

FCC TEST REPORT

(15.247)

REPORT NO.: RF140620E01

MODEL NO.: AW-CU288

FCC ID: TLZ-CU288

RECEIVED: June 20, 2014

TESTED: June 20 to July 14, 2014

ISSUED: Aug. 07, 2014

APPLICANT: AzureWave Technologies, Inc.

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

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RELEASE CONTROL RECORD

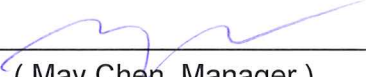
ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF140620E01	Original release	Aug. 07, 2014

1. CERTIFICATION

PRODUCT: IEEE 802.11b/g/n Smart Energy Module
BRAND NAME: AzureWave
MODEL NO.: AW-CU288
TEST SAMPLE: ENGINEERING SAMPLE
APPLICANT: AzureWave Technologies, Inc.
TESTED: June 20 to July 14, 2014
STANDARDS: FCC Part 15, Subpart C (Section 15.247)
ANSI C63.10-2009

The above equipment (Model: AW-CU288) 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:** Aug. 07, 2014
(Elsie Hsu, Specialist)

APPROVED BY :  , **DATE:** Aug. 07, 2014
(May Chen, 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 -17.77dB at 0.16562MHz
15.205 15.209 15.247(d)	Radiated Emissions & Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -2.0dB at 2390.00MHz
15.247(d)	Antenna Port Emission	PASS	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	PASS	Meet the requirement of limit.
15.247(b)	Conducted Output 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 IPEX 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	2.86 dB
Radiated emissions (30MHz-1GHz)	5.37 dB
Radiated emissions (1GHz -6GHz)	3.65 dB
Radiated emissions (6GHz -18GHz)	3.88 dB
Radiated emissions (18GHz -40GHz)	4.11 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	IEEE 802.11b/g/n Smart Energy Module
MODEL NO.	AW-CU288
POWER SUPPLY	3.3Vdc (from host equipment)
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS,OFDM
TRANSFER RATE	802.11b: up to 11Mbps 802.11g: up to 54Mbps 802.11n: up to 72.2Mbps
OPERATING FREQUENCY	2.412 ~ 2.462GHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, 802.11n (HT20)
MAXIMUM OUTPUT POWER	802.11b: 122.18mW 802.11g: 176.604mW 802.11n (HT20): 164.816mW
ANTENNA TYPE	Please see NOTE
DATA CABLE	NA
I/O PORTS	Refer to user's manual
ASSOCIATED DEVICES	NA

NOTE:

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

No.	Antenna	Brand	Model	Gain (dBi) include cable loss	Frequency range (MHz to MHz)	Antenna Type	Connector Type	Cable Length (mm)
1	Internal	AzureWave	ANT3216LL00 R2400A	3.17	2400-2500	CHIP	NA	NA
2	External	NanoBlue	NanoBlue-IP04	2	2400-2500	Monopole	I-PEX	100
3	External	MAG.LAYERS	MS-A4008-25G C1-A1	2.98	2400-2500	PIFA	I-PEX	150
4	External	MAG.LAYERS	EDA_1313_2G 4C1-A16	2.03	2400-2500	Dipole	I-PEX	150

2. The EUT incorporates a SISO function.

MODULATION MODE	Data Rate (MCS)	Tx/Rx FUNCTION
802.11b	1 ~ 11Mbps	1TX / 1RX
802.11g	6 ~ 54Mbps	1TX / 1RX
802.11n (HT20)	MCS 0~7	1TX / 1RX

3. The above EUT information was declared by the 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, 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		

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO					DESCRIPTION
	PLC	RE < 1G	RE ³ 1G	APCM	OB	
1	√	√	√	√	√	CHIP antenna
2	-	√	√	-	-	Monopole antenna
3	-	√	√	-	-	PIFA antenna
4	-	√	√	-	-	Dipole antenna

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: 1. For mode 1, The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane** (for below 1GHz) and **Z-plane** (for above 1GHz).
2. For mode 2-3, The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-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	6.5

ANTENNA PORT CONDUCTED MEASUREMENT:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

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	6.5

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	6.5

**A D T****TEST CONDITION:**

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER(SYSTEM)	TESTED BY
PLC	29deg. C, 56%RH	120Vac, 60Hz	Gavin Peng
RE<1G	21deg. C, 63%RH	120Vac, 60Hz	Andy Ho
RE ³ 1G	29deg. C, 73%RH 23deg. C, 69%RH 24deg. C, 68%RH 24deg. C, 67%RH 25deg. C, 65%RH	120Vac, 60Hz	Robert Cheng
APCM	25deg. C, 60%RH	120Vac, 60Hz	Nelson Teng
OB	25deg. C, 60%RH	120Vac, 60Hz	Nelson Teng

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 v03r02

ANSI C63.10-2009

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

Note: The EUT 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 DUTY CYCLE OF TEST SIGNAL

Duty cycle of test signal is $\geq 98\%$, duty factor is not required.

802.11b: Duty cycle = $8.625 \text{ ms} / 8.685 \text{ ms} = 0.993$

802.11g: Duty cycle = $1.471 \text{ ms} / 1.491 \text{ ms} = 0.987$

802.11n (HT20): Duty cycle = $1.371 \text{ ms} / 1.399 \text{ ms} = 0.98$



3.5 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.

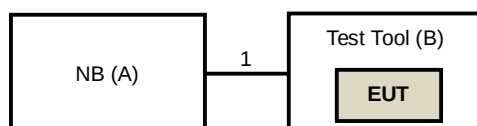
No.	Product	Brand	Model No.	Serial No.	FCC ID	Remark
A	NOTEBOOK COMPUTER	DELL	E6420	H62T3R1	FCC DoC	Provided by Lab
B	Test Tool	Azurewave	NA	NA	NA	Supplied by client

NOTE:

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

No.	Cable	Qty.	Length (m)	Shielded (Yes/ No)	Cores (Number)	Remark
1	USB	1	1.6	Yes	0	Supplied by client

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

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

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS 30	100287	Apr. 09, 2014	Apr. 08, 2015
Line-Impedance Stabilization Network (for EUT) ROHDE & SCHWARZ	NSLK-8127	8127-523	Oct. 02, 2013	Oct. 01, 2014
RF Cable (JYEBAO)	5D-FB	COACAB-001	May 26, 2014	May 25, 2015
50 ohms Terminator	50	3	Oct. 17, 2013	Oct. 16, 2014
50 ohms Terminator	N/A	EMC-04	Oct. 19, 2013	Oct. 18, 2014
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.
- 3 The test was performed in Shielded Room No. A.
4. The VCCI Con A Registration No. is C-817.
- 5 Tested Date: July 10, 2014

4.1.3 TEST PROCEDURES

- 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.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) were not recorded.

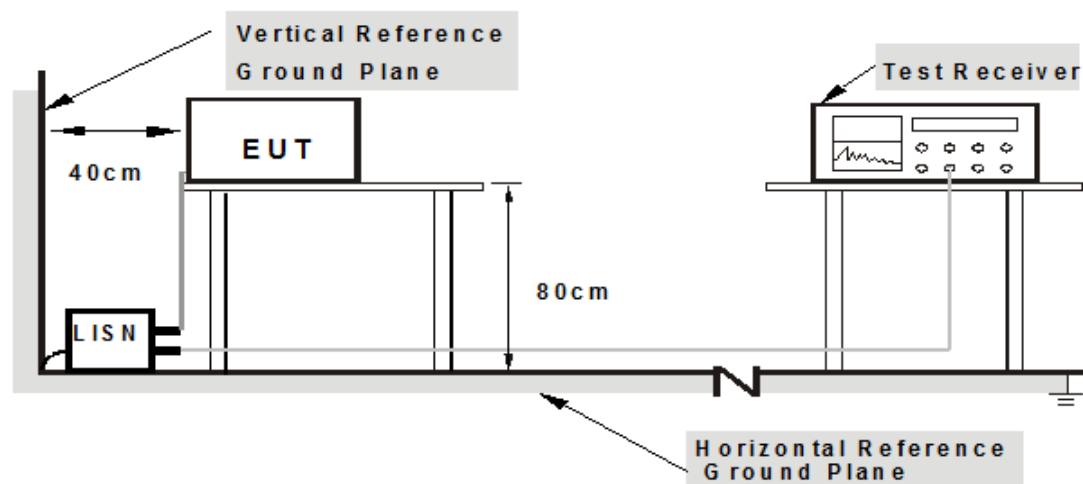
NOTE:

- 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. Connect the EUT with the support unit A (NB) which is placed on a testing table.
2. Controlling software (DutApiWiFi8801BrdigeUart.exe) has been activated to set the EUT under transmission/receiving condition continuously.

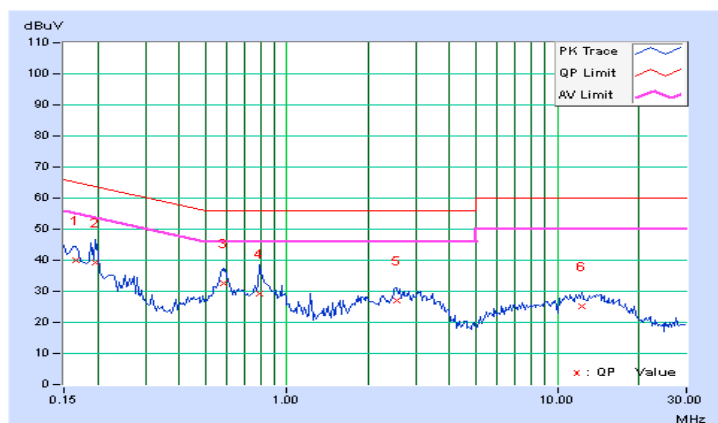
4.1.7 TEST RESULTS

PHASE	Line (L)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16562	0.06	39.94	36.62	40.00	36.68	65.18	55.18	-25.18	-18.50
2	0.19687	0.06	39.27	24.61	39.33	24.67	63.74	53.74	-24.41	-29.07
3	0.58359	0.07	32.49	24.39	32.56	24.46	56.00	46.00	-23.44	-21.54
4	0.79453	0.08	29.17	18.06	29.25	18.14	56.00	46.00	-26.75	-27.86
5	2.54297	0.18	26.75	21.21	26.93	21.39	56.00	46.00	-29.07	-24.61
6	12.28516	0.49	24.65	18.78	25.14	19.27	60.00	50.00	-34.86	-30.73

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

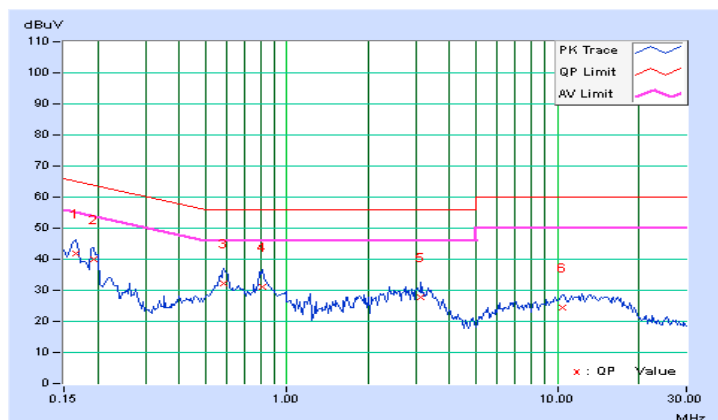


PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)
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No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	Factor (dB)	Q.P. [dB (uV)]	AV. [dB (uV)]	Q.P. [dB (uV)]	AV. [dB (uV)]	Q.P. [dB (uV)]	AV. [dB (uV)]	Q.P. (dB)	AV. (dB)
1	0.16562	0.05	41.64	37.35	41.69	37.40	65.18	55.18	-23.48	-17.77
2	0.19297	0.05	39.82	24.44	39.87	24.49	63.91	53.91	-24.04	-29.42
3	0.58750	0.08	32.07	24.56	32.15	24.64	56.00	46.00	-23.85	-21.36
4	0.81406	0.08	31.07	20.96	31.15	21.04	56.00	46.00	-24.85	-24.96
5	3.11719	0.18	27.64	22.03	27.82	22.21	56.00	46.00	-28.18	-23.79
6	10.50781	0.43	24.01	18.61	24.44	19.04	60.00	50.00	-35.56	-30.96

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.

4.2.2 TEST INSTRUMENTS

For Below 1GHz:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
MXE EMI Receiver Agilent	N9038A	MY51210105	Jan. 21, 2014	Jan. 20, 2015
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-03	Nov. 13, 2013	Nov. 12, 2014
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-360	Feb. 26, 2014	Feb. 25, 2015
RF Cable	NA	CHGCAB_001	Oct. 05, 2013	Oct. 04, 2014
Spectrum Analyzer R&S	FSV40	100964	July 15, 2013	July 14, 2014
Horn_Antenna AISI	AIH.8018	0000320091110	Nov. 18, 2013	Nov. 17, 2014
Pre-Amplifier Agilent	8449B	3008A02578	June 25, 2013	June 24, 2014
RF Cable	NA	RF104-201 RF104-203 RF104-204	Dec. 12, 2013	Dec. 11, 2014
Spectrum Analyzer Agilent	E4446A	MY48250253	Aug. 28, 2013	Aug. 27, 2014
Pre-Amplifier SPACEK LABS	SLKKa-48-6	9K16	Nov. 13, 2013	Nov. 12, 2014
Horn_Antenna SCHWARZBECK	BBHA 9170	9170-424	Oct. 08, 2013	Oct. 07, 2014
Software	ADT_Radiated _V8.7.07	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. G.
4. The FCC Site Registration No. is 966073.
5. The VCCI Site Registration No. is G-137.
6. The CANADA Site Registration No. is IC 7450H-2.
7. Tested Date: June 20, 2014



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For Above 1GHz:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
MXE EMI Receiver Agilent	N9038A	MY51210105	Jan. 21,2014	Jan. 20,2015
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-03	Nov. 13, 2013	Nov. 12, 2014
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-360	Feb. 26, 2014	Feb. 25, 2015
RF Cable	NA	CHGCAB_001	Oct. 05, 2013	Oct. 04, 2014
Spectrum Analyzer R&S	FSV40	100964	July 15, 2013	July 14, 2014
Horn_Antenna AISI	AIH.8018	0000320091110	Nov. 18, 2013	Nov. 17, 2014
Pre-Amplifier Agilent	8449B	3008A02578	June 24, 2014	June 23, 2015
RF Cable	NA	RF104-201 RF104-203 RF104-204	Dec. 12, 2013	Dec. 11, 2014
Spectrum Analyzer Agilent	E4446A	MY48250253	Aug. 28, 2013	Aug. 27, 2014
Pre-Amplifier SPACEK LABS	SLKKa-48-6	9K16	Nov. 13, 2013	Nov. 12, 2014
Horn_Antenna SCHWARZBECK	BBHA 9170	9170-424	Oct. 08, 2013	Oct. 07, 2014
Software	ADT_Radiated _V8.7.07	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. G.
4. The FCC Site Registration No. is 966073.
- 5 The VCCI Site Registration No. is G-137.
- 6 The CANADA Site Registration No. is IC 7450H-2.
- 7 Tested Date: July 05 to 14, 2014

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 room for test. 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:

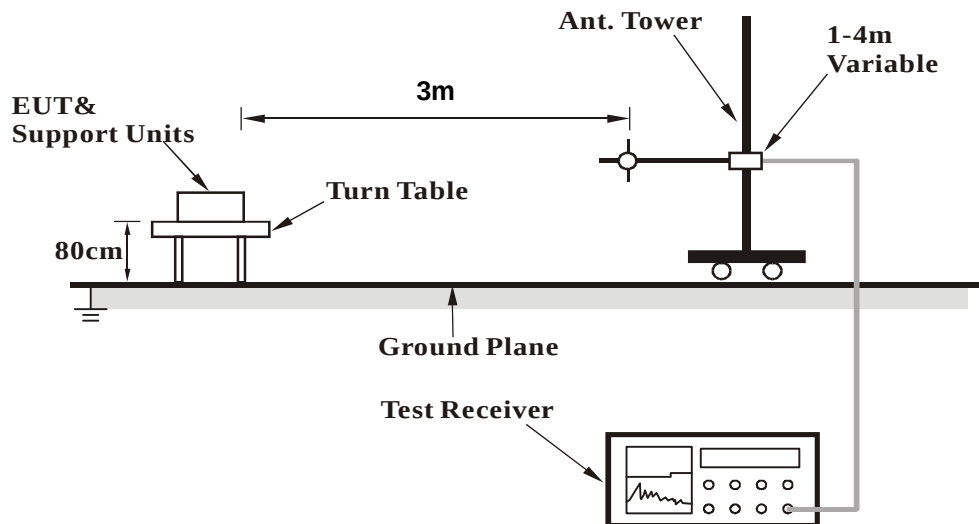
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor ($10 \log(1/\text{duty cycle})$).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle $\geq 98\%$) 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

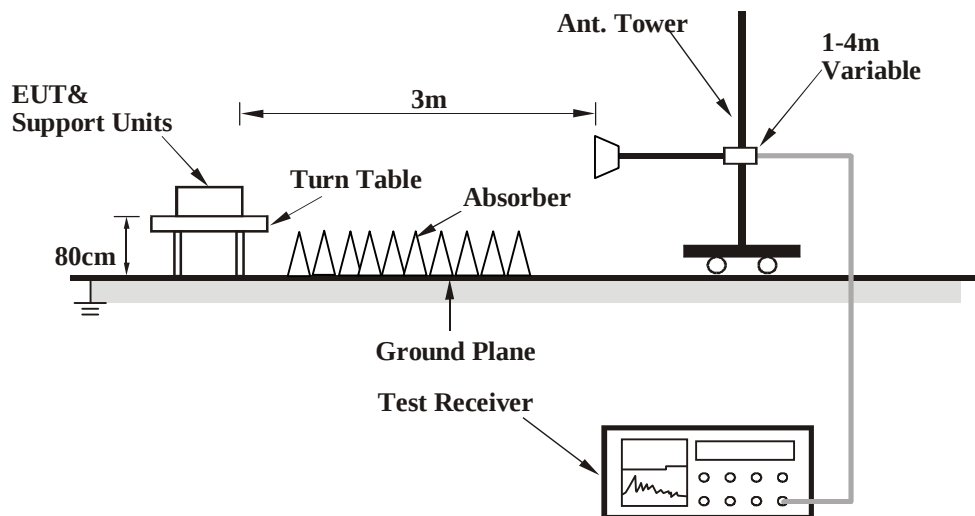
No deviation

4.2.5 TEST SETUP

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



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 (MODE 1)

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	107.65	33.1 QP	43.5	-10.4	2.00 H	93	49.67	-16.55
2	172.64	33.8 QP	43.5	-9.7	1.50 H	158	47.82	-14.02
3	228.32	35.1 QP	46.0	-10.9	1.00 H	1	51.11	-16.01
4	264.01	38.1 QP	46.0	-7.9	1.00 H	203	51.85	-13.78
5	320.85	37.2 QP	46.0	-8.8	1.00 H	61	48.95	-11.71
6	647.99	36.3 QP	46.0	-9.7	1.50 H	177	40.39	-4.09
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	50.47	34.1 QP	40.0	-5.9	1.00 V	74	47.70	-13.56
2	69.92	35.7 QP	40.0	-4.3	1.00 V	360	51.16	-15.48
3	176.13	33.1 QP	43.5	-10.4	1.00 V	163	47.41	-14.35
4	231.08	36.8 QP	46.0	-9.2	1.00 V	43	52.52	-15.74
5	345.01	35.2 QP	46.0	-10.8	1.50 V	114	46.45	-11.24
6	647.99	34.8 QP	46.0	-11.2	1.00 V	98	38.91	-4.09

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) – Pre-Amplifier 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)
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	64.2 PK	74.0	-9.8	1.10 H	254	66.94	-2.74
2	2390.00	44.1 AV	54.0	-9.9	1.10 H	254	46.84	-2.74
3	*2412.00	108.3 PK			1.10 H	254	110.94	-2.64
4	*2412.00	105.2 AV			1.10 H	254	107.84	-2.64
5	4824.00	47.2 PK	74.0	-26.8	1.42 H	183	41.93	5.27
6	4824.00	37.9 AV	54.0	-16.1	1.42 H	183	32.63	5.27
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	58.1 PK	74.0	-15.9	1.21 V	145	60.84	-2.74
2	2390.00	37.9 AV	54.0	-16.1	1.21 V	145	40.64	-2.74
3	*2412.00	102.4 PK			1.21 V	145	105.04	-2.64
4	*2412.00	99.1 AV			1.21 V	145	101.74	-2.64
5	4824.00	49.6 PK	74.0	-24.4	1.06 V	79	44.33	5.27
6	4824.00	38.5 AV	54.0	-15.5	1.06 V	79	33.23	5.27

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) – Pre-Amplifier 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	108.3 PK			1.06 H	321	110.83	-2.53
2	*2437.00	104.7 AV			1.06 H	321	107.23	-2.53
3	4874.00	47.2 PK	74.0	-26.8	1.45 H	165	41.71	5.49
4	4874.00	38.0 AV	54.0	-16.0	1.45 H	165	32.51	5.49
5	7311.00	54.4 PK	74.0	-19.6	1.00 H	121	41.70	12.70
6	7311.00	41.3 AV	54.0	-12.7	1.00 H	121	28.60	12.70
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	101.1 PK			1.18 V	140	103.63	-2.53
2	*2437.00	97.6 AV			1.18 V	140	100.13	-2.53
3	4874.00	49.3 PK	74.0	-24.7	1.03 V	94	43.81	5.49
4	4874.00	38.4 AV	54.0	-15.6	1.03 V	94	32.91	5.49
5	7311.00	55.0 PK	74.0	-19.0	1.00 V	298	42.30	12.70
6	7311.00	41.5 AV	54.0	-12.5	1.00 V	298	28.80	12.70

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.



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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	107.2 PK			1.10 H	254	109.62	-2.42
2	*2462.00	104.0 AV			1.10 H	254	106.42	-2.42
3	2483.50	60.8 PK	74.0	-13.2	1.10 H	254	63.12	-2.32
4	2483.50	43.9 AV	54.0	-10.1	1.10 H	254	46.22	-2.32
5	4924.00	47.8 PK	74.0	-26.2	1.40 H	179	42.10	5.70
6	4924.00	38.4 AV	54.0	-15.6	1.40 H	179	32.70	5.70
7	7386.00	54.1 PK	74.0	-19.9	1.00 H	108	41.42	12.68
8	7386.00	41.3 AV	54.0	-12.7	1.00 H	108	28.62	12.68

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	*2462.00	101.3 PK			1.21 V	145	103.72	-2.42
2	*2462.00	97.9 AV			1.21 V	145	100.32	-2.42
3	2483.50	55.1 PK	74.0	-18.9	1.21 V	145	57.42	-2.32
4	2483.50	38.1 AV	54.0	-15.9	1.21 V	145	40.42	-2.32
5	4924.00	48.7 PK	74.0	-25.3	1.06 V	78	43.00	5.70
6	4924.00	38.1 AV	54.0	-15.9	1.06 V	78	32.40	5.70
7	7386.00	54.7 PK	74.0	-19.3	1.04 V	299	42.02	12.68
8	7386.00	41.3 AV	54.0	-12.7	1.04 V	299	28.62	12.68

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.



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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	66.0 PK	74.0	-8.0	1.04 H	321	68.74	-2.74
2	2390.00	49.2 AV	54.0	-4.8	1.04 H	321	51.94	-2.74
3	*2412.00	106.2 PK			1.04 H	321	108.84	-2.64
4	*2412.00	94.9 AV			1.04 H	321	97.54	-2.64
5	4824.00	46.6 PK	74.0	-27.4	1.02 H	176	41.33	5.27
6	4824.00	33.7 AV	54.0	-20.3	1.02 H	176	28.43	5.27
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	56.4 PK	74.0	-17.6	1.02 V	195	59.14	-2.74
2	2390.00	45.3 AV	54.0	-8.7	1.02 V	195	48.04	-2.74
3	*2412.00	97.3 PK			1.02 V	195	99.94	-2.64
4	*2412.00	86.4 AV			1.02 V	195	89.04	-2.64
5	4824.00	54.7 PK	74.0	-19.3	1.11 V	188	49.43	5.27
6	4824.00	41.4 AV	54.0	-12.6	1.11 V	188	36.13	5.27

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) – Pre-Amplifier 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	106.5 PK			1.04 H	319	109.03	-2.53
2	*2437.00	95.8 AV			1.04 H	319	98.33	-2.53
3	4874.00	46.5 PK	74.0	-27.5	1.02 H	205	41.01	5.49
4	4874.00	33.5 AV	54.0	-20.5	1.02 H	205	28.01	5.49
5	7311.00	54.6 PK	74.0	-19.4	1.00 H	190	41.90	12.70
6	7311.00	41.5 AV	54.0	-12.5	1.00 H	190	28.80	12.70
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	98.0 PK			1.00 V	86	100.53	-2.53
2	*2437.00	87.5 AV			1.00 V	86	90.03	-2.53
3	4874.00	46.6 PK	74.0	-27.4	1.00 V	86	41.11	5.49
4	4874.00	35.9 AV	54.0	-18.1	1.00 V	86	30.41	5.49
5	7311.00	55.7 PK	74.0	-18.3	1.00 V	291	43.00	12.70
6	7311.00	42.0 AV	54.0	-12.0	1.00 V	291	29.30	12.70

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.



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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	105.8 PK			1.02 H	324	108.22	-2.42
2	*2462.00	94.0 AV			1.02 H	324	96.42	-2.42
3	2483.50	64.9 PK	74.0	-9.1	1.02 H	324	67.22	-2.32
4	2483.50	47.8 AV	54.0	-6.2	1.02 H	324	50.12	-2.32
5	4924.00	45.9 PK	74.0	-28.1	1.00 H	187	40.20	5.70
6	4924.00	33.1 AV	54.0	-20.9	1.00 H	187	27.40	5.70
7	7386.00	54.5 PK	74.0	-19.5	1.00 H	194	41.82	12.68
8	7386.00	41.2 AV	54.0	-12.8	1.00 H	194	28.52	12.68
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	*2462.00	97.4 PK			1.06 V	195	99.82	-2.42
2	*2462.00	86.6 AV			1.06 V	195	89.02	-2.42
3	2483.50	56.3 PK	74.0	-17.7	1.06 V	204	58.62	-2.32
4	2483.50	45.2 AV	54.0	-8.8	1.06 V	204	47.52	-2.32
5	4924.00	55.0 PK	74.0	-19.0	1.00 V	193	49.30	5.70
6	4924.00	41.8 AV	54.0	-12.2	1.00 V	193	36.10	5.70
7	7386.00	55.8 PK	74.0	-18.2	1.02 V	278	43.12	12.68
8	7386.00	42.1 AV	54.0	-11.9	1.02 V	278	29.42	12.68

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) – Pre-Amplifier 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 (HT20)

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	70.1 PK	74.0	-3.9	1.05 H	332	72.84	-2.74
2	2390.00	51.6 AV	54.0	-2.4	1.05 H	332	54.34	-2.74
3	*2412.00	103.8 PK			1.05 H	332	106.44	-2.64
4	*2412.00	93.8 AV			1.05 H	332	96.44	-2.64
5	4824.00	45.9 PK	74.0	-28.1	1.00 H	198	40.63	5.27
6	4824.00	33.5 AV	54.0	-20.5	1.00 H	198	28.23	5.27
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	56.3 PK	74.0	-17.7	1.07 V	189	59.04	-2.74
2	2390.00	45.1 AV	54.0	-8.9	1.07 V	189	47.84	-2.74
3	*2412.00	96.4 PK			1.07 V	189	99.04	-2.64
4	*2412.00	86.3 AV			1.07 V	189	88.94	-2.64
5	4824.00	55.4 PK	74.0	-18.6	1.00 V	183	50.13	5.27
6	4824.00	41.8 AV	54.0	-12.2	1.00 V	183	36.53	5.27

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) – Pre-Amplifier 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	105.0 PK			1.05 H	322	107.53	-2.53
2	*2437.00	95.1 AV			1.05 H	322	97.63	-2.53
3	4874.00	46.3 PK	74.0	-27.7	1.00 H	197	40.81	5.49
4	4874.00	33.9 AV	54.0	-20.1	1.00 H	197	28.41	5.49
5	7311.00	54.5 PK	74.0	-19.5	1.00 H	186	41.80	12.70
6	7311.00	41.1 AV	54.0	-12.9	1.00 H	186	28.40	12.70
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	98.4 PK			1.00 V	177	100.93	-2.53
2	*2437.00	88.3 AV			1.00 V	177	90.83	-2.53
3	4874.00	46.4 PK	74.0	-27.6	1.00 V	88	40.91	5.49
4	4874.00	35.9 AV	54.0	-18.1	1.00 V	88	30.41	5.49
5	7311.00	55.5 PK	74.0	-18.5	1.00 V	283	42.80	12.70
6	7311.00	41.8 AV	54.0	-12.2	1.00 V	283	29.10	12.70

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.



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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	102.7 PK			1.05 H	325	105.12	-2.42
2	*2462.00	92.7 AV			1.05 H	325	95.12	-2.42
3	2483.50	68.4 PK	74.0	-5.6	1.05 H	325	70.72	-2.32
4	2483.50	49.0 AV	54.0	-5.0	1.05 H	325	51.32	-2.32
5	4924.00	45.8 PK	74.0	-28.2	1.00 H	201	40.10	5.70
6	4924.00	33.2 AV	54.0	-20.8	1.00 H	201	27.50	5.70
7	7386.00	54.2 PK	74.0	-19.8	1.00 H	198	41.52	12.68
8	7386.00	41.1 AV	54.0	-12.9	1.00 H	198	28.42	12.68
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	*2462.00	96.0 PK			1.09 V	183	98.42	-2.42
2	*2462.00	86.1 AV			1.09 V	183	88.52	-2.42
3	2483.50	56.4 PK	74.0	-17.6	1.09 V	183	58.72	-2.32
4	2483.50	45.3 AV	54.0	-8.7	1.09 V	183	47.62	-2.32
5	4924.00	46.6 PK	74.0	-27.4	1.02 V	91	40.90	5.70
6	4924.00	36.1 AV	54.0	-17.9	1.02 V	91	30.40	5.70
7	7386.00	55.3 PK	74.0	-18.7	1.02 V	276	42.62	12.68
8	7386.00	41.8 AV	54.0	-12.2	1.02 V	276	29.12	12.68

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

4.2.8 TEST RESULTS (MODE 2)

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	44.26	35.3 QP	40.0	-4.7	2.00 H	67	48.78	-13.46
2	136.12	34.2 QP	43.5	-9.4	1.00 H	84	48.09	-13.94
3	253.25	33.9 QP	46.0	-12.1	1.00 H	164	48.12	-14.19
4	298.79	36.4 QP	46.0	-9.6	1.00 H	36	48.82	-12.41
5	697.46	34.9 QP	46.0	-11.2	2.00 H	111	38.42	-3.57
6	750.23	36.9 QP	46.0	-9.1	1.00 H	85	38.87	-1.94
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	46.05	35.5 QP	40.0	-4.5	1.00 V	253	49.16	-13.65
2	131.95	35.0 QP	43.5	-8.5	2.00 V	360	49.17	-14.19
3	144.02	36.2 QP	43.5	-7.4	1.00 V	269	49.49	-13.34
4	260.04	35.7 QP	46.0	-10.3	2.00 V	125	49.64	-13.95
5	597.84	34.2 QP	46.0	-11.8	1.00 V	108	39.20	-4.97
6	896.70	35.8 QP	46.0	-10.2	1.00 V	114	35.86	-0.03

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier 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)
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	60.4 PK	74.0	-13.6	1.05 H	187	63.14	-2.74
2	2390.00	38.2 AV	54.0	-15.8	1.05 H	187	40.94	-2.74
3	*2412.00	108.7 PK			1.05 H	187	111.34	-2.64
4	*2412.00	105.6 AV			1.05 H	187	108.24	-2.64
5	4824.00	47.0 PK	74.0	-27.0	1.06 H	20	41.73	5.27
6	4824.00	36.4 AV	54.0	-17.6	1.06 H	20	31.13	5.27
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	53.4 PK	74.0	-20.6	1.38 V	259	56.14	-2.74
2	2390.00	33.4 AV	54.0	-20.6	1.38 V	259	36.14	-2.74
3	*2412.00	99.3 PK			1.38 V	259	101.94	-2.64
4	*2412.00	96.4 AV			1.38 V	259	99.04	-2.64
5	4824.00	46.6 PK	74.0	-27.4	1.01 V	21	41.33	5.27
6	4824.00	37.0 AV	54.0	-17.0	1.01 V	21	31.73	5.27

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) – Pre-Amplifier 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	108.8 PK			1.14 H	202	111.33	-2.53
2	*2437.00	106.0 AV			1.14 H	202	108.53	-2.53
3	4874.00	48.2 PK	74.0	-25.8	1.00 H	8	42.71	5.49
4	4874.00	34.9 AV	54.0	-19.1	1.00 H	8	29.41	5.49
5	7311.00	55.1 PK	74.0	-18.9	1.01 H	216	42.40	12.70
6	7311.00	41.6 AV	54.0	-12.4	1.01 H	216	28.90	12.70
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	100.4 PK			1.34 V	260	102.93	-2.53
2	*2437.00	97.3 AV			1.34 V	260	99.83	-2.53
3	4874.00	46.0 PK	74.0	-28.0	1.02 V	16	40.51	5.49
4	4874.00	36.2 AV	54.0	-17.8	1.02 V	16	30.71	5.49
5	7311.00	55.7 PK	74.0	-18.3	1.00 V	198	43.00	12.70
6	7311.00	41.9 AV	54.0	-12.1	1.00 V	198	29.20	12.70

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.



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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	109.3 PK			1.05 H	187	111.72	-2.42
2	*2462.00	107.2 AV			1.05 H	187	109.62	-2.42
3	2483.50	65.4 PK	74.0	-8.6	1.05 H	187	67.72	-2.32
4	2483.50	43.1 AV	54.0	-10.9	1.05 H	187	45.42	-2.32
5	4924.00	48.3 PK	74.0	-25.7	1.00 H	11	42.60	5.70
6	4924.00	35.2 AV	54.0	-18.8	1.00 H	11	29.50	5.70
7	7386.00	55.5 PK	74.0	-18.5	1.00 H	204	42.82	12.68
8	7386.00	42.1 AV	54.0	-11.9	1.00 H	204	29.42	12.68

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	*2462.00	101.1 PK			1.37 V	265	103.52	-2.42
2	*2462.00	99.7 AV			1.37 V	265	102.12	-2.42
3	2483.50	58.5 PK	74.0	-15.5	1.37 V	265	60.82	-2.32
4	2483.50	38.2 AV	54.0	-15.8	1.37 V	265	40.52	-2.32
5	4924.00	47.1 PK	74.0	-26.9	1.02 V	20	41.40	5.70
6	4924.00	37.1 AV	54.0	-16.9	1.02 V	20	31.40	5.70
7	7386.00	55.8 PK	74.0	-18.2	1.03 V	207	43.12	12.68
8	7386.00	42.0 AV	54.0	-12.0	1.03 V	207	29.32	12.68

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) – Pre-Amplifier 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	57.7 PK	74.0	-16.3	1.47 H	38	60.44	-2.74
2	2390.00	41.8 AV	54.0	-12.2	1.47 H	38	44.54	-2.74
3	*2412.00	103.3 PK			1.47 H	38	105.94	-2.64
4	*2412.00	92.7 AV			1.47 H	38	95.34	-2.64
5	4824.00	47.8 PK	74.0	-26.2	1.12 H	35	42.53	5.27
6	4824.00	36.6 AV	54.0	-17.4	1.12 H	35	31.33	5.27
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	51.4 PK	74.0	-22.6	1.71 V	62	54.14	-2.74
2	2390.00	35.4 AV	54.0	-18.6	1.71 V	62	38.14	-2.74
3	*2412.00	95.3 PK			1.71 V	62	97.94	-2.64
4	*2412.00	86.3 AV			1.71 V	62	88.94	-2.64
5	4824.00	46.8 PK	74.0	-27.2	1.04 V	0	41.53	5.27
6	4824.00	37.1 AV	54.0	-16.9	1.04 V	0	31.83	5.27

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) – Pre-Amplifier 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	105.1 PK			1.43 H	38	107.63	-2.53
2	*2437.00	94.6 AV			1.43 H	38	97.13	-2.53
3	4874.00	47.3 PK	74.0	-26.7	1.15 H	30	41.81	5.49
4	4874.00	36.4 AV	54.0	-17.6	1.15 H	30	30.91	5.49
5	7311.00	55.1 PK	74.0	-18.9	1.03 H	219	42.40	12.70
6	7311.00	41.6 AV	54.0	-12.4	1.03 H	219	28.90	12.70
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	98.4 PK			1.72 V	76	100.93	-2.53
2	*2437.00	89.2 AV			1.72 V	76	91.73	-2.53
3	4874.00	46.5 PK	74.0	-27.5	1.02 V	1	41.01	5.49
4	4874.00	36.7 AV	54.0	-17.3	1.02 V	1	31.21	5.49
5	7311.00	54.6 PK	74.0	-19.4	1.00 V	186	41.90	12.70
6	7311.00	41.5 AV	54.0	-12.5	1.00 V	186	28.80	12.70

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.



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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	103.3 PK			1.06 H	37	105.72	-2.42
2	*2462.00	91.9 AV			1.06 H	37	94.32	-2.42
3	2483.50	64.2 PK	74.0	-9.8	1.06 H	37	66.52	-2.32
4	2483.50	46.4 AV	54.0	-7.6	1.06 H	37	48.72	-2.32
5	4924.00	47.6 PK	74.0	-26.4	1.09 H	2	41.90	5.70
6	4924.00	36.8 AV	54.0	-17.2	1.09 H	2	31.10	5.70
7	7386.00	54.5 PK	74.0	-19.5	1.00 H	231	41.82	12.68
8	7386.00	41.2 AV	54.0	-12.8	1.00 H	231	28.52	12.68
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	*2462.00	94.3 PK			1.70 V	60	96.72	-2.42
2	*2462.00	85.4 AV			1.70 V	60	87.82	-2.42
3	2483.50	59.4 PK	74.0	-14.6	1.70 V	60	61.72	-2.32
4	2483.50	40.3 AV	54.0	-13.7	1.70 V	60	42.62	-2.32
5	4924.00	45.8 PK	74.0	-28.2	1.00 V	4	40.10	5.70
6	4924.00	35.8 AV	54.0	-18.2	1.00 V	4	30.10	5.70
7	7386.00	53.9 PK	74.0	-20.1	1.01 V	172	41.22	12.68
8	7386.00	41.6 AV	54.0	-12.4	1.01 V	172	28.92	12.68

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) – Pre-Amplifier 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 (HT20)

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	61.1 PK	74.0	-12.9	1.44 H	38	63.84	-2.74
2	2390.00	44.9 AV	54.0	-9.1	1.44 H	38	47.64	-2.74
3	*2412.00	103.4 PK			1.44 H	38	106.04	-2.64
4	*2412.00	92.7 AV			1.44 H	38	95.34	-2.64
5	4824.00	47.8 PK	74.0	-26.2	1.04 H	12	42.53	5.27
6	4824.00	36.8 AV	54.0	-17.2	1.04 H	12	31.53	5.27
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	60.3 PK	74.0	-13.7	1.78 V	65	63.04	-2.74
2	2390.00	42.6 AV	54.0	-11.4	1.78 V	65	45.34	-2.74
3	*2412.00	97.8 PK			1.78 V	65	100.44	-2.64
4	*2412.00	87.9 AV			1.78 V	65	90.54	-2.64
5	4824.00	46.1 PK	74.0	-27.9	1.05 V	13	40.83	5.27
6	4824.00	36.4 AV	54.0	-17.6	1.05 V	13	31.13	5.27

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) – Pre-Amplifier 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	104.1 PK			1.43 H	37	106.63	-2.53
2	*2437.00	93.5 AV			1.43 H	37	96.03	-2.53
3	4874.00	46.6 PK	74.0	-27.4	1.17 H	23	41.11	5.49
4	4874.00	36.0 AV	54.0	-18.0	1.17 H	23	30.51	5.49
5	7311.00	54.7 PK	74.0	-19.3	1.00 H	224	42.00	12.70
6	7311.00	41.2 AV	54.0	-12.8	1.00 H	224	28.50	12.70
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	98.0 PK			1.73 V	89	100.53	-2.53
2	*2437.00	88.1 AV			1.73 V	89	90.63	-2.53
3	4874.00	46.7 PK	74.0	-27.3	1.03 V	3	41.21	5.49
4	4874.00	37.0 AV	54.0	-17.0	1.03 V	3	31.51	5.49
5	7311.00	54.5 PK	74.0	-19.5	1.00 V	180	41.80	12.70
6	7311.00	41.2 AV	54.0	-12.8	1.00 V	180	28.50	12.70

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.



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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	104.4 PK			1.41 H	36	106.82	-2.42
2	*2462.00	93.9 AV			1.41 H	36	96.32	-2.42
3	2483.50	69.4 PK	74.0	-4.6	1.41 H	36	71.72	-2.32
4	2483.50	50.6 AV	54.0	-3.4	1.41 H	36	52.92	-2.32
5	4924.00	47.5 PK	74.0	-26.5	1.18 H	0	41.80	5.70
6	4924.00	36.6 AV	54.0	-17.4	1.18 H	0	30.90	5.70
7	7386.00	54.7 PK	74.0	-19.3	1.00 H	226	42.02	12.68
8	7386.00	41.4 AV	54.0	-12.6	1.00 H	226	28.72	12.68
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	*2462.00	98.3 PK			1.71 V	65	100.72	-2.42
2	*2462.00	88.6 AV			1.71 V	65	91.02	-2.42
3	2483.50	60.8 PK	74.0	-13.2	1.76 V	40	63.12	-2.32
4	2483.50	43.0 AV	54.0	-11.0	1.76 V	40	45.32	-2.32
5	4924.00	46.5 PK	74.0	-27.5	1.01 V	11	40.80	5.70
6	4924.00	37.2 AV	54.0	-16.8	1.01 V	11	31.50	5.70
7	7386.00	53.8 PK	74.0	-20.2	1.00 V	152	41.12	12.68
8	7386.00	40.5 AV	54.0	-13.5	1.00 V	152	27.82	12.68

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

4.2.9 TEST RESULTS (MODE 3)

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	108.28	35.5 QP	43.5	-8.0	2.00 H	94	51.94	-16.48
2	180.74	35.6 QP	43.5	-7.9	1.00 H	0	50.44	-14.84
3	217.31	35.7 QP	46.0	-10.3	1.00 H	21	51.83	-16.17
4	239.28	37.8 QP	46.0	-8.2	1.00 H	18	52.64	-14.82
5	647.99	37.8 QP	46.0	-8.2	1.00 H	0	41.87	-4.09
6	940.64	39.3 QP	46.0	-6.7	1.50 H	213	38.45	0.86
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	33.25	33.8 QP	40.0	-6.2	1.00 V	23	48.14	-14.38
2	82.19	30.4 QP	40.0	-9.6	1.00 V	79	49.12	-18.75
3	213.04	33.6 QP	43.5	-9.9	1.00 V	155	49.86	-16.25
4	345.01	36.8 QP	46.0	-9.2	1.50 V	125	48.08	-11.24
5	647.99	35.4 QP	46.0	-10.6	1.50 V	129	39.46	-4.09
6	940.59	39.3 QP	46.0	-6.7	1.50 V	349	38.46	0.85

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) – Pre-Amplifier 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)
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	66.2 PK	74.0	-7.8	1.02 H	178	68.67	-2.47
2	2390.00	48.1 AV	54.0	-5.9	1.02 H	178	50.57	-2.47
3	*2412.00	111.7 PK			1.02 H	178	114.07	-2.37
4	*2412.00	107.8 AV			1.02 H	178	110.17	-2.37
5	4824.00	51.0 PK	74.0	-23.0	1.10 H	226	45.29	5.71
6	4824.00	45.2 AV	54.0	-8.8	1.10 H	226	39.49	5.71
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	61.0 PK	74.0	-13.0	1.21 V	92	63.47	-2.47
2	2390.00	43.8 AV	54.0	-10.2	1.21 V	92	46.27	-2.47
3	*2412.00	105.0 PK			1.21 V	92	107.37	-2.37
4	*2412.00	100.9 AV			1.21 V	92	103.27	-2.37
5	4824.00	48.5 PK	74.0	-25.5	1.07 V	101	42.79	5.71
6	4824.00	41.4 AV	54.0	-12.6	1.07 V	101	35.69	5.71

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) – Pre-Amplifier 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	110.6 PK			1.13 H	194	112.85	-2.25
2	*2437.00	107.2 AV			1.13 H	194	109.45	-2.25
3	4874.00	50.4 PK	74.0	-23.6	1.07 H	222	44.50	5.90
4	4874.00	44.9 AV	54.0	-9.1	1.07 H	222	39.00	5.90
5	7311.00	56.4 PK	74.0	-17.6	1.09 H	120	43.23	13.17
6	7311.00	43.1 AV	54.0	-10.9	1.09 H	120	29.93	13.17
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	103.8 PK			1.20 V	83	106.05	-2.25
2	*2437.00	100.1 AV			1.20 V	83	102.35	-2.25
3	4874.00	48.9 PK	74.0	-25.1	1.08 V	88	43.00	5.90
4	4874.00	41.9 AV	54.0	-12.1	1.08 V	88	36.00	5.90
5	7311.00	56.2 PK	74.0	-17.8	1.10 V	206	43.03	13.17
6	7311.00	42.9 AV	54.0	-11.1	1.10 V	206	29.73	13.17

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) – Pre-Amplifier 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	110.7 PK			1.02 H	178	112.84	-2.14
2	*2462.00	107.1 AV			1.02 H	178	109.24	-2.14
3	2483.50	66.1 PK	74.0	-7.9	1.02 H	178	68.13	-2.03
4	2483.50	47.2 AV	54.0	-6.8	1.02 H	178	49.23	-2.03
5	4924.00	50.2 PK	74.0	-23.8	1.05 H	234	44.09	6.11
6	4924.00	44.5 AV	54.0	-9.5	1.05 H	234	38.39	6.11
7	7386.00	56.2 PK	74.0	-17.8	1.00 H	126	43.02	13.18
8	7386.00	43.1 AV	54.0	-10.9	1.00 H	126	29.92	13.18
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	103.4 PK			1.20 V	100	105.54	-2.14
2	*2462.00	100.1 AV			1.20 V	100	102.24	-2.14
3	2483.50	61.5 PK	74.0	-12.5	1.20 V	100	63.53	-2.03
4	2483.50	44.0 AV	54.0	-10.0	1.20 V	100	46.03	-2.03
5	4924.00	48.6 PK	74.0	-25.4	1.04 V	91	42.49	6.11
6	4924.00	41.5 AV	54.0	-12.5	1.04 V	91	35.39	6.11
7	7386.00	56.2 PK	74.0	-17.8	1.00 V	215	43.02	13.18
8	7386.00	42.8 AV	54.0	-11.2	1.00 V	215	29.62	13.18

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) – Pre-Amplifier 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	69.5 PK	74.0	-4.5	1.40 H	147	71.97	-2.47
2	2390.00	51.8 AV	54.0	-2.2	1.40 H	147	54.27	-2.47
3	*2412.00	108.7 PK			1.40 H	147	111.07	-2.37
4	*2412.00	97.0 AV			1.40 H	147	99.37	-2.37
5	4824.00	50.8 PK	74.0	-23.2	1.05 H	209	45.09	5.71
6	4824.00	45.3 AV	54.0	-8.7	1.05 H	209	39.59	5.71
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	60.7 PK	74.0	-13.3	1.15 V	91	63.17	-2.47
2	2390.00	43.3 AV	54.0	-10.7	1.15 V	91	45.77	-2.47
3	*2412.00	101.4 PK			1.15 V	91	103.77	-2.37
4	*2412.00	90.0 AV			1.15 V	91	92.37	-2.37
5	4824.00	48.2 PK	74.0	-25.8	1.14 V	104	42.49	5.71
6	4824.00	41.4 AV	54.0	-12.6	1.14 V	104	35.69	5.71

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) – Pre-Amplifier 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	109.6 PK			1.39 H	147	111.85	-2.25
2	*2437.00	98.5 AV			1.39 H	147	100.75	-2.25
3	4874.00	50.3 PK	74.0	-23.7	1.07 H	226	44.40	5.90
4	4874.00	44.7 AV	54.0	-9.3	1.07 H	226	38.80	5.90
5	7311.00	56.5 PK	74.0	-17.5	1.08 H	120	43.33	13.17
6	7311.00	42.9 AV	54.0	-11.1	1.08 H	120	29.73	13.17
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	102.6 PK			1.20 V	86	104.85	-2.25
2	*2437.00	91.4 AV			1.20 V	86	93.65	-2.25
3	4874.00	48.6 PK	74.0	-25.4	1.10 V	76	42.70	5.90
4	4874.00	41.6 AV	54.0	-12.4	1.10 V	76	35.70	5.90
5	7311.00	57.0 PK	74.0	-17.0	1.11 V	193	43.83	13.17
6	7311.00	43.4 AV	54.0	-10.6	1.11 V	193	30.23	13.17

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.



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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	106.9 PK			1.40 H	147	109.04	-2.14
2	*2462.00	95.7 AV			1.40 H	147	97.84	-2.14
3	2483.50	71.3 PK	74.0	-2.7	1.40 H	147	73.33	-2.03
4	2483.50	51.7 AV	54.0	-2.3	1.40 H	147	53.73	-2.03
5	4924.00	50.3 PK	74.0	-23.7	1.02 H	228	44.19	6.11
6	4924.00	44.7 AV	54.0	-9.3	1.02 H	228	38.59	6.11
7	7386.00	56.7 PK	74.0	-17.3	1.12 H	107	43.52	13.18
8	7386.00	43.2 AV	54.0	-10.8	1.12 H	107	30.02	13.18

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	99.2 PK			1.02 V	82	101.34	-2.14
2	*2462.00	88.6 AV			1.02 V	82	90.74	-2.14
3	2483.50	62.8 PK	74.0	-11.2	1.02 V	82	64.83	-2.03
4	2483.50	46.1 AV	54.0	-7.9	1.02 V	82	48.13	-2.03
5	4924.00	49.2 PK	74.0	-24.8	1.13 V	91	43.09	6.11
6	4924.00	42.2 AV	54.0	-11.8	1.13 V	91	36.09	6.11
7	7386.00	56.7 PK	74.0	-17.3	1.11 V	216	43.52	13.18
8	7386.00	43.2 AV	54.0	-10.8	1.11 V	216	30.02	13.18

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) – Pre-Amplifier 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 (HT20)

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	68.7 PK	74.0	-5.3	1.12 H	193	71.17	-2.47
2	2390.00	50.4 AV	54.0	-3.6	1.12 H	193	52.87	-2.47
3	*2412.00	106.4 PK			1.12 H	193	108.77	-2.37
4	*2412.00	96.0 AV			1.12 H	193	98.37	-2.37
5	4824.00	51.0 PK	74.0	-23.0	1.10 H	228	45.29	5.71
6	4824.00	45.3 AV	54.0	-8.7	1.10 H	228	39.59	5.71
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	61.7 PK	74.0	-12.3	1.25 V	94	64.17	-2.47
2	2390.00	43.9 AV	54.0	-10.1	1.25 V	94	46.37	-2.47
3	*2412.00	98.7 PK			1.25 V	94	101.07	-2.37
4	*2412.00	88.5 AV			1.25 V	94	90.87	-2.37
5	4824.00	49.6 PK	74.0	-24.4	1.03 V	104	43.89	5.71
6	4824.00	42.3 AV	54.0	-11.7	1.03 V	104	36.59	5.71

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) – Pre-Amplifier 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	107.9 PK			1.13 H	196	110.15	-2.25
2	*2437.00	97.5 AV			1.13 H	196	99.75	-2.25
3	4874.00	50.4 PK	74.0	-23.6	1.12 H	219	44.50	5.90
4	4874.00	44.7 AV	54.0	-9.3	1.12 H	219	38.80	5.90
5	7311.00	55.9 PK	74.0	-18.1	1.07 H	106	42.73	13.17
6	7311.00	42.7 AV	54.0	-11.3	1.07 H	106	29.53	13.17
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	100.8 PK			1.26 V	99	103.05	-2.25
2	*2437.00	90.2 AV			1.26 V	99	92.45	-2.25
3	4874.00	48.3 PK	74.0	-25.7	1.03 V	93	42.40	5.90
4	4874.00	41.5 AV	54.0	-12.5	1.03 V	93	35.60	5.90
5	7311.00	55.7 PK	74.0	-18.3	1.06 V	219	42.53	13.17
6	7311.00	42.6 AV	54.0	-11.4	1.06 V	219	29.43	13.17

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.



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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	105.3 PK			1.11 H	200	107.44	-2.14
2	*2462.00	95.1 AV			1.11 H	200	97.24	-2.14
3	2483.50	70.1 PK	74.0	-3.9	1.11 H	200	72.13	-2.03
4	2483.50	49.8 AV	54.0	-4.2	1.11 H	200	51.83	-2.03
5	4924.00	50.5 PK	74.0	-23.5	1.11 H	216	44.39	6.11
6	4924.00	45.0 AV	54.0	-9.0	1.11 H	216	38.89	6.11
7	7386.00	56.7 PK	74.0	-17.3	1.04 H	116	43.52	13.18
8	7386.00	43.4 AV	54.0	-10.6	1.04 H	116	30.22	13.18
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	98.0 PK			1.26 V	90	100.14	-2.14
2	*2462.00	87.6 AV			1.26 V	90	89.74	-2.14
3	2483.50	61.8 PK	74.0	-12.2	1.26 V	90	63.83	-2.03
4	2483.50	44.0 AV	54.0	-10.0	1.26 V	90	46.03	-2.03
5	4924.00	48.4 PK	74.0	-25.6	1.10 V	92	42.29	6.11
6	4924.00	41.6 AV	54.0	-12.4	1.10 V	92	35.49	6.11
7	7386.00	56.1 PK	74.0	-17.9	1.12 V	203	42.92	13.18
8	7386.00	42.9 AV	54.0	-11.1	1.12 V	203	29.72	13.18

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

4.2.10 TEST RESULTS (MODE 4)

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	47.17	34.4 QP	40.0	-5.6	1.00 H	360	47.98	-13.54
2	108.18	33.8 QP	43.5	-9.7	2.00 H	116	50.32	-16.49
3	134.86	34.4 QP	43.5	-9.1	2.00 H	197	48.41	-13.97
4	257.32	38.5 QP	46.0	-7.5	2.00 H	96	52.54	-14.03
5	271.00	37.1 QP	46.0	-8.9	1.00 H	167	50.50	-13.38
6	697.31	35.1 QP	46.0	-10.9	1.00 H	42	38.69	-3.57
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	47.12	36.9 QP	40.0	-3.1	1.00 V	271	50.43	-13.55
2	135.73	32.9 QP	43.5	-10.6	1.00 V	330	46.88	-13.96
3	253.97	36.7 QP	46.0	-9.3	2.00 V	133	50.89	-14.16
4	850.04	34.3 QP	46.0	-11.7	1.00 V	69	35.09	-0.82
5	897.28	33.5 QP	46.0	-12.5	1.00 V	60	33.49	-0.01
6	945.78	36.9 QP	46.0	-9.1	1.00 V	111	35.97	0.96

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier 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)
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	1.02 H	201	23.67	31.63
2	2390.00	41.6 AV	54.0	-12.4	1.02 H	201	9.97	31.63
3	*2412.00	99.0 PK			1.02 H	201	67.32	31.68
4	*2412.00	95.9 AV			1.02 H	201	64.22	31.68
5	4824.00	46.8 PK	74.0	-27.2	1.35 H	144	6.41	40.39
6	4824.00	35.2 AV	54.0	-18.8	1.35 H	144	-5.19	40.39
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	62.0 PK	74.0	-12.0	1.21 V	93	30.37	31.63
2	2390.00	43.7 AV	54.0	-10.3	1.21 V	93	12.07	31.63
3	*2412.00	108.5 PK			1.21 V	93	76.82	31.68
4	*2412.00	105.3 AV			1.21 V	93	73.62	31.68
5	4824.00	47.0 PK	74.0	-27.0	1.01 V	195	6.61	40.39
6	4824.00	40.2 AV	54.0	-13.8	1.01 V	195	-0.19	40.39

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) – Pre-Amplifier 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	101.1 PK			1.04 H	82	69.37	31.73
2	*2437.00	97.6 AV			1.04 H	82	65.87	31.73
3	4874.00	46.5 PK	74.0	-27.5	1.43 H	145	6.14	40.36
4	4874.00	34.6 AV	54.0	-19.4	1.43 H	145	-5.76	40.36
5	7311.00	54.8 PK	74.0	-19.2	1.15 H	215	9.83	44.97
6	7311.00	41.2 AV	54.0	-12.8	1.15 H	215	-3.77	44.97
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	109.7 PK			1.14 V	91	77.97	31.73
2	*2437.00	106.4 AV			1.14 V	91	74.67	31.73
3	4874.00	47.3 PK	74.0	-26.7	1.00 V	190	6.94	40.36
4	4874.00	40.5 AV	54.0	-13.5	1.00 V	190	0.14	40.36
5	7311.00	53.7 PK	74.0	-20.3	1.01 V	276	8.73	44.97
6	7311.00	41.3 AV	54.0	-12.7	1.01 V	276	-3.67	44.97

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) – Pre-Amplifier 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	99.2 PK			1.02 H	73	67.41	31.79
2	*2462.00	96.1 AV			1.02 H	73	64.31	31.79
3	2483.50	55.6 PK	74.0	-18.4	1.02 H	73	23.76	31.84
4	2483.50	35.7 AV	54.0	-18.3	1.02 H	73	3.86	31.84
5	4924.00	46.5 PK	74.0	-27.5	1.39 H	143	6.18	40.32
6	4924.00	34.8 AV	54.0	-19.2	1.39 H	143	-5.52	40.32
7	7386.00	55.0 PK	74.0	-19.0	1.00 H	211	9.81	45.19
8	7386.00	41.6 AV	54.0	-12.4	1.00 H	211	-3.59	45.19
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	109.3 PK			1.19 V	36	77.51	31.79
2	*2462.00	105.5 AV			1.19 V	36	73.71	31.79
3	2483.50	64.9 PK	74.0	-9.1	1.19 V	36	33.06	31.84
4	2483.50	48.8 AV	54.0	-5.2	1.19 V	36	16.96	31.84
5	4924.00	48.1 PK	74.0	-25.9	1.01 V	187	7.78	40.32
6	4924.00	40.7 AV	54.0	-13.3	1.01 V	187	0.38	40.32
7	7386.00	54.8 PK	74.0	-19.2	1.00 V	298	9.61	45.19
8	7386.00	42.3 AV	54.0	-11.7	1.00 V	298	-2.89	45.19

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) – Pre-Amplifier 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	62.7 PK	74.0	-11.3	1.07 H	91	31.07	31.63
2	2390.00	42.9 AV	54.0	-11.1	1.07 H	91	11.27	31.63
3	*2412.00	98.3 PK			1.07 H	91	66.62	31.68
4	*2412.00	86.0 AV			1.07 H	91	54.32	31.68
5	4824.00	46.1 PK	74.0	-27.9	1.40 H	154	5.71	40.39
6	4824.00	34.3 AV	54.0	-19.7	1.40 H	154	-6.09	40.39
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	71.8 PK	74.0	-2.2	1.18 V	91	40.17	31.63
2	2390.00	51.9 AV	54.0	-2.1	1.18 V	91	20.27	31.63
3	*2412.00	108.1 PK			1.18 V	91	76.42	31.68
4	*2412.00	95.5 AV			1.18 V	91	63.82	31.68
5	4824.00	47.1 PK	74.0	-26.9	1.06 V	173	6.71	40.39
6	4824.00	40.6 AV	54.0	-13.4	1.06 V	173	0.21	40.39

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) – Pre-Amplifier 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	98.6 PK			1.07 H	89	66.87	31.73
2	*2437.00	87.1 AV			1.07 H	89	55.37	31.73
3	4874.00	46.9 PK	74.0	-27.1	1.41 H	129	6.54	40.36
4	4874.00	34.9 AV	54.0	-19.1	1.41 H	129	-5.46	40.36
5	7311.00	54.9 PK	74.0	-19.1	1.18 H	215	9.93	44.97
6	7311.00	41.5 AV	54.0	-12.5	1.18 H	215	-3.47	44.97
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	107.9 PK			1.10 V	80	76.17	31.73
2	*2437.00	96.2 AV			1.10 V	80	64.47	31.73
3	4874.00	47.8 PK	74.0	-26.2	1.09 V	190	7.44	40.36
4	4874.00	41.0 AV	54.0	-13.0	1.09 V	190	0.64	40.36
5	7311.00	54.0 PK	74.0	-20.0	1.13 V	272	9.03	44.97
6	7311.00	41.1 AV	54.0	-12.9	1.13 V	272	-3.87	44.97

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) – Pre-Amplifier 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	98.2 PK			1.06 H	50	66.41	31.79
2	*2462.00	86.6 AV			1.06 H	50	54.81	31.79
3	2483.50	59.1 PK	74.0	-14.9	1.06 H	50	27.26	31.84
4	2483.50	41.6 AV	54.0	-12.4	1.06 H	50	9.76	31.84
5	4924.00	46.3 PK	74.0	-27.7	1.46 H	157	5.98	40.32
6	4924.00	34.1 AV	54.0	-19.9	1.46 H	157	-6.22	40.32
7	7386.00	54.3 PK	74.0	-19.7	1.17 H	213	9.11	45.19
8	7386.00	40.8 AV	54.0	-13.2	1.17 H	213	-4.39	45.19
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	107.5 PK			1.14 V	93	75.71	31.79
2	*2462.00	95.9 AV			1.14 V	93	64.11	31.79
3	2483.50	67.6 PK	74.0	-6.4	1.14 V	93	35.76	31.84
4	2483.50	50.2 AV	54.0	-3.8	1.14 V	93	18.36	31.84
5	4924.00	47.7 PK	74.0	-26.3	1.08 V	202	7.38	40.32
6	4924.00	40.8 AV	54.0	-13.2	1.08 V	202	0.48	40.32
7	7386.00	54.5 PK	74.0	-19.5	1.07 V	279	9.31	45.19
8	7386.00	41.5 AV	54.0	-12.5	1.07 V	279	-3.69	45.19

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) – Pre-Amplifier 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 (HT20)

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	62.6 PK	74.0	-11.4	1.05 H	61	30.97	31.63
2	2390.00	42.6 AV	54.0	-11.4	1.05 H	61	10.97	31.63
3	*2412.00	96.7 PK			1.05 H	61	65.02	31.68
4	*2412.00	85.5 AV			1.05 H	61	53.82	31.68
5	4824.00	46.2 PK	74.0	-27.8	1.39 H	153	5.81	40.39
6	4824.00	34.3 AV	54.0	-19.7	1.39 H	153	-6.09	40.39
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	71.9 PK	74.0	-2.1	1.18 V	93	40.27	31.63
2	2390.00	52.0 AV	54.0	-2.0	1.18 V	93	20.37	31.63
3	*2412.00	105.3 PK			1.18 V	93	73.62	31.68
4	*2412.00	94.3 AV			1.18 V	93	62.62	31.68
5	4824.00	47.4 PK	74.0	-26.6	1.06 V	184	7.01	40.39
6	4824.00	40.8 AV	54.0	-13.2	1.06 V	184	0.41	40.39

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) – Pre-Amplifier 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	98.7 PK			1.10 H	69	66.97	31.73
2	*2437.00	87.4 AV			1.10 H	69	55.67	31.73
3	4874.00	46.5 PK	74.0	-27.5	1.49 H	146	6.14	40.36
4	4874.00	34.3 AV	54.0	-19.7	1.49 H	146	-6.06	40.36
5	7311.00	54.9 PK	74.0	-19.1	1.14 H	222	9.93	44.97
6	7311.00	41.5 AV	54.0	-12.5	1.14 H	222	-3.47	44.97
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	107.5 PK			1.08 V	88	75.77	31.73
2	*2437.00	96.0 AV			1.08 V	88	64.27	31.73
3	4874.00	46.9 PK	74.0	-27.1	1.16 V	188	6.54	40.36
4	4874.00	40.2 AV	54.0	-13.8	1.16 V	188	-0.16	40.36
5	7311.00	53.5 PK	74.0	-20.5	1.06 V	285	8.53	44.97
6	7311.00	40.6 AV	54.0	-13.4	1.06 V	285	-4.37	44.97

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) – Pre-Amplifier 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	96.5 PK			1.11 H	68	64.71	31.79
2	*2462.00	85.7 AV			1.11 H	68	53.91	31.79
3	2483.50	61.3 PK	74.0	-12.7	1.11 H	68	29.46	31.84
4	2483.50	41.3 AV	54.0	-12.7	1.11 H	68	9.46	31.84
5	4924.00	45.8 PK	74.0	-28.2	1.45 H	154	5.48	40.32
6	4924.00	34.2 AV	54.0	-19.8	1.45 H	154	-6.12	40.32
7	7386.00	54.8 PK	74.0	-19.2	1.12 H	213	9.61	45.19
8	7386.00	41.3 AV	54.0	-12.7	1.12 H	213	-3.89	45.19
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	105.1 PK			1.11 V	95	73.31	31.79
2	*2462.00	94.2 AV			1.11 V	95	62.41	31.79
3	2483.50	70.8 PK	74.0	-3.2	1.11 V	95	38.96	31.84
4	2483.50	50.7 AV	54.0	-3.3	1.11 V	95	18.86	31.84
5	4924.00	47.3 PK	74.0	-26.7	1.04 V	190	6.98	40.32
6	4924.00	40.3 AV	54.0	-13.7	1.04 V	190	-0.02	40.32
7	7386.00	54.0 PK	74.0	-20.0	1.04 V	285	8.81	45.19
8	7386.00	41.1 AV	54.0	-12.9	1.04 V	285	-4.09	45.19

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) – Pre-Amplifier 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
SPECTRUM ANALYZER R&S	FSV 40	100964	July 15, 2013	July 14, 2014

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 : July 10, 2014

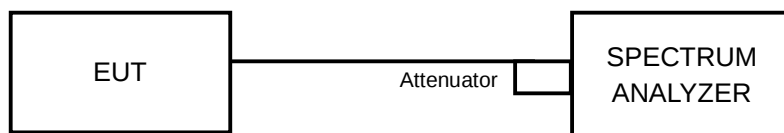
4.3.3 TEST PROCEDURE

1. Set resolution bandwidth (RBW) = 100kHz.
2. Set the video bandwidth (VBW) $\geq 3 \times$ 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	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	10.14	0.5	PASS
6	2437	10.14	0.5	PASS
11	2462	10.14	0.5	PASS

802.11g

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.38	0.5	PASS
6	2437	16.41	0.5	PASS
11	2462	16.40	0.5	PASS

802.11n (HT20)

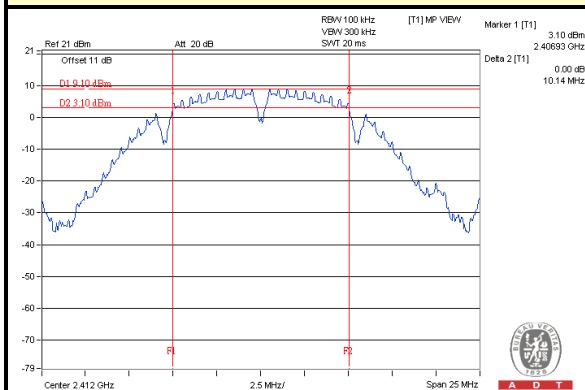
CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	17.65	0.5	PASS
6	2437	17.65	0.5	PASS
11	2462	17.65	0.5	PASS



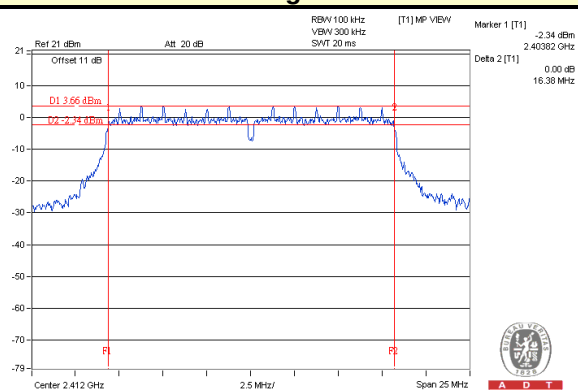
A D T

SPECTRUM PLOT OF WORST VALUE

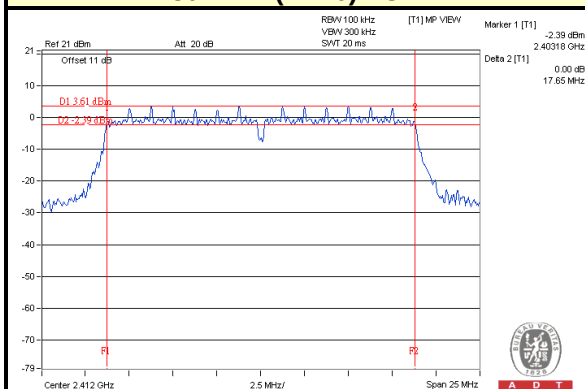
802.11b : CH1



802.11g : CH1



802.11n (HT20) : CH1



4.4 CONDUCTED OUTPUT POWER MEASUREMENT

4.4.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

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

4.4.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Power meter Anritsu	ML2495A	1014008	Apr. 30, 2014	Apr. 29, 2015
Power sensor Anritsu	MA2411B	0917122	Apr. 30, 2014	Apr. 29, 2015

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 : July 10, 2014

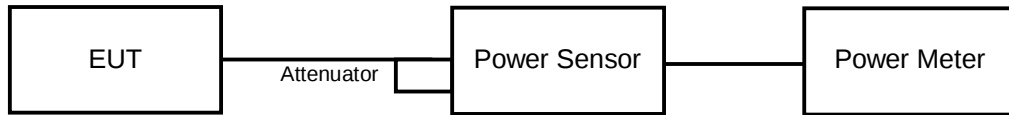
4.4.3 TEST PROCEDURES

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

FOR PEAK POWER

802.11b

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	122.18	20.87	30	PASS
6	2437	115.08	20.61	30	PASS
11	2462	109.901	20.41	30	PASS

802.11g

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	165.577	22.19	30	PASS
6	2437	176.604	22.47	30	PASS
11	2462	143.219	21.56	30	PASS

802.11n (HT20)

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	117.761	20.71	30	PASS
6	2437	164.816	22.17	30	PASS
11	2462	103.992	20.17	30	PASS

FOR AVERAGE POWER

802.11b

CHANNEL	FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)
1	2412	71.285	18.53
6	2437	66.222	18.21
11	2462	62.951	17.99

802.11g

CHANNEL	FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)
1	2412	23.496	13.71
6	2437	34.995	15.44
11	2462	17.865	12.52

802.11n (HT20)

CHANNEL	FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)
1	2412	16.558	12.19
6	2437	29.107	14.64
11	2462	14.322	11.56

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
SPECTRUM ANALYZER R&S	FSV 40	100964	July 15, 2013	July 14, 2014

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 : July 10, 2014

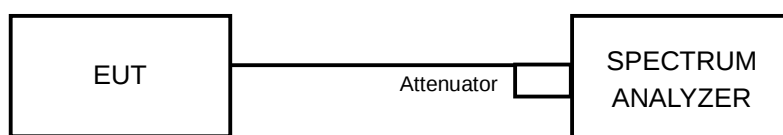
4.5.3 TEST PROCEDURE

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 amplitude level.

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	FREQUENCY (MHz)	PSD (dBm)	LIMIT (dBm)	PASS /FAIL
1	2412	-5.33	8	PASS
6	2437	-5.23	8	PASS
11	2462	-5.44	8	PASS

802.11g

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	LIMIT (dBm)	PASS /FAIL
1	2412	-11.87	8	PASS
6	2437	-9.18	8	PASS
11	2462	-13.06	8	PASS

802.11n (HT20)

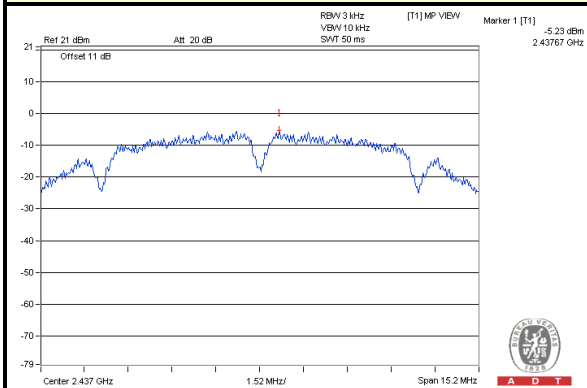
CHANNEL	FREQUENCY (MHz)	PSD (dBm)	LIMIT (dBm)	PASS /FAIL
1	2412	-10.97	8	PASS
6	2437	-8.47	8	PASS
11	2462	-13.81	8	PASS



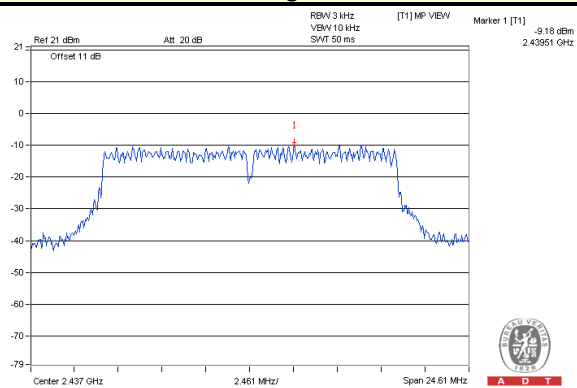
A D T

SPECTRUM PLOT OF WORST VALUE

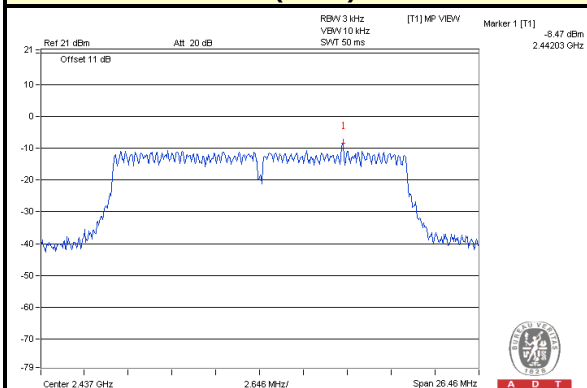
802.11b : CH6



802.11g : CH6



802.11n (HT20) : CH6



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
SPECTRUM ANALYZER R&S	FSV 40	100964	July 15, 2013	July 14, 2014

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 : July 10, 2014

4.6.3 TEST PROCEDURE

Measurement Procedure - Reference Level

1. Set the RBW = 100 kHz.
2. Set the VBW $\geq$ 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.

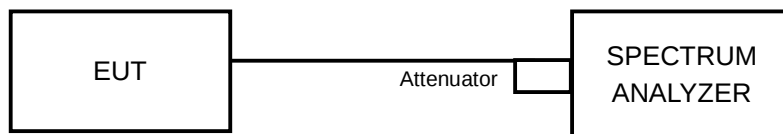
Measurement Procedure –Unwanted Emission Level

1. Set RBW = 100 kHz.
2. Set VBW $\geq$ 300 kHz.
3. Detector = peak.
4. Sweep = auto couple.
5. Trace Mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum amplitude level.

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

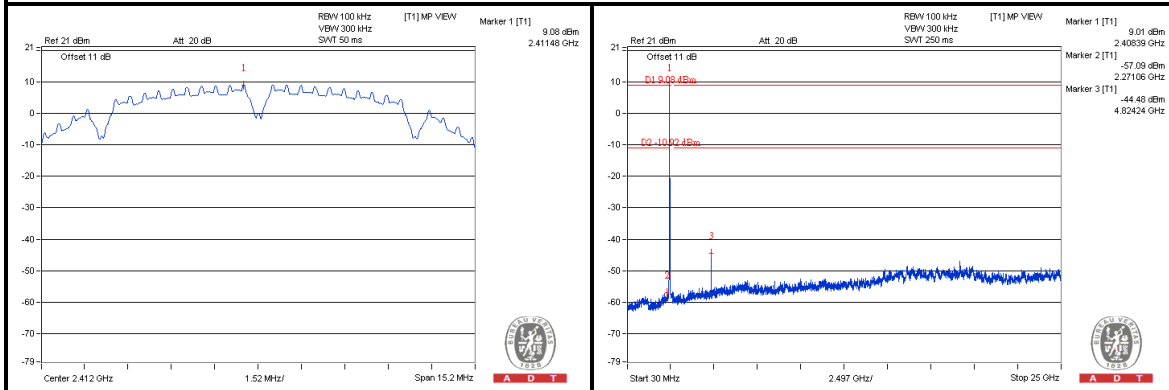
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement.



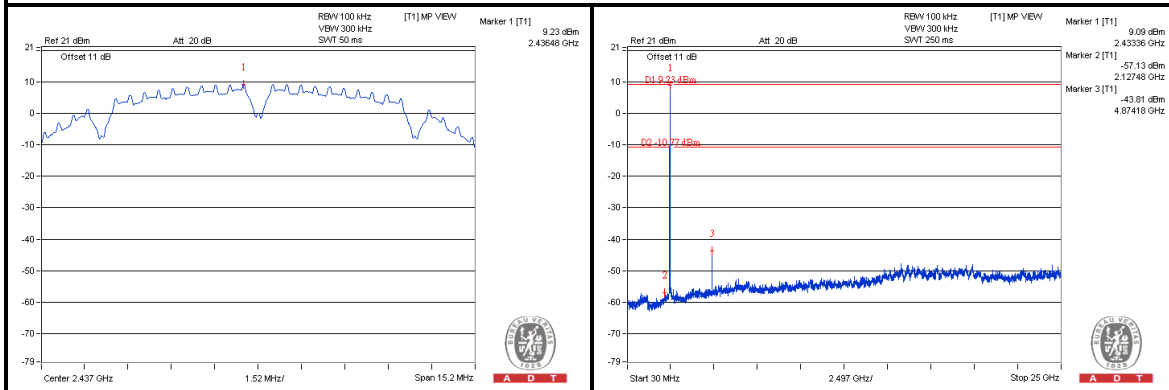
A D T

802.11b

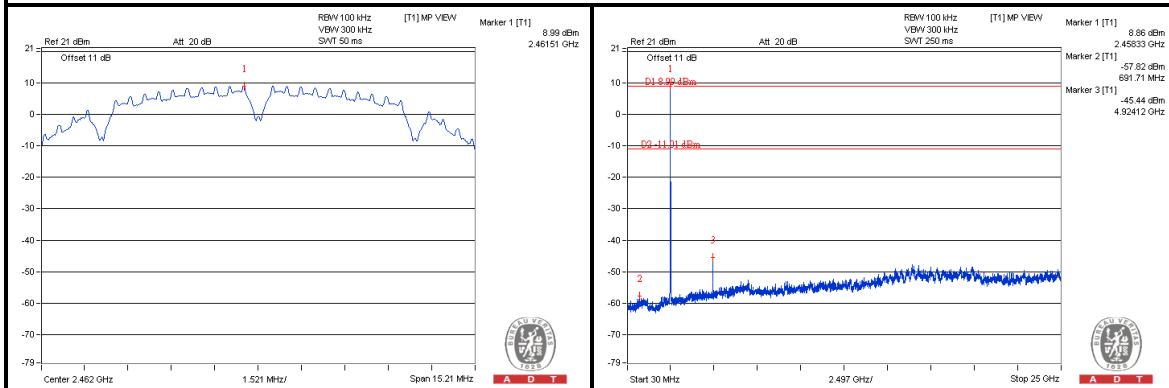
CH 1



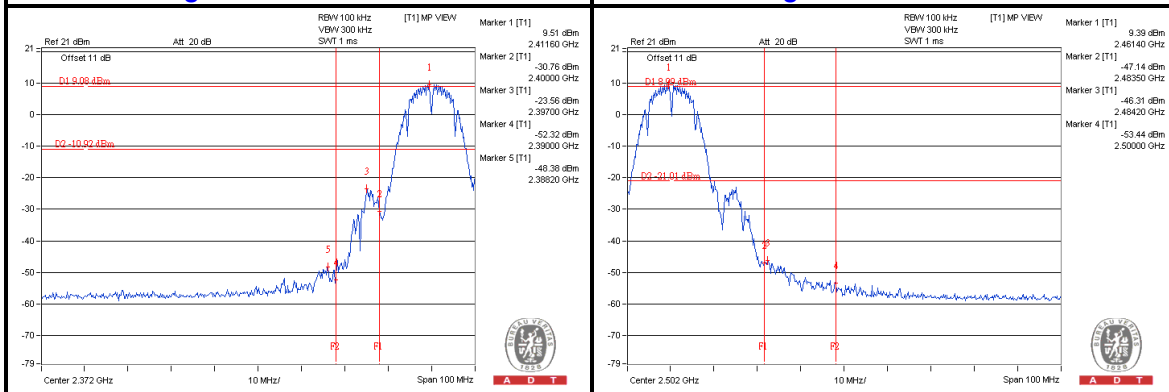
CH 6



CH 11



CH 1 Band edge

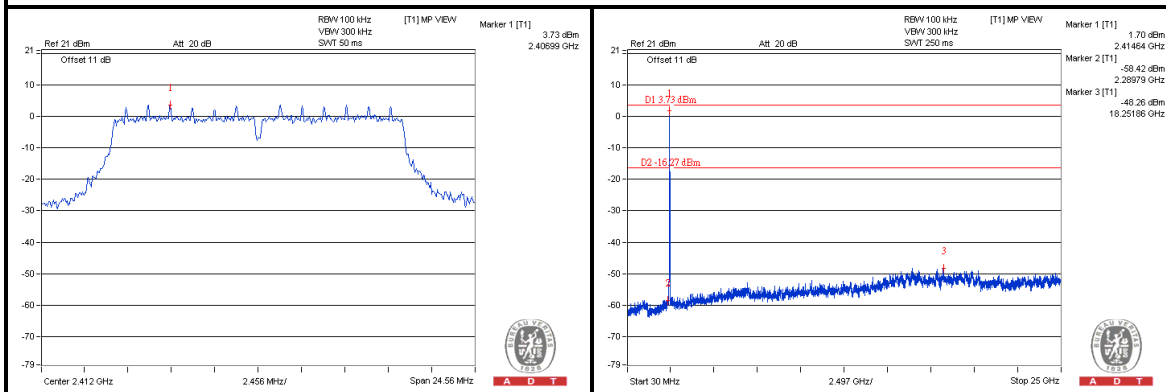




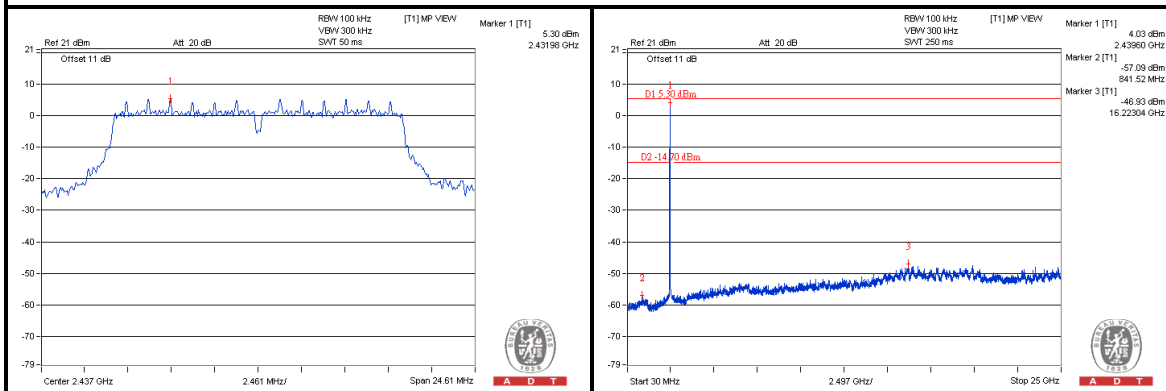
A D T

802.11g

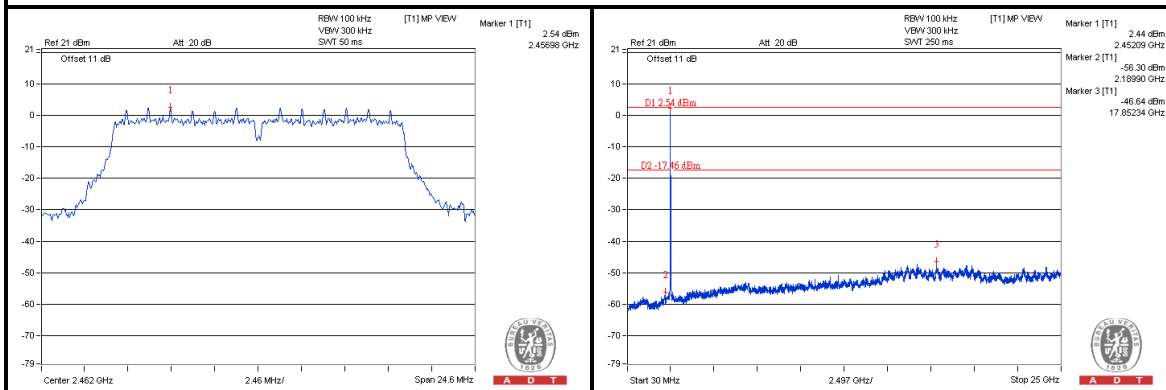
CH 1



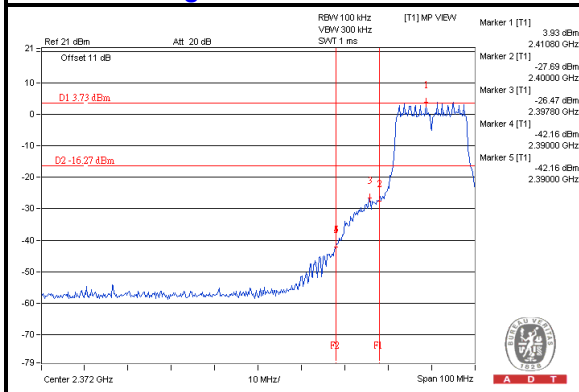
CH 6



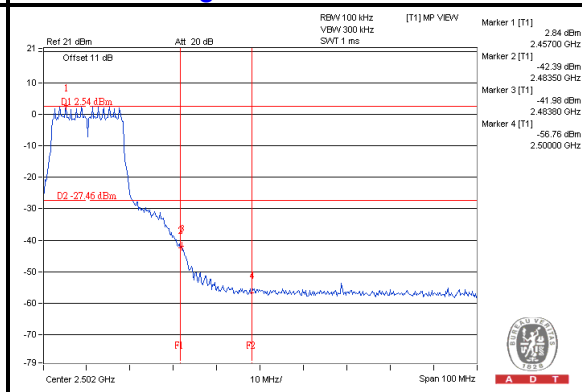
CH 11



CH 1 Band edge



CH 11 Band edge

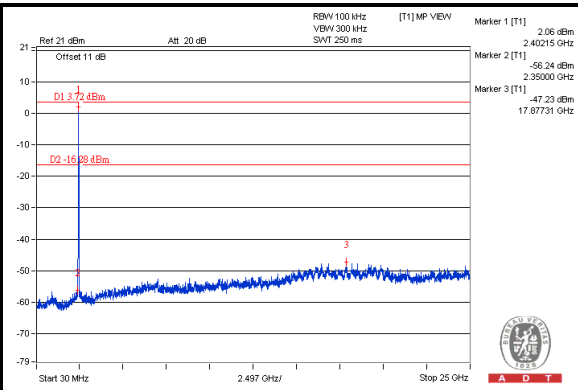
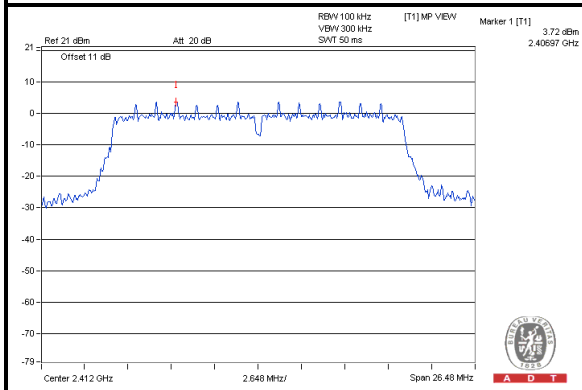




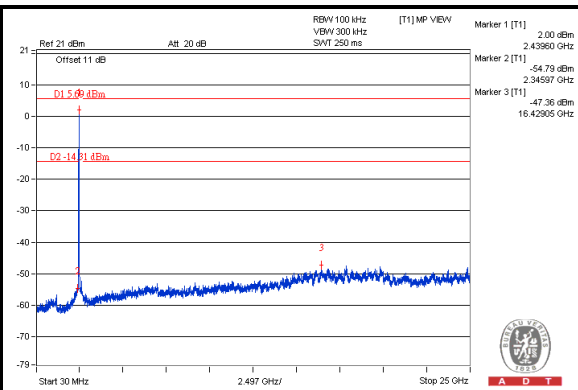
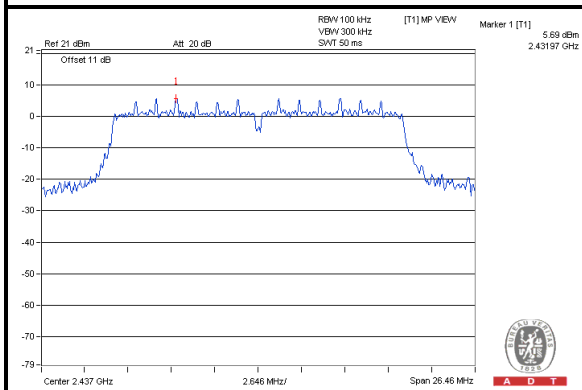
A D T

802.11n (HT20)

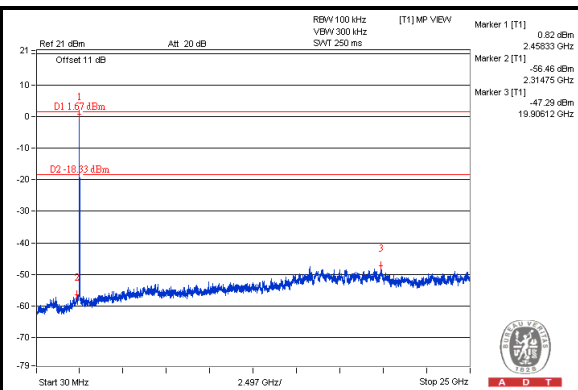
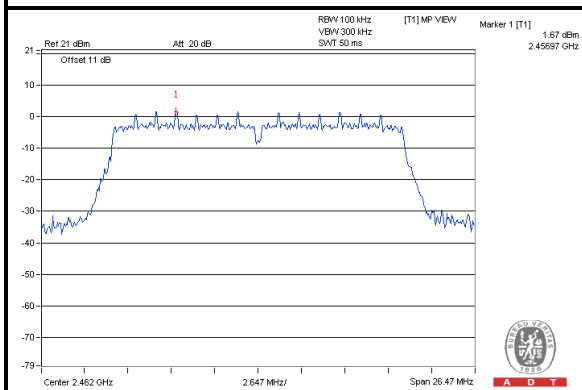
CH 1



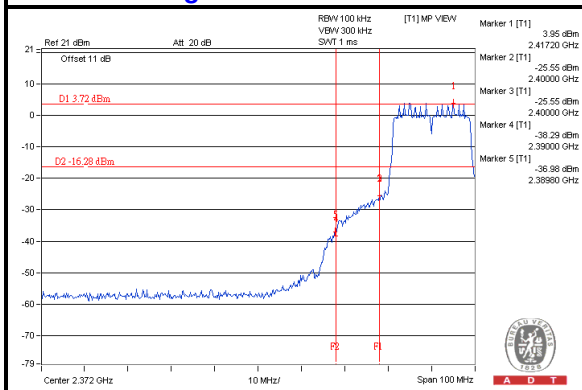
CH 6



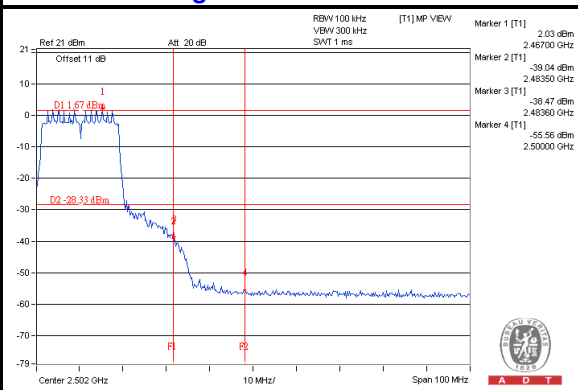
CH 11



CH 1 Band edge



CH 11 Band edge



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:

Linko EMC/RF Lab:

Tel: 886-2-26052180

Fax: 886-2-26052943

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: 886-3-3270892

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.



A D T

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 ---