FCC TEST REPORT (15.247)

REPORT NO.:	RF120911C14-3
MODEL NO.:	CDMA HTL21
FCC ID:	NM8CDMAHTL21
RECEIVED:	Sep. 11, 2012
TESTED:	Sep. 24 ~ Oct. 13, 2012
ISSUED:	Oct. 23, 2012

APPLICANT:	HTC Corporation
ADDRESS:	23, Xinghua Rd., Taoyuan 330, Taiwan, R.O.C.

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
RF120911C14-3	Original release	Oct. 23, 2012

1. CERTIFICATION

PRODUCT:	Smartphone
MODEL NO.:	CDMA HTL21
BRAND:	HTC
APPLICANT:	HTC Corporation
TESTED:	Sep. 24 ~ Oct. 13, 2012
TEST SAMPLE:	Production Unit
STANDARDS:	**FCC Part 15, Subpart C (Section 15.247)**
	ANSI C63.10-2009

The above equipment (model: CDMA HTL21) 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 : Ivonne Wu / Senior Specialist , **DATE :** Oct. 23, 2012

APPROVED BY : Ken Liu / Manager , **DATE :** Oct. 23, 2012

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 -15.38dB at 0.19297MHz.
15.247(d) 15.209	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.56dB at 3868MHz.
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	2.93 dB
	200MHz ~1000MHz	2.95 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Smartphone
MODEL NO.	CDMA HTL21
POWER SUPPLY	5.0Vdc (adapter or host equipment) 3.8Vdc (Li-ion battery)
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 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 135.0Mbps
OPERATING FREQUENCY	**2.4GHz:** 2412 ~ 2462MHz **5.0GHz:** 5745 ~ 5805MHz
NUMBER OF CHANNEL	**2.4GHz:** 11 for 802.11b, 802.11g, 802.11n (20MHz) 7 for 802.11n (40MHz) **5.0GHz:** 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz)
OUTPUT POWER	344.35mW for 2412 ~ 2462MHz 138.04mW for 5745 ~ 5805MHz
ANTENNA TYPE	**2.4GHz:** PIFA antenna with -4.5dBi gain **5.0GHz:** PIFA antenna with -8dBi gain
ANTENNA CONNECTOR	NA
DATA CABLE	Refer to Note as below
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	Refer to Note as below

NOTE:

1. The EUT's accessories list refers to Ext Pho.
2. The EUT provides one completed transmitter and one receiver.

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

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

3.2 DESCRIPTION OF TEST MODES

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 5.0GHz (5745 ~ 5805MHz):

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755MHz	159	5795MHz

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

FOR 2.4GHz:

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

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11g	1 to 11	11	OFDM	BPSK	6.0

POWER LINE CONDUCTED EMISSION TEST:

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11g	1 to 11	11	OFDM	BPSK	6.0

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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 11	DSSS	DBPSK	1.0
802.11g	1 to 11	1, 11	OFDM	BPSK	6.0
802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	6.5
802.11n (40MHz)	3 to 9	3, 9	OFDM	BPSK	13.5

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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu
PLC	25deg. C, 65%RH	120Vac, 60Hz	David Huang
APCM	25deg. C, 65%RH	120Vac, 60Hz	Howard Kao

FOR 5.0GHz (5745 ~ 5805MHz):

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

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	149 to 161	149, 157, 161	OFDM	BPSK	6.0
802.11n (20MHz)	149 to 161	149, 157, 161	OFDM	BPSK	6.5
802.11n (40MHz)	151 to 159	151, 159	OFDM	BPSK	13.5

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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11n (40MHz)	151 to 159	159	OFDM	BPSK	13.5

POWER LINE CONDUCTED EMISSION TEST:

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11n (40MHz)	151 to 159	159	OFDM	BPSK	13.5

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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	149 to 161	149, 161	OFDM	BPSK	6.0
802.11n (20MHz)	149 to 161	149, 161	OFDM	BPSK	6.5
802.11n (40MHz)	151 to 159	151, 159	OFDM	BPSK	13.5

ANTENNA PORT CONDUCTED MEASUREMENT:

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

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	149 to 161	149, 157, 161	OFDM	BPSK	6.0
802.11n (20MHz)	149 to 161	149, 157, 161	OFDM	BPSK	6.5
802.11n (40MHz)	151 to 159	151, 159	OFDM	BPSK	13.5

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu
PLC	25deg. C, 65%RH	120Vac, 60Hz	David Huang
APCM	25deg. C, 65%RH	120Vac, 60Hz	Howard Kao

3.3 DESCRIPTION OF SUPPORT UNITS

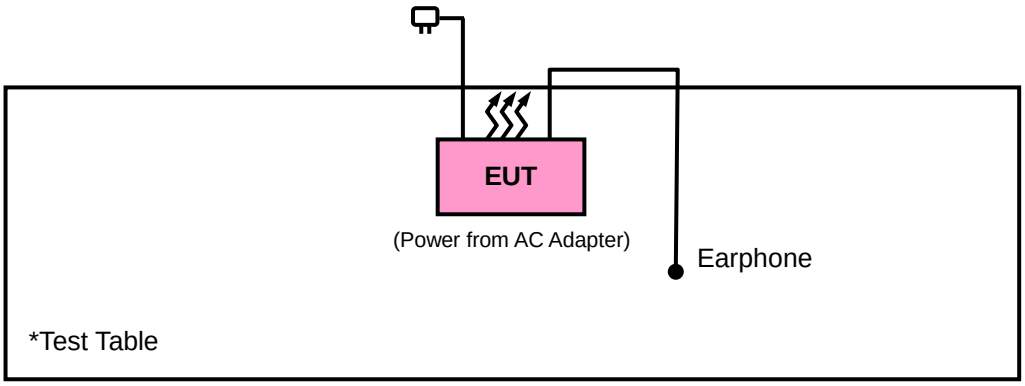
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Earphone	Cotron	HS S250	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA

NOTE:
1. All power cords of the above support units are non shielded (1.8m).
2. Item 1 was provided by 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 (15.247)
ANSI C63.10-2009
KDB 558074 D01 DTS Meas Guidance v01

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 (FOR 2.4GHz BAND)

4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. 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.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver Agilent	N9038A	MY51210203	Dec. 22, 2011	Dec. 21, 2012
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 21, 2011	Dec. 20, 2012
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Dec. 20, 2011	Dec. 19, 2012
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-969	Dec. 20, 2011	Dec. 19, 2012
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Dec. 20, 2011	Dec. 19, 2012
Loop Antenna	HFH2-Z2	100070	Jan. 31, 2012	Jan. 30, 2014
Preamplifier EMCI	EMC 012645	980115	Dec. 30, 2011	Dec. 29, 2012
Preamplifier EMCI	EMC 330H	980112	Dec. 30, 2011	Dec. 29, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309219/4	Oct. 21, 2011	Oct. 20, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250130/4	Jan. 02, 2012	Jan. 01, 2013
RF signal cable Worken	RG-213	NA	Jan. 02, 2012	Jan. 01, 2013
Software	E3 6.120103	NA	NA	NA
Antenna Tower MF	MFA-440H	NA	NA	NA
Turn Table MF	MFT-201SS	NA	NA	NA
Antenna Tower &Turn Table Controller MF	MF-7802	NA	NA	NA
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 calibration interval of the loop antenna is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in HwaYa Chamber 9.
4. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
5. The FCC Site Registration No. is 460141.
6. The IC Site Registration No. is IC 7450F-4.

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. Height of receiving antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to 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.

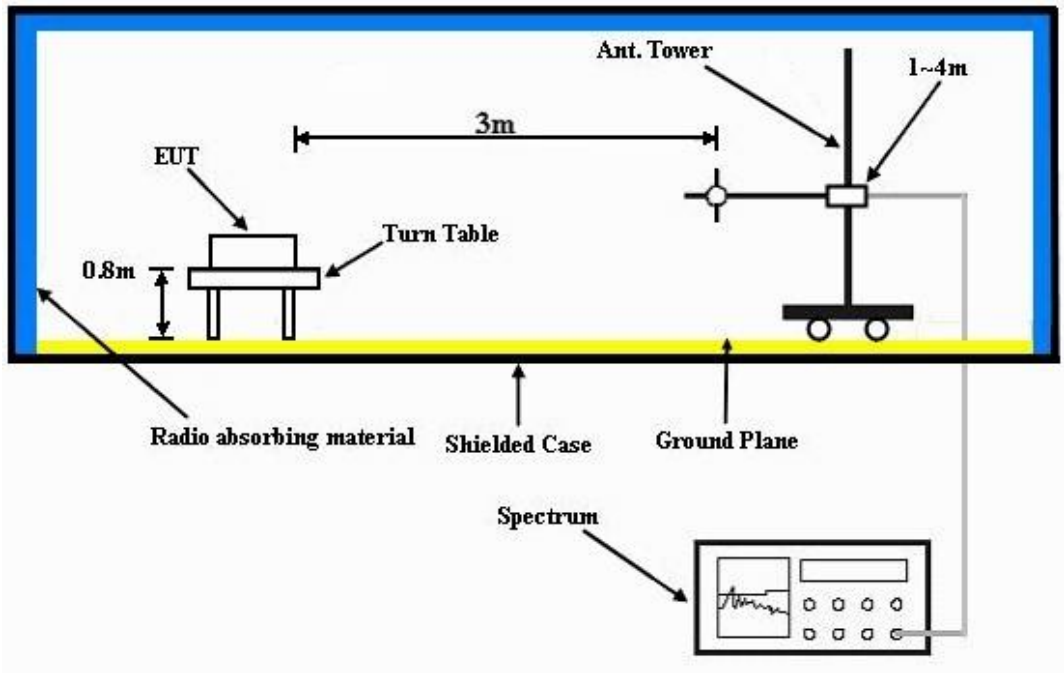
NOTE:

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 10Hz 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

a. Placed the EUT on a testing table.

b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

4.1.7 TEST RESULTS

ABOVE 1GHz WORST-CASE DATA

802.11b

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	**FREQUENCY RANGE**	1GHz ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	**TESTED BY**	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB/m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2390	45.91	51.3	54	-8.09	27.26	4.87	37.52	107	25	Average
2390	59.39	64.78	74	-14.61	27.26	4.87	37.52	107	25	Peak
2412	105.25	110.59			27.31	4.87	37.52	107	25	Average
2412	109.73	115.07			27.31	4.87	37.52	107	25	Peak
2484	39.03	43.93	54	-14.97	27.5	4.92	37.32	107	25	Average
2484	54.7	59.6	74	-19.3	27.5	4.92	37.32	107	25	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB/m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
2388	38.29	43.68	54	-15.71	27.26	4.85	37.5	100	40	Average
2388	54.23	59.62	74	-19.77	27.26	4.85	37.5	100	40	Peak
2412	95.65	100.99			27.31	4.87	37.52	100	40	Average
2412	99.85	105.19			27.31	4.87	37.52	100	40	Peak
2500	35.57	40.33	54	-18.43	27.55	4.94	37.25	100	40	Average
2500	54.61	59.37	74	-19.39	27.55	4.94	37.25	100	40	Peak

REMARKS:

1. 2412MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1GHz ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2386	37.07	42.46	54	-16.93	27.26	4.85	37.5	104	25	Average
2386	54.63	60.02	74	-19.37	27.26	4.85	37.5	104	25	Peak
2437	104.18	109.35			27.4	4.89	37.46	104	25	Average
2437	107.9	113.07			27.4	4.89	37.46	104	25	Peak
2488	39.35	44.2	54	-14.65	27.55	4.92	37.32	104	25	Average
2488	55.47	60.32	74	-18.53	27.55	4.92	37.32	104	25	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2310	34.77	40.44	54	-19.23	27.01	4.77	37.45	100	40	Average
2310	54.37	60.04	74	-19.63	27.01	4.77	37.45	100	40	Peak
2437	94.42	99.59			27.4	4.89	37.46	100	40	Average
2437	98.15	103.32			27.4	4.89	37.46	100	40	Peak
2492	35.53	40.29	54	-18.47	27.55	4.94	37.25	100	40	Average
2492	54.36	59.12	74	-19.64	27.55	4.94	37.25	100	40	Peak

REMARKS:

1. 2437MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1GHz ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2342	34.93	40.49	54	-19.07	27.11	4.82	37.49	100	40	Average
2342	54.12	59.68	74	-19.88	27.11	4.82	37.49	100	40	Peak
2462	96.92	101.95			27.45	4.91	37.39	100	40	Average
2462	101.21	106.24			27.45	4.91	37.39	100	40	Peak
2484	38.68	43.58	54	-15.32	27.5	4.92	37.32	100	40	Average
2484	55.83	60.73	74	-18.17	27.5	4.92	37.32	100	40	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2388	36.91	42.3	54	-17.09	27.26	4.85	37.5	104	40	Average
2388	54.37	59.76	74	-19.63	27.26	4.85	37.5	104	40	Peak
2462	104	109.03			27.45	4.91	37.39	104	40	Average
2462	108.2	113.23			27.45	4.91	37.39	104	40	Peak
2486	45.3	50.2	54	-8.7	27.5	4.92	37.32	104	40	Average
2486	58.32	63.22	74	-15.68	27.5	4.92	37.32	104	40	Peak

REMARKS:

1. 2462MHz: Fundamental frequency.

802.11g

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	50.02	55.41	54	-3.98	27.26	4.87	37.52	107	23	Average
2390	71	76.39	74	-3	27.26	4.87	37.52	107	23	Peak
2412	96.48	101.82			27.31	4.87	37.52	107	23	Average
2412	106.63	111.97			27.31	4.87	37.52	107	23	Peak
2484	38.13	43.03	54	-15.87	27.5	4.92	37.32	107	23	Average
2484	55.29	60.19	74	-18.71	27.5	4.92	37.32	107	23	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	41.17	46.56	54	-12.83	27.26	4.87	37.52	100	38	Average
2390	58.83	64.22	74	-15.17	27.26	4.87	37.52	100	38	Peak
2412	86.52	91.86			27.31	4.87	37.52	100	38	Average
2412	96.22	101.56			27.31	4.87	37.52	100	38	Peak
2486	35.33	40.23	54	-18.67	27.5	4.92	37.32	100	38	Average
2486	53.97	58.87	74	-20.03	27.5	4.92	37.32	100	38	Peak

REMARKS:

1. 2412MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1GHz ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	39.08	44.47	54	-14.92	27.26	4.87	37.52	106	39	Average
2390	54.17	59.56	74	-19.83	27.26	4.87	37.52	106	39	Peak
2437	95.81	100.98			27.4	4.89	37.46	106	39	Average
2437	105.35	110.52			27.4	4.89	37.46	106	39	Peak
2496	38.66	43.42	54	-15.34	27.55	4.94	37.25	106	39	Average
2496	54.68	59.44	74	-19.32	27.55	4.94	37.25	106	39	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2370	34.95	40.39	54	-19.05	27.21	4.85	37.5	100	39	Average
2370	54.93	60.37	74	-19.07	27.21	4.85	37.5	100	39	Peak
2437	86.14	91.31			27.4	4.89	37.46	100	39	Average
2437	96.42	101.59			27.4	4.89	37.46	100	39	Peak
2494	35.32	40.08	54	-18.68	27.55	4.94	37.25	100	39	Average
2494	53.77	58.53	74	-20.23	27.55	4.94	37.25	100	39	Peak

REMARKS:

1. 2437MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1GHz ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2376	36.75	42.19	54	-17.25	27.21	4.85	37.5	102	39	Average
2376	54.28	59.72	74	-19.72	27.21	4.85	37.5	102	39	Peak
2462	95.11	100.14			27.45	4.91	37.39	102	39	Average
2462	104.7	109.73			27.45	4.91	37.39	102	39	Peak
2484	49.64	54.54	54	-4.36	27.5	4.92	37.32	102	39	Average
2484	64.89	69.79	74	-9.11	27.5	4.92	37.32	102	39	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2326	35.1	40.72	54	-18.9	27.06	4.79	37.47	100	17	Average
2326	53.19	58.81	74	-20.81	27.06	4.79	37.47	100	17	Peak
2462	86.88	91.91			27.45	4.91	37.39	100	17	Average
2462	96.7	101.73			27.45	4.91	37.39	100	17	Peak
2484	41.52	46.42	54	-12.48	27.5	4.92	37.32	100	17	Average
2484	57.93	62.83	74	-16.07	27.5	4.92	37.32	100	17	Peak

REMARKS:

1. 2462MHz: Fundamental frequency.

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	47.58	52.97	54	-6.42	27.26	4.87	37.52	105	37	Average
2390	66.73	72.12	74	-7.27	27.26	4.87	37.52	105	37	Peak
2412	93.57	98.91			27.31	4.87	37.52	105	37	Average
2412	103.89	109.23			27.31	4.87	37.52	105	37	Peak
2492	35.97	40.73	54	-18.03	27.55	4.94	37.25	105	37	Average
2492	54.47	59.23	74	-19.53	27.55	4.94	37.25	105	37	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	41.81	47.2	54	-12.19	27.26	4.87	37.52	100	18	Average
2390	57.39	62.78	74	-16.61	27.26	4.87	37.52	100	18	Peak
2412	85.77	91.11			27.31	4.87	37.52	100	18	Average
2412	95.15	100.49			27.31	4.87	37.52	100	18	Peak
2490	35.25	40.1	54	-18.75	27.55	4.92	37.32	100	18	Average
2490	53.32	58.17	74	-20.68	27.55	4.92	37.32	100	18	Peak

REMARKS:

1. 2412MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1GHz ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2388	37.47	42.86	54	-16.53	27.26	4.85	37.5	106	34	Average
2388	54.53	59.92	74	-19.47	27.26	4.85	37.5	106	34	Peak
2437	92.6	97.77			27.4	4.89	37.46	106	34	Average
2437	101.93	107.1			27.4	4.89	37.46	106	34	Peak
2486	36.34	41.24	54	-17.66	27.5	4.92	37.32	106	34	Average
2486	54.6	59.5	74	-19.4	27.5	4.92	37.32	106	34	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2386	35.14	40.53	54	-18.86	27.26	4.85	37.5	100	27	Average
2386	53.82	59.21	74	-20.18	27.26	4.85	37.5	100	27	Peak
2437	83.93	89.1			27.4	4.89	37.46	100	27	Average
2437	95.15	100.32			27.4	4.89	37.46	100	27	Peak
2498	35.21	39.97	54	-18.79	27.55	4.94	37.25	100	27	Average
2498	54.44	59.2	74	-19.56	27.55	4.94	37.25	100	27	Peak

REMARKS:

1. 2437MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1GHz ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2384	35.96	41.4	54	-18.04	27.21	4.85	37.5	102	26	Average
2384	53.65	59.09	74	-20.35	27.21	4.85	37.5	102	26	Peak
2462	93.68	98.71			27.45	4.91	37.39	102	26	Average
2462	103.77	108.8			27.45	4.91	37.39	102	26	Peak
2484	48.91	53.81	54	-5.09	27.5	4.92	37.32	102	26	Average
2484	65.84	70.74	74	-8.16	27.5	4.92	37.32	102	26	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2384	35.02	40.46	54	-18.98	27.21	4.85	37.5	100	40	Average
2384	54.45	59.89	74	-19.55	27.21	4.85	37.5	100	40	Peak
2462	86.44	91.47			27.45	4.91	37.39	100	40	Average
2462	96.52	101.55			27.45	4.91	37.39	100	40	Peak
2484	42	46.9	54	-12	27.5	4.92	37.32	100	40	Average
2484	60.82	65.72	74	-13.18	27.5	4.92	37.32	100	40	Peak

REMARKS:

1. 2462MHz: Fundamental frequency.

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 3	FREQUENCY RANGE	1GHz ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2388	52.65	58.04	54	-1.35	27.26	4.85	37.5	107	35	Average
2388	70.29	75.68	74	-3.71	27.26	4.85	37.5	107	35	Peak
2422	91.42	96.64			27.35	4.89	37.46	107	35	Average
2422	101.81	107.03			27.35	4.89	37.46	107	35	Peak
2484	37.82	42.72	54	-16.18	27.5	4.92	37.32	107	35	Average
2484	53.84	58.74	74	-20.16	27.5	4.92	37.32	107	35	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	44.59	49.98	54	-9.41	27.26	4.87	37.52	100	13	Average
2390	61.68	67.07	74	-12.32	27.26	4.87	37.52	100	13	Peak
2422	83.29	88.51			27.35	4.89	37.46	100	13	Average
2422	93.7	98.92			27.35	4.89	37.46	100	13	Peak
2492	35.66	40.42	54	-18.34	27.55	4.94	37.25	100	13	Average
2492	54.54	59.3	74	-19.46	27.55	4.94	37.25	100	13	Peak

REMARKS:

1. 2422MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1GHz ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	45.62	51.01	54	-8.38	27.26	4.87	37.52	106	37	Average
2390	62.7	68.09	74	-11.3	27.26	4.87	37.52	106	37	Peak
2437	91.99	97.16			27.4	4.89	37.46	106	37	Average
2437	102.32	107.49			27.4	4.89	37.46	106	37	Peak
2484	43.61	48.51	54	-10.39	27.5	4.92	37.32	106	37	Average
2484	62.79	67.69	74	-11.21	27.5	4.92	37.32	106	37	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	37.87	43.26	54	-16.13	27.26	4.87	37.52	100	11	Average
2390	54.87	60.26	74	-19.13	27.26	4.87	37.52	100	11	Peak
2437	82.36	87.53			27.4	4.89	37.46	100	11	Average
2437	93.39	98.56			27.4	4.89	37.46	100	11	Peak
2484	37.04	41.94	54	-16.96	27.5	4.92	37.32	100	11	Average
2484	54.34	59.24	74	-19.66	27.5	4.92	37.32	100	11	Peak

REMARKS:

1. 2437MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	1GHz ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2358	38.79	44.3	54	-15.21	27.16	4.82	37.49	105	32	Average
2358	54.66	60.17	74	-19.34	27.16	4.82	37.49	105	32	Peak
2452	90.89	95.97			27.4	4.91	37.39	105	32	Average
2452	101.64	106.72			27.4	4.91	37.39	105	32	Peak
2488	51.7	56.55	54	-2.3	27.55	4.92	37.32	105	32	Average
2488	70.73	75.58	74	-3.27	27.55	4.92	37.32	105	32	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2372	35.26	40.7	54	-18.74	27.21	4.85	37.5	100	38	Average
2372	53.52	58.96	74	-20.48	27.21	4.85	37.5	100	38	Peak
2452	82.21	87.29			27.4	4.91	37.39	100	38	Average
2452	92.44	97.52			27.4	4.91	37.39	100	38	Peak
2488	43.26	48.11	54	-10.74	27.55	4.92	37.32	100	38	Average
2488	62.22	67.07	74	-11.78	27.55	4.92	37.32	100	38	Peak

REMARKS:

1. 2452MHz: Fundamental frequency.

BELOW 1GHz WORST-CASE DATA: 802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 9	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
42.69	22	38.8	40	-18	13.58	0.7	31.08	100	201	Peak
132.87	25.35	44.02	43.5	-18.15	11.88	1.26	31.81	100	158	Peak
238.44	20.54	39.56	46	-25.46	10.99	1.78	31.79	100	126	Peak
632.5	23.74	32.68	46	-22.26	20	3.19	32.13	100	118	Peak
783	26.89	32.68	46	-19.11	21.98	3.65	31.42	100	136	Peak
859.3	28.13	33.19	46	-17.87	22.99	3.85	31.9	100	187	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
35.67	33.53	51.03	40	-6.47	12.94	0.61	31.05	100	193	Peak
42.69	30.03	46.83	40	-9.97	13.58	0.7	31.08	100	132	Peak
132.06	24.11	42.88	43.5	-19.39	11.81	1.25	31.83	100	155	Peak
604.5	23.31	32.73	46	-22.69	19.66	3.1	32.18	100	174	Peak
710.9	25.72	33.02	46	-20.28	20.97	3.46	31.73	100	230	Peak
847.4	27.59	32.8	46	-18.41	22.84	3.81	31.86	100	187	Peak

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. 19, 2011	Nov. 18, 2012
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 29, 2011	Dec. 28, 2012
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Dec. 30, 2011	Dec. 29, 2012
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.

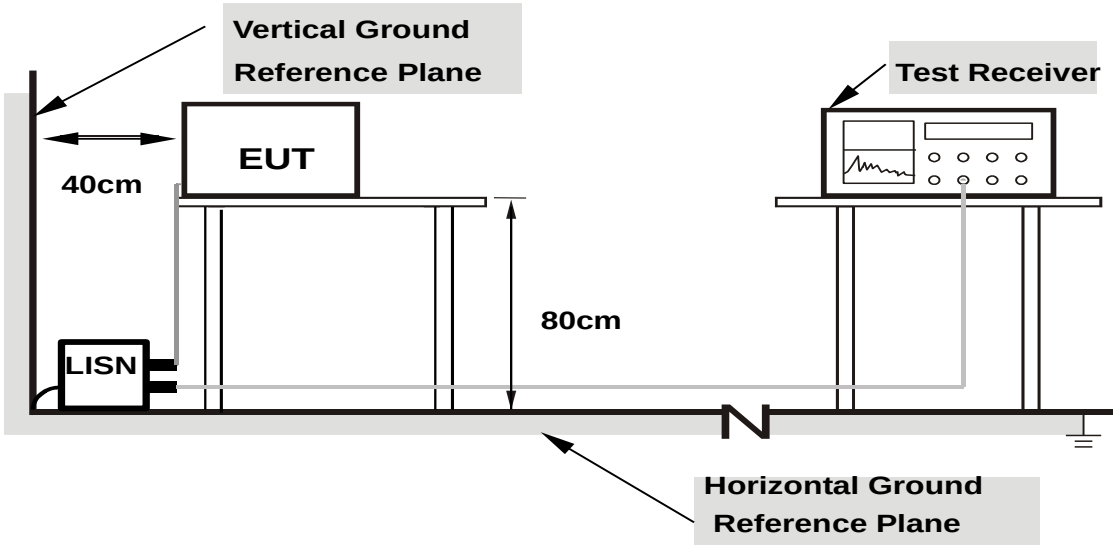
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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 4.1.6.

4.2.7 TEST RESULTS

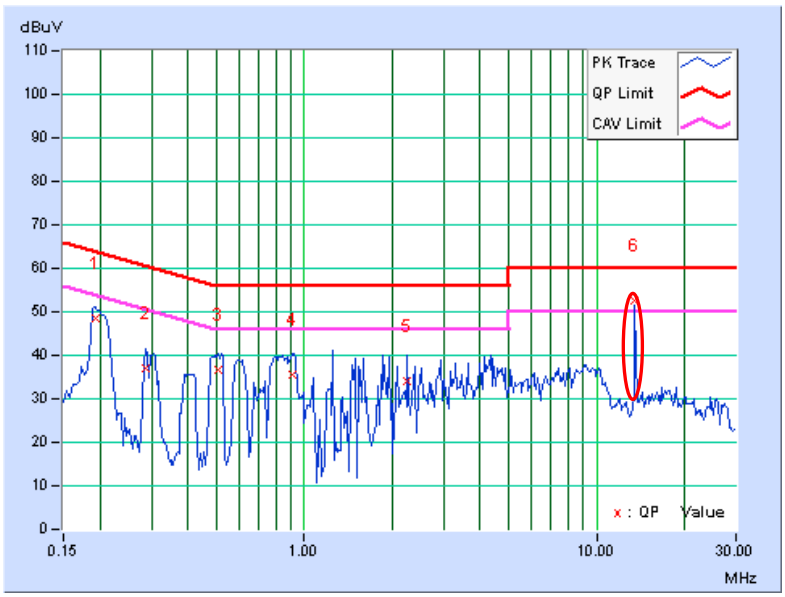
CONDUCTED WORST-CASE DATA：802.11g

PHASE	Line 1	6dB BANDWIDTH	9kHz

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	**0.19297**	**0.15**	**48.38**	**33.65**	**48.53**	**33.80**	**63.91**	**53.91**	**-15.38**	**-20.11**
2	0.28672	0.16	36.82	20.51	36.98	20.67	60.62	50.62	-23.64	-29.95
3	0.50938	0.17	36.53	21.78	36.70	21.95	56.00	46.00	-19.30	-24.05
4	0.91172	0.19	35.49	17.42	35.68	17.61	56.00	46.00	-20.32	-28.39
5	2.25781	0.27	33.68	17.43	33.95	17.70	56.00	46.00	-22.05	-28.30
6	13.55859	0.50	51.96	51.21	52.46	51.71	60.00	50.00	-7.54	1.71

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.
6. This is NFC signal inductive with measurement system. Please check P33-34 to see test result for EUT with a suitable dummy load.

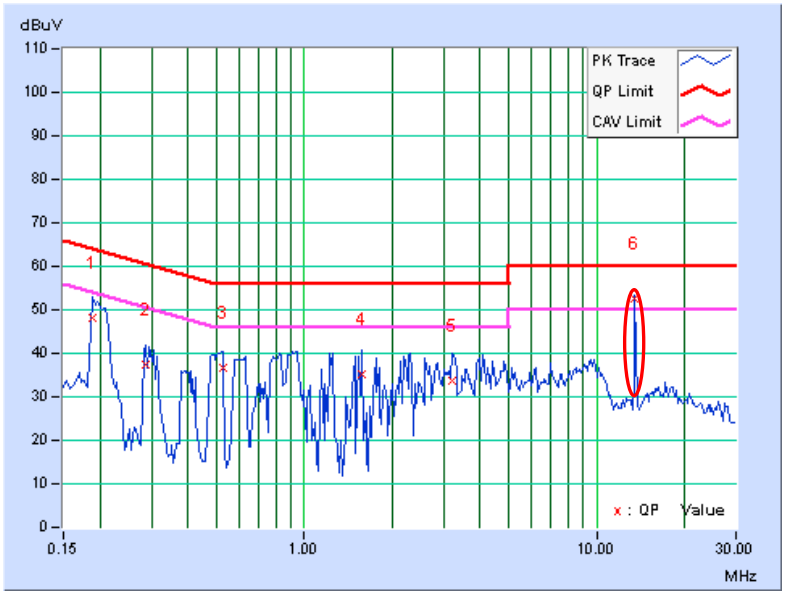


PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.18906	0.14	47.84	28.89	47.98	29.03	64.08	54.08	-16.10	-25.05
2	0.28672	0.15	37.42	20.96	37.57	21.11	60.62	50.62	-23.05	-29.51
3	0.52500	0.17	36.59	19.63	36.76	19.80	56.00	46.00	-19.24	-26.20
4	1.56641	0.23	34.92	18.58	35.15	18.81	56.00	46.00	-20.85	-27.19
5	3.22266	0.32	33.30	19.92	33.62	20.24	56.00	46.00	-22.38	-25.76
6	13.55859	0.57	51.94	51.21	52.51	51.78	60.00	50.00	-7.49	1.78

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.
6. This is NFC signal inductive with measurement system. Please check P33-34 to see test result for EUT with a suitable dummy load.



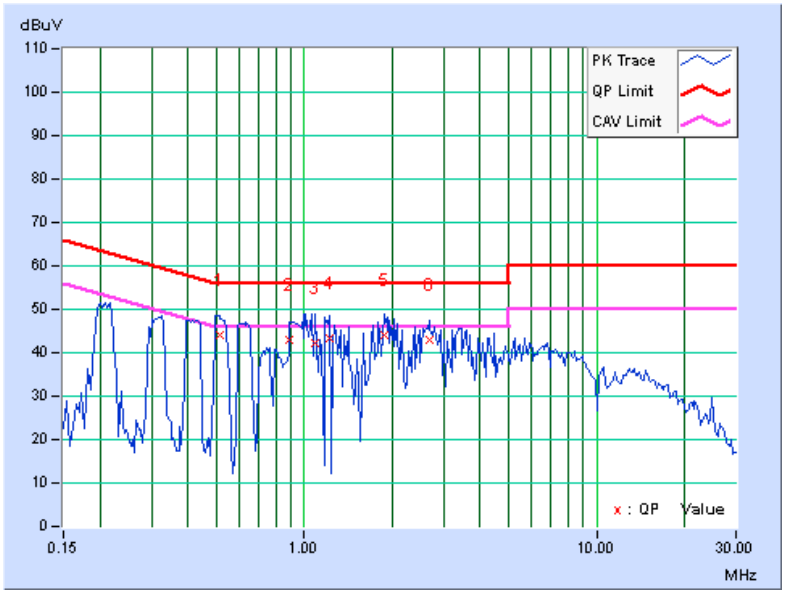
Test with suitable dummy load

PHASE	Line 1	6dB BANDWIDTH	9kHz

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	0.51328	0.19	43.74	30.70	43.93	30.89	56.00	46.00	-12.07	-15.11
2	0.89219	0.20	42.63	23.24	42.83	23.44	56.00	46.00	-13.17	-22.56
3	1.08594	0.22	41.96	28.53	42.18	28.75	56.00	46.00	-13.82	-17.25
4	1.21484	0.23	43.16	23.72	43.39	23.95	56.00	46.00	-12.61	-22.05
5	1.88281	0.29	43.89	26.62	44.18	26.91	56.00	46.00	-11.82	-19.09
6	2.68359	0.32	42.80	27.44	43.12	27.76	56.00	46.00	-12.88	-18.24

REMARKS:

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

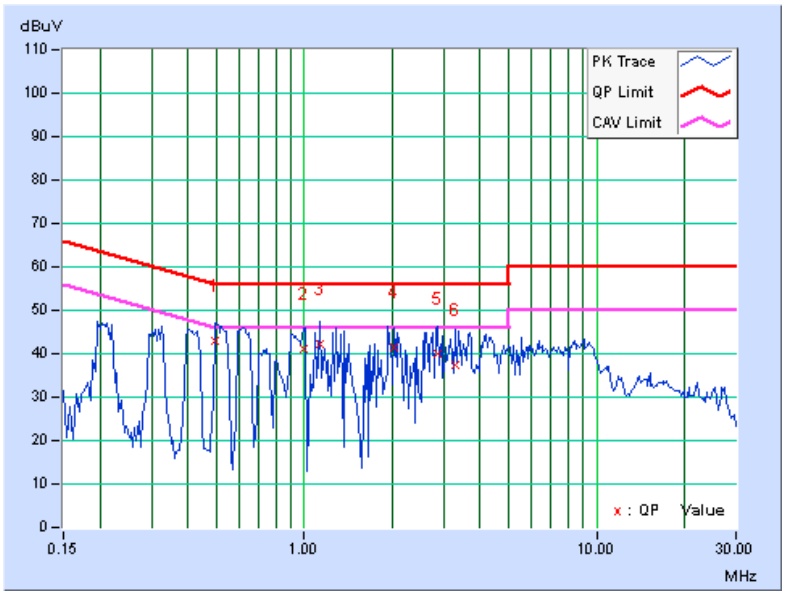


PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.49766	0.19	42.89	26.77	43.08	26.96	56.04	46.04	-12.96	-19.08
2	0.98984	0.22	41.00	18.63	41.22	18.85	56.00	46.00	-14.78	-27.15
3	1.13672	0.23	42.03	21.62	42.26	21.85	56.00	46.00	-13.74	-24.15
4	2.03516	0.30	41.17	23.31	41.47	23.61	56.00	46.00	-14.53	-22.39
5	2.85156	0.35	39.80	22.12	40.15	22.47	56.00	46.00	-15.85	-23.53
6	3.27734	0.37	36.87	22.89	37.24	23.26	56.00	46.00	-18.76	-22.74

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.

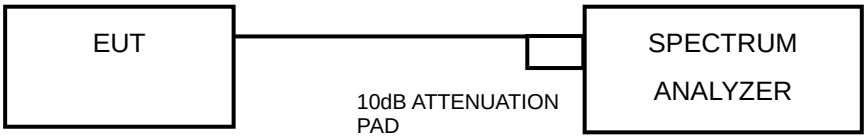


4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

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

a. Set resolution bandwidth (RBW) = approximately 1% of the emission bandwidth
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. 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

802.11b

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	8.07	0.5	PASS
6	2437	8.06	0.5	PASS
11	2462	7.61	0.5	PASS

802.11g

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.69	0.5	PASS
6	2437	16.82	0.5	PASS
11	2462	16.75	0.5	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	18.13	0.5	PASS
6	2437	17.84	0.5	PASS
11	2462	17.84	0.5	PASS

802.11n (40MHz)

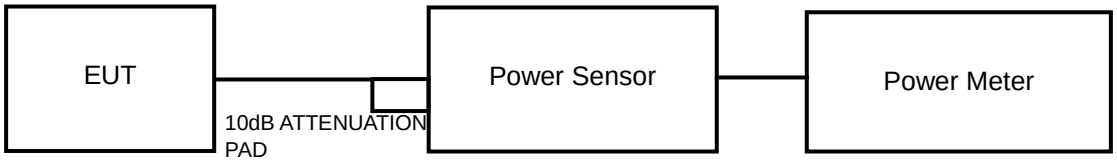
CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
3	2422	36.78	0.5	PASS
6	2437	36.77	0.5	PASS
9	2452	36.59	0.5	PASS

4.4 CONDUCTED OUTPUT POWER

4.4.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

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

4.4.2 TEST SETUP



4.4.3 TEST INSTRUMENTS

Refer to section 4.1.2 to get information of above instrument.

4.4.4 TEST PROCEDURES

A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor. Record the peak power level.

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6.

4.4.7 TEST RESULTS

802.11b

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	149.62	21.75	30	PASS
6	2437	164.82	22.17	30	PASS
11	2462	173.38	22.39	30	PASS

802.11g

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	281.19	24.49	30	PASS
6	2437	322.11	25.08	30	PASS
11	2462	344.35	25.37	30	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	249.46	23.97	30	PASS
6	2437	251.77	24.01	30	PASS
11	2462	268.53	24.29	30	PASS

802.11n (40MHz)

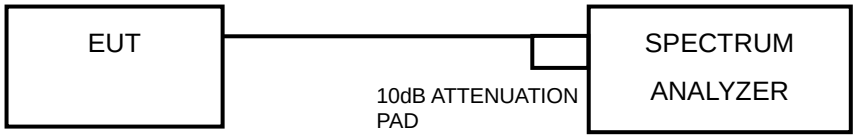
CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
3	2422	254.10	24.05	30	PASS
6	2437	265.46	24.24	30	PASS
9	2452	278.61	24.45	30	PASS

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

a. Set the RBW = 100 kHz, VBW =300 kHz, Detector = peak.
b. Sweep time = auto couple, Trace mode = max hold, allow trace to fully stabilize.
c. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.
d. Scale the observed power level to an equivalent value in 3 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(3 kHz/100kHz)

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

4.5.6 EUT OPERATING CONDITION

Same as Item 4.3.6

4.5.7 TEST RESULTS

802.11b

Channel	FREQ. (MHz)	PSD (dBm/100kHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
1	2412	11.14	-4.06	8	PASS
6	2437	11.58	-3.62	8	PASS
11	2462	11.83	-3.37	8	PASS

802.11g

Channel	FREQ. (MHz)	PSD (dBm/100kHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
1	2412	3.78	-11.42	8	PASS
6	2437	4.26	-10.94	8	PASS
11	2462	4.53	-10.67	8	PASS

802.11n (20MHz)

Channel	FREQ. (MHz)	PSD (dBm/100kHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
1	2412	2.11	-13.09	8	PASS
6	2437	2.40	-12.80	8	PASS
11	2462	2.74	-12.46	8	PASS

802.11n (40MHz)

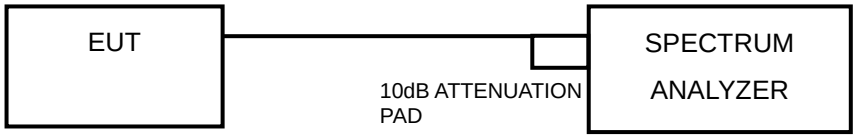
Channel	FREQ. (MHz)	PSD (dBm/100kHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
3	2422	0.03	-15.17	8	PASS
6	2437	0.30	-14.90	8	PASS
9	2452	0.55	-14.65	8	PASS

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

MEASUREMENT PROCEDURE OOBE

1. Set RBW = 100 kHz.
2. Set VBW ≥ 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

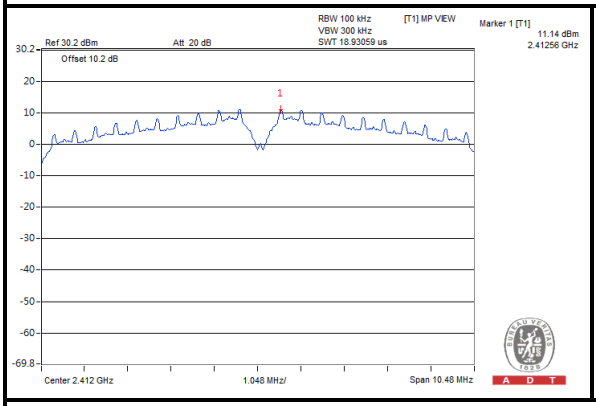
Same as Item 4.3.6

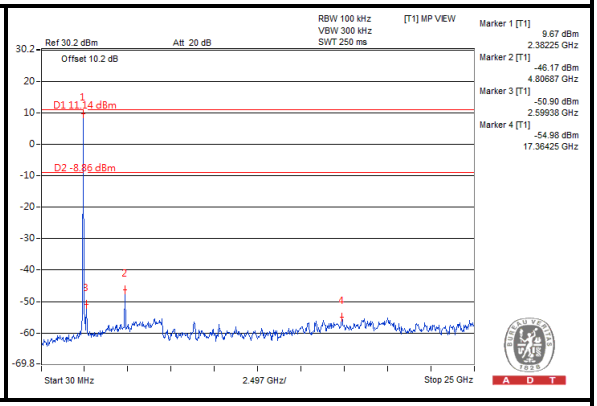
4.6.7 TEST RESULTS

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.

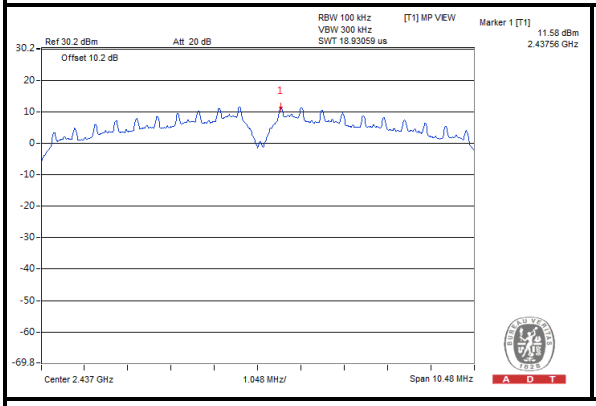
802.11b

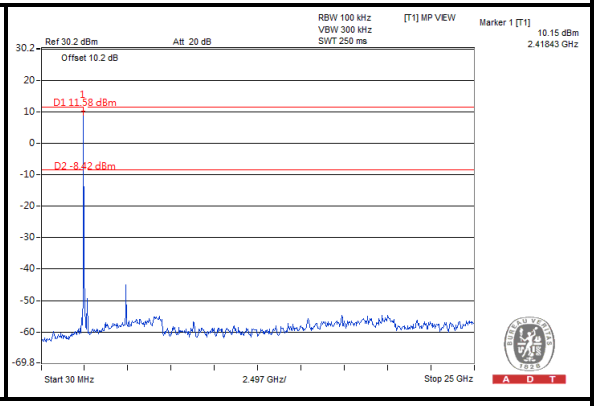
CH 1



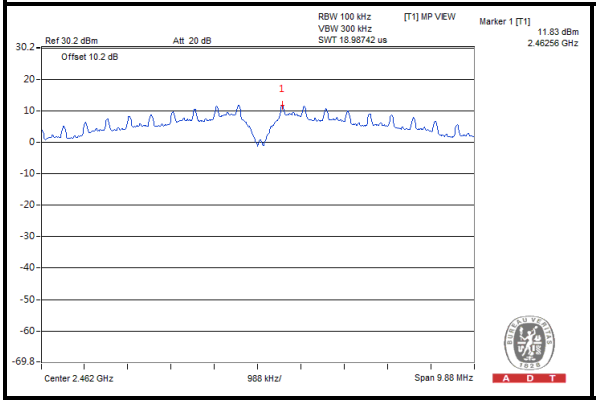


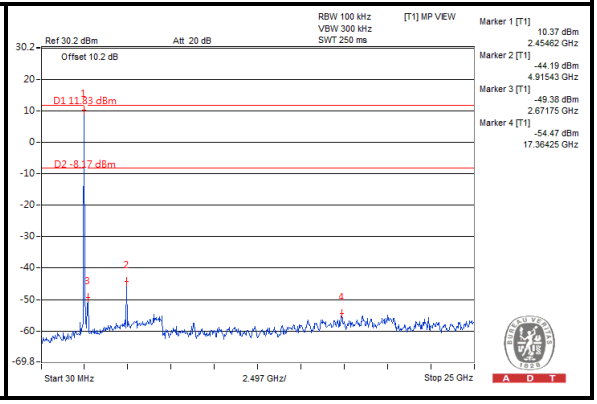
CH 6





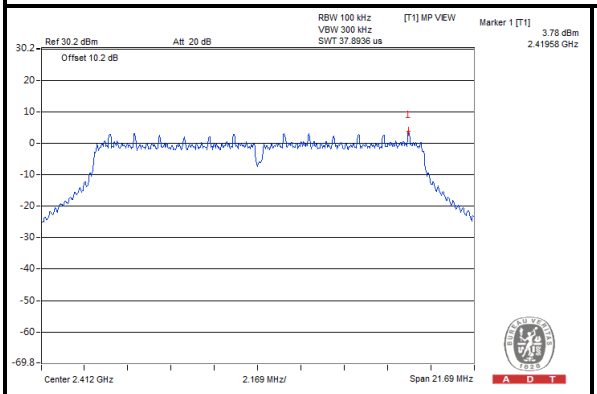
CH 11

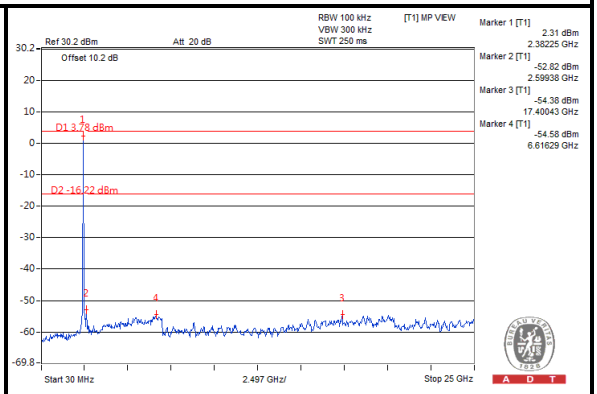




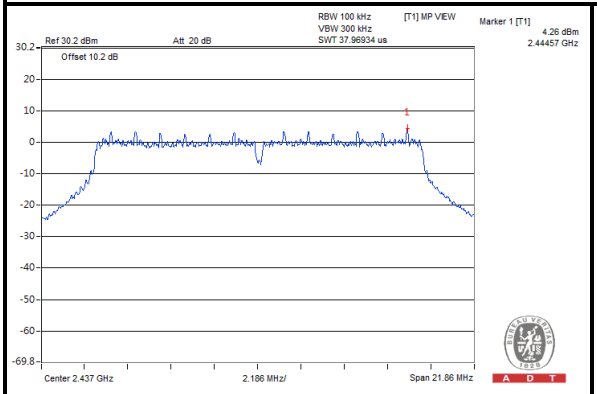
802.11g

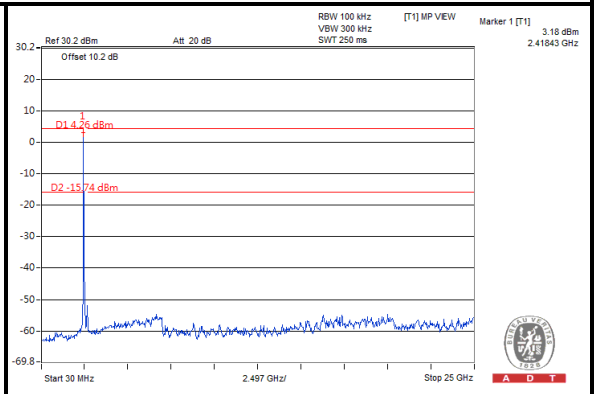
CH 1



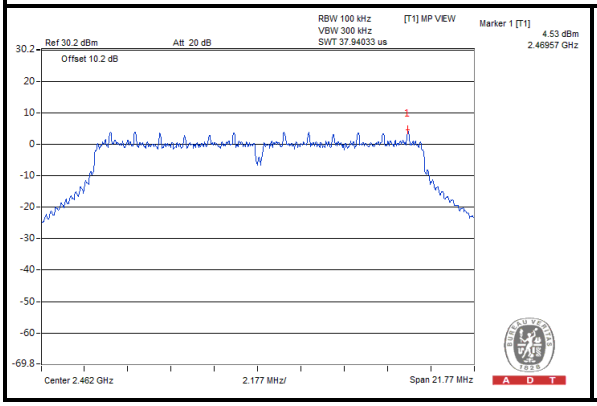


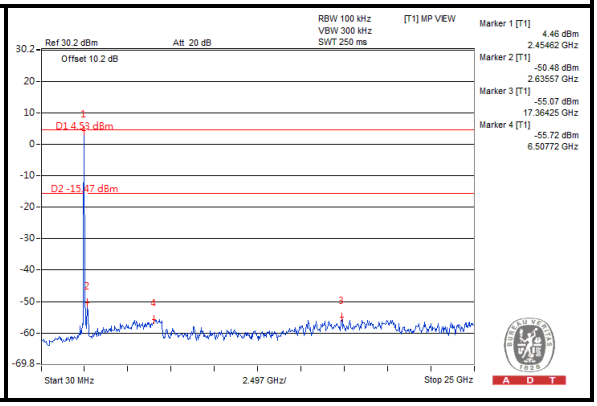
CH 6





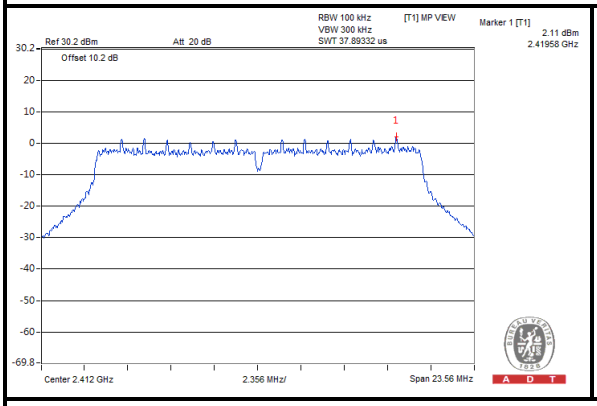
CH 11

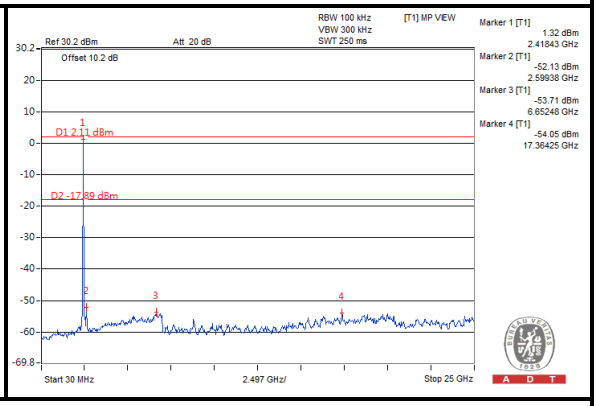




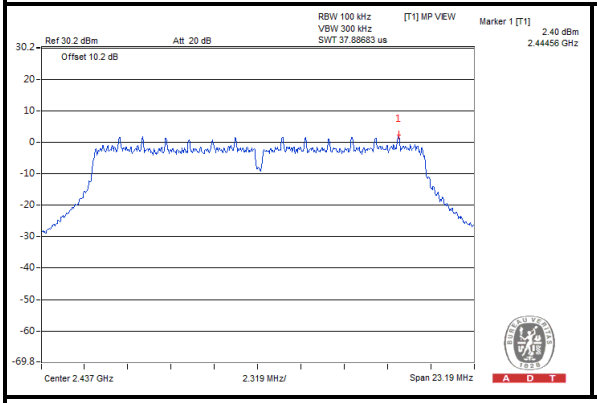
802.11n (20MHz)

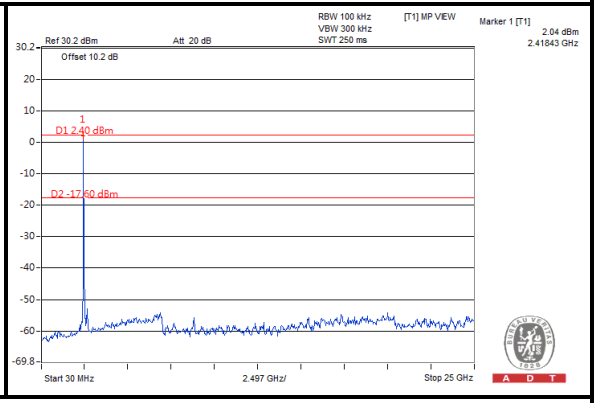
CH 1



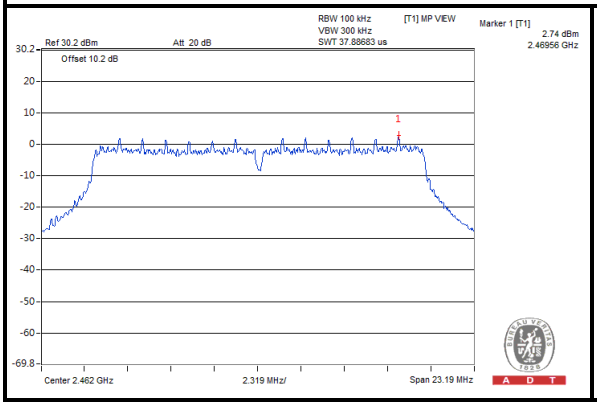


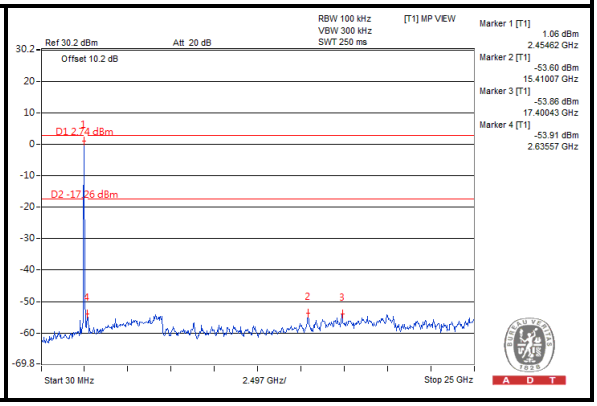
CH 6





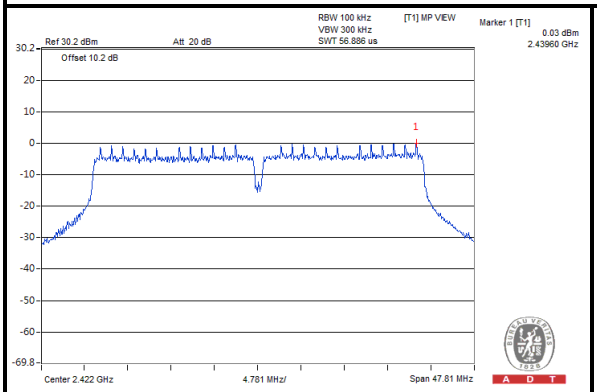
CH 11

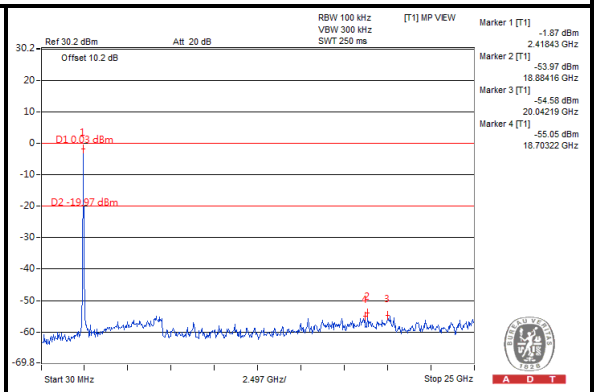




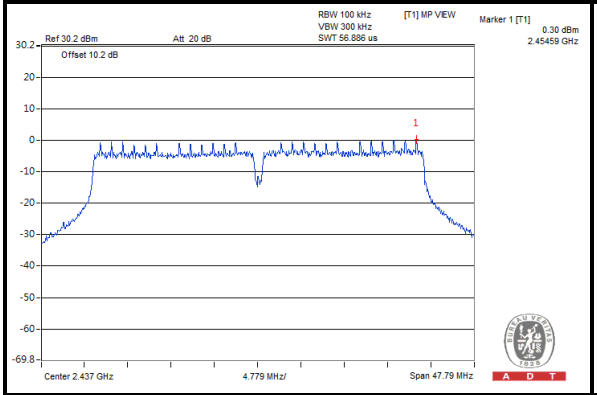
802.11n (40MHz)

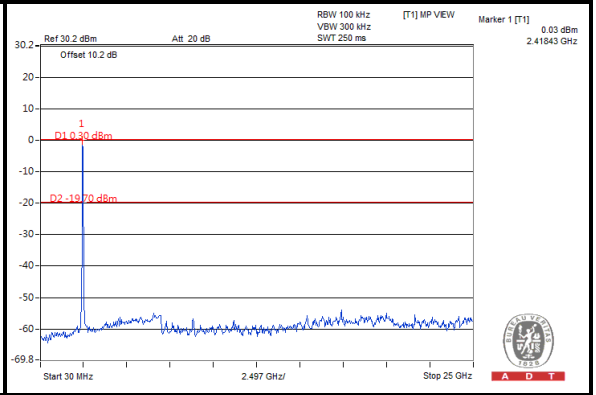
CH 3



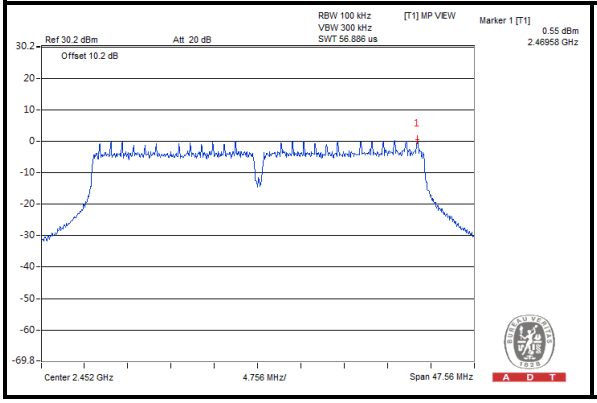


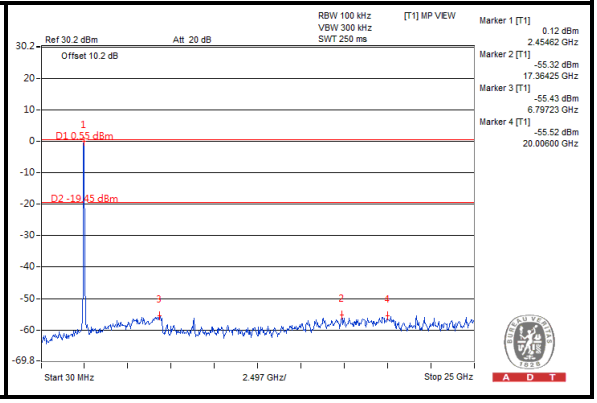
CH 6





CH 9





5. TEST TYPES AND RESULTS (FOR 5.0GHz BAND)

5.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

5.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. 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.

5.1.2 TEST INSTRUMENTS

Same as item 4.1.2.

5.1.3 TEST PROCEDURES

Same as item 4.1.3.

5.1.4 DEVIATION FROM TEST STANDARD

No deviation.

5.1.5 TEST SETUP

Same as item 4.1.5.

5.1.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

5.1.7 TEST RESULTS

ABOVE 1GHz WORST-CASE DATA：802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 149	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
3828	47.62	48.93	54	-6.38	29.55	6.19	37.05	100	360	Average
3828	51.45	52.76	74	-22.55	29.55	6.19	37.05	100	360	Peak
5725	55.74	53.1	73.58	-17.84	32.36	7.71	37.43	112	164	Average
5725	71.91	69.27	82.73	-10.82	32.36	7.71	37.43	112	164	Peak
5745	93.58	90.93			32.38	7.74	37.47	112	164	Average
5745	102.73	100.08			32.38	7.74	37.47	112	164	Peak
5825	44.01	41.21	73.58	-29.57	32.51	7.82	37.53	112	164	Average
5825	57.57	54.77	82.73	-25.16	32.51	7.82	37.53	112	164	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
3828	50.44	51.75	54	-3.56	29.55	6.19	37.05	100	161	Average
3828	53.1	54.41	74	-20.9	29.55	6.19	37.05	100	161	Peak
5725	55.48	52.84	74.36	-18.88	32.36	7.71	37.43	102	80	Average
5725	70.89	68.25	83.26	-12.37	32.36	7.71	37.43	102	80	Peak
5745	94.36	91.71			32.38	7.74	37.47	102	80	Average
5745	103.26	100.61			32.38	7.74	37.47	102	80	Peak
5825	41.16	38.36	74.36	-33.2	32.51	7.82	37.53	102	80	Average
5825	56.63	53.83	83.26	-26.63	32.51	7.82	37.53	102	80	Peak

REMARKS:

1. 5745MHz: Fundamental frequency.
2. 5725MHz & 5825MHz: Out of restricted band

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 157	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
3856	49.41	50.63	54	-4.59	29.61	6.2	37.03	100	214	Average
3856	53.37	54.59	74	-20.63	29.61	6.2	37.03	100	214	Peak
5725	44.39	41.75	73.54	-29.15	32.36	7.71	37.43	114	174	Average
5725	57.65	55.01	82.77	-25.12	32.36	7.71	37.43	114	174	Peak
5785	93.54	90.85			32.43	7.8	37.54	114	174	Average
5785	102.77	100.08			32.43	7.8	37.54	114	174	Peak
5825	48.01	45.21	73.54	-25.53	32.51	7.82	37.53	114	174	Average
5825	58.29	55.49	82.77	-24.48	32.51	7.82	37.53	114	174	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
3856	52.79	54.01	54	-1.21	29.61	6.2	37.03	100	196	Average
3856	54.14	55.36	74	-19.86	29.61	6.2	37.03	100	196	Peak
5725	45.39	42.75	74.4	-29.01	32.36	7.71	37.43	100	79	Average
5725	57.16	54.52	84.57	-27.41	32.36	7.71	37.43	100	79	Peak
5785	94.4	91.71			32.43	7.8	37.54	100	79	Average
5785	104.57	101.88			32.43	7.8	37.54	100	79	Peak
5825	49.68	46.88	74.4	-24.72	32.51	7.82	37.53	100	79	Average
5825	58.49	55.69	84.57	-26.08	32.51	7.82	37.53	100	79	Peak

REMARKS:

1. 5785MHz: Fundamental frequency.
2. 5725MHz & 5825MHz: Out of restricted band

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 161	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
3870	50.69	51.86	54	-3.31	29.64	6.21	37.02	112	275	Average
3870	53.49	54.66	74	-20.51	29.64	6.21	37.02	112	275	Peak
5725	43.87	41.23	72.96	-29.09	32.36	7.71	37.43	102	161	Average
5725	56.24	53.6	84.07	-27.83	32.36	7.71	37.43	102	161	Peak
5805	92.96	90.22			32.48	7.8	37.54	102	161	Average
5805	104.07	101.33			32.48	7.8	37.54	102	161	Peak
5825	52.1	49.3	72.96	-20.86	32.51	7.82	37.53	102	161	Average
5825	69.65	66.85	84.07	-14.42	32.51	7.82	37.53	102	161	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
3870	52.13	53.3	54	-1.87	29.64	6.21	37.02	102	331	Average
3870	55.72	56.89	74	-18.28	29.64	6.21	37.02	102	331	Peak
5725	46.3	43.66	73.34	-27.04	32.36	7.71	37.43	100	99	Average
5725	58.31	55.67	82.85	-24.54	32.36	7.71	37.43	100	99	Peak
5805	93.34	90.6			32.48	7.8	37.54	100	99	Average
5805	102.85	100.11			32.48	7.8	37.54	100	99	Peak
5825	53.53	50.73	73.34	-19.81	32.51	7.82	37.53	100	99	Average
5825	71.3	68.5	82.85	-11.55	32.51	7.82	37.53	100	99	Peak

REMARKS:

1. 5805MHz: Fundamental frequency.
2. 5725MHz & 5825MHz: Out of restricted band

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 149	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
3830	47.65	48.96	54	-6.35	29.55	6.19	37.05	100	112	Average
3830	51.23	52.54	74	-22.77	29.55	6.19	37.05	100	112	Peak
5725	61.97	59.33	72.78	-10.81	32.36	7.71	37.43	113	164	Average
5725	74.58	71.94	82.5	-7.92	32.36	7.71	37.43	113	164	Peak
5745	92.78	90.13			32.38	7.74	37.47	113	164	Average
5745	102.5	99.85			32.38	7.74	37.47	113	164	Peak
5825	41.16	38.36	72.78	-31.62	32.51	7.82	37.53	113	164	Average
5825	58.8	56	82.5	-23.7	32.51	7.82	37.53	113	164	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
3830	50.05	51.36	54	-3.95	29.55	6.19	37.05	112	318	Average
3830	53.69	55	74	-20.31	29.55	6.19	37.05	112	318	Peak
5725	54.77	52.13	71.36	-16.59	32.36	7.71	37.43	100	116	Average
5725	67.59	64.95	81.34	-13.75	32.36	7.71	37.43	100	116	Peak
5745	91.36	88.71			32.38	7.74	37.47	100	116	Average
5745	101.34	98.69			32.38	7.74	37.47	100	116	Peak
5825	40.74	37.94	71.36	-30.62	32.51	7.82	37.53	100	116	Average
5825	57.41	54.61	81.34	-23.93	32.51	7.82	37.53	100	116	Peak

REMARKS:

1. 5745MHz: Fundamental frequency.
2. 5725MHz & 5825MHz: Out of restricted band

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 157	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
3856	47.88	49.1	54	-6.12	29.61	6.2	37.03	100	344	Average
3856	52.12	53.34	74	-21.88	29.61	6.2	37.03	100	344	Peak
5725	43.97	41.33	73.03	-29.06	32.36	7.71	37.43	114	161	Average
5725	57.38	54.74	82.66	-25.28	32.36	7.71	37.43	114	161	Peak
5785	93.03	90.34			32.43	7.8	37.54	114	161	Average
5785	102.66	99.97			32.43	7.8	37.54	114	161	Peak
5825	43.17	40.37	73.03	-29.86	32.51	7.82	37.53	114	161	Average
5825	58.73	55.93	82.66	-23.93	32.51	7.82	37.53	114	161	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
3856	51.56	52.78	54	-2.44	29.61	6.2	37.03	120	159	Average
3856	55.22	56.44	74	-18.78	29.61	6.2	37.03	120	159	Peak
5725	43.9	41.26	71.76	-27.86	32.36	7.71	37.43	100	98	Average
5725	57.54	54.9	81.85	-24.31	32.36	7.71	37.43	100	98	Peak
5785	91.76	89.07			32.43	7.8	37.54	100	98	Average
5785	101.85	99.16			32.43	7.8	37.54	100	98	Peak
5825	43.2	40.4	71.76	-28.56	32.51	7.82	37.53	100	98	Average
5825	58.68	55.88	81.85	-23.17	32.51	7.82	37.53	100	98	Peak

REMARKS:

1. 5785MHz: Fundamental frequency.
2. 5725MHz & 5825MHz: Out of restricted band

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 161	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
3872	50.75	51.92	54	-3.25	29.64	6.21	37.02	100	145	Average
3872	53.21	54.38	74	-20.79	29.64	6.21	37.02	100	145	Peak
5725	46	43.36	72.43	-26.43	32.36	7.71	37.43	100	161	Average
5725	57.91	55.27	82.6	-24.69	32.36	7.71	37.43	100	161	Peak
5805	92.43	89.69			32.48	7.8	37.54	100	161	Average
5805	102.6	99.86			32.48	7.8	37.54	100	161	Peak
5825	53.67	50.87	72.43	-18.76	32.51	7.82	37.53	100	161	Average
5825	70.9	68.1	82.6	-11.7	32.51	7.82	37.53	100	161	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
3868	**53.44**	**54.63**	**54**	**-0.56**	**29.64**	**6.2**	**37.03**	**100**	**214**	**Average**
3868	57.35	58.54	74	-16.65	29.64	6.2	37.03	100	214	Peak
5725	45	42.36	72.87	-27.87	32.36	7.71	37.43	102	101	Average
5725	56.87	54.23	83.06	-26.19	32.36	7.71	37.43	102	101	Peak
5805	92.87	90.13			32.48	7.8	37.54	102	101	Average
5805	103.06	100.32			32.48	7.8	37.54	102	101	Peak
5825	53.8	51	72.87	-19.07	32.51	7.82	37.53	102	101	Average
5825	74.02	71.22	83.06	-9.04	32.51	7.82	37.53	102	101	Peak

REMARKS:

1. 5805MHz: Fundamental frequency.
2. 5725MHz & 5825MHz: Out of restricted band

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 151	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
3836	49.52	50.8	54	-4.48	29.58	6.19	37.05	100	152	Average
3836	51.12	52.4	74	-22.88	29.58	6.19	37.05	100	152	Peak
5725	58.41	55.77	70.38	-11.97	32.36	7.71	37.43	115	162	Average
5725	73.4	70.76	80.33	-6.93	32.36	7.71	37.43	115	162	Peak
5755	90.38	87.7			32.41	7.74	37.47	115	162	Average
5755	100.33	97.65			32.41	7.74	37.47	115	162	Peak
5825	42.8	40	70.38	-27.58	32.51	7.82	37.53	115	162	Average
5825	58.14	55.34	80.33	-22.19	32.51	7.82	37.53	115	162	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
3836	52.4	53.68	54	-1.6	29.58	6.19	37.05	100	253	Average
3836	53.58	54.86	74	-20.42	29.58	6.19	37.05	100	253	Peak
5725	59.67	57.03	71.64	-11.97	32.36	7.71	37.43	102	100	Average
5725	74.46	71.82	81.37	-6.91	32.36	7.71	37.43	102	100	Peak
5755	91.64	88.96			32.41	7.74	37.47	102	100	Average
5755	101.37	98.69			32.41	7.74	37.47	102	100	Peak
5825	42.6	39.8	71.64	-29.04	32.51	7.82	37.53	102	100	Average
5825	57.77	54.97	81.37	-23.6	32.51	7.82	37.53	102	100	Peak

REMARKS:

1. 5755MHz: Fundamental frequency.
2. 5725MHz & 5825MHz: Out of restricted band

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 159	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
3864	51.33	52.55	54	-2.67	29.61	6.2	37.03	100	151	Average
3864	53.04	54.26	74	-20.96	29.61	6.2	37.03	100	151	Peak
5725	42.37	39.73	69.26	-26.89	32.36	7.71	37.43	101	174	Average
5725	57.64	55	79.18	-21.54	32.36	7.71	37.43	101	174	Peak
5795	89.26	86.54			32.46	7.8	37.54	101	174	Average
5795	99.18	96.46			32.46	7.8	37.54	101	174	Peak
5825	57.01	54.21	69.26	-12.25	32.51	7.82	37.53	101	174	Average
5825	70.68	67.88	79.18	-8.5	32.51	7.82	37.53	101	174	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
3864	53.34	54.56	54	-0.66	29.61	6.2	37.03	100	305	Average
3864	53.45	54.67	74	-20.55	29.61	6.2	37.03	100	305	Peak
5725	44.7	42.06	70.68	-25.98	32.36	7.71	37.43	101	100	Average
5725	59.93	57.29	80.81	-20.88	32.36	7.71	37.43	101	100	Peak
5795	90.68	87.96			32.46	7.8	37.54	101	100	Average
5795	100.81	98.09			32.46	7.8	37.54	101	100	Peak
5825	58.32	55.52	70.68	-12.36	32.51	7.82	37.53	101	100	Average
5825	76.07	73.27	80.81	-4.74	32.51	7.82	37.53	101	100	Peak

REMARKS:

1. 5795MHz: Fundamental frequency.
2. 5725MHz & 5825MHz: Out of restricted band

BELOW 1GHz WORST-CASE DATA：802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 159	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
43.5	22.47	39.28	40	-17.53	13.59	0.71	31.11	100	122	Peak
133.68	24.78	43.36	43.5	-18.72	11.94	1.26	31.78	100	252	Peak
207.93	19.6	39.92	43.5	-23.9	9.69	1.63	31.64	100	312	Peak
527.5	21.81	32.66	46	-24.19	17.95	2.87	31.67	104	254	Peak
596.1	22.88	32.49	46	-23.12	19.52	3.08	32.21	100	230	Peak
837.6	26.78	32.06	46	-19.22	22.71	3.79	31.78	185	55	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
35.4	33.47	50.97	40	-6.53	12.94	0.61	31.05	120	220	Peak
42.96	30.12	46.92	40	-9.88	13.58	0.7	31.08	122	211	Peak
133.14	22.9	41.57	43.5	-20.6	11.88	1.26	31.81	100	122	Peak
388.2	19.17	33.76	46	-26.83	15.05	2.38	32.02	100	33	Peak
521.2	20.14	31.08	46	-25.86	17.79	2.85	31.58	100	42	Peak
846	25.86	31.08	46	-20.14	22.81	3.81	31.84	142	225	Peak

5.2 CONDUCTED EMISSION MEASUREMENT

5.2.1 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.

5.2.2 T EST INSTRUMENTS

Same as item 4.2.2.

5.2.3 TEST PROCEDURES

Same as item 4.2.3.

5.2.4 DEVIATION FROM TEST STANDARD

No deviation.

5.2.5 TEST SETUP

Same as item 4.2.5.

5.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6

5.2.7 TEST RESULTS

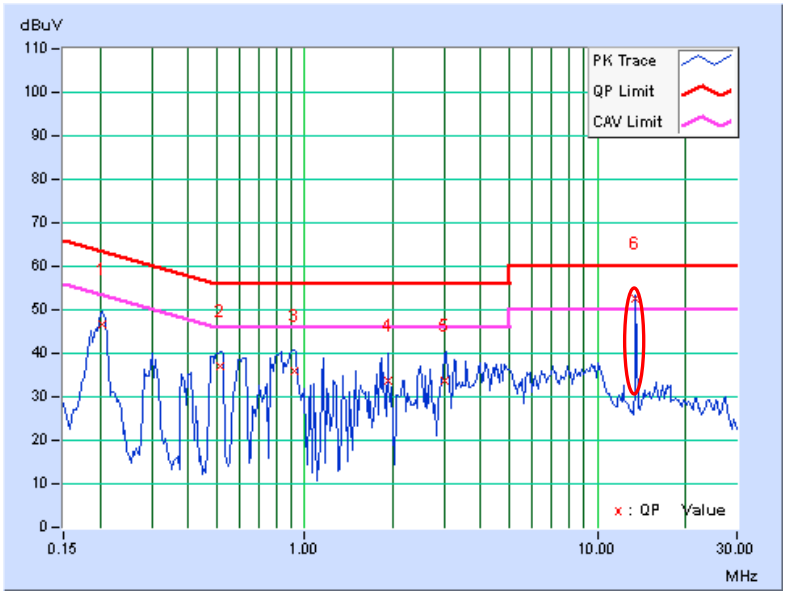
CONDUCTED WORST-CASE DATA：802.11n (40MHz)

PHASE	Line 1	6dB BANDWIDTH	9kHz

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	0.20469	0.15	46.54	35.03	46.69	35.18	63.42	53.42	-16.73	-18.24
2	0.51719	0.17	36.75	22.23	36.92	22.40	56.00	46.00	-19.08	-23.60
3	0.91953	0.19	35.59	17.58	35.78	17.77	56.00	46.00	-20.22	-28.23
4	1.91797	0.25	33.30	16.42	33.55	16.67	56.00	46.00	-22.45	-29.33
5	3.00391	0.30	33.34	19.07	33.64	19.37	56.00	46.00	-22.36	-26.63
6	13.55859	0.50	52.02	51.27	52.52	51.77	60.00	50.00	-7.48	1.77

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.
6. This is NFC signal inductive with measurement system. Please check P65-66 to see test result for EUT with a suitable dummy load.

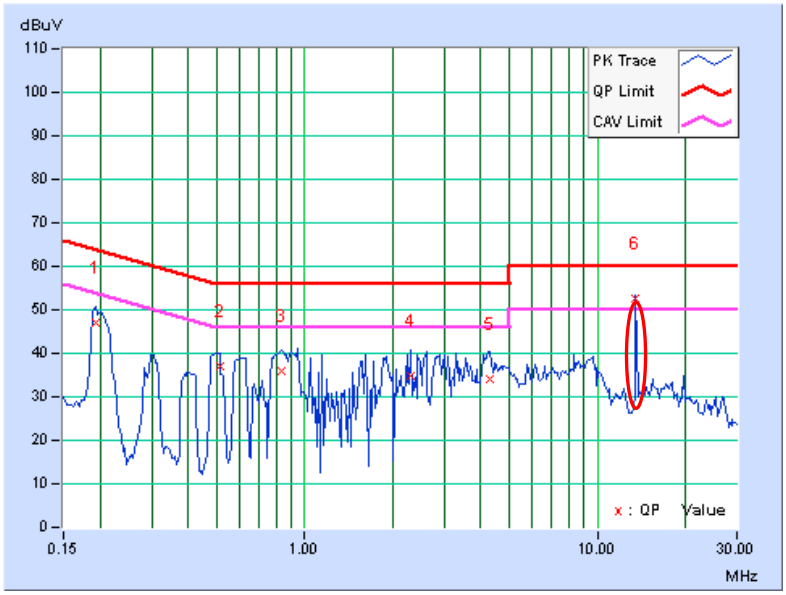


PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.19297	0.14	46.81	33.07	46.95	33.21	63.91	53.91	-16.96	-20.70
2	0.51328	0.17	36.79	22.19	36.96	22.36	56.00	46.00	-19.04	-23.64
3	0.82969	0.18	35.84	17.49	36.02	17.67	56.00	46.00	-19.98	-28.33
4	2.31641	0.27	34.65	18.21	34.92	18.48	56.00	46.00	-21.08	-27.52
5	4.28906	0.36	33.85	23.24	34.21	23.60	56.00	46.00	-21.79	-22.40
6	13.55859	0.57	52.04	51.27	52.61	51.84	60.00	50.00	-7.39	1.84

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.
6. This is NFC signal inductive with measurement system. Please check P65-66 to see test result for EUT with a suitable dummy load.



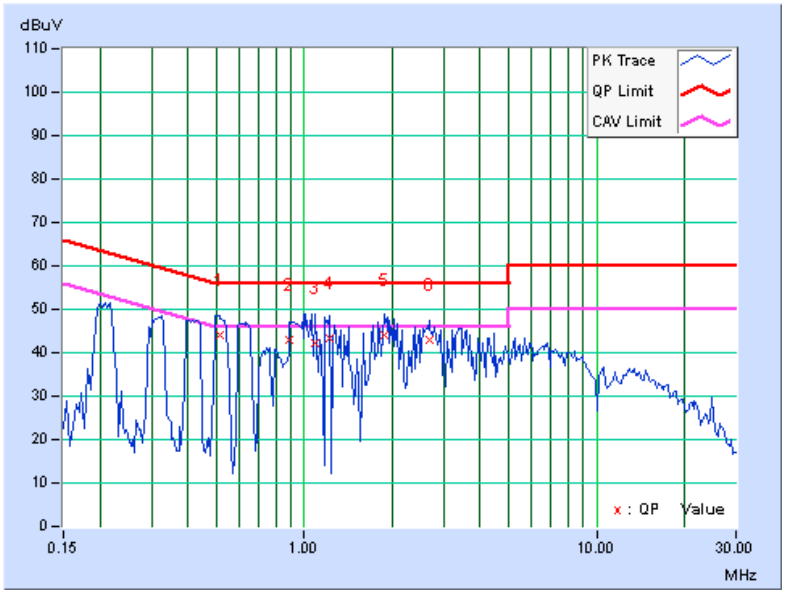
Test with suitable dummy load

PHASE	Line 1	6dB BANDWIDTH	9kHz

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	0.51328	0.19	43.74	30.70	43.93	30.89	56.00	46.00	-12.07	-15.11
2	0.89219	0.20	42.63	23.24	42.83	23.44	56.00	46.00	-13.17	-22.56
3	1.08594	0.22	41.96	28.53	42.18	28.75	56.00	46.00	-13.82	-17.25
4	1.21484	0.23	43.16	23.72	43.39	23.95	56.00	46.00	-12.61	-22.05
5	1.88281	0.29	43.89	26.62	44.18	26.91	56.00	46.00	-11.82	-19.09
6	2.68359	0.32	42.80	27.44	43.12	27.76	56.00	46.00	-12.88	-18.24

REMARKS:

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

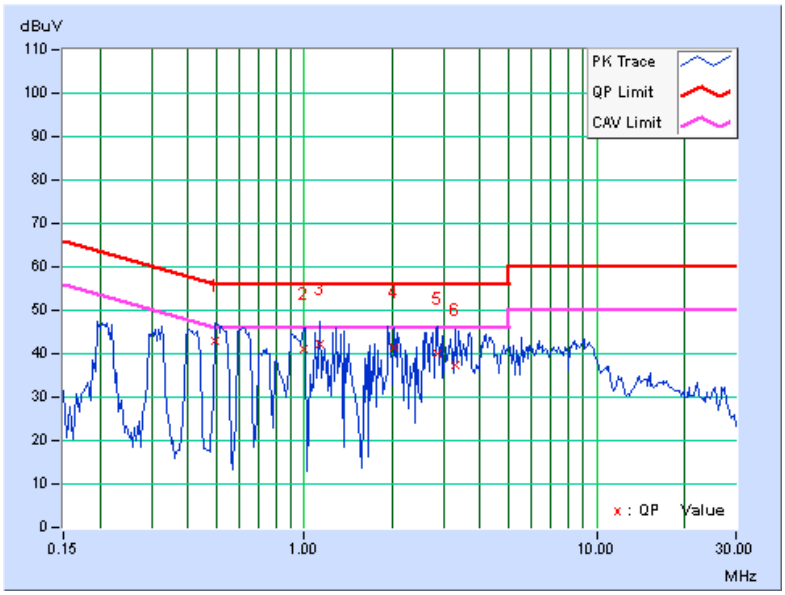


PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.49766	0.19	42.89	26.77	43.08	26.96	56.04	46.04	-12.96	-19.08
2	0.98984	0.22	41.00	18.63	41.22	18.85	56.00	46.00	-14.78	-27.15
3	1.13672	0.23	42.03	21.62	42.26	21.85	56.00	46.00	-13.74	-24.15
4	2.03516	0.30	41.17	23.31	41.47	23.61	56.00	46.00	-14.53	-22.39
5	2.85156	0.35	39.80	22.12	40.15	22.47	56.00	46.00	-15.85	-23.53
6	3.27734	0.37	36.87	22.89	37.24	23.26	56.00	46.00	-18.76	-22.74

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.



5.3 6dB BANDWIDTH MEASUREMENT

5.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

5.3.2 TEST SETUP

Same as item 4.3.2.

5.3.3 TEST INSTRUMENTS

Refer to section 4.1.2 to get information of above instrument.

5.3.4 TEST PROCEDURE

Same as item 4.3.4.

5.3.5 DEVIATION FROM TEST STANDARD

No deviation.

5.3.6 EUT OPERATING CONDITIONS

Same as item 4.3.6.

5.3.7 TEST RESULTS

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
149	5745	16.75	0.5	PASS
157	5785	16.7	0.5	PASS
161	5805	16.69	0.5	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
149	5745	17.8	0.5	PASS
157	5785	17.89	0.5	PASS
161	5805	17.95	0.5	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
151	5755	37.14	0.5	PASS
159	5795	37.36	0.5	PASS

5.4 MAXIMUM OUTPUT POWER

5.4.1 LIMITS OF MAXIMUM OUTPUT POWER MEASUREMENT

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

5.4.2 TEST SETUP

Same as Item 4.4.2.

5.4.3 INSTRUMENTS

Refer to section 4.1.2 to get information of above instrument.

5.4.4 TEST PROCEDURES

Same as Item 4.4.4.

5.4.5 DEVIATION FROM TEST STANDARD

No deviation.

5.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6.

5.4.7 TEST RESULTS

802.11a

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
149	5745	131.52	21.19	30	PASS
157	5785	130.62	21.16	30	PASS
161	5805	130.32	21.15	30	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
149	5745	131.22	21.18	30	PASS
157	5785	129.12	21.11	30	PASS
161	5805	126.47	21.02	30	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
151	5755	129.42	21.12	30	PASS
159	5795	138.04	21.4	30	PASS

5.5 POWER SPECTRAL DENSITY MEASUREMENT

5.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

5.5.2 TEST SETUP

Same as item 4.5.2.

5.5.3 TEST INSTRUMENTS

Refer to section 4.1.2 to get information of above instrument.

5.5.4 TEST PROCEDURE.

Same as item 4.5.4.

5.5.5 DEVIATION FROM TEST STANDARD

No deviation.

5.5.6 EUT OPERATING CONDITION

Same as item 4.3.6.

5.5.7 TEST RESULTS

802.11a

Channel	FREQ. (MHz)	PSD (dBm/100kHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
149	5745	3.37	-11.83	8	PASS
157	5785	3.64	-11.56	8	PASS
161	5805	3.67	-11.53	8	PASS

802.11n (20MHz)

Channel	FREQ. (MHz)	PSD (dBm/100kHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
149	5745	3.13	-12.07	8	PASS
157	5785	3.49	-11.71	8	PASS
161	5805	4.03	-11.17	8	PASS

802.11n (40MHz)

Channel	FREQ. (MHz)	PSD (dBm/100kHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
151	5755	0.62	-14.58	8	PASS
159	5795	1.68	-13.52	8	PASS

5.6 CONDUCTED OUT OF BAND EMISSION MEASUREMENT

5.6.1 LIMITS OF OUT OF BAND EMISSION MEASUREMENT

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

5.6.2 TEST SETUP

Same as Item 4.6.2

5.6.3 TEST INSTRUMENTS

Refer to section 4.1.2 to get information of above instrument.

5.6.4 TEST PROCEDURE

Same as Item 4.6.4

5.6.5 DEVIATION FROM TEST STANDARD

No deviation.

5.6.6 EUT OPERATING CONDITION

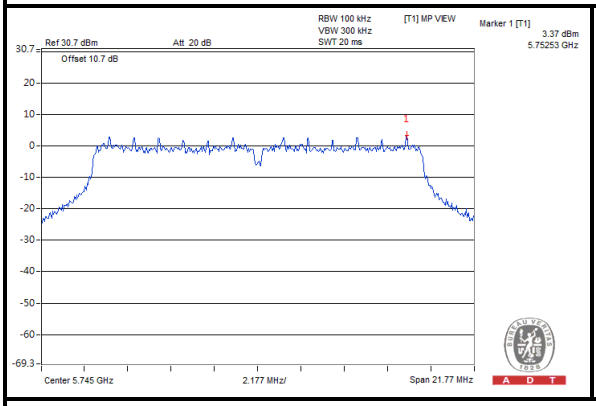
Same as Item 4.3.6

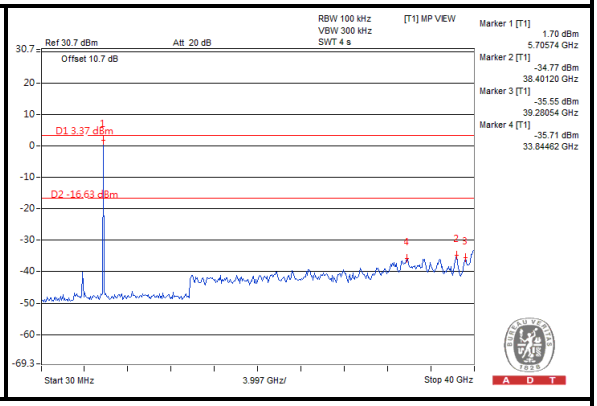
5.6.7 TEST RESULTS

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.

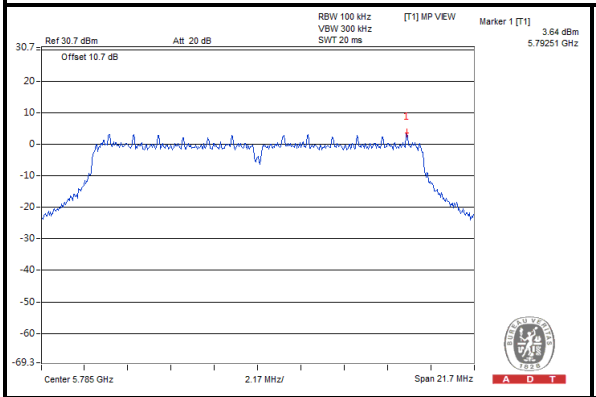
802.11a

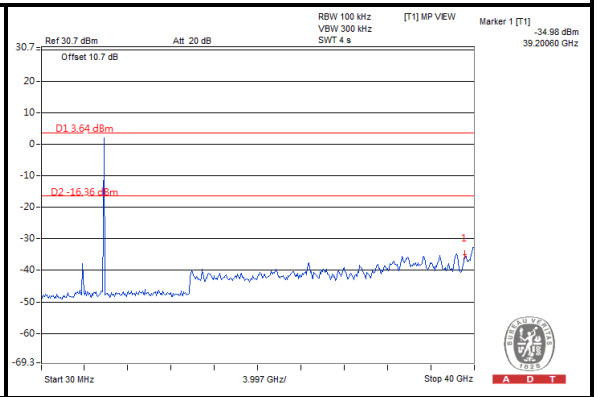
CH 149



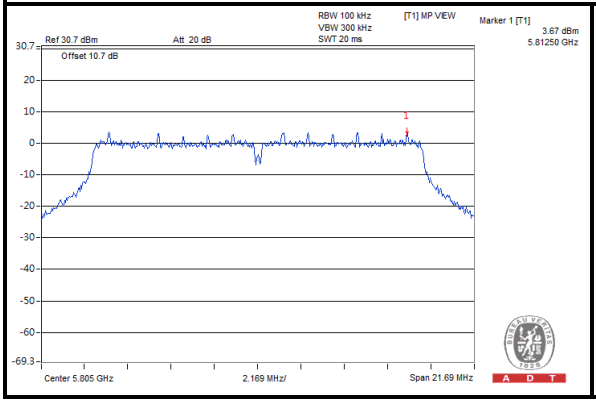


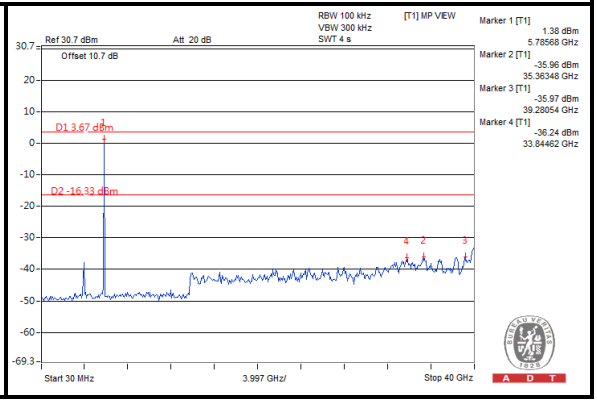
CH 157





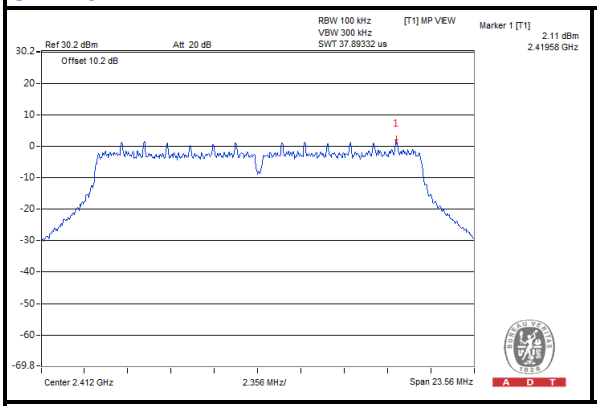
CH 161

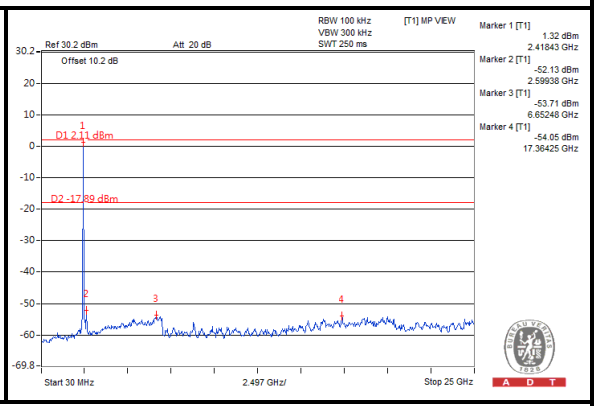




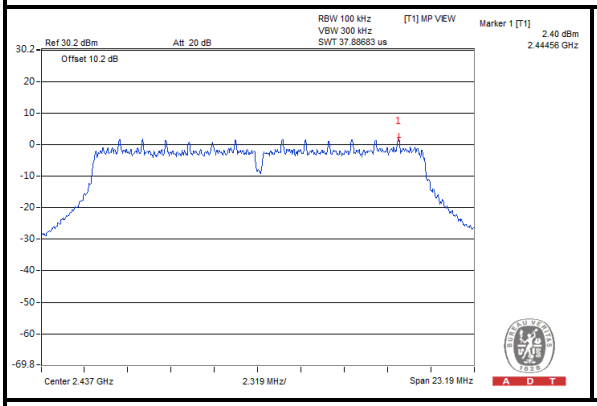
802.11n(20MHz)

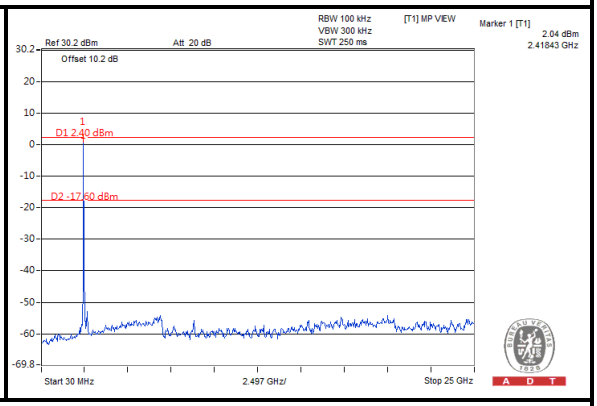
CH 149



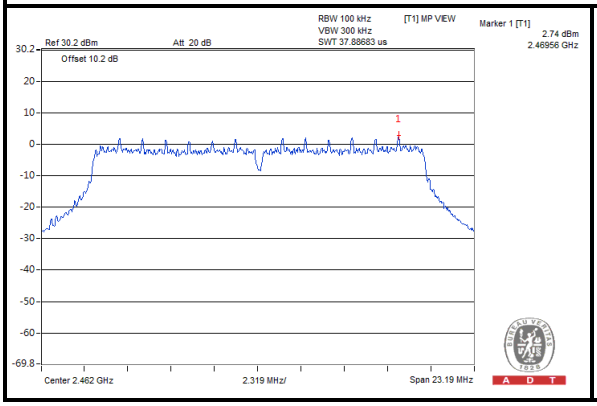


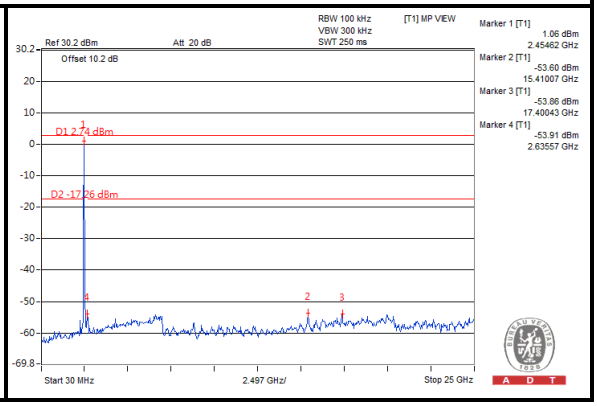
CH 157





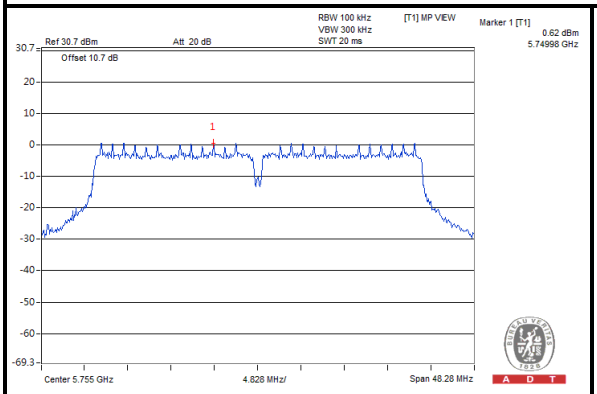
CH 161

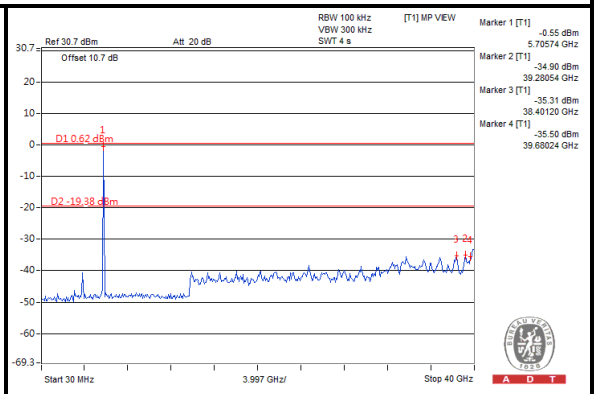




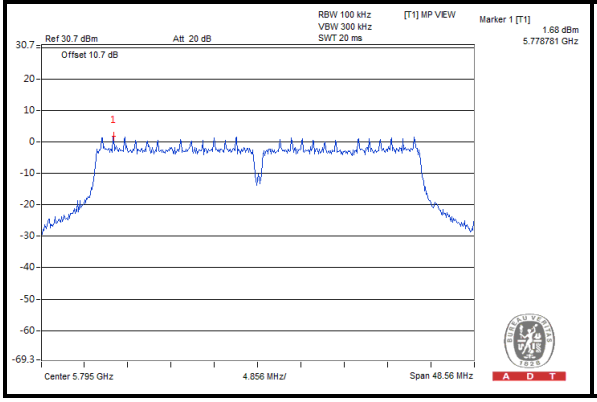
802.11n(40MHz)

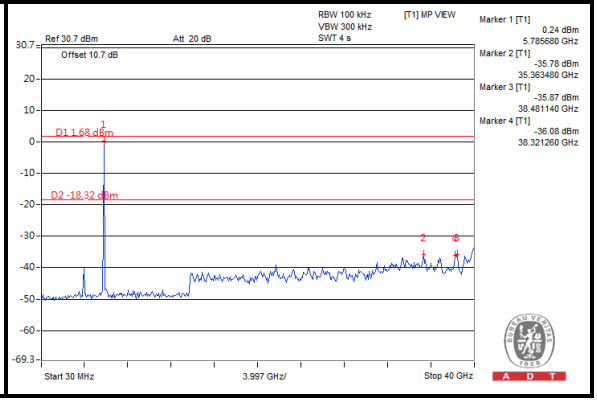
CH 151





CH 159





6. PHOTOGRAPHS OF THE TEST CONFIGURATION

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

7. 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.

8. APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

---END---