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FCC TEST REPORT (15.247)

REPORT NO.: RF130111C27

MODEL NO.: WDAM2120-RX

FCC ID: JVPRX

RECEIVED: Jan. 15, 2013

TESTED: Feb. 04 ~ Feb. 18, 2013

ISSUED: Feb. 22, 2013

APPLICANT: BenQ Corporation

ADDRESS: 16 Jihu Road, Neihu, Taipei 114, Taiwan

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

LAB ADDRESS: No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist.,
New Taipei City, Taiwan, R.O.C.

TEST LOCATION: No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei
Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF130111C27	Original release	Feb. 22, 2013



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1. CERTIFICATION

PRODUCT: Wireless Receiver
MODEL NO.: WDAM2120-RX
BRAND: BenQ
APPLICANT: BenQ Corporation
TESTED: Feb. 04 ~ Feb. 18, 2013
TEST SAMPLE: ENGINEERING SAMPLE
STANDARDS: **FCC Part 15, Subpart C (Section 15.247)**
ANSI C63.10-2009

The above equipment (model: WDAM2120-RX) 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 : Ivy Lin , **DATE** : Feb. 22, 2013
Ivy Lin / Specialist

APPROVED BY : Ken Liu , **DATE** : Feb. 22, 2013
Ken Liu / Manager

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART C (SECTION 15.247)			
STANDARD SECTION	TEST TYPE	RESULT	REMARK
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -6.64dB at 0.15781MHz.
15.247(d) 15.209	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -1.5dB at 11490.00MHz.
15.247(d)	Band Edge Measurement	PASS	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	PASS	Meet the requirement of limit.
15.247(b)	Conducted power	PASS	Meet the requirement of limit.
15.247(e)	Power Spectral Density	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used.

2.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	3.34 dB
	200MHz ~1000MHz	3.35 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

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



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Wireless Receiver
MODEL NO.	WDAM2120-RX
POWER SUPPLY	5Vdc (adapter or host equipment)
MODULATION TYPE/ TECHNOLOGY	Downlink: OFDM 16-QAM Uplink: OOK
TRANSFER RATE	100kbps
OPERATING FREQUENCY	5745 ~ 5805MHz
NUMBER OF CHANNEL	4 for Channel bandwidth (18MHz) 2 for Channel bandwidth (36MHz)
OUTPUT POWER	154.882mW
ANTENNA TYPE	Refer to Note 3
ANTENNA CONNECTOR	NA
DATA CABLE	NA
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	N/A

NOTE:

1. The EUT consumes power from the following adapter which is support unit only.

BRAND:	DVE
MODEL:	DSA-12PFA-05 FUS
INPUT:	100-240Vac~, 50/60Hz, 0.5A
OUTPUT:	5Vdc, 2A
POWER LINE:	1.5m non-shielded cable without core

2. The EUT provides one completed transmitter and five receivers.

MODULATION MODE	TX FUNCTION
Channel bandwidth (18MHz)	1TX
Channel bandwidth (36MHz)	1TX

3. The EUT used the following antennas:

ITEM	ANTENNA TYPE	ANTENNA GAIN	ANTENNA CONNECTOR
Antenna 1 (RX)	Printed	2dBi	none
Antenna 2 (RX)	Printed	2dBi	none
Antenna 3 (RX)	Printed	2dBi	none
Antenna 4 (TX/RX)	Printed	2dBi	none
Antenna 5 (RX)	Printed	2dBi	none

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



3.2 DESCRIPTION OF TEST MODES

FOR 5.0GHz (5745 ~ 5805MHz):

4 channels are provided for channel bandwidth (18MHz):

FREQUENCY	FREQUENCY
5745MHz	5785MHz
5765MHz	5805MHz

2 channels are provided for channel bandwidth (36MHz):

FREQUENCY	FREQUENCY
5755MHz	5795MHz



3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	Power from adapter
B	-	√	√	-	Power from host equipment

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

NOTE:

1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-plane**.
2. "-" means no effect.

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 CONFIGUR E MODE	MODE	AVAILABLE FREQUENCY	TESTED FREQUENCY	MODULATION TYPE	DATA RATE (Kbps)
A	Channel bandwidth (18MHz)	5745 to 5805	5745, 5785, 5805	OOK	100
A	Channel bandwidth (36MHz)	5755 to 5795	5755, 5795	OOK	100

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 CONFIGUR E MODE	MODE	AVAILABLE FREQUENCY	TESTED FREQUENCY	MODULATION TYPE	DATA RATE (Kbps)
A, B	Channel bandwidth (36MHz)	5755 to 5795	5755	OOK	100

POWER LINE CONDUCTED EMISSION TEST:

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

EUT CONFIGUR E MODE	MODE	AVAILABLE FREQUENCY	TESTED FREQUENCY	MODULATION TYPE	DATA RATE (Kbps)
A, B	Channel bandwidth (36MHz)	5755 to 5795	5755	OOK	100



BANDEDGE MEASUREMENT:

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

EUT CONFIGUR E MODE	MODE	AVAILABLE FREQUENCY	TESTED FREQUENCY	MODULATION TYPE	DATA RATE (Kbps)
A	Channel bandwidth (18MHz)	5745 to 5805	5745, 5805	OOK	100
A	Channel bandwidth (36MHz)	5755 to 5795	5755, 5795	OOK	100

ANTENNA PORT CONDUCTED MEASUREMENT:

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

EUT CONFIGUR E MODE	MODE	AVAILABLE FREQUENCY	TESTED FREQUENCY	MODULATION TYPE	DATA RATE (Kbps)
A	Channel bandwidth (18MHz)	5745 to 5805	5745, 5805	OOK	100
A	Channel bandwidth (36MHz)	5755 to 5795	5755, 5795	OOK	100

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	25deg. C, 65%RH	120Vac, 60Hz	Nick Chen
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Chris Lin
PLC	25deg. C, 65%RH	120Vac, 60Hz	Chris Lin
APCM	25deg. C, 65%RH	120Vac, 60Hz	Chris Lin



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3.3 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	24" LCD MONITOR	DELL	U2410	CN082WXD-72872-0 CR-06DL	FCC DoC Approved
2	NOTEBOOK	DELL	D531	CN-0XM006-48643-8 1U-2610	QDS-BRCM1020

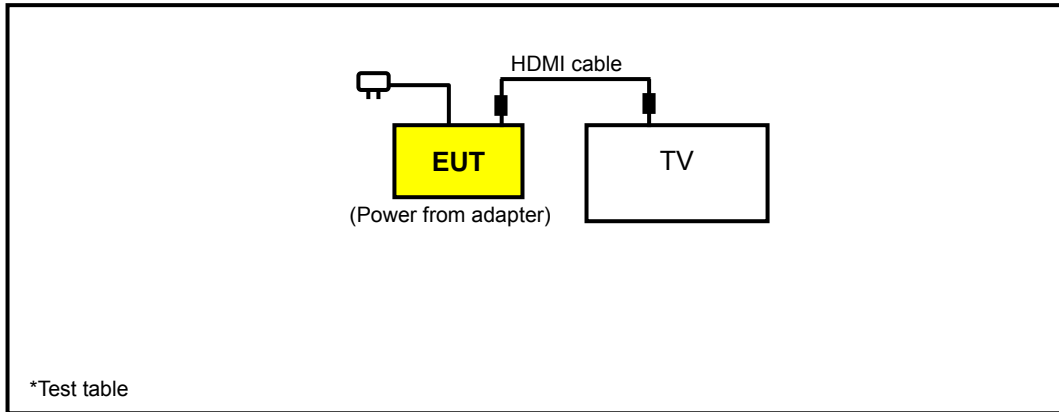
NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	1.2m shielded HDMI cable with two Core
2	0.5m shielded USB cable without core.

NOTE:

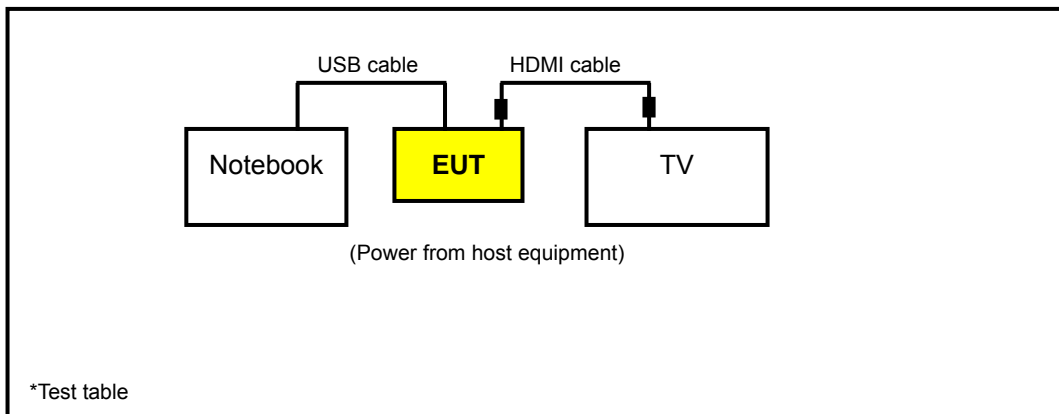
1. All power cords of the above support units are non shielded (1.8m).
2. Cable 1 ~ 2 are provided by the manufacturer.

3.3.1 CONFIGURATION OF SYSTEM UNDER TEST

Test Mode A



Test Mode B





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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 C (15.247)

558074 D01 DTS Meas Guidance v02

662911 D01 Multiple Transmitter Output v01 r02

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 MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION 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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4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100212	Aug. 06, 2012	Aug. 05, 2013
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Jan. 31, 2013	Jan. 30, 2014
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Apr. 06, 2012	Apr. 05, 2013
HORN Antenna SCHWARZBECK	9120D	209	Sep. 03, 2012	Sep. 02, 2013
HORN Antenna SCHWARZBECK	BBHA 9170	148	Jul. 11, 2012	Jul. 10, 2013
Preamplifier Agilent	8447D	2944A10633	Oct. 25, 2012	Oct. 24, 2013
Preamplifier Agilent	8449B	3008A01964	Oct. 25, 2012	Oct. 24, 2013
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250723/4	Aug. 28, 2012	Aug. 27, 2013
RF signal cable HUBER+SUHNNER	SUCOFLEX 106	12738/6+309224/4	Aug. 28, 2012	Aug. 27, 2013
Software ADT.	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	017303	NA	NA
Turn Table ADT.	TT100	TT93021703	NA	NA
Turn Table Controller ADT.	SC100	SC93021703	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 25, 2012	Oct. 24, 2013
High Speed Peak Power Meter	ML2495A	0842014	Apr. 28, 2012	Apr. 27, 2013
Power Sensor	MA2411B	0738404	Apr. 28, 2012	Apr. 27, 2013

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HwaYa Chamber 3.
 3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 4. The FCC Site Registration No. is 988962.
 5. The IC Site Registration No. is IC 7450F-3.



4.1.3 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

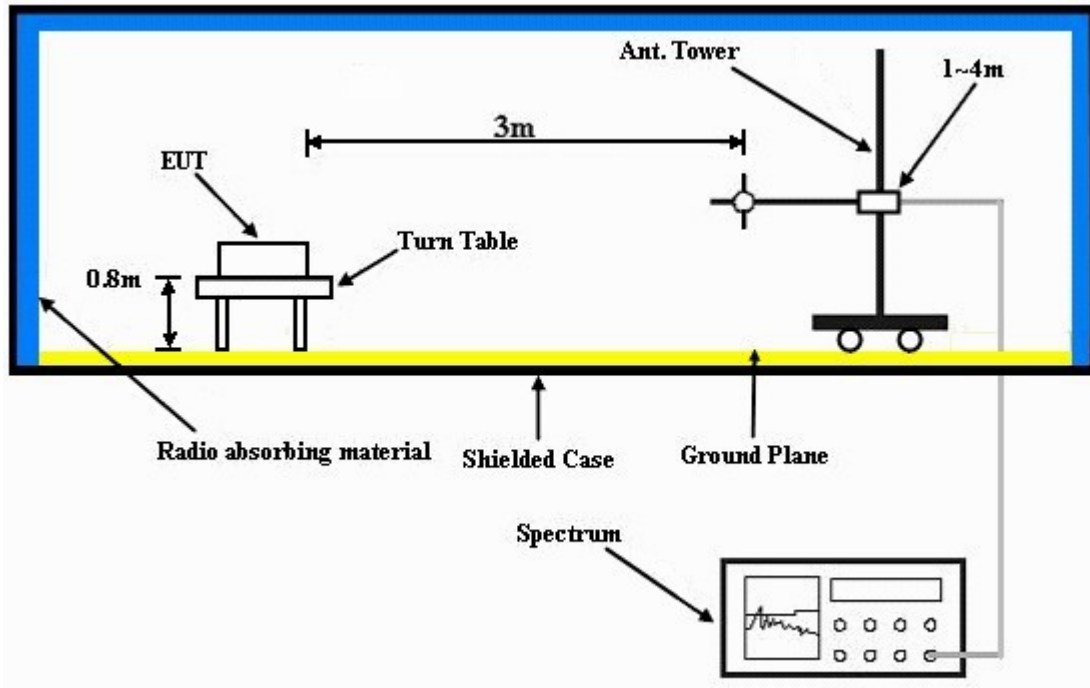
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 100kHz and video bandwidth is 300kHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 1kHz for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation.

4.1.5 TEST SETUP



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

4.1.6 EUT OPERATING CONDITIONS

- Connected the EUT with TV via HDMI cable and placed on a testing table.
- Set the EUT under transmitting condition continuously at specific channel frequency.



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4.1.7 TEST RESULTS

Channel bandwidth (18MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
TESTED FREQUENCY	5745MHz	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Chris Lin

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	#5725.00	65.4 PK	88.2	-22.8	1.00 H	94	26.60	38.80
2	#5725.00	53.1 AV	75.9	-22.8	1.00 H	94	14.30	38.80
3	*5745.00	108.2 PK			1.00 H	203	69.30	38.90
4	*5745.00	95.9 AV			1.00 H	203	57.00	38.90
5	11490.00	64.7 PK	74.0	-9.3	1.12 H	284	15.00	49.70
6	11490.00	49.3 AV	54.0	-4.7	1.12 H	284	-0.40	49.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5725.00	65.2 PK	88.0	-22.8	1.00 V	94	26.40	38.80
2	#5725.00	53.4 AV	76.2	-22.8	1.00 V	94	14.60	38.80
3	*5745.00	108.0 PK			1.00 V	104	69.10	38.90
4	*5745.00	96.2 AV			1.00 V	104	57.30	38.90
5	11490.00	67.7 PK	74.0	-6.3	1.00 V	20	18.00	49.70
6	11490.00	52.5 AV	54.0	-1.5	1.00 V	20	2.80	49.70

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. “ * “: Fundamental frequency.
6. The limit value is defined as per 15.247.
7. "#":The radiated frequency is out the restricted band.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
TESTED FREQUENCY	5785MHz	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Chris Lin

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	*5785.00	109.4 PK			1.00 H	207	70.50	38.90
2	*5785.00	96.6 AV			1.00 H	207	57.70	38.90
3	11570.00	56.8 PK	74.0	-17.2	1.13 H	114	7.20	49.60
4	11570.00	46.4 AV	54.0	-7.6	1.13 H	114	-3.20	49.60
5	#17355.00	59.3 PK	89.4	-30.1	1.06 H	32	5.80	53.50
6	#17355.00	49.1 AV	76.6	-27.5	1.06 H	32	-4.40	53.50
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	*5785.00	109.2 PK			1.23 V	20	70.30	38.90
2	*5785.00	96.9 AV			1.23 V	20	58.00	38.90
3	11570.00	59.8 PK	74.0	-14.2	1.29 V	64	10.20	49.60
4	11570.00	48.6 AV	54.0	-5.4	1.29 V	64	-1.00	49.60
5	#17355.00	61.5 PK	89.2	-27.7	1.17 V	108	8.00	53.50
6	#17355.00	50.8 AV	76.9	-26.1	1.17 V	108	-2.70	53.50

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. “ * “: Fundamental frequency.
6. The limit value is defined as per 15.247.
7. "#":The radiated frequency is out the restricted band.



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EUT TEST CONDITION		MEASUREMENT DETAIL	
TESTED FREQUENCY	5805MHz	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Chris Lin

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	*5805.00	107.8 PK			1.00 H	203	68.80	39.00
2	*5805.00	94.9 AV			1.00 H	203	55.90	39.00
3	#5850.00	59.4 PK	87.8	-28.4	1.00 H	24	20.30	39.10
4	#5850.00	46.5 AV	74.9	-28.4	1.00 H	24	7.40	39.10
5	11610.00	63.4 PK	74.0	-10.6	1.21 H	281	13.90	49.50
6	11610.00	49.6 AV	54.0	-4.4	1.21 H	281	0.10	49.50
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	*5805.00	108.3 PK			1.00 V	67	69.30	39.00
2	*5805.00	96.7 AV			1.00 V	67	57.70	39.00
3	#5850.00	59.9 PK	88.3	-28.4	1.00 V	55	20.80	39.10
4	#5850.00	48.3 AV	76.7	-28.4	1.00 V	55	9.20	39.10
5	11610.00	66.7 PK	74.0	-7.3	1.00 V	0	17.20	49.50
6	11610.00	50.3 AV	54.0	-3.7	1.00 V	0	0.80	49.50

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. “ * “: Fundamental frequency.
6. The limit value is defined as per 15.247.
7. "#":The radiated frequency is out the restricted band.



A D T

Channel bandwidth (36MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
TESTED FREQUENCY	5755MHz	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Chris Lin

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	#5725.00	69.0 PK	85.0	-16.0	1.10 H	210	30.20	38.80
2	#5725.00	57.4 AV	73.4	-16.0	1.10 H	210	18.60	38.80
3	*5755.00	105.0 PK			1.00 H	207	66.10	38.90
4	*5755.00	93.4 AV			1.00 H	207	54.50	38.90
5	11510.00	59.7 PK	74.0	-14.3	1.09 H	128	10.00	49.70
6	11510.00	49.4 AV	54.0	-4.6	1.09 H	128	-0.30	49.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5725.00	69.3 PK	85.3	-16.0	1.00 V	250	30.50	38.80
2	#5725.00	57.3 AV	73.3	-16.0	1.00 V	250	18.50	38.80
3	*5755.00	105.3 PK			1.00 V	250	66.40	38.90
4	*5755.00	93.3 AV			1.00 V	250	54.40	38.90
5	11510.00	60.1 PK	74.0	-13.9	1.03 V	128	10.40	49.70
6	11510.00	49.8 AV	54.0	-4.2	1.03 V	128	0.10	49.70

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. The limit value is defined as per 15.247.
7. "#": The radiated frequency is out the restricted band.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
TESTED FREQUENCY	5795MHz	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Chris Lin

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	*5795.00	104.8 PK			1.00 H	196	65.80	39.00
2	*5795.00	92.8 AV			1.00 H	196	53.80	39.00
3	#5850.00	64.8 PK	84.8	-20.0	1.10 H	150	25.70	39.10
4	#5850.00	52.8 AV	72.8	-20.0	1.10 H	150	13.70	39.10
5	11590.00	56.3 PK	74.0	-17.7	1.09 H	124	6.80	49.50
6	11590.00	46.4 AV	54.0	-7.6	1.09 H	124	-3.10	49.50

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	*5795.00	105.5 PK			1.12 V	360	66.50	39.00
2	*5795.00	93.0 AV			1.12 V	360	54.00	39.00
3	#5850.00	65.5 PK	85.5	-20.0	1.20 V	350	26.40	39.10
4	#5850.00	53.0 AV	73.0	-20.0	1.20 V	350	13.90	39.10
5	11590.00	58.8 PK	74.0	-15.2	1.13 V	62	9.30	49.50
6	11590.00	49.3 AV	54.0	-4.7	1.13 V	62	-0.20	49.50

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. “ * “: Fundamental frequency.
6. The limit value is defined as per 15.247.
7. “#”:The radiated frequency is out the restricted band.



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Channel bandwidth (36MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
TESTED FREQUENCY	5755MHz	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Chris Lin
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	31.0 QP	40.0	-9.0	2.00 H	15	17.40	13.60
2	158.22	20.8 QP	43.5	-22.7	1.50 H	105	6.80	14.00
3	288.49	20.2 QP	46.0	-25.8	1.00 H	213	5.50	14.70
4	379.87	21.2 QP	46.0	-24.8	1.00 H	213	4.20	17.00
5	640.41	22.7 QP	46.0	-23.3	1.24 H	128	-0.20	22.90
6	852.33	25.6 QP	46.0	-20.4	2.00 H	15	-0.70	26.30

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	25.9 QP	40.0	-14.1	1.25 V	70	12.30	13.60
2	97.95	20.4 QP	43.5	-23.1	1.25 V	9	11.40	9.00
3	319.60	21.7 QP	46.0	-24.3	1.50 V	235	6.10	15.60
4	399.31	22.2 QP	46.0	-23.8	1.50 V	48	4.70	17.50
5	539.30	22.3 QP	46.0	-23.7	1.00 V	358	1.30	21.00
6	811.50	25.3 QP	46.0	-20.7	2.00 V	122	-0.40	25.70

REMARKS:

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
TESTED FREQUENCY	5755MHz	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Chris Lin
TEST MODE	B		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	31.0 QP	40.0	-9.0	2.00 H	190	17.40	13.60
2	158.22	20.6 QP	43.5	-22.9	1.25 H	100	6.60	14.00
3	288.49	22.1 QP	46.0	-23.9	1.00 H	119	7.40	14.70
4	399.31	23.5 QP	46.0	-22.5	1.00 H	222	6.00	17.50
5	640.41	23.6 QP	46.0	-22.4	1.25 H	128	0.70	22.90
6	918.44	26.1 QP	46.0	-19.9	1.50 H	10	-1.10	27.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	25.8 QP	40.0	-14.2	1.00 V	130	12.20	13.60
2	319.60	21.5 QP	46.0	-24.5	1.50 V	19	5.90	15.60
3	399.31	23.1 QP	46.0	-22.9	1.50 V	285	5.60	17.50
4	535.42	21.1 QP	46.0	-24.9	1.00 V	240	0.20	20.90
5	745.40	23.5 QP	46.0	-22.5	1.24 V	222	-1.00	24.50
6	916.50	26.1 QP	46.0	-19.9	1.00 V	200	-1.00	27.10

REMARKS:

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



4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

- NOTE:** 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Nov. 09, 2012	Nov. 08, 2013
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 28, 2012	Dec. 27, 2013
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Dec. 21, 2012	Dec. 20, 2013
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 06, 2012	Jul. 05, 2013
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

- NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Shielded Room 2.
3. The VCCI Site Registration No. is C-2047.

4.2.3 TEST PROCEDURES

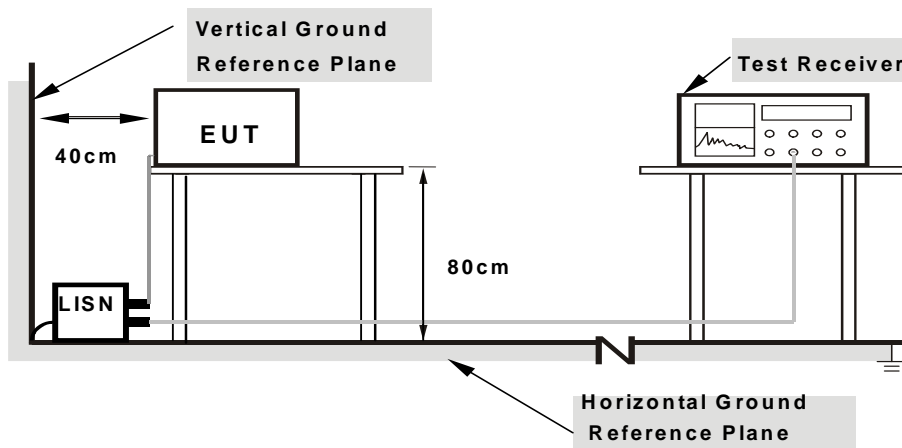
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling 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 item 4.1.6.



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4.2.7 TEST RESULTS

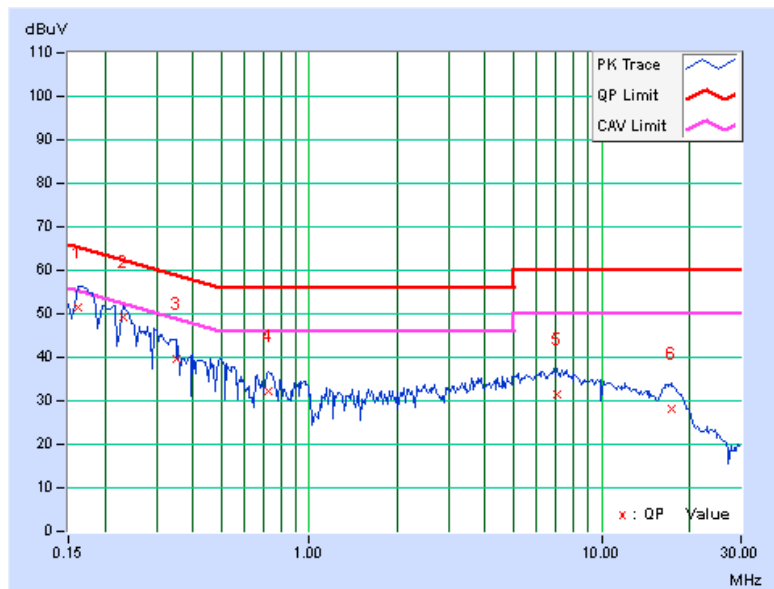
CONDUCTED WORST-CASE DATA : Channel bandwidth (36MHz)

PHASE	Line 1	6dB BANDWIDTH	9kHz
TEST MODE	A		

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	0.16172	0.12	51.53	33.11	51.65	33.23	65.38
2	0.23203	0.12	49.20	34.37	49.32	34.49	62.38	52.38	-13.05	-17.88
3	0.34922	0.14	39.44	23.46	39.58	23.60	58.98	48.98	-19.40	-25.38
4	0.72813	0.18	32.19	21.59	32.37	21.77	56.00	46.00	-23.63	-24.23
5	7.02344	0.50	31.04	22.87	31.54	23.37	60.00	50.00	-28.46	-26.63
6	17.28125	1.08	27.24	19.36	28.32	20.44	60.00	50.00	-31.68	-29.56

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.





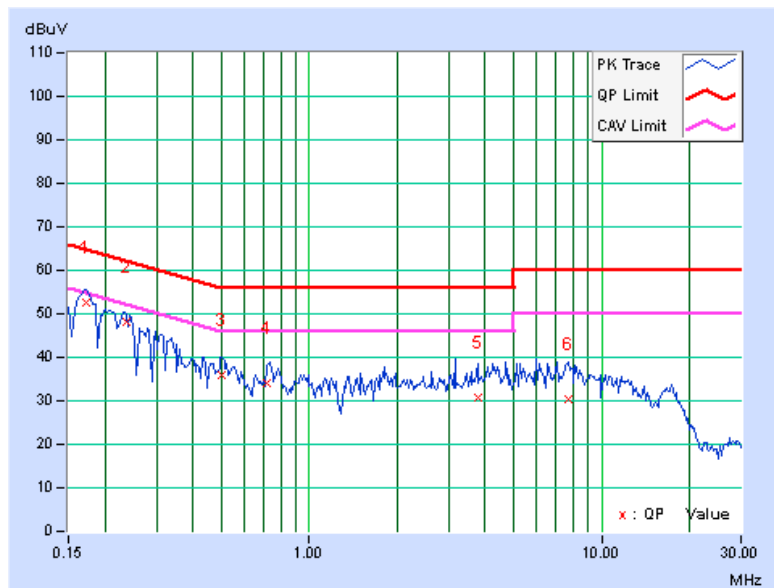
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PHASE	Line 2	6dB BANDWIDTH	9kHz
TEST MODE	A		

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	0.17	52.57	39.01	52.74	39.18	64.79
2	0.23594	0.18	48.04	37.54	48.22	37.72	62.24	52.24	-14.02	-14.52
3	0.50156	0.22	35.75	27.35	35.97	27.57	56.00	46.00	-20.03	-18.43
4	0.72031	0.23	33.81	22.55	34.04	22.78	56.00	46.00	-21.96	-23.22
5	3.77734	0.37	30.32	22.20	30.69	22.57	56.00	46.00	-25.31	-23.43
6	7.68750	0.51	29.96	23.07	30.47	23.58	60.00	50.00	-29.53	-26.42

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.





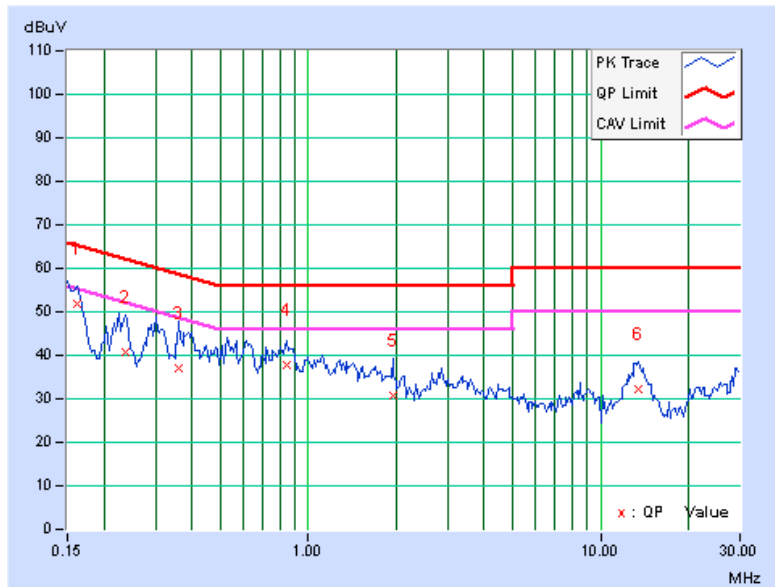
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PHASE	Line 1	6dB BANDWIDTH	9kHz
TEST MODE	B		

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	0.16172	0.12	51.73	46.40	51.85	46.52	65.38
2	0.23594	0.13	40.74	27.86	40.87	27.99	62.24	52.24	-21.37	-24.25
3	0.36094	0.14	36.75	24.16	36.89	24.30	58.71	48.71	-21.81	-24.40
4	0.84531	0.19	37.57	28.70	37.76	28.89	56.00	46.00	-18.24	-17.11
5	1.94141	0.23	30.33	23.36	30.56	23.59	56.00	46.00	-25.44	-22.41
6	13.47656	0.86	31.47	24.98	32.33	25.84	60.00	50.00	-27.67	-24.16

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.





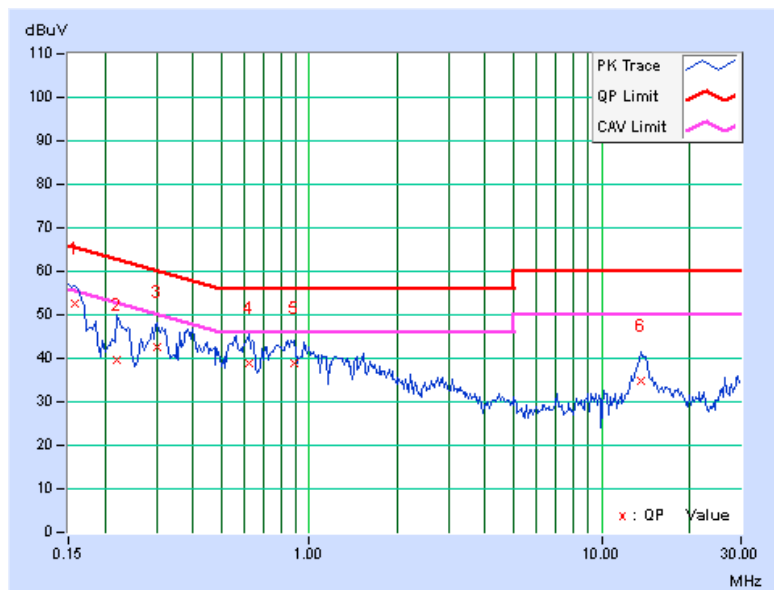
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PHASE	Line 2	6dB BANDWIDTH	9kHz
TEST MODE	B		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
	[MHz]		[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15781	0.17	52.33	48.76	52.50	48.93	65.58	55.58	-13.07	-6.64
2	0.22031	0.17	39.42	25.32	39.59	25.49	62.81	52.81	-23.21	-27.31
3	0.30234	0.19	42.37	35.98	42.56	36.17	60.18	50.18	-17.62	-14.01
4	0.61875	0.22	38.56	29.58	38.78	29.80	56.00	46.00	-17.22	-16.20
5	0.88828	0.24	38.75	29.82	38.99	30.06	56.00	46.00	-17.01	-15.94
6	13.60156	0.71	34.02	27.17	34.73	27.88	60.00	50.00	-25.27	-22.12

REMARKS:

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

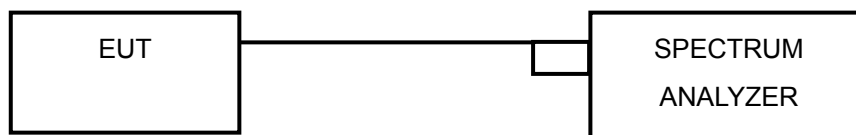


4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.3.2 TEST SETUP



4.3.3 TEST INSTRUMENTS

Refer to section 4.1.2 to get information of above instrument.

4.3.4 TEST PROCEDURE

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

4.3.5 DEVIATION FROM TEST STANDARD

No deviation.

4.3.6 EUT OPERATING CONDITIONS

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



4.3.7 TEST RESULTS

Channel bandwidth (18MHz)

FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
5745	15.46	0.5	PASS
5785	15.47	0.5	PASS
5805	15.50	0.5	PASS

Channel bandwidth (36MHz)

FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
5755	31.13	0.5	PASS
5795	31.07	0.5	PASS

4.4 CONDUCTED OUTPUT POWER

4.4.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

For systems using digital modulation in the 5725 –5850 MHz bands: 1 Watt (30dBm)

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

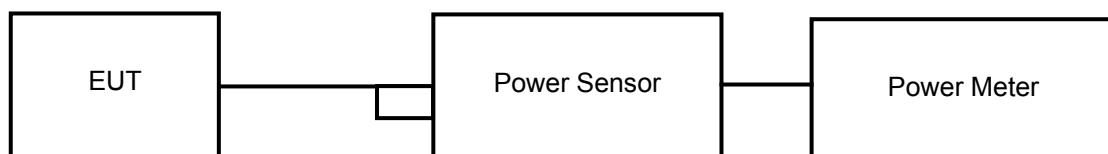
Array Gain = 0 dB (i.e., no array gain) for NANT \leq 4;

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

Array Gain = $5 \log(\text{NANT}/\text{NSS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with NANT \geq 5.

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

4.4.2 TEST SETUP



4.4.3 INSTRUMENTS

Refer to section 4.1.2 to get information of above instrument.

4.4.4 TEST PROCEDURES

A peak / average power sensor were 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.



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4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6.



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4.4.7 TEST RESULTS

FOR PEAK POWER

Channel bandwidth (18MHz)

FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
5745	142.561	21.54	30	PASS
5785	134.896	21.30	30	PASS
5805	134.586	21.29	30	PASS

Channel bandwidth (36MHz)

FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
5755	154.882	21.90	30	PASS
5795	125.026	20.97	30	PASS

FOR AVERAGE POWER

Channel bandwidth (18MHz)

FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)
5745	24.044	13.81
5785	24.889	13.96
5805	25.823	14.12

Channel bandwidth (36MHz)

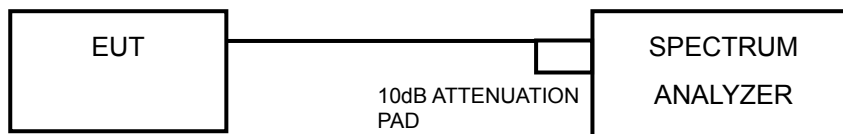
FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)
5755	25.235	14.02
5795	23.067	13.63

4.5 POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 TEST SETUP



4.5.3 TEST INSTRUMENTS

Refer to section 4.1.2 to get information of above instrument.

4.5.4 TEST PROCEDURE.

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

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

4.5.6 EUT OPERATING CONDITION

Same as item 4.3.6.



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4.5.7 TEST RESULTS

Channel bandwidth (18MHz)

FREQUENCY (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
5745	-4.31	8	PASS
5785	-3.43	8	PASS
5805	-3.11	8	PASS

Channel bandwidth (36MHz)

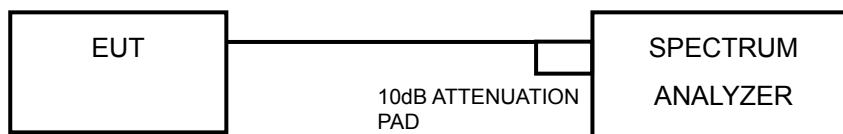
FREQUENCY (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
5755	-6.33	8	PASS
5795	-7.01	8	PASS

4.6 CONDUCTED OUT OF BAND EMISSION MEASUREMENT

4.6.1 LIMITS OF CONDUCTED OUT OF BAND EMISSION MEASUREMENT

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

4.6.2 TEST SETUP



4.6.3 TEST INSTRUMENTS

Refer to section 4.1.2 to get information of above instrument.

4.6.4 TEST PROCEDURE

MEASUREMENT PROCEDURE REF

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



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MEASUREMENT PROCEDURE OOB

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

4.6.5 DEVIATION FROM TEST STANDARD

No deviation.

4.6.6 EUT OPERATING CONDITION

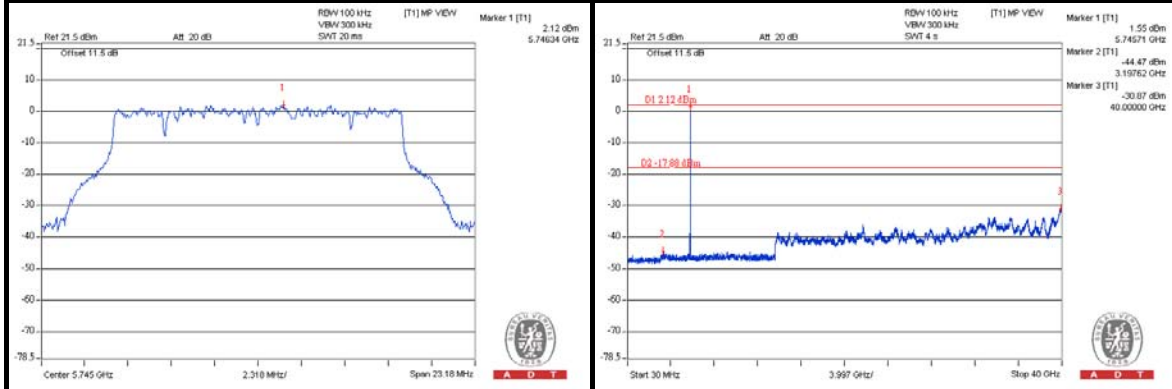
Same as Item 4.3.6

4.6.7 TEST RESULTS

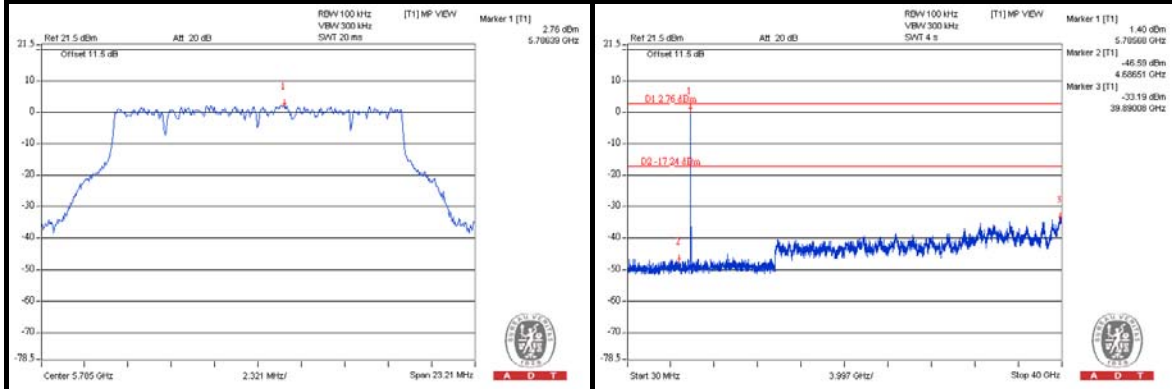
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement.

Channel bandwidth (18MHz)

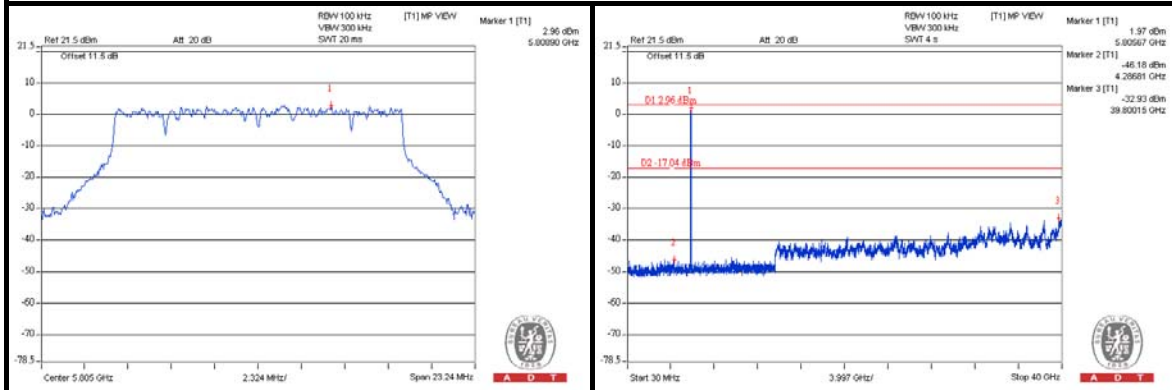
5745MHz



5785MHz

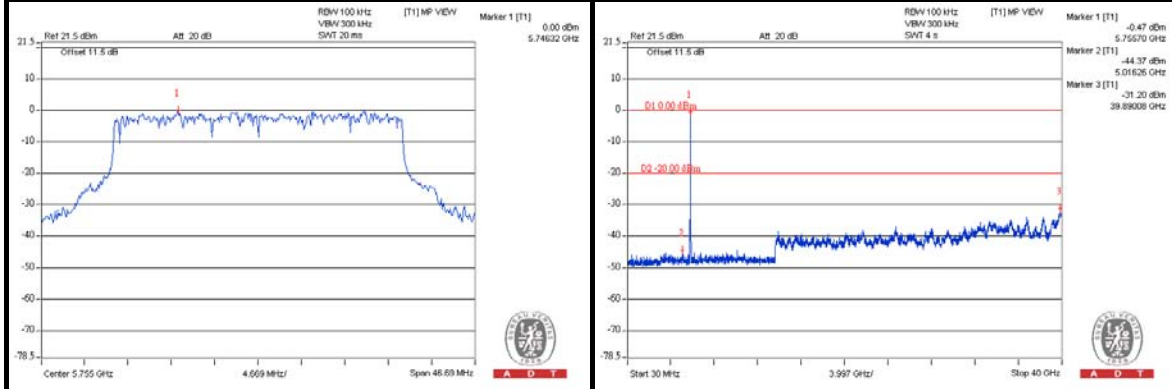


5805MHz

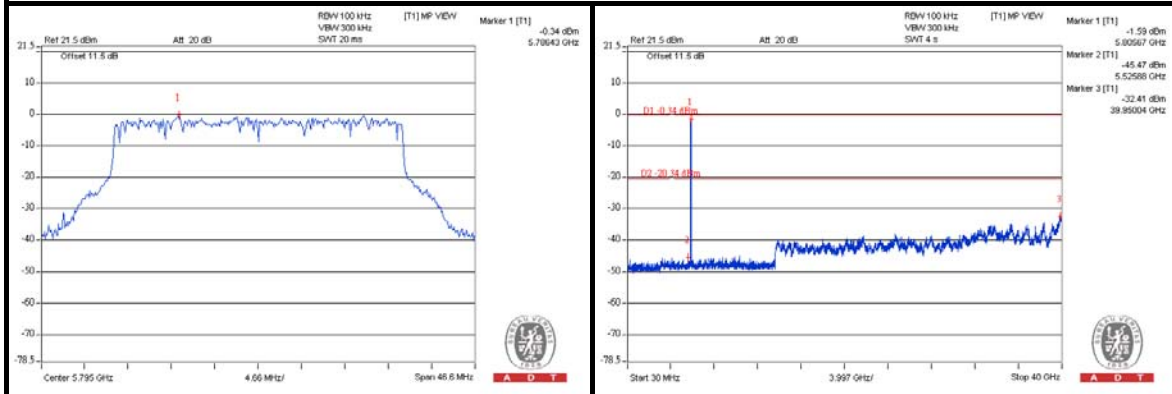


Channel bandwidth (36MHz)

5755MHz



5795MHz





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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:

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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.

---END---