FCC TEST REPORT

REPORT NO.:	RF990816C22C
MODEL NO.:	TEW-658BRM
FCC ID:	XU8TEW658BRM
RECEIVED:	Aug. 13, 2010
TESTED:	Sep. 01 ~ Sep. 15, 2010 (For test mode A)
	Apr. 13 ~ Apr. 15, 2011 (For test mode B)
ISSUED:	Apr. 25, 2011

APPLICANT:	TRENDNET, Inc.
ADDRESS:	20675 Manhattan Place, Torrance, CA 90501, USA

ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
LAB ADDRESS:	No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou Hsiang, Taipei Hsien 244, Taiwan, R.O.C.
TEST LOCATION:	No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

TABLE OF CONTENTS

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	NA	Apr. 25, 2011

1. CERTIFICATION

PRODUCT: 300Mbps Wireless N ADSL 2/2+ Modem Router
MODEL: TEW-658BRM
BRAND: TRENDnet
APPLICANT: TRENDNET, Inc.
TESTED: Sep. 01 ~ Sep. 15, 2010 (For test mode A)
Apr. 13 ~ Apr. 15, 2011 (For test mode B)
TEST SAMPLE: ENGINEERING SAMPLE
STANDARDS: **FCC Part 15, Subpart C (Section 15.247)**
ANSI C63.4-2003
ANSI C63.10-2009

The above equipment (Model: TEW-658BRM) 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 : _____ , DATE: Apr. 25, 2011
Pettie Chen / Specialist

APPROVED BY : _____ , DATE: Apr. 25, 2011
Gary Chang / Assistant Manager

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART C (SECTION 15.247)			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**REMARK**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -10.51dB at 0.162MHz.
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 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 -1.0dB 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.
15.203	Antenna Requirement	PASS	No antenna connector is used.

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

EUT	300Mbps Wireless N ADSL 2/2+ Modem Router
MODEL NO.	TEW-658BRM
FCC ID	XU8TEW658BRM
POWER SUPPLY	12Vdc
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b:11.0/ 5.5/ 2.0/ 1.0Mbps 802.11g: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300.0Mbps
OPERATING FREQUENCY	2412 ~ 2462MHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, 802.11n (20MHz) 7 for 802.11n (40MHz)
OUTPUT POWER	538.4mW
ANTENNA TYPE	Dipole antenna with 2dBi gain
ANTENNA CONNECTOR	NA
DATA CABLE	NA
I/O PORTS	RJ45, RJ11
ACCESSORY DEVICES	Adapter

NOTE:

1. This report is issued as a supplementary report of RF990816C22, the difference is changing the model name, brand name, product name, FCC ID, applicant, outward appearance and adding a PCB type without shielded case. The new sample had been pre-tested and found that it was better than the original results. Therefore, power line conducted emission & radiated emission for the new sample had been tested.
2. The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers.

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

3. The EUT was powered by the following adapter:

BRAND:	LEADER ELECTRONICS INC.
MODEL:	MU12-N120100-A1
INPUT:	100-240Vac, 50/60Hz, 0.5A
OUTPUT:	12Vdc, 1A
POWER LINE:	1.5 m non-shielded cable without core

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

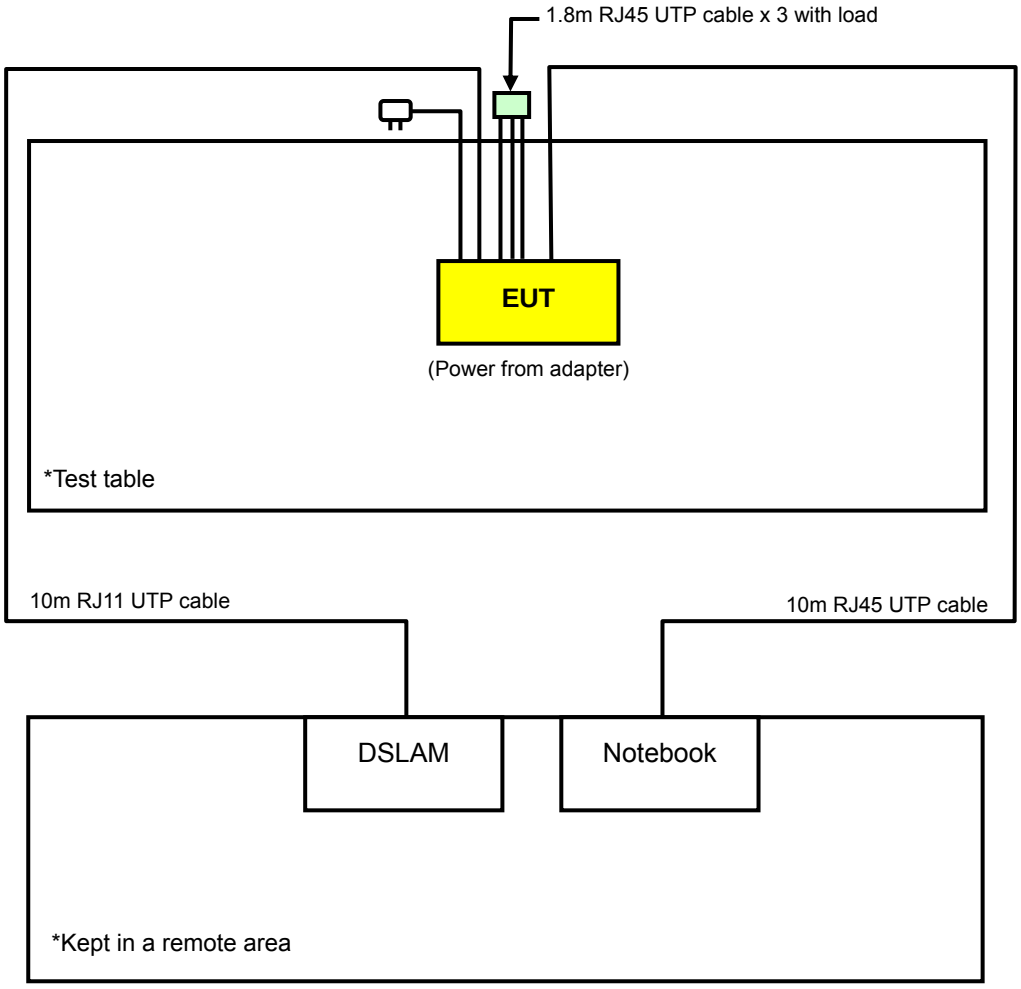
11 channels are provided for 802.11b, 802.11g and 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2412MHz	7	2442MHz
2	2417MHz	8	2447MHz
3	2422MHz	9	2452MHz
4	2427MHz	10	2457MHz
5	2432MHz	11	2462MHz
6	2437MHz		

7 channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2422MHz	5	2442MHz
2	2427MHz	6	2447MHz
3	2432MHz	7	2452MHz
4	2437MHz		

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	EUT PCB
A	√	√	√	√	With shielded case
B	√	√	√	-	Without shielded case

Where **RE≥1G:** Radiated Emission above 1GHz **RE<1G:** Radiated Emission below 1GHz
PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

NOTE 1: "-": Means no effect.

NOTE 2: Conducted power of single TX chain has no different when operating at 1 TX or 2 TX mode. Therefore, only 2 TX mode will be tested for 802.11n.

RADIATED EMISSION TEST (ABOVE 1GHz):

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, B	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
A, B	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
A, B	802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	7.2
A, B	802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	15.0

RADIATED EMISSION TEST (BELOW 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, 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)
A, B	802.11n (20MHz)	1 to 11	6	OFDM	BPSK	7.2

POWER LINE CONDUCTED EMISSION TEST:

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, B	802.11n (20MHz)	1 to 11	6	OFDM	BPSK	7.2

BANDEDGE MEASUREMENT:

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

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

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	802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	7.2
A, B	802.11n (40MHz)	1 to 7	1, 7	OFDM	BPSK	15.0

ANTENNA PORT CONDUCTED MEASUREMENT:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

☒ 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	802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	7.2
A	802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	15.0

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G (Test Mode A)	25deg. C, 65%RH, 1000 hPa	120Vac, 60Hz	Brad Wu
RE≥1G (Test Mode B)	25deg. C, 68%RH, 1000 hPa	120Vac, 60Hz	Sun Lin
RE<1G (Test Mode A)	25deg. C, 65%RH, 1000 hPa	120Vac, 60Hz	Sun Lin
RE<1G (Test Mode B)	25deg. C, 68%RH, 1020 hPa	120Vac, 60Hz	Sun Lin
PLC (Test Mode A)	20deg. C, 60%RH, 1016 hPa	120Vac, 60Hz	Match Tsui
PLC (Test Mode B)	22deg. C, 62%RH, 1016 hPa	120Vac, 60Hz	Brad Wu
APCM	25deg. C, 65%RH, 1017 hPa	120Vac, 60Hz	Sun Lin

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

ANSI C63.10-2009

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	DSLAM	Alcatel	7300ASAM	NA	NA
2	NOTEBOOK	HP	n6000	CNU3480WP2	FCC DoC Approved

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

NOTE:

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

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

Test Mode A

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100188	Dec. 21, 2009	Dec. 20, 2010
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100041	Jul. 09, 2010	Jul. 08, 2011
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Apr. 30, 2010	Apr. 29, 2011
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-209	Aug. 02, 2010	Aug. 01, 2011
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Dec. 25, 2009	Dec. 24, 2010
Preamplifier Agilent	8449B	3008A01910	Sep. 09, 2010	Sep. 08, 2011
Preamplifier Agilent	8447D	2944A10638	Dec. 21, 2009	Dec. 20, 2010
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	218190/4 231241/4	May 14, 2010	May 13, 2011
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 20, 2010	Aug. 19, 2011
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.

Test Mode B

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCI	100424	Aug. 04, 2010	Aug. 03, 2011
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100041	Jul. 09, 2010	Jul. 08, 2011
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Apr. 30, 2010	Apr. 29, 2011
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-209	Aug. 02, 2010	Aug. 01, 2011
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 27, 2010	Dec. 26, 2011
Preamplifier Agilent	8449B	3008A01910	Sep. 09, 2010	Sep. 08, 2011
Preamplifier Agilent	8447D	2944A10638	Nov. 03, 2010	Nov. 02, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	218190/4 231241/4	May 14, 2010	May 13, 2011
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 20, 2010	Aug. 19, 2011
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.

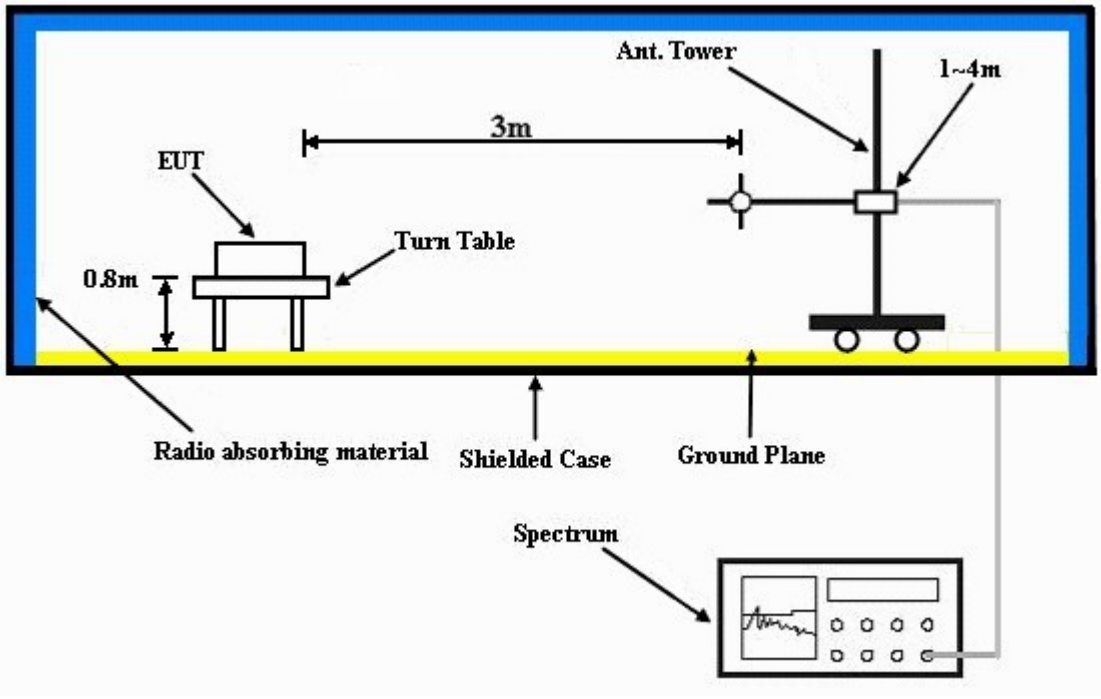
NOTE:

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

4.1.4 DEVIATION FROM TEST STANDARD

No deviation.

4.1.5 TEST SETUP



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

4.1.6 EUT OPERATING CONDITIONS

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

4.1.7 TEST RESULTS

802.11b

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Sun Lin
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	55.2 PK	74.0	-18.8	1.15 H	110	22.70	32.50
2	2386.00	44.9 AV	54.0	-9.1	1.15 H	110	12.40	32.50
3	*2412.00	100.1 PK			1.15 H	110	67.50	32.60
4	*2412.00	93.6 AV			1.15 H	110	61.00	32.60
5	4824.00	48.4 PK	74.0	-25.6	1.00 H	307	9.70	38.70
6	4824.00	40.5 AV	54.0	-13.5	1.00 H	307	1.80	38.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2386.00	59.9 PK	74.0	-14.1	1.16 V	342	27.40	32.50
2	2386.00	49.3 AV	54.0	-4.7	1.16 V	342	16.80	32.50
3	*2412.00	111.2 PK			1.16 V	342	78.60	32.60
4	*2412.00	104.9 AV			1.16 V	342	72.30	32.60
5	4824.00	56.7 PK	74.0	-17.3	1.02 V	30	18.00	38.70
6	4824.00	52.8 AV	54.0	-1.2	1.02 V	30	14.10	38.70

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Sun Lin
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	100.4 PK			1.16 H	111	67.80	32.60
2	*2437.00	93.9 AV			1.16 H	111	61.30	32.60
3	4874.00	48.4 PK	74.0	-25.6	1.31 H	324	9.60	38.80
4	4874.00	42.3 AV	54.0	-11.7	1.31 H	324	3.50	38.80
5	7311.00	57.2 PK	74.0	-16.8	1.30 H	24	12.10	45.10
6	7311.00	48.0 AV	54.0	-6.0	1.30 H	24	2.90	45.10
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	111.4 PK			1.16 V	344	78.80	32.60
2	*2437.00	105.2 AV			1.16 V	344	72.60	32.60
3	4874.00	57.6 PK	74.0	-16.4	1.02 V	32	18.80	38.80
4	4874.00	52.9 AV	54.0	-1.1	1.02 V	32	14.10	38.80
5	7311.00	59.6 PK	74.0	-14.4	1.40 V	69	14.50	45.10
6	7311.00	50.2 AV	54.0	-3.8	1.40 V	69	5.10	45.10

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Sun Lin
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	99.8 PK			1.14 H	108	67.10	32.70
2	*2462.00	93.4 AV			1.14 H	108	60.70	32.70
3	2488.00	56.3 PK	74.0	-17.7	1.14 H	108	23.50	32.80
4	2488.00	46.1 AV	54.0	-7.9	1.14 H	108	13.30	32.80
5	4924.00	50.6 PK	74.0	-23.4	1.19 H	205	11.70	38.90
6	4924.00	42.8 AV	54.0	-11.2	1.19 H	205	3.90	38.90
7	7386.00	56.2 PK	74.0	-17.8	1.25 H	36	11.00	45.20
8	7386.00	48.1 AV	54.0	-5.9	1.25 H	36	2.90	45.20
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	111.0 PK			1.14 V	342	78.30	32.70
2	*2462.00	104.7 AV			1.14 V	342	72.00	32.70
3	2488.00	63.6 PK	74.0	-10.4	1.14 V	342	30.80	32.80
4	2488.00	52.9 AV	54.0	-1.1	1.14 V	342	20.10	32.80
5	4924.00	56.4 PK	74.0	-17.6	1.41 V	34	17.50	38.90
6	4924.00	52.5 AV	54.0	-1.5	1.41 V	34	13.60	38.90
7	7386.00	60.4 PK	74.0	-13.6	1.50 V	66	15.20	45.20
8	7386.00	52.0 AV	54.0	-2.0	1.50 V	66	6.80	45.20

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Sun Lin
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	62.6 PK	74.0	-11.4	1.30 H	131	30.10	32.50
2	2390.00	47.4 AV	54.0	-6.6	1.30 H	131	14.90	32.50
3	*2412.00	103.1 PK			1.30 H	131	70.50	32.60
4	*2412.00	90.5 AV			1.30 H	131	57.90	32.60
5	4824.00	48.8 PK	74.0	-25.2	1.09 H	311	10.10	38.70
6	4824.00	36.5 AV	54.0	-17.5	1.09 H	311	-2.20	38.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	70.7 PK	74.0	-3.3	1.10 V	106	38.20	32.50
2	2390.00	52.1 AV	54.0	-1.9	1.10 V	106	19.60	32.50
3	*2412.00	113.2 PK			1.10 V	106	80.60	32.60
4	*2412.00	100.5 AV			1.10 V	106	67.90	32.60
5	4824.00	59.8 PK	74.0	-14.2	1.09 V	96	21.10	38.70
6	4824.00	43.6 AV	54.0	-10.4	1.09 V	96	4.90	38.70

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Sun Lin
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	105.1 PK			1.09 H	106	72.50	32.60
2	*2437.00	92.3 AV			1.09 H	106	59.70	32.60
3	2483.50	63.3 PK	74.0	-10.7	1.09 H	106	30.50	32.80
4	2483.50	48.8 AV	54.0	-5.2	1.09 H	106	16.00	32.80
5	4874.00	46.8 PK	74.0	-27.2	1.08 H	303	8.00	38.80
6	4874.00	34.7 AV	54.0	-19.3	1.08 H	303	-4.10	38.80
7	7311.00	57.4 PK	74.0	-16.6	1.15 H	26	12.30	45.10
8	7311.00	43.5 AV	54.0	-10.5	1.15 H	26	-1.60	45.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	115.4 PK			1.08 V	104	82.80	32.60
2	*2437.00	102.7 AV			1.08 V	104	70.10	32.60
3	2483.50	68.2 PK	74.0	-5.8	1.08 V	104	35.40	32.80
4	2483.50	52.0 AV	54.0	-2.0	1.08 V	104	19.20	32.80
5	4874.00	67.5 PK	74.0	-6.5	1.08 V	94	28.70	38.80
6	4874.00	52.2 AV	54.0	-1.8	1.08 V	94	13.40	38.80
7	7311.00	67.6 PK	74.0	-6.4	1.68 V	306	22.50	45.10
8	7311.00	52.1 AV	54.0	-1.9	1.68 V	306	7.00	45.10

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Sun Lin
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	99.8 PK			1.25 H	123	67.10	32.70
2	*2462.00	87.1 AV			1.25 H	123	54.40	32.70
3	2483.50	61.8 PK	74.0	-12.2	1.25 H	123	29.00	32.80
4	2483.50	47.8 AV	54.0	-6.2	1.25 H	123	15.00	32.80
5	4924.00	53.2 PK	74.0	-20.8	1.09 H	216	14.30	38.90
6	4924.00	38.0 AV	54.0	-16.0	1.09 H	216	-0.90	38.90
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	110.2 PK			1.07 V	100	77.50	32.70
2	*2462.00	97.4 AV			1.07 V	100	64.70	32.70
3	2483.50	71.2 PK	74.0	-2.8	1.07 V	100	38.40	32.80
4	2483.50	52.8 AV	54.0	-1.2	1.07 V	100	20.00	32.80
5	4924.00	54.4 PK	74.0	-19.6	1.19 V	26	15.50	38.90
6	4924.00	39.2 AV	54.0	-14.8	1.19 V	26	0.30	38.90

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.

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Sun Lin
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	59.6 PK	74.0	-14.4	1.08 H	178	27.10	32.50
2	2390.00	45.3 AV	54.0	-8.7	1.08 H	178	12.80	32.50
3	*2412.00	101.9 PK			1.08 H	178	69.30	32.60
4	*2412.00	86.3 AV			1.08 H	178	53.70	32.60
5	4824.00	46.2 PK	74.0	-27.8	1.09 H	324	7.50	38.70
6	4824.00	33.9 AV	54.0	-20.1	1.09 H	324	-4.80	38.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	71.1 PK	74.0	-2.9	1.16 V	343	38.60	32.50
2	2390.00	52.4 AV	54.0	-1.6	1.16 V	343	19.90	32.50
3	*2412.00	114.1 PK			1.16 V	343	81.50	32.60
4	*2412.00	98.4 AV			1.16 V	343	65.80	32.60
5	4824.00	54.1 PK	74.0	-19.9	1.41 V	146	15.40	38.70
6	4824.00	38.3 AV	54.0	-15.7	1.41 V	146	-0.40	38.70

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Sun Lin
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	104.2 PK			1.10 H	176	71.60	32.60
2	*2437.00	88.5 AV			1.10 H	176	55.90	32.60
3	4874.00	52.8 PK	74.0	-21.2	1.19 H	144	14.00	38.80
4	4874.00	37.8 AV	54.0	-16.2	1.19 H	144	-1.00	38.80
5	7311.00	57.1 PK	74.0	-16.9	1.09 H	243	12.00	45.10
6	7311.00	41.4 AV	54.0	-12.6	1.09 H	243	-3.70	45.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2360.00	63.2 PK	74.0	-10.8	1.16 V	23	30.80	32.40
2	2360.00	51.7 AV	54.0	-2.3	1.16 V	23	19.30	32.40
3	*2437.00	116.6 PK			1.13 V	346	84.00	32.60
4	*2437.00	100.6 AV			1.13 V	346	68.00	32.60
5	4874.00	63.6 PK	74.0	-10.4	1.03 V	15	24.80	38.80
6	4874.00	46.1 AV	54.0	-7.9	1.03 V	15	7.30	38.80
7	7311.00	64.0 PK	74.0	-10.0	1.05 V	20	18.90	45.10
8	7311.00	46.7 AV	54.0	-7.3	1.05 V	20	1.60	45.10

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Sun Lin
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	99.4 PK			1.09 H	180	66.70	32.70
2	*2462.00	83.8 AV			1.09 H	180	51.10	32.70
3	2483.50	59.8 PK	74.0	-14.2	1.09 H	180	27.00	32.80
4	2483.50	45.6 AV	54.0	-8.4	1.09 H	180	12.80	32.80
5	4924.00	46.0 PK	74.0	-28.0	1.06 H	55	7.10	38.90
6	4924.00	33.6 AV	54.0	-20.4	1.06 H	55	-5.30	38.90
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	111.6 PK			1.12 V	343	78.90	32.70
2	*2462.00	95.8 AV			1.12 V	343	63.10	32.70
3	2483.50	72.7 PK	74.0	-1.3	1.12 V	344	39.90	32.80
4	2483.50	52.4 AV	54.0	-1.6	1.12 V	344	19.60	32.80
5	4924.00	53.6 PK	74.0	-20.4	1.35 V	136	14.70	38.90
6	4924.00	37.8 AV	54.0	-16.2	1.35 V	136	-1.10	38.90

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.

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Sun Lin
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	59.4 PK	74.0	-14.6	1.09 H	181	27.50	31.90
2	2390.00	45.0 AV	54.0	-9.0	1.09 H	181	13.10	31.90
3	*2422.00	98.8 PK			1.09 H	181	66.80	32.00
4	*2422.00	83.0 AV			1.09 H	181	51.00	32.00
5	4844.00	50.9 PK	74.0	-23.1	1.05 H	92	13.00	37.90
6	4844.00	34.3 AV	54.0	-19.7	1.05 H	92	-3.60	37.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	72.8 PK	74.0	-1.2	1.21 V	353	40.90	31.90
2	2390.00	51.8 AV	54.0	-2.2	1.21 V	353	19.90	31.90
3	*2422.00	111.2 PK			1.18 V	350	79.20	32.00
4	*2422.00	95.3 AV			1.18 V	350	63.30	32.00
5	4844.00	51.2 PK	74.0	-22.8	1.09 V	234	13.30	37.90
6	4844.00	34.6 AV	54.0	-19.4	1.09 V	234	-3.30	37.90

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Sun Lin
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	62.0 PK	74.0	-12.0	1.10 H	258	30.10	31.90
2	2390.00	46.7 AV	54.0	-7.3	1.10 H	258	14.80	31.90
3	*2437.00	99.3 PK			1.00 H	268	67.20	32.10
4	*2437.00	83.5 AV			1.00 H	268	51.40	32.10
5	2483.50	68.4 PK	74.0	-5.6	1.10 H	165	36.20	32.20
6	2483.50	51.7 AV	54.0	-2.3	1.10 H	165	19.50	32.20
7	4874.00	48.5 PK	74.0	-25.5	1.00 H	187	10.50	38.00
8	4874.00	31.4 AV	54.0	-22.6	1.00 H	187	-6.60	38.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	63.3 PK	74.0	-10.7	1.10 V	225	31.40	31.90
2	2390.00	47.3 AV	54.0	-6.7	1.10 V	225	15.40	31.90
3	*2437.00	112.3 PK			1.10 V	223	80.20	32.10
4	*2437.00	95.7 AV			1.10 V	223	63.60	32.10
5	2483.50	69.7 PK	74.0	-4.3	1.10 V	225	37.50	32.20
6	**2483.50**	**53.0 AV**	**54.0**	**-1.0**	**1.10 V**	**225**	**20.80**	**32.20**
7	4874.00	50.1 PK	74.0	-23.9	1.10 V	145	12.10	38.00
8	4874.00	33.0 AV	54.0	-21.0	1.10 V	145	-5.00	38.00

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Sun Lin
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	*2452.00	96.8 PK			1.11 H	173	64.70	32.10
2	*2452.00	81.0 AV			1.11 H	173	48.90	32.10
3	2483.50	63.3 PK	74.0	-10.7	1.11 H	173	31.10	32.20
4	2483.50	49.7 AV	54.0	-4.3	1.11 H	173	17.50	32.20
5	4904.00	54.1 PK	74.0	-19.9	1.11 H	164	16.10	38.00
6	4904.00	32.6 AV	54.0	-21.4	1.11 H	164	-5.40	38.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	108.9 PK			1.11 V	223	76.80	32.10
2	*2452.00	93.6 AV			1.11 V	223	61.50	32.10
3	2483.50	68.5 PK	74.0	-5.5	1.11 V	224	36.30	32.20
4	2483.50	52.5 AV	54.0	-1.5	1.11 V	224	20.30	32.20
5	4904.00	56.3 PK	74.0	-17.7	1.11 V	218	18.30	38.00
6	4904.00	34.9 AV	54.0	-19.1	1.11 V	218	-3.10	38.00

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

802.11b

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1005 hPa	TESTED BY	Sun Lin
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	55.8 PK	74.0	-18.2	1.28 H	113	25.30	30.50
2	2386.00	44.7 AV	54.0	-9.3	1.28 H	113	14.20	30.50
3	*2412.00	100.5 PK			1.28 H	113	69.90	30.60
4	*2412.00	96.2 AV			1.28 H	113	65.60	30.60
5	4824.00	49.1 PK	74.0	-24.9	1.26 H	306	12.50	36.60
6	4824.00	43.7 AV	54.0	-10.3	1.26 H	306	7.10	36.60
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	58.4 PK	74.0	-15.6	1.44 V	349	27.90	30.50
2	2390.00	46.2 AV	54.0	-7.8	1.44 V	349	15.70	30.50
3	*2412.00	110.4 PK			1.21 V	349	79.80	30.60
4	*2412.00	106.3 AV			1.21 V	349	75.70	30.60
5	4824.00	57.7 PK	74.0	-16.3	1.63 V	167	21.10	36.60
6	4824.00	51.7 AV	54.0	-2.3	1.63 V	167	15.10	36.60

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1005 hPa	TESTED BY	Sun Lin
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	100.0 PK			1.22 H	125	69.30	30.70
2	*2437.00	95.8 AV			1.22 H	125	65.10	30.70
3	4874.00	49.8 PK	74.0	-24.2	1.20 H	296	13.10	36.70
4	4874.00	44.0 AV	54.0	-10.0	1.20 H	296	7.30	36.70
5	7311.00	54.8 PK	74.0	-19.2	1.53 H	188	11.50	43.30
6	7311.00	45.7 AV	54.0	-8.3	1.53 H	188	2.40	43.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	109.9 PK			1.02 V	205	79.20	30.70
2	*2437.00	105.7 AV			1.02 V	205	75.00	30.70
3	4874.00	56.0 PK	74.0	-18.0	1.06 V	350	19.30	36.70
4	4874.00	51.3 AV	54.0	-2.7	1.06 V	350	14.60	36.70
5	7311.00	58.2 PK	74.0	-15.8	1.90 V	137	14.90	43.30
6	7311.00	51.8 AV	54.0	-2.2	1.90 V	137	8.50	43.30

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1005 hPa	TESTED BY	Sun Lin
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	99.6 PK			1.26 H	304	68.80	30.80
2	*2462.00	95.4 AV			1.26 H	304	64.60	30.80
3	2488.00	55.5 PK	74.0	-18.5	1.26 H	304	24.60	30.90
4	2488.00	46.1 AV	54.0	-7.9	1.26 H	304	15.20	30.90
5	4924.00	48.2 PK	74.0	-25.8	1.01 H	31	11.40	36.80
6	4924.00	43.6 AV	54.0	-10.4	1.01 H	31	6.80	36.80
7	7386.00	54.6 PK	74.0	-19.4	1.58 H	180	11.20	43.40
8	7386.00	45.8 AV	54.0	-8.2	1.58 H	180	2.40	43.40
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	109.5 PK			1.22 V	202	78.70	30.80
2	*2462.00	105.2 AV			1.22 V	202	74.40	30.80
3	2488.00	61.4 PK	74.0	-12.6	1.22 V	202	30.50	30.90
4	2488.00	49.3 AV	54.0	-4.7	1.22 V	202	18.40	30.90
5	4924.00	54.1 PK	74.0	-19.9	1.08 V	180	17.30	36.80
6	4924.00	51.4 AV	54.0	-2.6	1.08 V	180	14.60	36.80
7	7386.00	57.6 PK	74.0	-16.4	1.54 V	149	14.20	43.40
8	7386.00	51.6 AV	54.0	-2.4	1.54 V	149	8.20	43.40

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

802.11g

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1005 hPa	TESTED BY	Sun Lin
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	61.7 PK	74.0	-12.3	1.30 H	114	31.20	30.50
2	2390.00	46.3 AV	54.0	-7.7	1.30 H	114	15.80	30.50
3	*2412.00	102.0 PK			1.30 H	114	71.40	30.60
4	*2412.00	91.9 AV			1.30 H	114	61.30	30.60
5	4824.00	47.9 PK	74.0	-26.1	1.26 H	305	11.30	36.60
6	4824.00	33.0 AV	54.0	-21.0	1.26 H	305	-3.60	36.60
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	69.5 PK	74.0	-4.5	1.00 V	352	39.00	30.50
2	2390.00	52.2 AV	54.0	-1.8	1.00 V	352	21.70	30.50
3	*2412.00	110.8 PK			1.18 V	348	80.20	30.60
4	*2412.00	101.0 AV			1.18 V	348	70.40	30.60
5	4824.00	52.9 PK	74.0	-21.1	1.27 V	31	16.30	36.60
6	4824.00	37.0 AV	54.0	-17.0	1.27 V	31	0.40	36.60

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1005 hPa	TESTED BY	Sun Lin
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	103.2 PK			1.01 H	356	72.50	30.70
2	*2437.00	93.6 AV			1.01 H	356	62.90	30.70
3	4874.00	56.0 PK	74.0	-18.0	1.18 H	183	19.30	36.70
4	4874.00	42.2 AV	54.0	-11.8	1.18 H	183	5.50	36.70
5	7311.00	60.1 PK	74.0	-13.9	1.63 H	176	16.80	43.30
6	7311.00	45.9 AV	54.0	-8.1	1.63 H	176	2.60	43.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	112.9 PK			1.00 V	202	82.20	30.70
2	*2437.00	103.8 AV			1.00 V	202	73.10	30.70
3	4874.00	61.7 PK	74.0	-12.3	1.14 V	56	25.00	36.70
4	4874.00	47.1 AV	54.0	-6.9	1.14 V	56	10.40	36.70
5	7311.00	67.8 PK	74.0	-6.2	2.17 V	145	24.50	43.30
6	7311.00	52.8 AV	54.0	-1.2	2.17 V	145	9.50	43.30

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1005 hPa	TESTED BY	Sun Lin
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	100.1 PK			1.28 H	158	69.30	30.80
2	*2462.00	89.4 AV			1.28 H	158	58.60	30.80
3	2483.50	60.2 PK	74.0	-13.8	1.28 H	158	29.30	30.90
4	2483.50	45.0 AV	54.0	-9.0	1.28 H	158	14.10	30.90
5	4924.00	46.2 PK	74.0	-27.8	1.22 H	322	9.40	36.80
6	4924.00	32.2 AV	54.0	-21.8	1.22 H	322	-4.60	36.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	108.2 PK			1.20 V	178	77.40	30.80
2	*2462.00	98.8 AV			1.20 V	178	68.00	30.80
3	2483.50	66.1 PK	74.0	-7.9	1.20 V	178	35.20	30.90
4	2483.50	52.4 AV	54.0	-1.6	1.20 V	178	21.50	30.90
5	4924.00	53.6 PK	74.0	-20.4	1.25 V	53	16.80	36.80
6	4924.00	37.7 AV	54.0	-16.3	1.25 V	53	0.90	36.80

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.

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1005 hPa	TESTED BY	Sun Lin
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	59.4 PK	74.0	-14.6	1.03 H	356	28.90	30.50
2	2390.00	48.0 AV	54.0	-6.0	1.03 H	356	17.50	30.50
3	*2412.00	97.1 PK			1.03 H	356	66.50	30.60
4	*2412.00	87.6 AV			1.03 H	356	57.00	30.60
5	4824.00	50.3 PK	74.0	-23.7	1.02 H	172	13.70	36.60
6	4824.00	35.7 AV	54.0	-18.3	1.02 H	172	-0.90	36.60
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	66.3 PK	74.0	-7.7	1.16 V	352	35.80	30.50
2	2390.00	52.6 AV	54.0	-1.4	1.16 V	352	22.10	30.50
3	*2412.00	110.8 PK			1.16 V	352	80.20	30.60
4	*2412.00	101.4 AV			1.16 V	352	70.80	30.60
5	4824.00	53.6 PK	74.0	-20.4	1.00 V	202	17.00	36.60
6	4824.00	38.4 AV	54.0	-15.6	1.00 V	202	1.80	36.60

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1005 hPa	TESTED BY	Sun Lin
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	100.2 PK			1.05 H	322	69.50	30.70
2	*2437.00	89.8 AV			1.05 H	322	59.10	30.70
3	4874.00	53.5 PK	74.0	-20.5	1.25 H	177	16.80	36.70
4	4874.00	38.9 AV	54.0	-15.1	1.25 H	177	2.20	36.70
5	7311.00	52.7 PK	74.0	-21.3	1.37 H	102	9.40	43.30
6	7311.00	37.8 AV	54.0	-16.2	1.37 H	102	-5.50	43.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	112.7 PK			1.17 V	352	82.00	30.70
2	*2437.00	103.2 AV			1.17 V	352	72.50	30.70
3	4874.00	60.6 PK	74.0	-13.4	1.00 V	203	23.90	36.70
4	4874.00	46.5 AV	54.0	-7.5	1.00 V	203	9.80	36.70
5	7311.00	65.7 PK	74.0	-8.3	1.33 V	167	22.40	43.30
6	7311.00	52.4 AV	54.0	-1.6	1.33 V	167	9.10	43.30

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1005 hPa	TESTED BY	Sun Lin
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	95.2 PK			1.07 H	322	64.40	30.80
2	*2462.00	85.5 AV			1.07 H	322	54.70	30.80
3	2483.50	58.5 PK	74.0	-15.5	1.07 H	322	27.60	30.90
4	2483.50	47.2 AV	54.0	-6.8	1.07 H	322	16.30	30.90
5	4924.00	50.0 PK	74.0	-24.0	1.22 H	168	13.20	36.80
6	4924.00	35.3 AV	54.0	-18.7	1.22 H	168	-1.50	36.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	108.9 PK			1.77 V	182	78.10	30.80
2	*2462.00	99.2 AV			1.77 V	182	68.40	30.80
3	2483.50	66.3 PK	74.0	-7.7	1.77 V	182	35.40	30.90
4	2483.50	52.2 AV	54.0	-1.8	1.77 V	182	21.30	30.90
5	4924.00	49.2 PK	74.0	-24.8	1.02 V	285	12.40	36.80
6	4924.00	35.4 AV	54.0	-18.6	1.02 V	285	-1.40	36.80

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.

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1005 hPa	TESTED BY	Sun Lin
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	55.8 PK	74.0	-18.2	1.36 H	196	25.30	30.50
2	2390.00	49.1 AV	54.0	-4.9	1.36 H	196	18.60	30.50
3	*2422.00	93.8 PK			1.36 H	196	63.20	30.60
4	*2422.00	83.8 AV			1.36 H	196	53.20	30.60
5	4844.00	40.0 PK	74.0	-34.0	1.25 H	325	3.40	36.60
6	4844.00	29.5 AV	54.0	-24.5	1.25 H	325	-7.10	36.60
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	59.1 PK	74.0	-14.9	1.21 V	351	28.60	30.50
2	2390.00	52.2 AV	54.0	-1.8	1.21 V	351	21.70	30.50
3	*2422.00	106.0 PK			1.21 V	352	75.40	30.60
4	*2422.00	95.6 AV			1.21 V	352	65.00	30.60
5	4844.00	43.5 PK	74.0	-30.5	1.27 V	27	6.90	36.60
6	4844.00	33.4 AV	54.0	-20.6	1.27 V	27	-3.20	36.60

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1005 hPa	TESTED BY	Sun Lin
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	93.1 PK			1.37 H	150	62.40	30.70
2	*2437.00	83.0 AV			1.37 H	150	52.30	30.70
3	2483.50	54.5 PK	74.0	-19.5	1.37 H	150	23.60	30.90
4	2483.50	48.2 AV	54.0	-5.8	1.37 H	150	17.30	30.90
5	4874.00	39.7 PK	74.0	-34.3	1.22 H	317	3.00	36.70
6	4874.00	29.2 AV	54.0	-24.8	1.22 H	317	-7.50	36.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	105.8 PK			1.20 V	178	75.10	30.70
2	*2437.00	95.0 AV			1.20 V	178	64.30	30.70
3	2483.50	66.7 PK	74.0	-7.3	1.18 V	177	35.80	30.90
4	**2483.50**	**53.0 AV**	**54.0**	**-1.0**	**1.18 V**	**177**	**22.10**	**30.90**
5	4874.00	47.5 PK	74.0	-26.5	1.61 V	165	10.80	36.70
6	4874.00	34.5 AV	54.0	-19.5	1.61 V	165	-2.20	36.70

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

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

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

4. Margin value = Emission level – Limit value.

5. " * ": Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1005 hPa	TESTED BY	Sun Lin
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	*2452.00	91.5 PK			1.28 H	178	60.70	30.80
2	*2452.00	91.4 AV			1.28 H	178	60.60	30.80
3	2483.50	54.5 PK	74.0	-19.5	1.28 H	185	23.60	30.90
4	2483.50	48.2 AV	54.0	-5.8	1.28 H	185	17.30	30.90
5	4904.00	39.2 PK	74.0	-34.8	1.52 H	258	2.40	36.80
6	4904.00	29.2 AV	54.0	-24.8	1.52 H	258	-7.60	36.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	104.2 PK			1.15 V	357	73.40	30.80
2	*2452.00	93.7 AV			1.15 V	357	62.90	30.80
3	2483.50	65.9 PK	74.0	-8.1	1.15 V	355	35.00	30.90
4	2483.50	51.0 AV	54.0	-3.0	1.15 V	355	20.10	30.90
5	4904.00	42.8 PK	74.0	-31.2	1.18 V	35	6.00	36.80
6	4904.00	33.0 AV	54.0	-21.0	1.18 V	35	-3.80	36.80

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：802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Brad Wu
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	201.00	41.3 QP	43.5	-2.2	1.50 H	292	30.60	10.70
2	247.66	43.6 QP	46.0	-2.4	1.00 H	271	30.80	12.80
3	531.53	39.6 QP	46.0	-6.4	1.50 H	334	19.30	20.30
4	566.52	39.9 QP	46.0	-6.1	1.50 H	331	18.70	21.20
5	601.52	38.4 QP	46.0	-7.6	1.50 H	190	16.40	22.00
6	801.78	40.5 QP	46.0	-5.5	1.00 H	328	15.10	25.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	55.18	36.1 QP	40.0	-3.9	1.50 V	70	22.50	13.60
2	132.95	35.0 QP	43.5	-8.5	1.00 V	205	22.70	12.30
3	199.05	39.2 QP	43.5	-4.3	1.00 V	268	28.50	10.70
4	247.66	37.2 QP	46.0	-8.8	1.00 V	238	24.40	12.80
5	601.52	37.1 QP	46.0	-8.9	1.00 V	340	15.10	22.00
6	801.78	35.5 QP	46.0	-10.5	1.00 V	25	10.10	25.40

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1000 hPa	TESTED BY	Brad Wu
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	166.29	38.0 QP	43.5	-5.5	1.43 H	246	24.10	13.90
2	212.02	34.7 QP	43.5	-8.8	1.55 H	265	23.50	11.20
3	249.60	36.6 QP	46.0	-9.4	1.00 H	289	23.90	12.70
4	331.26	41.5 QP	46.0	-4.5	1.25 H	292	26.20	15.30
5	374.04	41.3 QP	46.0	-4.7	1.25 H	94	25.00	16.30
6	666.67	41.5 QP	46.0	-4.5	1.12 H	339	19.40	22.10
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	50.53	35.7 QP	40.0	-4.3	1.02 V	157	22.00	13.70
2	123.23	37.1 QP	43.5	-6.4	1.00 V	10	25.80	11.30
3	166.00	37.5 QP	43.5	-6.0	1.00 V	283	23.60	13.90
4	212.66	39.8 QP	43.5	-3.7	1.50 V	163	28.50	11.30
5	500.42	38.9 QP	46.0	-7.1	1.00 V	10	19.60	19.30
6	669.57	37.0 QP	46.0	-9.0	2.00 V	25	14.90	22.10

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

4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

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

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

3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.2.2 TEST INSTRUMENTS

Test Mode A

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100291	Dec. 16, 2009	Dec. 15, 2010
RF signal cable Woken	5D-FB	Cable-HYC01-01	Nov. 12, 2009	Nov. 11, 2010
LISN ROHDE & SCHWARZ	ESH3-Z5	100312	Jun. 28, 2010	Jun. 27, 2011
LISN ROHDE & SCHWARZ	ESH3-Z5	835239/001	Feb. 10, 2010	Feb. 09, 2011
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 1.

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

Test Mode B

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100291	Nov. 30, 2010	Nov. 29, 2011
RF signal cable Woken	5D-FB	Cable-HYC01-01	Dec. 30, 2010	Dec. 29, 2011
LISN ROHDE & SCHWARZ	ESH3-Z5	100312	Jun. 28, 2010	Jun. 27, 2011
V-LISN SCHWARZBECK	NNBL 8226-2	8226-142	Jul. 12, 2010	Jul. 11, 2011
LISN ROHDE & SCHWARZ	ENV216	100072	Jun. 11, 2010	Jun. 10, 2011
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 1.
3. The VCCI Site Registration No. is C-2040.

4.2.3 TEST PROCEDURES

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

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

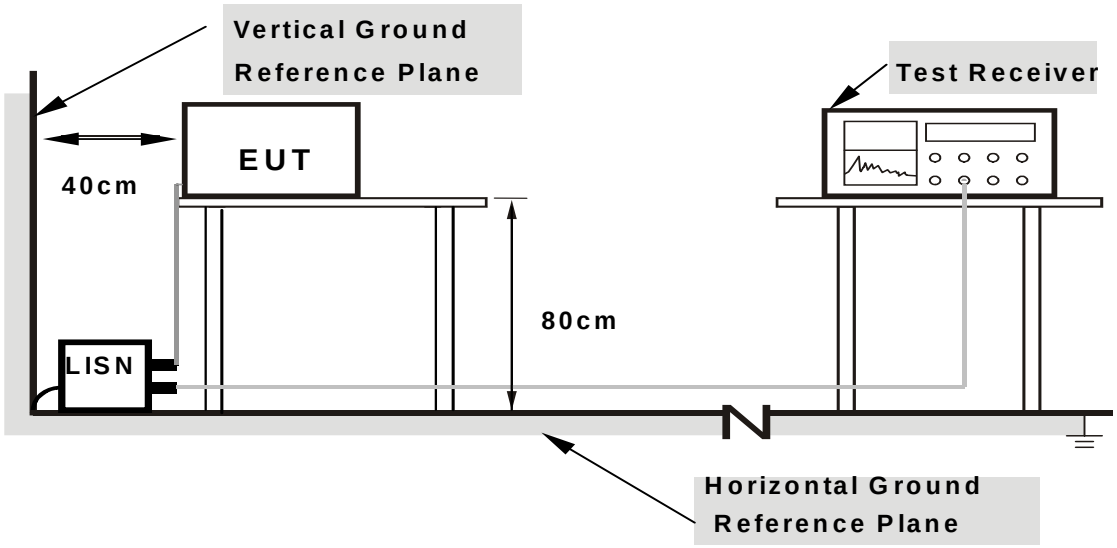
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

4.2.5 TEST SETUP



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

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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

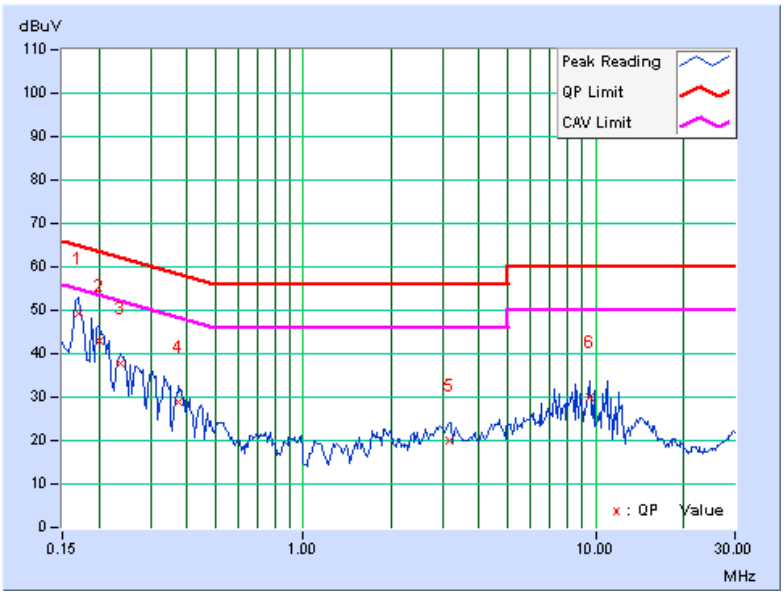
4.2.7 TEST RESULTS

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

PHASE	Line 1	6dB BANDWIDTH	9kHz
TEST MODE	A		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.170	0.12	49.18	-	49.30	-	64.98	54.98	-15.69	-
2	0.201	0.11	42.90	-	43.01	-	63.58	53.58	-20.57	-
3	0.236	0.11	37.67	-	37.78	-	62.24	52.24	-24.45	-
4	0.377	0.13	28.75	-	28.88	-	58.35	48.35	-29.48	-
5	3.184	0.31	19.72	-	20.03	-	56.00	46.00	-35.97	-
6	9.573	0.62	29.44	-	30.06	-	60.00	50.00	-29.94	-

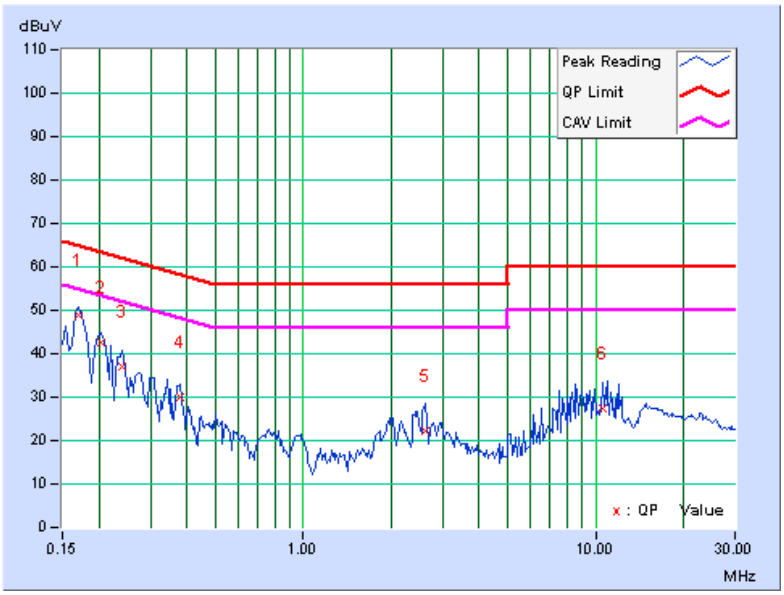
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



PHASE	Line 2	6dB BANDWIDTH	9kHz
TEST MODE	A		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.170	0.10	48.69	-	48.79	-	64.98	54.98	-16.19	-
2	0.205	0.10	42.43	-	42.53	-	63.42	53.42	-20.89	-
3	0.240	0.10	36.88	-	36.98	-	62.10	52.10	-25.12	-
4	0.380	0.12	29.88	-	30.00	-	58.27	48.27	-28.27	-
5	2.602	0.26	22.13	-	22.39	-	56.00	46.00	-33.61	-
6	10.598	0.60	26.93	-	27.53	-	60.00	50.00	-32.47	-
7	18.246	1.17	34.56	-	35.73	-	60.00	50.00	-24.27	-

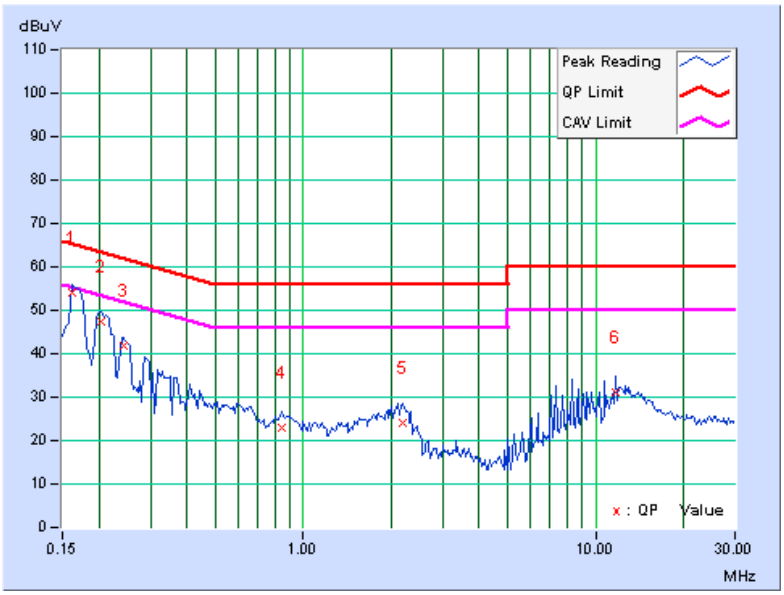
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



PHASE	Line 1	6dB BANDWIDTH	9kHz
TEST MODE	B		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.14	53.91	-	54.05	-	65.38	55.38	-11.32	-
2	0.205	0.14	47.37	-	47.51	-	63.42	53.42	-15.91	-
3	0.244	0.14	41.53	-	41.67	-	61.97	51.97	-20.30	-
4	0.845	0.18	22.71	-	22.89	-	56.00	46.00	-33.11	-
5	2.199	0.23	23.75	-	23.98	-	56.00	46.00	-32.02	-
6	11.699	0.91	30.38	-	31.29	-	60.00	50.00	-28.71	-

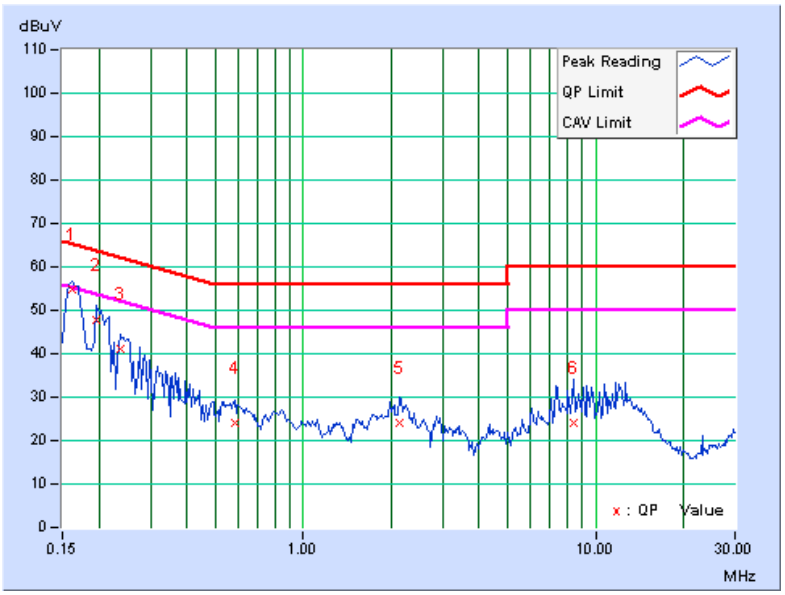
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



PHASE	Line 2	6dB BANDWIDTH	9kHz
TEST MODE	B		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	**0.162**	**0.13**	**54.74**	**-**	**54.87**	**-**	**65.38**	**55.38**	**-10.51**	**-**
2	0.197	0.13	47.53	-	47.66	-	63.74	53.74	-16.08	-
3	0.236	0.13	40.95	-	41.08	-	62.24	52.24	-21.16	-
4	0.584	0.15	23.99	-	24.14	-	56.00	46.00	-31.86	-
5	2.125	0.22	23.68	-	23.90	-	56.00	46.00	-32.10	-
6	8.371	0.61	23.30	-	23.91	-	60.00	50.00	-36.09	-

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
SPECTRUM ANALYZER R&S	FSP40	100039	Jan. 11, 2010	Jan. 10, 2011

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

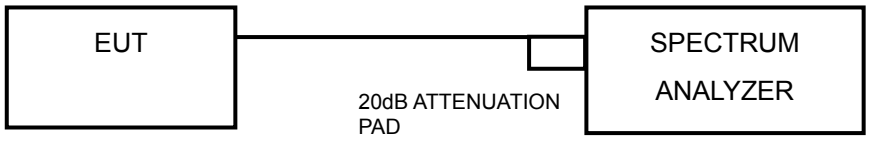
4.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation.

4.3.5 TEST SETUP



4.3.6 EUT OPERATING CONDITIONS

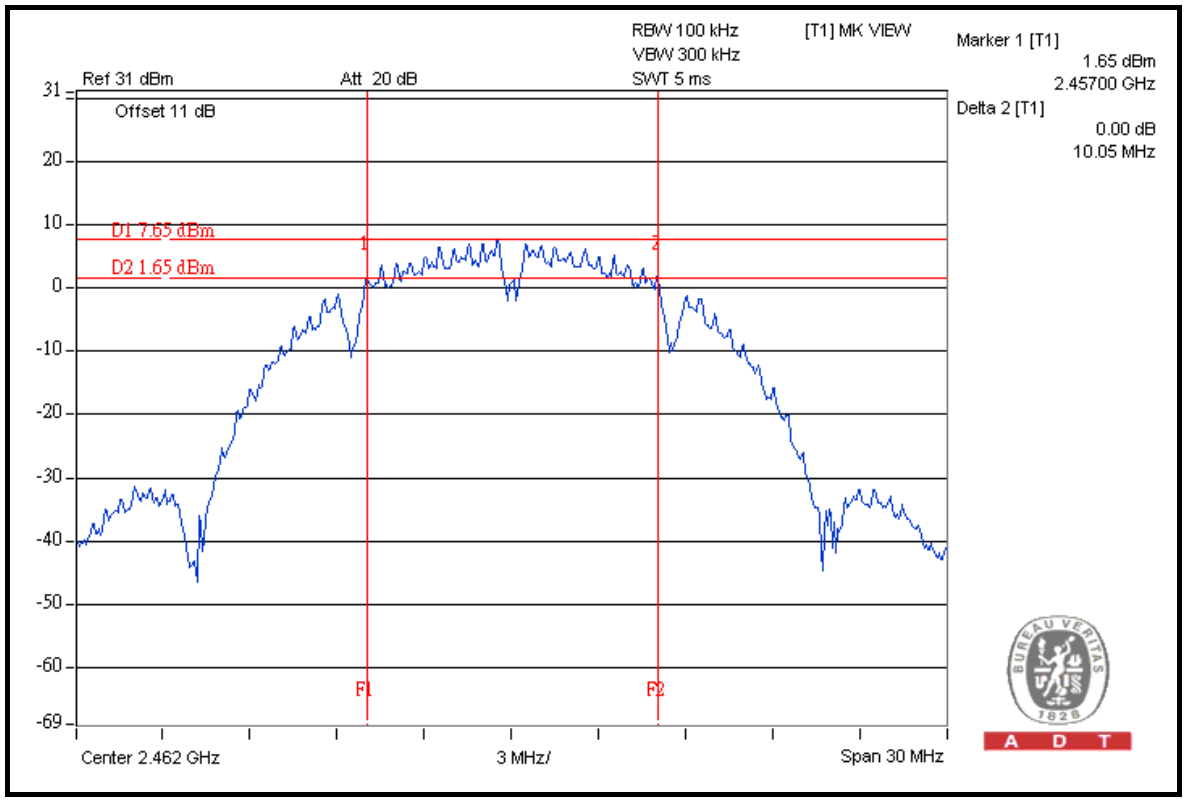
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 TEST RESULTS

802.11b

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	9.64	0.5	PASS
6	2437	9.80	0.5	PASS
11	2462	10.05	0.5	PASS

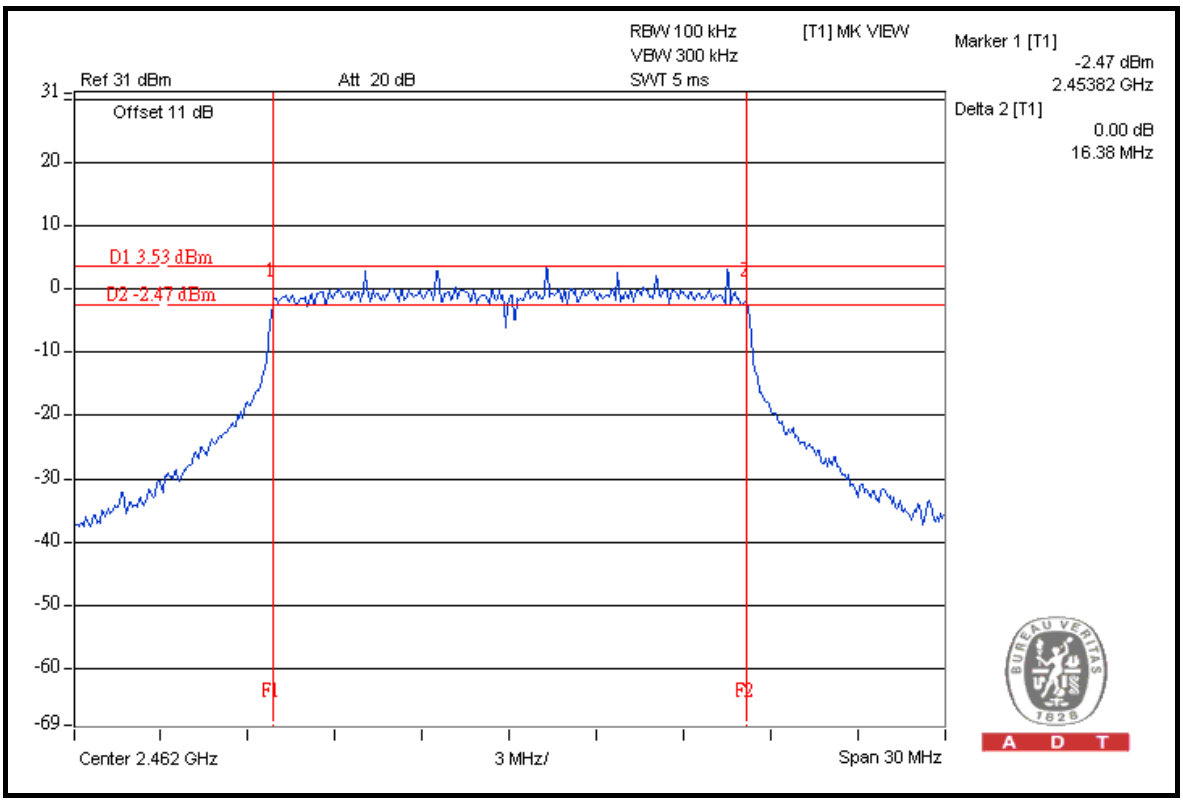
CH 11



802.11g

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.36	0.5	PASS
6	2437	16.37	0.5	PASS
11	2462	16.38	0.5	PASS

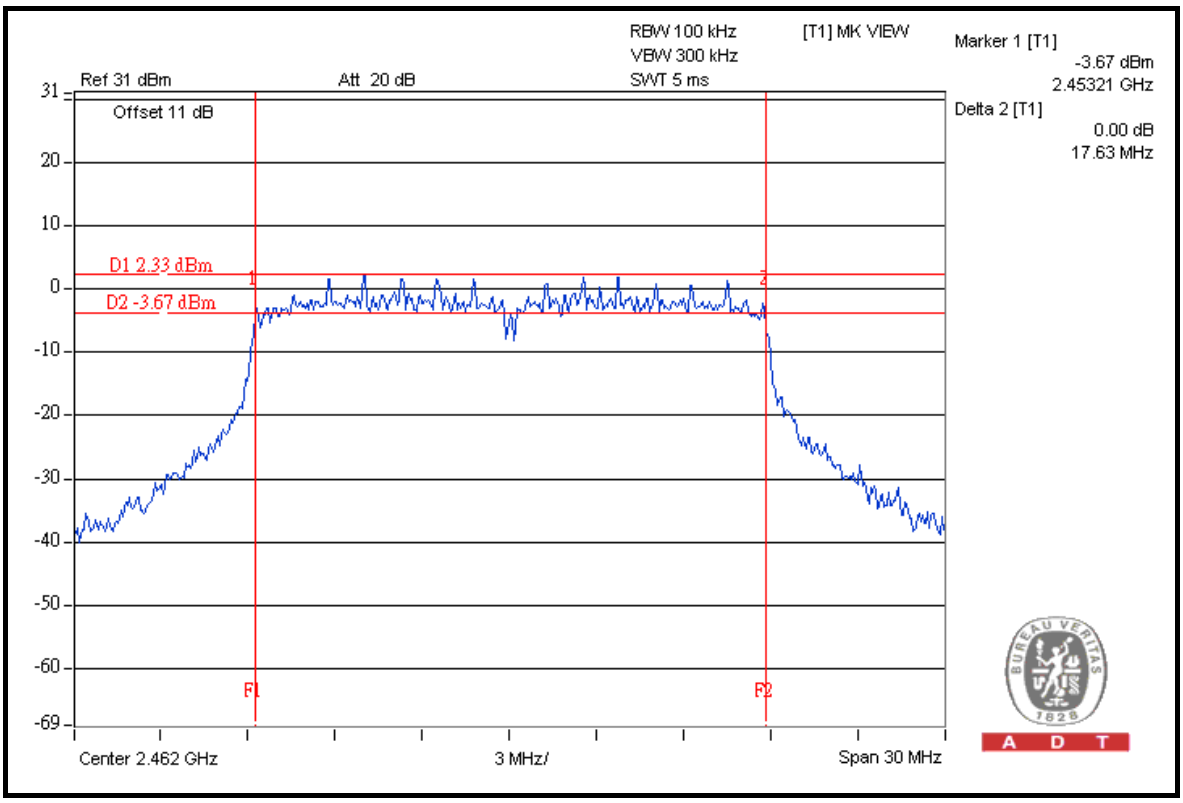
CH 11



802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	17.39	17.60	0.5	PASS
6	2437	17.57	17.61	0.5	PASS
11	2462	17.18	17.63	0.5	PASS

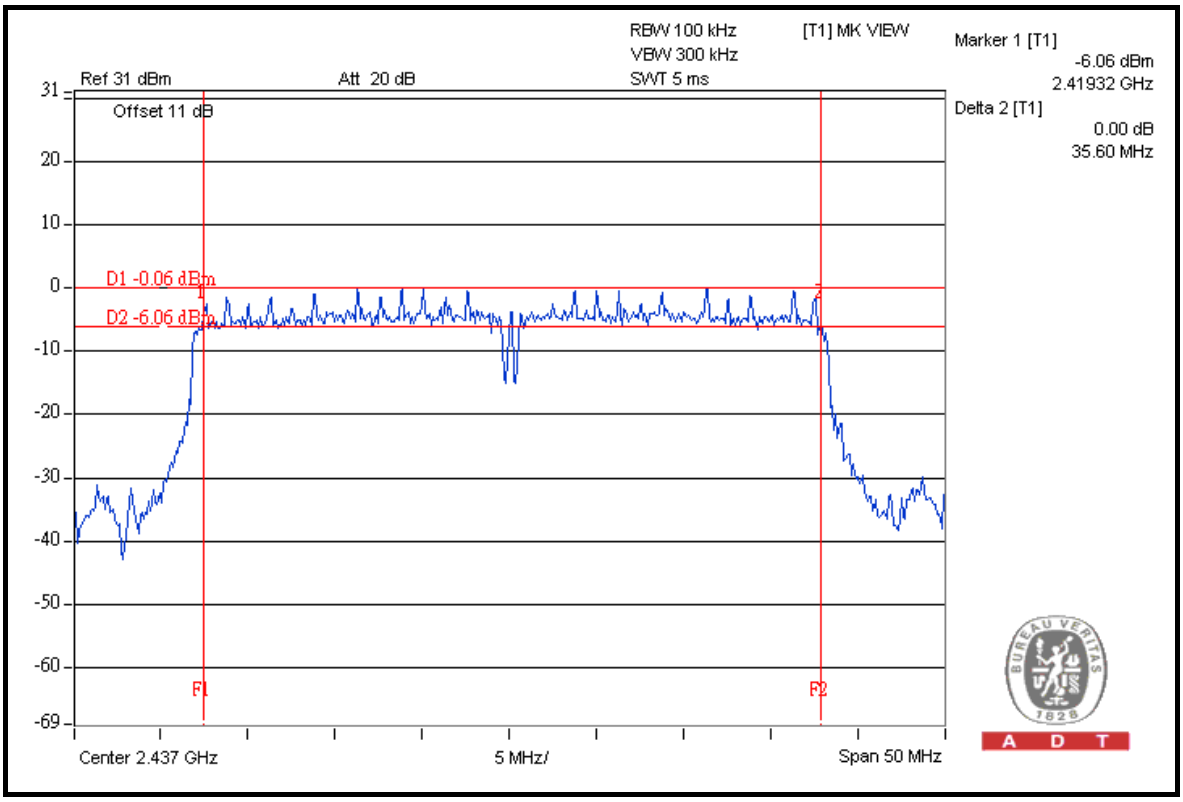
FOR CHAIN 1: CH 11



802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2422	35.57	35.23	0.5	PASS
4	2437	35.60	35.48	0.5	PASS
7	2452	35.44	35.49	0.5	PASS

FOR CHAIN 0: CH 4



4.4 MAXIMUM OUTPUT POWER

4.4.1 LIMITS OF MAXIMUM OUTPUT POWER MEASUREMENT

The Maximum 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	0842014	Apr. 21, 2010	Apr. 20, 2011
Power Sensor	MA2411B	0738404	Apr. 21, 2010	Apr. 20, 2011

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.

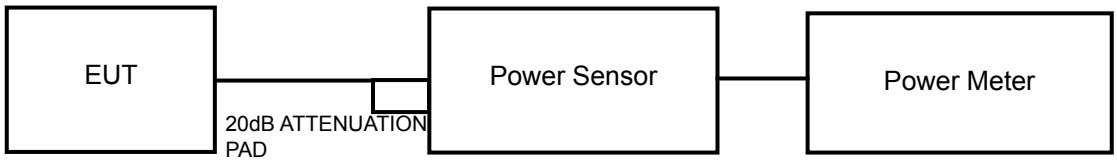
4.4.3 TEST PROCEDURES

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

CHANNEL	CHANNEL FREQUENCY (MHz)	POWER OUTPUT (mW)	POWER OUTPUT (dBm)	POWER LIMIT (dBm)	PASS/FAIL
1	2412	102.3	20.1	30	PASS
6	2437	95.5	19.8	30	PASS
11	2462	100.0	20.0	30	PASS

802.11g

CHANNEL	CHANNEL FREQUENCY (MHz)	POWER OUTPUT (mW)	POWER OUTPUT (dBm)	POWER LIMIT (dBm)	PASS/FAIL
1	2412	269.2	24.3	30	PASS
6	2437	316.2	25.0	30	PASS
11	2462	177.8	22.5	30	PASS

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	POWER OUTPUT (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	23.1	23.6	433.3	26.4	30	PASS
6	2437	24.2	24.4	538.4	27.3	30	PASS
11	2462	20.8	21.3	255.1	24.1	30	PASS

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	POWER OUTPUT (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2422	22.6	23.2	390.9	25.9	30	PASS
4	2437	22.5	22.9	372.8	25.7	30	PASS
7	2452	21.1	20.8	249.1	24.0	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
SPECTRUM ANALYZER R&S	FSP40	100039	Jan. 11, 2010	Jan. 10, 2011

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

4.5.3 TEST PROCEDURE

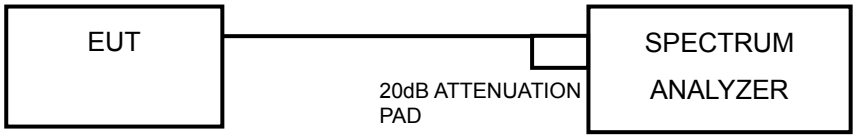
The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

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

4.5.4 DEVIATION FROM TEST STANDARD

No deviation.

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITION

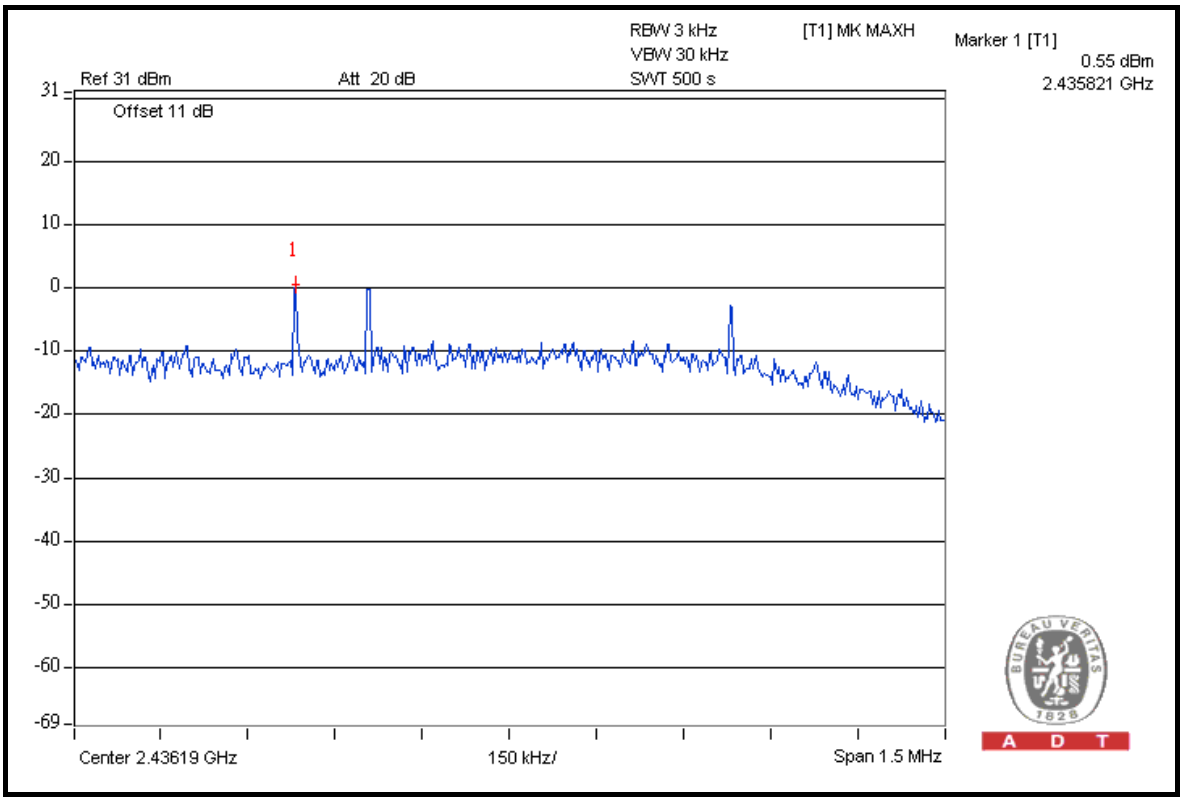
Same as Item 4.3.6

4.5.7 TEST RESULTS

802.11b

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-1.21	8	PASS
6	2437	0.55	8	PASS
11	2462	-1.54	8	PASS

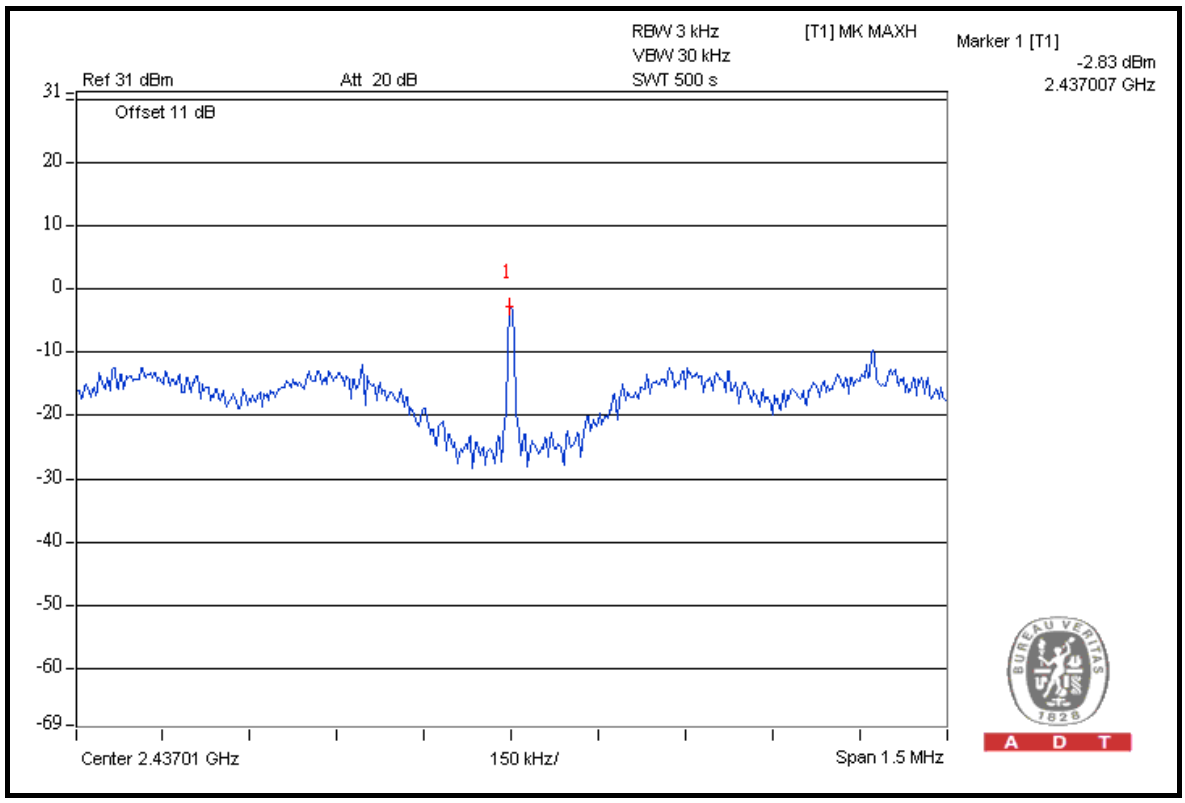
CH 6



802.11g

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-3.74	8	PASS
6	2437	-2.83	8	PASS
11	2462	-3.01	8	PASS

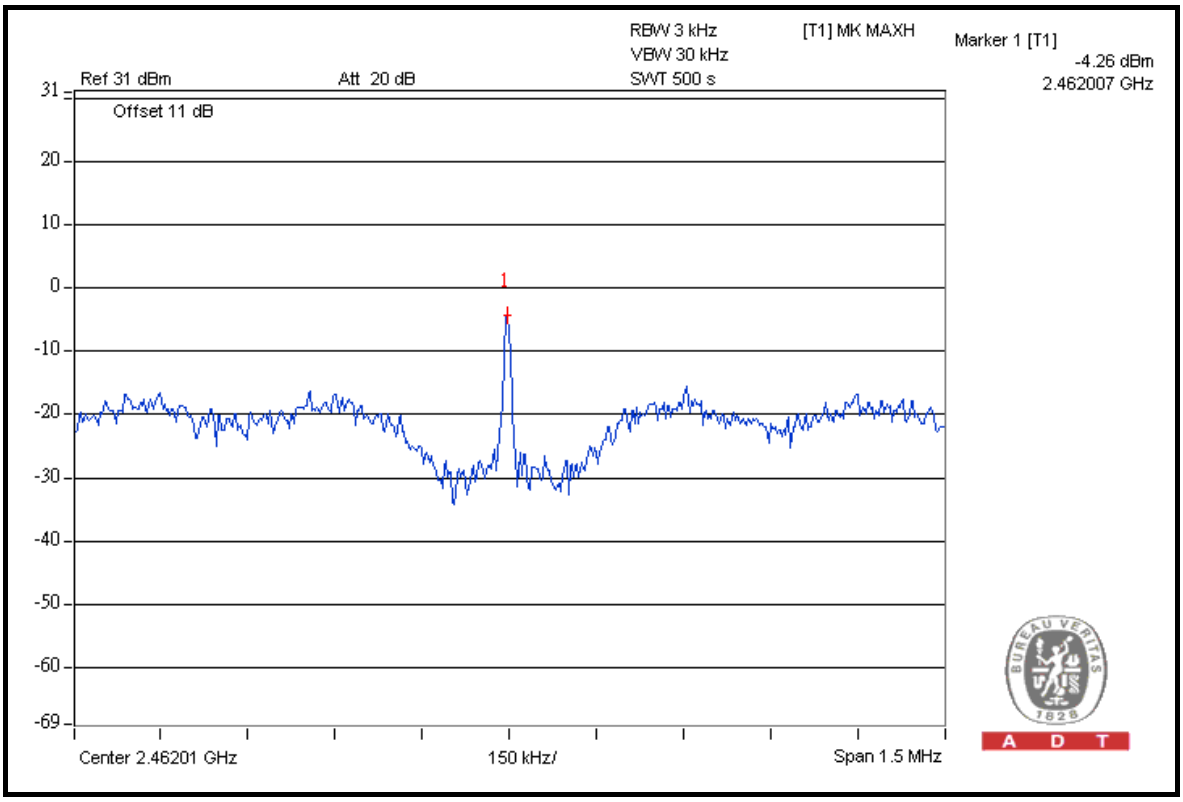
CH 6



802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
1	2412	-4.63	-9.19	-3.33	8	PASS
6	2437	-4.45	-8.60	-3.04	8	PASS
11	2462	-4.26	-8.96	-2.99	8	PASS

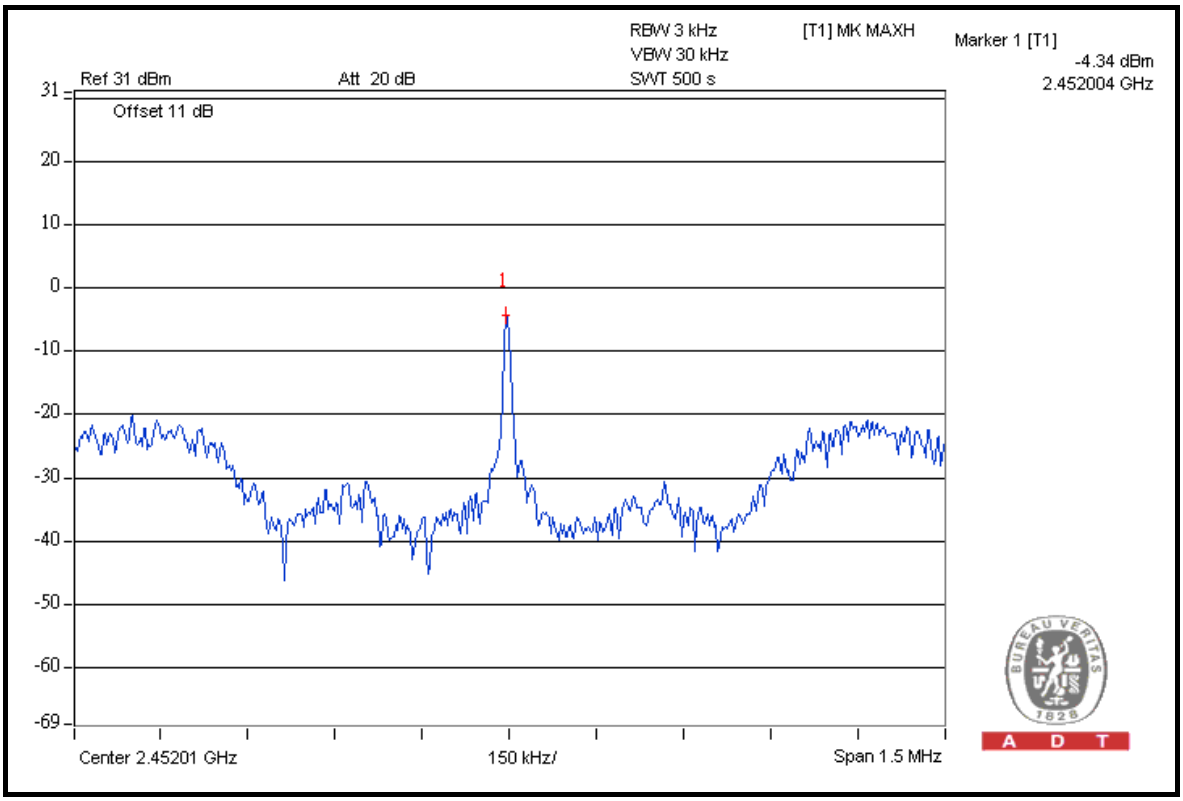
FOR CHAIN 0: CH 11



802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1			
1	2422	-4.58	-15.09	-4.21	8	PASS
4	2437	-4.44	-15.14	-4.09	8	PASS
7	2452	-4.34	-17.45	-4.13	8	PASS

FOR CHAIN 0: CH 7



4.6 BAND EDGES MEASUREMENT

4.6.1 LIMITS OF BAND EDGES MEASUREMENT

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

4.6.2 TEST INSTRUMENTS

TEST MODE A

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100188	Dec. 21, 2009	Dec. 20, 2010
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100041	Jul. 09, 2010	Jul. 08, 2011
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Apr. 30, 2010	Apr. 29, 2011
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-209	Aug. 02, 2010	Aug. 01, 2011
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Dec. 25, 2009	Dec. 24, 2010
Preamplifier Agilent	8449B	3008A01910	Sep. 09, 2010	Sep. 08, 2011
Preamplifier Agilent	8447D	2944A10638	Dec. 21, 2009	Dec. 20, 2010
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	218190/4 231241/4	May 14, 2010	May 13, 2011
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 20, 2010	Aug. 19, 2011
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: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

TEST MODE B

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCI	100424	Aug. 04, 2010	Aug. 03, 2011
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100041	Jul. 09, 2010	Jul. 08, 2011
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Apr. 30, 2010	Apr. 29, 2011
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-209	Aug. 02, 2010	Aug. 01, 2011
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 27, 2010	Dec. 26, 2011
Preamplifier Agilent	8449B	3008A01910	Sep. 09, 2010	Sep. 08, 2011
Preamplifier Agilent	8447D	2944A10638	Nov. 03, 2010	Nov. 02, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	218190/4 231241/4	May 14, 2010	May 13, 2011
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 20, 2010	Aug. 19, 2011
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: 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

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. Set both RBW and VBW of spectrum analyzer to 100kHz and 300kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

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

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

4.6.4 DEVIATION FROM TEST STANDARD

No deviation.

4.6.5 EUT OPERATING CONDITION

Same as Item 4.3.6.

4.6.6 TEST RESULTS

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

802.11b

TEST MODE A

RESTRICT BAND (2310 ~ 2390 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2412.00 (PK)	111.2	54.77	56.43	74.00
2412.00 (AV)	104.9	57.65	47.25	54.00

RESTRICT BAND (2483.5 ~ 2500 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2462.00 (PK)	111.0	53.30	57.70	74.00
2462.00 (AV)	104.7	55.11	49.59	54.00

NOTE:

1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

TEST MODE B

RESTRICT BAND (2310 ~ 2390 MHz)

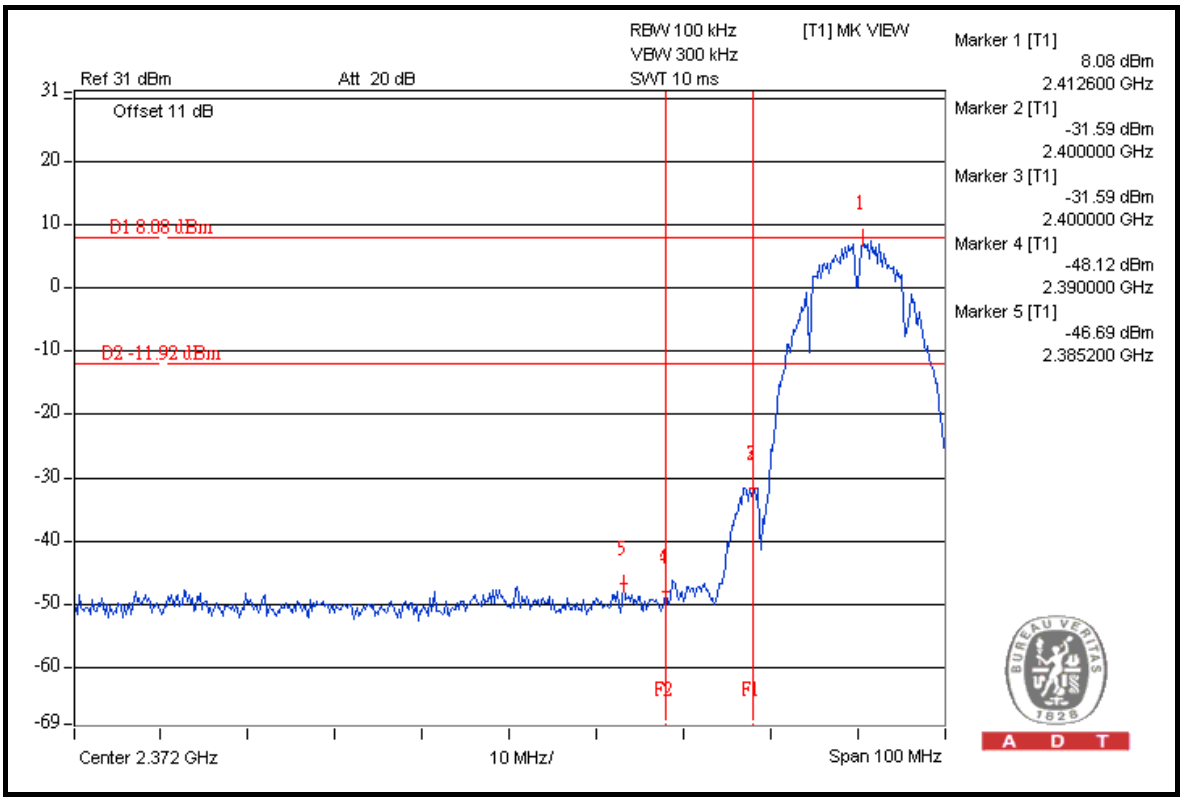
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2412.00 (PK)	110.4	54.77	55.63	74.00
2412.00 (AV)	106.3	57.65	48.65	54.00

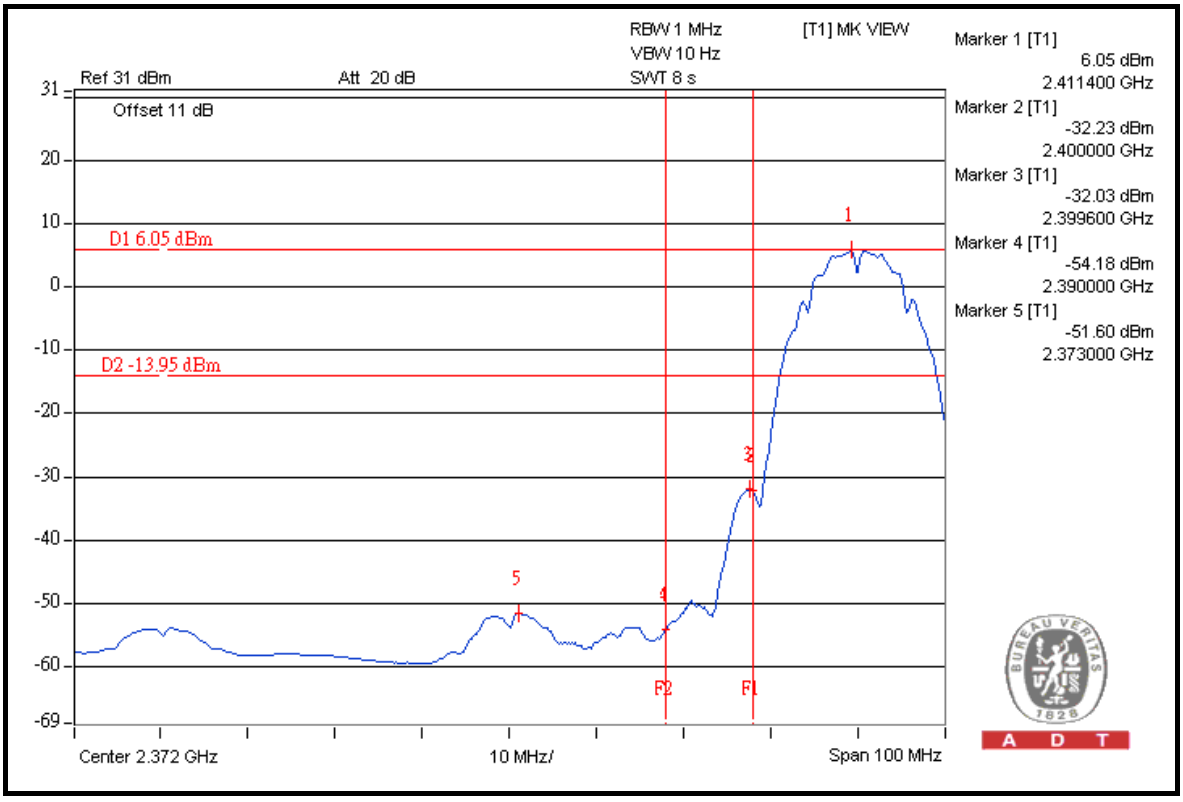
RESTRICT BAND (2483.5 ~ 2500 MHz)

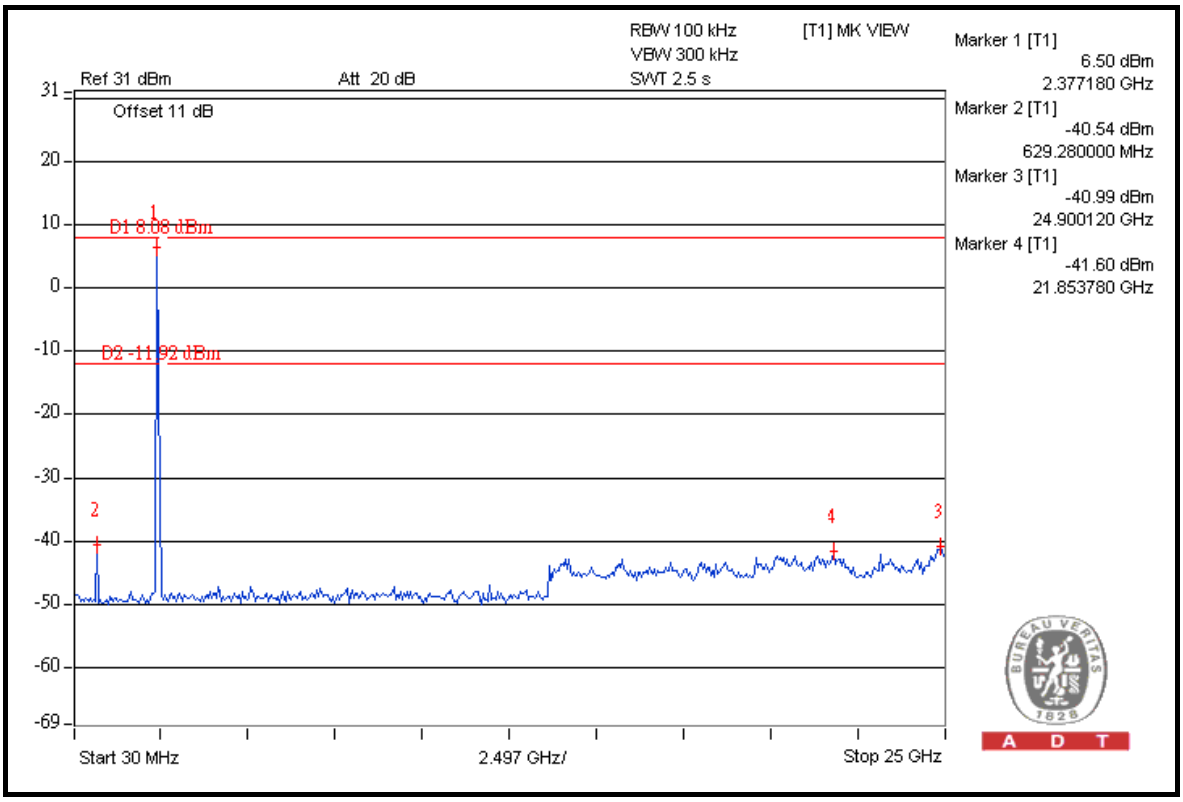
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2462.00 (PK)	109.5	53.30	56.20	74.00
2462.00 (AV)	105.2	55.11	50.09	54.00

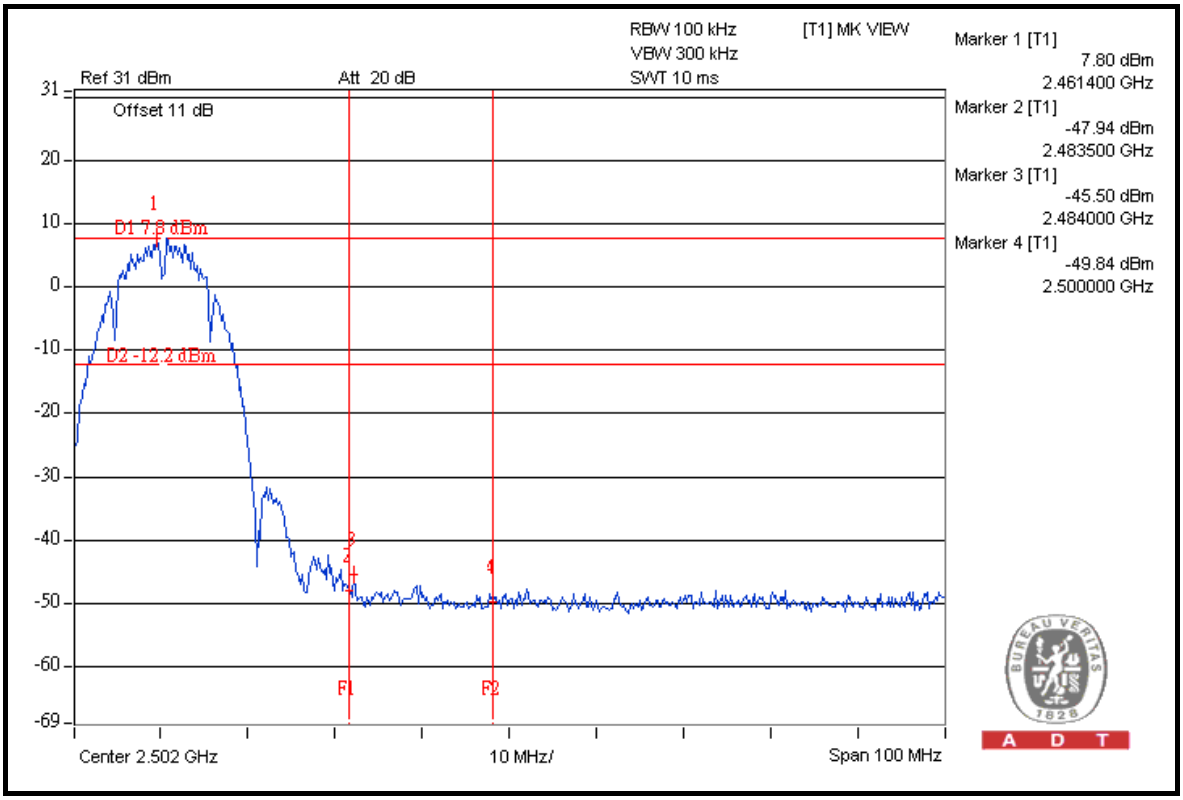
NOTE:

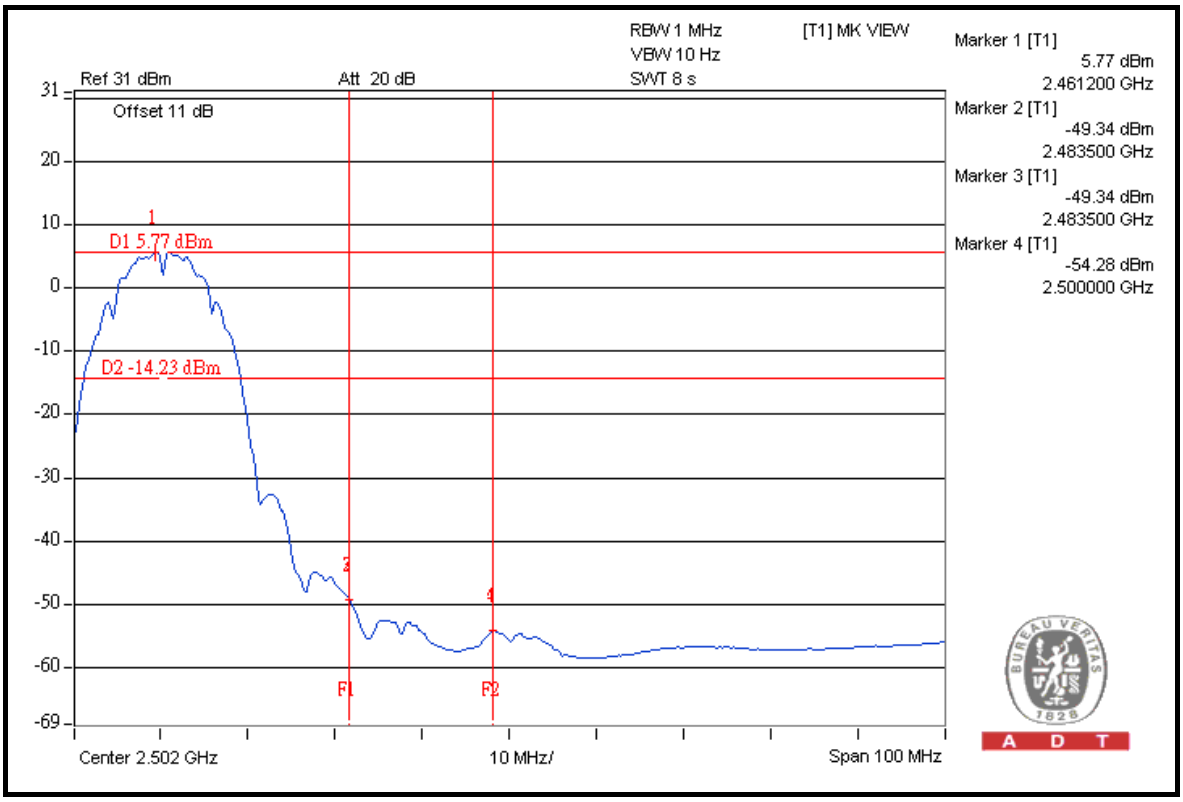
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

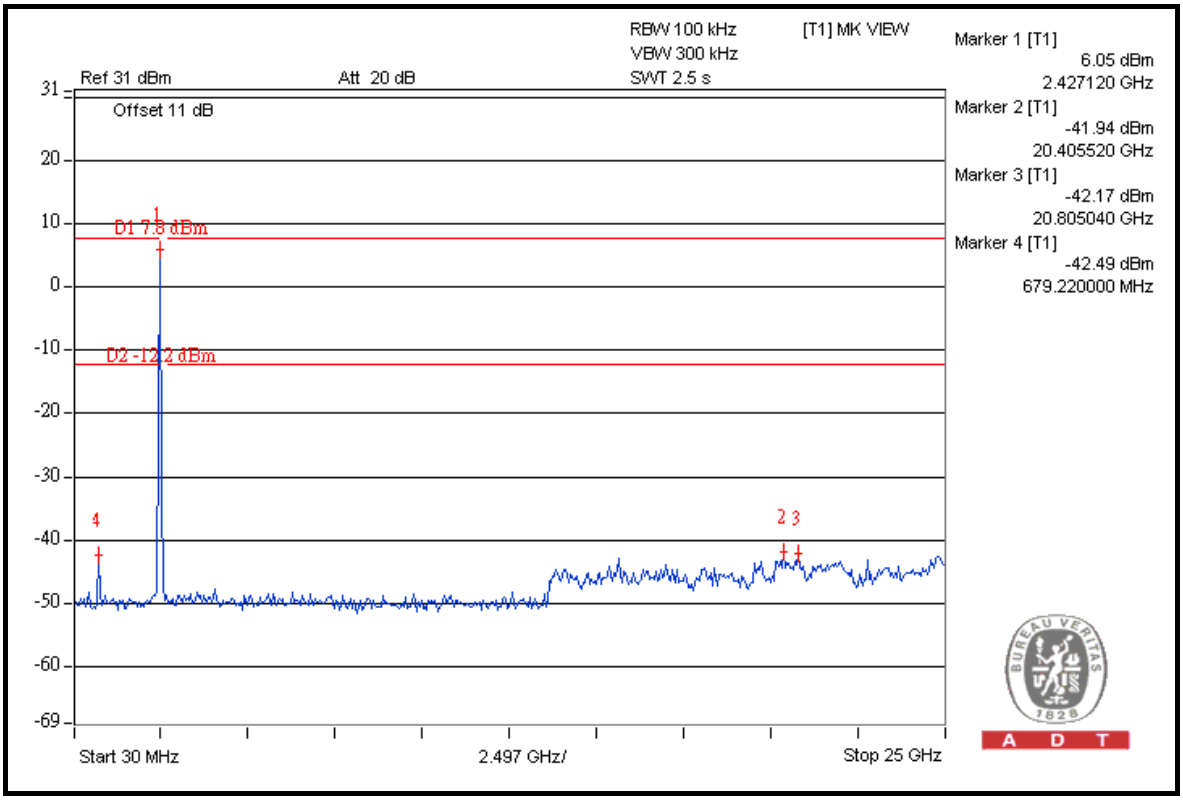

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 8.08 dBm
D2 -11.92 dBm
Marker 1 [T1]
8.08 dBm
2.412600 GHz
Marker 2 [T1]
-31.59 dBm
2.400000 GHz
Marker 3 [T1]
-31.59 dBm
2.400000 GHz
Marker 4 [T1]
-48.12 dBm
2.390000 GHz
Marker 5 [T1]
-46.69 dBm
2.385200 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 6.05 dBm
D2 -13.95 dBm
Marker 1 [T1]
6.05 dBm
2.411400 GHz
Marker 2 [T1]
-32.23 dBm
2.400000 GHz
Marker 3 [T1]
-32.03 dBm
2.399600 GHz
Marker 4 [T1]
-54.18 dBm
2.390000 GHz
Marker 5 [T1]
-51.60 dBm
2.373000 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 8.08 dBm
D2 -11.92 dBm
Marker 1 [T1]
6.50 dBm
2.377180 GHz
Marker 2 [T1]
-40.54 dBm
629.280000 MHz
Marker 3 [T1]
-40.99 dBm
24.900120 GHz
Marker 4 [T1]
-41.60 dBm
21.853780 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz


RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 7.8 dBm
D2 -12.2 dBm
Marker 1 [T1]
7.80 dBm
2.461400 GHz
Marker 2 [T1]
-47.94 dBm
2.483500 GHz
Marker 3 [T1]
-45.50 dBm
2.484000 GHz
Marker 4 [T1]
-49.84 dBm
2.500000 GHz
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 5.77 dBm
D2 -14.23 dBm
Marker 1 [T1]
5.77 dBm
2.461200 GHz
Marker 2 [T1]
-49.34 dBm
2.483500 GHz
Marker 3 [T1]
-49.34 dBm
2.483500 GHz
Marker 4 [T1]
-54.28 dBm
2.500000 GHz
Center 2.502 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 7.8 dBm
D2 -12.2 dBm
Marker 1 [T1]
6.05 dBm
2.427120 GHz
Marker 2 [T1]
-41.94 dBm
20.405520 GHz
Marker 3 [T1]
-42.17 dBm
20.805040 GHz
Marker 4 [T1]
-42.49 dBm
679.220000 MHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz

802.11g

TEST MODE A

RESTRICT BAND (2310 ~ 2390 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2412.00 (PK)	113.2	48.77	64.43	74.00
2412.00 (AV)	100.5	50.37	50.13	54.00

RESTRICT BAND (2483.5 ~ 2500 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2462.00 (PK)	110.2	46.86	63.34	74.00
2462.00 (AV)	97.4	47.70	49.70	54.00

NOTE:

1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

TEST MODE B

RESTRICT BAND (2310 ~ 2390 MHz)

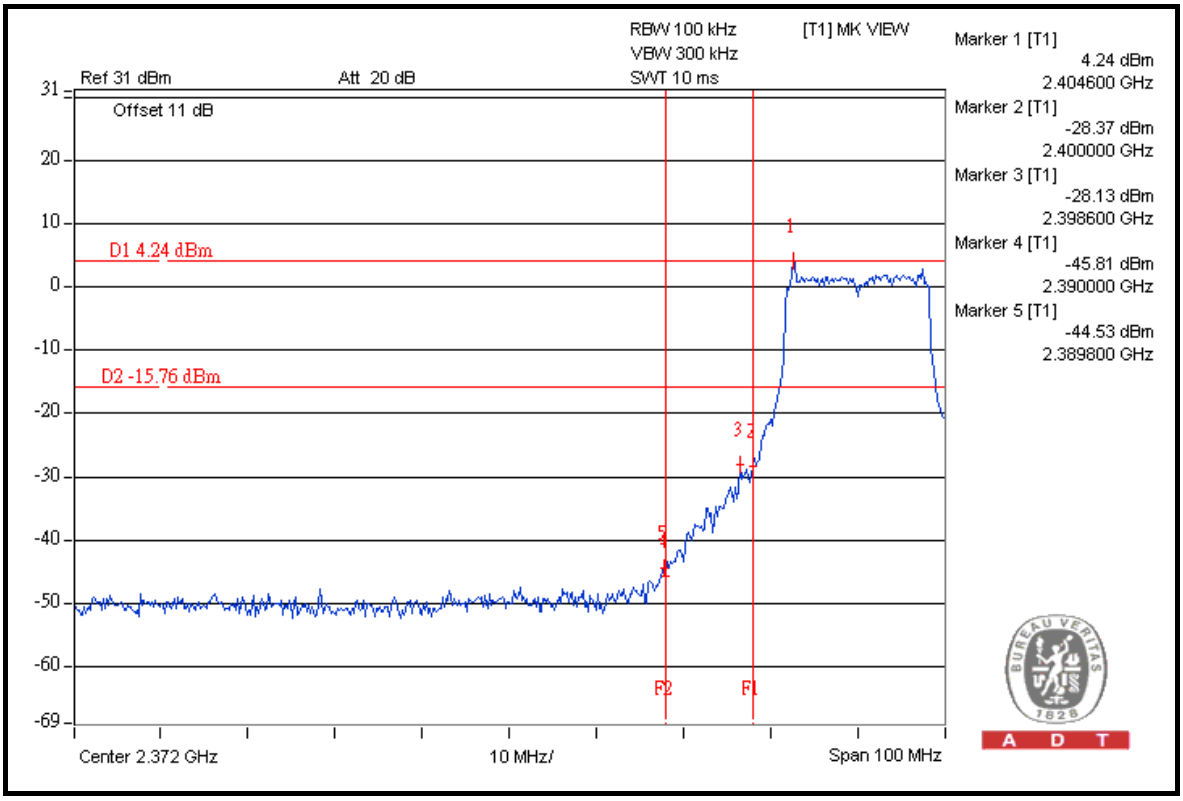
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2412.00 (PK)	110.8	48.77	62.03	74.00
2412.00 (AV)	101.0	50.37	50.63	54.00

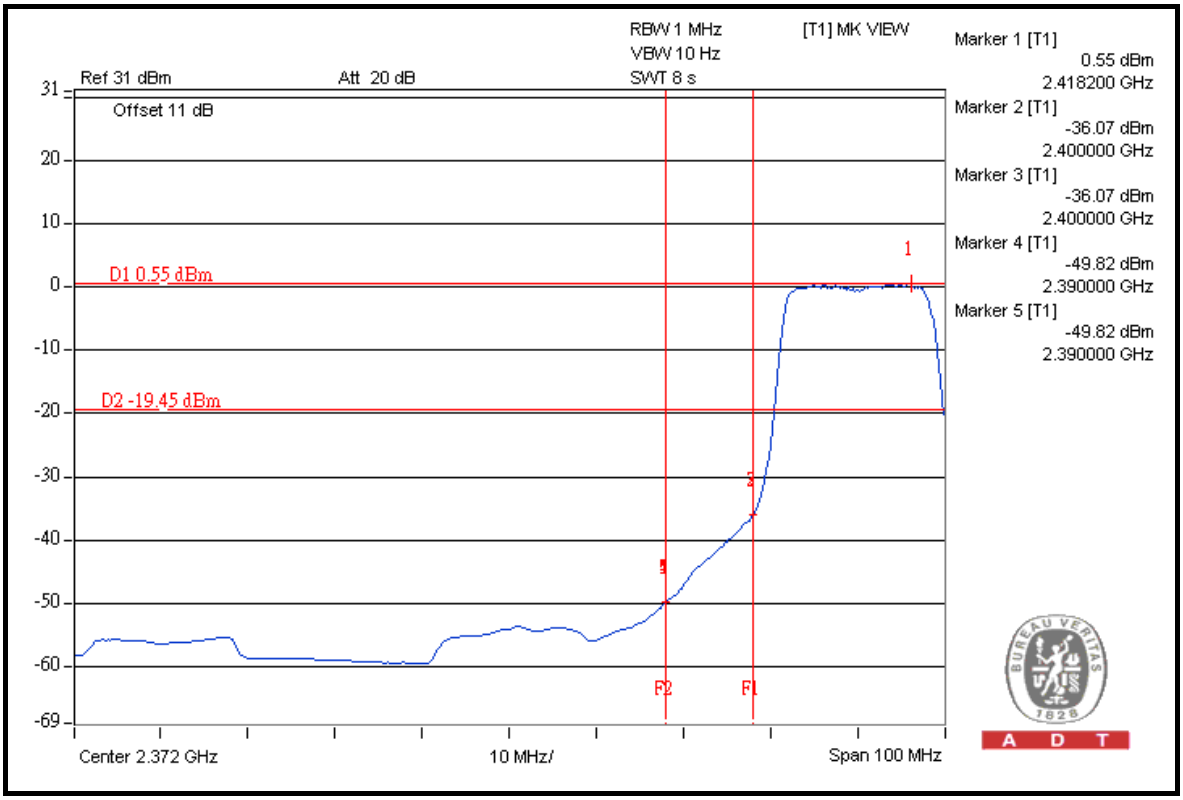
RESTRICT BAND (2483.5 ~ 2500 MHz)

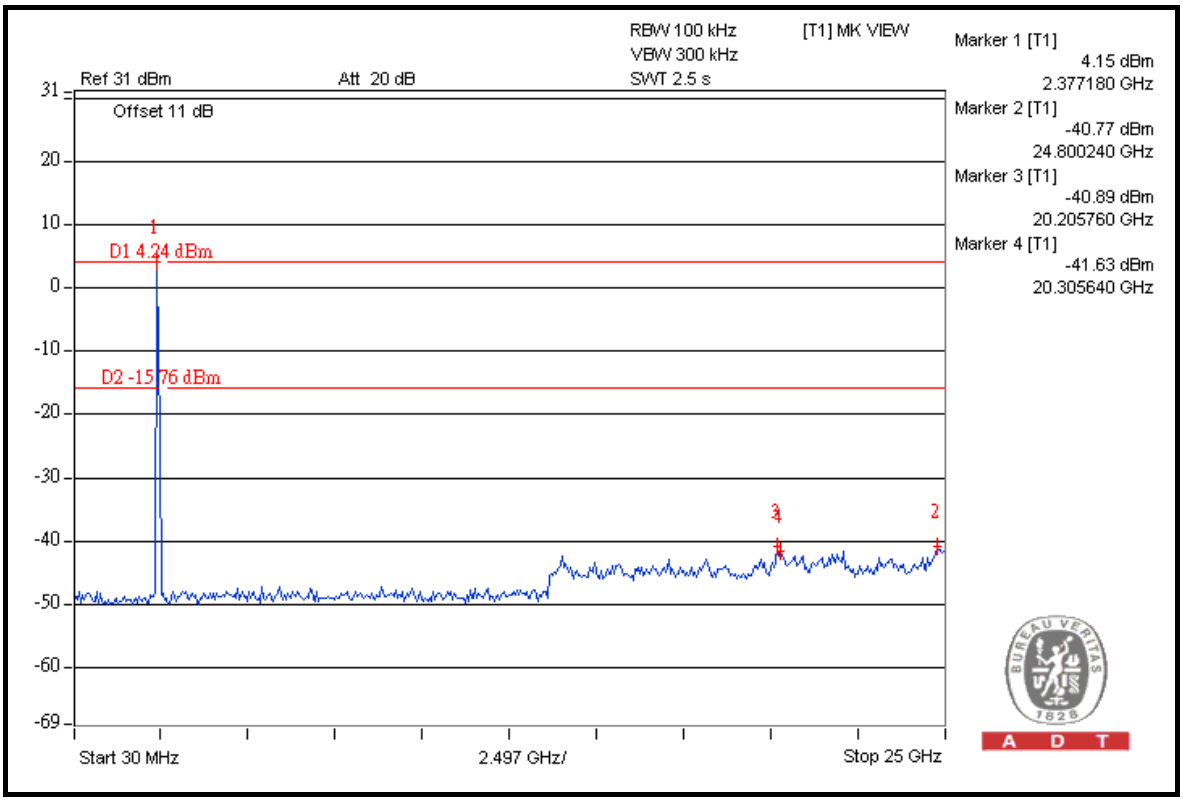
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2462.00 (PK)	108.2	46.86	61.34	74.00
2462.00 (AV)	98.8	47.70	51.10	54.00

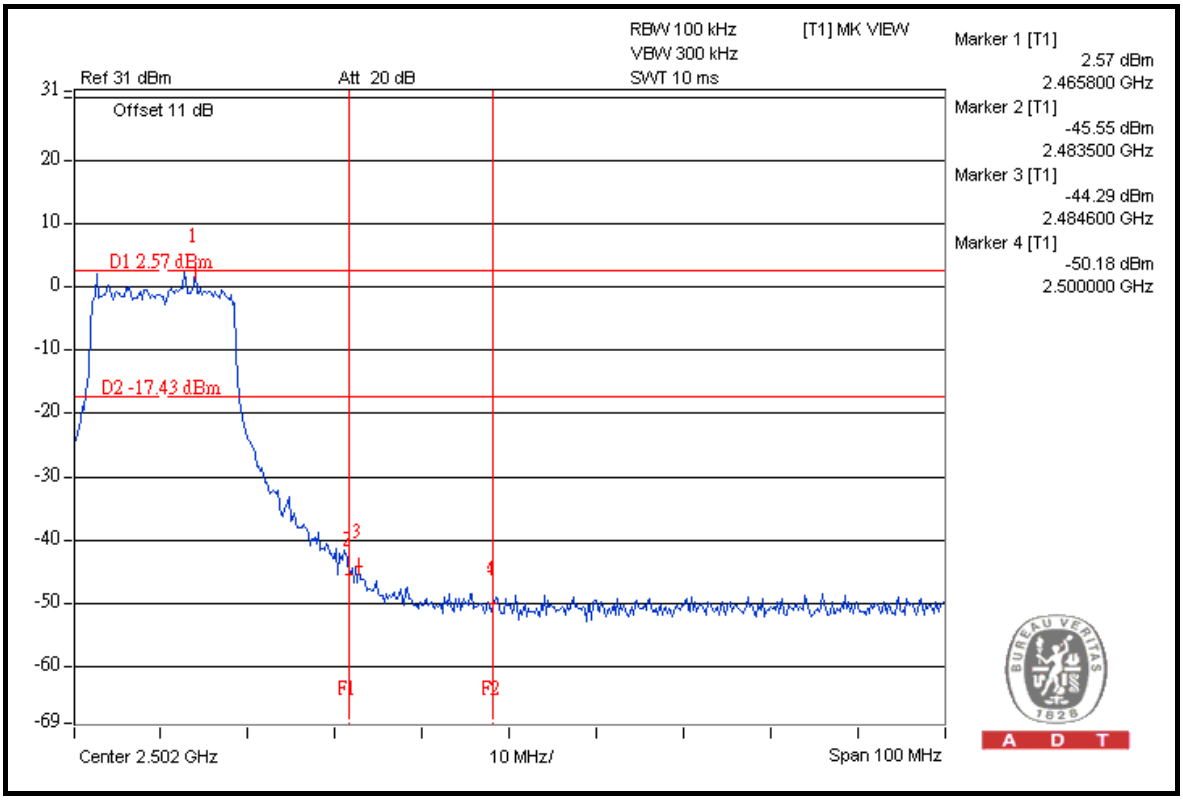
NOTE:

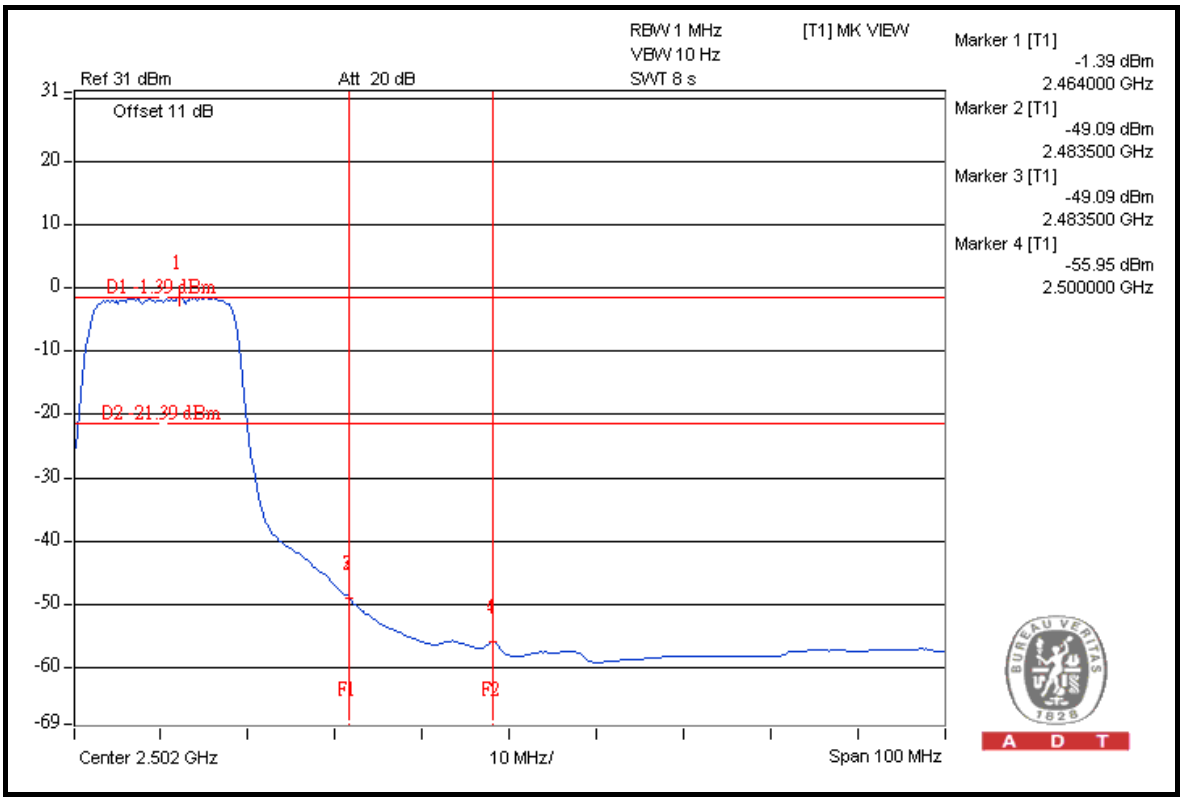
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

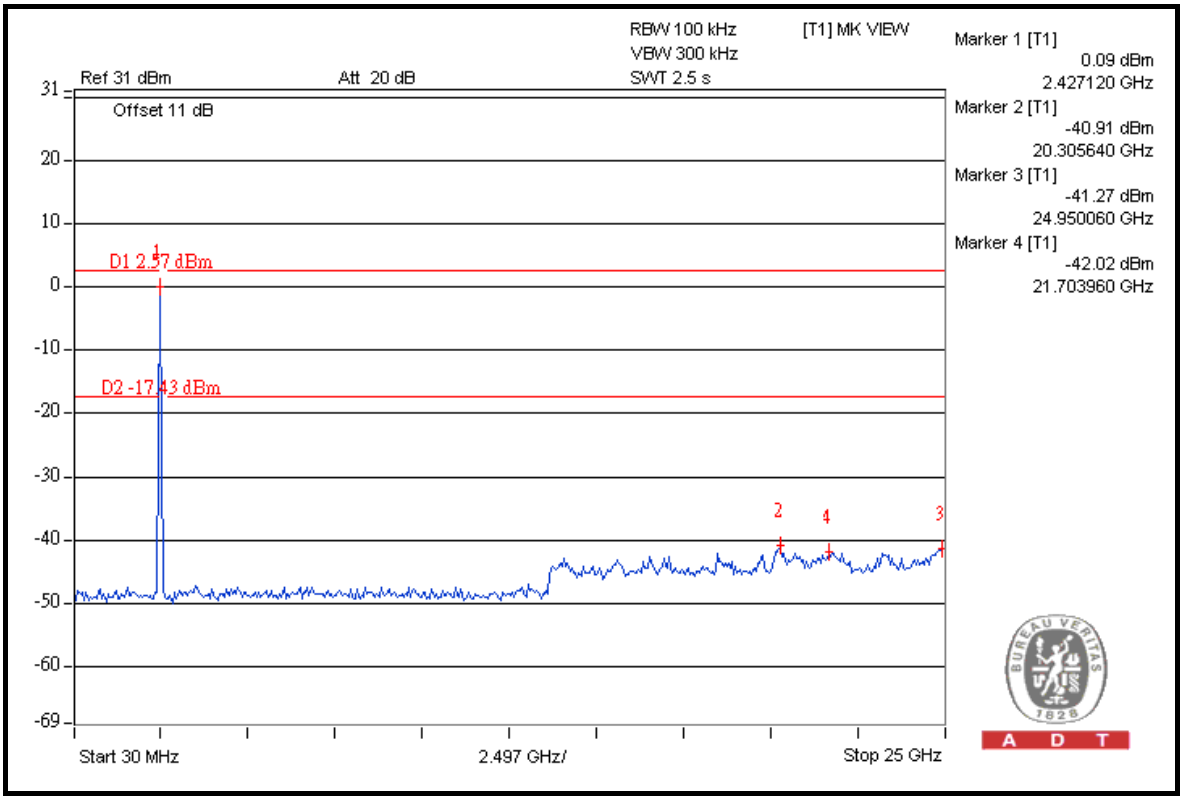

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 4.24 dBm
D2 -15.76 dBm
Marker 1 [T1]
4.24 dBm
2.404600 GHz
Marker 2 [T1]
-28.37 dBm
2.400000 GHz
Marker 3 [T1]
-28.13 dBm
2.398600 GHz
Marker 4 [T1]
-45.81 dBm
2.390000 GHz
Marker 5 [T1]
-44.53 dBm
2.389800 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 0.55 dBm
D2 -19.45 dBm
Marker 1 [T1]
0.55 dBm
2.418200 GHz
Marker 2 [T1]
-36.07 dBm
2.400000 GHz
Marker 3 [T1]
-36.07 dBm
2.400000 GHz
Marker 4 [T1]
-49.82 dBm
2.390000 GHz
Marker 5 [T1]
-49.82 dBm
2.390000 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 4.24 dBm
D2 -15.76 dBm
Marker 1 [T1]
4.15 dBm
2.377180 GHz
Marker 2 [T1]
-40.77 dBm
24.800240 GHz
Marker 3 [T1]
-40.89 dBm
20.205760 GHz
Marker 4 [T1]
-41.63 dBm
20.305640 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz


RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 2.57 dBm
D2 -17.43 dBm
Marker 1 [T1]
2.57 dBm
2.465800 GHz
Marker 2 [T1]
-45.55 dBm
2.483500 GHz
Marker 3 [T1]
-44.29 dBm
2.484600 GHz
Marker 4 [T1]
-50.18 dBm
2.500000 GHz
Center 2.502 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -1.39 dBm
D2 -21.39 dBm
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
Marker 1 [T1]
-1.39 dBm
2.464000 GHz
Marker 2 [T1]
-49.09 dBm
2.483500 GHz
Marker 3 [T1]
-49.09 dBm
2.483500 GHz
Marker 4 [T1]
-55.95 dBm
2.500000 GHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 2.57 dBm
D2 -17.43 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz
Marker 1 [T1]
0.09 dBm
2.427120 GHz
Marker 2 [T1]
-40.91 dBm
20.305640 GHz
Marker 3 [T1]
-41.27 dBm
24.950060 GHz
Marker 4 [T1]
-42.02 dBm
21.703960 GHz

802.11n (20MHz)

TEST MODE A

RESTRICT BAND (2310 ~ 2390 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2412.00 (PK)	114.1	49.05	65.05	74.00
2412.00 (AV)	98.4	48.21	50.19	54.00

RESTRICT BAND (2483.5 ~ 2500 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2462.00 (PK)	111.6	48.79	62.81	74.00
2462.00 (AV)	95.8	47.19	48.61	54.00

NOTE:

1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

TEST MODE B

RESTRICT BAND (2310 ~ 2390 MHz)

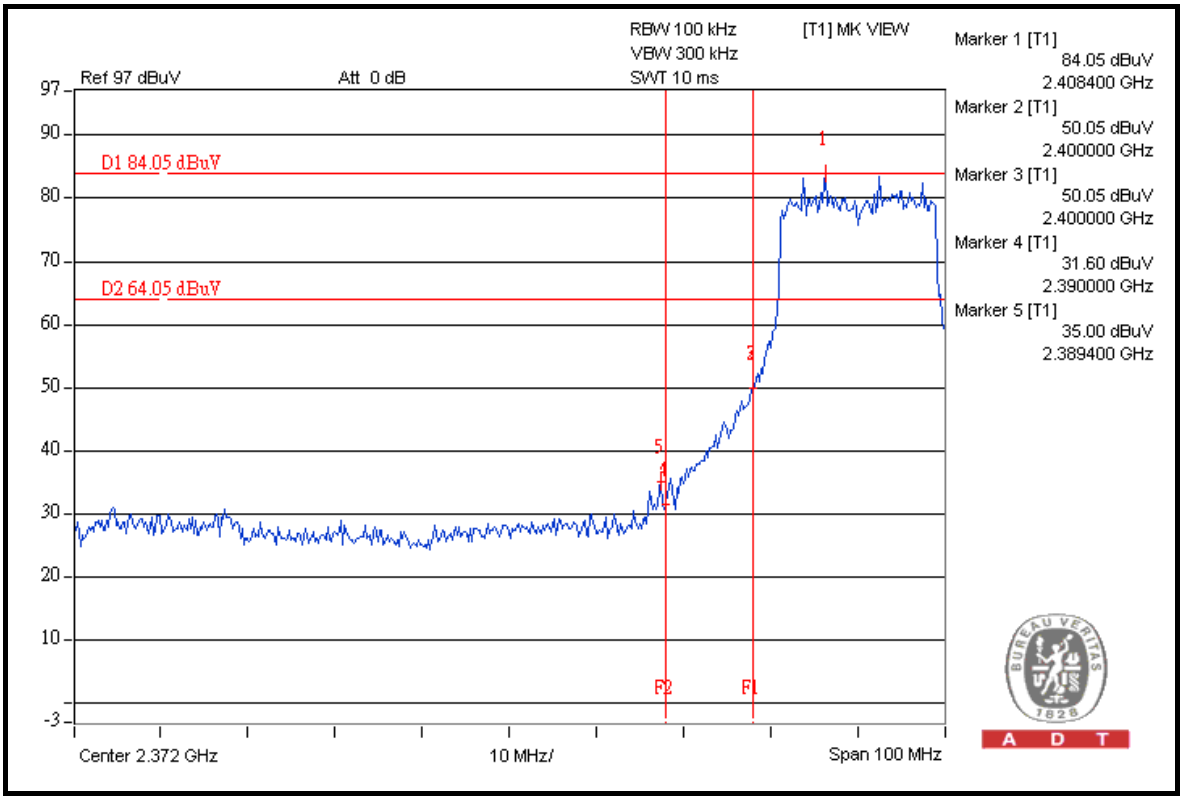
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2412.00 (PK)	110.8	49.05	61.75	74.00
2412.00 (AV)	101.4	48.21	53.19	54.00

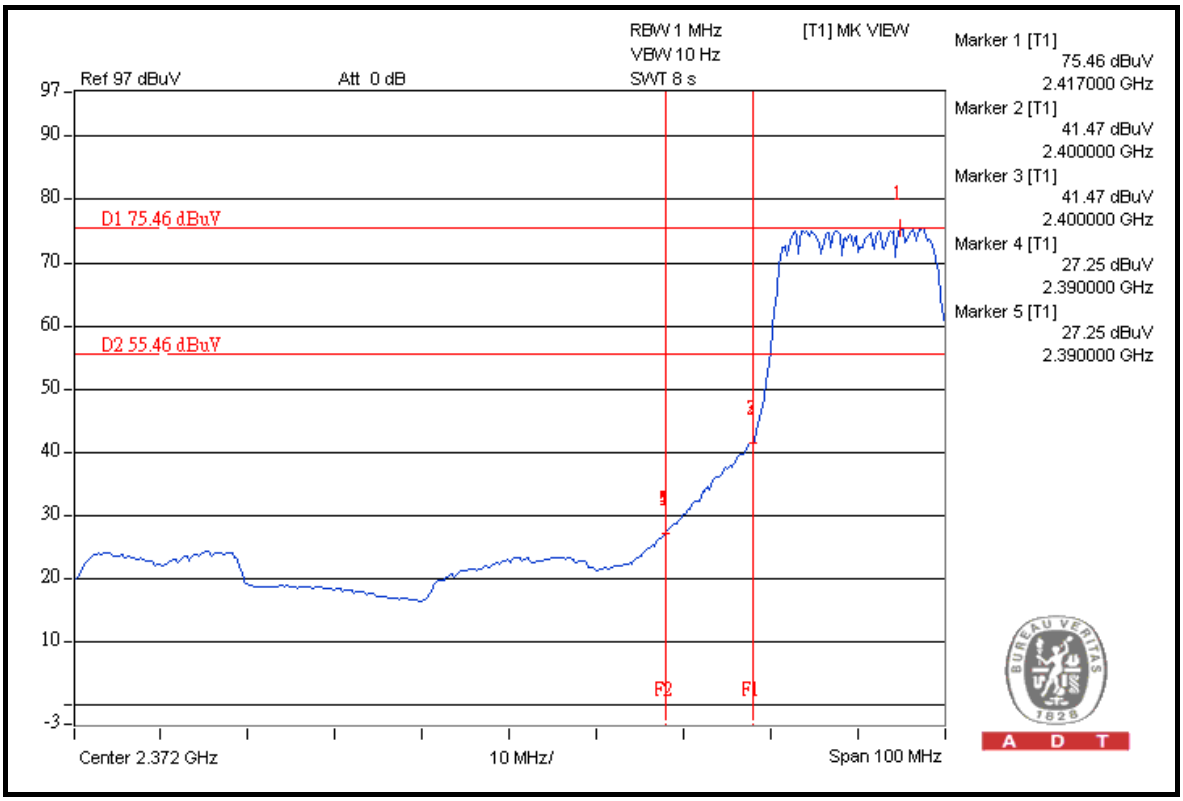
RESTRICT BAND (2483.5 ~ 2500 MHz)

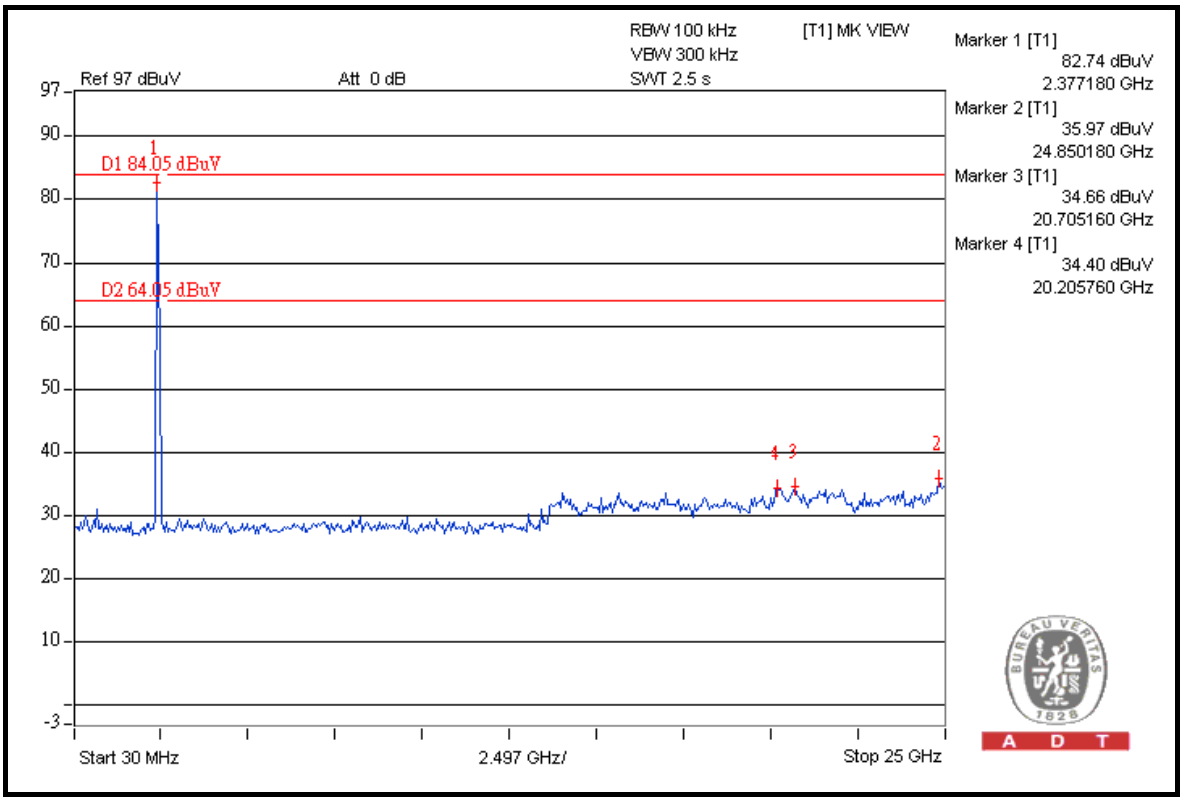
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2462.00 (PK)	108.9	48.79	60.11	74.00
2462.00 (AV)	99.2	47.19	52.01	54.00

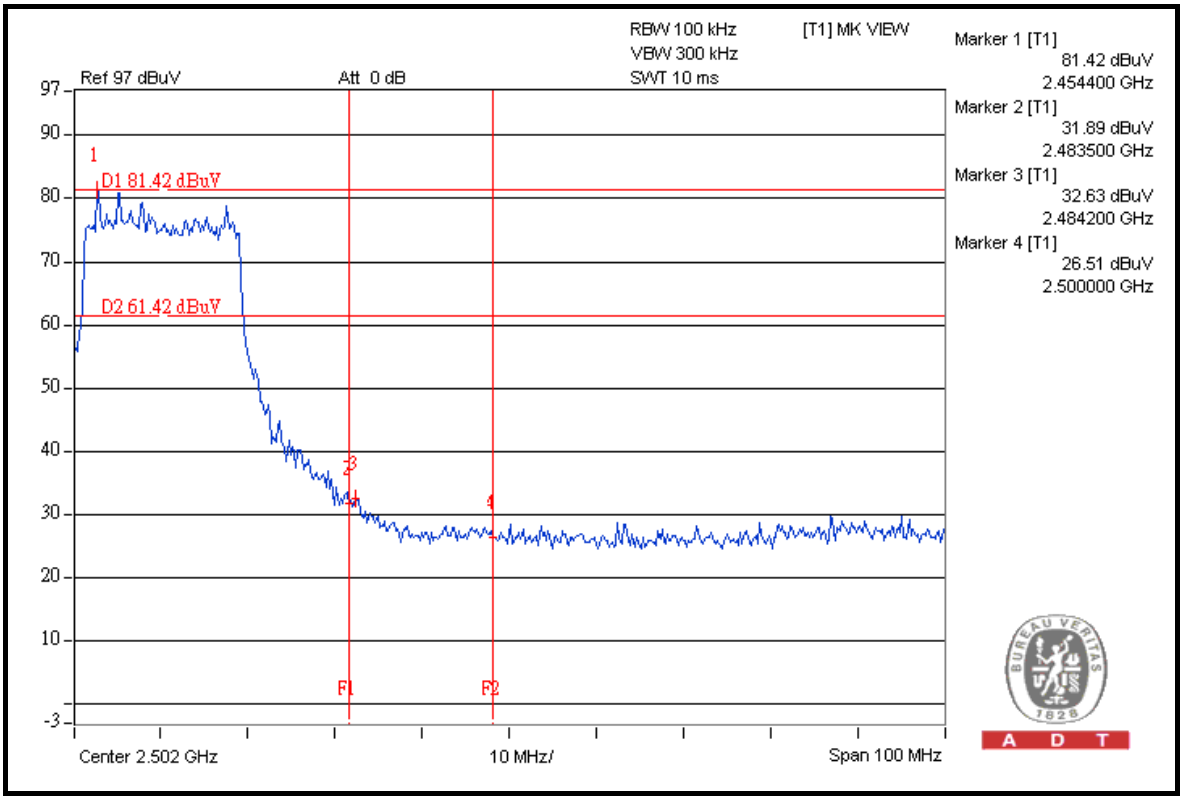
NOTE:

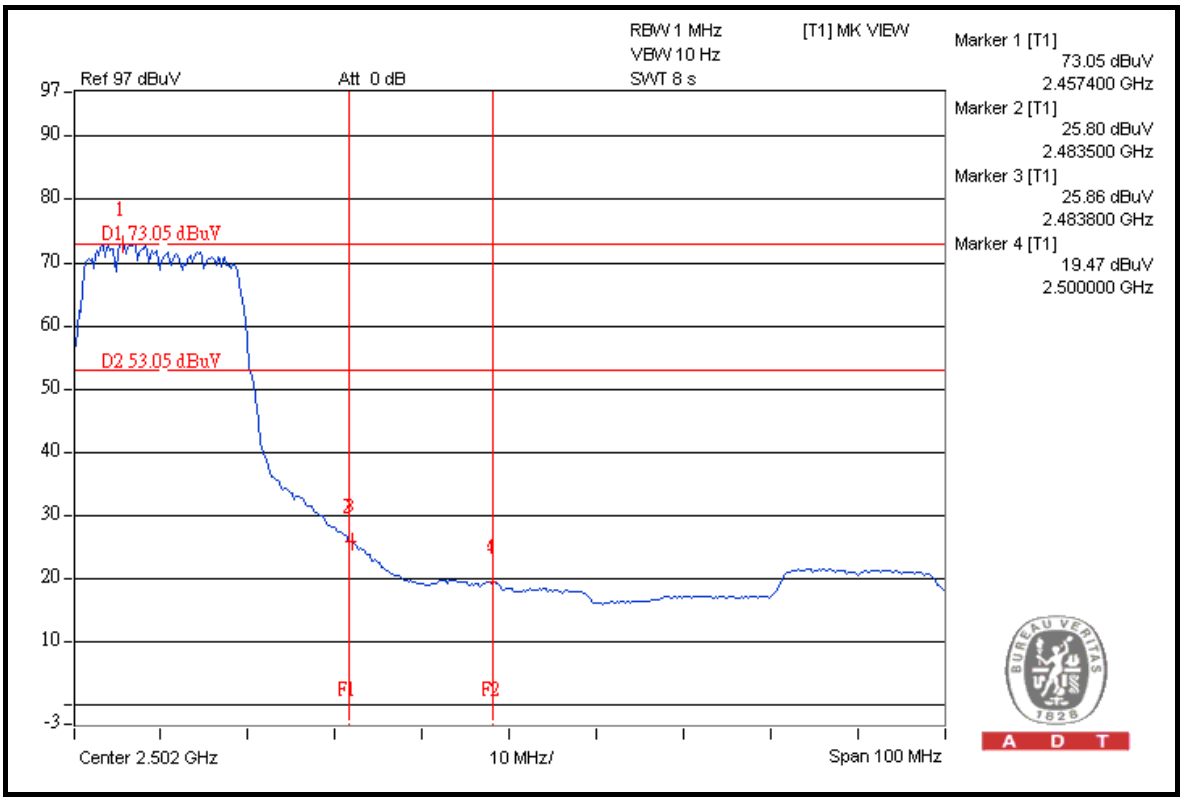
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

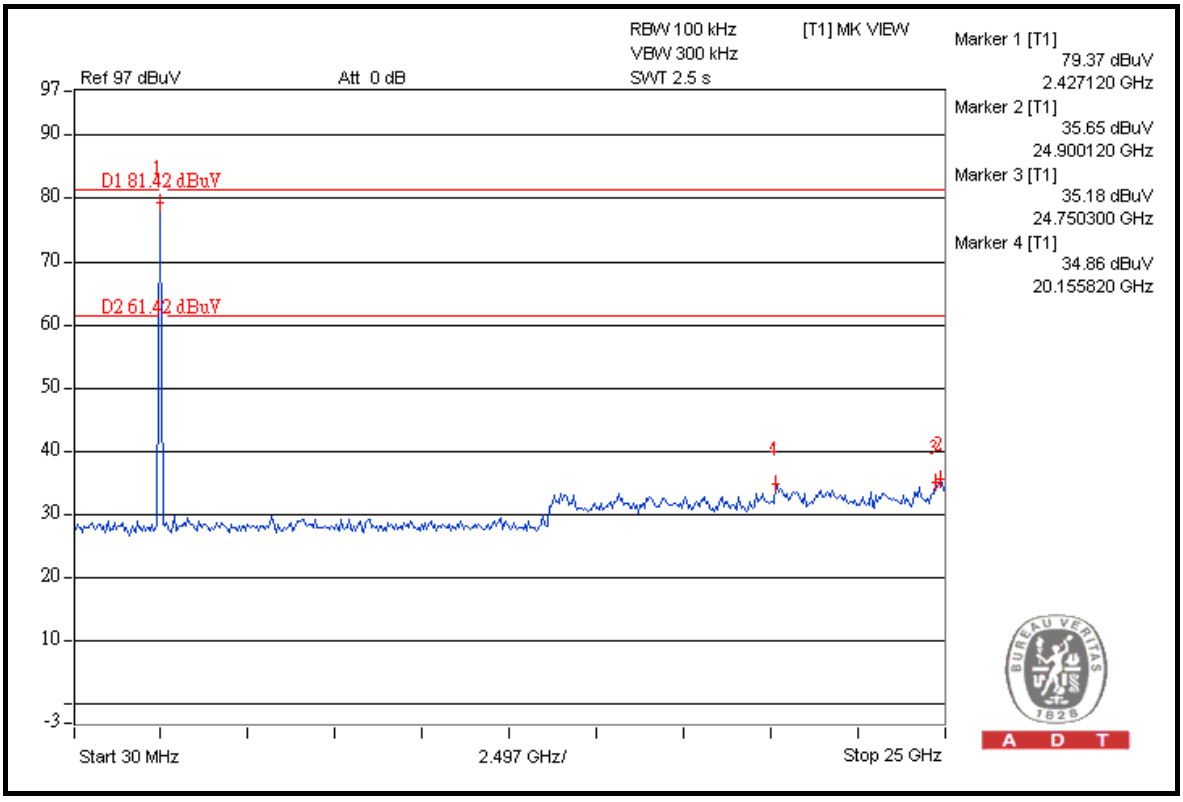

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 84.05 dBuV
D2 64.05 dBuV
Marker 1 [T1]
84.05 dBuV
2.408400 GHz
Marker 2 [T1]
50.05 dBuV
2.400000 GHz
Marker 3 [T1]
50.05 dBuV
2.400000 GHz
Marker 4 [T1]
31.60 dBuV
2.390000 GHz
Marker 5 [T1]
35.00 dBuV
2.389400 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 75.46 dBuV
D2 55.46 dBuV
Marker 1 [T1]
75.46 dBuV
2.417000 GHz
Marker 2 [T1]
41.47 dBuV
2.400000 GHz
Marker 3 [T1]
41.47 dBuV
2.400000 GHz
Marker 4 [T1]
27.25 dBuV
2.390000 GHz
Marker 5 [T1]
27.25 dBuV
2.390000 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 84.05 dBuV
D2 64.05 dBuV
Marker 1 [T1]
82.74 dBuV
2.377180 GHz
Marker 2 [T1]
35.97 dBuV
24.850180 GHz
Marker 3 [T1]
34.66 dBuV
20.705160 GHz
Marker 4 [T1]
34.40 dBuV
20.205760 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz


RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 81.42 dBuV
D2 61.42 dBuV
Marker 1 [T1]
81.42 dBuV
2.454400 GHz
Marker 2 [T1]
31.89 dBuV
2.483500 GHz
Marker 3 [T1]
32.63 dBuV
2.484200 GHz
Marker 4 [T1]
26.51 dBuV
2.500000 GHz
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
73.05 dBuV
2.457400 GHz
Marker 2 [T1]
25.80 dBuV
2.483500 GHz
Marker 3 [T1]
25.86 dBuV
2.483800 GHz
Marker 4 [T1]
19.47 dBuV
2.500000 GHz
D1 73.05 dBuV
D2 53.05 dBuV
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
79.37 dBuV
2.427120 GHz
Marker 2 [T1]
35.65 dBuV
24.900120 GHz
Marker 3 [T1]
35.18 dBuV
24.750300 GHz
Marker 4 [T1]
34.86 dBuV
20.155820 GHz
D1 81.42 dBuV
D2 61.42 dBuV
Start 30 MHz
2.497 GHz/
Stop 25 GHz

802.11n (40MHz)

TEST MODE A

RESTRICT BAND (2310 ~ 2390 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2422.00 (PK)	111.2	42.64	68.56	74.00
2422.00 (AV)	95.3	42.40	52.90	54.00

RESTRICT BAND (2483.5 ~ 2500 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2452.00 (PK)	108.9	42.83	66.07	74.00
2452.00 (AV)	93.6	42.63	50.97	54.00

NOTE:

1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

TEST MODE B

RESTRICT BAND (2310 ~ 2390 MHz)

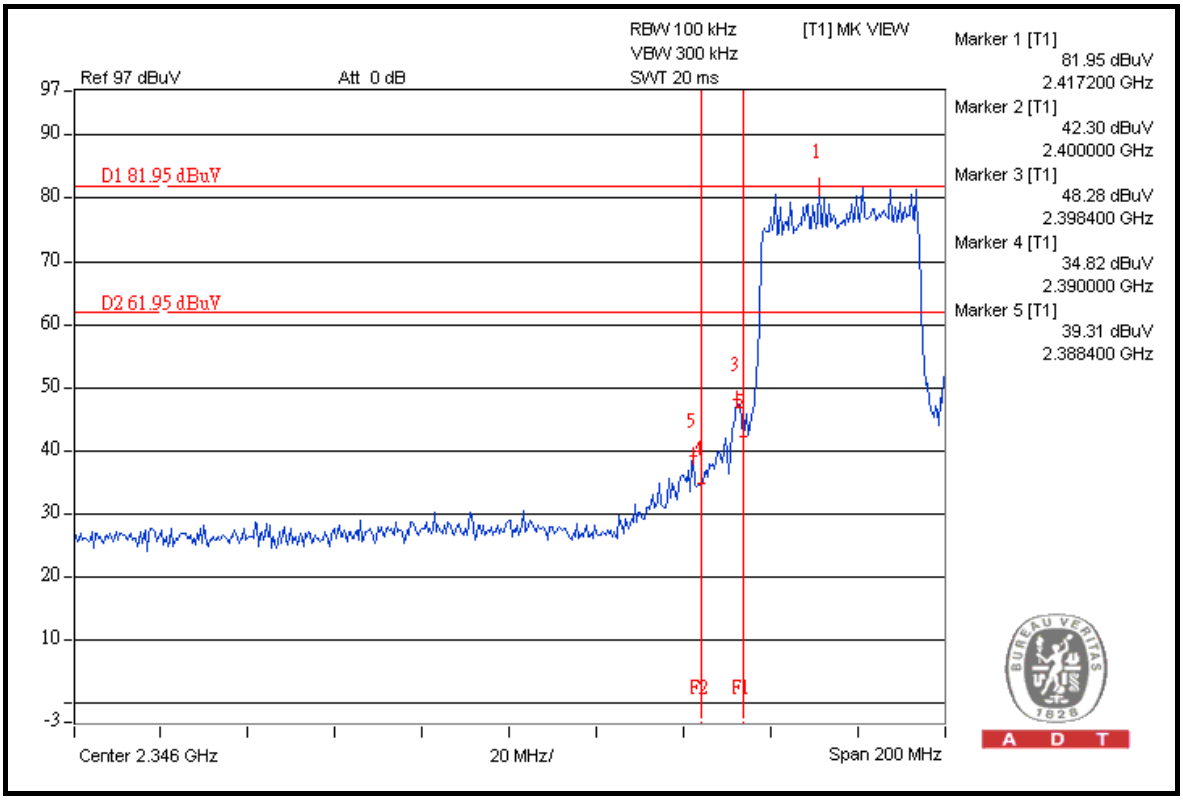
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2422.00 (PK)	106.0	42.64	63.36	74.00
2422.00 (AV)	95.6	42.40	53.20	54.00

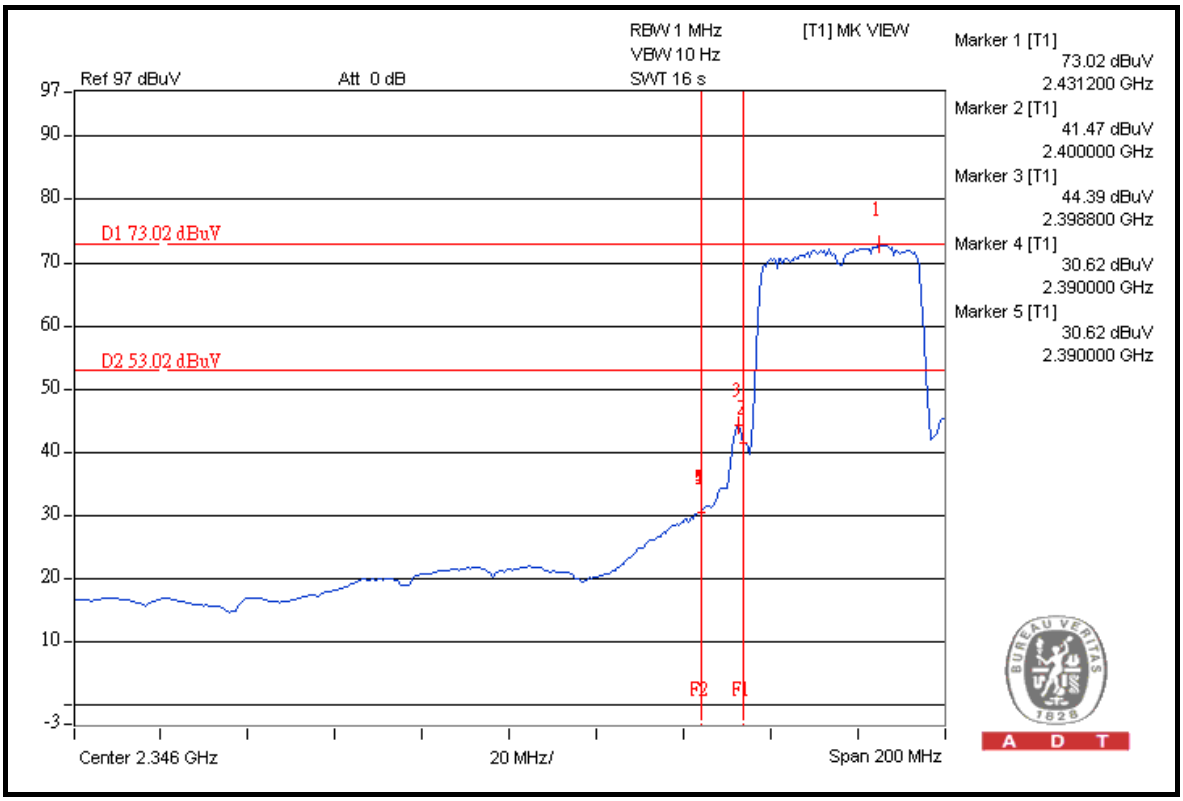
RESTRICT BAND (2483.5 ~ 2500 MHz)

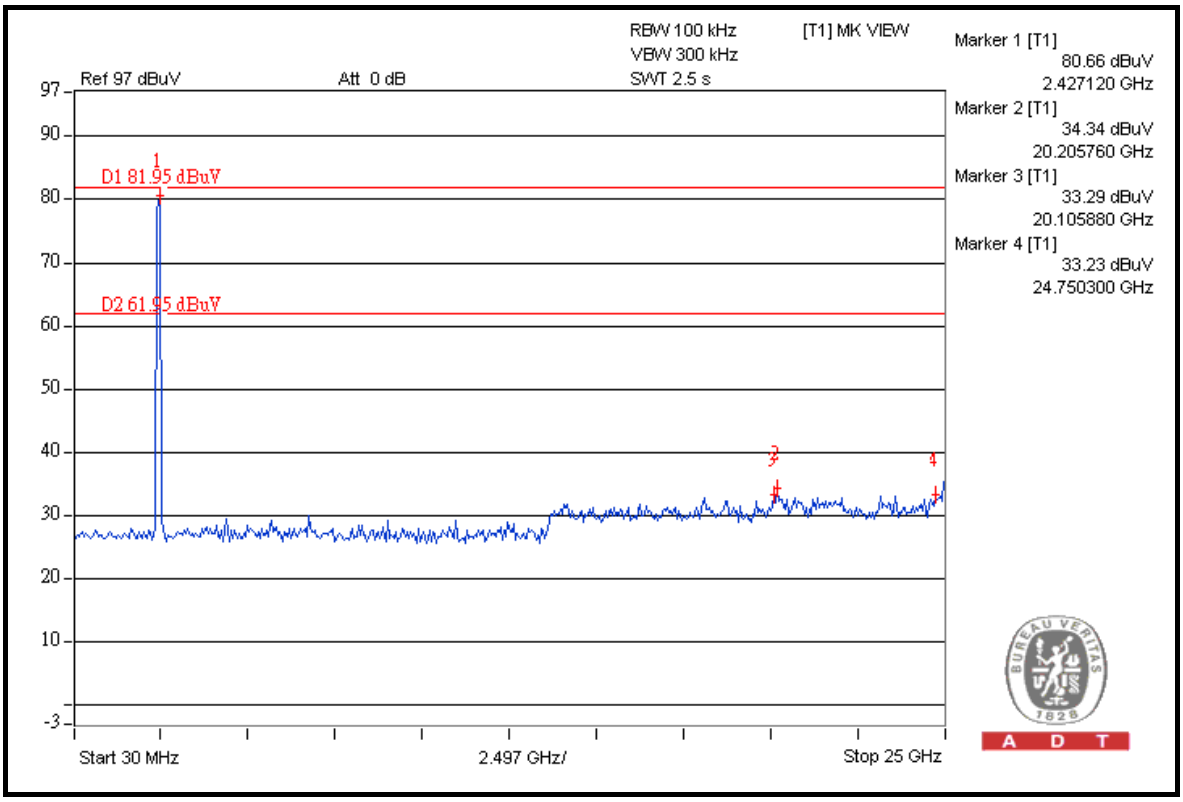
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2452.00 (PK)	104.2	42.83	61.37	74.00
2452.00 (AV)	93.7	42.63	51.07	54.00

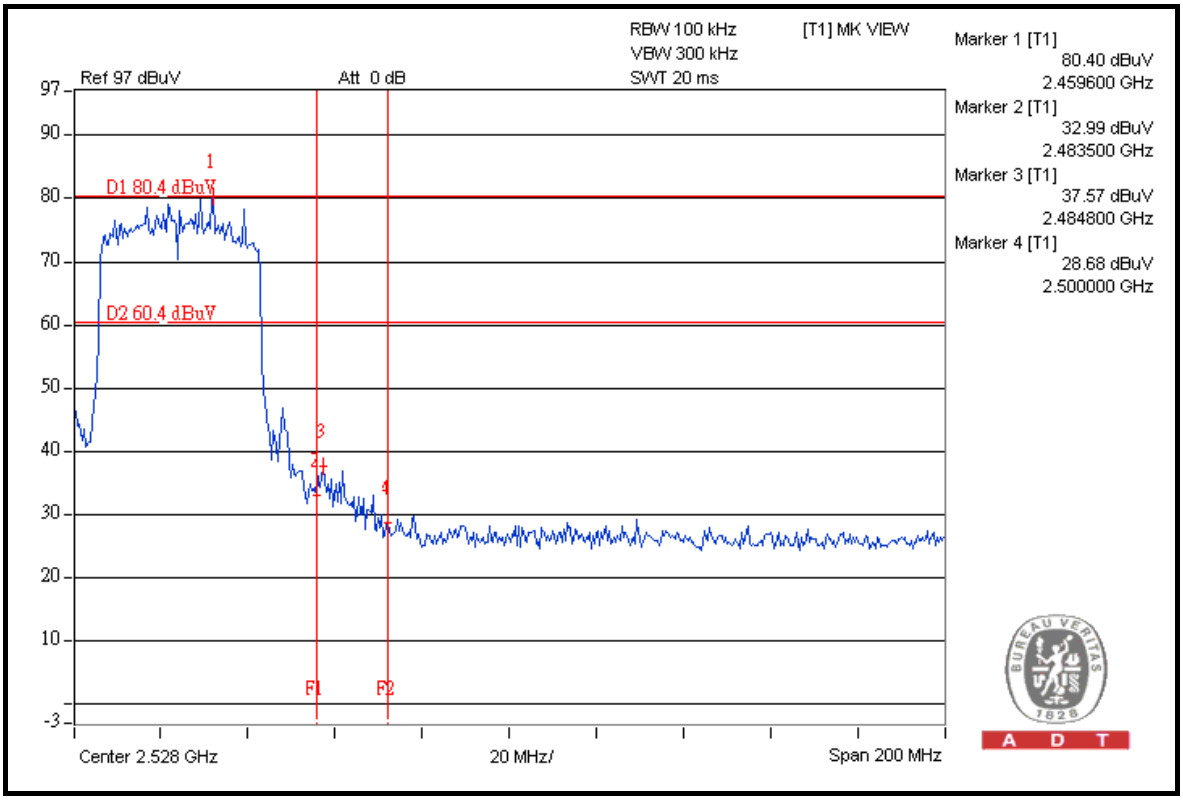
NOTE:

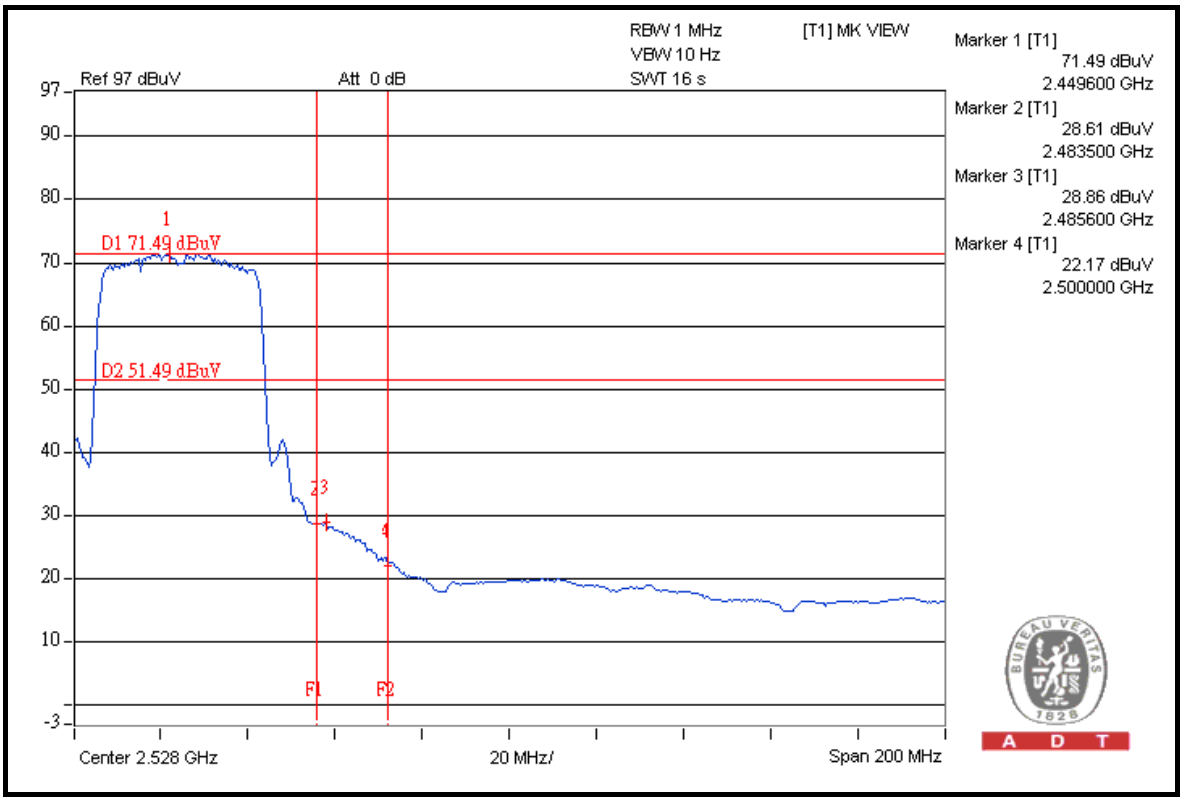
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

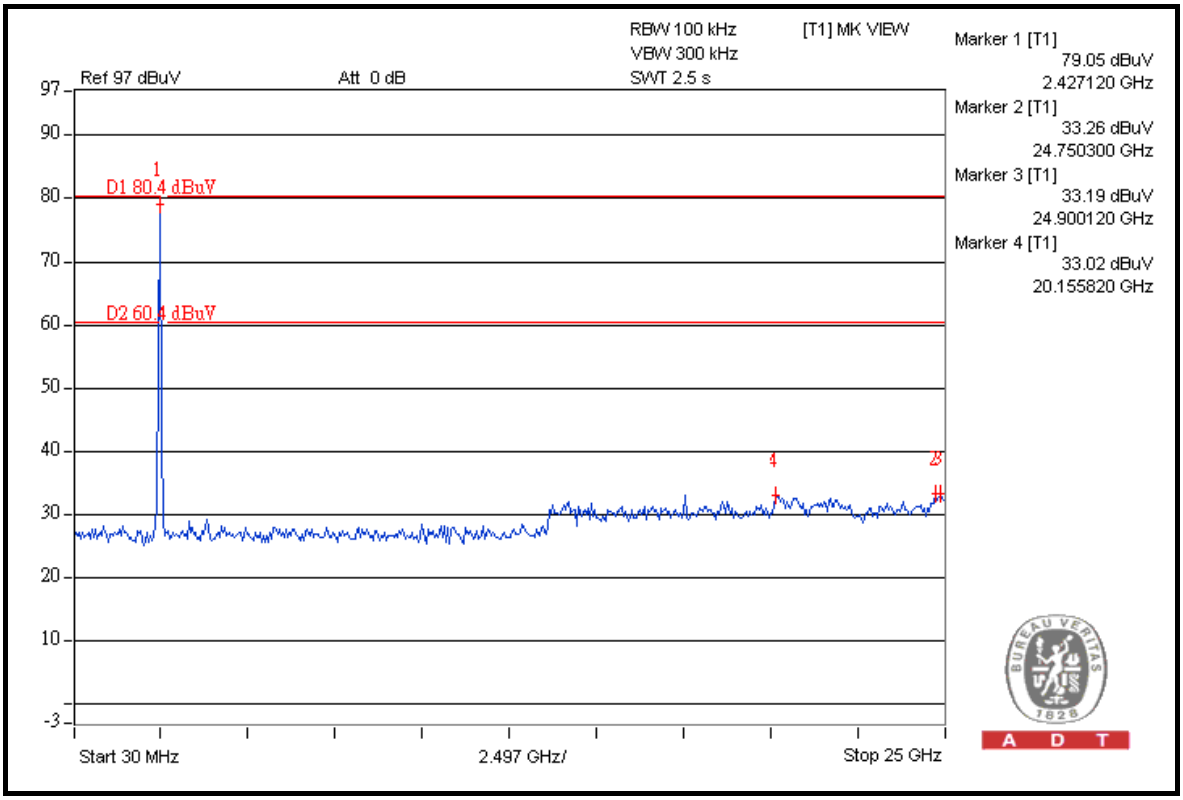

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 81.95 dBuV
D2 61.95 dBuV
Marker 1 [T1]
81.95 dBuV
2.417200 GHz
Marker 2 [T1]
42.30 dBuV
2.400000 GHz
Marker 3 [T1]
48.28 dBuV
2.398400 GHz
Marker 4 [T1]
34.82 dBuV
2.390000 GHz
Marker 5 [T1]
39.31 dBuV
2.388400 GHz
Center 2.346 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 73.02 dBuV
D2 53.02 dBuV
Marker 1 [T1]
73.02 dBuV
2.431200 GHz
Marker 2 [T1]
41.47 dBuV
2.400000 GHz
Marker 3 [T1]
44.39 dBuV
2.398800 GHz
Marker 4 [T1]
30.62 dBuV
2.390000 GHz
Marker 5 [T1]
30.62 dBuV
2.390000 GHz
Center 2.346 GHz
20 MHz/
Span 200 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 81.95 dBuV
D2 61.95 dBuV
Marker 1 [T1]
80.66 dBuV
2.427120 GHz
Marker 2 [T1]
34.34 dBuV
20.205760 GHz
Marker 3 [T1]
33.29 dBuV
20.105880 GHz
Marker 4 [T1]
33.23 dBuV
24.750300 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz


RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 80.4 dBuV
D2 60.4 dBuV
Marker 1 [T1]
80.40 dBuV
2.459600 GHz
Marker 2 [T1]
32.99 dBuV
2.483500 GHz
Marker 3 [T1]
37.57 dBuV
2.484800 GHz
Marker 4 [T1]
28.68 dBuV
2.500000 GHz
F1
F2
Center 2.528 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
71.49 dBuV
2.449600 GHz
Marker 2 [T1]
28.61 dBuV
2.483500 GHz
Marker 3 [T1]
28.86 dBuV
2.485600 GHz
Marker 4 [T1]
22.17 dBuV
2.500000 GHz
D1 71.49 dBuV
D2 51.49 dBuV
97
90
80
70
60
50
40
30
20
10
-3
F1
F2
Center 2.528 GHz
20 MHz/
Span 200 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
79.05 dBuV
2.427120 GHz
Marker 2 [T1]
33.26 dBuV
24.750300 GHz
Marker 3 [T1]
33.19 dBuV
24.900120 GHz
Marker 4 [T1]
33.02 dBuV
20.155820 GHz
D1 80.4 dBuV
D2 60.4 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Start 30 MHz
2.497 GHz/
Stop 25 GHz

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 according to ISO/IEC 17025.

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---