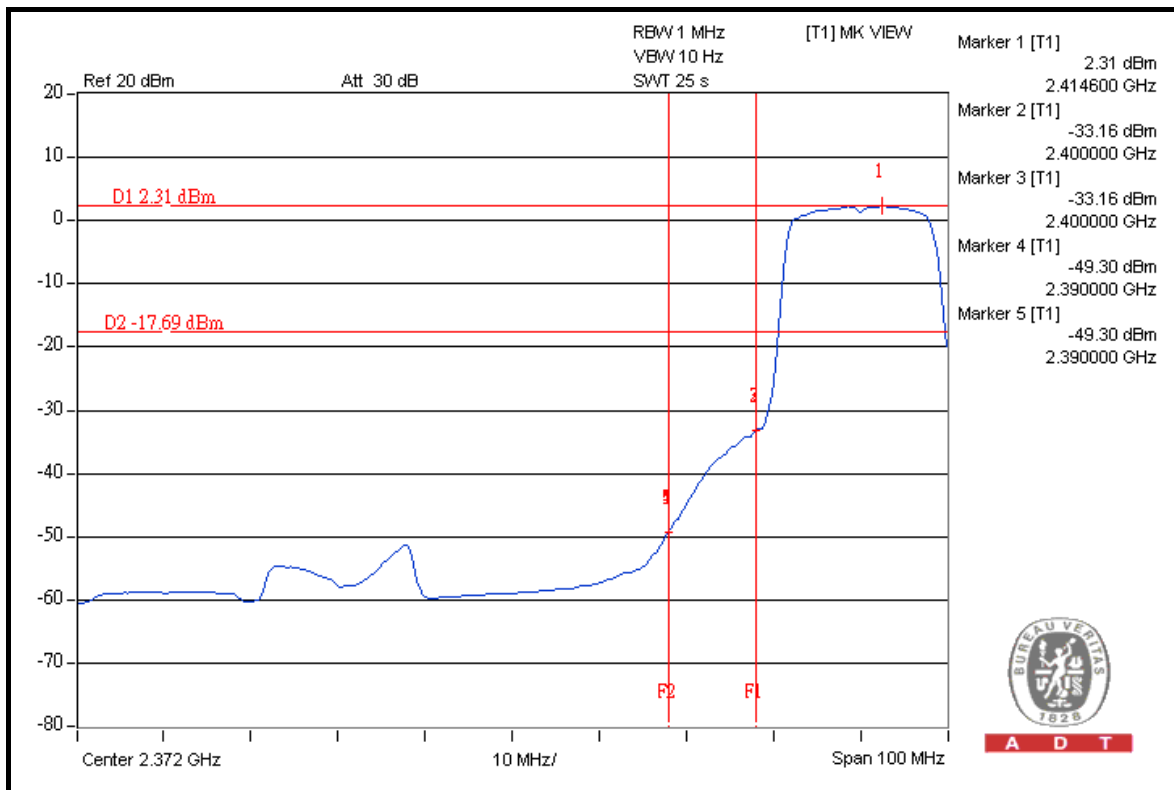
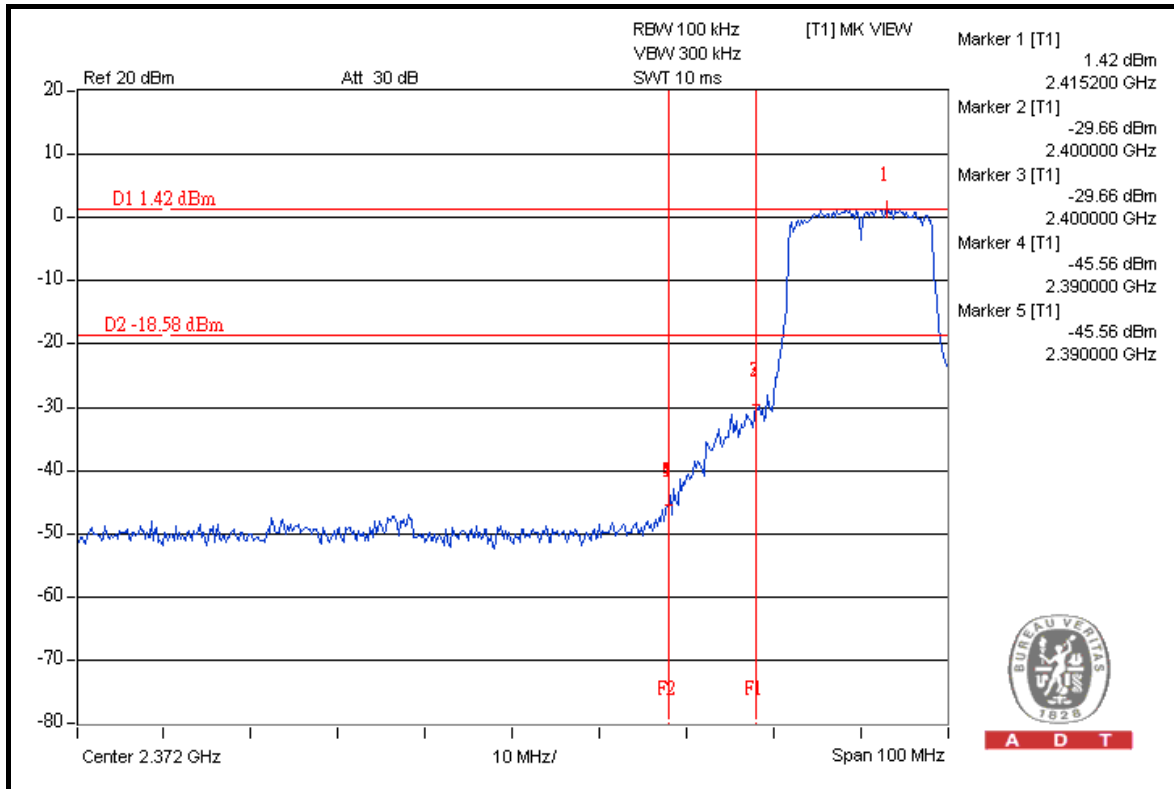
The band edge emission plot of on the next page shows 51.61dBuV between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 103.07dBuV/m (Average), so the maximum field strength in restrict band is $103.07 - 51.61 = 51.46$ dBuV/m which is under 54dBuV/m limit.

NOTE 2: The band edge emission plot on the next second page shows 40.54dBuV between carrier maximum power and local maximum emission in restrict band (2.4836GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 112.13dBuV/m (Peak), so the maximum field strength in restrict band is $112.13 - 40.54 = 71.59$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next third page shows 50.42dBuV between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 101.91dBuV/m (Average), so the maximum field strength in restrict band is $101.91 - 50.42 = 51.49$ dBuV/m which is under 54dBuV/m limit.

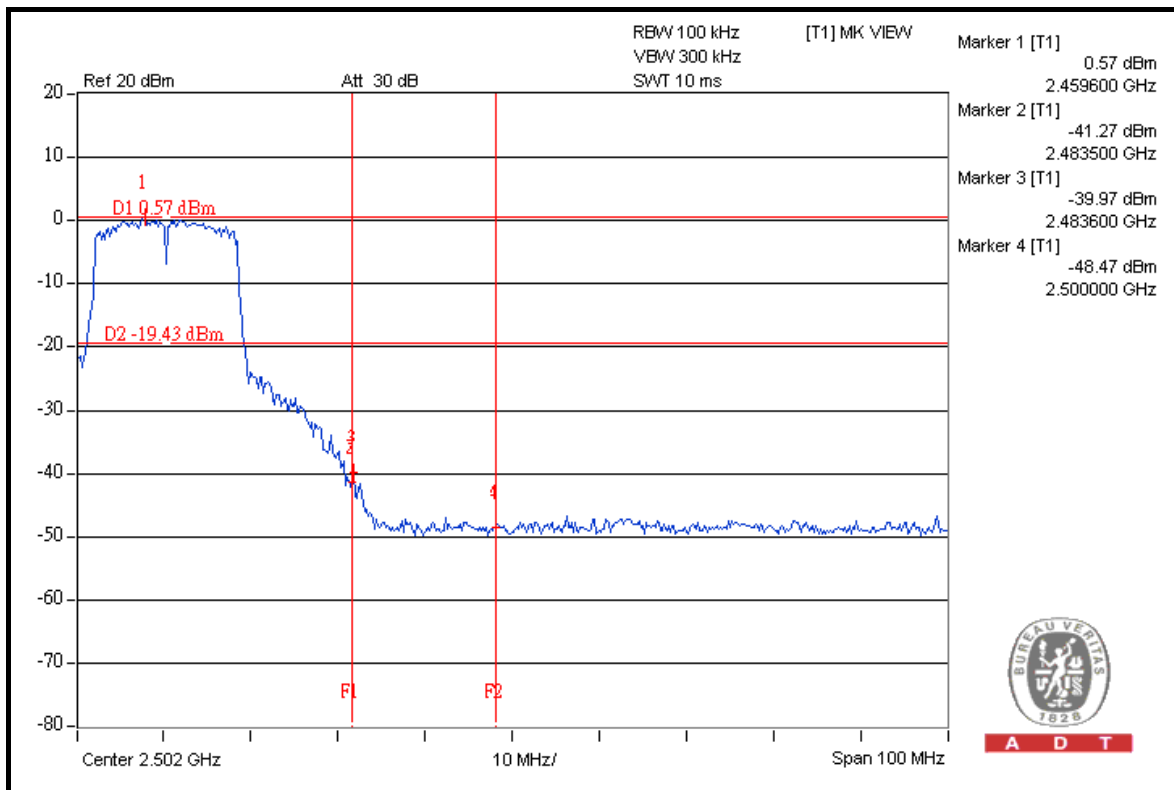
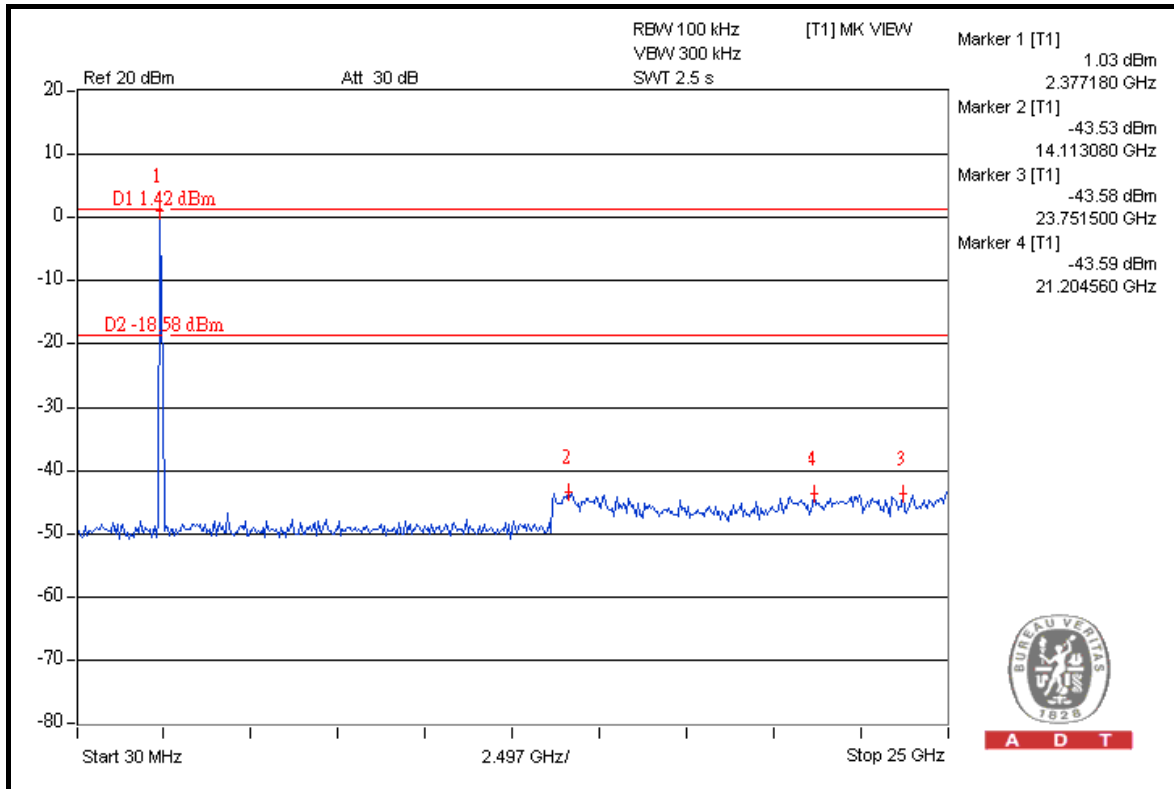


A D T



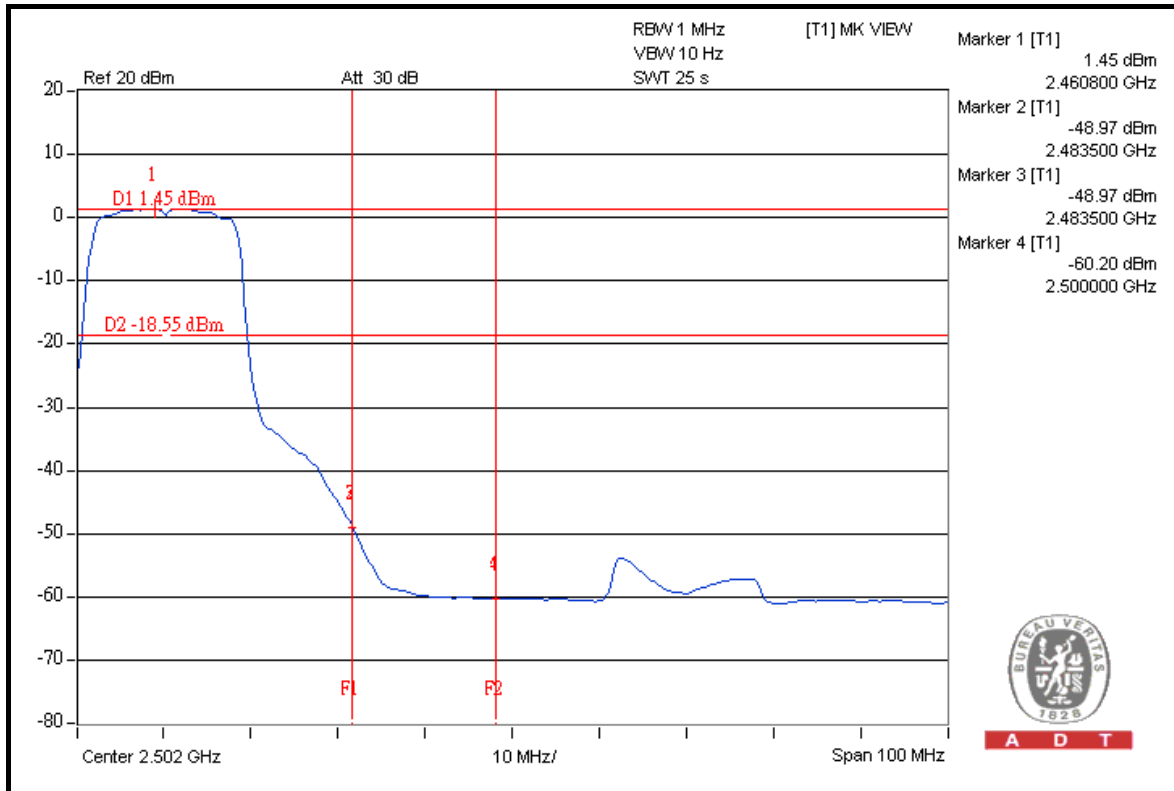


A D T

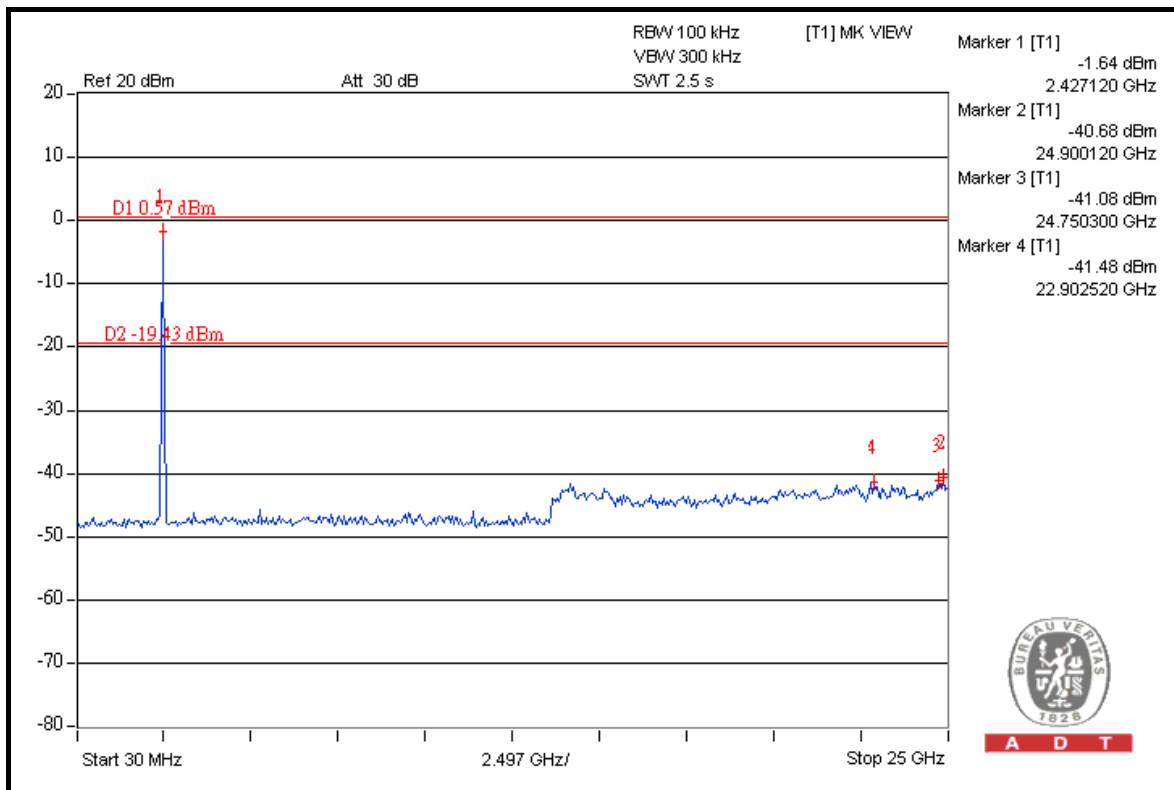




A D T



A D T



A D T

DRAFT 802.11n (20MHz) OFDM MODULATION

TEST MODE A

NOTE 1: The band edge emission plot on the next second page shows 43.50dBc between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 111.65dBuV/m (Peak), so the maximum field strength in restrict band is $111.65 - 43.50 = 68.15$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next second page shows 49.92dBc between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 101.38dBuV/m (Average), so the maximum field strength in restrict band is $101.38 - 49.92 = 51.46$ dBuV/m which is under 54dBuV/m limit.

NOTE 2: The band edge emission plot on the next third page shows 43.14dBc between carrier maximum power and local maximum emission in restrict band (2.4836GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 111.34dBuV/m (Peak), so the maximum field strength in restrict band is $111.34 - 43.14 = 68.20$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot on the next fourth page shows 49.52dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 100.87dBuV/m (Average), so the maximum field strength in restrict band is $100.87 - 49.52 = 51.35$ dBuV/m which is under 54dBuV/m limit.

TEST MODE B

NOTE 1: The band edge emission plot on the next page shows 43.50dBuV between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 112.87dBuV/m (Peak), so the maximum field strength in restrict band is $112.87 - 43.50 = 69.37$ dBuV/m which is under 74dBuV/m limit.

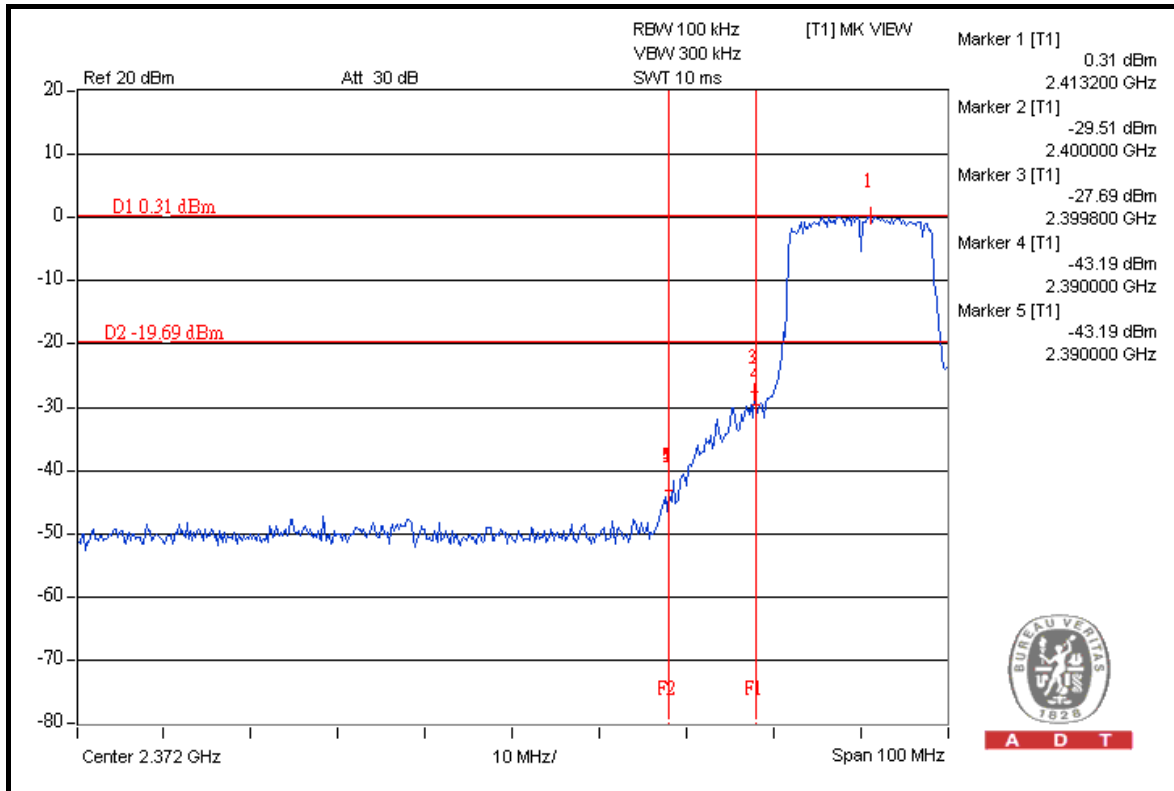
The band edge emission plot of on the next page shows 49.92dBuV between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.1.7 is 102.64dBuV/m (Average), so the maximum field strength in restrict band is $102.64 - 49.92 = 52.72$ dBuV/m which is under 54dBuV/m limit.

NOTE 2: The band edge emission plot on the next second page shows 43.14dBuV between carrier maximum power and local maximum emission in restrict band (2.4836GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 112.36dBuV/m (Peak), so the maximum field strength in restrict band is $112.36 - 43.14 = 69.22$ dBuV/m which is under 74dBuV/m limit.

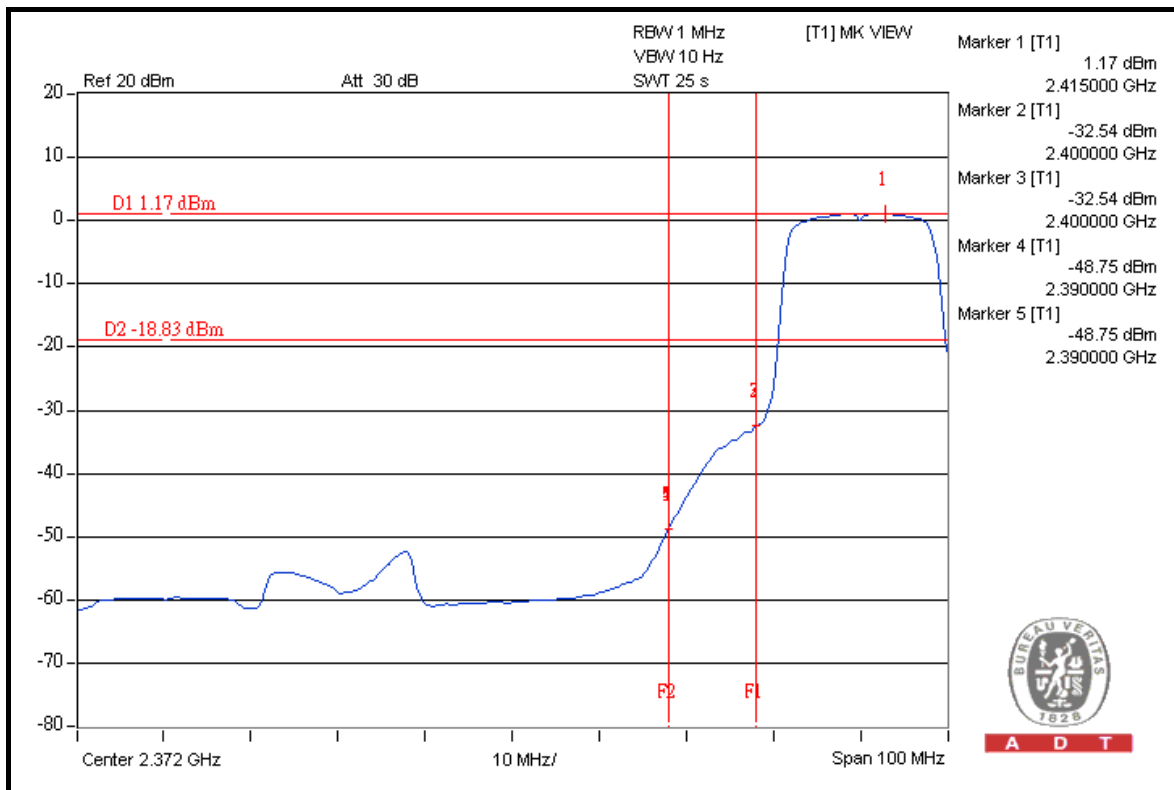
The band edge emission plot on the next third page shows 49.52dBuV between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.1.7 is 102.13dBuV/m (Average), so the maximum field strength in restrict band is $102.13 - 49.52 = 52.61$ dBuV/m which is under 54dBuV/m limit.



A D T



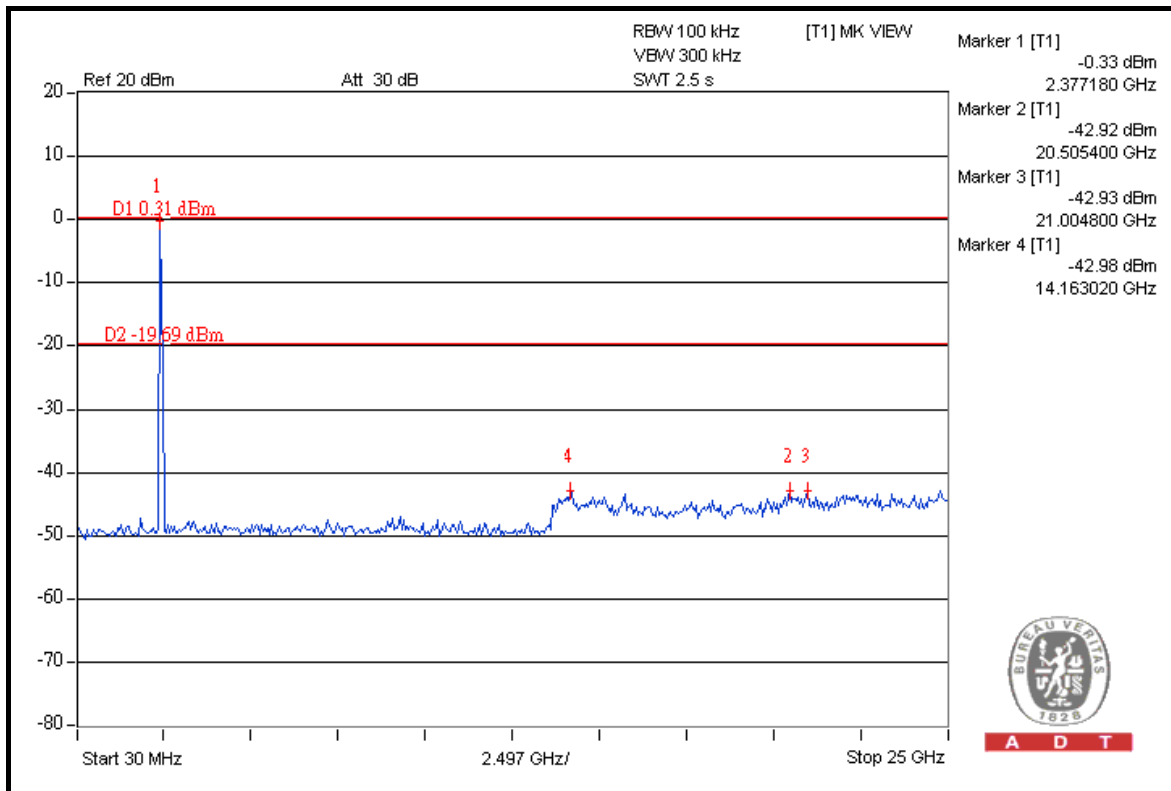
A D T



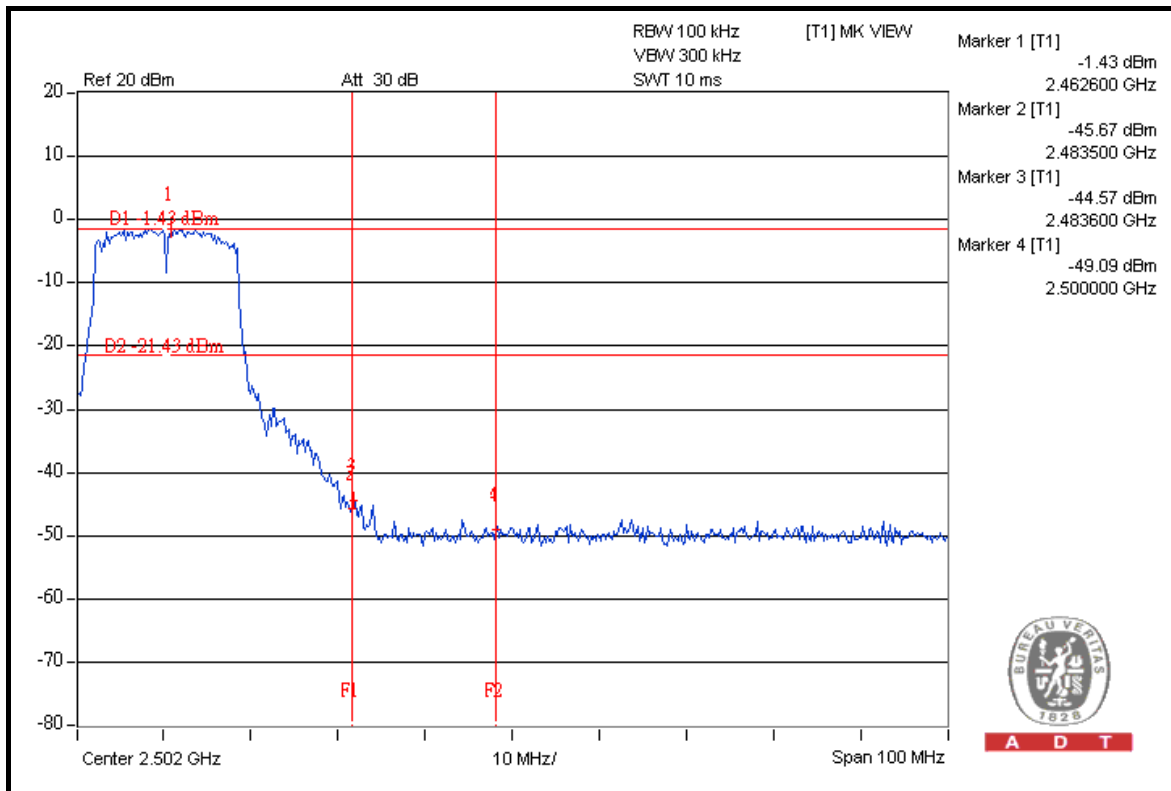
A D T



A D T



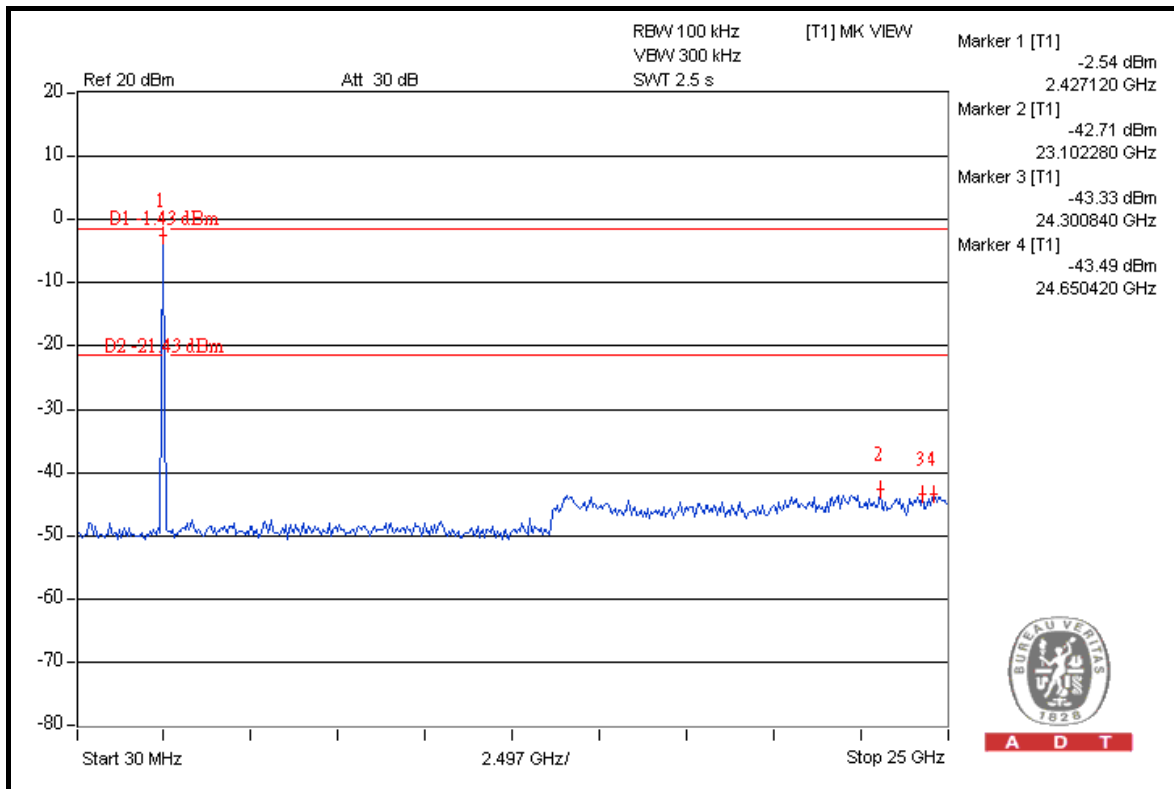
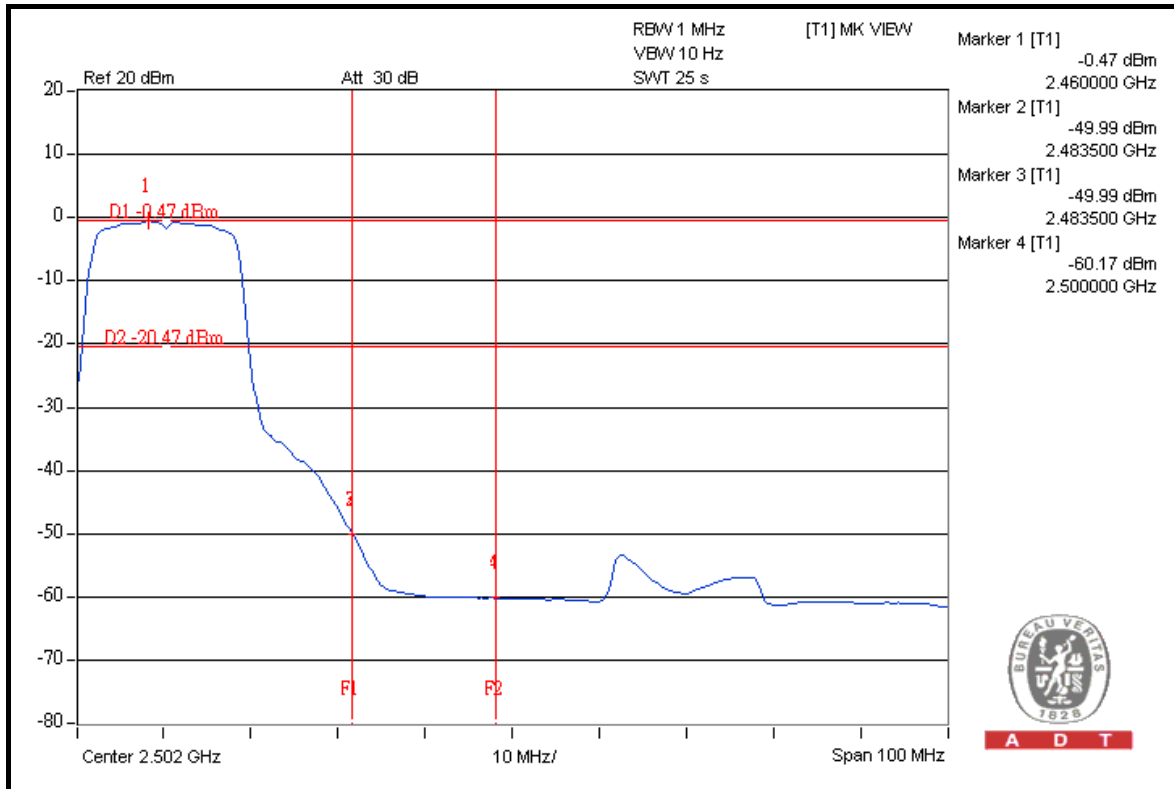
A D T



A D T



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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 printed and dipole antenna without antenna connector. The maximum Gain of the antenna is 3.44dBi.

5. PHOTOGRAPHS OF THE TEST CONFIGURATION

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

6. INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, 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, NVLAP
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA, CSA
R.O.C.	TAF, BSMI, NCC
Netherlands	Telefication
Singapore	GOST-ASIA(MOU)
Russia	CERTIS(MOU)

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

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

Linko EMC/RF Lab:

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF Lab:

Tel: 886-3-5935343

Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Telecom Lab:

Tel: 886-3-3183232

Fax: 886-3-3185050

Web Site: www.adt.com.tw

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

7. APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

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

--- END ---