

# ARTIAL FCC TEST REPORT (15.407)

**REPORT NO.:** RF140611C22-1

**MODEL NO.:** TX201LA-P

**FCC ID:** ZQ6-AP6234A

**RECEIVED:** Jun. 11, 2014

**TESTED:** Jun. 26, 2014 ~ Jul. 16, 2014

**ISSUED:** Aug. 07, 2014

**APPLICANT:** ASUSTeK COMPUTER INC.

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**ISSUED BY:** Bureau Veritas Consumer Products Services  
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## TABLE OF CONTENTS

1. CERTIFICATION.....	4
2. SUMMARY OF TEST RESULTS .....	5
2.1 MEASUREMENT UNCERTAINTY.....	5
3. GENERAL INFORMATION .....	6
3.1 GENERAL DESCRIPTION OF EUT .....	6
3.2 DESCRIPTION OF TEST MODES.....	9
3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL.....	11
3.3 DESCRIPTION OF SUPPORT UNITS .....	13
3.3.1 CONFIGURATION OF SYSTEM UNDER TEST .....	13
3.4 GENERAL DESCRIPTION OF APPLIED STANDARDS .....	14
4. TEST TYPES AND RESULTS .....	15
4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT .....	15
4.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT .....	15
4.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS .....	15
4.1.3 TEST INSTRUMENTS.....	15
4.1.4 TEST PROCEDURES .....	17
4.1.5 DEVIATION FROM TEST STANDARD .....	17
4.1.6 TEST SETUP.....	18
4.1.7 EUT OPERATING CONDITIONS .....	19
4.1.8 TEST RESULTS.....	20
4.2 CONDUCTED EMISSION MEASUREMENT .....	28
4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT .....	28
4.2.2 TEST INSTRUMENTS.....	28
4.2.3 TEST PROCEDURES .....	29
4.2.4 DEVIATION FROM TEST STANDARD .....	29
4.2.5 TEST SETUP.....	30
4.2.6 EUT OPERATING CONDITIONS .....	30
4.2.7 TEST RESULTS.....	31
5. PHOTOGRAPHS OF THE TEST CONFIGURATION.....	35
6. INFORMATION ON THE TESTING LABORATORIES .....	36
7. APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB .....	37



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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF140611C22-1	Original release	Aug. 07, 2014

## 1. CERTIFICATION

**PRODUCT:** Tablet

**MODEL NO.:** TX201LA-P

**BRAND:** ASUS

**APPLICANT:** ASUSTeK COMPUTER INC.

**TESTED:** Jun. 26, 2014 ~ Jul. 16, 2014

**TEST SAMPLE:** Identical Prototype

**STANDARDS:** FCC Part 15, Subpart E (Section 15.407)

ANSI C63.10-2009

The above equipment (model: TX201LA-P) 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**

*Rona Chen*

, **DATE** : Aug. 07, 2014

Rona Chen / Specialist

**APPROVED BY**

*Sam chen*

, **DATE** : Aug. 07, 2014

Sam Chen / Senior Project Engineer

## 2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407)			
STANDARD SECTION	TEST TYPE	RESULT	REMARK
15.407(b)(6)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -12.70dB at 0.16953MHz.
15.407(b/1/2/3)(b)(6)	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -2.64dB at 5470.00MHz.
15.407(a/1/2/3)	Max Average Transmit Power	N/A	Refer to Note
15.407(a)(6)	Peak Power Excursion	N/A	Refer to Note
15.407(a/1/2/3)	Peak Power Spectral Density	N/A	Refer to Note
15.407(e)	6dB bandwidth	N/A	Refer to Note
15.407(g)	Frequency Stability	N/A	Refer to Note
15.203	Antenna Requirement	PASS	No antenna connector is used.

**NOTE:** Test items for AC Power Conducted Emission and Radiated Emissions were performed for this report. Other testing data please refer to:

1. International Certification Corp. report no.: FR440102AN for module (Brand: Ampak, Model: AP6234A, FCC ID: ZQ6-AP6234A)

### 2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	2.93 dB
	200MHz ~1000MHz	2.95 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

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

### 3. GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

<b>EUT</b>	Tablet
<b>MODEL NO.</b>	TX201LA-P
<b>POWER SUPPLY</b>	5.0Vdc (adapter or host equipment) 3.85Vdc (Li-ion battery)
<b>MODULATION TYPE</b>	64QAM, 16QAM, QPSK, BPSK
<b>MODULATION TECHNOLOGY</b>	OFDM
<b>TRANSFER RATE</b>	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to MCS7
<b>OPERATING FREQUENCY</b>	5180 ~ 5240MHz, 5260 ~ 5320MHz 5500 ~ 5700MHz
<b>NUMBER OF CHANNEL</b>	5180 ~ 5240MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5260 ~ 5320MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5500 ~ 5700MHz: 8 for 802.11a, 802.11n (20MHz) 3 for 802.11n (40MHz)
<b>ANTENNA TYPE</b>	PIFA antenna with 2.08dBi gain (5180 ~ 5240MHz) PIFA antenna with 2.60dBi gain (5260 ~ 5320MHz) PIFA antenna with 2.90dBi gain (5500 ~ 5700MHz)
<b>ANTENNA CONNECTOR</b>	NA
<b>DATA CABLE</b>	Refer to Note as below
<b>I/O PORTS</b>	Refer to user's manual
<b>ACCESSORY DEVICES</b>	Refer to Note as below

**NOTE:**

1. The EUT contains following accessory devices.

ITEM	BRAND	MODEL	SPECIFICATION
AC Adapter 1	PI Electronics	AD897320	I/P: 100-240Vac, 50/60Hz, 0.3A O/P: 5.0Vdc, 2A BSMI: R33164
AC Adapter 2	CHICONY	W12-010N3A	I/P: 100-240Vac, 50/60Hz, 0.3A O/P: 5.0Vdc, 2A BSMI: R35737
Battery	SIMPLO TECHNOLOG Y CO LTD (商標: ASUS)	C12N1343	3.85Vdc, 31Wh
USB Cable	DAEC (商標: ASUS)	AA780300	0.9m shielded cable w/o core
CPU	Intel	Z2560	1.6G, 760 Pin
EMMC 1	SANDISK	SDIN7DU2-8G	8G
EMMC 2	HYNIX	H26M41103HPR	8G
EMMC 3	SANDISK	SDIN8DE2-16G	16G
EMMC 4	HYNIX	H26M52103FMR	16G
LCD Panel	YOUNG LIGHT	MW11FHD302	11.6" HD
Front Camera	CHICONY	CNFDH3021003870LH	--
Rear Camera	CHICONY	CJAD53320003872LH	--
WLAN +BT Module	AMPAK	AP6234A	1T1R
MainBoard	ASUS	TX201LAF_PAD MAIN BOARD	--

2. The support unit (TX201LA-B\_PC Station) contains following accessory devices.

ITEM	BRAND	MODEL	SPECIFICATION
AC Adapter	PI Electronics	AD883J20	I/P: 100-240Vac, 50/60Hz, 1.0A O/P: 19Vdc, 2.37A BSMI: R33164 2.2m shielded cable w/o ferrite core
Battery	SIMPLO TECHNOLOG Y CO LTD (商標: ASUS)	B21N1344	7.6Vdc, 32Wh
CPU 1	Intel	I7-4510U	2G/4M, 1168 Pin
CPU 2	Intel	I5-4210U	1.7G/3M, 1168 Pin
CPU 3	Intel	I3-4030Y	1.6G/3M, 1168 Pin
HDD 1	TOSHIBA	MQ01ABF050	SATA3 500G 5400R 2.5'
HDD 2	HGST	HTS545050A7E680	SATA3 500G 5400R 2.5'
HDD 3	HGST	HTS541075A7E630	SATA3 750G 5400R 2.5'
HDD 4	WD	WD7500LPCX-80KHS T0	SATA3 750GB 5400R 2.5'
HDD 5	HGST	HTS541010A7E630	SATA3 1TB 5400R 2.5'
HDD 6	WD	WD10SPCX-80KHST 0	SATA3 1TB 5400R 2.5'
SSD HDD 1	KINGSTON	RBU-SC100S37	SATA SSD 256GB 2.5'
SSD HDD 2	SANDISK	SD7SB3Q-256GB	SATA SSD 256GB 2.5'
USB to RJ45	ASUS	USB Ethernet cable	0.18m shielded cable w/o ferrite core Support 10M, 100M
MDP to VGA Cable	ASUS	N/A	0.12m shielded cable w/o ferrite core
MainBoard	ASUS	TX201LAF_MAIN_BO ARD	--
WLAN + BT Module 1	INTEL	7260HMW	2T2R
WLAN + BT Module 2	FOXCONN	T77H469	1T1R Chip factory: Media Tek MT7630E

3. The EUT incorporates a SISO function. Physically, the EUT provides one completed transmitter and one receiver.

MODULATION MODE	TX FUNCTION
802.11a	1TX
802.11n (20MHz)	1TX
802.11n (40MHz)	1TX

4. The above EUT information is 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

#### WLAN 5180 ~ 5240MHz

4 channels are provided for 802.11a, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY
42	5210 MHz

#### WLAN 5260 ~ 5320MHz

4 channels are provided for 802.11a, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY
58	5290MHz

**WLAN 5500 ~ 5700MHz**

8 channels are provided for 802.11a, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
100	5500MHz	116	5580MHz
104	5520MHz	132	5660MHz
108	5540MHz	136	5680MHz
112	5560MHz	140	5700MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510MHz	134	5670MHz
110	5550MHz		

2 channels are provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY
106	5530MHz
122	5610MHz

### 3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO			DESCRIPTION
	RE $\geq$ 1G	RE<1G	PLC	
A	√	√	√	EUT (tested on AMPAK Module)
B	√	√	√	EUT (tested on AMPAK Module) + PC Station

Where **RE $\geq$ 1G**: Radiated Emission above 1GHz **RE<1G**: Radiated Emission below 1GHz

**PLC**: Power Line Conducted Emission

**NOTE:** The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on Z-plane.

#### RADIATED EMISSION TEST (ABOVE 1GHz):

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11n (40MHz)	5180-5240	38 to 46	38	OFDM	BPSK	MCS0
	802.11n (40MHz)	5260-5320	54 to 62	62	OFDM	BPSK	MCS0
A, B	802.11n (40MHz)	5500-5700	102 to 134	102	OFDM	BPSK	MCS0

#### RADIATED EMISSION TEST (BELOW 1GHz):

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11n (40MHz)	5180-5240	38 to 46	38	OFDM	BPSK	MCS0
	802.11n (40MHz)	5260-5320	54 to 62	62	OFDM	BPSK	MCS0
A, B	802.11n (40MHz)	5500-5700	102 to 134	102	OFDM	BPSK	MCS0

#### POWER LINE CONDUCTED EMISSION TEST:

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, B	802.11n (40MHz)	5500-5700	102 to 134	102	OFDM	BPSK	MCS0



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**TEST CONDITION:**

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE $\geq$ 1G	25deg. C, 65%RH	120Vac, 60Hz	Peter Weng Anson Lin
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Peter Weng Anson Lin
PLC	25deg. C, 65%RH	120Vac, 60Hz	Peter Weng Anson Lin

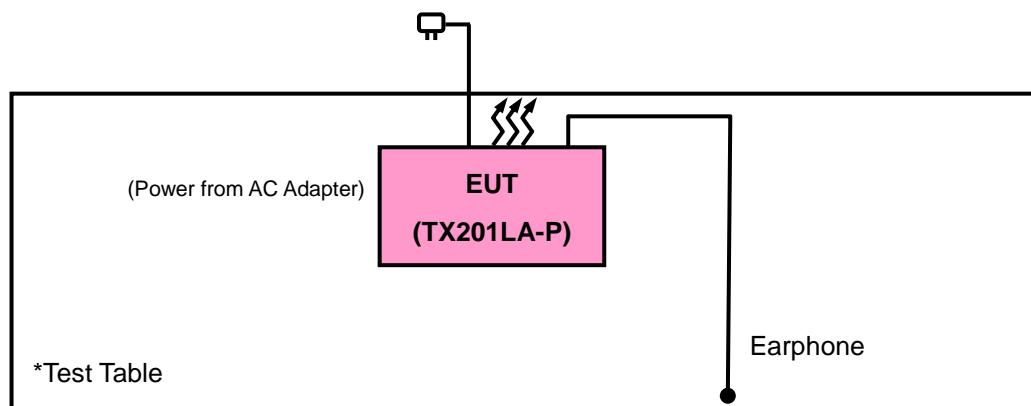
### 3.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units.

#### 3.3.1 CONFIGURATION OF SYSTEM UNDER TEST

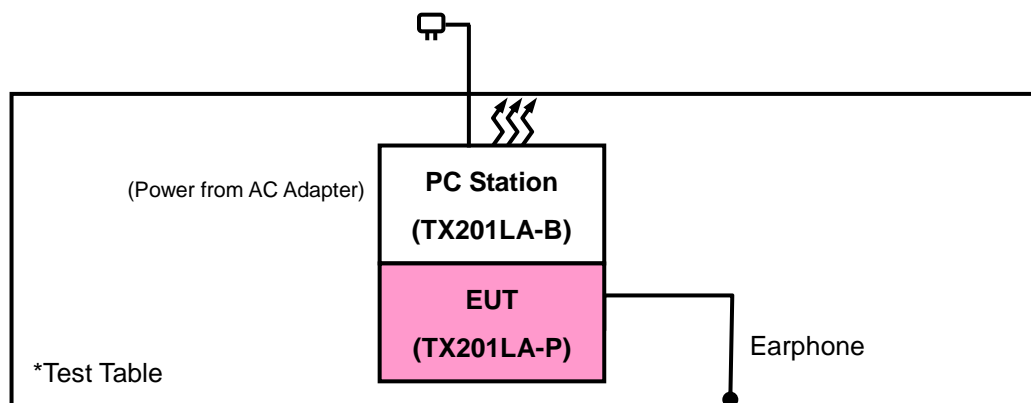
##### Conducted Emission MODE A

##### Radiated Spurious Emission MODE A



##### Conducted Emission MODE B

##### Radiated Spurious Emission MODE B



### 3.4 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 E (15.407)**

**KDB 789033 D01 General UNII Test Procedures Old v01r04**

ANSI C63.10-2009

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

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

## 4. TEST TYPES AND RESULTS

### 4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

#### 4.1.1 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:

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

**NOTE:**

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

#### 4.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

APPLICABLE TO	LIMIT	
	FIELD STRENGTH AT 3m (dBμV/m)	
	PK	AV
	74	54
√	EIRP LIMIT (dBm)	EQUIVALENT FIELD STRENGTH AT 3m (dBμV/m)
	PK	PK
	-27	68.3

**NOTE:** The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3} \mu\text{V/m, where } P \text{ is the eirp (Watts).}$$

#### 4.1.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCI	100744	Apr. 15, 2014	Apr. 14, 2015
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 21, 2013	Dec. 20, 2014
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Feb. 27, 2014	Feb. 26, 2015
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-969	Feb. 19, 2014	Feb. 18, 2015
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Dec. 18, 2013	Dec. 17, 2014
Loop Antenna	HFH2-Z2	100070	Mar. 06, 2014	Mar. 05, 2016
Preamplifier EMCI	EMC 012645	980115	Dec. 26, 2013	Dec. 25, 2014
Preamplifier EMCI	EMC 184045	980116	Jan. 13, 2014	Jan. 12, 2015
Preamplifier EMCI	EMC 330H	980112	Dec. 27, 2013	Dec. 26, 2014
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309219/4 2950114	Oct. 18, 2013	Oct. 17, 2014
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250130/4	Oct. 18, 2013	Oct. 17, 2014
RF signal cable Worken	RG-213	NA	Nov. 07, 2013	Nov. 06, 2014
Software BV ADT	E3 6.120103	NA	NA	NA
Antenna Tower MF	MFA-440H	NA	NA	NA
Turn Table MF	MFT-201SS	NA	NA	NA
Antenna Tower & Turn Table Controller MF	MF-7802	NA	NA	NA
Power Meter	ML2495A	1232002	Aug. 23, 2013	Aug. 22, 2014
Power Sensor	MA2411B	1207325	Aug. 23, 2013	Aug. 22, 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. The calibration interval of the loop antenna is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in HwaYa Chamber 10.
4. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
5. The FCC Site Registration No. is 690701.
6. The IC Site Registration No. is IC 7450F-10.



#### 4.1.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

#### NOTE:

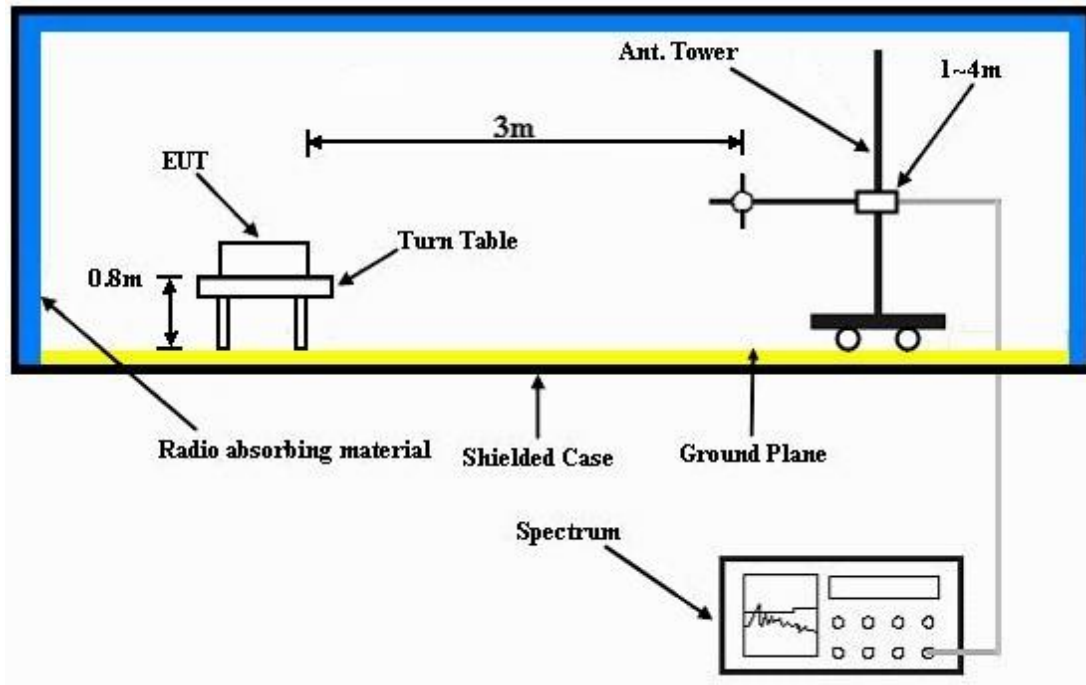
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 1kHz (Duty cycle < 98%) or 10Hz (Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

#### 4.1.5 DEVIATION FROM TEST STANDARD

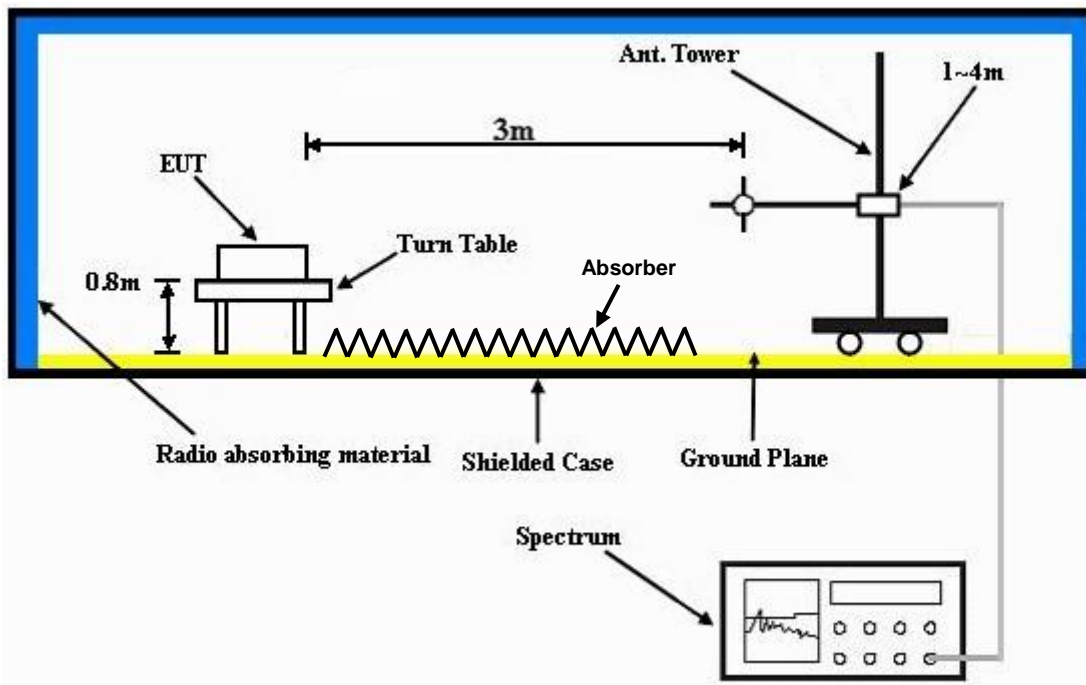
No deviation.

#### 4.1.6 TEST SETUP

Frequency Range 30MHz ~ 1GHz



Frequency Range above 1GHz



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



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#### **4.1.7 EUT OPERATING CONDITIONS**

- a. Placed the EUT on a testing table.
- b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

#### 4.1.8 TEST RESULTS

##### ABOVE 1GHz WORST-CASE DATA

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Anson Lin
MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5026	42.1	42.87	54	-11.9	31.23	5.24	37.24	111	360	Average
5026	59.56	60.33	74	-14.44	31.23	5.24	37.24	111	360	Peak
5190	87.68	88.35			31.35	5.32	37.34	111	360	Average
5190	96.11	96.78			31.35	5.32	37.34	111	360	Peak
5408	38.13	38.38	54	-15.87	31.52	5.41	37.18	111	360	Average
5408	59.36	59.61	74	-14.64	31.52	5.41	37.18	111	360	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	48.21	48.92	54	-5.79	31.32	5.29	37.32	102	7	Average
5150	62.45	63.16	74	-11.55	31.32	5.29	37.32	102	7	Peak
5190	94.33	95			31.35	5.32	37.34	102	7	Average
5190	103.31	103.98			31.35	5.32	37.34	102	7	Peak
5434	38.95	39.11	54	-15.05	31.55	5.42	37.13	102	7	Average
5434	59.71	59.87	74	-14.29	31.55	5.42	37.13	102	7	Peak

##### REMARKS:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor  
Margin value = Emission level – Limit value
- 5190MHz: Fundamental frequency.

**802.11n (40MHz)**

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Anson Lin
MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5032	37.77	38.54	54	-16.23	31.23	5.24	37.24	120	0	Average
5032	59.08	59.85	74	-14.92	31.23	5.24	37.24	120	0	Peak
5310	90	90.37			31.45	5.37	37.19	120	0	Average
5310	98.4	98.77			31.45	5.37	37.19	120	0	Peak
5416	40.85	41.08	54	-13.15	31.53	5.42	37.18	120	0	Average
5416	59.34	59.57	74	-14.66	31.53	5.42	37.18	120	0	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5066	37.85	38.59	54	-16.15	31.25	5.26	37.25	101	355	Average
5066	59.17	59.91	74	-14.83	31.25	5.26	37.25	101	355	Peak
5310	96.74	97.11			31.45	5.37	37.19	101	355	Average
5310	105.37	105.74			31.45	5.37	37.19	101	355	Peak
5356	45.72	46.03	54	-8.28	31.48	5.39	37.18	101	355	Average
5356	65.05	65.36	74	-8.95	31.48	5.39	37.18	101	355	Peak

**REMARKS:**

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor  
Margin value = Emission level – Limit value
- 5310MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 102	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Anson Lin
MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5374	41.89	42.18	54	-12.11	31.49	5.4	37.18	137	48	Average
5374	59.57	59.86	74	-14.43	31.49	5.4	37.18	137	48	Peak
5470	45.14	45.2	54	-8.86	31.57	5.45	37.08	137	48	Average
5470	59.45	59.51	74	-14.55	31.57	5.45	37.08	137	48	Peak
5510	86.58	86.58			31.6	5.46	37.06	137	48	Average
5510	95.33	95.33			31.6	5.46	37.06	137	48	Peak
5725	38.21	38.09	54	-15.79	31.96	5.59	37.43	137	48	Average
5725	59.23	59.11	74	-14.77	31.96	5.59	37.43	137	48	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	46.27	46.35	54	-7.73	31.56	5.44	37.08	111	350	Average
5460	62.16	62.24	74	-11.84	31.56	5.44	37.08	111	350	Peak
5470	51.36	51.42	54	-2.64	31.57	5.45	37.08	111	350	Average
5470	65.5	65.56	74	-8.5	31.57	5.45	37.08	111	350	Peak
5510	93.83	93.83			31.6	5.46	37.06	111	350	Average
5510	102.86	102.86			31.6	5.46	37.06	111	350	Peak
5725	38.14	38.02	54	-15.86	31.96	5.59	37.43	111	350	Average
5725	58.75	58.63	74	-15.25	31.96	5.59	37.43	111	350	Peak

#### REMARKS:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor  
Margin value = Emission level – Limit value
- 5510MHz: Fundamental frequency.
- 5470MHz & 5725MHz: Out of restricted band

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 102	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Anson Lin
MODE	B		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5412	47.79	48.03	54	-6.21	31.53	5.41	37.18	109	289	Average
5412	61.75	61.99	74	-12.25	31.53	5.41	37.18	109	289	Peak
5470	51.26	51.32	54	-2.74	31.57	5.45	37.08	109	289	Average
5470	65.48	65.54	74	-8.52	31.57	5.45	37.08	109	289	Peak
5510	94.24	94.24			31.6	5.46	37.06	109	289	Average
5510	103.67	103.67			31.6	5.46	37.06	109	289	Peak
5725	38.56	38.44	54	-15.44	31.96	5.59	37.43	109	289	Average
5725	58.14	58.02	74	-15.86	31.96	5.59	37.43	109	289	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5430	41.28	41.44	54	-12.72	31.55	5.42	37.13	100	344	Average
5430	60.45	60.61	74	-13.55	31.55	5.42	37.13	100	344	Peak
5470	43.85	43.91	54	-10.15	31.57	5.45	37.08	100	344	Average
5470	59.41	59.47	74	-14.59	31.57	5.45	37.08	100	344	Peak
5510	86.37	86.37			31.6	5.46	37.06	100	344	Average
5510	94.99	94.99			31.6	5.46	37.06	100	344	Peak
5725	37.97	37.85	54	-16.03	31.96	5.59	37.43	100	344	Average
5725	59.14	59.02	74	-14.86	31.96	5.59	37.43	100	344	Peak

**REMARKS:**

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor  
Margin value = Emission level – Limit value
- 5510MHz: Fundamental frequency.
- 5470MHz & 5725MHz: Out of restricted band

# **BELOW 1GHz WORST-CASE DATA:**

**802.11n (40MHz)**

**Band 1**

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Peter Weng
MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
57.27	23.43	41.72	40	-16.57	12.25	0.81	31.35	125	243	Peak
89.67	29.09	51.73	43.5	-14.41	8.3	1.02	31.96	111	293	Peak
200.1	25.97	46.79	43.5	-17.53	9.36	1.59	31.77	108	264	Peak
398	22.78	37.19	46	-23.22	15.28	2.42	32.11	100	62	Peak
505.8	23.23	34.57	46	-22.77	17.46	2.8	31.6	126	85	Peak
645.8	24.76	33.42	46	-21.24	20.16	3.23	32.05	104	90	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
57	28.21	46.5	40	-11.79	12.25	0.81	31.35	118	277	Peak
86.7	30.19	52.74	40	-9.81	8.23	1	31.78	113	329	Peak
192	20.1	40.32	43.5	-23.4	9.91	1.56	31.69	127	202	Peak
500.9	22.4	33.91	46	-23.6	17.33	2.78	31.62	102	134	Peak
577.2	24.2	34.21	46	-21.8	19.08	3.02	32.11	100	55	Peak
739.6	26.27	32.82	46	-19.73	21.38	3.55	31.48	124	304	Peak

**REMARKS:** Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor

Margin value = Emission level – Limit value



802.11n (40MHz)

Band 2

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Peter Weng
MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
86.16	30.54	53.09	40	-9.46	8.23	1	31.78	124	286	Peak
174.99	27.32	46.35	43.5	-16.18	11.28	1.47	31.78	127	344	Peak
276.51	18.14	35.85	46	-27.86	12.25	1.94	31.9	158	88	Peak
334.3	24.52	40.38	46	-21.48	13.78	2.17	31.81	103	32	Peak
552.7	23.78	34.27	46	-22.22	18.53	2.96	31.98	116	349	Peak
614.3	24.2	33.42	46	-21.8	19.77	3.13	32.12	131	250	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
84.27	32.61	55.11	40	-7.39	8.2	0.99	31.69	108	261	Peak
189.03	19.42	39.45	43.5	-24.08	10.12	1.54	31.69	101	262	Peak
294.06	16.39	33.34	46	-29.61	12.77	2.02	31.74	135	134	Peak
577.2	24.2	34.21	46	-21.8	19.08	3.02	32.11	139	322	Peak
706.7	25.68	33.07	46	-20.32	20.92	3.45	31.76	129	226	Peak
739.6	26.27	32.82	46	-19.73	21.38	3.55	31.48	110	273	Peak

**REMARKS:** Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor

Margin value = Emission level – Limit value

802.11n (40MHz)

Band 3

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 102	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Peter Weng
MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
57.27	23.43	41.72	40	-16.57	12.25	0.81	31.35	139	55	Peak
104.25	25.99	47.27	43.5	-17.51	9.53	1.09	31.9	138	31	Peak
204.69	24.23	44.74	43.5	-19.27	9.56	1.62	31.69	155	300	Peak
398	22.78	37.19	46	-23.22	15.28	2.42	32.11	135	221	Peak
505.8	23.23	34.57	46	-22.77	17.46	2.8	31.6	100	47	Peak
603.8	23.95	33.37	46	-22.05	19.66	3.1	32.18	158	333	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
38.1	27.57	44.72	40	-12.43	13.24	0.63	31.02	129	21	Peak
85.35	31.18	53.7	40	-8.82	8.22	1	31.74	122	185	Peak
175.53	18.87	38	43.5	-24.63	11.19	1.47	31.79	105	350	Peak
546.4	23.12	33.68	46	-22.88	18.37	2.93	31.86	101	14	Peak
608	23.95	33.25	46	-22.05	19.7	3.11	32.11	136	217	Peak
706.7	25.68	33.07	46	-20.32	20.92	3.45	31.76	125	211	Peak

**REMARKS:** Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor

Margin value = Emission level – Limit value

**802.11n (40MHz)**

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 102	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Peter Weng
MODE	B		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
38.1	17.37	34.52	40	-22.63	13.24	0.63	31.02	131	332	Peak
86.16	30.54	53.09	40	-9.46	8.23	1	31.78	135	88	Peak
192.81	28.5	48.8	43.5	-15	9.84	1.56	31.7	139	91	Peak
398	22.78	37.19	46	-23.22	15.28	2.42	32.11	104	75	Peak
552.7	23.78	34.27	46	-22.22	18.53	2.96	31.98	116	192	Peak
603.8	23.95	33.37	46	-22.05	19.66	3.1	32.18	133	39	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
56.46	29.75	47.94	40	-10.25	12.35	0.8	31.34	110	176	Peak
87.78	29.2	51.79	40	-10.8	8.27	1.01	31.87	135	80	Peak
262.2	16.55	34.75	46	-29.45	11.82	1.87	31.89	121	266	Peak
524.7	24.2	35.09	46	-21.8	17.88	2.86	31.63	116	181	Peak
634.6	24.79	33.7	46	-21.21	20.02	3.19	32.12	129	330	Peak
788.6	27.26	32.93	46	-18.74	22.07	3.67	31.41	125	18	Peak

**REMARKS:** Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor

Margin value = Emission level – Limit value

## 4.2 CONDUCTED EMISSION MEASUREMENT

### 4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB $\mu$ 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 0.50MHz.
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

### 4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Apr. 24, 2014	Apr. 23, 2015
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 27, 2013	Dec. 26, 2014
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Dec. 23, 2013	Dec. 22, 2014
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Jul. 10, 2014	Jul. 09, 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 HwaYa Shielded Room 2.
  3. The VCCI Site Registration No. is C-2047.

#### 4.2.3 TEST PROCEDURES

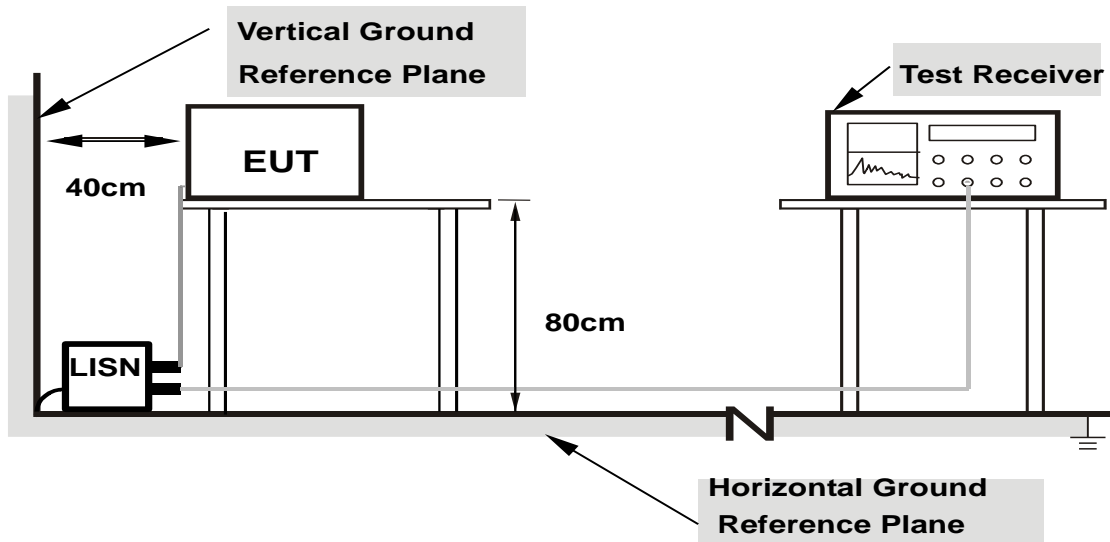
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling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

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

#### 4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

#### 4.2.5 TEST SETUP



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

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

#### 4.2.6 EUT OPERATING CONDITIONS

Same as section 4.1.6.

#### 4.2.7 TEST RESULTS

##### CONDUCTED WORST-CASE DATA :

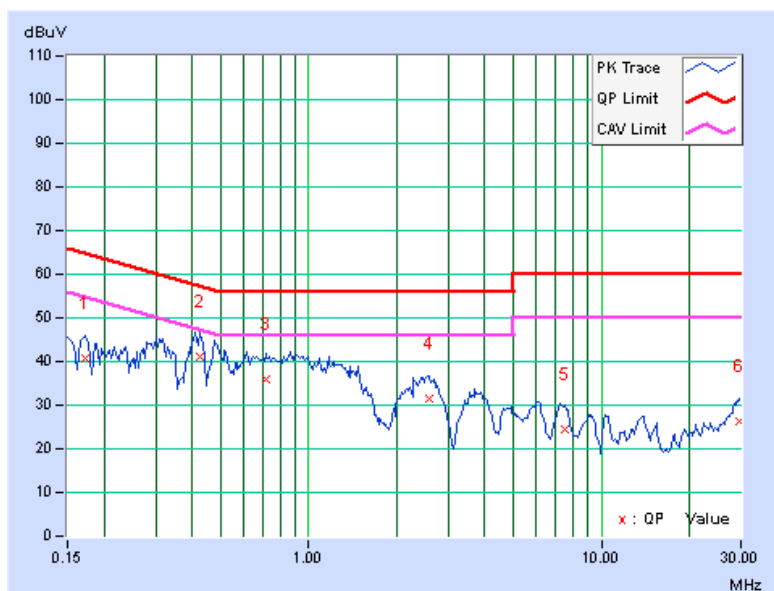
##### MODE A

PHASE	Line 1	6dB BANDWIDTH	9kHz
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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	0.17344	0.27	40.31	28.56	40.58	28.83	64.79	54.79	-24.21	-25.96
2	0.42344	0.30	40.76	31.97	41.06	32.27	57.38	47.38	-16.32	-15.11
3	0.71250	0.32	35.45	24.65	35.77	24.97	56.00	46.00	-20.23	-21.03
4	2.58594	0.38	30.97	22.18	31.35	22.56	56.00	46.00	-24.65	-23.44
5	7.47656	0.47	24.00	16.38	24.47	16.85	60.00	50.00	-35.53	-33.15
6	29.52734	0.45	25.91	18.15	26.36	18.60	60.00	50.00	-33.64	-31.40

##### 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

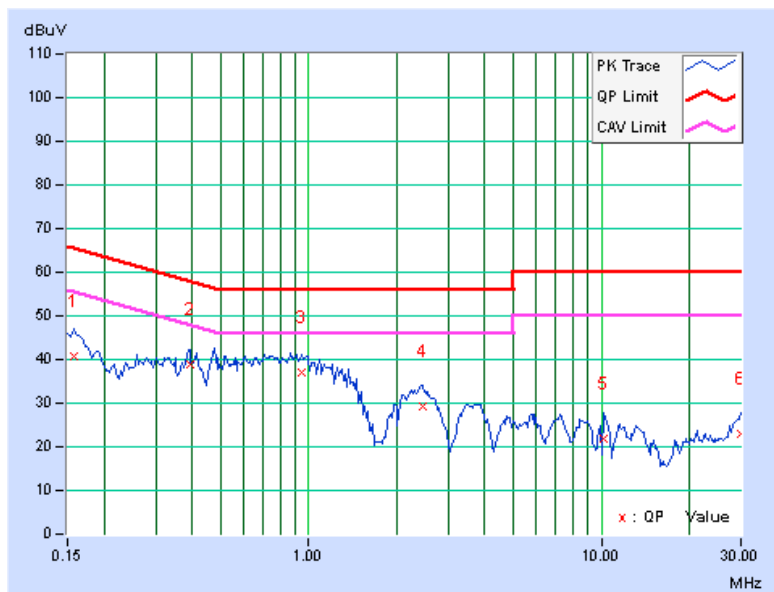


PHASE	Line 2	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15781	0.27	40.44	27.30	40.71	27.57	65.58	55.58	-24.87	-28.01
2	0.39219	0.30	38.50	29.46	38.80	29.76	58.02	48.02	-19.22	-18.26
3	0.94688	0.34	36.54	26.43	36.88	26.77	56.00	46.00	-19.12	-19.23
4	2.45313	0.39	28.77	19.93	29.16	20.32	56.00	46.00	-26.84	-25.68
5	10.16797	0.52	21.51	12.17	22.03	12.69	60.00	50.00	-37.97	-37.31
6	29.94531	0.45	22.61	14.67	23.06	15.12	60.00	50.00	-36.94	-34.88

#### 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





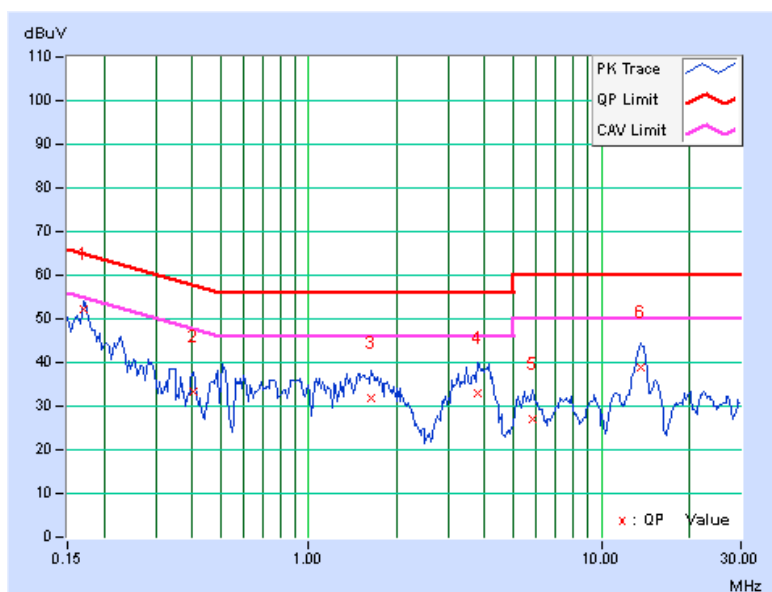
## MODE B

PHASE	Line 1	6dB BANDWIDTH	9kHz
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No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	(dB)	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16953	0.27	52.01	41.76	52.28	42.03	64.98	54.98	-12.70	-12.95
2	0.40391	0.30	32.88	23.84	33.18	24.14	57.77	47.77	-24.59	-23.63
3	1.63281	0.35	31.52	25.98	31.87	26.33	56.00	46.00	-24.13	-19.67
4	3.76172	0.42	32.67	25.59	33.09	26.01	56.00	46.00	-22.91	-19.99
5	5.85547	0.45	26.54	21.65	26.99	22.10	60.00	50.00	-33.01	-27.90
6	13.68359	0.52	38.19	30.46	38.71	30.98	60.00	50.00	-21.29	-19.02

## 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

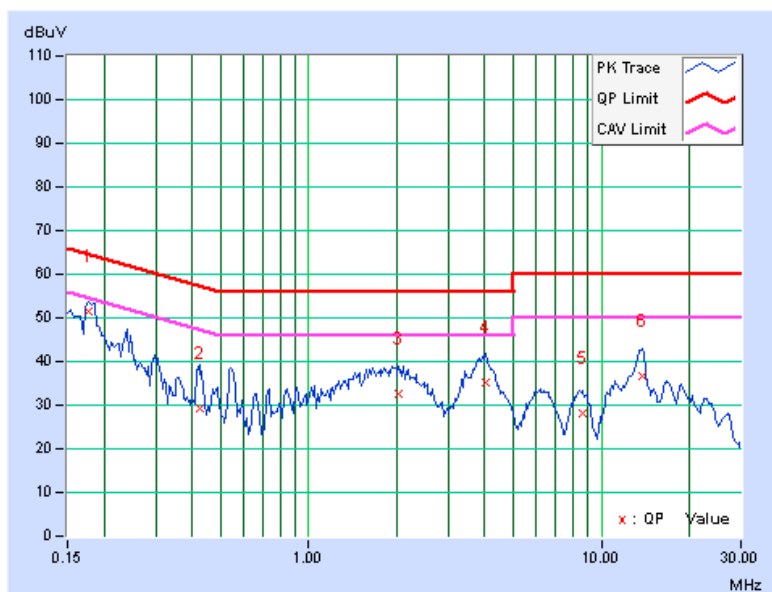


PHASE	Line 2	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17734	0.27	51.21	41.60	51.48	41.87	64.61	54.61	-13.13	-12.74
2	0.42734	0.30	28.88	20.52	29.18	20.82	57.30	47.30	-28.12	-26.48
3	2.03125	0.37	32.34	26.40	32.71	26.77	56.00	46.00	-23.29	-19.23
4	4.04297	0.44	34.76	27.73	35.20	28.17	56.00	46.00	-20.80	-17.83
5	8.63672	0.50	27.79	22.91	28.29	23.41	60.00	50.00	-31.71	-26.59
6	13.73828	0.55	36.17	27.04	36.72	27.59	60.00	50.00	-23.28	-22.41

#### 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



## 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.

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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 any modifications are made to the EUT by the lab during the test.

---END---