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FCC TEST REPORT

REPORT NO.: RF130607E05A

MODEL NO.: xPico Wi-Fi, xPico W1003, xPico W1002

FCC ID: R68XPICOW

RECEIVED: Oct. 21, 2014

TESTED: Oct. 22 to 23, 2014

ISSUED: Nov. 19, 2014

APPLICANT: Lantronix

ADDRESS: 167 Technology, Irvine, CA 92618 (USA)

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

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R.O.C.

TEST LOCATION (1): No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen,
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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF130607E05A	Original release	Nov. 19, 2014



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1. CERTIFICATION

PRODUCT: 802.11b/g/n Wireless Module, xPico Wi-Fi SMT Module

BRAND NAME: Lantronix

MODEL NO.: xPico Wi-Fi, xPico W1003, xPico W1002

TEST SAMPLE: ENGINEERING SAMPLE

APPLICANT: Lantronix

TESTED: Oct. 22 to 23, 2014

STANDARDS: **FCC Part 15, Subpart C (Section 15.247)**
ANSI C63.10-2009

The above equipment (Model: xPico W1003, xPico W1002) have 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:** Nov. 19, 2014
(Lori Chung, Specialist)

Approved By :  , **Date:** Nov. 19, 2014
(May Chen, Manager)



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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 -14.95dB at 24.00000MHz
15.247(d) 15.209	Radiated Emissions & Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -1.0dB at 2390.00MHz
15.247(b)	Conducted Output power	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is I-PEX not a standard connector.



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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



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3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	802.11b/g/n Wireless Module, xPico Wi-Fi SMT Module
MODEL NO.	xPico Wi-Fi, xPico W1003, xPico W1002
POWER SUPPLY	DC 3.3V \pm 10% 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
MAXIMUM OUTPUT POWER	802.11b: 87.902mW 802.11g: 221.309mW 802.11n (HT20): 197.242mW
ANTENNA TYPE	Please see NOTE
DATA CABLE	NA
I/O PORTS	Refer to user's manual
ASSOCIATED DEVICES	NA



NOTE:

1. This report is prepared for FCC class II permissive change. The difference compared with the Report No.: RF130607E05 design is as the following:

- ◆ Added pin of hardware.
- ◆ Changed software version.
- ◆ Added one antenna as following table:

Original								
Ant. No.	Brand	Model	Antenna Type	Net Gain (dBi) (Include cable loss)	Connector Type	Frequency range (MHz to MHz)	Cable Loss (dB)	Cable Length (mm)
1	ethertronics	1000602	PIFA	2.5	IPEX	2390 ~ 2490	NA	50
2	Wanshih	WSS002	Dipole	2.38	IPEX	2400 ~ 2483.5	0.5	100
Newly								
Ant. No.	Brand	Model	Antenna Type	Net Gain (dBi) (Include cable loss)	Connector Type	Frequency range (MHz to MHz)	Cable Loss (dB)	Cable Length (mm)
3	Advanced Ceramic X	AT8010-E2R9HAA	Chip	2	IPEX	2400 ~ 2483.5	0.5	0

- ◆ Added one product name and two model numbers as following table:

Original			
Product Name	Brand	Model No.	Description
802.11b/g/n Wireless Module	Lantronix	xPico Wi-Fi	Module with U.FL (With antenna 1 or 2)
Newly			
Product Name	Brand	Model No.	Description
xPico Wi-Fi SMT Module	Lantronix	xPico W1002	SIP with U.FL (SKU B) (With antenna 1 or 2)
		xPico W1003	SIP with Murata connector (SKU A) (With antenna 3)

From the above models, model: xPico W1003 & xPico W1002 were selected as representative model for the test and its data was recorded in this report.

2. According to above condition, only Conducted Emission, Conducted Output Power and Radiated Emissions need to be performed. And all data was verified to meet the requirements.

3. The EUT incorporates a SISO function.

MODULATION MODE	DATA RATE (MCS)	TX & RX CONFIGURATION	
802.11b	1 ~ 11Mbps	1TX	1RX
802.11g	6 ~ 54Mbps	1TX	1RX
802.11n (HT20)	MCS 0~7	1TX	1RX

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



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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 ≥ 1G	APCM	
1	-	√	√	√	SKU B (With antenna 1)
2	√	√	√	-	SKU B (With antenna 2)
3	-	√	√	-	SKU A (With antenna 3)

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

NOTE:

1. The EUT's antenna (PIFA) 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 **Y-plane** (for above 1GHz).
2. The EUT's antenna (Chip) 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

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
PLC	30deg. C, 70%RH	120Vac, 60Hz	Mike Hsieh
RE<1G	21deg. C, 64%RH	120Vac, 60Hz	Andy Ho
RE≥1G	22deg. C, 65%RH	120Vac, 60Hz	Robert Cheng
APCM	25deg. C, 60%RH	120Vac, 60Hz	Robert Cheng

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.

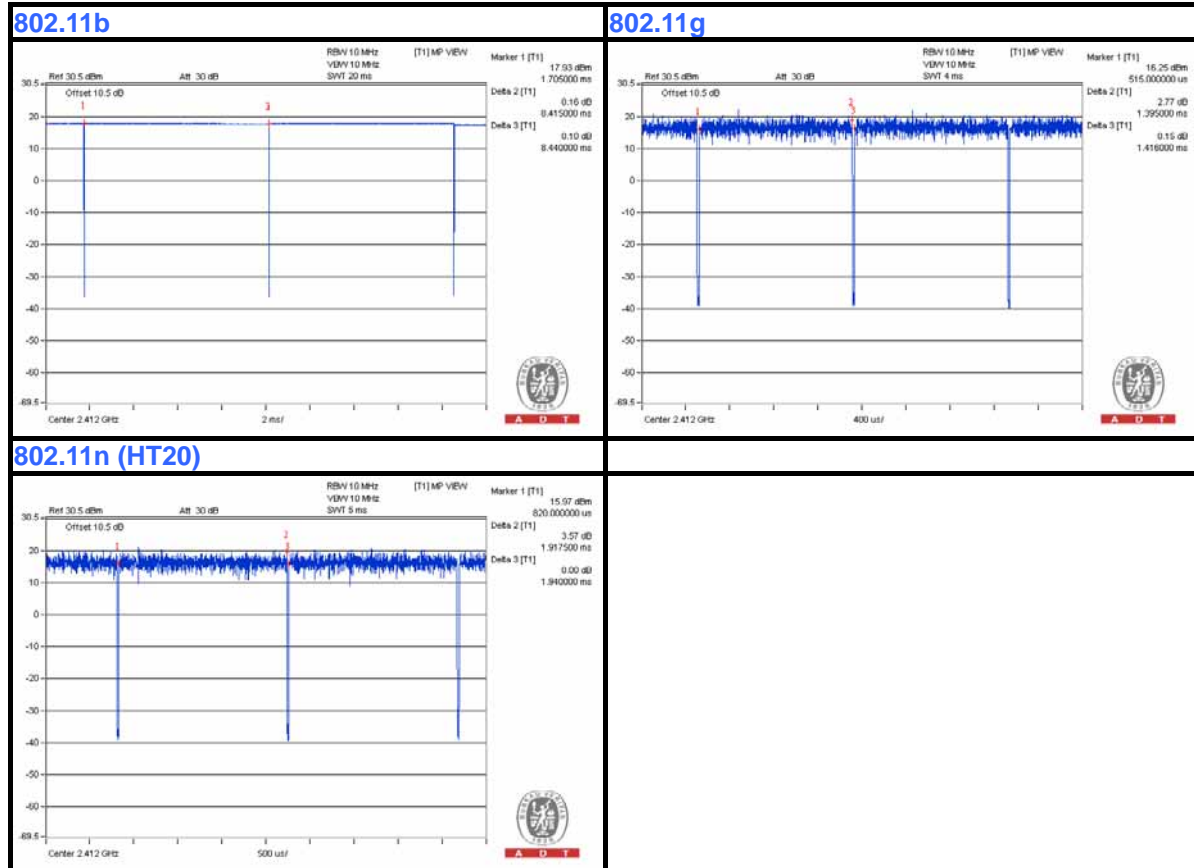
3.4 DUTY CYCLE OF TEST SIGNAL

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

802.11b: Duty cycle = $8.415 \text{ ms} / 8.44 \text{ ms} = 0.997$

802.11g: Duty cycle = $1.395 \text{ ms} / 1.416 \text{ ms} = 0.985$

802.11n (HT20): Duty cycle = $1.917 \text{ ms} / 1.94 \text{ ms} = 0.988$



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.

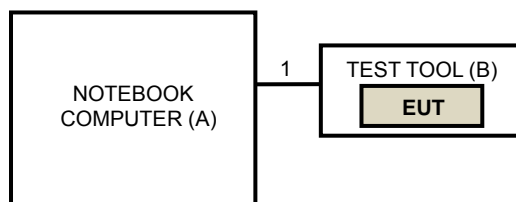
No.	Product	Brand	Model No.	Serial No.	FCC ID	Remark
A	NOTEBOOK COMPUTER	Lenovo	T61	L3Z0244	NA	Supplied by client
B	TEST TOOL	Lantronix	NA	NA	NA	Supplied by client

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	Yes	0	Supplied by client

3.6 CONFIGURATION OF SYSTEM UNDER TEST





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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	100375	Apr. 29, 2014	Apr. 28, 2015
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	NSLK-8127	8127-522	Sep. 15, 2014	Sep. 14, 2015
Line-Impedance Stabilization Network (for Peripheral) ROHDE & SCHWARZ	ENV216	100071	Nov. 13, 2013	Nov. 12, 2014
RF Cable (JYEBAO)	5DFB	COCCAB-001	Mar. 10, 2014	Mar. 09, 2015
50 ohms Terminator	N/A	EMC-03	Sep. 22, 2014	Sep. 21, 2015
50 ohms Terminator	N/A	EMC-02	Sep. 30, 2014	Sep. 29, 2015
Software ADT	BV ADT_Cond_V7.3.7. 3	NA	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Shielded Room No. C.
3. The VCCI Con C Registration No. is C-3611.
4. Tested Date: Oct. 23, 2014

4.1.3 TEST PROCEDURES

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN.
- b. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- c. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- d. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) were not recorded.

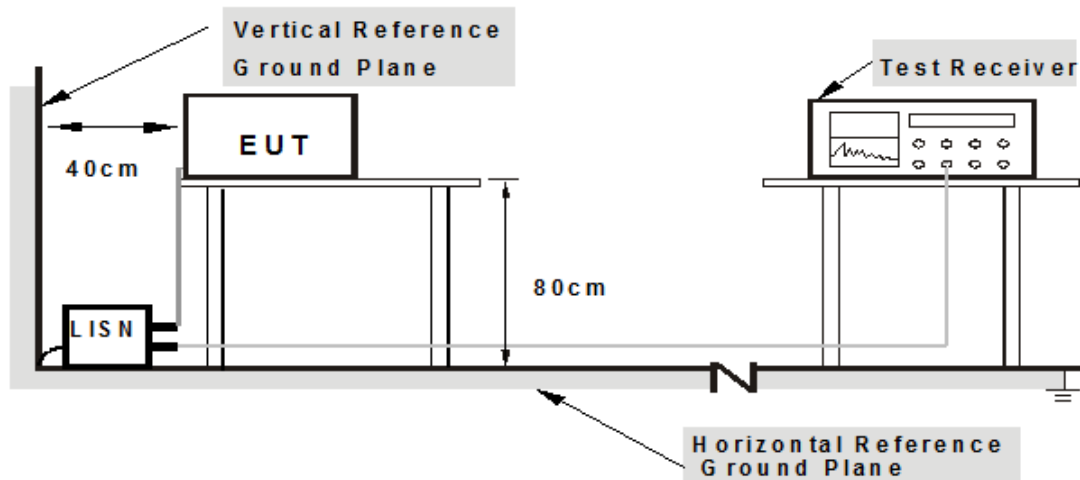
NOTE:

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

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



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

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



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4.1.6 EUT OPERATING CONDITIONS

1. Connect the EUT with the support unit A (Notebook Computer) which is placed on a testing table.
2. Controlling software (wl (Broadcom) command) has been activated to set the EUT on specific status.

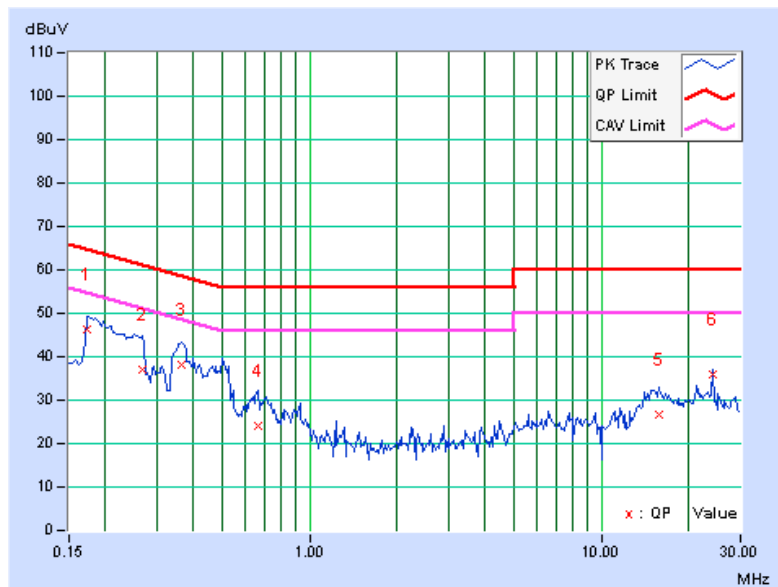
4.1.7 TEST RESULTS

PHASE	Line (L)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)
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No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	Factor (dB)	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17344	0.07	46.19	32.88	46.26	32.95	64.79	54.79	-18.54	-21.85
2	0.26719	0.08	36.99	16.83	37.07	16.91	61.20	51.20	-24.14	-34.30
3	0.36484	0.09	38.15	25.82	38.24	25.91	58.62	48.62	-20.38	-22.71
4	0.66953	0.11	23.95	9.91	24.06	10.02	56.00	46.00	-31.94	-35.98
5	15.69922	0.60	26.10	20.19	26.70	20.79	60.00	50.00	-33.30	-29.21
6	24.00000	0.78	35.19	34.27	35.97	35.05	60.00	50.00	-24.03	-14.95

REMARKS:

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

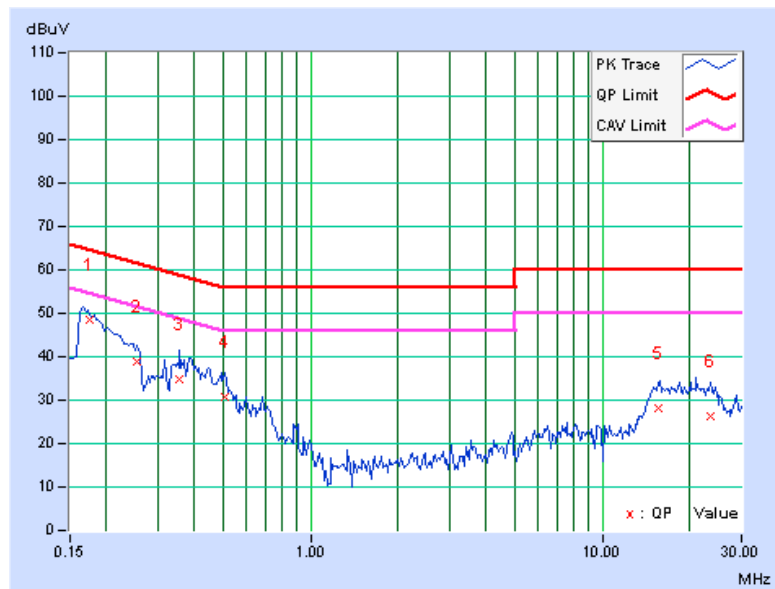


PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)
--------------	-------------	--------------------------	--------------------------------

No	Freq. [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	0.17463	0.06	48.42	35.55	48.48	35.61	64.74	54.74	-16.25	-19.12
2	0.25547	0.07	38.65	17.93	38.72	18.00	61.58	51.58	-22.86	-33.58
3	0.35703	0.08	34.76	23.18	34.84	23.26	58.80	48.80	-23.95	-25.53
4	0.50938	0.10	30.63	17.56	30.73	17.66	56.00	46.00	-25.27	-28.34
5	15.49219	0.62	27.57	20.96	28.19	21.58	60.00	50.00	-31.81	-28.42
6	23.42188	0.82	25.55	19.90	26.37	20.72	60.00	50.00	-33.63	-29.28

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





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4.2 RADIATED EMISSION AND BANDEGE MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION AND BANDEGE MEASUREMENT

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

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

NOTE:

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



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4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
MXE EMI Receiver Agilent	N9038A	MY51210105	July 21, 2014	July 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. 04, 2014	Oct. 03, 2015
Horn_Antenna AISl	AIH.8018	0000320091110	Aug. 27, 2014	Aug. 26, 2015
Pre-Amplifier Agilent	8449B	3008A02578	June 24, 2014	June 23, 2015
RF Cable	NA	131205 131214 SNMY23684/4	Jan. 17, 2014	Jan. 16, 2015
Spectrum Analyzer R&S	FSV40	100964	July 05, 2014	July 04, 2015
Pre-Amplifier SPACEK LABS	SLKKa-48-6	9K16	Nov. 13, 2013	Nov. 12, 2014
Horn_Antenna SCHWARZBECK	BBHA 9170	9170-424	Aug. 26, 2014	Aug. 25, 2015
RF Cable	NA	RF104-121 RF104-204	Dec. 12, 2013	Dec. 11, 2014
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: Oct. 22, 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:

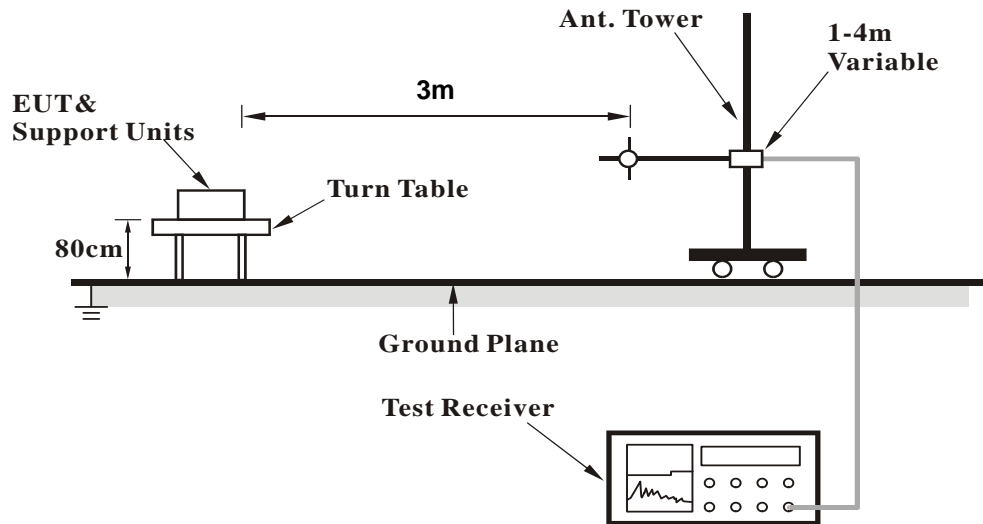
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

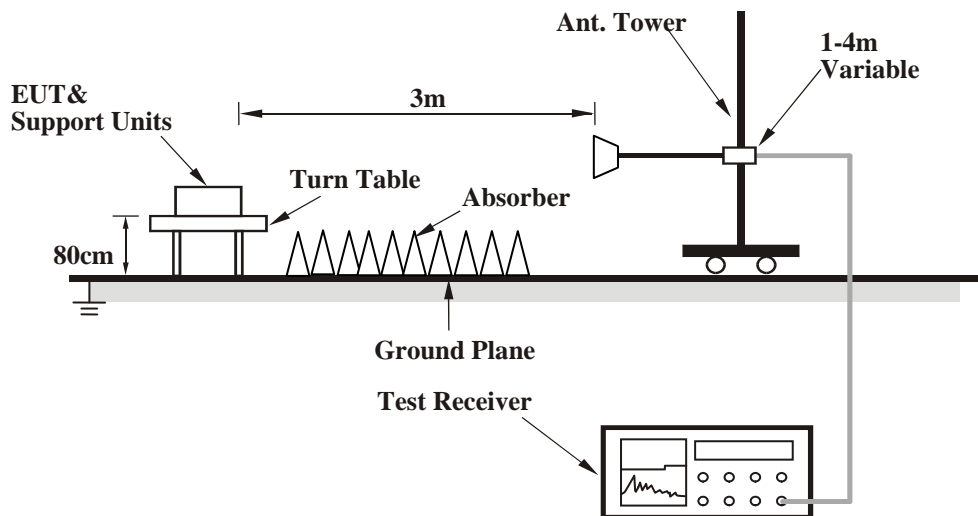
No deviation

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	73.60	26.7 QP	40.0	-13.3	2.00 H	24	43.29	-16.63
2	188.16	34.1 QP	43.5	-9.4	1.50 H	66	49.96	-15.82
3	240.01	35.2 QP	46.0	-10.8	1.00 H	360	50.07	-14.91
4	288.02	31.7 QP	46.0	-14.3	1.00 H	39	44.62	-12.88
5	480.03	37.2 QP	46.0	-8.8	2.00 H	334	44.95	-7.73
6	599.54	32.9 QP	46.0	-13.1	1.00 H	81	37.70	-4.83

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	33.15	34.3 QP	40.0	-5.7	1.00 V	164	48.83	-14.51
2	66.08	30.2 QP	40.0	-9.8	1.50 V	360	45.20	-15.01
3	141.45	27.0 QP	43.5	-16.5	1.00 V	134	40.74	-13.75
4	480.03	35.3 QP	46.0	-10.8	1.00 V	310	42.98	-7.73
5	599.44	29.0 QP	46.0	-17.0	1.00 V	291	33.84	-4.84
6	799.99	31.6 QP	46.0	-14.4	1.00 V	61	32.78	-1.16

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



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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	52.9 PK	74.0	-21.1	1.03 H	247	55.37	-2.47
2	2390.00	41.4 AV	54.0	-12.6	1.03 H	247	43.87	-2.47
3	*2412.00	101.5 PK			1.03 H	247	103.87	-2.37
4	*2412.00	99.1 AV			1.03 H	247	101.47	-2.37
5	4824.00	45.6 PK	74.0	-28.4	1.02 H	219	39.89	5.71
6	4824.00	33.7 AV	54.0	-20.3	1.02 H	219	27.99	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	54.8 PK	74.0	-19.2	1.21 V	202	57.27	-2.47
2	2390.00	43.9 AV	54.0	-10.1	1.21 V	202	46.37	-2.47
3	*2412.00	105.3 PK			1.21 V	202	107.67	-2.37
4	*2412.00	103.0 AV			1.21 V	202	105.37	-2.37
5	4824.00	46.6 PK	74.0	-27.4	1.03 V	79	40.89	5.71
6	4824.00	35.2 AV	54.0	-18.8	1.03 V	79	29.49	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.



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	47.8 PK	74.0	-26.2	1.01 H	243	50.27	-2.47
2	2390.00	34.7 AV	54.0	-19.3	1.01 H	243	37.17	-2.47
3	*2437.00	101.6 PK			1.01 H	243	103.85	-2.25
4	*2437.00	99.2 AV			1.01 H	243	101.45	-2.25
5	4874.00	45.8 PK	74.0	-28.2	1.00 H	220	39.90	5.90
6	4874.00	33.9 AV	54.0	-20.1	1.00 H	220	28.00	5.90
7	7311.00	53.9 PK	74.0	-20.1	1.00 H	43	40.73	13.17
8	7311.00	41.4 AV	54.0	-12.6	1.00 H	43	28.23	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	2390.00	49.7 PK	74.0	-24.3	1.21 V	202	52.17	-2.47
2	2390.00	37.2 AV	54.0	-16.8	1.21 V	202	39.67	-2.47
3	*2437.00	105.4 PK			1.21 V	202	107.65	-2.25
4	*2437.00	103.0 AV			1.21 V	202	105.25	-2.25
5	4874.00	46.1 PK	74.0	-27.9	1.04 V	92	40.20	5.90
6	4874.00	34.9 AV	54.0	-19.1	1.04 V	92	29.00	5.90
7	7311.00	53.8 PK	74.0	-20.2	1.05 V	230	40.63	13.17
8	7311.00	41.7 AV	54.0	-12.3	1.05 V	230	28.53	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	101.6 PK			1.03 H	230	103.74	-2.14
2	*2462.00	99.1 AV			1.03 H	230	101.24	-2.14
3	2483.50	50.3 PK	74.0	-23.7	1.03 H	230	52.33	-2.03
4	2483.50	37.9 AV	54.0	-16.1	1.03 H	230	39.93	-2.03
5	4924.00	46.2 PK	74.0	-27.8	1.00 H	215	40.09	6.11
6	4924.00	34.2 AV	54.0	-19.8	1.00 H	215	28.09	6.11
7	7386.00	53.8 PK	74.0	-20.2	1.00 H	58	40.62	13.18
8	7386.00	41.3 AV	54.0	-12.7	1.00 H	58	28.12	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	105.4 PK			1.22 V	201	107.54	-2.14
2	*2462.00	102.9 AV			1.22 V	201	105.04	-2.14
3	4924.00	46.6 PK	74.0	-27.4	1.00 V	98	40.49	6.11
4	4924.00	35.3 AV	54.0	-18.7	1.00 V	98	29.19	6.11
5	7386.00	53.2 PK	74.0	-20.8	1.00 V	215	40.02	13.18
6	7386.00	41.3 AV	54.0	-12.7	1.00 V	215	28.12	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.



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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	68.5 PK	74.0	-5.5	1.03 H	232	70.97	-2.47
2	2390.00	48.1 AV	54.0	-5.9	1.03 H	232	50.57	-2.47
3	*2412.00	103.9 PK			1.03 H	232	106.27	-2.37
4	*2412.00	92.8 AV			1.03 H	232	95.17	-2.37
5	4824.00	44.8 PK	74.0	-29.2	1.07 H	213	39.09	5.71
6	4824.00	33.3 AV	54.0	-20.7	1.07 H	213	27.59	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	71.4 PK	74.0	-2.6	1.21 V	202	73.87	-2.47
2	2390.00	50.6 AV	54.0	-3.4	1.21 V	202	53.07	-2.47
3	*2412.00	107.7 PK			1.21 V	202	110.07	-2.37
4	*2412.00	96.6 AV			1.21 V	202	98.97	-2.37
5	4824.00	46.8 PK	74.0	-27.2	1.07 V	112	41.09	5.71
6	4824.00	35.5 AV	54.0	-18.5	1.07 V	112	29.79	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.



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	47.1 PK	74.0	-26.9	1.07 H	232	49.57	-2.47
2	2390.00	35.1 AV	54.0	-18.9	1.07 H	232	37.57	-2.47
3	*2437.00	103.4 PK			1.07 H	232	105.65	-2.25
4	*2437.00	92.7 AV			1.07 H	232	94.95	-2.25
5	4874.00	45.2 PK	74.0	-28.8	1.02 H	207	39.30	5.90
6	4874.00	33.6 AV	54.0	-20.4	1.02 H	207	27.70	5.90
7	7311.00	53.4 PK	74.0	-20.6	1.00 H	76	40.23	13.17
8	7311.00	41.4 AV	54.0	-12.6	1.00 H	76	28.23	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	2390.00	49.6 PK	74.0	-24.4	1.20 V	199	52.07	-2.47
2	2390.00	37.2 AV	54.0	-16.8	1.20 V	199	39.67	-2.47
3	*2437.00	107.2 PK			1.20 V	199	109.45	-2.25
4	*2437.00	96.6 AV			1.20 V	199	98.85	-2.25
5	4874.00	46.8 PK	74.0	-27.2	1.08 V	116	40.90	5.90
6	4874.00	35.6 AV	54.0	-18.4	1.08 V	116	29.70	5.90
7	7311.00	53.0 PK	74.0	-21.0	1.03 V	202	39.83	13.17
8	7311.00	41.6 AV	54.0	-12.4	1.03 V	202	28.43	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	104.6 PK			1.12 H	224	106.74	-2.14
2	*2462.00	92.3 AV			1.12 H	224	94.44	-2.14
3	2483.50	68.6 PK	74.0	-5.4	1.12 H	224	70.63	-2.03
4	2483.50	47.4 AV	54.0	-6.6	1.12 H	224	49.43	-2.03
5	4924.00	45.8 PK	74.0	-28.2	1.04 H	205	39.69	6.11
6	4924.00	34.1 AV	54.0	-19.9	1.04 H	205	27.99	6.11
7	7386.00	54.0 PK	74.0	-20.0	1.01 H	74	40.82	13.18
8	7386.00	41.7 AV	54.0	-12.3	1.01 H	74	28.52	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	108.4 PK			1.23 V	200	110.54	-2.14
2	*2462.00	96.2 AV			1.23 V	200	98.34	-2.14
3	2483.50	71.4 PK	74.0	-2.6	1.23 V	200	73.43	-2.03
4	2483.50	49.5 AV	54.0	-4.5	1.23 V	200	51.53	-2.03
5	4924.00	46.9 PK	74.0	-27.1	1.03 V	109	40.79	6.11
6	4924.00	35.6 AV	54.0	-18.4	1.03 V	109	29.49	6.11
7	7386.00	52.7 PK	74.0	-21.3	1.00 V	212	39.52	13.18
8	7386.00	41.1 AV	54.0	-12.9	1.00 V	212	27.92	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.



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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	68.5 PK	74.0	-5.5	1.10 H	212	70.97	-2.47
2	2390.00	48.0 AV	54.0	-6.0	1.10 H	212	50.47	-2.47
3	*2412.00	102.1 PK			1.10 H	212	104.47	-2.37
4	*2412.00	91.5 AV			1.10 H	212	93.87	-2.37
5	4824.00	45.4 PK	74.0	-28.6	1.08 H	227	39.69	5.71
6	4824.00	33.5 AV	54.0	-20.5	1.08 H	227	27.79	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	71.4 PK	74.0	-2.6	1.20 V	199	73.87	-2.47
2	2390.00	50.1 AV	54.0	-3.9	1.20 V	199	52.57	-2.47
3	*2412.00	105.9 PK			1.20 V	199	108.27	-2.37
4	*2412.00	95.4 AV			1.20 V	199	97.77	-2.37
5	4824.00	47.9 PK	74.0	-26.1	1.01 V	103	42.19	5.71
6	4824.00	36.6 AV	54.0	-17.4	1.01 V	103	30.89	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.



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	44.5 PK	74.0	-29.5	1.09 H	213	46.97	-2.47
2	2390.00	34.7 AV	54.0	-19.3	1.09 H	213	37.17	-2.47
3	*2437.00	102.2 PK			1.09 H	213	104.45	-2.25
4	*2437.00	91.7 AV			1.09 H	213	93.95	-2.25
5	4874.00	45.6 PK	74.0	-28.4	1.07 H	224	39.70	5.90
6	4874.00	33.7 AV	54.0	-20.3	1.07 H	224	27.80	5.90
7	7311.00	54.4 PK	74.0	-19.6	1.06 H	70	41.23	13.17
8	7311.00	41.9 AV	54.0	-12.1	1.06 H	70	28.73	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	2390.00	47.0 PK	74.0	-27.0	1.20 V	199	49.47	-2.47
2	2390.00	36.8 AV	54.0	-17.2	1.20 V	199	39.27	-2.47
3	*2437.00	106.0 PK			1.20 V	199	108.25	-2.25
4	*2437.00	95.6 AV			1.20 V	199	97.85	-2.25
5	4874.00	47.3 PK	74.0	-26.7	1.05 V	96	41.40	5.90
6	4874.00	36.1 AV	54.0	-17.9	1.05 V	96	30.20	5.90
7	7311.00	51.9 PK	74.0	-22.1	1.03 V	199	38.73	13.17
8	7311.00	40.4 AV	54.0	-13.6	1.03 V	199	27.23	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	102.3 PK			1.06 H	220	104.44	-2.14
2	*2462.00	91.5 AV			1.06 H	220	93.64	-2.14
3	2483.50	69.9 PK	74.0	-4.1	1.06 H	220	71.93	-2.03
4	2483.50	48.0 AV	54.0	-6.0	1.06 H	220	50.03	-2.03
5	4924.00	45.3 PK	74.0	-28.7	1.02 H	216	39.19	6.11
6	4924.00	33.6 AV	54.0	-20.4	1.02 H	216	27.49	6.11
7	7386.00	54.3 PK	74.0	-19.7	1.05 H	78	41.12	13.18
8	7386.00	42.0 AV	54.0	-12.0	1.05 H	78	28.82	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	106.1 PK			1.20 V	199	108.24	-2.14
2	*2462.00	95.4 AV			1.20 V	199	97.54	-2.14
3	2483.50	72.8 PK	74.0	-1.2	1.20 V	199	74.83	-2.03
4	2483.50	50.1 AV	54.0	-3.9	1.20 V	199	52.13	-2.03
5	4924.00	47.1 PK	74.0	-26.9	1.06 V	98	40.99	6.11
6	4924.00	35.9 AV	54.0	-18.1	1.06 V	98	29.79	6.11
7	7386.00	52.4 PK	74.0	-21.6	1.03 V	199	39.22	13.18
8	7386.00	40.8 AV	54.0	-13.2	1.03 V	199	27.62	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.



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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	64.87	33.9 QP	40.0	-6.2	2.00 H	346	48.72	-14.87
2	179.91	32.0 QP	43.5	-11.5	1.50 H	49	46.89	-14.90
3	298.98	34.8 QP	46.0	-11.3	1.00 H	172	47.27	-12.52
4	479.98	37.7 QP	46.0	-8.3	1.50 H	87	45.46	-7.73
5	597.55	33.8 QP	46.0	-12.2	1.00 H	90	38.67	-4.91
6	721.56	29.0 QP	46.0	-17.0	1.00 H	258	32.05	-3.05

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	33.06	34.1 QP	40.0	-5.9	1.00 V	89	48.66	-14.53
2	65.36	33.3 QP	40.0	-6.7	1.00 V	92	48.27	-14.93
3	480.03	33.8 QP	46.0	-12.2	2.00 V	59	41.54	-7.73
4	597.60	28.8 QP	46.0	-17.2	1.50 V	115	33.71	-4.91
5	799.99	32.5 QP	46.0	-13.5	1.00 V	56	33.65	-1.16
6	899.99	31.3 QP	46.0	-14.7	1.00 V	30	31.01	0.28

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



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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	54.0 PK	74.0	-20.0	1.17 H	210	56.47	-2.47
2	2390.00	43.0 AV	54.0	-11.0	1.17 H	210	45.47	-2.47
3	*2412.00	102.8 PK			1.17 H	210	105.17	-2.37
4	*2412.00	100.1 AV			1.17 H	210	102.47	-2.37
5	4824.00	45.9 PK	74.0	-28.1	1.03 H	241	40.19	5.71
6	4824.00	33.7 AV	54.0	-20.3	1.03 H	241	27.99	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	58.1 PK	74.0	-15.9	1.21 V	215	60.57	-2.47
2	2390.00	46.7 AV	54.0	-7.3	1.21 V	215	49.17	-2.47
3	*2412.00	108.1 PK			1.21 V	215	110.47	-2.37
4	*2412.00	105.8 AV			1.21 V	215	108.17	-2.37
5	4824.00	46.7 PK	74.0	-27.3	1.03 V	72	40.99	5.71
6	4824.00	34.5 AV	54.0	-19.5	1.03 V	72	28.79	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.



A D T

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	54.0 PK	74.0	-20.0	1.13 H	198	56.47	-2.47
2	2390.00	42.5 AV	54.0	-11.5	1.13 H	198	44.97	-2.47
3	*2437.00	102.9 PK			1.13 H	198	105.15	-2.25
4	*2437.00	99.8 AV			1.13 H	198	102.05	-2.25
5	4874.00	46.2 PK	74.0	-27.8	1.03 H	234	40.30	5.90
6	4874.00	34.2 AV	54.0	-19.8	1.03 H	234	28.30	5.90
7	7311.00	54.4 PK	74.0	-19.6	1.05 H	59	41.23	13.17
8	7311.00	41.7 AV	54.0	-12.3	1.05 H	59	28.53	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	2390.00	58.1 PK	74.0	-15.9	1.16 V	206	60.57	-2.47
2	2390.00	46.1 AV	54.0	-7.9	1.16 V	206	48.57	-2.47
3	*2437.00	108.2 PK			1.16 V	206	110.45	-2.25
4	*2437.00	105.5 AV			1.16 V	206	107.75	-2.25
5	4874.00	46.0 PK	74.0	-28.0	1.02 V	83	40.10	5.90
6	4874.00	34.0 AV	54.0	-20.0	1.02 V	83	28.10	5.90
7	7311.00	53.4 PK	74.0	-20.6	1.00 V	222	40.23	13.17
8	7311.00	40.9 AV	54.0	-13.1	1.00 V	222	27.73	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.



A D T

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	102.9 PK			1.18 H	204	105.04	-2.14
2	*2462.00	99.9 AV			1.18 H	204	102.04	-2.14
3	2483.50	50.1 PK	74.0	-23.9	1.18 H	204	52.13	-2.03
4	2483.50	40.3 AV	54.0	-13.7	1.18 H	204	42.33	-2.03
5	4924.00	45.8 PK	74.0	-28.2	1.07 H	226	39.69	6.11
6	4924.00	33.9 AV	54.0	-20.1	1.07 H	226	27.79	6.11
7	7386.00	53.8 PK	74.0	-20.2	1.00 H	70	40.62	13.18
8	7386.00	41.4 AV	54.0	-12.6	1.00 H	70	28.22	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	108.1 PK			1.21 V	215	110.24	-2.14
2	*2462.00	105.6 AV			1.21 V	215	107.74	-2.14
3	4924.00	46.5 PK	74.0	-27.5	1.00 V	75	40.39	6.11
4	4924.00	34.2 AV	54.0	-19.8	1.00 V	75	28.09	6.11
5	7386.00	53.7 PK	74.0	-20.3	1.00 V	215	40.52	13.18
6	7386.00	41.2 AV	54.0	-12.8	1.00 V	215	28.02	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.



A D T

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	67.3 PK	74.0	-6.7	1.14 H	226	69.77	-2.47
2	2390.00	49.0 AV	54.0	-5.0	1.14 H	226	51.47	-2.47
3	*2412.00	104.2 PK			1.14 H	226	106.57	-2.37
4	*2412.00	92.7 AV			1.14 H	226	95.07	-2.37
5	4824.00	46.0 PK	74.0	-28.0	1.05 H	217	40.29	5.71
6	4824.00	34.1 AV	54.0	-19.9	1.05 H	217	28.39	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	71.4 PK	74.0	-2.6	1.21 V	215	73.87	-2.47
2	2390.00	53.0 AV	54.0	-1.0	1.21 V	215	55.47	-2.47
3	*2412.00	109.5 PK			1.21 V	215	111.87	-2.37
4	*2412.00	98.4 AV			1.21 V	215	100.77	-2.37
5	4824.00	46.1 PK	74.0	-27.9	1.00 V	52	40.39	5.71
6	4824.00	33.7 AV	54.0	-20.3	1.00 V	52	27.99	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.



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	61.2 PK	74.0	-12.8	1.17 H	240	63.67	-2.47
2	2390.00	43.5 AV	54.0	-10.5	1.17 H	240	45.97	-2.47
3	*2437.00	104.1 PK			1.17 H	240	106.35	-2.25
4	*2437.00	92.6 AV			1.17 H	240	94.85	-2.25
5	4874.00	46.0 PK	74.0	-28.0	1.06 H	228	40.10	5.90
6	4874.00	34.1 AV	54.0	-19.9	1.06 H	228	28.20	5.90
7	7311.00	53.6 PK	74.0	-20.4	1.10 H	55	40.43	13.17
8	7311.00	41.4 AV	54.0	-12.6	1.10 H	55	28.23	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	2390.00	65.3 PK	74.0	-8.7	1.21 V	215	67.77	-2.47
2	2390.00	47.5 AV	54.0	-6.5	1.21 V	215	49.97	-2.47
3	*2437.00	109.5 PK			1.21 V	215	111.75	-2.25
4	*2437.00	98.3 AV			1.21 V	215	100.55	-2.25
5	4874.00	46.4 PK	74.0	-27.6	1.02 V	60	40.50	5.90
6	4874.00	33.9 AV	54.0	-20.1	1.02 V	60	28.00	5.90
7	7311.00	52.7 PK	74.0	-21.3	1.02 V	199	39.53	13.17
8	7311.00	40.6 AV	54.0	-13.4	1.02 V	199	27.43	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	104.8 PK			1.23 H	251	106.94	-2.14
2	*2462.00	93.3 AV			1.23 H	251	95.44	-2.14
3	2483.50	64.2 PK	74.0	-9.8	1.23 H	251	66.23	-2.03
4	2483.50	46.8 AV	54.0	-7.2	1.23 H	251	48.83	-2.03
5	4924.00	45.7 PK	74.0	-28.3	1.07 H	234	39.59	6.11
6	4924.00	34.0 AV	54.0	-20.0	1.07 H	234	27.89	6.11
7	7386.00	53.5 PK	74.0	-20.5	1.06 H	58	40.32	13.18
8	7386.00	41.3 AV	54.0	-12.7	1.06 H	58	28.12	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	110.2 PK			1.21 V	215	112.34	-2.14
2	*2462.00	99.0 AV			1.21 V	215	101.14	-2.14
3	2483.50	68.7 PK	74.0	-5.3	1.21 V	215	70.73	-2.03
4	2483.50	50.8 AV	54.0	-3.2	1.21 V	215	52.83	-2.03
5	4924.00	46.2 PK	74.0	-27.8	1.01 V	63	40.09	6.11
6	4924.00	34.0 AV	54.0	-20.0	1.01 V	63	27.89	6.11
7	7386.00	53.2 PK	74.0	-20.8	1.03 V	206	40.02	13.18
8	7386.00	40.8 AV	54.0	-13.2	1.03 V	206	27.62	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.



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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	68.3 PK	74.0	-5.7	1.28 H	263	70.77	-2.47
2	2390.00	50.0 AV	54.0	-4.0	1.28 H	263	52.47	-2.47
3	*2412.00	102.0 PK			1.28 H	263	104.37	-2.37
4	*2412.00	91.7 AV			1.28 H	263	94.07	-2.37
5	4824.00	44.7 PK	74.0	-29.3	1.16 H	270	38.99	5.71
6	4824.00	33.6 AV	54.0	-20.4	1.16 H	270	27.89	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	72.8 PK	74.0	-1.2	1.21 V	215	75.27	-2.47
2	2390.00	53.0 AV	54.0	-1.0	1.21 V	215	55.47	-2.47
3	*2412.00	107.4 PK			1.21 V	215	109.77	-2.37
4	*2412.00	97.4 AV			1.21 V	215	99.77	-2.37
5	4824.00	46.2 PK	74.0	-27.8	1.08 V	72	40.49	5.71
6	4824.00	33.7 AV	54.0	-20.3	1.08 V	72	27.99	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.



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	60.3 PK	74.0	-13.7	1.24 H	271	62.77	-2.47
2	2390.00	44.3 AV	54.0	-9.7	1.24 H	271	46.77	-2.47
3	*2437.00	102.3 PK			1.24 H	271	104.55	-2.25
4	*2437.00	91.8 AV			1.24 H	271	94.05	-2.25
5	4874.00	45.2 PK	74.0	-28.8	1.14 H	263	39.30	5.90
6	4874.00	33.9 AV	54.0	-20.1	1.14 H	263	28.00	5.90
7	7311.00	54.1 PK	74.0	-19.9	1.07 H	80	40.93	13.17
8	7311.00	41.8 AV	54.0	-12.2	1.07 H	80	28.63	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	2390.00	64.8 PK	74.0	-9.2	1.23 V	203	67.27	-2.47
2	2390.00	47.2 AV	54.0	-6.8	1.23 V	203	49.67	-2.47
3	*2437.00	107.4 PK			1.23 V	203	109.65	-2.25
4	*2437.00	97.5 AV			1.23 V	203	99.75	-2.25
5	4874.00	46.0 PK	74.0	-28.0	1.08 V	59	40.10	5.90
6	4874.00	33.7 AV	54.0	-20.3	1.08 V	59	27.80	5.90
7	7311.00	53.4 PK	74.0	-20.6	1.02 V	207	40.23	13.17
8	7311.00	41.2 AV	54.0	-12.8	1.02 V	207	28.03	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			1.26 H	277	107.44	-2.14
2	*2462.00	92.8 AV			1.26 H	277	94.94	-2.14
3	2483.50	64.7 PK	74.0	-9.3	1.26 H	277	66.73	-2.03
4	2483.50	48.6 AV	54.0	-5.4	1.26 H	277	50.63	-2.03
5	4924.00	45.7 PK	74.0	-28.3	1.12 H	248	39.59	6.11
6	4924.00	34.1 AV	54.0	-19.9	1.12 H	248	27.99	6.11
7	7386.00	54.0 PK	74.0	-20.0	1.06 H	70	40.82	13.18
8	7386.00	41.6 AV	54.0	-12.4	1.06 H	70	28.42	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	110.1 PK			1.21 V	215	112.24	-2.14
2	*2462.00	98.5 AV			1.21 V	215	100.64	-2.14
3	2483.50	69.2 PK	74.0	-4.8	1.21 V	215	71.23	-2.03
4	2483.50	51.5 AV	54.0	-2.5	1.21 V	215	53.53	-2.03
5	4924.00	46.4 PK	74.0	-27.6	1.07 V	73	40.29	6.11
6	4924.00	34.0 AV	54.0	-20.0	1.07 V	73	27.89	6.11
7	7386.00	53.2 PK	74.0	-20.8	1.02 V	205	40.02	13.18
8	7386.00	40.8 AV	54.0	-13.2	1.02 V	205	27.62	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.



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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	119.97	27.5 QP	43.5	-16.0	1.00 H	360	42.95	-15.42
2	189.42	34.5 QP	43.5	-9.0	1.00 H	115	50.36	-15.87
3	300.00	30.8 QP	46.0	-15.2	1.00 H	159	43.25	-12.49
4	479.98	34.8 QP	46.0	-11.2	1.50 H	52	42.56	-7.73
5	599.44	32.9 QP	46.0	-13.1	1.00 H	87	37.72	-4.84
6	959.99	29.5 QP	46.0	-16.6	1.00 H	69	28.17	1.28

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	33.40	34.8 QP	40.0	-5.2	1.00 V	360	49.31	-14.48
2	66.52	29.1 QP	40.0	-10.9	1.00 V	58	44.23	-15.15
3	311.98	27.8 QP	46.0	-18.2	1.50 V	55	39.90	-12.10
4	479.98	32.0 QP	46.0	-14.0	1.50 V	78	39.70	-7.73
5	666.17	31.3 QP	46.0	-14.8	1.50 V	360	35.09	-3.84
6	799.99	32.1 QP	46.0	-13.9	1.00 V	65	33.27	-1.16

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



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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	52.6 PK	74.0	-21.4	1.38 H	322	55.07	-2.47
2	2390.00	40.9 AV	54.0	-13.1	1.38 H	322	43.37	-2.47
3	*2412.00	107.6 PK			1.38 H	322	109.97	-2.37
4	*2412.00	105.2 AV			1.38 H	322	107.57	-2.37
5	4824.00	46.5 PK	74.0	-27.5	1.05 H	72	40.79	5.71
6	4824.00	34.3 AV	54.0	-19.7	1.05 H	72	28.59	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	52.1 PK	74.0	-21.9	1.06 V	267	54.57	-2.47
2	2390.00	40.4 AV	54.0	-13.6	1.06 V	267	42.87	-2.47
3	*2412.00	100.5 PK			1.06 V	267	102.87	-2.37
4	*2412.00	98.0 AV			1.06 V	267	100.37	-2.37
5	4824.00	46.4 PK	74.0	-27.6	1.01 V	221	40.69	5.71
6	4824.00	34.6 AV	54.0	-19.4	1.01 V	221	28.89	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.



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	52.1 PK	74.0	-21.9	1.34 H	326	54.57	-2.47
2	2390.00	40.7 AV	54.0	-13.3	1.34 H	326	43.17	-2.47
3	*2437.00	107.5 PK			1.34 H	326	109.75	-2.25
4	*2437.00	105.2 AV			1.34 H	326	107.45	-2.25
5	4874.00	46.7 PK	74.0	-27.3	1.00 H	75	40.80	5.90
6	4874.00	34.5 AV	54.0	-19.5	1.00 H	75	28.60	5.90
7	7311.00	53.6 PK	74.0	-20.4	1.00 H	225	40.43	13.17
8	7311.00	41.2 AV	54.0	-12.8	1.00 H	225	28.03	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	2390.00	51.8 PK	74.0	-22.2	1.09 V	268	54.27	-2.47
2	2390.00	40.3 AV	54.0	-13.7	1.09 V	268	42.77	-2.47
3	*2437.00	100.4 PK			1.09 V	268	102.65	-2.25
4	*2437.00	98.1 AV			1.09 V	268	100.35	-2.25
5	4874.00	46.3 PK	74.0	-27.7	1.03 V	217	40.40	5.90
6	4874.00	34.3 AV	54.0	-19.7	1.03 V	217	28.40	5.90
7	7311.00	53.3 PK	74.0	-20.7	1.01 V	298	40.13	13.17
8	7311.00	40.8 AV	54.0	-13.2	1.01 V	298	27.63	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	107.3 PK			1.40 H	320	109.44	-2.14
2	*2462.00	105.1 AV			1.40 H	320	107.24	-2.14
3	2483.50	52.1 PK	74.0	-21.9	1.34 H	319	54.13	-2.03
4	2483.50	40.4 AV	54.0	-13.6	1.34 H	319	42.43	-2.03
5	4924.00	47.2 PK	74.0	-26.8	1.00 H	78	41.09	6.11
6	4924.00	34.2 AV	54.0	-19.8	1.00 H	78	28.09	6.11
7	7386.00	53.6 PK	74.0	-20.4	1.00 H	215	40.42	13.18
8	7386.00	41.2 AV	54.0	-12.8	1.00 H	215	28.02	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	100.6 PK			1.12 V	255	102.74	-2.14
2	*2462.00	98.0 AV			1.12 V	255	100.14	-2.14
3	4924.00	46.2 PK	74.0	-27.8	1.00 V	215	40.09	6.11
4	4924.00	34.2 AV	54.0	-19.8	1.00 V	215	28.09	6.11
5	7386.00	53.6 PK	74.0	-20.4	1.00 V	304	40.42	13.18
6	7386.00	41.2 AV	54.0	-12.8	1.00 V	304	28.02	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.



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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	72.8 PK	74.0	-1.2	1.44 H	323	75.27	-2.47
2	2390.00	50.3 AV	54.0	-3.7	1.44 H	323	52.77	-2.47
3	*2412.00	107.2 PK			1.44 H	323	109.57	-2.37
4	*2412.00	97.0 AV			1.44 H	323	99.37	-2.37
5	4824.00	45.9 PK	74.0	-28.1	1.00 H	68	40.19	5.71
6	4824.00	33.4 AV	54.0	-20.6	1.00 H	68	27.69	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	66.1 PK	74.0	-7.9	1.11 V	248	68.57	-2.47
2	2390.00	49.7 AV	54.0	-4.3	1.11 V	248	52.17	-2.47
3	*2412.00	100.5 PK			1.11 V	248	102.87	-2.37
4	*2412.00	90.0 AV			1.11 V	248	92.37	-2.37
5	4824.00	46.2 PK	74.0	-27.8	1.04 V	228	40.49	5.71
6	4824.00	34.2 AV	54.0	-19.8	1.04 V	228	28.49	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.



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	65.1 PK	74.0	-8.9	1.44 H	323	67.57	-2.47
2	2390.00	44.8 AV	54.0	-9.2	1.44 H	323	47.27	-2.47
3	*2437.00	107.4 PK			1.44 H	323	109.65	-2.25
4	*2437.00	97.6 AV			1.44 H	323	99.85	-2.25
5	4874.00	46.5 PK	74.0	-27.5	1.04 H	62	40.60	5.90
6	4874.00	33.8 AV	54.0	-20.2	1.04 H	62	27.90	5.90
7	7311.00	53.7 PK	74.0	-20.3	1.03 H	225	40.53	13.17
8	7311.00	41.2 AV	54.0	-12.8	1.03 H	225	28.03	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	2390.00	60.3 PK	74.0	-13.7	1.10 V	262	62.77	-2.47
2	2390.00	44.1 AV	54.0	-9.9	1.10 V	262	46.57	-2.47
3	*2437.00	100.9 PK			1.10 V	262	103.15	-2.25
4	*2437.00	90.5 AV			1.10 V	262	92.75	-2.25
5	4874.00	46.3 PK	74.0	-27.7	1.03 V	230	40.40	5.90
6	4874.00	34.5 AV	54.0	-19.5	1.03 V	230	28.60	5.90
7	7311.00	54.2 PK	74.0	-19.8	1.00 V	319	41.03	13.17
8	7311.00	41.7 AV	54.0	-12.3	1.00 V	319	28.53	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	108.8 PK			1.37 H	320	110.94	-2.14
2	*2462.00	98.4 AV			1.37 H	320	100.54	-2.14
3	2483.50	67.3 PK	74.0	-6.7	1.37 H	320	69.33	-2.03
4	2483.50	48.4 AV	54.0	-5.6	1.37 H	320	50.43	-2.03
5	4924.00	46.5 PK	74.0	-27.5	1.10 H	47	40.39	6.11
6	4924.00	34.0 AV	54.0	-20.0	1.10 H	47	27.89	6.11
7	7386.00	53.9 PK	74.0	-20.1	1.02 H	225	40.72	13.18
8	7386.00	41.4 AV	54.0	-12.6	1.02 H	225	28.22	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	102.3 PK			1.10 V	274	104.44	-2.14
2	*2462.00	91.3 AV			1.10 V	274	93.44	-2.14
3	2483.50	62.6 PK	74.0	-11.4	1.10 V	274	64.63	-2.03
4	2483.50	47.8 AV	54.0	-6.2	1.10 V	274	49.83	-2.03
5	4924.00	46.1 PK	74.0	-27.9	1.00 V	220	39.99	6.11
6	4924.00	34.1 AV	54.0	-19.9	1.00 V	220	27.99	6.11
7	7386.00	53.8 PK	74.0	-20.2	1.01 V	317	40.62	13.18
8	7386.00	41.3 AV	54.0	-12.7	1.01 V	317	28.12	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.



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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	72.8 PK	74.0	-1.2	1.41 H	323	75.27	-2.47
2	2390.00	50.2 AV	54.0	-3.8	1.41 H	323	52.67	-2.47
3	*2412.00	106.8 PK			1.41 H	323	109.17	-2.37
4	*2412.00	96.2 AV			1.41 H	323	98.57	-2.37
5	4824.00	45.9 PK	74.0	-28.1	1.05 H	77	40.19	5.71
6	4824.00	33.4 AV	54.0	-20.6	1.05 H	77	27.69	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	66.2 PK	74.0	-7.8	1.14 V	272	68.67	-2.47
2	2390.00	49.8 AV	54.0	-4.2	1.14 V	272	52.27	-2.47
3	*2412.00	100.3 PK			1.14 V	272	102.67	-2.37
4	*2412.00	89.1 AV			1.14 V	272	91.47	-2.37
5	4824.00	46.4 PK	74.0	-27.6	1.00 V	229	40.69	5.71
6	4824.00	34.3 AV	54.0	-19.7	1.00 V	229	28.59	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.



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	64.9 PK	74.0	-9.1	1.42 H	321	67.37	-2.47
2	2390.00	44.6 AV	54.0	-9.4	1.42 H	321	47.07	-2.47
3	*2437.00	106.9 PK			1.42 H	321	109.15	-2.25
4	*2437.00	96.5 AV			1.42 H	321	98.75	-2.25
5	4874.00	45.7 PK	74.0	-28.3	1.04 H	64	39.80	5.90
6	4874.00	33.2 AV	54.0	-20.8	1.04 H	64	27.30	5.90
7	7311.00	53.6 PK	74.0	-20.4	1.00 H	244	40.43	13.17
8	7311.00	41.0 AV	54.0	-13.0	1.00 H	244	27.83	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	2390.00	58.9 PK	74.0	-15.1	1.13 V	256	61.37	-2.47
2	2390.00	44.2 AV	54.0	-9.8	1.13 V	256	46.67	-2.47
3	*2437.00	100.4 PK			1.13 V	256	102.65	-2.25
4	*2437.00	89.4 AV			1.13 V	256	91.65	-2.25
5	4874.00	46.1 PK	74.0	-27.9	1.01 V	244	40.20	5.90
6	4874.00	34.2 AV	54.0	-19.8	1.01 V	244	28.30	5.90
7	7311.00	53.7 PK	74.0	-20.3	1.03 V	308	40.53	13.17
8	7311.00	41.3 AV	54.0	-12.7	1.03 V	308	28.13	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	108.1 PK			1.37 H	320	110.24	-2.14
2	*2462.00	97.6 AV			1.37 H	320	99.74	-2.14
3	2483.50	70.5 PK	74.0	-3.5	1.37 H	320	72.53	-2.03
4	2483.50	50.5 AV	54.0	-3.5	1.37 H	320	52.53	-2.03
5	4924.00	46.2 PK	74.0	-27.8	1.05 H	57	40.09	6.11
6	4924.00	33.7 AV	54.0	-20.3	1.05 H	57	27.59	6.11
7	7386.00	53.7 PK	74.0	-20.3	1.05 H	241	40.52	13.18
8	7386.00	41.2 AV	54.0	-12.8	1.05 H	241	28.02	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	101.6 PK			1.16 V	257	103.74	-2.14
2	*2462.00	90.5 AV			1.16 V	257	92.64	-2.14
3	2483.50	64.0 PK	74.0	-10.0	1.16 V	257	66.03	-2.03
4	2483.50	51.1 AV	54.0	-2.9	1.16 V	257	53.13	-2.03
5	4924.00	45.6 PK	74.0	-28.4	1.03 V	231	39.49	6.11
6	4924.00	33.9 AV	54.0	-20.1	1.03 V	231	27.79	6.11
7	7386.00	53.3 PK	74.0	-20.7	1.00 V	311	40.12	13.18
8	7386.00	41.0 AV	54.0	-13.0	1.00 V	311	27.82	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.



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4.3 CONDUCTED OUTPUT POWER MEASUREMENT

4.3.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

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

4.3.2 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 : Oct. 23, 2014

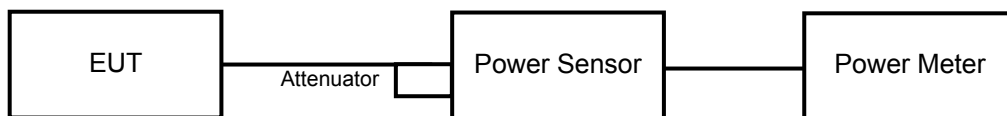
4.3.3 TEST PROCEDURES

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.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation.

4.3.5 TEST SETUP



4.3.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6



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4.3.7 TEST RESULTS

FOR PEAK POWER

802.11b

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	86.298	19.36	30	PASS
6	2437	87.297	19.41	30	PASS
11	2462	87.902	19.44	30	PASS

802.11g

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	197.242	22.95	30	PASS
6	2437	221.309	23.45	30	PASS
11	2462	209.411	23.21	30	PASS

802.11n (HT20)

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	179.061	22.53	30	PASS
6	2437	197.242	22.95	30	PASS
11	2462	195.434	22.91	30	PASS



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FOR AVERAGE POWER

802.11b

CHANNEL	FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)
1	2412	44.875	16.52
6	2437	45.604	16.59
11	2462	45.604	16.59

802.11g

CHANNEL	FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)
1	2412	28.184	14.50
6	2437	33.806	15.29
11	2462	34.834	15.42

802.11n (HT20)

CHANNEL	FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)
1	2412	26.122	14.17
6	2437	29.580	14.71
11	2462	29.648	14.72



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5. PHOTOGRAPHS OF THE TEST CONFIGURATION

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



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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/Telecom Lab:

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Web Site: www.bureauveritas-adt.com

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



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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.

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