FCC TEST REPORT (15.247)

REPORT NO.:	RF130509C08-1
MODEL NO.:	CB2
FCC ID:	HFS-Y
RECEIVED:	May 09, 2013
TESTED:	May 23, 2013 ~ May 28, 2013
ISSUED:	Jun. 20, 2013

APPLICANT:	Quanta Computer Inc.
ADDRESS:	No. 188, Wen Hwa 2nd RD.; Kuei Shan Hsiang, Tao Yuan Shien, Taiwan

ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
LAB ADDRESS:	No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C)
TEST LOCATION:	No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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
RF130509C08-1	Original release	Jun. 20, 2013

1. CERTIFICATION

PRODUCT:	Laptop
MODEL NO.:	CB2
APPLICANT:	Quanta Computer Inc.
TESTED:	May 23, 2013 ~ May 28, 2013
TEST SAMPLE:	Production Unit
STANDARDS:	**FCC Part 15, Subpart C (Section 15.247)**
	ANSI C63.10-2009

The above equipment (model: CB2) 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 : Evonne Liu , **DATE :** Jun. 20, 2013

Evonne Liu / Specialist

APPROVED BY : Sam Chen , **DATE :** Jun. 20, 2013

Sam Chen / Assistant Manager

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART C (SECTION 15.247)			
STANDARD SECTION	**TEST TYPE**	**RESULT**	**REMARK**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -12.13dB at 0.15MHz.
15.247(d) 15.209	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -9.4dB at 35.13MHz.
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	Laptop
MODEL NO.	CB2
POWER SUPPLY	5.25Vdc (adapter or host equipment) 11.1Vdc (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 MCS7
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:** 5 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz)
OUTPUT POWER	408.03mW for 2412 ~ 2462MHz 366.25mW for 5745 ~ 5825MHz
ANTENNA TYPE	**2.4GHz:** PIFA antenna with -1.02dBi gain **5.0GHz:** PIFA antenna with 0.03dBi 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 contains following accessory devices.

ITEM	BRAND	MODEL	DESCRIPTION
AC Adapter	LEI	MU15-N1052-A00S	I/P: 100-240Vac, 0.5A, 50-60Hz O/P: 5.25Vdc, 3A
Li-ion Battery	SMP	SQU-1208	Rating: 11.1Vdc, 2700mAh
Camera	Lite-on	12P2SF004	--
11.6" LCD Panel	LG	LP116WH6	--
Battery Pack	SMP	SQU-1208	--
CPU	Samsung	Exynos 5250	--
Memory Capacity	N/A	N/A	2GB

2. The following wireless modules are collocated in the EUT.

ITEM	BRAND	MODEL
WLAN/BT module	AZUREWAVE	AW-AH397

3. The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitters and 2 receivers.

MODULATION MODE	TX FUNCTION
802.11b	1TX
802.11g	1TX
802.11a	1TX
802.11n (20MHz)	1TX 2TX
802.11n (40MHz)	1TX 2TX

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

3.2 DESCRIPTION OF TEST MODES

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:

5 channels are provided for 802.11a, 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

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	
A	√	√	√	√	1 Tx
B	√	√	√	√	2 Tx

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

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).

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	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	MCS0
	802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	MCS0
B	802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	MCS0
	802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	MCS0

RADIATED EMISSION TEST (BELOW 1GHz):

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11n (40MHz)	3 to 9	3	OFDM	BPSK	MCS0

POWER LINE CONDUCTED EMISSION TEST:

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11n (40MHz)	3 to 9	3	OFDM	BPSK	MCS0

BANDEDGE MEASUREMENT:

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	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	MCS0
	802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	MCS0
B	802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	MCS0
	802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	MCS0

ANTENNA PORT CONDUCTED MEASUREMENT:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	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	MCS0
	802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	MCS0
B	802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	MCS0
	802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	MCS0

TEST CONDITION:

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

FOR 5.0GHz:

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	1 Tx
B	√	√	√	√	2 Tx

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

RADIATED EMISSION TEST (ABOVE 1GHz):

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	149 to 165	149, 157, 165	OFDM	BPSK	6.0
	802.11n (20MHz)	149 to 165	149, 157, 165	OFDM	BPSK	MCS0
	802.11n (40MHz)	151 to 159	151, 159	OFDM	BPSK	MCS0
B	802.11n (20MHz)	149 to 165	149, 157, 165	OFDM	BPSK	MCS0
	802.11n (40MHz)	151 to 159	151, 159	OFDM	BPSK	MCS0

RADIATED EMISSION TEST (BELOW 1GHz):

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11n (40MHz)	151 to 159	151	OFDM	BPSK	MCS0

POWER LINE CONDUCTED EMISSION TEST:

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11n (40MHz)	151 to 159	151	OFDM	BPSK	MCS0

BANDEDGE MEASUREMENT:

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	149 to 165	149, 157, 165	OFDM	BPSK	6.0
	802.11n (20MHz)	149 to 165	149, 157, 165	OFDM	BPSK	MCS0
	802.11n (40MHz)	151 to 159	151, 159	OFDM	BPSK	MCS0
B	802.11n (20MHz)	149 to 165	149, 157, 165	OFDM	BPSK	MCS0
	802.11n (40MHz)	151 to 159	151, 159	OFDM	BPSK	MCS0

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.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	149 to 165	149, 157, 165	OFDM	BPSK	6.0
	802.11n (20MHz)	149 to 165	149, 157, 165	OFDM	BPSK	MCS0
	802.11n (40MHz)	151 to 159	151, 159	OFDM	BPSK	MCS0
B	802.11n (20MHz)	149 to 165	149, 157, 165	OFDM	BPSK	MCS0
	802.11n (40MHz)	151 to 159	151, 159	OFDM	BPSK	MCS0

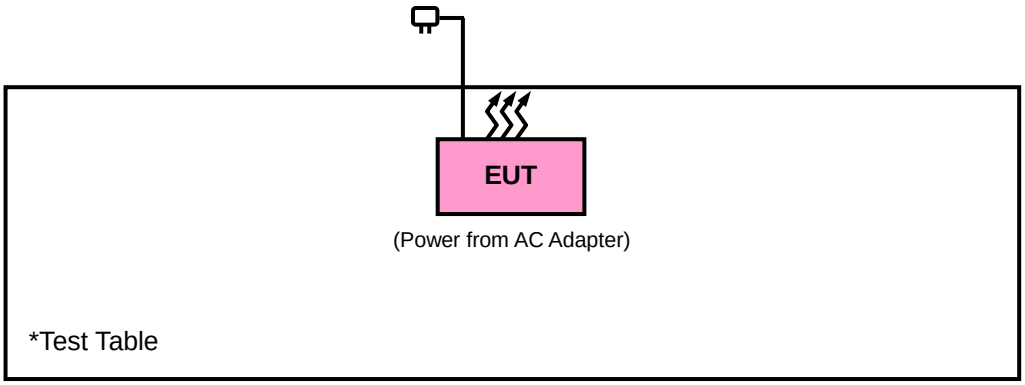
TEST CONDITION:

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

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)
558074 D01 DTS Meas Guidance v02
662911 D01 Multiple Transmitter Output v01 r02
ANSI C63.10-2009

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

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

4. TEST TYPES AND RESULTS (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 ROHDE & SCHWARZ	ESCI	100424	Aug. 21, 2012	Aug. 20, 2013
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 17, 2012	Dec. 16, 2013
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Mar. 25, 2013	Mar. 24, 2014
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-969	Jan. 07, 2013	Jan. 06, 2014
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Dec. 25, 2012	Dec. 24, 2013
Loop Antenna	HFH2-Z2	100070	Jan. 31, 2012	Jan. 30, 2014
Preamplifier EMCI	EMC 012645	980115	Dec. 28, 2012	Dec. 27, 2013
Preamplifier EMCI	EMC 184045	980116	Dec. 28, 2012	Dec. 27, 2013
Preamplifier EMCI	EMC 330H	980112	Dec. 28, 2012	Dec. 27, 2013
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309219/4	Oct. 19, 2012	Oct. 18, 2013
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250130/4	Oct. 19, 2012	Oct. 18, 2013
RF signal cable Worken	RG-213	NA	Dec. 29, 2012	Dec. 28, 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

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The calibration interval of the loop antenna is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in HwaYa Chamber 10.
4. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
5. The FCC Site Registration No. is 690701.
6. The IC Site Registration No. is IC 7450F-10.

4.1.3 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.

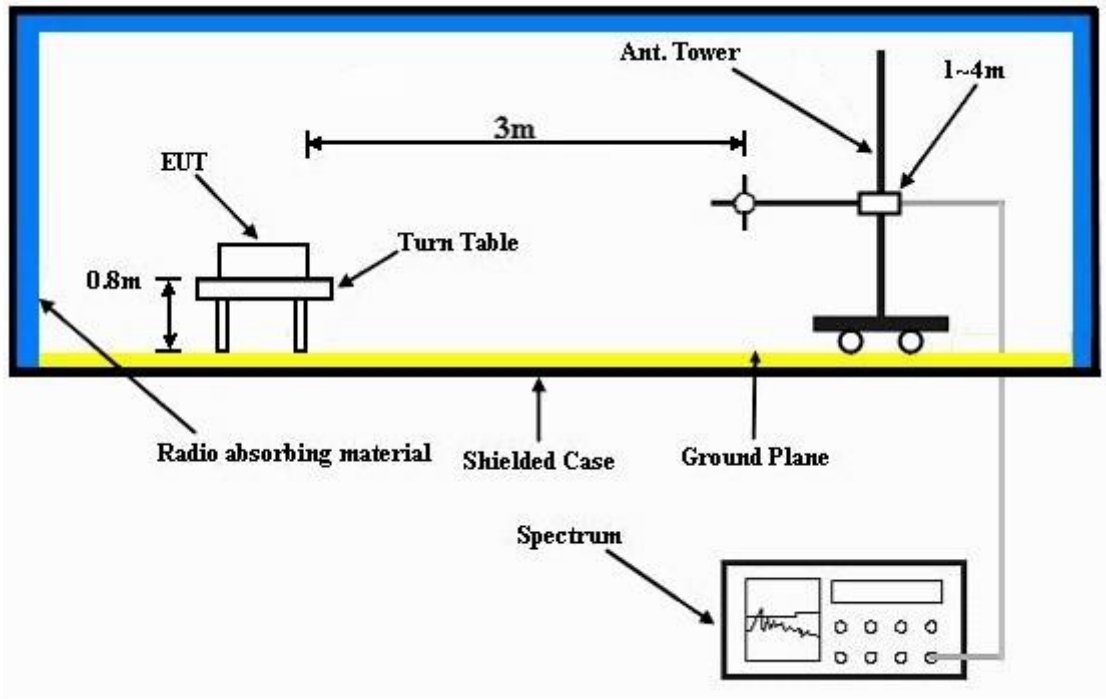
NOTE:

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

MODE A

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**	David Huang

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	35.06	40.8	54	-18.94	26.91	4.87	37.52	100	59	Average
2390	49.88	55.62	74	-24.12	26.91	4.87	37.52	100	59	Peak
2412	94.75	100.44			26.96	4.87	37.52	100	59	Average
2412	98.12	103.81			26.96	4.87	37.52	100	59	Peak
2483.5	35.27	40.52	54	-18.73	27.15	4.92	37.32	100	59	Average
2483.5	51.07	56.32	74	-22.93	27.15	4.92	37.32	100	59	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	35.03	40.77	54	-18.97	26.91	4.87	37.52	104	274	Average
2390	51.04	56.78	74	-22.96	26.91	4.87	37.52	104	274	Peak
2412	91.91	97.60			26.96	4.87	37.52	104	274	Average
2412	96.04	101.73			26.96	4.87	37.52	104	274	Peak
2484	35.42	40.67	54	-18.58	27.15	4.92	37.32	104	274	Average
2484	51.11	56.36	74	-22.89	27.15	4.92	37.32	104	274	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	David Huang

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	33.92	39.66	54	-20.08	26.91	4.87	37.52	100	59	Average
2390	51.34	57.08	74	-22.66	26.91	4.87	37.52	100	59	Peak
2437	93.58	99.09			27.06	4.89	37.46	100	59	Average
2437	96.92	102.43			27.06	4.89	37.46	100	59	Peak
2484	34.70	39.95	54	-19.30	27.15	4.92	37.32	100	59	Average
2484	50.61	55.86	74	-23.39	27.15	4.92	37.32	100	59	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	33.89	39.63	54	-20.11	26.91	4.87	37.52	107	276	Average
2390	52.53	58.27	74	-21.47	26.91	4.87	37.52	107	276	Peak
2437	91.79	97.30			27.06	4.89	37.46	107	276	Average
2437	95.89	101.4			27.06	4.89	37.46	107	276	Peak
2484	34.58	39.83	54	-19.42	27.15	4.92	37.32	107	276	Average
2484	49.74	54.99	74	-24.26	27.15	4.92	37.32	107	276	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	David Huang

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	33.93	39.67	54	-20.07	26.91	4.87	37.52	104	274	Average
2390	51.06	56.80	74	-22.94	26.91	4.87	37.52	104	274	Peak
2462	94.31	99.69			27.10	4.91	37.39	104	274	Average
2462	98.33	103.71			27.10	4.91	37.39	104	274	Peak
2484	35.72	40.97	54	-18.28	27.15	4.92	37.32	104	274	Average
2484	50.83	56.08	74	-23.17	27.15	4.92	37.32	104	274	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	34.19	39.93	54	-19.81	26.91	4.87	37.52	100	58	Average
2390	49.79	55.53	74	-24.21	26.91	4.87	37.52	100	58	Peak
2462	92.28	97.66			27.10	4.91	37.39	100	58	Average
2462	96.44	101.82			27.10	4.91	37.39	100	58	Peak
2484	34.89	40.14	54	-19.11	27.15	4.92	37.32	100	58	Average
2484	50.00	55.25	74	-24.00	27.15	4.92	37.32	100	58	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	David Huang

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	34.62	40.36	54	-19.38	26.91	4.87	37.52	100	56	Average
2390	47.14	52.88	74	-26.86	26.91	4.87	37.52	100	56	Peak
2412	85.53	91.22			26.96	4.87	37.52	100	56	Average
2412	95.96	101.65			26.96	4.87	37.52	100	56	Peak
2484	34.17	39.42	54	-19.83	27.15	4.92	37.32	100	56	Average
2484	46.30	51.55	74	-27.70	27.15	4.92	37.32	100	56	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	34.29	40.03	54	-19.71	26.91	4.87	37.52	104	276	Average
2390	45.81	51.55	74	-28.19	26.91	4.87	37.52	104	276	Peak
2412	82.94	88.63			26.96	4.87	37.52	104	276	Average
2412	93.57	99.26			26.96	4.87	37.52	104	276	Peak
2484	34.21	39.46	54	-19.79	27.15	4.92	37.32	104	276	Average
2484	47.37	52.62	74	-26.63	27.15	4.92	37.32	104	276	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	David Huang

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	33.92	39.66	54	-20.08	26.91	4.87	37.52	100	60	Average
2390	46.08	51.82	74	-27.92	26.91	4.87	37.52	100	60	Peak
2437	85.42	90.93			27.06	4.89	37.46	100	60	Average
2437	95.53	101.04			27.06	4.89	37.46	100	60	Peak
2484	34.38	39.63	54	-19.62	27.15	4.92	37.32	100	60	Average
2484	45.85	51.10	74	-28.15	27.15	4.92	37.32	100	60	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	33.92	39.66	54	-20.08	26.91	4.87	37.52	104	276	Average
2390	46.31	52.05	74	-27.69	26.91	4.87	37.52	104	276	Peak
2437	83.19	88.7			27.06	4.89	37.46	104	276	Average
2437	93.69	99.2			27.06	4.89	37.46	104	276	Peak
2484	34.37	39.62	54	-19.63	27.15	4.92	37.32	104	276	Average
2484	48.47	53.72	74	-25.53	27.15	4.92	37.32	104	276	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	David Huang

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	33.92	39.66	54	-20.08	26.91	4.87	37.52	100	56	Average
2390	46.84	52.58	74	-27.16	26.91	4.87	37.52	100	56	Peak
2462	85.75	91.13			27.10	4.91	37.39	100	56	Average
2462	96.06	101.44			27.10	4.91	37.39	100	56	Peak
2484	34.75	40.00	54	-19.25	27.15	4.92	37.32	100	56	Average
2484	46.20	51.45	74	-27.80	27.15	4.92	37.32	100	56	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	33.81	39.55	54	-20.19	26.91	4.87	37.52	104	277	Average
2390	46.12	51.86	74	-27.88	26.91	4.87	37.52	104	277	Peak
2462	83.69	89.07			27.10	4.91	37.39	104	277	Average
2462	93.02	98.40			27.10	4.91	37.39	104	277	Peak
2484	35.05	40.30	54	-18.95	27.15	4.92	37.32	104	277	Average
2484	46.89	52.14	74	-27.11	27.15	4.92	37.32	104	277	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	David Huang

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
2318	36.33	42.29	54	-17.67	26.72	4.79	37.47	100	57	Average
2318	47.36	53.32	74	-26.64	26.72	4.79	37.47	100	57	Peak
2412	80.63	86.32			26.96	4.87	37.52	100	57	Average
2412	89.30	94.99			26.96	4.87	37.52	100	57	Peak
2496	36.36	41.47	54	-17.64	27.20	4.94	37.25	100	57	Average
2496	47.66	52.77	74	-26.34	27.20	4.94	37.25	100	57	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
2368	35.81	41.65	54	-18.19	26.81	4.85	37.50	105	274	Average
2368	47.42	53.26	74	-26.58	26.81	4.85	37.50	105	274	Peak
2412	79.31	85.00			26.96	4.87	37.52	105	274	Average
2412	87.63	93.32			26.96	4.87	37.52	105	274	Peak
2488	36.50	41.70	54	-17.50	27.20	4.92	37.32	105	274	Average
2488	48.37	53.57	74	-25.63	27.20	4.92	37.32	105	274	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	David Huang

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	36.02	41.76	54	-17.98	26.91	4.85	37.50	100	57	Average
2386	47.09	52.83	74	-26.91	26.91	4.85	37.50	100	57	Peak
2437	79.99	85.50			27.06	4.89	37.46	100	57	Average
2437	88.46	93.97			27.06	4.89	37.46	100	57	Peak
2484	36.50	41.75	54	-17.50	27.15	4.92	37.32	100	57	Average
2484	47.89	53.14	74	-26.11	27.15	4.92	37.32	100	57	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
2340	35.68	41.58	54	-18.32	26.77	4.82	37.49	105	274	Average
2340	47.81	53.71	74	-26.19	26.77	4.82	37.49	105	274	Peak
2437	78.38	83.89			27.06	4.89	37.46	105	274	Average
2437	86.87	92.38			27.06	4.89	37.46	105	274	Peak
2490	36.50	41.70	54	-17.50	27.20	4.92	37.32	105	274	Average
2490	47.35	52.55	74	-26.65	27.20	4.92	37.32	105	274	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	David Huang

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
2328	35.83	41.79	54	-18.17	26.72	4.79	37.47	100	57	Average
2328	48.16	54.12	74	-25.84	26.72	4.79	37.47	100	57	Peak
2462	80.87	86.25			27.10	4.91	37.39	100	57	Average
2462	89.35	94.73			27.10	4.91	37.39	100	57	Peak
2500	36.70	41.81	54	-17.30	27.20	4.94	37.25	100	57	Average
2500	48.40	53.51	74	-25.60	27.20	4.94	37.25	100	57	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
2366	35.75	41.59	54	-18.25	26.81	4.85	37.50	105	274	Average
2366	47.10	52.94	74	-26.90	26.81	4.85	37.50	105	274	Peak
2462	78.87	84.25			27.10	4.91	37.39	105	274	Average
2462	87.47	92.85			27.10	4.91	37.39	105	274	Peak
2488	36.66	41.86	54	-17.34	27.20	4.92	37.32	105	274	Average
2488	47.04	52.24	74	-26.96	27.20	4.92	37.32	105	274	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	David Huang

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	38.57	44.31	54	-15.43	26.91	4.87	37.52	100	58	Average
2390	54.37	60.11	74	-19.63	26.91	4.87	37.52	100	58	Peak
2422	84.23	89.79			27.01	4.89	37.46	100	58	Average
2422	93.63	99.19			27.01	4.89	37.46	100	58	Peak
2492	36.67	41.78	54	-17.33	27.20	4.94	37.25	100	58	Average
2492	47.80	52.91	74	-26.20	27.20	4.94	37.25	100	58	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	37.63	43.37	54	-16.37	26.91	4.87	37.52	106	273	Average
2390	52.25	57.99	74	-21.75	26.91	4.87	37.52	106	273	Peak
2422	81.01	86.57			27.01	4.89	37.46	106	273	Average
2422	90.46	96.02			27.01	4.89	37.46	106	273	Peak
2490	36.99	42.19	54	-17.01	27.20	4.92	37.32	106	273	Average
2490	49.12	54.32	74	-24.88	27.20	4.92	37.32	106	273	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	David Huang

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	36.71	42.45	54	-17.29	26.91	4.87	37.52	100	56	Average
2390	48.64	54.38	74	-25.36	26.91	4.87	37.52	100	56	Peak
2437	83.87	89.38			27.06	4.89	37.46	100	56	Average
2437	92.92	98.43			27.06	4.89	37.46	100	56	Peak
2496	37.56	42.67	54	-16.44	27.20	4.94	37.25	100	56	Average
2496	48.21	53.32	74	-25.79	27.20	4.94	37.25	100	56	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
2364	35.00	40.86	54	-19.00	26.81	4.82	37.49	106	275	Average
2364	47.93	53.79	74	-26.07	26.81	4.82	37.49	106	275	Peak
2437	80.84	86.35			27.06	4.89	37.46	106	275	Average
2437	90.27	95.78			27.06	4.89	37.46	106	275	Peak
2500	36.64	41.75	54	-17.36	27.20	4.94	37.25	106	275	Average
2500	48.35	53.46	74	-25.65	27.20	4.94	37.25	106	275	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	David Huang

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
2344	35.82	41.72	54	-18.18	26.77	4.82	37.49	100	55	Average
2344	47.77	53.67	74	-26.23	26.77	4.82	37.49	100	55	Peak
2452	82.19	87.61			27.06	4.91	37.39	100	55	Average
2452	91.70	97.12			27.06	4.91	37.39	100	55	Peak
2486	38.41	43.66	54	-15.59	27.15	4.92	37.32	100	55	Average
2486	49.89	55.14	74	-24.11	27.15	4.92	37.32	100	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
2310	35.78	41.79	54	-18.22	26.67	4.77	37.45	106	275	Average
2310	48.00	54.01	74	-26.00	26.67	4.77	37.45	106	275	Peak
2452	81.80	87.22			27.06	4.91	37.39	106	275	Average
2452	90.81	96.23			27.06	4.91	37.39	106	275	Peak
2486	38.97	44.22	54	-15.03	27.15	4.92	37.32	106	275	Average
2486	52.15	57.40	74	-21.85	27.15	4.92	37.32	106	275	Peak

REMARKS:

1. 2452MHz: Fundamental frequency.

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 3	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

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
69.15	22.09	42.08	40	-17.91	10.89	0.89	31.77	112	315	Peak
159.6	20.65	38.41	43.5	-22.85	12.73	1.39	31.88	103	154	Peak
245.46	25.23	44.00	46	-20.77	11.28	1.82	31.87	111	127	Peak
300.0	29.78	46.63	46	-16.22	12.94	2.05	31.84	105	224	Peak
500.2	32.62	44.13	46	-13.38	17.33	2.78	31.62	106	231	Peak
799.8	33.71	39.22	46	-12.29	22.23	3.69	31.43	108	277	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
35.13	30.6	48.28	40	-9.4	12.79	0.59	31.06	114	286	Peak
159.06	23.1	40.84	43.5	-20.4	12.73	1.38	31.85	100	241	Peak
243.3	21.59	40.43	46	-24.41	11.19	1.81	31.84	106	331	Peak
335.7	21.88	37.72	46	-24.12	13.8	2.18	31.82	101	198	Peak
500.2	39.13	50.64	46	-6.87	17.33	2.78	31.62	124	296	Peak
864.2	30.19	35.22	46	-15.81	23.05	3.86	31.94	103	158	Peak

MODE B

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	David Huang

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	36.36	42.10	54	-17.64	26.91	4.87	37.52	100	235	Average
2390	49.60	55.34	74	-24.40	26.91	4.87	37.52	100	235	Peak
2412	86.36	92.05			26.96	4.87	37.52	100	235	Average
2412	95.21	100.9			26.96	4.87	37.52	100	235	Peak
2500	36.34	41.45	54	-17.66	27.20	4.94	37.25	100	235	Average
2500	47.30	52.41	74	-26.70	27.20	4.94	37.25	100	235	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	35.62	41.58	54	-18.38	26.72	4.79	37.47	100	357	Average
2326	47.10	53.06	74	-26.90	26.72	4.79	37.47	100	357	Peak
2412	85.39	91.08			26.96	4.87	37.52	100	357	Average
2412	94.51	100.2			26.96	4.87	37.52	100	357	Peak
2486	36.49	41.74	54	-17.51	27.15	4.92	37.32	100	357	Average
2486	47.28	52.53	74	-26.72	27.15	4.92	37.32	100	357	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	David Huang

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
2368	35.83	41.67	54	-18.17	26.81	4.85	37.5	100	28	Average
2368	48.02	53.86	74	-25.98	26.81	4.85	37.5	100	28	Peak
2437	86.48	91.99			27.06	4.89	37.46	100	28	Average
2437	94.44	99.95			27.06	4.89	37.46	100	28	Peak
2490	36.67	41.87	54	-17.33	27.20	4.92	37.32	100	28	Average
2490	47.55	52.75	74	-26.45	27.20	4.92	37.32	100	28	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	35.80	41.54	54	-18.20	26.91	4.85	37.5	100	358	Average
2386	47.54	53.28	74	-26.46	26.91	4.85	37.5	100	358	Peak
2437	85.89	91.40			27.06	4.89	37.46	100	358	Average
2437	93.86	99.37			27.06	4.89	37.46	100	358	Peak
2488	36.65	41.85	54	-17.35	27.20	4.92	37.32	100	358	Average
2488	48.22	53.42	74	-25.78	27.20	4.92	37.32	100	358	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	David Huang

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
2374	35.96	41.75	54	-18.04	26.86	4.85	37.5	104	23	Average
2374	49.41	55.20	74	-24.59	26.86	4.85	37.5	104	23	Peak
2462	87.11	92.49			27.10	4.91	37.39	104	23	Average
2462	95.35	100.73			27.10	4.91	37.39	104	23	Peak
2484	36.75	42.00	54	-17.25	27.15	4.92	37.32	104	23	Average
2484	49.85	55.10	74	-24.15	27.15	4.92	37.32	104	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
2352	35.85	41.71	54	-18.15	26.81	4.82	37.49	100	358	Average
2352	47.29	53.15	74	-26.71	26.81	4.82	37.49	100	358	Peak
2462	86.60	91.98			27.10	4.91	37.39	100	358	Average
2462	94.71	100.09			27.10	4.91	37.39	100	358	Peak
2484	36.62	41.87	54	-17.38	27.15	4.92	37.32	100	358	Average
2484	48.12	53.37	74	-25.88	27.15	4.92	37.32	100	358	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	David Huang

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	39.23	44.97	54	-14.77	26.91	4.85	37.5	100	358	Average
2386	50.66	56.40	74	-23.34	26.91	4.85	37.5	100	358	Peak
2422	83.37	88.93			27.01	4.89	37.46	100	358	Average
2422	92.30	97.86			27.01	4.89	37.46	100	358	Peak
2494	36.73	41.84	54	-17.27	27.20	4.94	37.25	100	358	Average
2494	47.98	53.09	74	-26.02	27.20	4.94	37.25	100	358	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	37.95	43.69	54	-16.05	26.91	4.85	37.5	100	239	Average
2388	51.95	57.69	74	-22.05	26.91	4.85	37.5	100	239	Peak
2422	82.05	87.61			27.01	4.89	37.46	100	239	Average
2422	91.47	97.03			27.01	4.89	37.46	100	239	Peak
2492	36.51	41.62	54	-17.49	27.20	4.94	37.25	100	239	Average
2492	47.84	52.95	74	-26.16	27.20	4.94	37.25	100	239	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	David Huang

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	35.98	41.84	54	-18.02	26.81	4.82	37.49	100	127	Average
2358	47.25	53.11	74	-26.75	26.81	4.82	37.49	100	127	Peak
2437	82.53	88.04			27.06	4.89	37.46	100	127	Average
2437	91.96	97.47			27.06	4.89	37.46	100	127	Peak
2486	36.90	42.15	54	-17.10	27.15	4.92	37.32	100	127	Average
2486	47.66	52.91	74	-26.34	27.15	4.92	37.32	100	127	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
2356	36.04	41.9	54	-17.96	26.81	4.82	37.49	100	6	Average
2356	47.33	53.19	74	-26.67	26.81	4.82	37.49	100	6	Peak
2437	82.25	87.76			27.06	4.89	37.46	100	6	Average
2437	91.48	96.99			27.06	4.89	37.46	100	6	Peak
2492	36.57	41.68	54	-17.43	27.2	4.94	37.25	100	6	Average
2492	48.01	53.12	74	-25.99	27.2	4.94	37.25	100	6	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	David Huang

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
2348	35.95	41.85	54	-18.05	26.77	4.82	37.49	100	128	Average
2348	48.07	53.97	74	-25.93	26.77	4.82	37.49	100	128	Peak
2452	82.24	87.66			27.06	4.91	37.39	100	128	Average
2452	91.74	97.16			27.06	4.91	37.39	100	128	Peak
2488	38.48	43.68	54	-15.52	27.20	4.92	37.32	100	128	Average
2488	50.52	55.72	74	-23.48	27.20	4.92	37.32	100	128	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	35.96	41.7	54	-18.04	26.91	4.85	37.50	100	5	Average
2388	47.70	53.44	74	-26.3	26.91	4.85	37.50	100	5	Peak
2452	81.57	86.99			27.06	4.91	37.39	100	5	Average
2452	90.75	96.17			27.06	4.91	37.39	100	5	Peak
2488	37.91	43.11	54	-16.09	27.20	4.92	37.32	100	5	Average
2488	50.94	56.14	74	-23.06	27.20	4.92	37.32	100	5	Peak

REMARKS:

1. 2452MHz: Fundamental frequency.

4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

NOTE: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.2.2 TEST INSTRUMENTS

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

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Shielded Room 2.

3. The VCCI Site Registration No. is C-2047.

4.2.3 TEST PROCEDURES

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

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

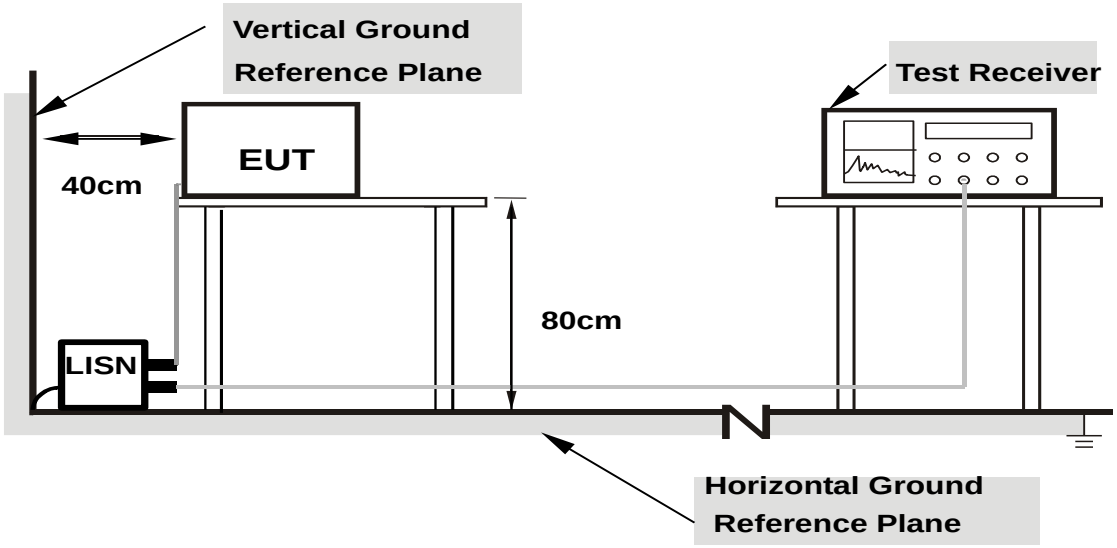
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

4.2.5 TEST SETUP



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

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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6

4.2.7 TEST RESULTS

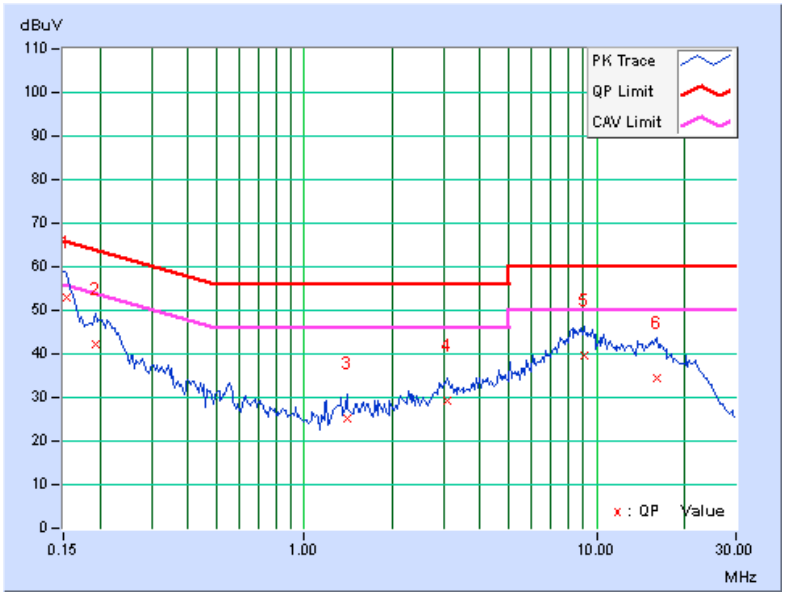
CONDUCTED WORST-CASE DATA：802.11n (40MHz)

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	0.15391	0.12	52.96	40.30	53.08	40.42	65.79	55.79	-12.70	-15.36
2	0.19297	0.12	42.16	30.21	42.28	30.33	63.91	53.91	-21.63	-23.58
3	1.40234	0.22	25.07	18.59	25.29	18.81	56.00	46.00	-30.71	-27.19
4	3.09375	0.30	28.92	22.88	29.22	23.18	56.00	46.00	-26.78	-22.82
5	9.03516	0.60	38.91	31.72	39.51	32.32	60.00	50.00	-20.49	-17.68
6	15.99609	1.00	33.44	24.35	34.44	25.35	60.00	50.00	-25.56	-24.65

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.

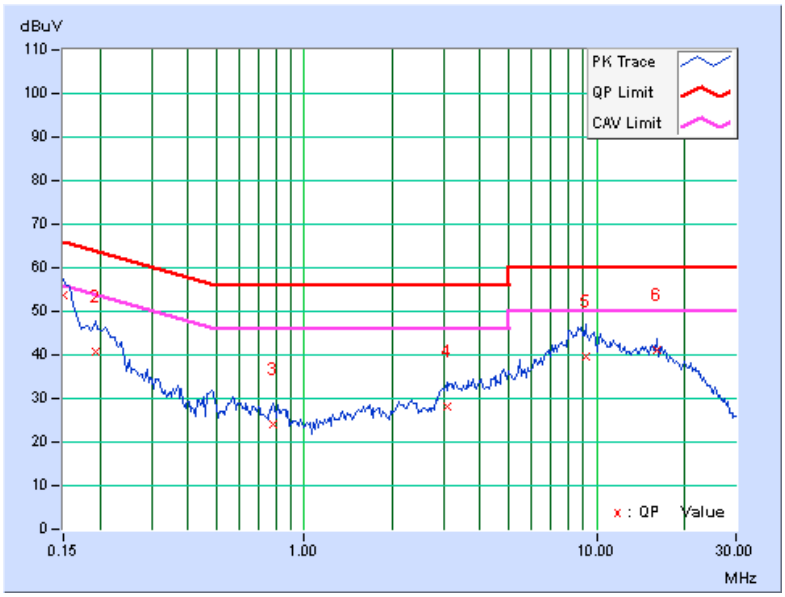


PHASE	Line 2	6dB BANDWIDTH	9kHz

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	**0.15000**	**0.18**	**53.69**	**42.00**	**53.87**	**42.18**	**66.00**	**56.00**	**-12.13**	**-13.82**
2	0.19297	0.17	40.69	28.37	40.86	28.54	63.91	53.91	-23.05	-25.37
3	0.77891	0.24	23.80	17.38	24.04	17.62	56.00	46.00	-31.96	-28.38
4	3.07031	0.33	27.69	21.77	28.02	22.10	56.00	46.00	-27.98	-23.90
5	9.16797	0.56	39.17	31.80	39.73	32.36	60.00	50.00	-20.27	-17.64
6	16.01172	0.79	40.50	36.63	41.29	37.42	60.00	50.00	-18.71	-12.58

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.

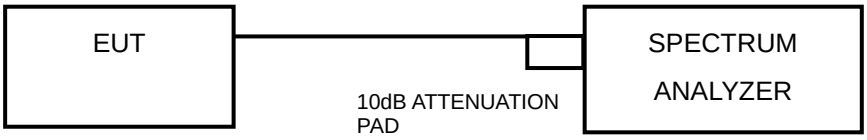


4.3 6dB BANDWIDTH MEASUREMENT

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

MODE A

802.11b

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	10.05	0.5	PASS
6	2437	10.06	0.5	PASS
11	2462	10.11	0.5	PASS

802.11g

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.37	0.5	PASS
6	2437	16.40	0.5	PASS
11	2462	16.43	0.5	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.44	0.5	PASS
6	2437	17.42	0.5	PASS
11	2462	17.46	0.5	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
3	2422	35.83	0.5	PASS
6	2437	35.91	0.5	PASS
9	2452	36.18	0.5	PASS

MODE B

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	16.27	15.99	0.5	PASS
6	2437	16.81	17.00	0.5	PASS
11	2462	17.46	17.01	0.5	PASS

802.11n (40MHz)

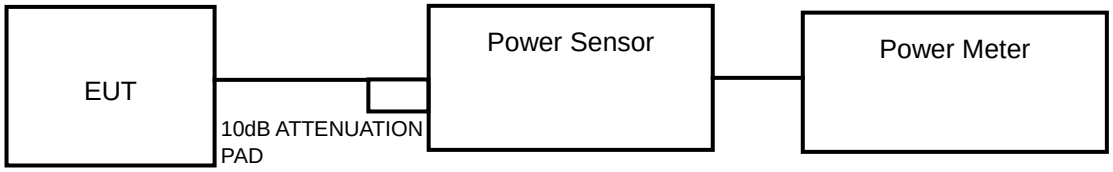
CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
3	2422	35.78	35.85	0.5	PASS
6	2437	35.89	36.07	0.5	PASS
9	2452	35.90	36.14	0.5	PASS

4.4 CONDUCTED OUTPUT POWER

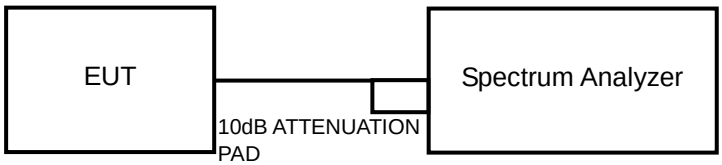
4.4.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

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

4.4.2 TEST SETUP



or



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 or spectrum analyzer 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

MODE A

802.11b

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	44.668	16.5	30	PASS
6	2437	40.738	16.1	30	PASS
11	2462	49.431	16.94	30	PASS

802.11g

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	85.901	19.34	30	PASS
6	2437	75.509	18.78	30	PASS
11	2462	85.310	19.31	30	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	77.625	18.9	30	PASS
6	2437	66.527	18.23	30	PASS
11	2462	78.524	18.95	30	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
3	2422	169.434	22.29	30	PASS
6	2437	79.250	18.99	30	PASS
9	2452	68.549	18.36	30	PASS

MODE B

802.11n (20MHz)

CHAN.	FREQUENCY (MHz)	PEAK POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS/ FAIL
		CHAIN 0	CHAIN 1				
1	2412	18.77	18.79	151.02	21.79	30	PASS
6	2437	18.39	18.20	135.09	21.31	30	PASS
11	2462	19.05	18.78	155.86	21.93	30	PASS

802.11n (40MHz)

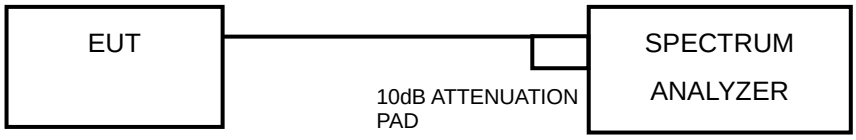
CHAN.	FREQUENCY (MHz)	PEAK POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS/ FAIL
		CHAIN 0	CHAIN 1				
3	2422	22.11	23.90	408.03	26.11	30	PASS
6	2437	21.93	23.75	393.09	25.94	30	PASS
9	2452	21.56	23.43	363.51	25.61	30	PASS

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 = 3 kHz, VBW = 10 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.

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

MODE A

802.11b

Channel	FREQ. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
1	2412	-13.96	8	PASS
6	2437	-14.16	8	PASS
11	2462	-13.88	8	PASS

802.11g

Channel	FREQ. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
1	2412	-7.58	8	PASS
6	2437	-7.31	8	PASS
11	2462	-8.68	8	PASS

802.11n (20MHz)

Channel	FREQ. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
1	2412	-7.58	8	PASS
6	2437	-7.97	8	PASS
11	2462	-7.38	8	PASS

802.11n (40MHz)

Channel	FREQ. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
3	2422	-10.13	8	PASS
6	2437	-10.42	8	PASS
9	2452	-10.53	8	PASS

MODE B

802.11n (20MHz)

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	1	2412	-7.38	3.01	-4.37	8	PASS
	6	2437	-7.17	3.01	-4.16	8	PASS
	11	2462	-7.02	3.01	-4.01	8	PASS
1	1	2412	-6.58	3.01	-3.57	8	PASS
	6	2437	-7.45	3.01	-4.44	8	PASS
	11	2462	-6.35	3.01	-3.34	8	PASS

NOTE: Directional gain = -1.02dBi + 10log(2) = 1.99dBi < 6dBi, so the limit no need to reduced.

802.11n (40MHz)

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	3	2422	-10.08	3.01	-7.07	8	PASS
	6	2437	-10.44	3.01	-7.43	8	PASS
	9	2452	-10.18	3.01	-7.17	8	PASS
1	3	2422	-9.29	3.01	-6.28	8	PASS
	6	2437	-9.81	3.01	-6.8	8	PASS
	9	2452	-10.03	3.01	-7.02	8	PASS

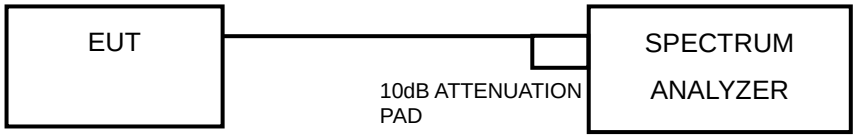
NOTE: Directional gain = -1.02dBi + 10log(2) = 1.99dBi < 6dBi, so the limit no need to reduced.

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

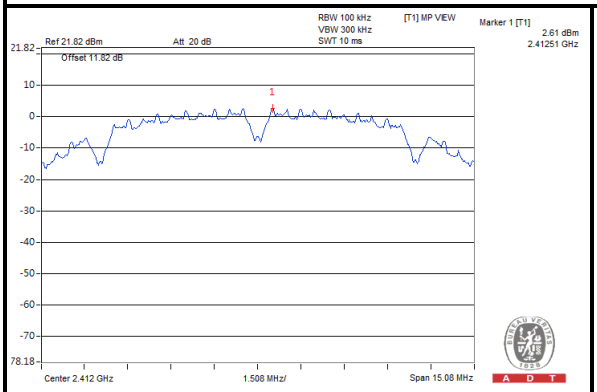
4.6.7 TEST RESULTS

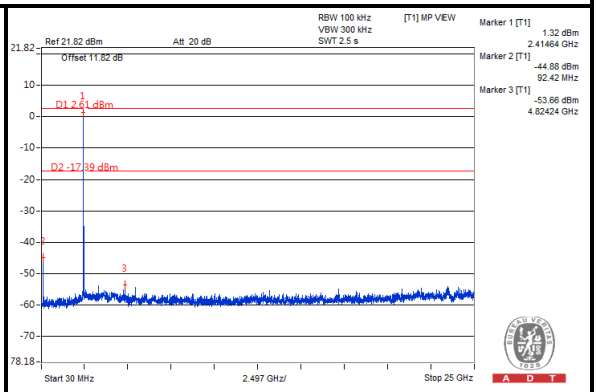
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement.

MODE A

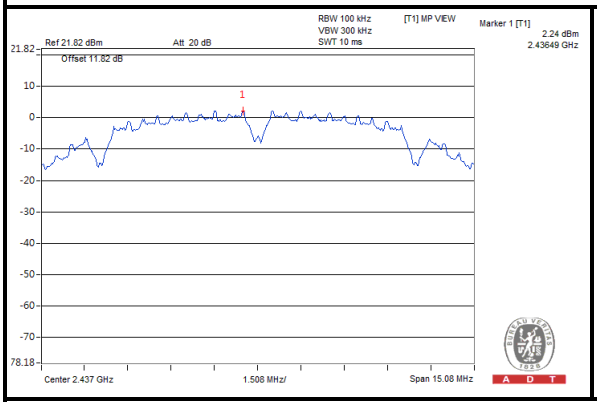
802.11b

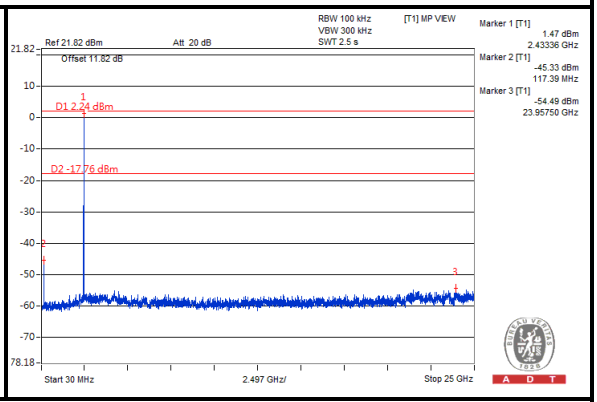
CH 1



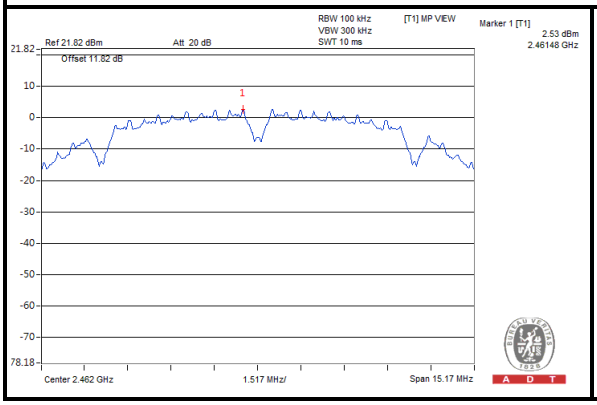


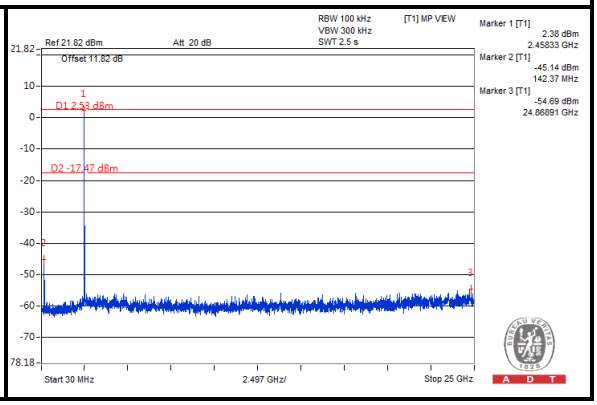
CH 6





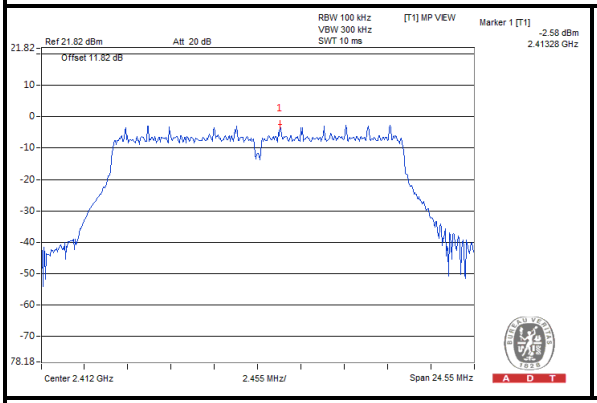
CH 11

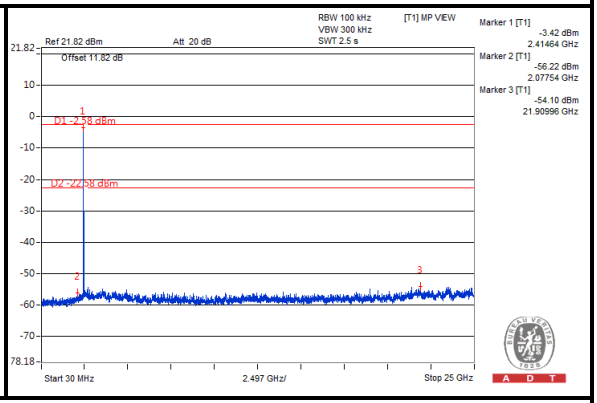




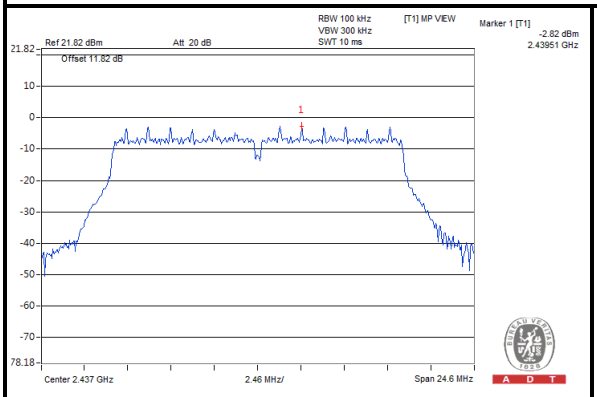
802.11g

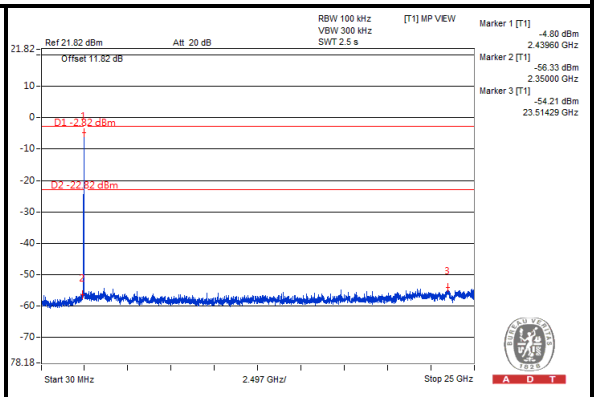
CH 1



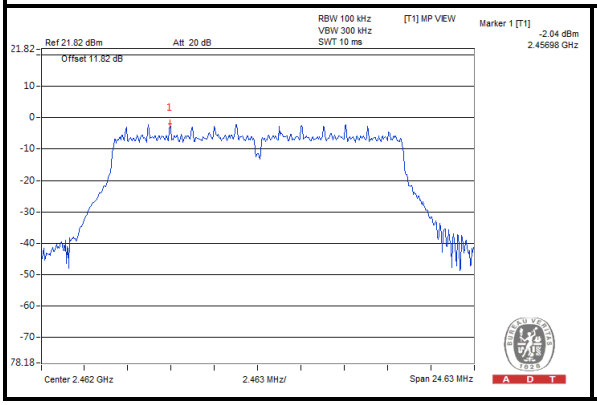


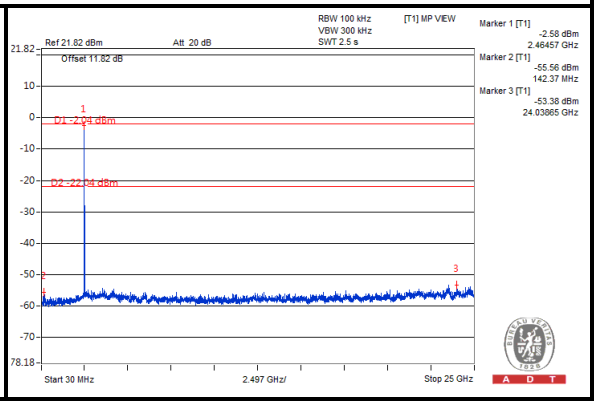
CH 6





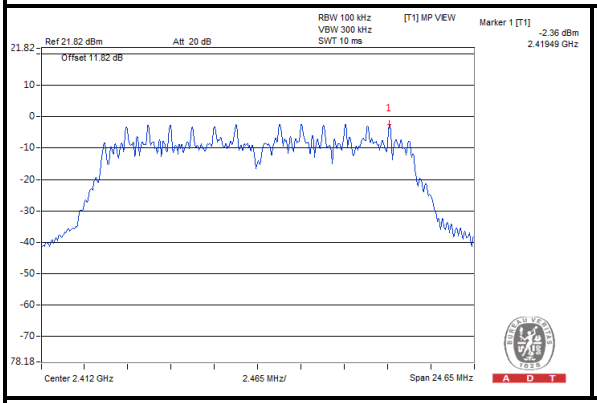
CH 11

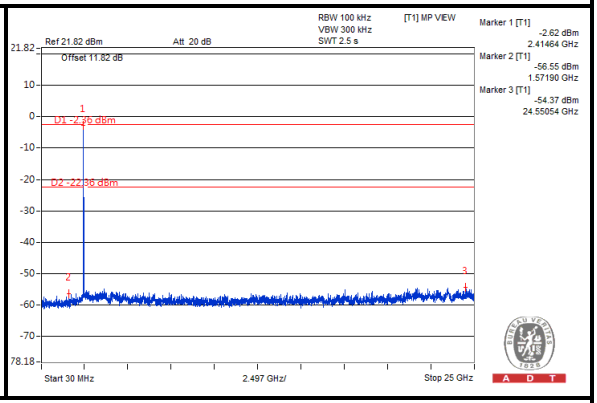




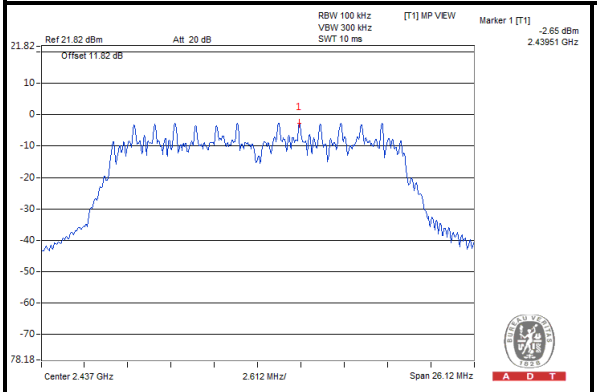
802.11n (20MHz)

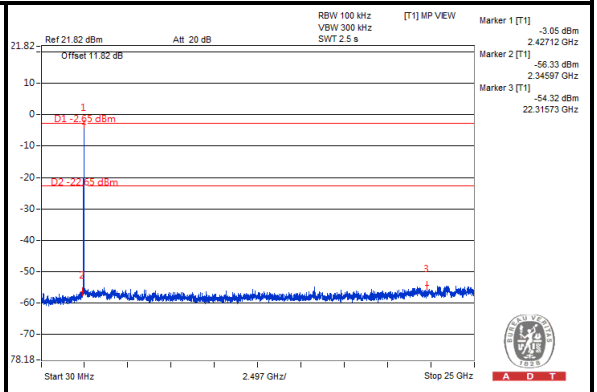
CH 1



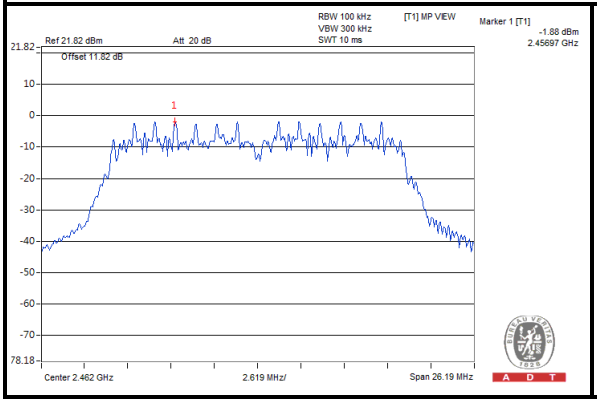


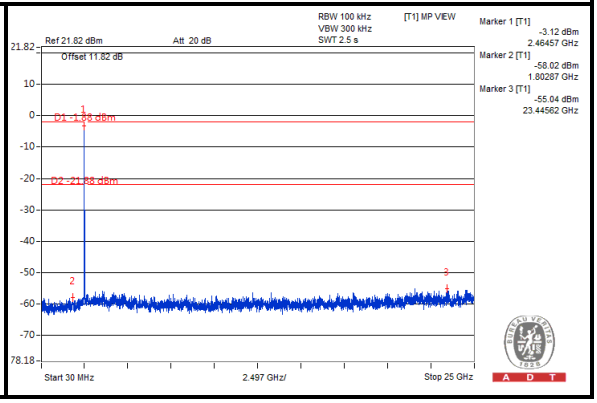
CH 6





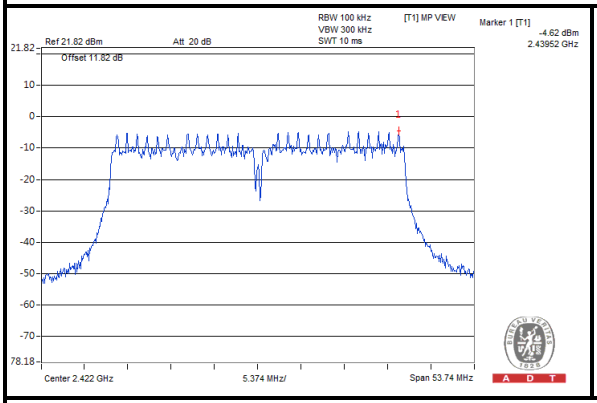
CH 11

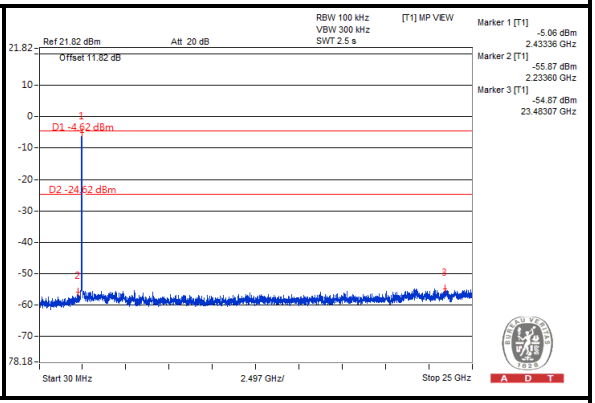




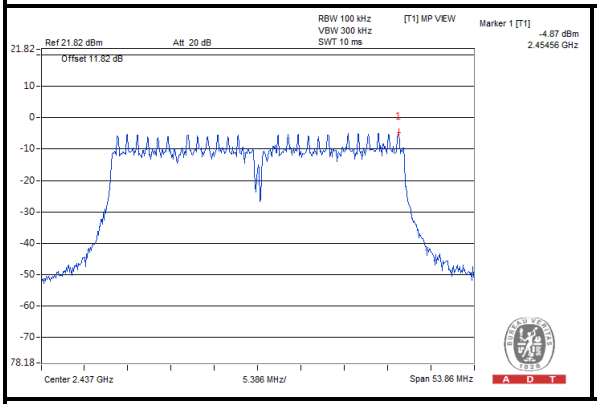
802.11n (40MHz)

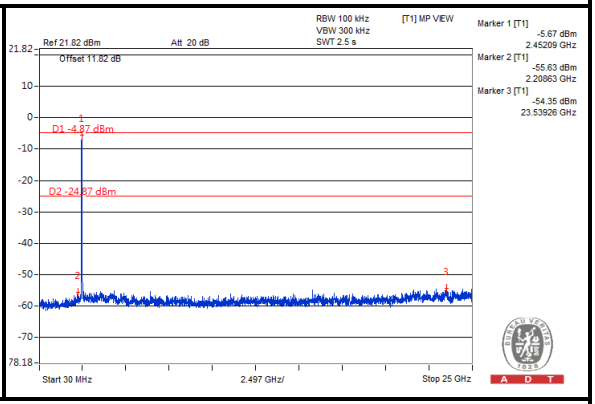
CH 3



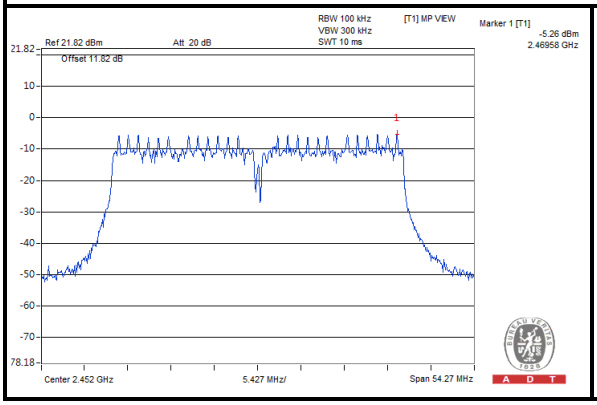


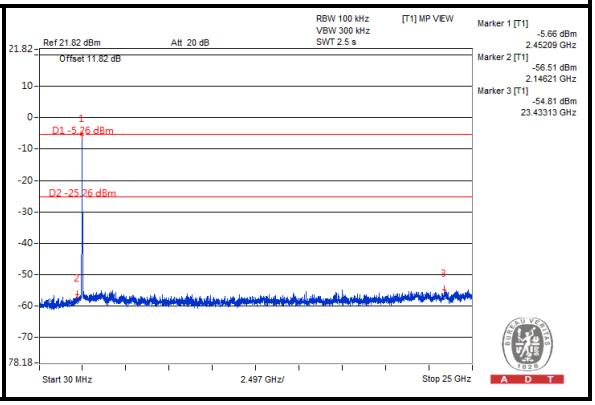
CH 6





CH 9



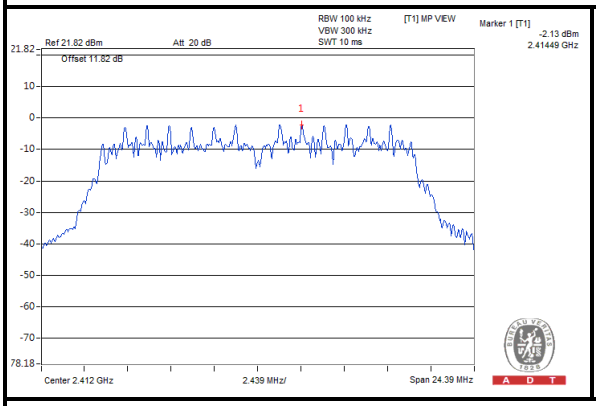


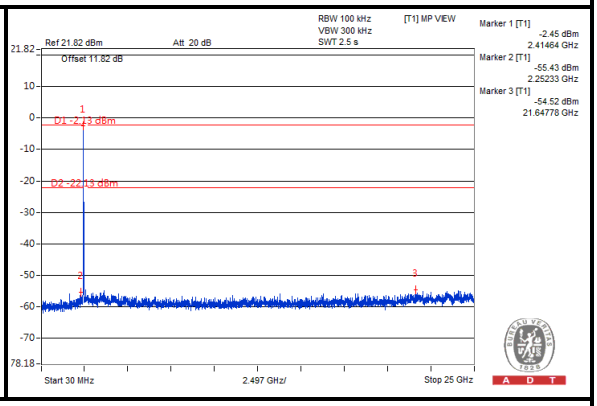
MODE B

<CHAIN 0>

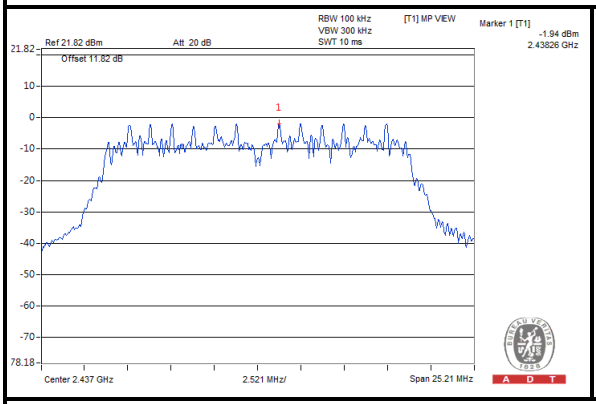
802.11n (20MHz)

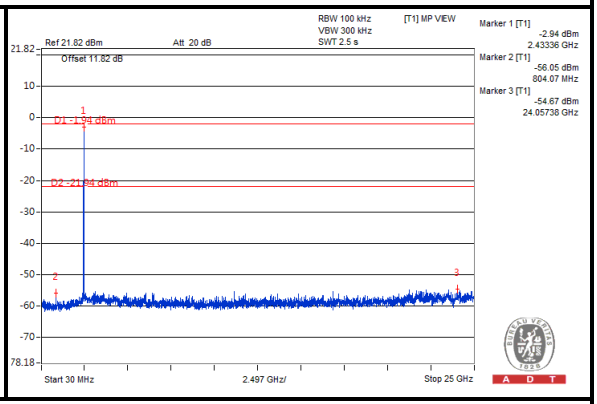
CH 1



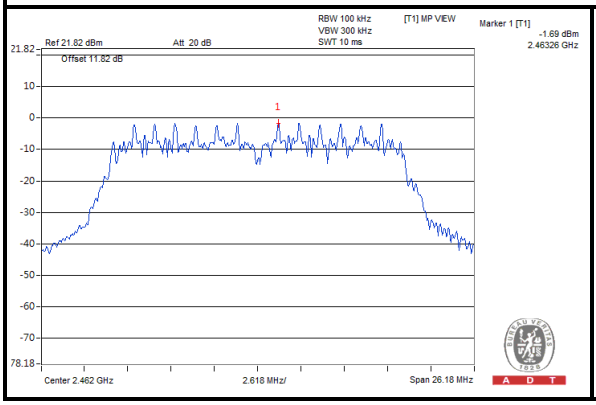


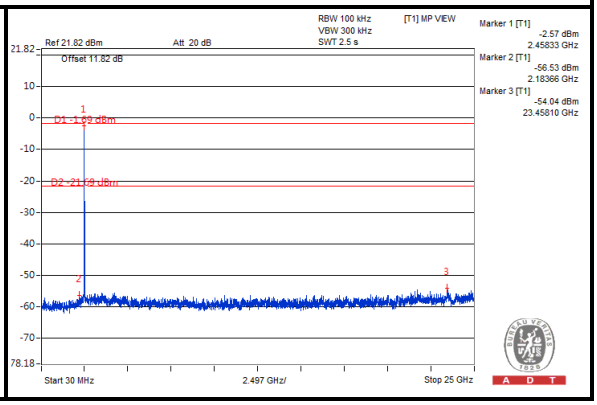
CH 6





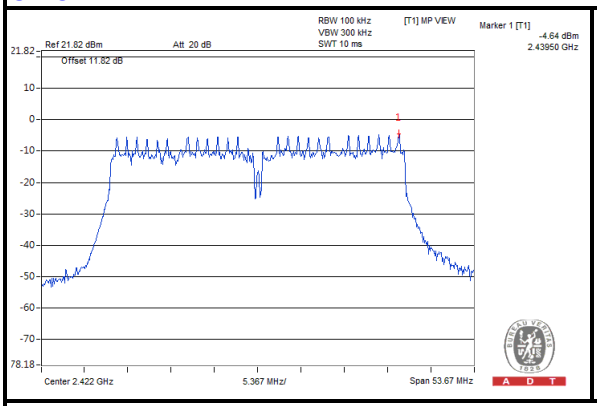
CH 11

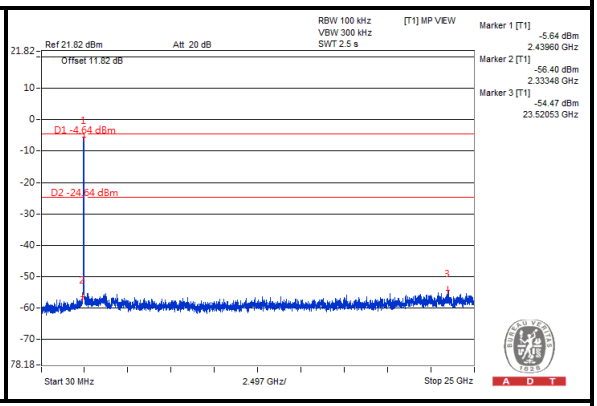




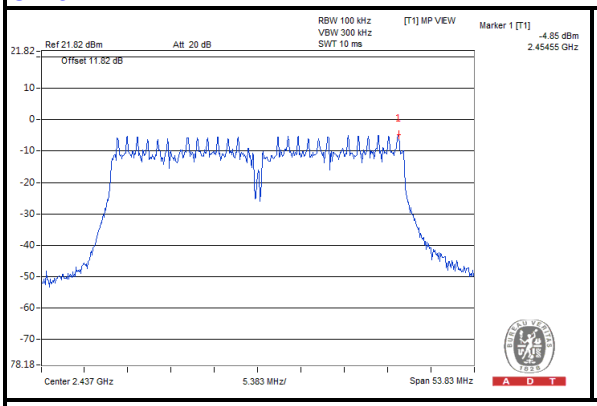
802.11n (40MHz)

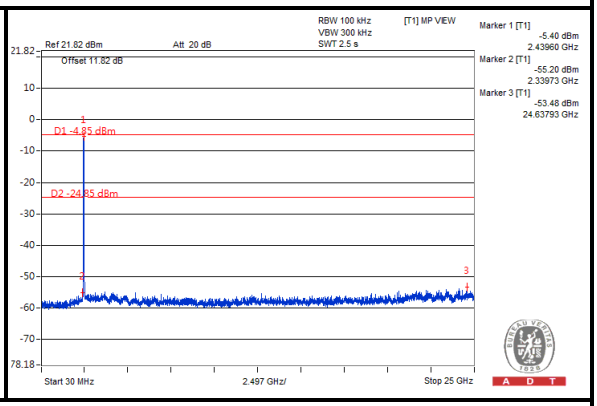
CH 3



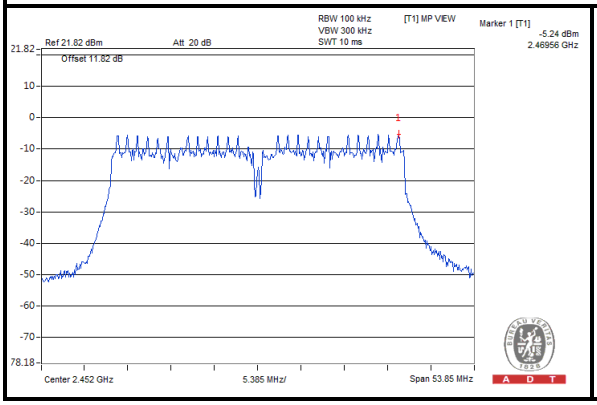


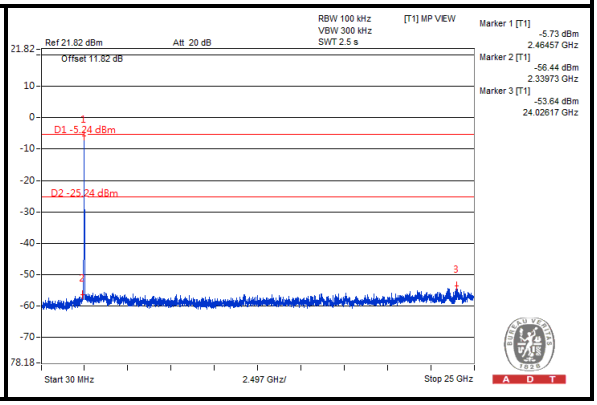
CH 6





CH 9



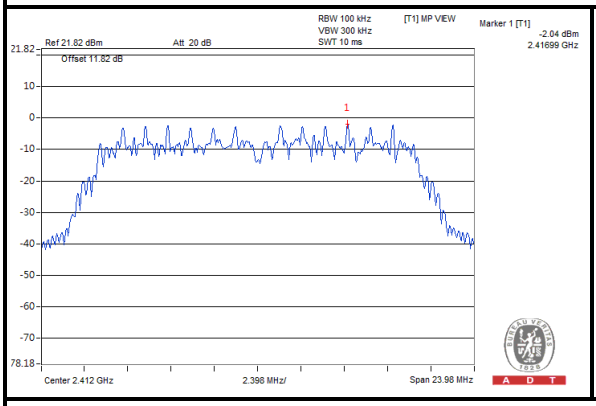


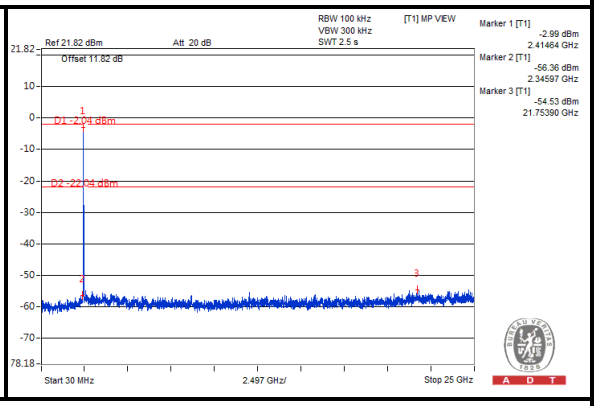
MODE B

<CHAIN 1>

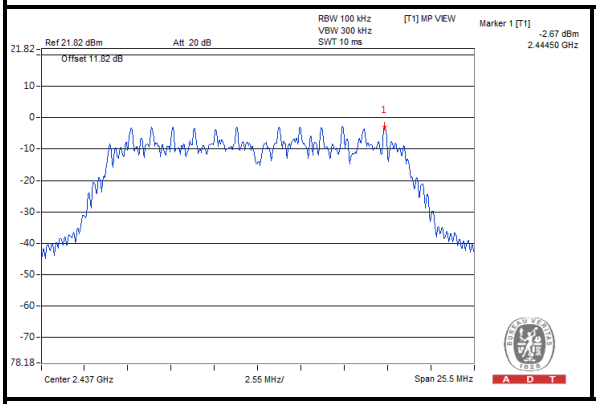
802.11n (20MHz)

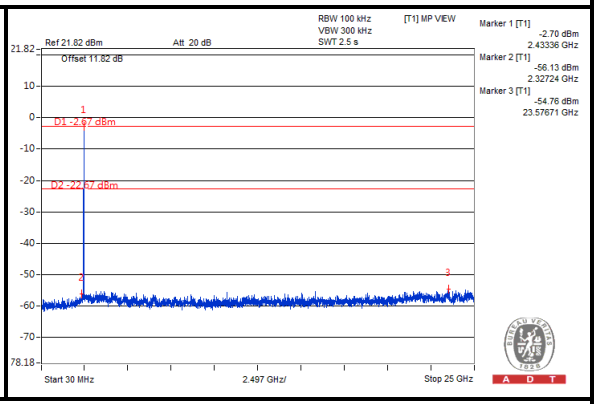
CH 1



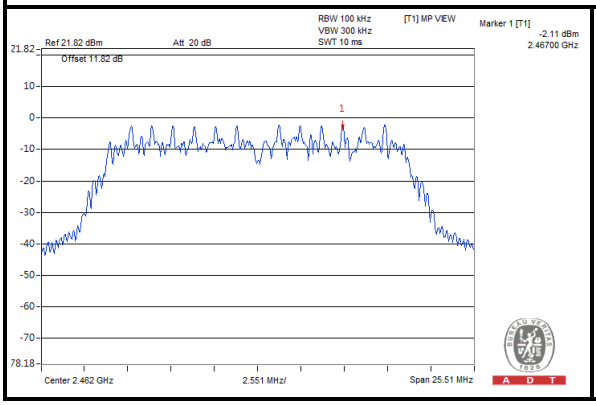


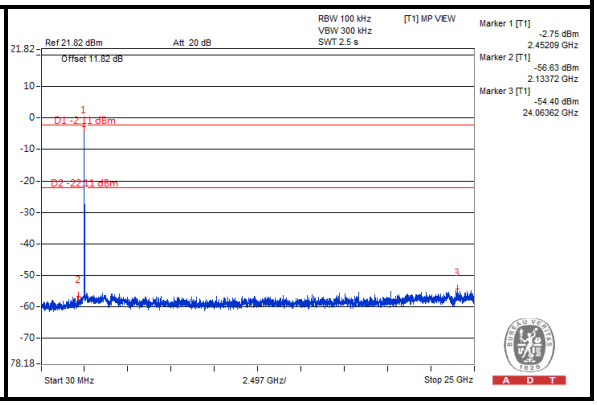
CH 6





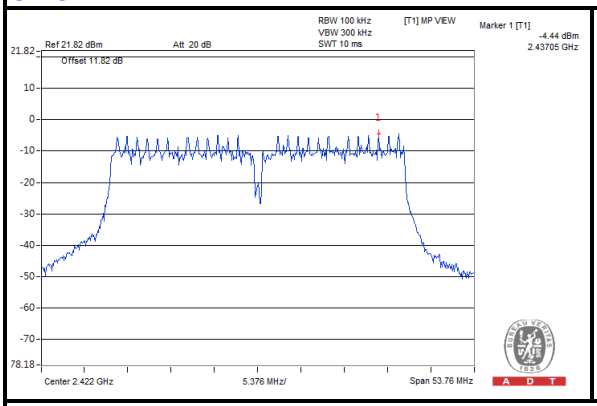
CH 11

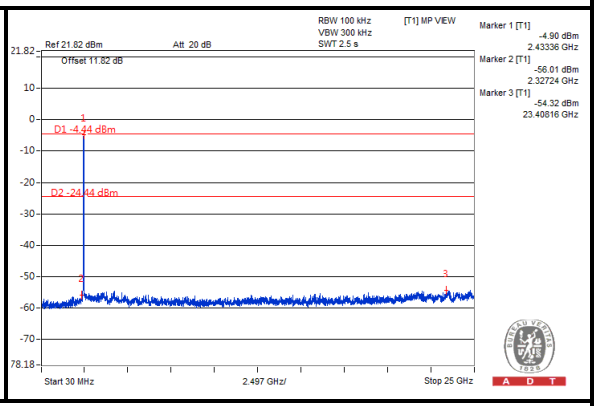




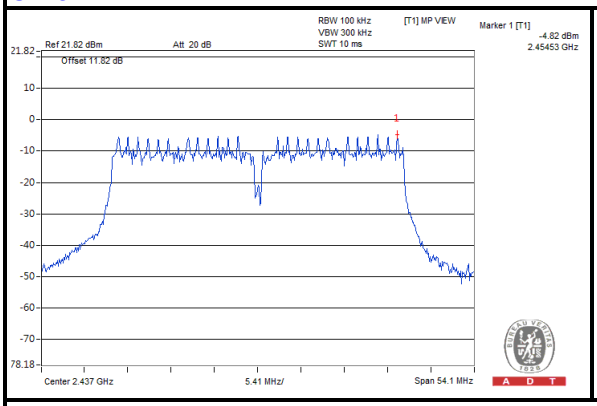
802.11n (40MHz)

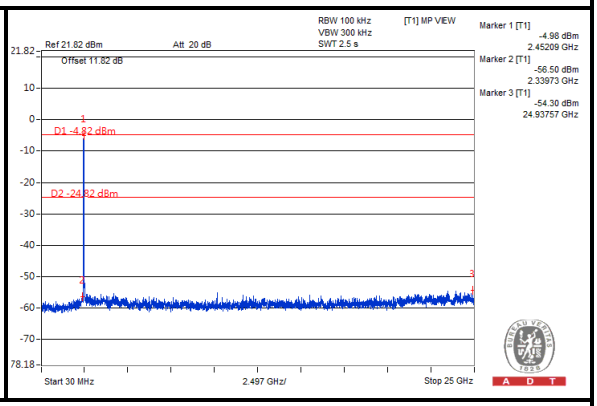
CH 3



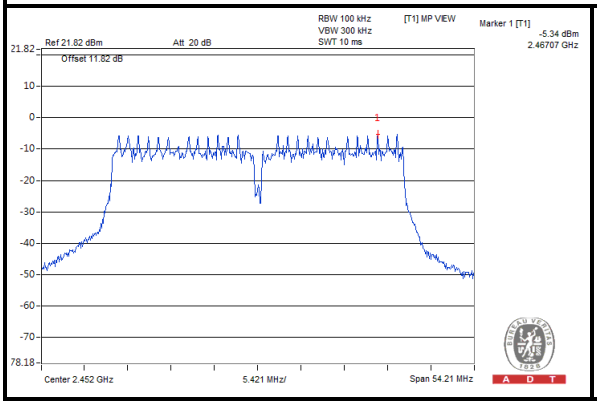


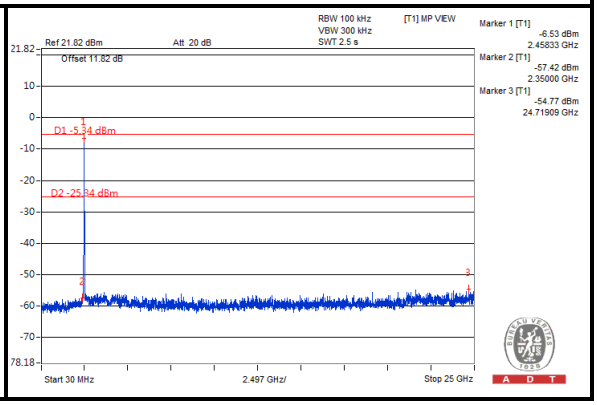
CH 6





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

MODE A

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**	David Huang

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**
5725	45.11	42.87	69.74	-24.63	31.96	7.71	37.43	124	290	Average
5725	58.02	55.78	78.58	-20.56	31.96	7.71	37.43	124	290	Peak
5745	89.74	87.48			31.99	7.74	37.47	124	290	Average
5745	98.58	96.32			31.99	7.74	37.47	124	290	Peak
5850	40.31	37.84	69.74	-29.43	32.15	7.83	37.51	124	290	Average
5850	48.94	46.47	78.58	-29.64	32.15	7.83	37.51	124	290	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**
5725	42.5	40.26	64.94	-22.44	31.96	7.71	37.43	100	95	Average
5725	52.62	50.38	73.86	-21.24	31.96	7.71	37.43	100	95	Peak
5745	84.94	82.68			31.99	7.74	37.47	100	95	Average
5745	93.86	91.6			31.99	7.74	37.47	100	95	Peak
5850	40.19	37.72	64.94	-24.75	32.15	7.83	37.51	100	95	Average
5850	50.66	48.19	73.86	-23.2	32.15	7.83	37.51	100	95	Peak

REMARKS:

1. 5745MHz: Fundamental frequency.
2. 5725MHz & 5850MHz: 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	David Huang

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
5725	40.63	38.39	70.33	-29.7	31.96	7.71	37.43	124	290	Average
5725	51.37	49.13	78.62	-27.25	31.96	7.71	37.43	124	290	Peak
5785	90.33	88.03			32.04	7.8	37.54	124	290	Average
5785	98.62	96.32			32.04	7.8	37.54	124	290	Peak
5850	40.2	37.73	70.33	-30.13	32.15	7.83	37.51	124	290	Average
5850	50.55	48.08	78.62	-28.07	32.15	7.83	37.51	124	290	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
5725	39.9	37.66	64.39	-24.49	31.96	7.71	37.43	100	74	Average
5725	51.76	49.52	72.65	-20.89	31.96	7.71	37.43	100	74	Peak
5785	84.39	82.09			32.04	7.8	37.54	100	74	Average
5785	92.65	90.35			32.04	7.8	37.54	100	74	Peak
5850	40.28	37.81	64.39	-24.11	32.15	7.83	37.51	100	74	Average
5850	51.59	49.12	72.65	-21.06	32.15	7.83	37.51	100	74	Peak

REMARKS:

1. 5785MHz: Fundamental frequency.
2. 5725MHz & 5850MHz: Out of restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 165	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

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
5725	39.95	37.71	68.52	-28.57	31.96	7.71	37.43	130	287	Average
5725	50.43	48.19	76.72	-26.29	31.96	7.71	37.43	130	287	Peak
5825	88.52	86.11			32.12	7.82	37.53	130	287	Average
5825	96.72	94.31			32.12	7.82	37.53	130	287	Peak
5850	40.34	37.87	68.52	-28.18	32.15	7.83	37.51	130	287	Average
5850	50.35	47.88	76.72	-26.37	32.15	7.83	37.51	130	287	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
5725	39.92	37.68	64.39	-24.47	31.96	7.71	37.43	100	78	Average
5725	50.82	48.58	72.52	-21.7	31.96	7.71	37.43	100	78	Peak
5825	84.39	81.98			32.12	7.82	37.53	100	78	Average
5825	92.52	90.11			32.12	7.82	37.53	100	78	Peak
5850	40.23	37.76	64.39	-24.16	32.15	7.83	37.51	100	78	Average
5850	51.69	49.22	72.52	-20.83	32.15	7.83	37.51	100	78	Peak

REMARKS:

1. 5825MHz: Fundamental frequency.
2. 5725MHz & 5850MHz: 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	David Huang

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
5725	49.61	47.37	71.1	-21.49	31.96	7.71	37.43	134	283	Average
5725	62.38	60.14	79.02	-16.64	31.96	7.71	37.43	134	283	Peak
5745	91.1	88.84			31.99	7.74	37.47	134	283	Average
5745	99.02	96.76			31.99	7.74	37.47	134	283	Peak
5850	41.46	38.99	71.1	-29.64	32.15	7.83	37.51	134	283	Average
5850	50.3	47.83	79.02	-28.72	32.15	7.83	37.51	134	283	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
5725	45.72	43.48	65.35	-19.63	31.96	7.71	37.43	100	95	Average
5725	57.45	55.21	73.36	-15.91	31.96	7.71	37.43	100	95	Peak
5745	85.35	83.09			31.99	7.74	37.47	100	95	Average
5745	93.36	91.1			31.99	7.74	37.47	100	95	Peak
5850	41.03	38.56	65.35	-24.32	32.15	7.83	37.51	100	95	Average
5850	50.66	48.19	73.36	-22.7	32.15	7.83	37.51	100	95	Peak

REMARKS:

1. 5745MHz: Fundamental frequency.
2. 5725MHz & 5850MHz: 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	David Huang

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
5725	41.6	39.36	70.43	-28.83	31.96	7.71	37.43	129	284	Average
5725	50.62	48.38	78.25	-27.63	31.96	7.71	37.43	129	284	Peak
5785	90.43	88.13			32.04	7.8	37.54	129	284	Average
5785	98.25	95.95			32.04	7.8	37.54	129	284	Peak
5850	41.24	38.77	70.43	-29.19	32.15	7.83	37.51	129	284	Average
5850	50.58	48.11	78.25	-27.67	32.15	7.83	37.51	129	284	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
5725	40.8	38.56	64.66	-23.86	31.96	7.71	37.43	100	77	Average
5725	49.85	47.61	72.75	-22.9	31.96	7.71	37.43	100	77	Peak
5785	84.66	82.36			32.04	7.8	37.54	100	77	Average
5785	92.75	90.45			32.04	7.8	37.54	100	77	Peak
5850	40.9	38.43	64.66	-23.76	32.15	7.83	37.51	100	77	Average
5850	51.65	49.18	72.75	-21.1	32.15	7.83	37.51	100	77	Peak

REMARKS:

1. 5785MHz: Fundamental frequency.
2. 5725MHz & 5850MHz: Out of restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 165	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

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
5725	41.05	38.81	70.03	-28.98	31.96	7.71	37.43	129	287	Average
5725	50.04	47.8	77.81	-27.77	31.96	7.71	37.43	129	287	Peak
5825	90.03	87.62			32.12	7.82	37.53	129	287	Average
5825	97.81	95.4			32.12	7.82	37.53	129	287	Peak
5850	41.79	39.32	70.03	-28.24	32.15	7.83	37.51	129	287	Average
5850	51.11	48.64	77.81	-26.7	32.15	7.83	37.51	129	287	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
5725	41.03	38.79	64.09	-23.06	31.96	7.71	37.43	100	76	Average
5725	51.13	48.89	71.75	-20.62	31.96	7.71	37.43	100	76	Peak
5825	84.09	81.68			32.12	7.82	37.53	100	76	Average
5825	91.75	89.34			32.12	7.82	37.53	100	76	Peak
5850	41.17	38.7	64.09	-22.92	32.15	7.83	37.51	100	76	Average
5850	51.45	48.98	71.75	-20.3	32.15	7.83	37.51	100	76	Peak

REMARKS:

1. 5825MHz: Fundamental frequency.
2. 5725MHz & 5850MHz: 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	David Huang

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
5725	52.33	50.09	67.53	-15.2	31.96	7.71	37.43	130	287	Average
5725	62.5	60.26	76.14	-13.64	31.96	7.71	37.43	130	287	Peak
5755	87.53	85.25			32.01	7.74	37.47	130	287	Average
5755	96.14	93.86			32.01	7.74	37.47	130	287	Peak
5850	41.08	38.61	67.53	-26.45	32.15	7.83	37.51	130	287	Average
5850	50.54	48.07	76.14	-25.6	32.15	7.83	37.51	130	287	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
5725	47.73	45.49	61.76	-14.03	31.96	7.71	37.43	102	74	Average
5725	58.16	55.92	70.6	-12.44	31.96	7.71	37.43	102	74	Peak
5755	81.76	79.48			32.01	7.74	37.47	102	74	Average
5755	90.6	88.32			32.01	7.74	37.47	102	74	Peak
5850	41.06	38.59	61.76	-20.7	32.15	7.83	37.51	102	74	Average
5850	49.41	46.94	70.6	-21.19	32.15	7.83	37.51	102	74	Peak

REMARKS:

1. 5755MHz: Fundamental frequency.
2. 5725MHz & 5850MHz: 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	David Huang

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
5725	41.25	39.01	67.66	-26.41	31.96	7.71	37.43	130	287	Average
5725	51.48	49.24	76.8	-25.32	31.96	7.71	37.43	130	287	Peak
5795	87.66	85.33			32.07	7.8	37.54	130	287	Average
5795	96.8	94.47			32.07	7.8	37.54	130	287	Peak
5850	41.88	39.41	67.66	-25.78	32.15	7.83	37.51	130	287	Average
5850	51.59	49.12	76.8	-25.21	32.15	7.83	37.51	130	287	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
5725	40.78	38.54	62.17	-13.22	31.96	7.71	37.43	100	82	Average
5725	51.23	48.99	70.17	-22.77	31.96	7.71	37.43	100	82	Peak
5795	82.17	79.84			32.07	7.8	37.54	100	82	Average
5795	90.17	87.84			32.07	7.8	37.54	100	82	Peak
5850	41.03	38.56	62.17	-21.14	32.15	7.83	37.51	100	82	Average
5850	51.1	48.63	70.17	-19.07	32.15	7.83	37.51	100	82	Peak

REMARKS:

1. 5795MHz: Fundamental frequency.
2. 5725MHz & 5850MHz: Out of restricted band.

MODE A

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 151	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

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
69.42	22.89	43.04	40	-17.11	10.77	0.9	31.82	101	183	Peak
210.63	24.66	44.8	43.5	-18.84	9.81	1.64	31.59	112	156	Peak
244.92	26.08	44.85	46	-19.92	11.28	1.82	31.87	100	304	Peak
346.2	25.26	40.83	46	-20.74	14.05	2.21	31.83	122	286	Peak
570.2	23.33	33.49	46	-22.67	18.92	3	32.08	104	203	Peak
864.2	30.53	35.56	46	-15.47	23.05	3.86	31.94	112	54	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
62.13	26.61	45.51	40	-13.39	11.71	0.84	31.45	108	297	Peak
182.82	20.53	40.28	43.5	-22.97	10.53	1.51	31.79	107	216	Peak
275.7	18.83	36.59	46	-27.17	12.22	1.94	31.92	103	226	Peak
349.7	23.78	39.24	46	-22.22	14.15	2.23	31.84	114	105	Peak
600.3	28.91	38.46	46	-17.09	19.61	3.09	32.25	106	299	Peak
881	29.23	34.04	46	-16.77	23.26	3.91	31.98	110	180	Peak

MODE B

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	David Huang

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
5725	45.24	43	71.53	-26.29	31.96	7.71	37.43	100	183	Average
5725	56.22	53.98	79.41	-23.19	31.96	7.71	37.43	100	183	Peak
5745	91.53	89.27			31.99	7.74	37.47	100	183	Average
5745	99.41	97.15			31.99	7.74	37.47	100	183	Peak
5850	41.21	38.74	71.53	-30.32	32.15	7.83	37.51	100	183	Average
5850	52.31	49.84	79.41	-27.1	32.15	7.83	37.51	100	183	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
5725	43.59	41.35	67.46	-23.87	31.96	7.71	37.43	100	7	Average
5725	52.96	50.72	75.48	-22.52	31.96	7.71	37.43	100	7	Peak
5745	87.46	85.2			31.99	7.74	37.47	100	7	Average
5745	95.48	93.22			31.99	7.74	37.47	100	7	Peak
5850	40.74	38.27	67.46	-26.72	32.15	7.83	37.51	100	7	Average
5850	50.66	48.19	75.48	-24.82	32.15	7.83	37.51	100	7	Peak

REMARKS:

1. 5745MHz: Fundamental frequency.
2. 5725MHz & 5850MHz: 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	David Huang

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
5725	41.06	38.82	72.22	-31.16	31.96	7.71	37.43	100	184	Average
5725	52.16	49.92	80.01	-27.85	31.96	7.71	37.43	100	184	Peak
5785	92.22	89.92			32.04	7.8	37.54	100	184	Average
5785	100.01	97.71			32.04	7.8	37.54	100	184	Peak
5850	41.29	38.82	72.22	-30.93	32.15	7.83	37.51	100	184	Average
5850	50.95	48.48	80.01	-29.06	32.15	7.83	37.51	100	184	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
5725	40.62	38.38	68.37	-27.75	31.96	7.71	37.43	109	0	Average
5725	50.87	48.63	75.33	-24.46	31.96	7.71	37.43	109	0	Peak
5785	88.37	86.07			32.04	7.8	37.54	109	0	Average
5785	95.33	93.03			32.04	7.8	37.54	109	0	Peak
5850	41.35	38.88	68.37	-27.02	32.15	7.83	37.51	109	0	Average
5850	50.94	48.47	75.33	-24.39	32.15	7.83	37.51	109	0	Peak

REMARKS:

1. 5785MHz: Fundamental frequency.
2. 5725MHz & 5850MHz: Out of restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 165	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

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
5725	40.67	38.43	71.54	-30.87	31.96	7.71	37.43	100	182	Average
5725	50.72	48.48	79.88	-29.16	31.96	7.71	37.43	100	182	Peak
5825	91.54	89.13			32.12	7.82	37.53	100	182	Average
5825	99.88	97.47			32.12	7.82	37.53	100	182	Peak
5850	41.77	39.3	71.54	-29.77	32.15	7.83	37.51	100	182	Average
5850	51.76	49.29	79.88	-28.12	32.15	7.83	37.51	100	182	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
5725	40.81	38.57	68.4	-27.59	31.96	7.71	37.43	110	360	Average
5725	51.83	49.59	75.82	-23.99	31.96	7.71	37.43	110	360	Peak
5825	88.4	85.99			32.12	7.82	37.53	110	360	Average
5825	95.82	93.41			32.12	7.82	37.53	110	360	Peak
5850	41.66	39.19	68.4	-26.74	32.15	7.83	37.51	110	360	Average
5850	52.65	50.18	75.82	-23.17	32.15	7.83	37.51	110	360	Peak

REMARKS:

3. 5825MHz: Fundamental frequency.
4. 5725MHz & 5850MHz: 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	David Huang

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
5725	50.88	48.64	67.73	-16.85	31.96	7.71	37.43	100	353	Average
5725	64.39	62.15	77.01	-12.62	31.96	7.71	37.43	100	353	Peak
5755	87.73	85.45			32.01	7.74	37.47	100	353	Average
5755	97.01	94.73			32.01	7.74	37.47	100	353	Peak
5850	40.38	37.91	67.73	-27.35	32.15	7.83	37.51	100	353	Average
5850	50.89	48.42	77.01	-26.12	32.15	7.83	37.51	100	353	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
5725	48.27	46.03	66.54	-18.27	31.96	7.71	37.43	100	0	Average
5725	64.31	62.07	74.75	-10.44	31.96	7.71	37.43	100	0	Peak
5755	86.54	84.26			32.01	7.74	37.47	100	0	Average
5755	94.75	92.47			32.01	7.74	37.47	100	0	Peak
5850	40.61	38.14	66.54	-25.93	32.15	7.83	37.51	100	0	Average
5850	51.65	49.18	74.75	-23.1	32.15	7.83	37.51	100	0	Peak

REMARKS:

1. 5755MHz: Fundamental frequency.
2. 5725MHz & 5850MHz: 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	David Huang

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
5725	40.19	37.95	67.08	-26.89	31.96	7.71	37.43	100	5	Average
5725	51.28	49.04	75.52	-24.24	31.96	7.71	37.43	100	5	Peak
5795	87.08	84.75			32.07	7.8	37.54	100	5	Average
5795	95.52	93.19			32.07	7.8	37.54	100	5	Peak
5850	40.64	38.17	67.08	-26.44	32.15	7.83	37.51	100	5	Average
5850	51.51	49.04	75.52	-24.01	32.15	7.83	37.51	100	5	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
5725	40.19	37.95	64.75	-24.56	31.96	7.71	37.43	100	360	Average
5725	52.55	50.31	73.1	-20.55	31.96	7.71	37.43	100	360	Peak
5795	84.75	82.42			32.07	7.8	37.54	100	360	Average
5795	93.1	90.77			32.07	7.8	37.54	100	360	Peak
5850	40.4	37.93	64.75	-24.35	32.15	7.83	37.51	100	360	Average
5850	52.02	49.55	73.1	-21.08	32.15	7.83	37.51	100	360	Peak

REMARKS:

1. 5795MHz: Fundamental frequency.
2. 5725MHz & 5850MHz: Out of restricted band.

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

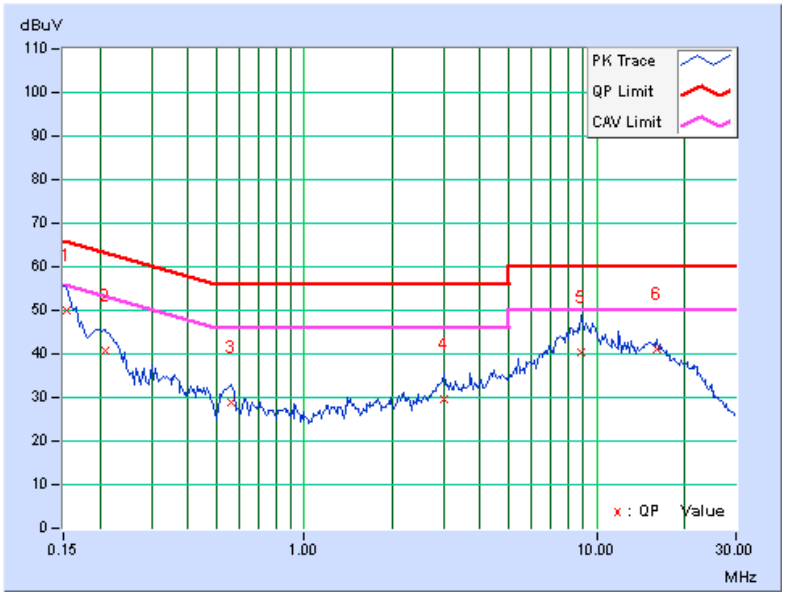
CONDUCTED WORST-CASE DATA：802.11a

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	0.15391	0.12	49.72	37.71	49.84	37.83	65.79	55.79	-15.94	-17.95
2	0.20859	0.12	40.70	29.35	40.82	29.47	63.26	53.26	-22.44	-23.79
3	0.56406	0.17	28.60	20.13	28.77	20.30	56.00	46.00	-27.23	-25.70
4	3.00391	0.29	29.39	23.39	29.68	23.68	56.00	46.00	-26.32	-22.32
5	8.90625	0.60	39.80	33.19	40.40	33.79	60.00	50.00	-19.60	-16.21
6	**16.01563**	**1.00**	**40.24**	**35.28**	**41.24**	**36.28**	**60.00**	**50.00**	**-18.76**	**-13.72**

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.

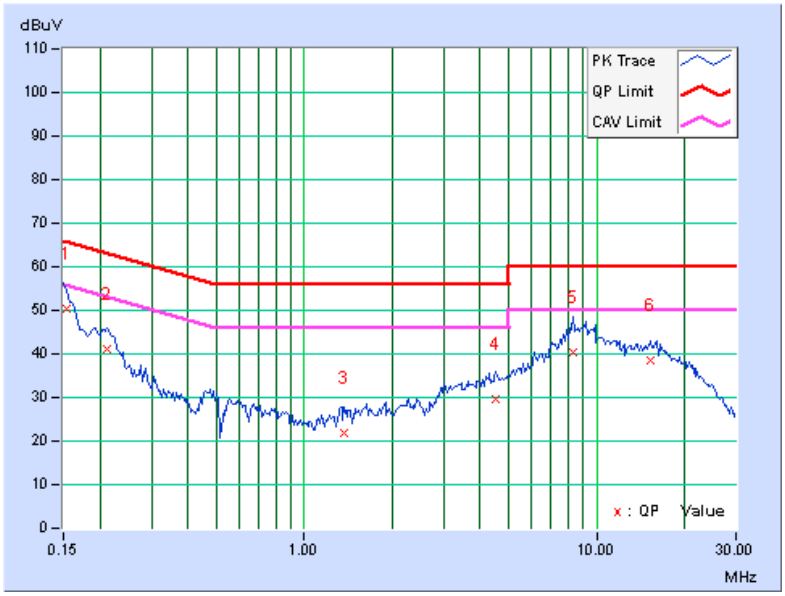


PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.15391	0.17	50.15	37.77	50.32	37.94	65.79	55.79	-15.46	-17.84
2	0.21250	0.17	40.97	29.00	41.14	29.17	63.11	53.11	-21.96	-23.93
3	1.37500	0.26	21.76	14.16	22.02	14.42	56.00	46.00	-33.98	-31.58
4	4.52734	0.40	29.16	22.44	29.56	22.84	56.00	46.00	-26.44	-23.16
5	8.35938	0.53	39.68	32.86	40.21	33.39	60.00	50.00	-19.79	-16.61
6	15.23828	0.77	37.80	30.24	38.57	31.01	60.00	50.00	-21.43	-18.99

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

MODE A

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
149	5745	16.37	0.5	PASS
157	5785	16.42	0.5	PASS
165	5825	16.41	0.5	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
149	5745	16.99	0.5	PASS
157	5785	17.00	0.5	PASS
165	5825	16.99	0.5	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
151	5755	35.94	0.5	PASS
159	5795	36.05	0.5	PASS

MODE B

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
149	5745	15.19	16.46	0.5	PASS
157	5785	15.21	16.06	0.5	PASS
165	5825	15.23	16.41	0.5	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
151	5755	36.12	35.99	0.5	PASS
159	5795	36.11	35.90	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

MODE A

802.11a

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
149	5745	118.304	20.73	30	PASS
157	5785	117.490	20.7	30	PASS
165	5825	97.275	19.88	30	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
149	5745	133.968	21.27	30	PASS
157	5785	107.895	20.33	30	PASS
165	5825	91.833	19.63	30	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
151	5755	154.525	21.89	30	PASS
159	5795	181.552	22.59	30	PASS

MODE B

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PEAK POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
149	5745	19.04	19.93	178.57	22.52	30	PASS
157	5785	18.91	20.68	194.75	22.89	30	PASS
165	5825	18.13	19.87	162.06	22.10	30	PASS

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PEAK POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
151	5755	21.55	23.49	366.25	25.64	30	PASS
159	5795	21.18	23.52	356.13	25.52	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

MODE A

802.11a

Channel	FREQ. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
149	5745	-8.44	8	PASS
157	5785	-8.15	8	PASS
165	5825	-6.99	8	PASS

802.11n (20MHz)

Channel	FREQ. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
149	5745	-7.30	8	PASS
157	5785	-7.30	8	PASS
165	5825	-7.94	8	PASS

802.11n (40MHz)

Channel	FREQ. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
151	5755	-8.62	8	PASS
159	5795	-8.20	8	PASS

MODE B

802.11n (20MHz)

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	149	5745	-8.56	3.01	-5.55	8	PASS
	157	5785	-8.67	3.01	-5.66	8	PASS
	165	5825	-9.07	3.01	-6.06	8	PASS
1	149	5745	-6.69	3.01	-3.68	8	PASS
	157	5785	-5.80	3.01	-2.79	8	PASS
	165	5825	-7.44	3.01	-4.43	8	PASS

NOTE: Directional gain = 0.03dBi + 10log(2) = 3.04dBi < 6dBi, so the limit no need to reduced.

802.11n (40MHz)

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	151	5755	-10.92	3.01	-7.91	8	PASS
	159	5795	-11.63	3.01	-8.62	8	PASS
1	151	5755	-9.09	3.01	-6.08	8	PASS
	159	5795	-8.82	3.01	-5.81	8	PASS

NOTE: Directional gain = 0.03dBi + 10log(2) = 3.04dBi < 6dBi, so the limit no need to reduced.

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

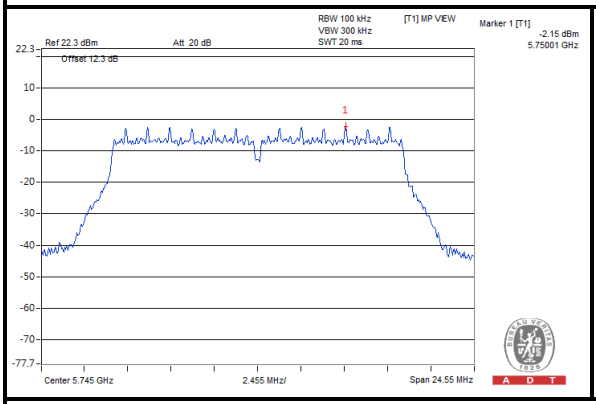
5.6.7 TEST RESULTS

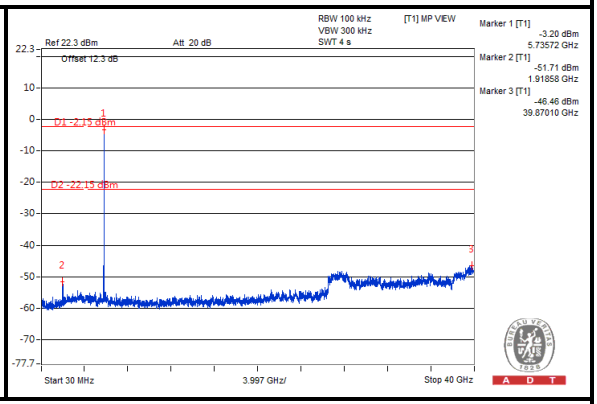
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement.

MODE A

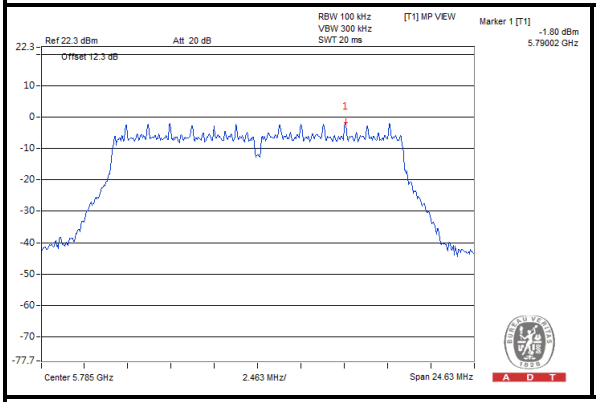
802.11a

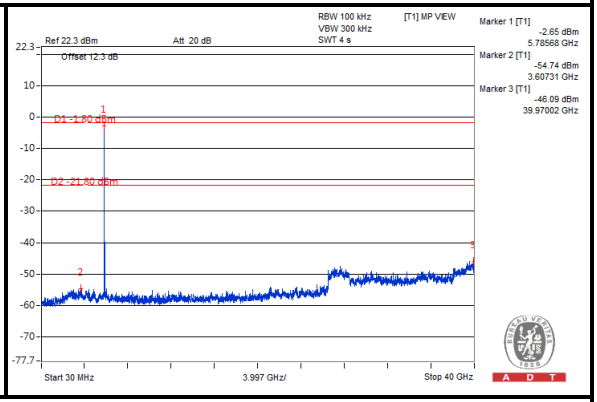
CH 149



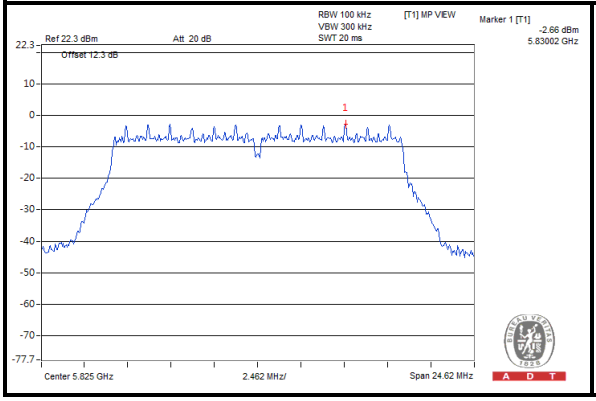


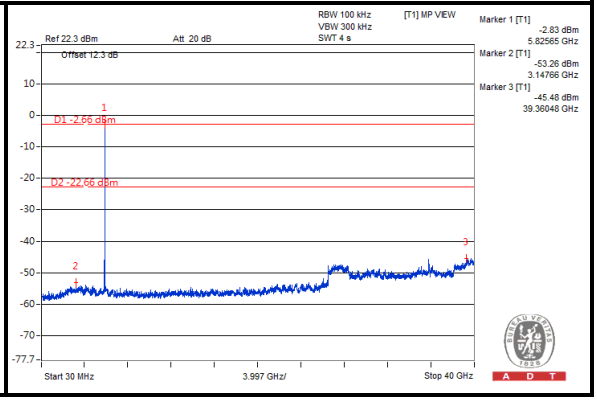
CH 157





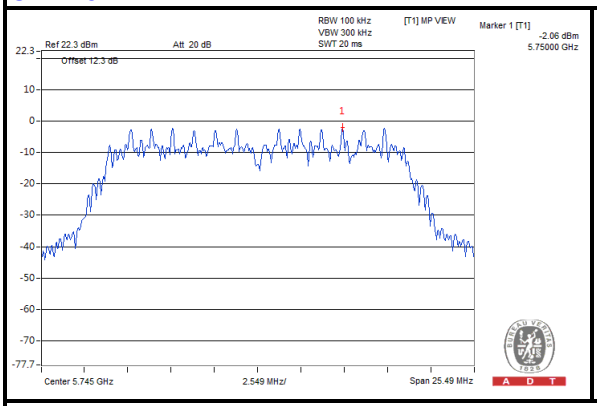
CH 165

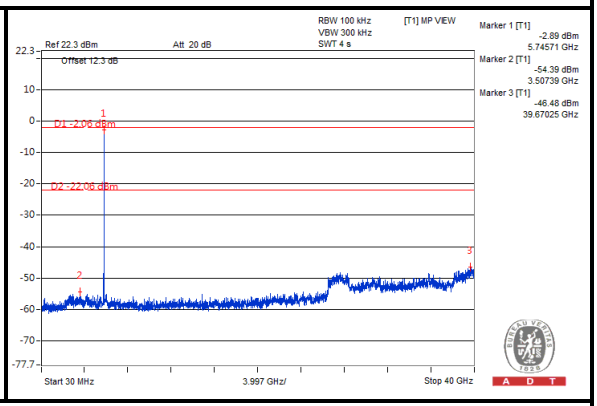




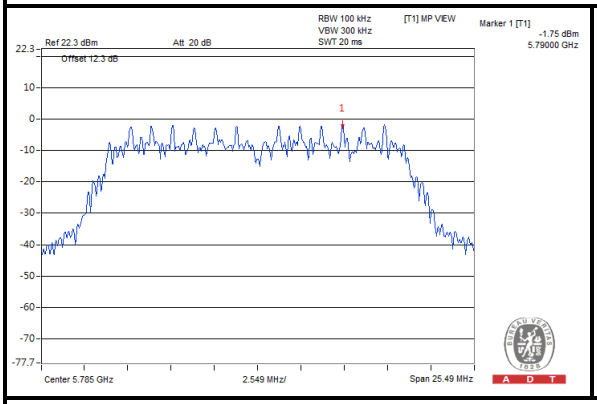
802.11n (20MHz)

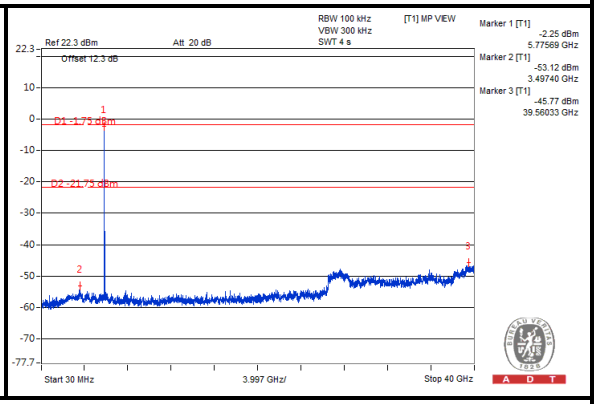
CH 149



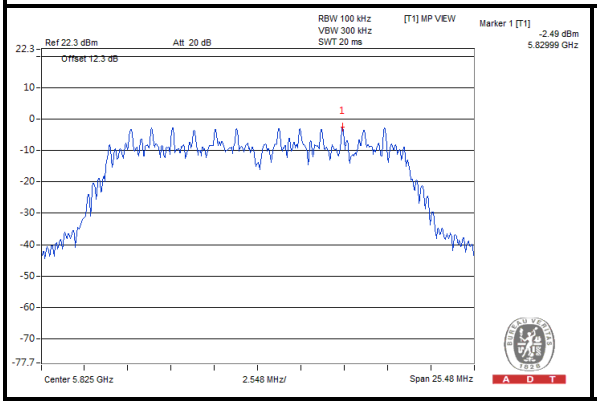


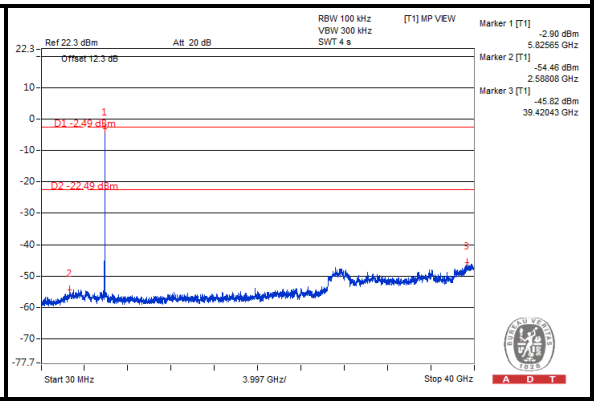
CH 157





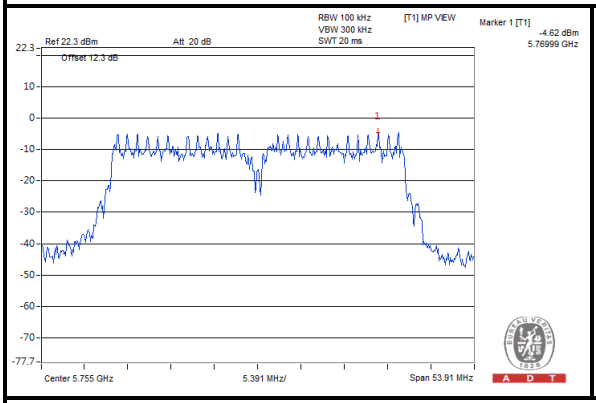
CH 165

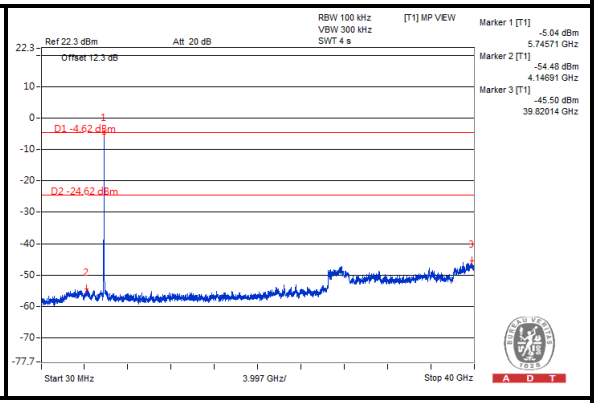




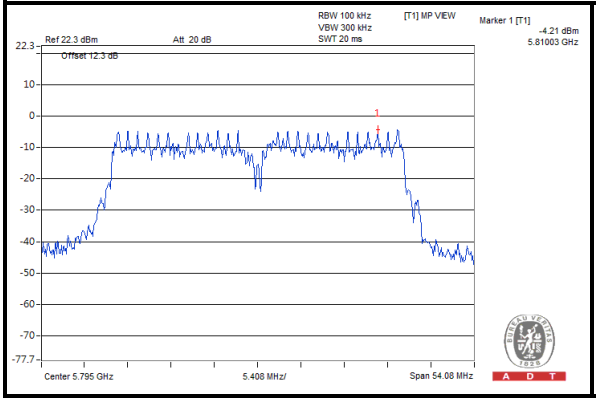
802.11n (40MHz)

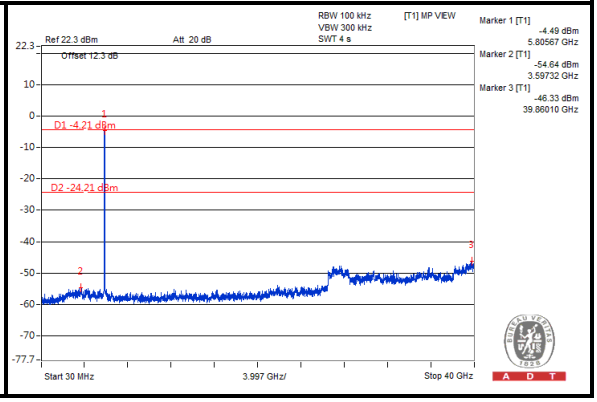
CH 151





CH 159



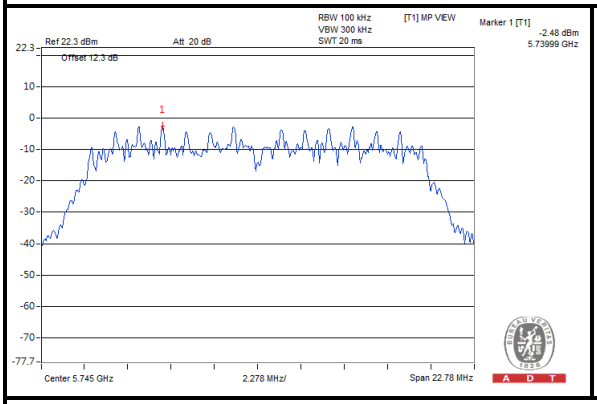


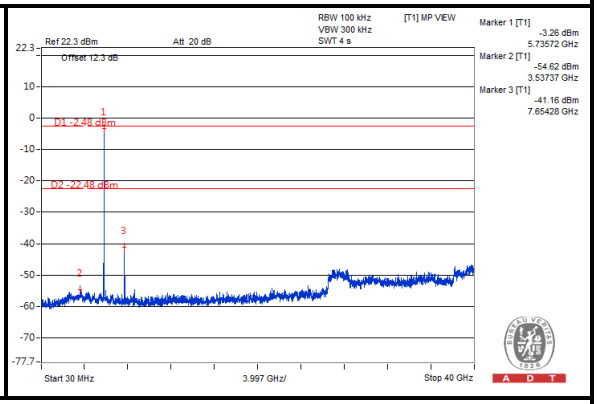
MODE B

<CHAIN 0>

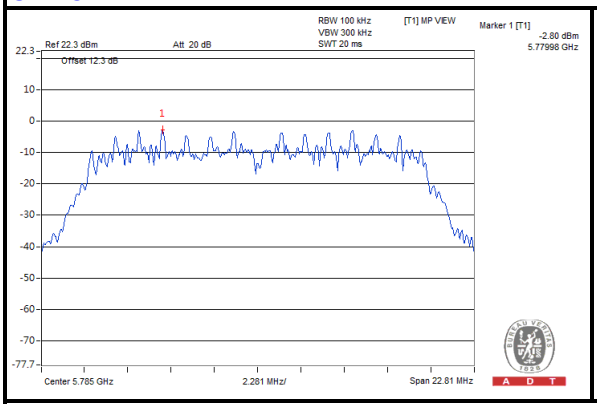
802.11n (20MHz)

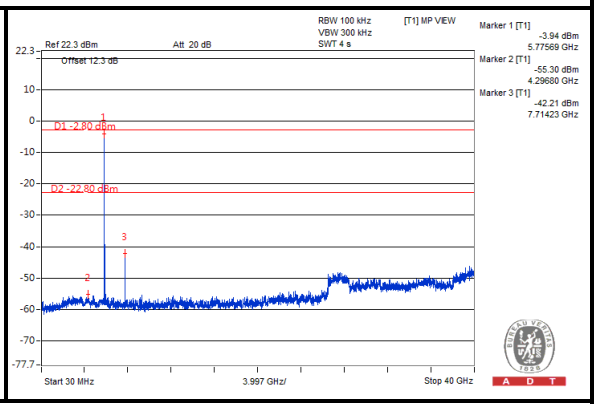
CH 149



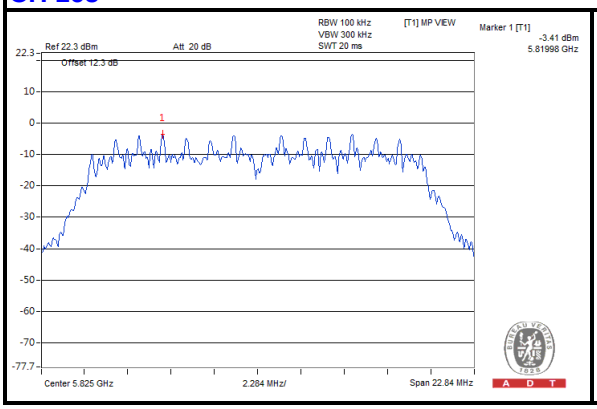


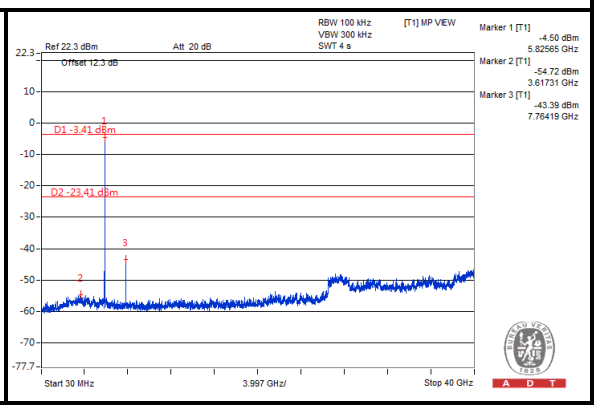
CH 157





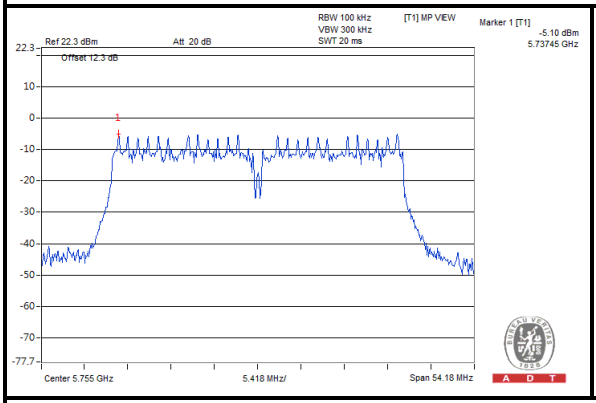
CH 165

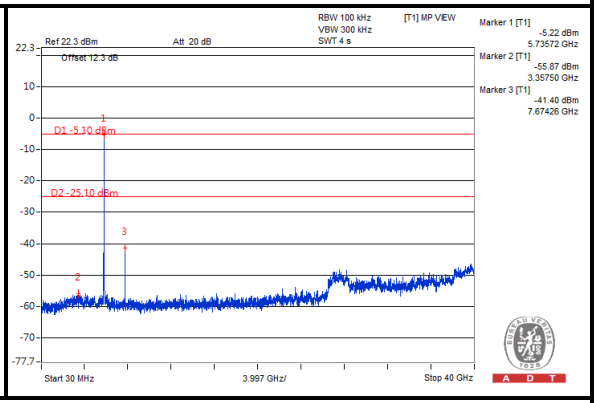




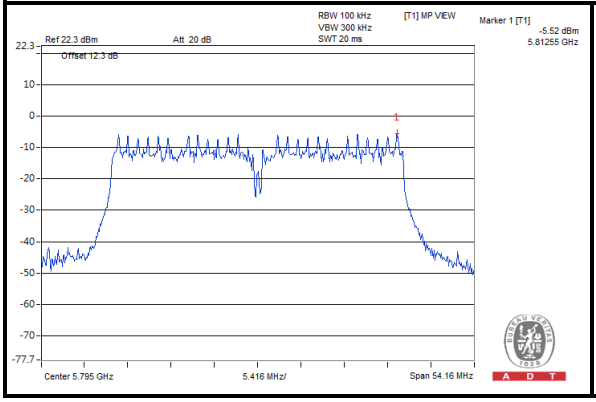
802.11n (40MHz)

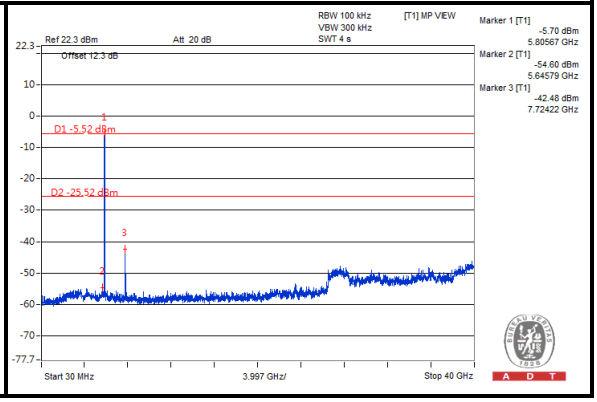
CH 151





CH 159



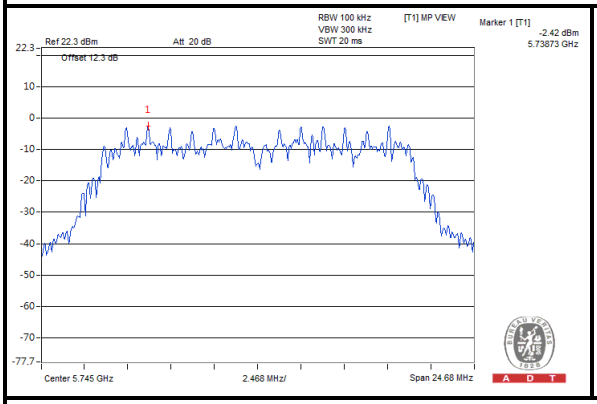


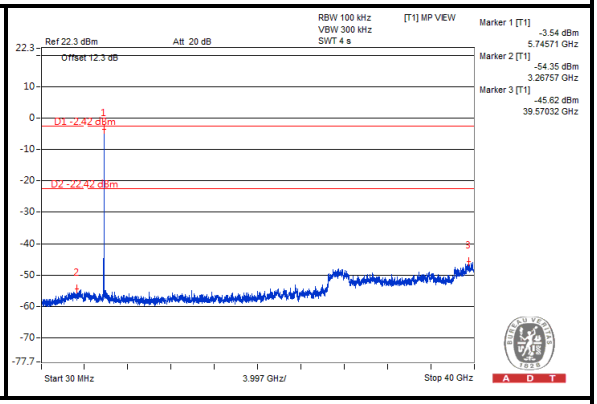
MODE B

<CHAIN 1>

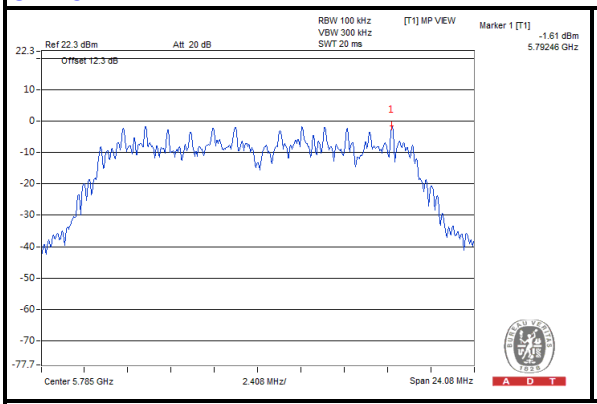
802.11n (20MHz)

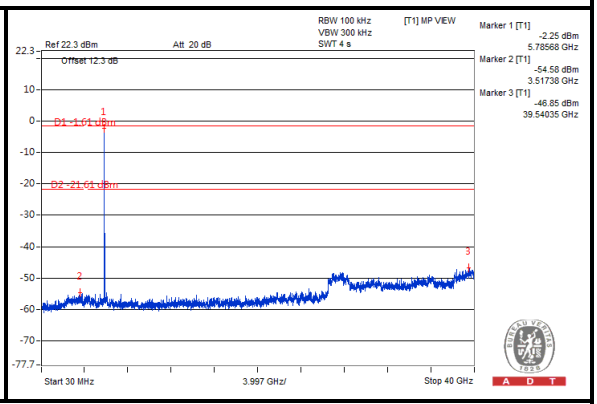
CH 149



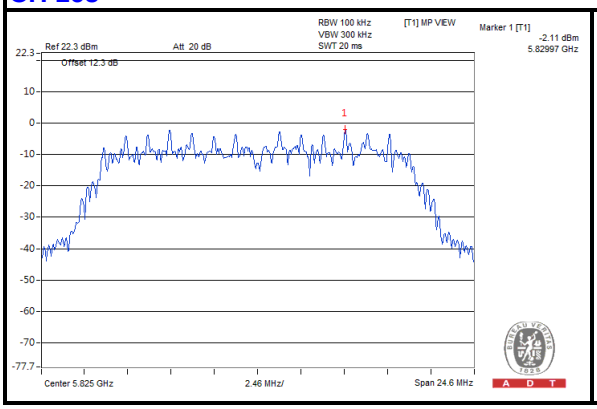


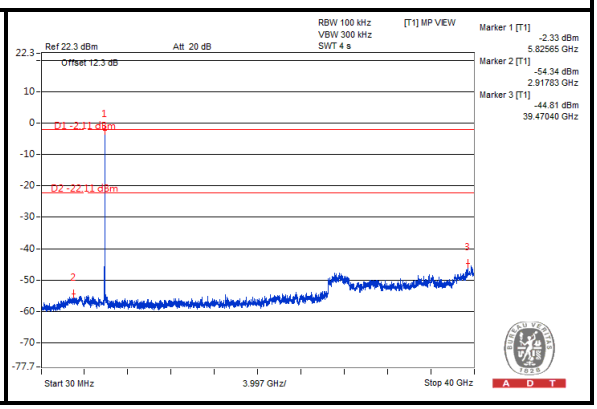
CH 157





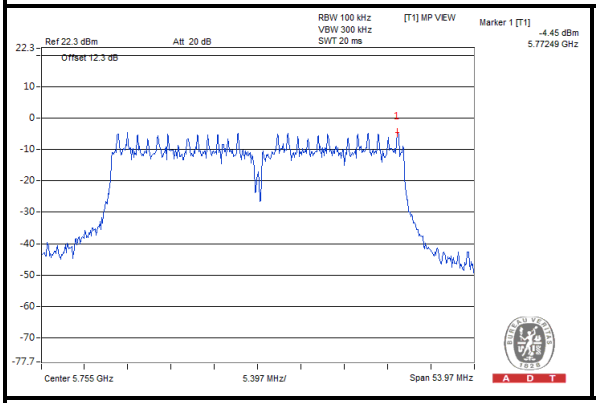
CH 165

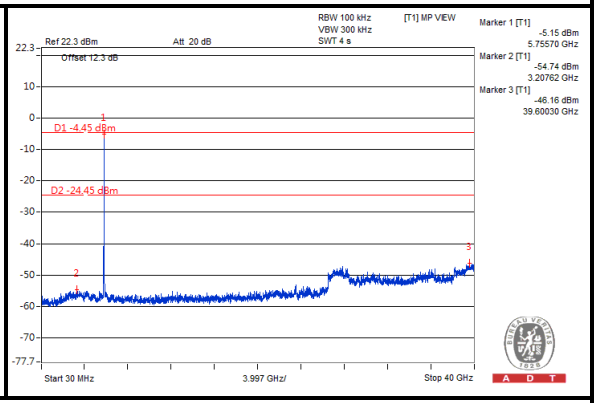




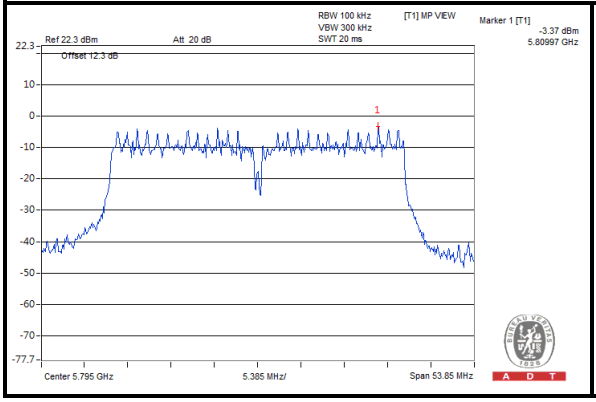
802.11n (40MHz)

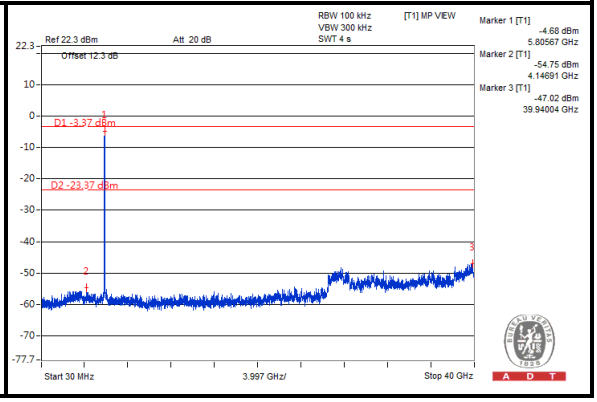
CH 151





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:

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.

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---