FCC TEST REPORT

(CO-LOCATED)

REPORT NO.:	RF131223C35D-2
MODEL NO.:	XR600
FCC ID:	SK6-XR620
RECEIVED:	Dec. 12, 2013
TESTED:	Mar. 04 ~ Mar. 06, 2014
ISSUED:	Apr. 21, 2014

APPLICANT:	Xirrus, INC.
ADDRESS:	2101 Corporate Center Driver Thousand Oaks, California 91320

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.

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

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF131223C35D-2	Original release	Apr. 21, 2014

1. CERTIFICATION

PRODUCT:	802.11ac 2x2 AP
MODEL NO.:	XR600
BRAND:	Xirrus
APPLICANT:	Xirrus, INC.
TESTED:	Mar. 04 ~ Mar. 06, 2014
TEST SAMPLE:	ENGINEERING SAMPLE
STANDARDS:	**FCC Part 15, Subpart C (Section 15.247)**
	FCC Part 15, Subpart E (Section 15.407)
	ANSI C63.10-2009

The above equipment (model: XR600) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch,** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : , **DATE :** Apr. 21, 2014

Ivy Lin / Specialist

APPROVED BY : , **DATE :** Apr. 21, 2014

Ken Liu / Senior 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) FCC PART 15, SUBPART E (SECTION 15.407)		
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**REMARK**
15.207 15.407(b)(6)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -17.81dB at 0.15391MHz.
15.247(d) 15.407(b/1/2/3)(b)(6)	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.8dB at 2390.00MHz.

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	3.19 dB
	200MHz ~1000MHz	3.21 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	802.11ac 2x2 AP
MODEL NO.	XR600
POWER SUPPLY	55Vdc (POE)
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b:11.0/ 5.5/ 2.0/ 1.0Mbps 802.11g: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300.0Mbps 802.11ac: up to 867.0Mbpss
OPERATING FREQUENCY	**2.4GHz:** 2412 ~ 2462MHz **5.0GHz:** 5745 ~ 5825MHz
NUMBER OF CHANNEL	**2.4GHz:** 11 for 802.11b, 802.11g, 802.11n (20MHz) 7 for 802.11n (40MHz) **5.0GHz:** **5180 ~ 5240MHz:** 02.11a, 802.11n (20MHz): 4 802.11n (40MHz): 2 802.11ac (80MHz): 1 **5745 ~ 5825MHz:** 802.11a, 802.11n (20MHz): 5 802.11n (40MHz): 2 802.11ac (VHT80): 1
OUTPUT POWER	251.852 mW for 2412 ~ 2462MHz 49.913mW for 5180 ~ 5240MHz 213.177mW for 5745 ~ 5825MHz
ANTENNA TYPE	2.4GHz: Monopole antenna with 3.48dBi gain 5.0GHz: Monopole antenna with 5.16dBi gain
ANTENNA CONNECTOR	I-PEX
DATA CABLE	N/A
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	N/A

NOTE:

1. This report is prepared for FCC class II permissive change. The difference compared with original report is adding collocated function.
2. The EUT has two collocated dual band RF modules (Radio 1, Radio 2), which cannot co-transmit in the same band.
3. The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers.

MODULATION MODE	TX FUNCTION
802.11b	2TX
802.11g	2TX
802.11a	2TX
802.11n (20MHz) (MCS 8 ~ 15)	2TX
802.11n (40MHz) (MCS 8 ~ 15)	2TX
802.11ac (VHT80)	2TX

4. The EUT was powered by the following POE (provided as a support unit only).

BRAND	PowerDsine
MODEL	PD9001G
INPUT POWER	100-250Vac, 50/60Hz, 0.8A
OUTPUT POWER	55Vdc, 0.60A

5. 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 2.4GHz:

11 channels are provided for 802.11b, 802.11g and 802.11n (20MHz):

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		

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

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

FOR 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	5210MHz

FOR 5745 ~ 5825MHz:

5 channels are provided for 802.11a and 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
149	5745MHz	161	5805MHz
153	5765MHz	165	5825MHz
157	5785MHz		

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755MHz	159	5795MHz

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY
155	5775MHz

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO			DESCRIPTION
	RE≥1G	RE<1G	PLC	
-	√	√	√	-

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

NOTE:
1. Radio 1: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Y-plane**.
2. Radio 2: 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	RADIO	MODE	FREQ. RANGE (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE
-	1	802.11g	2412 ~ 2462	1 to 11	6	BPSK
	2	802.11a	5180 ~ 5240	36 to 48	48	BPSK
-	1	802.11g	2412 ~ 2462	1 to 11	6	BPSK
	2	802.11n (20MHz)	5745 ~ 5825	149 to 165	157	BPSK
-	1	802.11n (20MHz)	5180 ~ 5240	36 to 48	36	BPSK
	2	802.11b	2412 ~ 2462	1 to 11	1	DBPSK
-	1	802.11n (20MHz)	5180 ~ 5240	36 to 48	36	BPSK
	2	802.11n (20MHz)	5745 ~ 5825	149 to 165	157	BPSK
-	1	802.11a	5745 ~ 5825	149 to 165	165	BPSK
	2	802.11b	2412 ~ 2462	1 to 11	1	DBPSK
-	1	802.11a	5745 ~ 5825	149 to 165	165	BPSK
	2	802.11a	5180 ~ 5240	36 to 48	48	BPSK

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	RADIO	MODE	FREQ. RANGE (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE
-	1	802.11g	2412 ~ 2462	1 to 11	6	BPSK
	2	802.11a	5180 ~ 5240	36 to 48	48	BPSK
-	1	802.11g	2412 ~ 2462	1 to 11	6	BPSK
	2	802.11n (20MHz)	5745 ~ 5825	149 to 165	157	BPSK
-	1	802.11n (20MHz)	5180 ~ 5240	36 to 48	36	BPSK
	2	802.11b	2412 ~ 2462	1 to 11	1	DBPSK
-	1	802.11n (20MHz)	5180 ~ 5240	36 to 48	36	BPSK
	2	802.11n (20MHz)	5745 ~ 5825	149 to 165	157	BPSK
-	1	802.11a	5745 ~ 5825	149 to 165	165	BPSK
	2	802.11b	2412 ~ 2462	1 to 11	1	DBPSK
-	1	802.11a	5745 ~ 5825	149 to 165	165	BPSK
	2	802.11a	5180 ~ 5240	36 to 48	48	BPSK

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 CONFIGURE MODE	RADIO	MODE	FREQ. RANGE (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE
-	1	802.11g	2412 ~ 2462	1 to 11	6	BPSK
	2	802.11a	5180 ~ 5240	36 to 48	48	BPSK
-	1	802.11g	2412 ~ 2462	1 to 11	6	BPSK
	2	802.11n (20MHz)	5745 ~ 5825	149 to 165	157	BPSK
-	1	802.11n (20MHz)	5180 ~ 5240	36 to 48	36	BPSK
	2	802.11b	2412 ~ 2462	1 to 11	1	DBPSK
-	1	802.11n (20MHz)	5180 ~ 5240	36 to 48	36	BPSK
	2	802.11n (20MHz)	5745 ~ 5825	149 to 165	157	BPSK
-	1	802.11a	5745 ~ 5825	149 to 165	165	BPSK
	2	802.11b	2412 ~ 2462	1 to 11	1	DBPSK
-	1	802.11a	5745 ~ 5825	149 to 165	165	BPSK
	2	802.11a	5180 ~ 5240	36 to 48	48	BPSK

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
RE≥1G	22deg. C, 69%RH	120Vac, 60Hz	Brad Tung, Jones Chang
RE<1G	22deg. C, 69%RH	120Vac, 60Hz	Jones Chang
PLC	22deg. C, 69%RH	120Vac, 60Hz	Alan Wu

3.3 DESCRIPTION OF SUPPORT UNITS

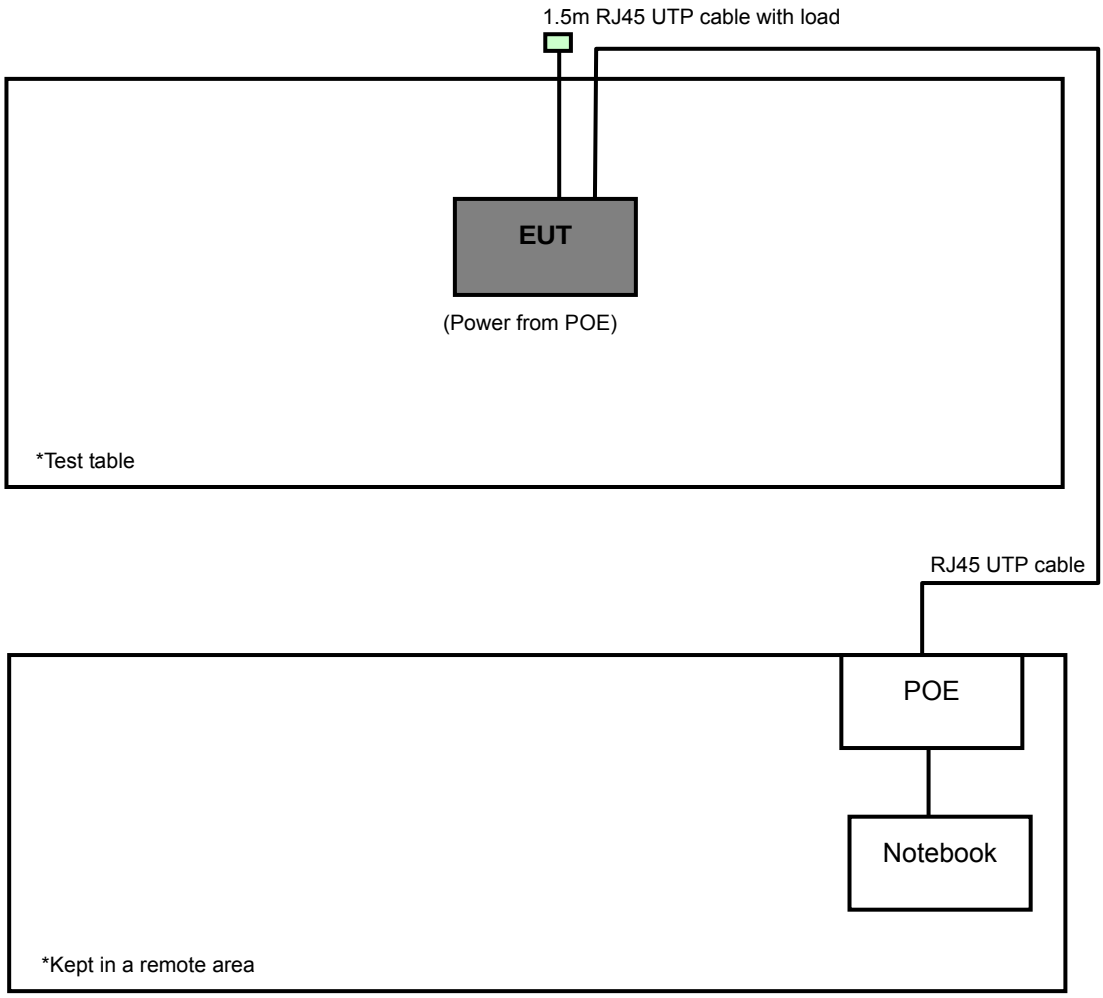
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Notebook	DELL	D531	CN-0XM006-48643-81U-2973	QDS-BRCM1020
2	POE	PowerDsine	PD9001G	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	3m RJ45 UTP cable
2	1.5m RJ45 UTP cable

NOTE:
1. All power cords of the above support units are non-shielded (1.8m).
2. Item 1 ~ 2 acted as a communication partner to transfer data.
3. Item 2 was provided by the client.

3.3.1 CONFIGURATION OF SYSTEM UNDER TEST



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 (Section 15.247)
FCC Part 15, Subpart E (Section 15.407)
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

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

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:

$$E = \frac{1000000\sqrt{30P}}{3}$$ µV/m, where P 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	100424	Sep. 09, 2013	Sep. 08, 2014
Spectrum Analyzer ROHDE & SCHWARZ	FSU 43	100115	Dec. 18, 2013	Dec. 17, 2014
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Mar. 25, 2013	Mar. 24, 2014
HORN Antenna SCHWARZBECK	9120D	209	Sep. 12, 2013	Sep. 11, 2014
HORN Antenna SCHWARZBECK	BBHA 9170	148	Jul. 15, 2013	Jul. 14, 2014
Preamplifier Agilent	8449B	3008A01961	Oct. 28, 2013	Oct. 27, 2014
Preamplifier Agilent	8447D	2944A10738	Oct. 18, 2013	Oct. 17, 2014
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309220/4	Aug. 26, 2013	Aug. 25, 2014
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250724/4	Aug. 26, 2013	Aug. 25, 2014
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	295012/4	Aug. 26, 2013	Aug. 25, 2014
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	019303	NA	NA
Turn Table BV ADT	TT100.	TT93021704	NA	NA
Turn Table Controller BV ADT	SC100.	SC93021704	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 18, 2013	Oct. 17, 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 test was performed in HwaYa Chamber 4.

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 460141.

5. The IC Site Registration No. is IC7450F-4.

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 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:

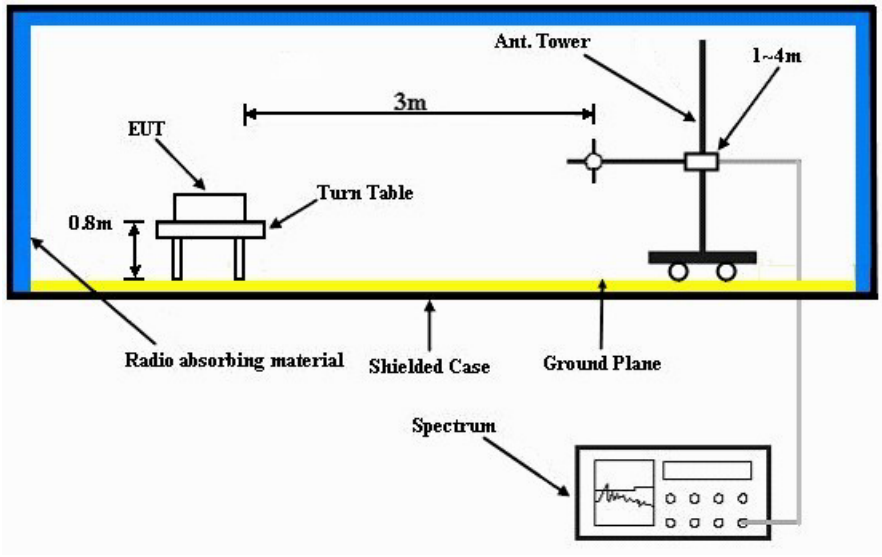
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution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

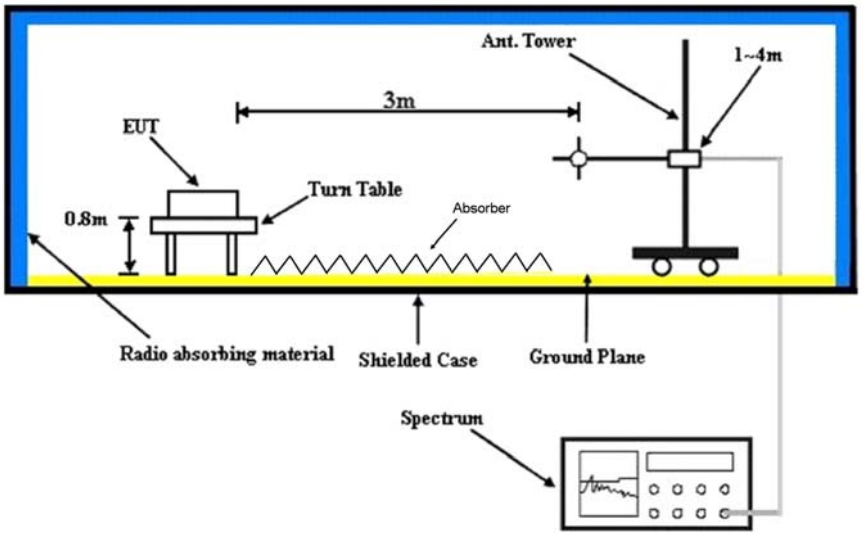
No deviation.

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).

4.1.7 EUT OPERATING CONDITIONS

a. Placed the EUT on the testing table.
b. Prepared notebooks and POE to act as communication partner and placed it outside of testing area.
c. The communication partner connected with EUT via a RJ45 cable and ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
d. The communication partner sent data to EUT by command "PING".

4.1.8 TEST RESULTS

ABOVE 1GHz DATA：

802.11g + 802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 6 + CH 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	112.6 PK			1.54 H	48	80.60	32.00
2	*2437.00	101.3 AV			1.54 H	48	69.30	32.00
3	2483.50	66.7 PK	74.0	-7.3	1.55 H	57	34.40	32.30
4	2483.50	52.6 AV	54.0	-1.4	1.55 H	57	20.30	32.30
5	4874.00	49.5 PK	74.0	-24.5	1.32 H	205	44.50	5.00
6	4874.00	38.7 AV	54.0	-15.3	1.32 H	205	33.70	5.00
7	5000.00	53.9 PK	74.0	-20.1	1.36 H	287	48.70	5.20
8	5000.00	49.0 AV	54.0	-5.0	1.36 H	287	43.80	5.20
9	*5240.00	107.2 PK			1.66 H	274	67.90	39.30
10	*5240.00	97.7 AV			1.66 H	274	58.40	39.30
11	5350.00	56.0 PK	74.0	-18.0	1.66 H	205	50.50	5.50
12	5350.00	45.6 AV	54.0	-8.4	1.66 H	205	40.10	5.50
13	#10480.00	60.6 PK	74.0	-13.4	1.77 H	140	43.80	16.80
14	#10480.00	47.8 AV	54.0	-6.2	1.77 H	140	31.00	16.80

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 6 + CH 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	106.7 PK			1.45 V	199	74.70	32.00
2	*2437.00	96.6 AV			1.45 V	199	64.60	32.00
3	2483.50	63.8 PK	74.0	-10.2	1.63 V	185	31.50	32.30
4	2483.50	48.4 AV	54.0	-5.6	1.63 V	185	16.10	32.30
5	4874.00	47.2 PK	74.0	-26.8	1.01 V	165	42.20	5.00
6	4874.00	35.3 AV	54.0	-18.7	1.01 V	165	30.30	5.00
7	*5240.00	103.0 PK			1.00 V	25	63.70	39.30
8	*5240.00	94.8 AV			1.00 V	25	55.50	39.30
9	5350.00	56.2 PK	74.0	-17.8	1.00 V	23	50.70	5.50
10	5350.00	44.2 AV	54.0	-9.8	1.00 V	23	38.70	5.50
11	#10480.00	60.2 PK	74.0	-13.8	1.13 V	144	43.40	16.80
12	#10480.00	47.4 AV	54.0	-6.6	1.13 V	144	30.60	16.80

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.
6. "#":The radiated frequency is out the restricted band.

802.11g + 802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 6 + CH 157	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	112.6 PK			1.55 H	255	80.60	32.00
2	*2437.00	101.4 AV			1.55 H	255	69.40	32.00
3	2483.50	66.6 PK	74.0	-7.4	1.62 H	63	34.30	32.30
4	2483.50	52.8 AV	54.0	-1.2	1.62 H	63	20.50	32.30
5	4874.00	49.4 PK	74.0	-24.6	1.01 H	25	44.40	5.00
6	4874.00	38.6 AV	54.0	-15.4	1.01 H	25	33.60	5.00
7	*5785.00	107.8 PK			1.13 H	204	67.50	40.30
8	*5785.00	97.7 AV			1.13 H	204	57.40	40.30
9	11570.00	59.8 PK	74.0	-14.2	1.78 H	85	41.60	18.20
10	11570.00	48.6 AV	54.0	-5.4	1.78 H	85	30.40	18.20

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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 6 + CH 157	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	106.7 PK			1.15 V	166	74.70	32.00
2	*2437.00	96.7 AV			1.15 V	166	64.70	32.00
3	2483.50	63.8 PK	74.0	-10.2	1.15 V	85	31.50	32.30
4	2483.50	48.0 AV	54.0	-6.0	1.15 V	85	15.70	32.30
5	4874.00	47.0 PK	74.0	-27.0	1.01 V	320	42.00	5.00
6	4874.00	35.2 AV	54.0	-18.8	1.01 V	320	30.20	5.00
7	*5785.00	103.4 PK			1.55 V	360	63.10	40.30
8	*5785.00	93.5 AV			1.55 V	360	53.20	40.30
9	11570.00	62.0 PK	74.0	-12.0	1.66 V	99	43.80	18.20
10	11570.00	50.8 AV	54.0	-3.2	1.66 V	99	32.60	18.20

REMARKS:

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

802.11n (20MHz) + 802.11b

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 36 + CH 1	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	69.5 PK	74.0	-4.5	1.42 H	63	37.60	31.90
2	2390.00	52.8 AV	54.0	-1.2	1.42 H	63	20.90	31.90
3	*2412.00	115.8 PK			1.44 H	63	83.80	32.00
4	*2412.00	112.1 AV			1.44 H	63	80.10	32.00
5	4824.00	49.0 PK	74.0	-25.0	1.00 H	333	44.20	4.80
6	4824.00	40.8 AV	54.0	-13.2	1.00 H	333	36.00	4.80
7	5000.00	54.3 PK	74.0	-19.7	1.25 H	163	49.10	5.20
8	5000.00	48.8 AV	54.0	-5.2	1.25 H	163	43.60	5.20
9	5150.00	59.8 PK	74.0	-14.2	1.25 H	166	54.40	5.40
10	5150.00	48.1 AV	54.0	-5.9	1.25 H	166	42.70	5.40
11	*5180.00	109.5 PK			1.25 H	68	70.20	39.30
12	*5180.00	99.6 AV			1.25 H	68	60.30	39.30
13	#10360.00	58.5 PK	74.0	-15.5	1.07 H	225	42.50	16.00
14	#10360.00	46.3 AV	54.0	-7.7	1.07 H	225	30.30	16.00

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 36 + CH 1	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	63.0 PK	74.0	-11.0	1.02 V	33	31.10	31.90
2	2390.00	47.1 AV	54.0	-6.9	1.02 V	33	15.20	31.90
3	*2412.00	110.3 PK			1.02 V	33	78.30	32.00
4	*2412.00	106.2 AV			1.02 V	33	74.20	32.00
5	4824.00	52.0 PK	74.0	-22.0	1.00 V	205	47.20	4.80
6	4824.00	46.3 AV	54.0	-7.7	1.00 V	205	41.50	4.80
7	5150.00	58.9 PK	74.0	-15.1	1.00 V	26	53.50	5.40
8	5150.00	47.7 AV	54.0	-6.3	1.00 V	26	42.30	5.40
9	*5180.00	103.1 PK			1.00 V	25	63.80	39.30
10	*5180.00	93.7 AV			1.00 V	25	54.40	39.30
11	#10360.00	58.6 PK	74.0	-15.4	1.14 V	166	42.60	16.00
12	#10360.00	46.5 AV	54.0	-7.5	1.14 V	166	30.50	16.00

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.
6. "#":The radiated frequency is out the restricted band.

802.11n (20MHz) + 802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 36 + CH 157	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

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	5000.00	54.2 PK	74.0	-19.8	1.74 H	162	49.00	5.20
2	5000.00	49.0 AV	54.0	-5.0	1.74 H	162	43.80	5.20
3	5150.00	59.7 PK	74.0	-14.3	1.05 H	58	54.30	5.40
4	5150.00	47.7 AV	54.0	-6.3	1.05 H	58	42.30	5.40
5	*5180.00	109.5 PK			1.62 H	89	70.20	39.30
6	*5180.00	99.6 AV			1.62 H	89	60.30	39.30
7	*5785.00	107.6 PK			1.85 H	51	67.30	40.30
8	*5785.00	97.6 AV			1.85 H	51	57.30	40.30
9	#10360.00	58.3 PK	74.0	-15.7	1.07 H	258	42.30	16.00
10	#10360.00	45.9 AV	54.0	-8.1	1.07 H	258	29.90	16.00
11	11570.00	59.5 PK	74.0	-14.5	1.16 H	32	41.30	18.20
12	11570.00	48.8 AV	54.0	-5.2	1.16 H	32	30.60	18.20

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 36 + CH 157	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

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	5150.00	58.9 PK	74.0	-15.1	1.00 V	65	53.50	5.40
2	5150.00	47.8 AV	54.0	-6.2	1.00 V	65	42.40	5.40
3	*5180.00	103.1 PK			1.00 V	53	63.80	39.30
4	*5180.00	93.7 AV			1.00 V	53	54.40	39.30
5	*5180.00	107.6 PK			1.02 V	55	67.30	40.30
6	*5180.00	97.6 AV			1.02 V	55	57.30	40.30
7	#10360.00	58.2 PK	74.0	-15.8	1.14 V	163	42.20	16.00
8	#10360.00	46.2 AV	54.0	-7.8	1.14 V	163	30.20	16.00
9	11570.00	59.5 PK	74.0	-14.5	1.63 V	63	41.30	18.20
10	11570.00	48.7 AV	54.0	-5.3	1.63 V	63	30.50	18.20

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.
6. "#":The radiated frequency is out the restricted band.

802.11a + 802.11b

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 165 + CH 1	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	69.6 PK	74.0	-4.4	1.19 H	72	37.70	31.90
2	**2390.00**	**53.2 AV**	**54.0**	**-0.8**	**1.19 H**	**72**	**21.30**	**31.90**
3	*2412.00	116.3 PK			1.26 H	88	84.30	32.00
4	*2412.00	112.5 AV			1.26 H	88	80.50	32.00
5	4824.00	48.8 PK	74.0	-25.2	1.00 H	306	44.00	4.80
6	4824.00	41.3 AV	54.0	-12.7	1.00 H	306	36.50	4.80
7	*5825.00	109.5 PK			1.27 H	118	69.20	40.30
8	*5825.00	98.8 AV			1.27 H	118	58.50	40.30
9	#5850.00	68.5 PK	96.3	-27.8	1.26 H	118	61.90	6.60
10	#5850.00	57.8 AV	92.5	-34.7	1.26 H	118	51.20	6.60
11	11650.00	60.5 PK	74.0	-13.5	1.09 H	30	42.40	18.10
12	11650.00	48.7 AV	54.0	-5.3	1.09 H	30	30.60	18.10

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) – 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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 165 + CH 1	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	63.0 PK	74.0	-11.0	1.00 V	108	31.10	31.90
2	2390.00	47.1 AV	54.0	-6.9	1.00 V	108	15.20	31.90
3	*2412.00	110.5 PK			1.00 V	106	78.50	32.00
4	*2412.00	106.8 AV			1.00 V	106	74.80	32.00
5	4824.00	52.1 PK	74.0	-21.9	1.42 V	225	47.30	4.80
6	4824.00	46.3 AV	54.0	-7.7	1.42 V	225	41.50	4.80
7	*5825.00	105.5 PK			1.00 V	35	65.20	40.30
8	*5825.00	94.8 AV			1.00 V	35	54.50	40.30
9	#5850.00	64.5 PK	90.5	-26.0	1.00 V	60	57.90	6.60
10	#5850.00	53.8 AV	86.8	-33.0	1.00 V	60	47.20	6.60
11	11650.00	60.3 PK	74.0	-13.7	1.42 V	8	42.20	18.10
12	11650.00	48.2 AV	54.0	-5.8	1.42 V	8	30.10	18.10

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) – 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.
6. "#":The radiated frequency is out the restricted band.

802.11a + 802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 165 + CH 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

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	5000.00	53.6 PK	74.0	-20.4	1.23 H	236	48.40	5.20
2	5000.00	49.1 AV	54.0	-4.9	1.23 H	236	43.90	5.20
3	*5240.00	107.2 PK			1.42 H	266	67.90	39.30
4	*5240.00	97.6 AV			1.42 H	266	58.30	39.30
5	5350.00	50.9 PK	74.0	-23.1	1.53 H	255	45.40	5.50
6	5350.00	39.3 AV	54.0	-14.7	1.53 H	255	33.80	5.50
7	*5825.00	109.4 PK			1.35 H	90	69.10	40.30
8	*5825.00	98.6 AV			1.35 H	90	58.30	40.30
9	#5850.00	68.4 PK	89.4	-21.0	1.35 H	90	61.80	6.60
10	#5850.00	57.6 AV	78.6	-21.0	1.35 H	90	51.00	6.60
11	#10480.00	43.5 PK	89.4	-45.9	1.25 H	40	26.70	16.80
12	#10480.00	30.8 AV	78.6	-47.8	1.25 H	40	14.00	16.80
13	11650.00	60.5 PK	74.0	-13.5	1.12 H	225	42.40	18.10
14	11650.00	48.2 AV	54.0	-5.8	1.12 H	225	30.10	18.10

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) – 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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 165 + CH 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

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	*5240.00	102.9 PK			1.00 V	68	63.60	39.30
2	*5240.00	94.7 AV			1.00 V	68	55.40	39.30
3	5350.00	55.9 PK	74.0	-18.1	1.00 V	75	50.40	5.50
4	5350.00	44.1 AV	54.0	-9.9	1.00 V	75	38.60	5.50
5	*5825.00	105.4 PK			1.00 V	36	65.10	40.30
6	*5825.00	94.6 AV			1.00 V	36	54.30	40.30
7	#5850.00	64.4 PK	85.4	-21.0	1.00 V	53	57.80	6.60
8	#5850.00	53.6 AV	74.6	-21.0	1.00 V	53	47.00	6.60
9	#10480.00	59.9 PK	85.4	-25.5	1.16 V	142	43.10	16.80
10	#10480.00	47.3 AV	74.6	-27.3	1.16 V	142	30.50	16.80
11	11650.00	60.2 PK	74.0	-13.8	1.28 V	142	42.10	18.10
12	11650.00	48.0 AV	54.0	-6.0	1.28 V	142	29.90	18.10

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) – 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.
6. "#":The radiated frequency is out the restricted band.

BELOW 1GHz WORST-CASE DATA：

802.11g + 802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 6 + CH 48	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

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	164.06	29.2 QP	43.5	-14.3	1.00 H	268	43.00	-13.80
2	348.76	44.8 QP	46.0	-1.2	1.20 H	108	56.30	-11.50
3	374.04	35.1 QP	46.0	-10.9	1.00 H	117	45.80	-10.70
4	550.97	35.8 QP	46.0	-10.2	1.00 H	182	43.20	-7.40
5	650.13	34.5 QP	46.0	-11.5	1.00 H	198	39.70	-5.20
6	751.23	40.9 QP	46.0	-5.1	1.99 H	196	43.90	-3.00
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	348.76	43.5 QP	46.0	-2.5	1.00 V	231	55.00	-11.50
2	449.87	38.4 QP	46.0	-7.6	1.00 V	205	47.60	-9.20
3	550.97	44.0 QP	46.0	-2.0	1.25 V	344	51.40	-7.40
4	650.13	36.2 QP	46.0	-9.8	1.00 V	355	41.40	-5.20
5	751.23	36.4 QP	46.0	-9.6	2.00 V	10	39.40	-3.00
6	799.84	36.7 QP	46.0	-9.3	1.30 V	136	38.80	-2.10

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

802.11g + 802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 6 + CH 157	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

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	166.00	28.7 QP	43.5	-14.8	1.00 H	232	42.70	-14.00
2	348.76	45.0 QP	46.0	-1.0	1.20 H	105	56.50	-11.50
3	449.87	34.0 QP	46.0	-12.0	1.00 H	253	43.20	-9.20
4	550.97	35.6 QP	46.0	-10.4	1.00 H	189	43.00	-7.40
5	650.13	34.3 QP	46.0	-11.7	1.50 H	199	39.50	-5.20
6	751.23	40.8 QP	46.0	-5.2	1.99 H	194	43.80	-3.00
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	348.76	44.3 QP	46.0	-1.7	1.00 V	237	55.80	-11.50
2	449.87	38.3 QP	46.0	-7.7	1.00 V	214	47.50	-9.20
3	550.97	44.3 QP	46.0	-1.7	1.00 V	342	51.70	-7.40
4	650.13	36.3 QP	46.0	-9.7	1.00 V	11	41.50	-5.20
5	751.23	37.0 QP	46.0	-9.0	1.00 V	11	40.00	-3.00
6	799.84	36.1 QP	46.0	-9.9	1.00 V	154	38.20	-2.10

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

802.11n (20MHz) + 802.11b

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 36 + CH 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

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	348.76	45.0 QP	46.0	-1.0	1.00 H	108	56.50	-11.50
2	449.87	33.7 QP	46.0	-12.3	1.00 H	234	42.90	-9.20
3	550.97	36.0 QP	46.0	-10.0	1.10 H	193	43.40	-7.40
4	650.13	34.6 QP	46.0	-11.4	1.00 H	198	39.80	-5.20
5	751.23	40.5 QP	46.0	-5.5	1.99 H	202	43.50	-3.00
6	799.84	35.8 QP	46.0	-10.2	1.50 H	179	37.90	-2.10
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	70.73	31.8 QP	40.0	-8.2	1.00 V	266	48.00	-16.20
2	348.76	44.2 QP	46.0	-1.8	1.00 V	243	55.70	-11.50
3	449.87	39.0 QP	46.0	-7.0	1.00 V	114	48.20	-9.20
4	550.97	44.2 QP	46.0	-1.8	1.00 V	352	51.60	-7.40
5	650.13	36.1 QP	46.0	-9.9	1.00 V	358	41.30	-5.20
6	751.23	37.0 QP	46.0	-9.0	1.00 V	5	40.00	-3.00

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

802.11n (20MHz) + 802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 36 + CH 157	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

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	26.9 QP	40.0	-13.1	1.00 H	43	41.50	-14.60
2	348.76	45.0 QP	46.0	-1.0	1.00 H	208	56.50	-11.50
3	550.97	36.0 QP	46.0	-10.0	1.00 H	192	43.40	-7.40
4	650.13	34.8 QP	46.0	-11.2	1.10 H	192	40.00	-5.20
5	751.23	40.4 QP	46.0	-5.6	2.01 H	200	43.40	-3.00
6	799.84	36.8 QP	46.0	-9.2	1.00 H	183	38.90	-2.10
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	348.76	44.0 QP	46.0	-2.0	1.00 V	239	55.50	-11.50
2	449.87	38.6 QP	46.0	-7.4	1.00 V	211	47.80	-9.20
3	550.97	44.1 QP	46.0	-1.9	1.00 V	343	51.50	-7.40
4	650.13	36.0 QP	46.0	-10.0	1.00 V	352	41.20	-5.20
5	751.23	36.9 QP	46.0	-9.1	1.00 V	7	39.90	-3.00
6	799.84	35.9 QP	46.0	-10.1	1.00 V	145	38.00	-2.10

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

802.11a + 802.11b

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 165 + CH 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

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	156.28	30.1 QP	43.5	-13.4	1.00 H	246	43.80	-13.70
2	249.60	31.0 QP	46.0	-15.0	1.02 H	229	45.20	-14.20
3	348.76	44.8 QP	46.0	-1.2	1.00 H	111	56.30	-11.50
4	449.87	33.9 QP	46.0	-12.1	1.00 H	253	43.10	-9.20
5	550.97	36.2 QP	46.0	-9.8	1.20 H	190	43.60	-7.40
6	751.23	40.1 QP	46.0	-5.9	1.40 H	49	43.10	-3.00
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	72.67	32.5 QP	40.0	-7.5	1.00 V	316	49.40	-16.90
2	348.76	44.0 QP	46.0	-2.0	1.00 V	242	55.50	-11.50
3	449.87	38.6 QP	46.0	-7.4	1.00 V	205	47.80	-9.20
4	550.97	44.3 QP	46.0	-1.7	1.20 V	353	51.70	-7.40
5	751.23	36.3 QP	46.0	-9.7	1.10 V	351	39.30	-3.00
6	799.84	35.6 QP	46.0	-10.4	1.00 V	121	37.70	-2.10

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

802.11a + 802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	CH 165 + CH 48	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 69%RH	TESTED BY	Jones Chang

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	249.60	31.0 QP	46.0	-15.0	1.00 H	258	45.20	-14.20
2	348.76	44.6 QP	46.0	-1.4	1.02 H	109	56.10	-11.50
3	449.87	33.2 QP	46.0	-12.8	1.00 H	242	42.40	-9.20
4	550.97	36.2 QP	46.0	-9.8	1.00 H	186	43.60	-7.40
5	751.23	40.3 QP	46.0	-5.7	1.55 H	67	43.30	-3.00
6	799.84	36.1 QP	46.0	-9.9	1.29 H	176	38.20	-2.10
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	150.45	41.4 QP	43.5	-2.1	2.00 V	99	55.20	-13.80
2	348.76	43.6 QP	46.0	-2.4	1.00 V	248	55.10	-11.50
3	449.87	38.3 QP	46.0	-7.7	1.00 V	207	47.50	-9.20
4	550.97	44.1 QP	46.0	-1.9	1.00 V	356	51.50	-7.40
5	650.13	36.3 QP	46.0	-9.7	1.00 V	9	41.50	-5.20
6	751.23	36.5 QP	46.0	-9.5	1.10 V	354	39.50	-3.00

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

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	100289	Nov. 29, 2013	Nov. 28, 2014
RF signal cable Woken	5D-FB	Cable-HYC01-01	Dec. 27, 2013	Dec. 26, 2014
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 17, 2013	Jul. 16, 2014
LISN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Feb. 13, 2014	Feb. 12, 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 1.

3. The VCCI Site Registration No. is C-2040.

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.

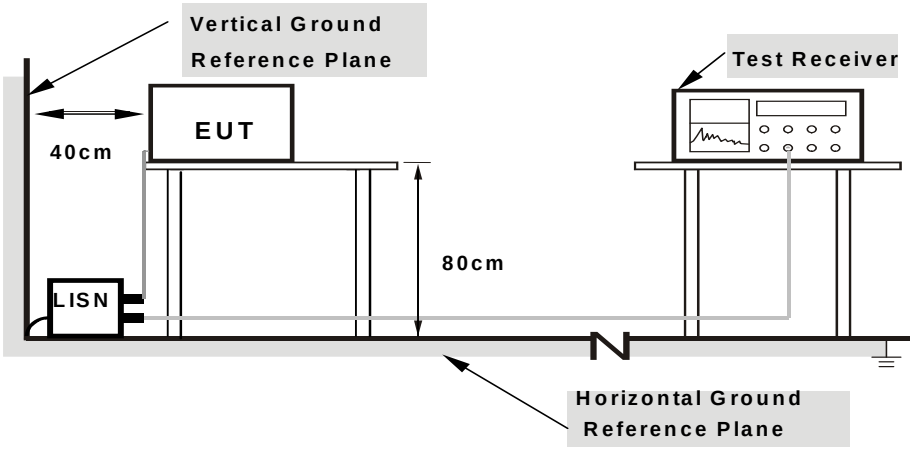
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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 4.1.6.

4.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA：

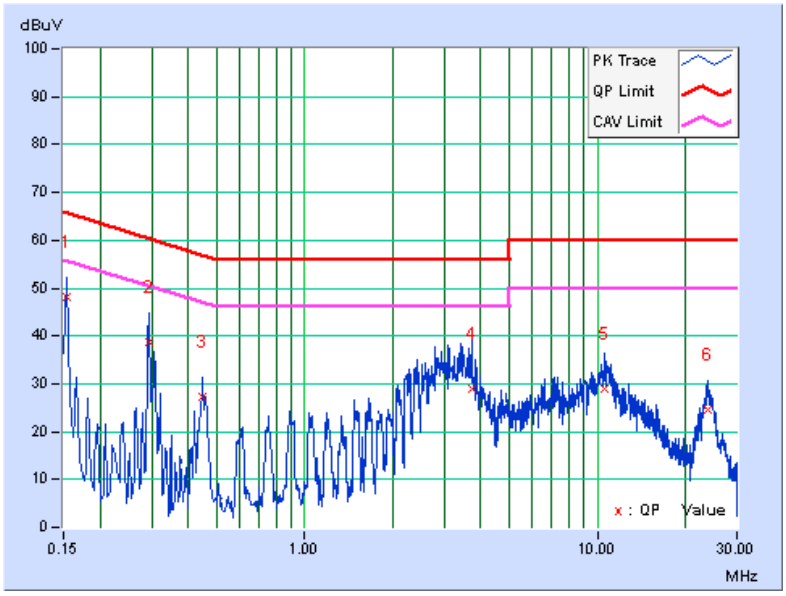
802.11g + 802.11a

CHANNEL	CH 6 + CH 48	**6dB BANDWIDTH**	9kHz
PHASE	Line 1		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	**0.15391**	**0.08**	**47.90**	**28.37**	**47.98**	**28.45**	**65.79**	**55.79**	**-17.81**	**-27.34**
2	0.29467	0.07	38.80	17.63	38.87	17.70	60.39	50.39	-21.52	-32.69
3	0.44716	0.08	27.11	13.81	27.19	13.89	56.93	46.93	-29.74	-33.04
4	3.73547	0.22	28.67	12.89	28.89	13.11	56.00	46.00	-27.11	-32.89
5	10.57015	0.54	28.55	16.20	29.09	16.74	60.00	50.00	-30.91	-33.26
6	23.78204	1.15	23.47	13.18	24.62	14.33	60.00	50.00	-35.38	-35.67

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

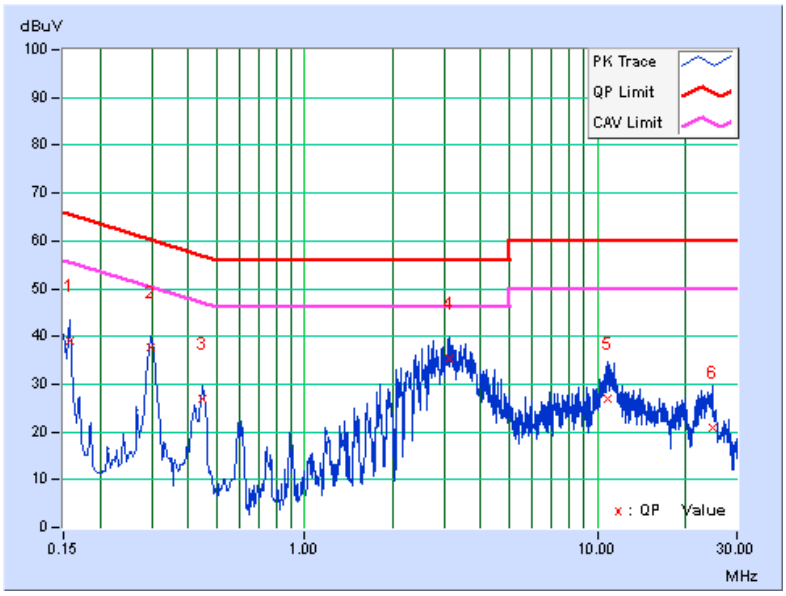


CHANNEL	CH 6 + CH 48	6dB BANDWIDTH	9kHz
PHASE	Line 2		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15782	0.05	39.09	23.13	39.14	23.18	65.58	55.58	-26.44	-32.40
2	0.29858	0.06	37.73	26.42	37.79	26.48	60.28	50.28	-22.49	-23.80
3	0.44742	0.07	26.71	15.18	26.78	15.25	56.92	46.92	-30.14	-31.67
4	3.11378	0.18	35.02	18.58	35.20	18.76	56.00	46.00	-20.80	-27.24
5	10.79693	0.48	26.39	13.66	26.87	14.14	60.00	50.00	-33.13	-35.86
6	24.82210	1.02	19.80	8.80	20.82	9.82	60.00	50.00	-39.18	-40.18

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



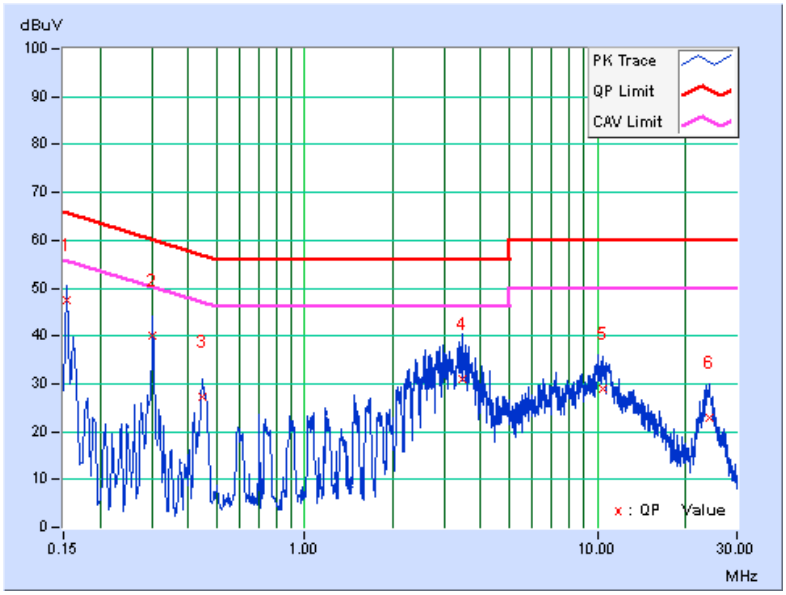
802.11g + 802.11n (20MHz)

CHANNEL	CH 6 + CH 157	6dB BANDWIDTH	9kHz
PHASE	Line 1		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	0.08	47.40	28.12	47.48	28.20	65.79	55.79	-18.31	-27.59
2	0.30214	0.08	39.84	19.61	39.92	19.69	60.18	50.18	-20.27	-30.50
3	0.44742	0.08	27.15	13.77	27.23	13.85	56.92	46.92	-29.69	-33.07
4	3.46177	0.21	30.60	14.45	30.81	14.66	56.00	46.00	-25.19	-31.34
5	10.49586	0.54	28.33	15.14	28.87	15.68	60.00	50.00	-31.13	-34.32
6	24.19650	1.17	21.72	11.33	22.89	12.50	60.00	50.00	-37.11	-37.50

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

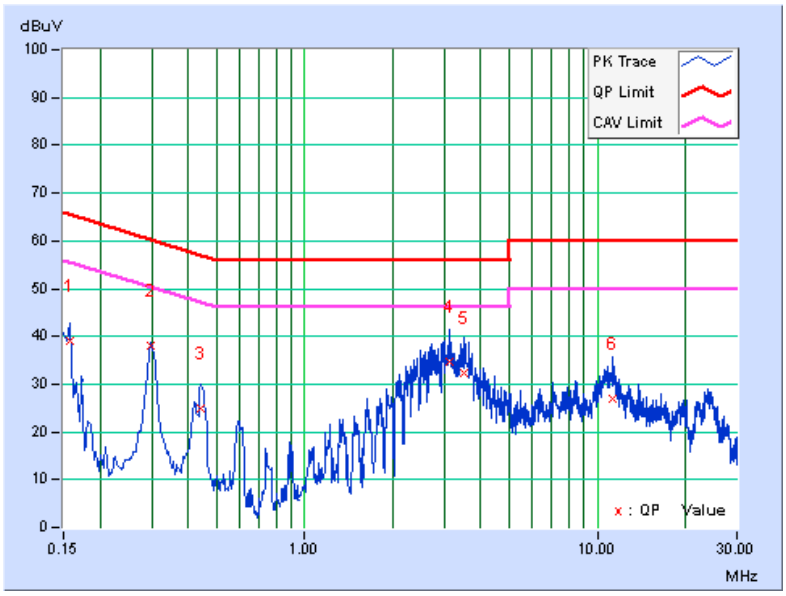


CHANNEL	CH 6 + CH 157	6dB BANDWIDTH	9kHz
PHASE	Line 2		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15760	0.05	38.87	22.80	38.92	22.85	65.59	55.59	-26.67	-32.74
2	0.29819	0.06	37.92	26.32	37.98	26.38	60.29	50.29	-22.31	-23.91
3	0.43924	0.07	24.80	11.85	24.87	11.92	57.08	47.08	-32.20	-35.15
4	3.13333	0.18	34.42	18.01	34.60	18.19	56.00	46.00	-21.40	-27.81
5	3.52042	0.19	32.26	18.58	32.45	18.77	56.00	46.00	-23.55	-27.23
6	11.30914	0.50	26.45	14.49	26.95	14.99	60.00	50.00	-33.05	-35.01

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



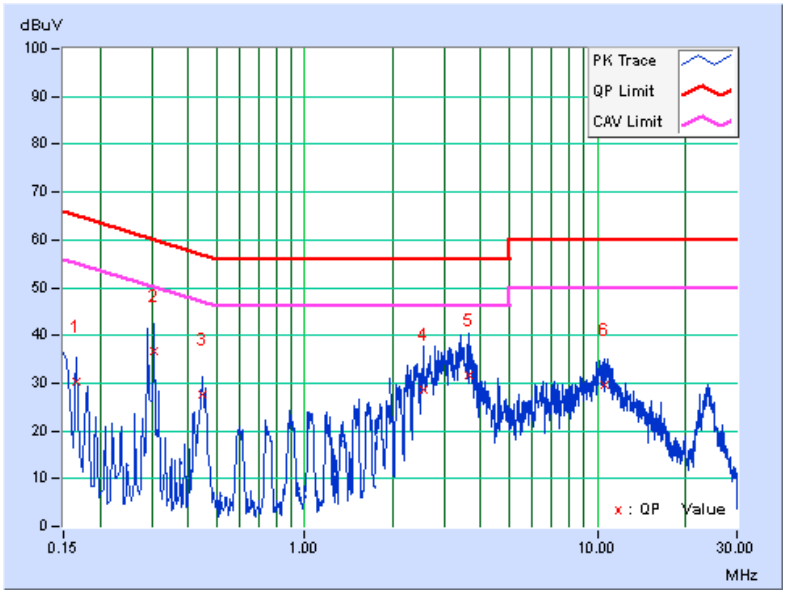
802.11n (20MHz) + 802.11b

CHANNEL	CH 36 + CH 1	6dB BANDWIDTH	9kHz
PHASE	Line 1		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16569	0.08	30.22	10.46	30.30	10.54	65.17	55.17	-34.88	-44.64
2	0.30640	0.08	36.60	15.69	36.68	15.77	60.07	50.07	-23.39	-34.30
3	0.44716	0.08	27.57	13.88	27.65	13.96	56.93	46.93	-29.28	-32.97
4	2.54292	0.17	28.34	13.00	28.51	13.17	56.00	46.00	-27.49	-32.83
5	3.66118	0.22	31.36	15.13	31.58	15.35	56.00	46.00	-24.42	-30.65
6	10.58188	0.54	29.01	17.10	29.55	17.64	60.00	50.00	-30.45	-32.36

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

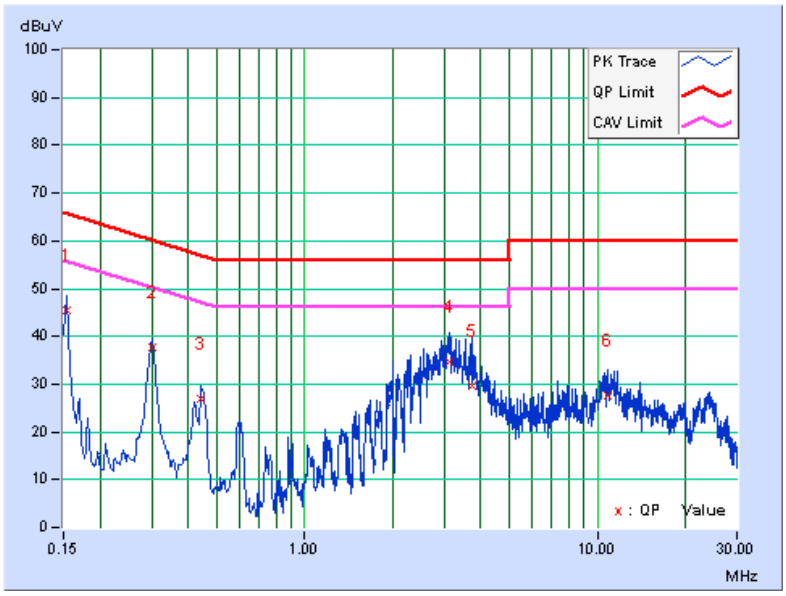


CHANNEL	CH 36 + CH 1	6dB BANDWIDTH	9kHz
PHASE	Line 2		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	0.05	45.27	29.40	45.32	29.45	65.79	55.79	-20.47	-26.34
2	0.30214	0.06	37.71	25.55	37.77	25.61	60.18	50.18	-22.41	-24.57
3	0.44390	0.07	26.81	14.60	26.88	14.67	56.99	46.99	-30.11	-32.32
4	3.13724	0.18	34.61	17.94	34.79	18.12	56.00	46.00	-21.21	-27.88
5	3.73938	0.20	29.28	13.27	29.48	13.47	56.00	46.00	-26.52	-32.53
6	10.82039	0.48	26.99	13.22	27.47	13.70	60.00	50.00	-32.53	-36.30

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



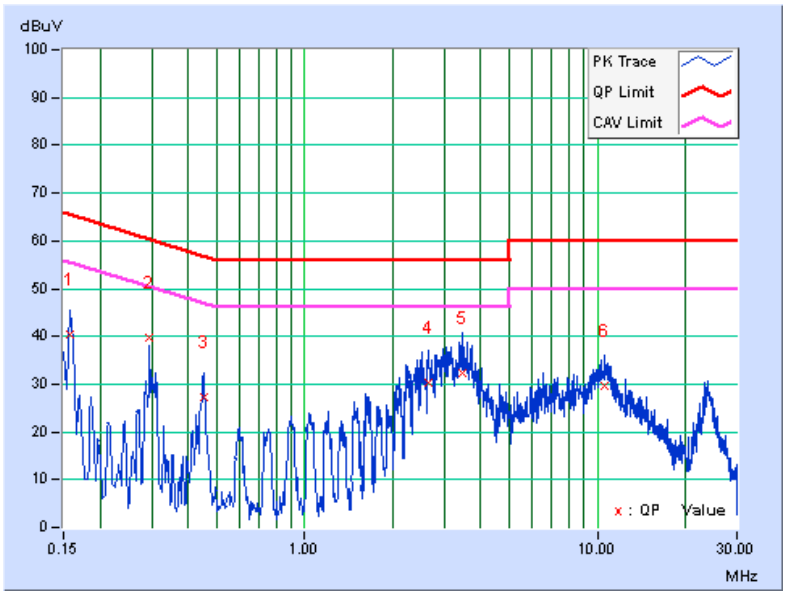
802.11n (20MHz) + 802.11n (20MHz)

CHANNEL	CH 36 + CH 157	6dB BANDWIDTH	9kHz
PHASE	Line 1		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15782	0.08	40.34	20.55	40.42	20.63	65.58	55.58	-25.16	-34.95
2	0.29467	0.07	39.52	18.45	39.59	18.52	60.39	50.39	-20.80	-31.87
3	0.45097	0.08	27.28	13.65	27.36	13.73	56.86	46.86	-29.49	-33.12
4	2.64458	0.18	30.07	13.07	30.25	13.25	56.00	46.00	-25.75	-32.75
5	3.46568	0.21	32.04	14.38	32.25	14.59	56.00	46.00	-23.75	-31.41
6	10.54278	0.54	29.07	15.76	29.61	16.30	60.00	50.00	-30.39	-33.70

REMARKS:

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

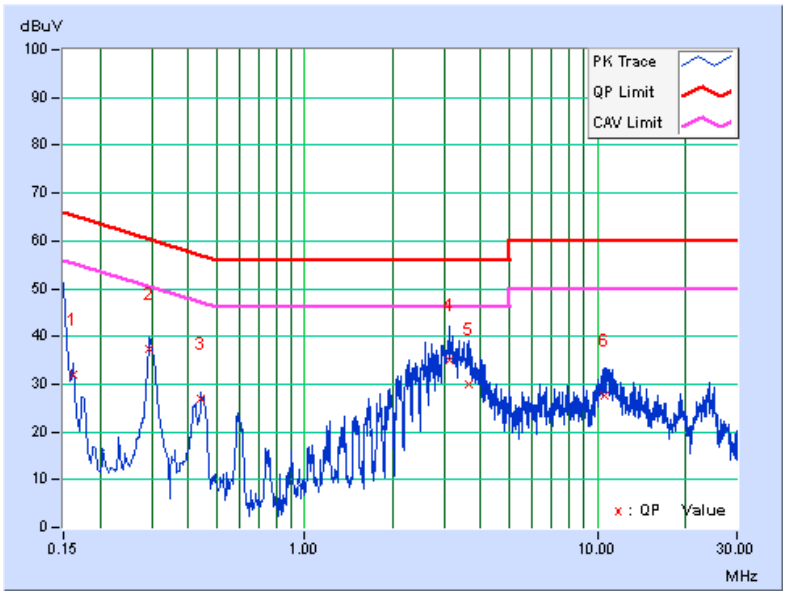


CHANNEL	CH 36 + CH 157	6dB BANDWIDTH	9kHz
PHASE	Line 2		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16173	0.05	32.01	15.20	32.06	15.25	65.37	55.37	-33.31	-40.12
2	0.29467	0.06	37.36	24.04	37.42	24.10	60.39	50.39	-22.97	-26.29
3	0.44325	0.07	26.96	14.39	27.03	14.46	57.00	47.00	-29.97	-32.54
4	3.12942	0.18	34.93	17.84	35.11	18.02	56.00	46.00	-20.89	-27.98
5	3.65336	0.20	29.91	15.18	30.11	15.38	56.00	46.00	-25.89	-30.62
6	10.57406	0.47	27.06	14.89	27.53	15.36	60.00	50.00	-32.47	-34.64

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



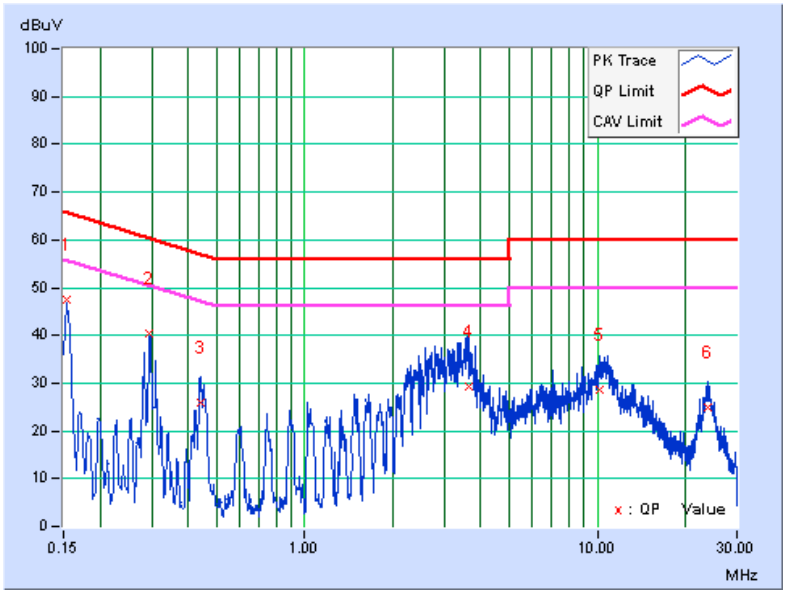
802.11a + 802.11b

CHANNEL	CH 165 + CH 1	6dB BANDWIDTH	9kHz
PHASE	Line 1		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	0.08	47.37	27.79	47.45	27.87	65.79	55.79	-18.34	-27.92
2	0.29584	0.07	40.19	19.57	40.26	19.64	60.36	50.36	-20.09	-30.71
3	0.43924	0.08	25.95	10.93	26.03	11.01	57.08	47.08	-31.04	-36.06
4	3.62599	0.22	29.01	12.93	29.23	13.15	56.00	46.00	-26.77	-32.85
5	10.18306	0.52	28.22	15.01	28.74	15.53	60.00	50.00	-31.26	-34.47
6	23.75076	1.15	23.61	12.59	24.76	13.74	60.00	50.00	-35.24	-36.26

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

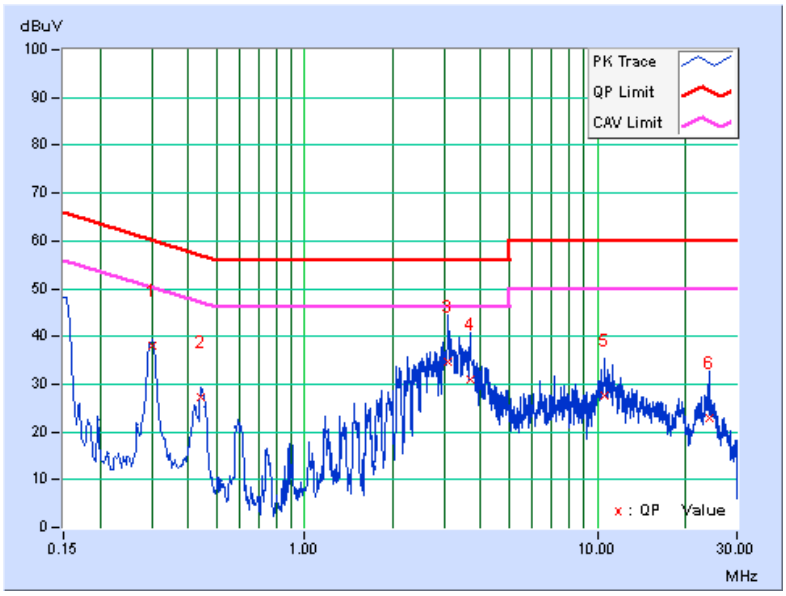


CHANNEL	CH 165 + CH 1	6dB BANDWIDTH	9kHz
PHASE	Line 2		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.30214	0.06	37.88	25.26	37.94	25.32	60.18	50.18	-22.24	-24.86
2	0.44273	0.07	27.04	14.27	27.11	14.34	57.01	47.01	-29.90	-32.67
3	3.08641	0.18	34.36	17.30	34.54	17.48	56.00	46.00	-21.46	-28.52
4	3.69637	0.20	30.91	15.31	31.11	15.51	56.00	46.00	-24.89	-30.49
5	10.57797	0.47	27.15	15.42	27.62	15.89	60.00	50.00	-32.38	-34.11
6	24.07138	1.00	21.87	10.43	22.87	11.43	60.00	50.00	-37.13	-38.57

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



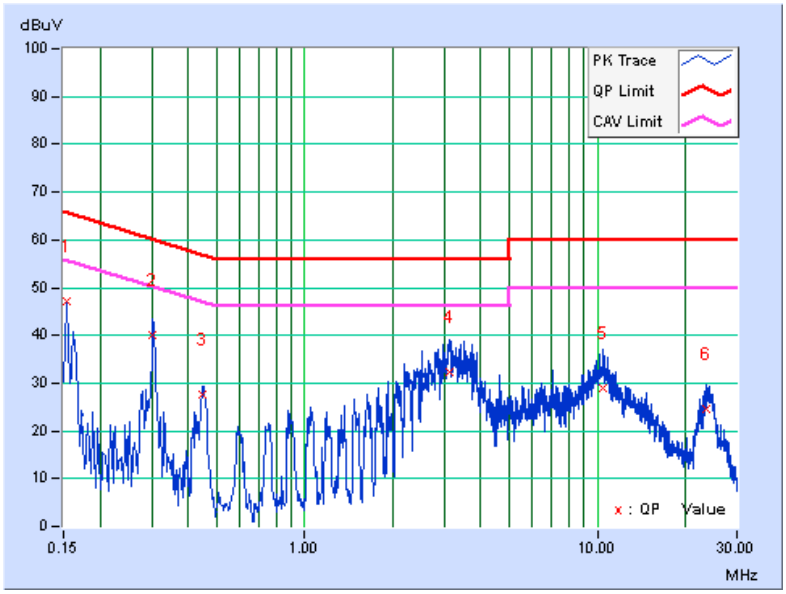
802.11a + 802.11a

CHANNEL	CH 165 + CH 48	6dB BANDWIDTH	9kHz
PHASE	Line 1		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	0.08	47.20	27.77	47.28	27.85	65.79	55.79	-18.51	-27.94
2	0.30249	0.08	39.89	19.51	39.97	19.59	60.17	50.17	-20.21	-30.59
3	0.44716	0.08	27.60	13.92	27.68	14.00	56.93	46.93	-29.25	-32.93
4	3.13724	0.20	32.03	15.38	32.23	15.58	56.00	46.00	-23.77	-30.42
5	10.40593	0.53	28.57	15.97	29.10	16.50	60.00	50.00	-30.90	-33.50
6	23.65692	1.15	23.29	12.31	24.44	13.46	60.00	50.00	-35.56	-36.54

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

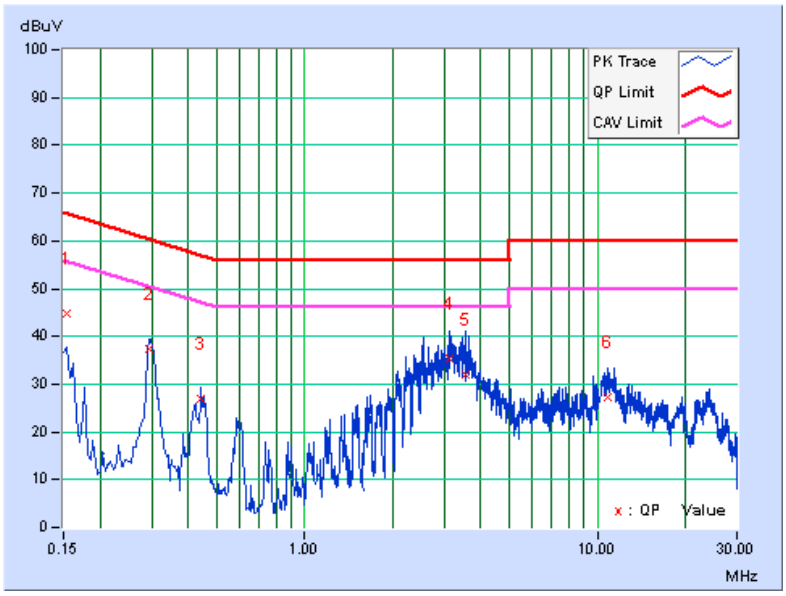


CHANNEL	CH 165 + CH 48	6dB BANDWIDTH	9kHz
PHASE	Line 2		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	0.05	44.87	29.26	44.92	29.31	65.79	55.79	-20.87	-26.48
2	0.29429	0.06	37.39	24.01	37.45	24.07	60.40	50.40	-22.95	-26.33
3	0.44325	0.07	27.00	14.45	27.07	14.52	57.00	47.00	-29.93	-32.48
4	3.10987	0.18	35.08	17.99	35.26	18.17	56.00	46.00	-20.74	-27.83
5	3.53606	0.19	31.70	17.51	31.89	17.70	56.00	46.00	-24.11	-28.30
6	10.87122	0.48	26.91	13.41	27.39	13.89	60.00	50.00	-32.61	-36.11

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.

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

Linko EMC/RF Lab
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF Lab
Tel: 886-3-5935343
Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety/Telecom Lab
Tel: 886-3-3183232
Fax: 886-3-3270892

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

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

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---