FCC TEST REPORT

REPORT NO.:	RF120516C16B R1
MODEL NO.:	TL-WR843ND
FCC ID:	TE7WR843ND
RECEIVED:	Oct. 24, 2012
TESTED:	Oct. 25 to Nov. 29, 2012
ISSUED:	Jan. 21, 2013
APPLICANT:	TP-LINK TECHNOLOGIES CO., LTD.
ADDRESS:	Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park,Shennan Rd, Nanshan, Shenzhen,China
ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
LAB ADDRESS :	No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan, R.O.C.
TEST LOCATION (1):	No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan, R.O.C.
TEST LOCATION (2):	No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan, R.O.C.

This report should not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF120516C16B	Original release	Dec. 20, 2012
RF120516C16B R1	Modified section 4.5.7 for typing error.	Jan. 21, 2013

1. CERTIFICATION

PRODUCT:	300Mbps Wireless AP/Client Router
BRAND NAME:	TP-LINK
MODEL NO.:	TL-WR843ND
TEST SAMPLE:	PROTOTYPE
APPLICANT:	TP-LINK TECHNOLOGIES CO., LTD.
TESTED:	Oct. 25 to Nov. 29, 2012
STANDARDS:	**FCC Part 15, Subpart C (Section 15.247)** ANSI C63.10-2009

The above equipment (Model: TL-WR843ND) 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:** *Jan. 21, 2013*
(Elsie Hsu, Specialist)

APPROVED BY : _____ , **DATE:** *Jan. 21, 2013*
(May Chen, Deputy 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**	**RESULT**	**REMARK**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -7.88dB at 2.33594MHz
15.247(d) 15.209	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.5dB at 2390.00MHz, 2483.50MHz & 4874.00MHz,
15.247(d)	Band Edge Measurement	PASS	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	PASS	Meet the requirement of limit.
15.247(b)	Conducted power	PASS	Meet the requirement of limit.
15.247(e)	Power Spectral Density	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is **SMA Male Reverse** not a standard connector.

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:

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

Measurement	Value
Conducted emissions	2.98 dB
Radiated emissions (30MHz-1GHz)	5.59 dB
Radiated emissions (1GHz -6GHz)	3.84 dB
Radiated emissions (6GHz -18GHz)	2.49 dB
Radiated emissions (18GHz -40GHz)	2.70 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	300Mbps Wireless AP/Client Router
MODEL NO.	TL-WR843ND
POWER SUPPLY	DC 9V from power adapter
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b: Up to 11Mbps 802.11g: Up to 54Mbps 802.11n: Up to 300Mbps
OPERATING FREQUENCY	2.412 ~ 2.462GHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, 802.11n HT20 7 for 802.11n (HT40)
MAXIMUM OUTPUT POWER	802.11b: 84.345mW 802.11g: 583.524mW 802.11n (HT20): 453.199mW 802.11n (HT40): 332.005mW
ANTENNA TYPE	Please see NOTE
DATA CABLE	NA
I/O PORTS	Refer to user's manual
ASSOCIATED DEVICES	Adapter × 1

NOTE:

1. The antennas provided to the EUT, please refer to the following table:

Transmitter Circuit	Brand	Model	Antenna Type	Antenna Gain (dBi) Without cable loss	Antenna cable loss(dB)	Antenna Net Gain (dBi)	Cable Length (mm)	Frequency range (MHz to MHz)	Connector
Chain (0)	Cortec	AN2400-9224RS	linear vertical	5	0.7	4.3	110	2400~2500	SMA Male Reverse
Chain (1)	Cortec	AN2400-9224RS	linear vertical	5	0.9	4.1	190	2400~2500	SMA Male Reverse

2. The EUT must be supplied with power adapter as following table:

Brand	Model No.	Spec.
TP-LINK	T090085-2B1	Input: 100-240V~50/60Hz, 0.3A Output: 9V/ 0.85A

3. The EUT incorporates a MIMO function without beam forming.

MODULATION MODE	Tx/Rx FUNCTION
802.11b	2Tx/2Rx
802.11g	2Tx/2Rx
802.11n (HT20)	2Tx/2Rx
802.11n (HT40)	2Tx/2Rx

4. When the EUT operating in 802.11n, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 15.

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

3.2 DESCRIPTION OF TEST MODES

Eleven channels are provided for 802.11b, 802.11g, 802.11n (HT20):

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

Seven channels are provided for 802.11n (HT40):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
3	2422MHz	7	2442MHz
4	2427MHz	8	2447MHz
5	2432MHz	9	2452MHz
6	2437MHz		

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO					DESCRIPTION
	PLC	RE < 1G	RE ³ 1G	APCM	OB	
-	√	√	√	√	√	-

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

RE ³ 1G: Radiated Emission above 1GHz **APCM:** Antenna Port Conducted Measurement

OB: Conducted Out-Band Emission Measurement

NOTE: The EUT had been pre-tested on the positioned of each 2 axis. The worst case was found when positioned on **Y-plane.**

POWER LINE CONDUCTED EMISSION TEST:

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11g	1 to 11	6	OFDM	BPSK	6

RADIATED EMISSION TEST (BELOW 1 GHz):

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11g	1 to 11	6	OFDM	BPSK	6

RADIATED EMISSION TEST (ABOVE 1 GHz):

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	13
802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	27

ANTENNA PORT CONDUCTED MEASUREMENT:

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	13
802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	27

CONDUCTED OUT-BAND EMISSION MEASUREMENT:

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	13
802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	27

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
PLC	25deg. C, 70%RH	120Vac, 60Hz	Mike Hsieh
RE<1G	22deg. C, 75%RH	120Vac, 60Hz	Amos Chuang
RE≥1G	25deg. C, 76%RH 24deg. C, 61%RH	120Vac, 60Hz	Evan Huang
APCM	25deg. C, 60%RH	120Vac, 60Hz	Rex Huang
OB	25deg. C, 60%RH	120Vac, 60Hz	Rex Huang

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)
558074 D01 DTS Meas Guidance
662911 D01 Multiple Transmitter Output
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

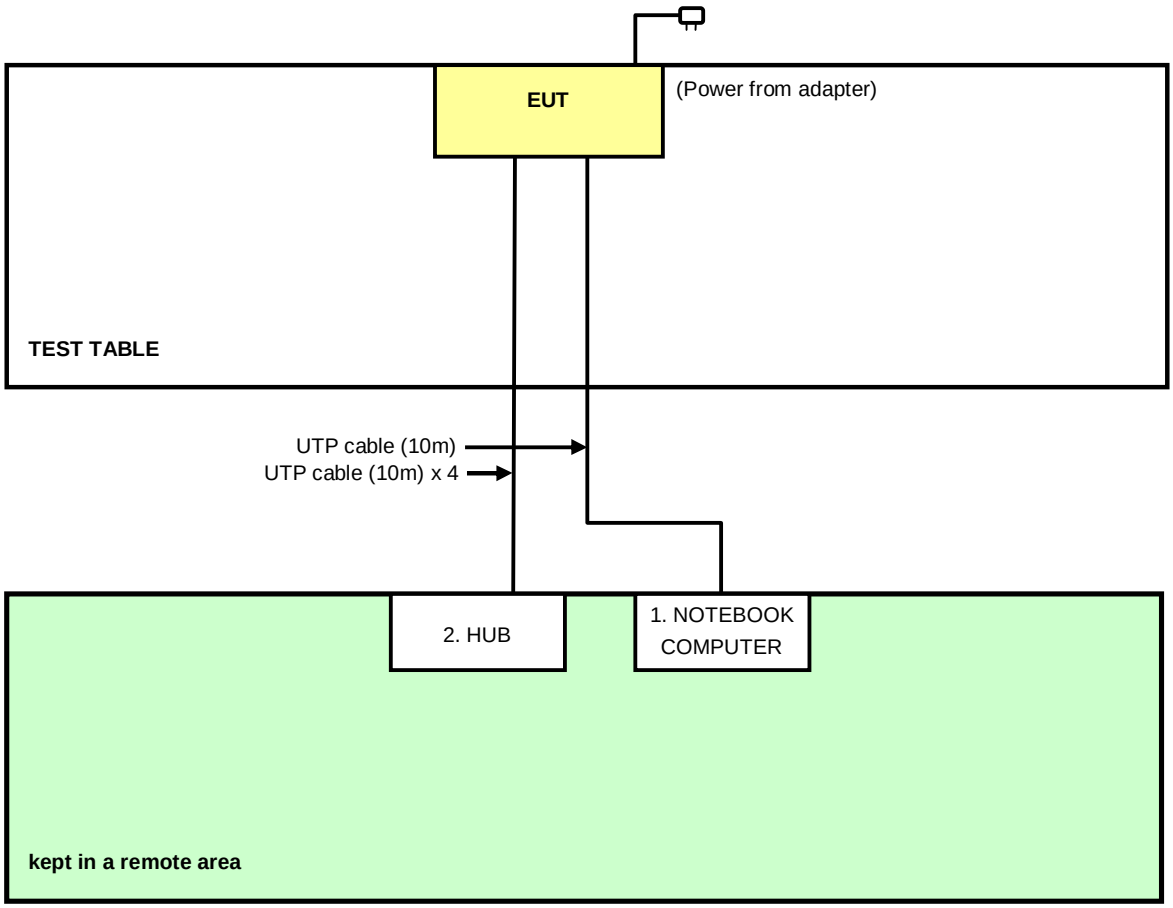
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP32LA	GSLB32S	FCC DoC
2	HUB	ZyXEL	ES-116P	S060H02000215	FCC DoC

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

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

3.5 CONFIGURATION OF SYSTEM UNDER TEST



4. TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

NOTE: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver	ESCS 30	100375	Mar. 12, 2012	Mar.11, 2013
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	NSLK8127	8127-522	Sep. 06, 2012	Sep. 05, 2013
Line-Impedance Stabilization Network (for Peripheral)	ENV216	100072	June 08,2012	June 07,2013
RF Cable (JYEBAO)	5DFB	COCCAB-001	Aug. 28, 2012	Aug. 27, 2013
50 ohms Terminator	50	EMC-3	Sep. 25, 2012	Sep. 24, 2013
Software ADT	BV ADT_Cond_V7.3.7.3	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 Shielded Room No. C.
3 The VCCI Con C Registration No. is C-3611.
4. Tested Date: Oct. 25, 2012

4.1.3 TEST PROCEDURES

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

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

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

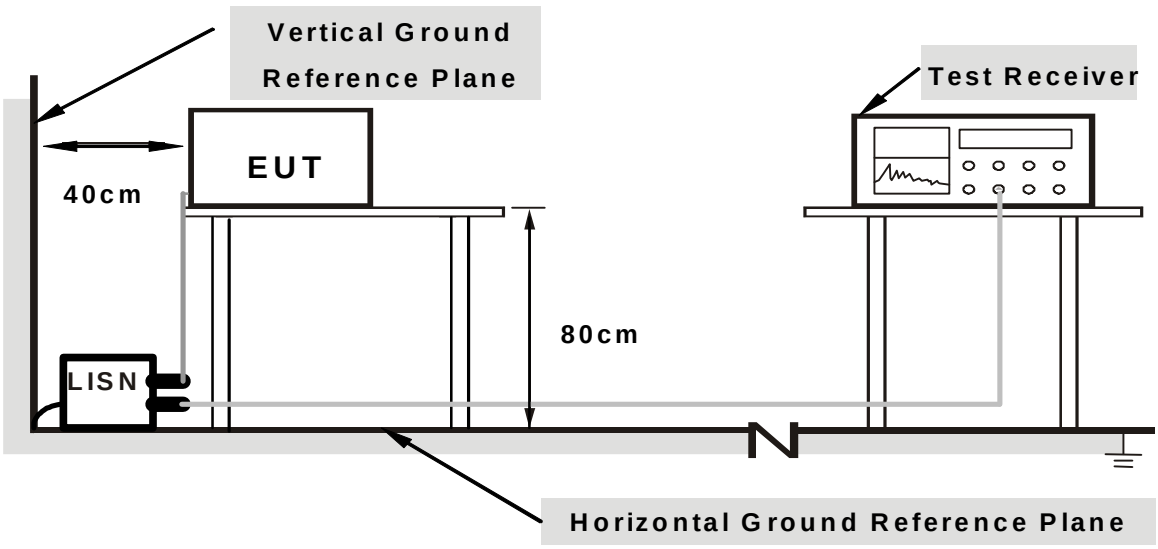
NOTE:

1. The resolution bandwidth of test receiver is 9kHz for Quasi-peak detection (QP) & Average detection (AV).

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.1.6 EUT OPERATING CONDITIONS

1. Turn on the power of EUT.
2. The communication partner run test program “artgui.exe [ART 2.18]” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

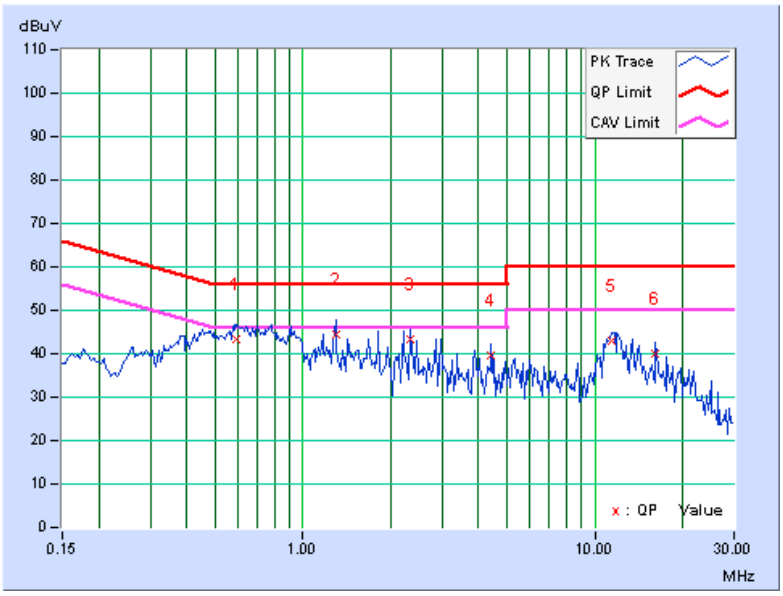
4.1.7 TEST RESULTS

PHASE	Line (L)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.59531	0.17	43.22	34.36	43.39	34.53	56.00	46.00	-12.61	-11.47
2	1.29688	0.20	44.16	37.24	44.36	37.44	56.00	46.00	-11.64	-8.56
3	**2.33594**	**0.24**	**43.20**	**37.88**	**43.44**	**38.12**	**56.00**	**46.00**	**-12.56**	**-7.88**
4	4.41406	0.29	39.50	31.08	39.79	31.37	56.00	46.00	-16.21	-14.63
5	11.41797	0.61	42.44	35.78	43.05	36.39	60.00	50.00	-16.95	-13.61
6	16.16797	0.78	39.08	35.52	39.86	36.30	60.00	50.00	-20.14	-13.70

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

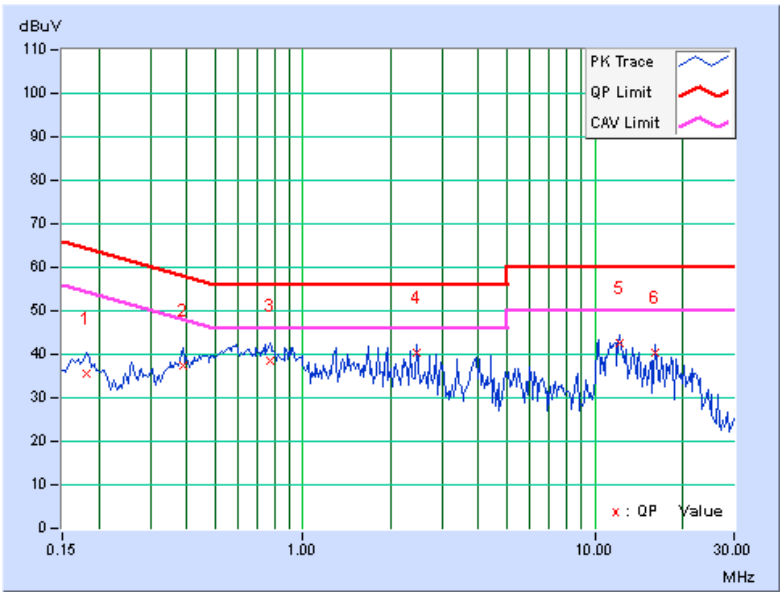


PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.18125	0.09	35.60	26.52	35.69	26.61	64.43	54.43	-28.73	-27.81
2	0.38828	0.15	37.16	27.76	37.31	27.91	58.10	48.10	-20.79	-20.19
3	0.77500	0.16	38.40	29.28	38.56	29.44	56.00	46.00	-17.44	-16.56
4	2.46484	0.22	40.18	32.46	40.40	32.68	56.00	46.00	-15.60	-13.32
5	12.19922	0.46	42.22	34.64	42.68	35.10	60.00	50.00	-17.32	-14.90
6	16.16797	0.54	39.70	35.00	40.24	35.54	60.00	50.00	-19.76	-14.46

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.



4.2 RADIATED EMISSION AND BANDEDGE MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

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. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.2.2 TEST INSTRUMENTS

For Below 1GHz test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer Agilent	E4446A	MY48250253	Sep. 03, 2012	Sep. 02, 2013
Pre-Selector Agilent	N9039A	MY46520310	Sep. 03, 2012	Sep. 02, 2013
Signal Generator Agilent	N5181A	MY49060347	July 24, 2012	July 23, 2013
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-04	Nov. 15, 2011	Nov. 14, 2012
Pre-Amplifier Agilent	8449B	3008A02465	Feb. 27, 2012	Feb. 26, 2013
SPACEK LABS	SLKKa-48-6	9K16	Nov. 15, 2011	Nov. 14, 2012
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Apr. 06, 2012	Apr. 05, 2013
Horn_Antenna AISI	AIH.8018	0000220091110	Nov. 23, 2011	Nov. 22, 2012
Horn_Antenna SCHWARZBECK	BBHA 9170	9170-424	Oct. 12, 2012	Oct. 11, 2013
RF Cable	NA	RF104-205 RF104-207 RF104-202	Dec. 27, 2011	Dec. 26, 2012
RF Cable	NA	CHHCAB_001	Oct. 07, 2012	Oct. 06, 2013
Software	ADT_Radiated_V8.7.05	NA	NA	NA
Antenna Tower & Turn Table CT	NA	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 horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3 The test was performed in 966 Chamber No. H.
4. The FCC Site Registration No. is 797305.
5 The CANADA Site Registration No. is IC 7450H-3.
6 Tested Date: Nov. 06, 2012

For Above 1GHz test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY51210202	Dec. 19, 2011	Dec. 18, 2012
Spectrum Analyzer Agilent PSA	E4446A	MY48250113	Nov. 30 , 2011	Nov. 29 , 2012
Pre_Amplifier HP	8449B	300801923	Oct. 30, 2012	Oct. 29, 2013
Test Receiver ROHDE & SCHWARZ	ESCS30	847124/029	Sep. 07, 2012	Sep. 03, 2013
TRILOG Broadband Antenna SCHWARZBECK	VULB 9168	138	Apr. 02, 2012	Apr. 01, 2013
Horn_Antenna SCHWARZBECK	BBHA9120	D124	Dec. 16, 2011	Dec. 15, 2012
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170153	Jan. 17, 2012	Jan. 16, 2013
RF Switches	EMH-011	1001	Sep. 23, 2012	Sep. 22, 2013
RF Cable (Chaintek)	Sucoflex 106	RF106-102	Jan. 19, 2012	Jan. 18, 2013
RF Cable	8DFB	STCCAB-30M -1GHz	Sep. 23, 2012	Sep. 22, 2013
Software	ADT_Radiated _V7.6.15.9.2	NA	NA	NA
Antenna Tower & Turn Table CT	NA	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 horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3 The test was performed in Open Site No. C.
4. The FCC Site Registration No. is 656396.
5 The VCCI Site Registration No. is R-1626.
6 The CANADA Site Registration No. is IC 7450G-3.
7 Tested Date: Nov. 10 to 29, 2012

4.2.3 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter 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 height of antenna 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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

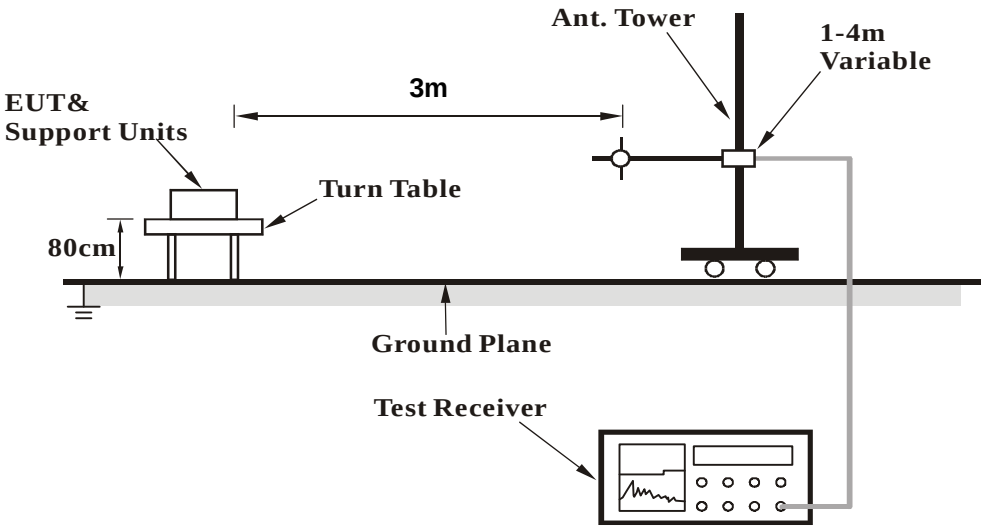
NOTE:

2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.
5. 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



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6

4.2.7 TEST RESULTS

BELOW 1GHz WORST-CASE DATA

802.11g

CHANNEL	TX Channel 6	**DETECTOR FUNCTION**	Quasi-Peak (QP)
FREQUENCY RANGE	Below 1GHz		

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	141.20	30.2 QP	43.5	-13.3	2.00 H	90	16.00	14.21
2	250.03	35.7 QP	46.0	-10.3	1.00 H	335	22.36	13.30
3	374.97	37.6 QP	46.0	-8.4	1.00 H	43	20.43	17.15
4	500.02	36.8 QP	46.0	-9.3	1.50 H	41	16.65	20.10
5	599.97	37.8 QP	46.0	-8.2	1.50 H	0	15.57	22.26
6	799.98	37.5 QP	46.0	-8.5	1.00 H	154	11.86	25.68
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	64.82	35.3 QP	40.0	-4.8	1.50 V	360	22.35	12.90
2	312.79	37.2 QP	46.0	-8.8	2.00 V	0	21.55	15.62
3	374.97	38.3 QP	46.0	-7.7	1.50 V	360	21.17	17.15
4	500.02	34.1 QP	46.0	-11.9	1.00 V	205	14.02	20.10
5	624.96	35.1 QP	46.0	-10.9	1.00 V	95	12.45	22.61
6	940.67	41.3 QP	46.0	-4.7	1.00 V	334	13.44	27.82

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.

ABOVE 1GHz DATA

802.11b

CHANNEL	TX Channel 1	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	2390.00	57.3 PK	74.0	-16.7	1.00 H	330	24.92	32.38
2	2390.00	44.4 AV	54.0	-9.6	1.00 H	330	12.02	32.38
3	*2412.00	97.7 PK			1.00 H	330	65.26	32.44
4	*2412.00	95.2 AV			1.00 H	330	62.76	32.44
5	4824.00	53.4 PK	74.0	-20.6	1.41 H	228	11.46	41.94
6	4824.00	53.1 AV	54.0	-0.9	1.41 H	228	11.16	41.94
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	2364.67	59.9 PK	74.0	-14.1	1.00 V	211	27.60	32.30
2	2364.67	50.0 AV	54.0	-4.0	1.00 V	211	17.70	32.30
3	*2412.00	109.3 PK			1.00 V	211	76.86	32.44
4	*2412.00	107.0 AV			1.00 V	211	74.56	32.44
5	4824.00	53.0 PK	74.0	-21.0	1.02 V	151	11.06	41.94
6	4824.00	44.6 AV	54.0	-9.4	1.02 V	151	2.66	41.94

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	97.2 PK			1.00 H	329	64.69	32.51
2	*2437.00	94.8 AV			1.00 H	329	62.29	32.51
3	4874.00	55.3 PK	74.0	-18.7	1.39 H	222	13.31	41.99
4	**4874.00**	**53.5 AV**	**54.0**	**-0.5**	**1.39 H**	**222**	**11.51**	**41.99**
5	7311.00	55.6 PK	74.0	-18.4	1.43 H	304	9.07	46.53
6	7311.00	44.5 AV	54.0	-9.5	1.43 H	304	-2.03	46.53
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	109.3 PK			1.00 V	232	76.79	32.51
2	*2437.00	106.7 AV			1.00 V	232	74.19	32.51
3	4874.00	50.0 PK	74.0	-24.0	1.21 V	167	8.01	41.99
4	4874.00	44.0 AV	54.0	-10.0	1.21 V	167	2.01	41.99
5	7311.00	56.9 PK	74.0	-17.1	1.08 V	262	10.37	46.53
6	7311.00	45.4 AV	54.0	-8.6	1.08 V	262	-1.13	46.53

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.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	97.4 PK			1.00 H	318	64.83	32.57
2	*2462.00	95.0 AV			1.00 H	318	62.43	32.57
3	2483.50	57.7 PK	74.0	-16.3	1.00 H	318	25.07	32.63
4	2483.50	44.7 AV	54.0	-9.3	1.00 H	318	12.07	32.63
5	4924.00	55.2 PK	74.0	-18.8	1.38 H	225	13.19	42.01
6	4924.00	52.8 AV	54.0	-1.2	1.38 H	225	10.79	42.01
7	7386.00	55.7 PK	74.0	-18.3	1.38 H	295	8.97	46.73
8	7386.00	44.6 AV	54.0	-9.4	1.38 H	295	-2.13	46.73
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	108.8 PK			1.00 V	223	76.23	32.57
2	*2462.00	106.4 AV			1.00 V	223	73.83	32.57
3	2483.50	59.5 PK	74.0	-14.5	1.00 V	223	26.87	32.63
4	2483.50	49.6 AV	54.0	-4.4	1.00 V	223	16.97	32.63
5	4924.00	50.1 PK	74.0	-23.9	1.19 V	154	8.09	42.01
6	4924.00	43.8 AV	54.0	-10.2	1.19 V	154	1.79	42.01
7	7386.00	56.7 PK	74.0	-17.3	1.08 V	269	9.97	46.73
8	7386.00	45.0 AV	54.0	-9.0	1.08 V	269	-1.73	46.73

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

CHANNEL	TX Channel 1	**DETECTOR FUNCTION**	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	56.8 PK	74.0	-17.2	1.06 H	323	24.42	32.38
2	2390.00	45.7 AV	54.0	-8.3	1.06 H	323	13.32	32.38
3	*2412.00	98.8 PK			1.06 H	323	66.36	32.44
4	*2412.00	89.2 AV			1.06 H	323	56.76	32.44
5	4824.00	50.6 PK	74.0	-23.4	1.12 H	154	8.66	41.94
6	4824.00	37.4 AV	54.0	-16.6	1.12 H	154	-4.54	41.94
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	2390.00	67.3 PK	74.0	-6.7	1.18 V	135	34.92	32.38
2	**2390.00**	**53.5 AV**	**54.0**	**-0.5**	**1.18 V**	**135**	**21.12**	**32.38**
3	*2412.00	109.7 PK			1.00 V	194	77.26	32.44
4	*2412.00	100.6 AV			1.00 V	194	68.16	32.44
5	4824.00	50.0 PK	74.0	-24.0	1.27 V	159	8.06	41.94
6	4824.00	37.3 AV	54.0	-16.7	1.27 V	159	-4.64	41.94

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	55.3 PK	74.0	-18.7	1.00 H	317	22.92	32.38
2	2390.00	44.9 AV	54.0	-9.1	1.00 H	317	12.52	32.38
3	*2437.00	101.3 PK			1.00 H	317	68.79	32.51
4	*2437.00	93.1 AV			1.00 H	317	60.59	32.51
5	4874.00	54.6 PK	74.0	-19.4	1.06 H	316	12.61	41.99
6	4874.00	42.5 AV	54.0	-11.5	1.06 H	316	0.51	41.99
7	7311.00	58.3 PK	74.0	-15.7	1.36 H	302	11.77	46.53
8	7311.00	47.1 AV	54.0	-6.9	1.36 H	302	0.57	46.53
9	12186.20	62.9 PK	74.0	-11.1	1.13 H	296	12.51	50.39
10	12186.20	50.1 AV	54.0	-3.9	1.13 H	296	-0.29	50.39
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	63.9 PK	74.0	-10.1	1.00 V	167	31.52	32.38
2	2390.00	53.1 AV	54.0	-0.9	1.00 V	167	20.72	32.38
3	*2437.00	115.4 PK			1.00 V	162	82.89	32.51
4	*2437.00	106.4 AV			1.00 V	162	73.89	32.51
5	4874.00	50.8 PK	74.0	-23.2	1.25 V	177	8.81	41.99
6	4874.00	37.9 AV	54.0	-16.1	1.25 V	177	-4.09	41.99
7	7311.00	62.2 PK	74.0	-11.8	1.03 V	186	15.67	46.53
8	7311.00	47.0 AV	54.0	-7.0	1.03 V	186	0.47	46.53
9	12186.20	58.9 PK	74.0	-15.1	1.14 V	320	8.51	50.39
10	12186.20	47.6 AV	54.0	-6.4	1.14 V	320	-2.79	50.39

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.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	99.0 PK			1.01 H	317	66.43	32.57
2	*2462.00	89.4 AV			1.01 H	317	56.83	32.57
3	2483.50	56.9 PK	74.0	-17.1	1.01 H	317	24.27	32.63
4	2483.50	46.0 AV	54.0	-8.0	1.01 H	317	13.37	32.63
5	4924.00	50.7 PK	74.0	-23.3	1.11 H	175	8.69	42.01
6	4924.00	37.5 AV	54.0	-16.5	1.11 H	175	-4.51	42.01
7	7386.00	56.6 PK	74.0	-17.4	1.52 H	81	9.87	46.73
8	7386.00	44.6 AV	54.0	-9.4	1.52 H	81	-2.13	46.73
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	110.7 PK			1.16 V	156	78.13	32.57
2	*2462.00	101.6 AV			1.16 V	156	69.03	32.57
3	2483.50	68.8 PK	74.0	-5.2	1.00 V	27	36.17	32.63
4	2483.50	51.8 AV	54.0	-2.2	1.00 V	27	19.17	32.63
5	4924.00	49.7 PK	74.0	-24.3	1.28 V	168	7.69	42.01
6	4924.00	37.2 AV	54.0	-16.8	1.28 V	168	-4.81	42.01
7	7386.00	58.2 PK	74.0	-15.8	1.03 V	198	11.47	46.73
8	7386.00	45.3 AV	54.0	-8.7	1.03 V	198	-1.43	46.73

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)

CHANNEL	TX Channel 1	**DETECTOR FUNCTION**	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	56.8 PK	74.0	-17.2	1.10 H	310	24.42	32.38
2	2390.00	46.2 AV	54.0	-7.8	1.10 H	310	13.82	32.38
3	*2412.00	99.6 PK			1.10 H	310	67.16	32.44
4	*2412.00	90.0 AV			1.10 H	310	57.56	32.44
5	4824.00	50.4 PK	74.0	-23.6	1.23 H	186	8.46	41.94
6	4824.00	37.4 AV	54.0	-16.6	1.23 H	186	-4.54	41.94
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	70.9 PK	74.0	-3.1	1.00 V	176	38.52	32.38
2	**2390.00**	**53.5 AV**	**54.0**	**-0.5**	**1.00 V**	**176**	**21.12**	**32.38**
3	*2412.00	109.4 PK			1.00 V	208	76.96	32.44
4	*2412.00	99.6 AV			1.00 V	208	67.16	32.44
5	4824.00	50.2 PK	74.0	-23.8	1.32 V	169	8.26	41.94
6	4824.00	37.4 AV	54.0	-16.6	1.32 V	169	-4.54	41.94

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	100.9 PK			1.01 H	304	68.39	32.51
2	*2437.00	92.6 AV			1.01 H	304	60.09	32.51
3	4874.00	52.7 PK	74.0	-21.3	1.24 H	172	10.71	41.99
4	4874.00	40.6 AV	54.0	-13.4	1.24 H	172	-1.39	41.99
5	7311.00	57.2 PK	74.0	-16.8	1.62 H	118	10.67	46.53
6	7311.00	45.1 AV	54.0	-8.9	1.62 H	118	-1.43	46.53
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	116.9 PK			1.00 V	151	84.39	32.51
2	*2437.00	107.5 AV			1.00 V	151	74.99	32.51
3	4874.00	50.6 PK	74.0	-23.4	1.26 V	174	8.61	41.99
4	4874.00	37.7 AV	54.0	-16.3	1.26 V	174	-4.29	41.99
5	7311.00	62.9 PK	74.0	-11.1	1.03 V	187	16.37	46.53
6	7311.00	47.5 AV	54.0	-6.5	1.03 V	187	0.97	46.53

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.

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	99.3 PK			1.05 H	312	66.73	32.57
2	*2462.00	89.9 AV			1.05 H	312	57.33	32.57
3	2483.50	56.6 PK	74.0	-17.4	1.05 H	312	23.97	32.63
4	2483.50	45.8 AV	54.0	-8.2	1.05 H	312	13.17	32.63
5	4924.00	50.6 PK	74.0	-23.4	1.12 H	191	8.59	42.01
6	4924.00	37.5 AV	54.0	-16.5	1.12 H	191	-4.51	42.01
7	7386.00	56.5 PK	74.0	-17.5	1.52 H	108	9.77	46.73
8	7386.00	44.8 AV	54.0	-9.2	1.52 H	108	-1.93	46.73
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	112.1 PK			1.00 V	208	79.53	32.57
2	*2462.00	102.1 AV			1.00 V	208	69.53	32.57
3	2483.50	71.0 PK	74.0	-3.0	1.00 V	192	38.37	32.63
4	**2483.50**	**53.5 AV**	**54.0**	**-0.5**	**1.00 V**	**192**	**20.87**	**32.63**
5	4924.00	50.3 PK	74.0	-23.7	1.26 V	160	8.29	42.01
6	4924.00	37.5 AV	54.0	-16.5	1.26 V	160	-4.51	42.01
7	7386.00	58.7 PK	74.0	-15.3	1.02 V	181	11.97	46.73
8	7386.00	45.4 AV	54.0	-8.6	1.02 V	181	-1.33	46.73

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)

CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	56.9 PK	74.0	-17.1	1.03 H	311	24.52	32.38
2	2390.00	45.2 AV	54.0	-8.8	1.03 H	311	12.82	32.38
3	*2422.00	93.7 PK			1.03 H	311	61.23	32.47
4	*2422.00	83.2 AV			1.03 H	311	50.73	32.47
5	4844.00	50.0 PK	74.0	-24.0	1.14 H	202	8.04	41.96
6	4844.00	37.1 AV	54.0	-16.9	1.14 H	202	-4.86	41.96
7	7266.00	56.3 PK	74.0	-17.7	1.54 H	94	9.90	46.40
8	7266.00	44.6 AV	54.0	-9.4	1.54 H	94	-1.80	46.40
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	2390.00	65.8 PK	74.0	-8.2	1.00 V	207	33.42	32.38
2	2390.00	53.3 AV	54.0	-0.7	1.00 V	207	20.92	32.38
3	*2422.00	105.0 PK			1.00 V	207	72.53	32.47
4	*2422.00	95.6 AV			1.00 V	207	63.13	32.47
5	4844.00	49.2 PK	74.0	-24.8	1.24 V	165	7.24	41.96
6	4844.00	37.0 AV	54.0	-17.0	1.24 V	165	-4.96	41.96
7	7266.00	58.6 PK	74.0	-15.4	1.06 V	168	12.20	46.40
8	7266.00	45.3 AV	54.0	-8.7	1.06 V	168	-1.10	46.40

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.

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	98.9 PK			1.04 H	307	66.39	32.51
2	*2437.00	89.1 AV			1.04 H	307	56.59	32.51
3	4874.00	52.7 PK	74.0	-21.3	1.29 H	171	10.71	41.99
4	4874.00	40.6 AV	54.0	-13.4	1.29 H	171	-1.39	41.99
5	7311.00	57.1 PK	74.0	-16.9	1.61 H	115	10.57	46.53
6	7311.00	45.1 AV	54.0	-8.9	1.61 H	115	-1.43	46.53
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	68.6 PK	74.0	-5.4	1.00 V	193	36.62	31.98
2	2390.00	53.5 AV	54.0	-0.5	1.00 V	193	21.52	31.98
3	*2437.00	110.9 PK			1.00 V	207	78.78	32.12
4	*2437.00	101.2 AV			1.00 V	207	69.08	32.12
5	2483.50	62.9 PK	74.0	-11.1	1.00 V	193	30.66	32.24
6	2483.50	49.8 AV	54.0	-4.2	1.00 V	193	17.56	32.24
7	4874.00	49.9 PK	74.0	-24.1	1.11 V	143	10.20	39.70
8	4874.00	37.3 AV	54.0	-16.7	1.11 V	143	-2.40	39.70
9	7311.00	58.1 PK	74.0	-15.9	1.18 V	190	10.51	47.59
10	7311.00	45.4 AV	54.0	-8.6	1.18 V	190	-2.19	47.59

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.

CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

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	94.9 PK			1.01 H	307	62.35	32.55
2	*2452.00	85.5 AV			1.01 H	307	52.95	32.55
3	2483.50	56.1 PK	74.0	-17.9	1.01 H	307	23.47	32.63
4	2483.50	44.3 AV	54.0	-9.7	1.01 H	307	11.67	32.63
5	4904.00	50.1 PK	74.0	-23.9	1.14 H	181	8.08	42.02
6	4904.00	37.5 AV	54.0	-16.5	1.14 H	181	-4.52	42.02
7	7356.00	55.2 PK	74.0	-18.8	1.21 H	118	8.55	46.65
8	7356.00	43.4 AV	54.0	-10.6	1.21 H	118	-3.25	46.65
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	106.9 PK			1.00 V	209	74.35	32.55
2	*2452.00	97.8 AV			1.00 V	209	65.25	32.55
3	2483.50	66.3 PK	74.0	-7.7	1.00 V	160	33.67	32.63
4	2483.50	53.0 AV	54.0	-1.0	1.00 V	160	20.37	32.63
5	4904.00	49.9 PK	74.0	-24.1	1.23 V	145	7.88	42.02
6	4904.00	37.3 AV	54.0	-16.7	1.23 V	145	-4.72	42.02
7	7356.00	58.7 PK	74.0	-15.3	1.11 V	191	12.05	46.65
8	7356.00	45.4 AV	54.0	-8.6	1.11 V	191	-1.25	46.65

REMARKS:

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

4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100036	Dec. 14, 2011	Dec. 13, 2012

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. Tested date : Nov. 29, 2012

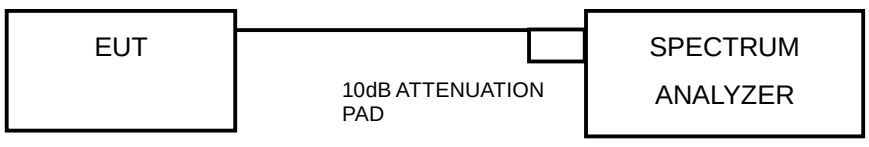
4.3.3 TEST PROCEDURE

1. Set resolution bandwidth (RBW) = approximately 1% of the emission bandwidth
2. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
3. Trace mode = max hold.
4. Sweep = auto couple.
5. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

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	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	9.98	9.78	0.5	PASS
6	2437	10.23	10.38	0.5	PASS
11	2462	10.27	9.77	0.5	PASS

802.11g

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	16.64	16.58	0.5	PASS
6	2437	16.64	16.58	0.5	PASS
11	2462	16.59	16.56	0.5	PASS

802.11n (HT20)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	17.87	17.86	0.5	PASS
6	2437	17.86	17.85	0.5	PASS
11	2462	17.87	17.86	0.5	PASS

802.11n (HT40)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
3	2422	36.49	36.42	0.5	PASS
6	2437	36.47	36.42	0.5	PASS
9	2452	36.45	36.48	0.5	PASS

4.4 CONDUCTED OUTPUT POWER MEASUREMENT

4.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

Per KDB 662911 D01 Multiple Transmitter Output v01r02 Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any NANT;

Array Gain = 5 log(NANT/NSS) dB or 3 dB, whichever is less for 20-MHz channel widths with NANT ≥ 5.

For power measurements on all other devices: Array Gain = 10 log(NANT/NSS) dB.

4.4.2 INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Power Meter	ML2495A	0824006	May 10, 2012	May 09, 2013
Power Sensor	MA2411B	0738172	May 10, 2012	May 09, 2013

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. Tested date : Nov. 29, 2012

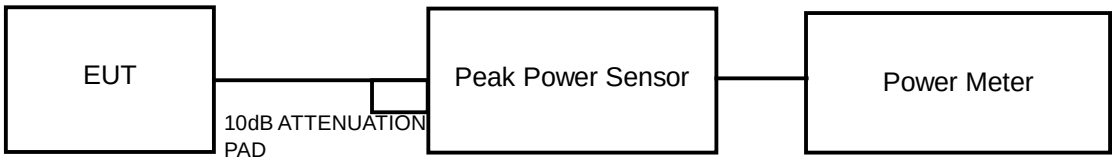
4.4.3 TEST PROCEDURES

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

CHAN.	FREQUENCY (MHz)	PEAK POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	16.00	16.10	80.549	19.06	30	PASS
6	2437	16.20	16.30	84.345	19.26	30	PASS
11	2462	15.50	15.40	70.155	18.46	30	PASS

802.11g

CHAN.	FREQUENCY (MHz)	PEAK POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	19.20	19.60	174.377	22.41	30	PASS
6	2437	24.70	24.60	583.524	27.66	30	PASS
11	2462	22.00	21.80	309.845	24.91	30	PASS

802.11n (HT20)

CHAN.	FREQUENCY (MHz)	PEAK POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	19.00	18.90	157.058	21.96	30	PASS
6	2437	23.70	23.40	453.199	26.56	30	PASS
11	2462	22.20	22.30	335.783	25.26	30	PASS

802.11n (HT40)

CHAN.	FREQUENCY (MHz)	PEAK POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
3	2422	16.10	16.40	84.390	19.26	30	PASS
6	2437	22.30	22.10	332.005	25.21	30	PASS
9	2452	18.50	18.20	136.864	21.36	30	PASS

4.5 POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S Spectrum Analyzer	FSP40	100036	Dec. 14, 2011	Dec. 13, 2012

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. Tested date : Nov. 29, 2012

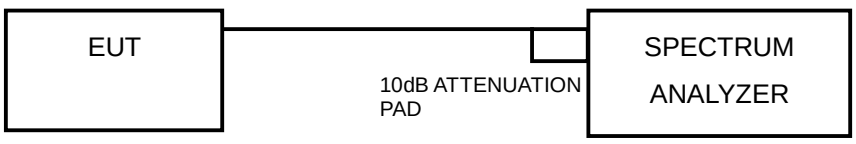
4.5.3 TEST PROCEDURE

1. Set the RBW = 3 kHz, VBW =10 kHz, Detector = peak.
2. Sweep time = auto couple, Trace mode = max hold, allow trace to fully stabilize.
3. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

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

TX chain	Channel	FREQ. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	1	2412	-10.95	3.01	-7.94	6.79	PASS
	6	2437	-10.64	3.01	-7.63	6.79	PASS
	11	2462	-11.73	3.01	-8.72	6.79	PASS
1	1	2412	-8.69	3.01	-5.68	6.79	PASS
	6	2437	-11.05	3.01	-8.04	6.79	PASS
	11	2462	-11.45	3.01	-8.44	6.79	PASS

NOTE: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$

Effective Legacy Gain (dBi) = 7.21

The effective legacy gain is 7.21dBi, therefore the limit needs to reduce.

802.11g

TX chain	Channel	FREQ. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	1	2412	-14.10	3.01	-11.09	6.79	PASS
	6	2437	-6.95	3.01	-3.94	6.79	PASS
	11	2462	-12.91	3.01	-9.90	6.79	PASS
1	1	2412	-14.83	3.01	-11.82	6.79	PASS
	6	2437	-9.00	3.01	-5.99	6.79	PASS
	11	2462	-11.90	3.01	-8.89	6.79	PASS

NOTE: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$

Effective Legacy Gain (dBi) = 7.21

The effective legacy gain is 7.21dBi, therefore the limit needs to reduce.

802.11n (HT20)

TX chain	Channel	FREQ. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	1	2412	-15.40	3.01	-12.39	6.79	PASS
	6	2437	-7.48	3.01	-4.47	6.79	PASS
	11	2462	-15.14	3.01	-12.13	6.79	PASS
1	1	2412	-15.90	3.01	-12.89	6.79	PASS
	6	2437	-8.32	3.01	-5.31	6.79	PASS
	11	2462	-11.96	3.01	-8.95	6.79	PASS

NOTE: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$

Effective Legacy Gain (dBi) = 7.21

The effective legacy gain is 7.21dBi, therefore the limit needs to reduce.

802.11n (HT40)

TX chain	Channel	FREQ. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	3	2422	-20.99	3.01	-17.98	6.79	PASS
	6	2437	-14.25	3.01	-11.24	6.79	PASS
	9	2452	-16.51	3.01	-13.50	6.79	PASS
1	3	2422	-20.83	3.01	-17.82	6.79	PASS
	6	2437	-12.58	3.01	-9.57	6.79	PASS
	9	2452	-17.28	3.01	-14.27	6.79	PASS

NOTE: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$

Effective Legacy Gain (dBi) = 7.21

The effective legacy gain is 7.21dBi, therefore the limit needs to reduce.

4.6 CONDUCTED OUT-BAND EMISSION MEASUREMENT

4.6.1 LIMITS OF CONDUCTED OUT-BAND EMISSION MEASUREMENT

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

4.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S Spectrum Analyzer	FSP40	100036	Dec. 14, 2011	Dec. 13, 2012

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. Tested date : Nov. 29, 2012

4.6.3 TEST PROCEDURE

MEASUREMENT PROCEDURE REF

1. Set the RBW = 100 kHz.
2. Set the VBW ≥ 300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

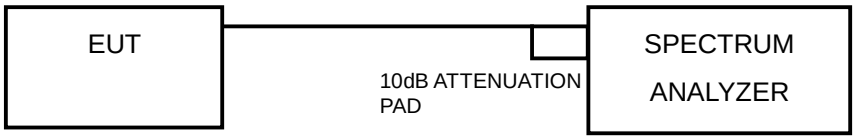
MEASUREMENT PROCEDURE OOBE

1. Set RBW = 100 kHz.
2. Set VBW ≥ 300 kHz.
3. Set span to encompass the spectrum to be examined
4. Detector = peak.
5. Trace Mode = max hold.
6. Sweep = auto couple.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 TEST SETUP



4.6.6 EUT OPERATING CONDITION

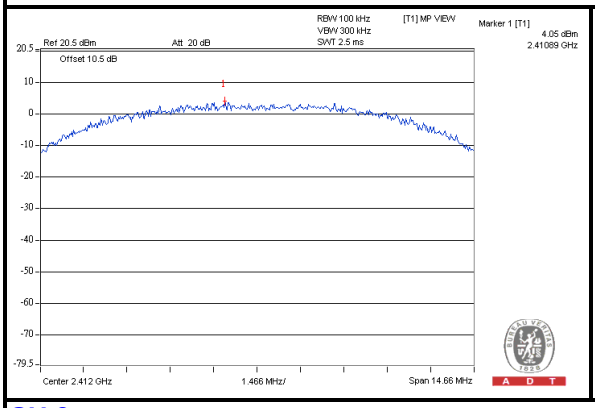
Same as Item 4.3.6

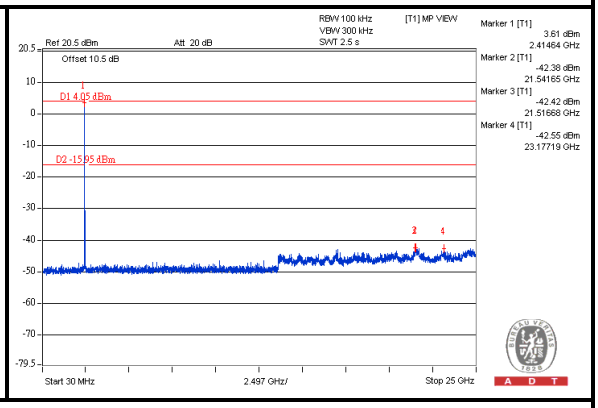
4.6.7 TEST RESULTS

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.

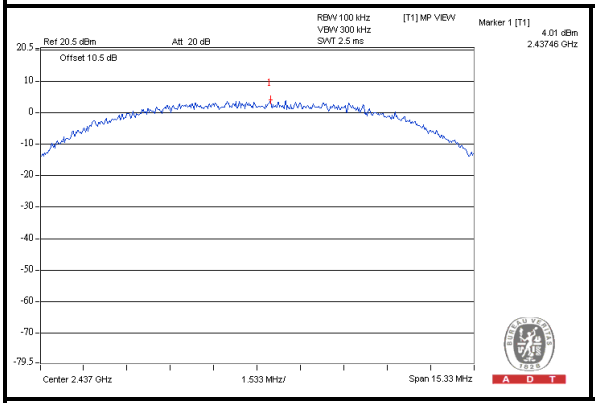
802.11b

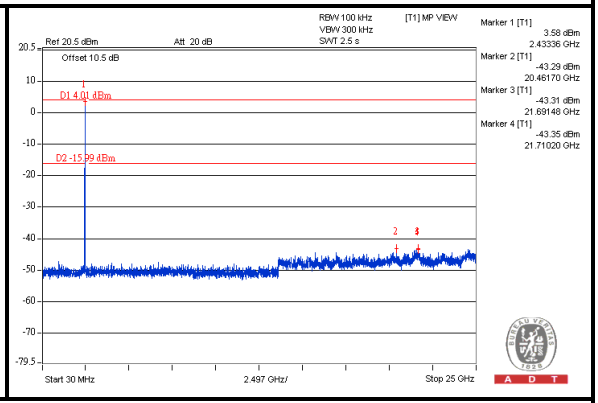
CH 1



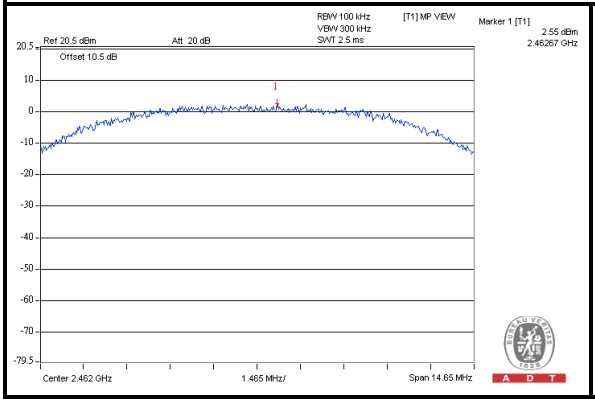


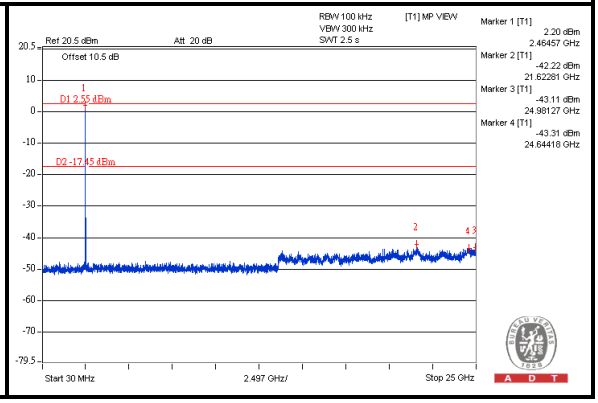
CH 6





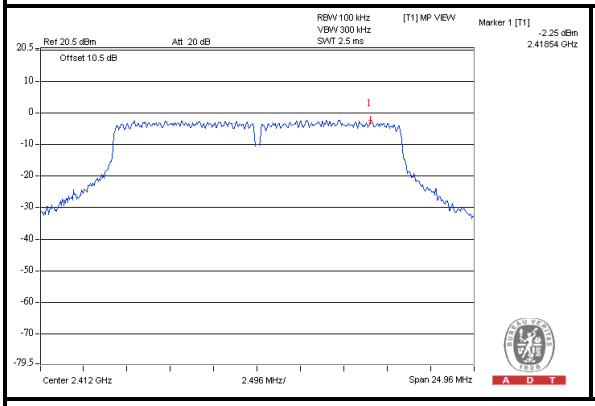
CH 11

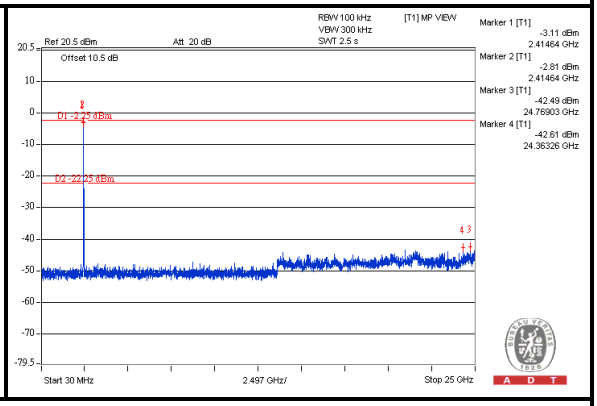




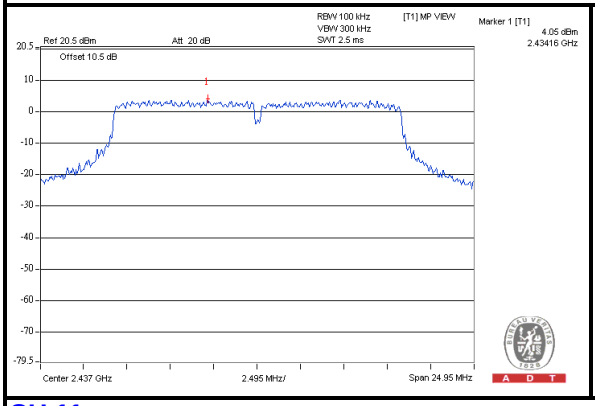
802.11g

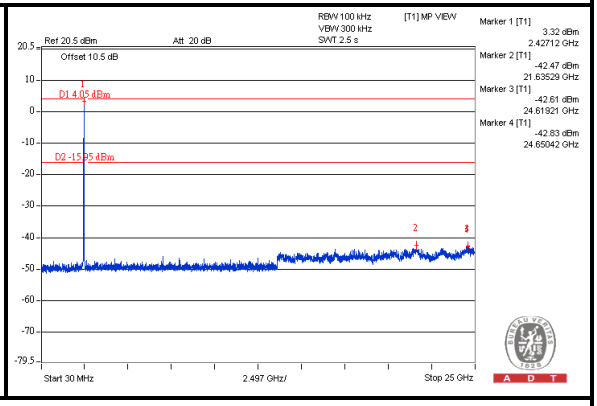
CH 1



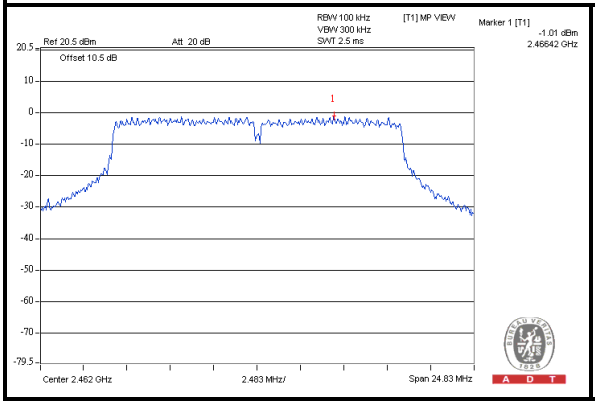


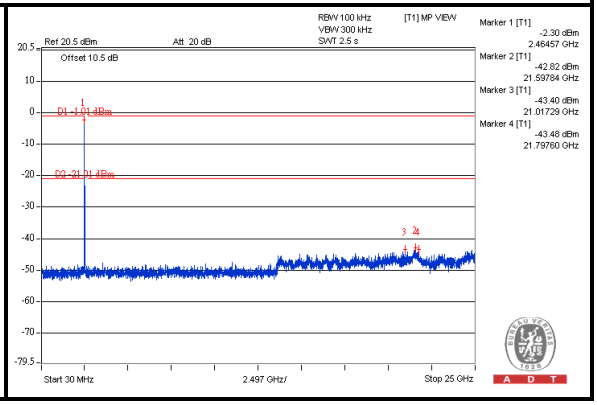
CH 6





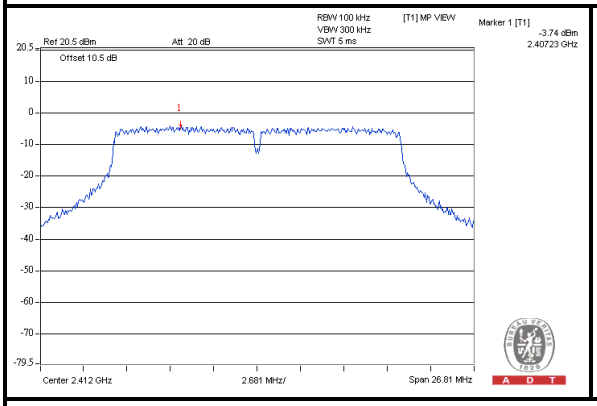
CH 11

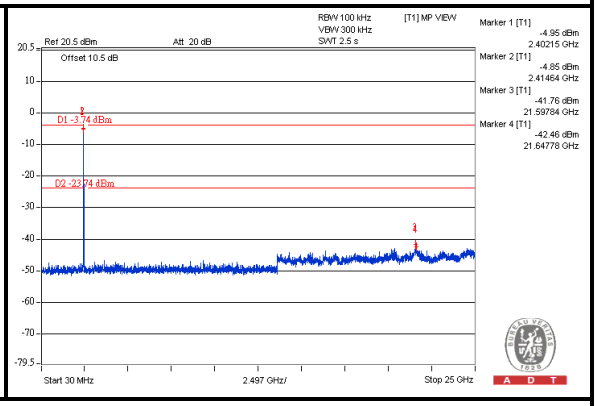




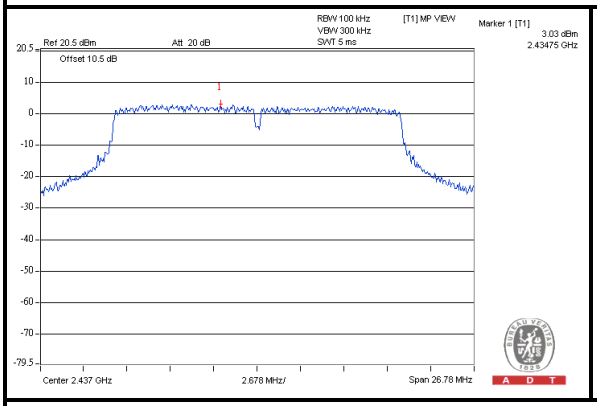
802.11n (HT20)

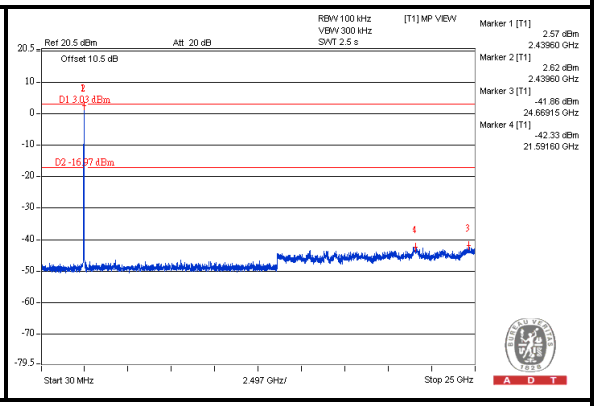
CH 1



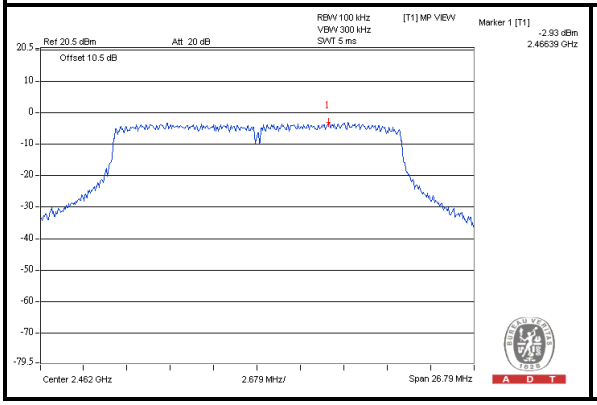


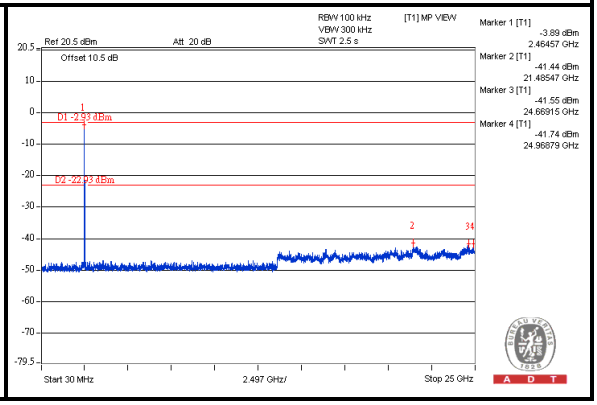
CH 6





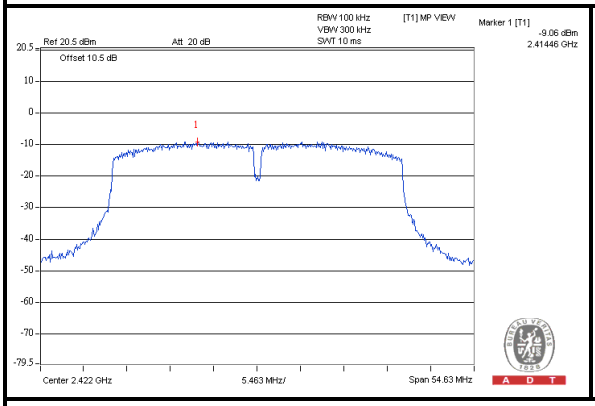
CH 11

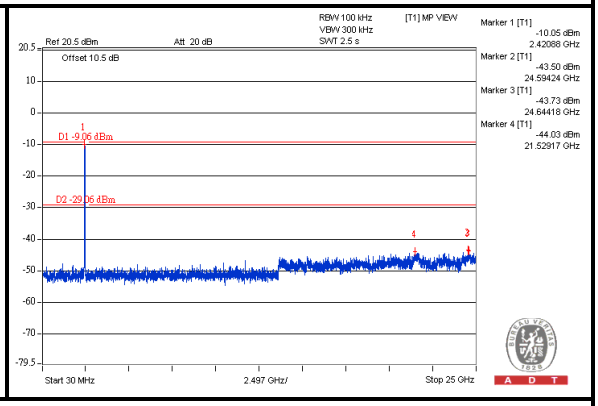




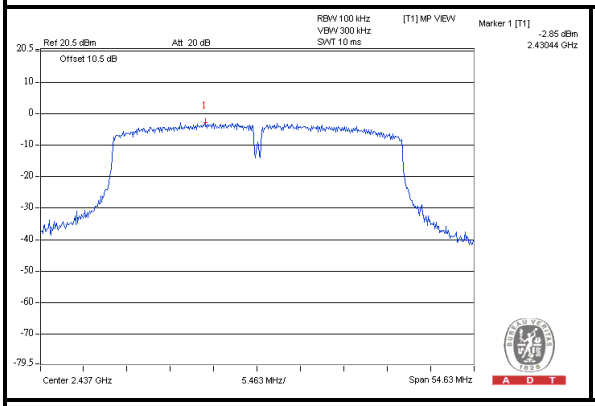
802.11n (HT40)

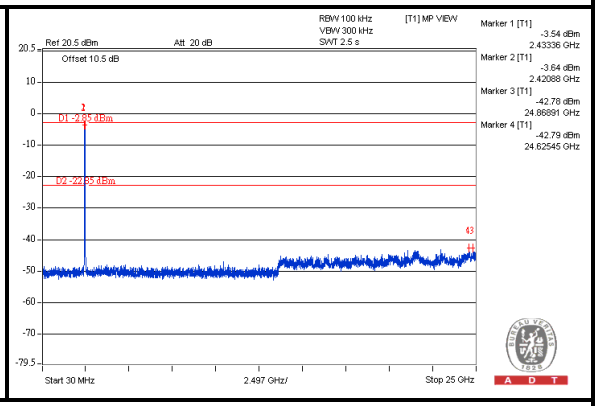
CH 3



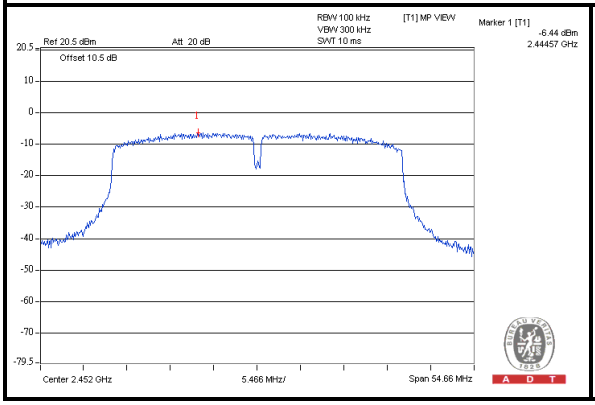


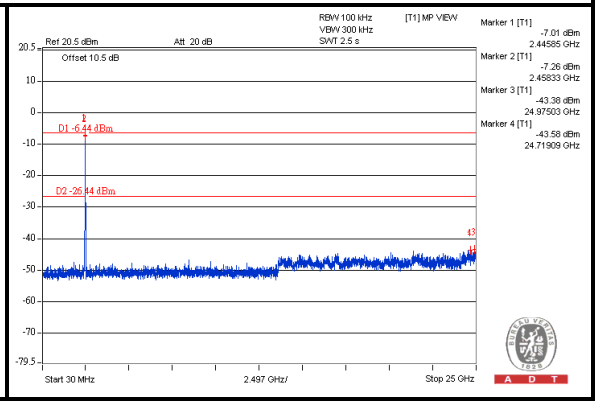
CH 6





CH 9





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.

If you have any comments, please feel free to contact us at the following:

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Hwa Ya EMC/RF/Safety/Telecom Lab:
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Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

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 modifications were made to the EUT by the lab during the test.

--- END ---