FCC TEST REPORT (15.247)

REPORT NO.:	RF131106C22
MODEL NO.:	EAP210/OWL530; IWF5210
	(Refer to item 3.1 for more details)
FCC ID:	VZ9130002
RECEIVED:	Nov. 06, 2013
TESTED:	Dec. 10, 2013 ~ Jun. 11, 2014
ISSUED:	Jun. 16, 2014

APPLICANT:	4IPNET, INC.
ADDRESS:	3F-3, No. 369, Fusing N. Rd., Taipei 105, Taiwan,R.O.C.

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

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

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF131106C22	Original release	Jun. 16, 2014

1. CERTIFICATION

PRODUCT:	Enterprise Access Point
MODEL NO.:	EAP210/OWL530; IWF5210 (Refer to item 3.1 for more details)
BRAND:	4ipnet ; NEXCOM
APPLICANT:	4IPNET, INC.
TESTED:	Dec. 10, 2013 ~ Jun. 11, 2014
TEST SAMPLE:	Identical Prototype
STANDARDS:	**FCC Part 15, Subpart C (Section 15.247)**
	ANSI C63.10-2009

The above equipment 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 : Gina Liu , **DATE :** Jun. 16, 2014

Gina Liu / Specialist

APPROVED BY : Sam chen , **DATE :** Jun. 16, 2014

Sam Chen / Senior Project Engineer

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART 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 -2.79dB at 0.16172MHz.
15.247(d) 15.209	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.69dB at 2390MHz.
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	Antenna connector is N-Type. (The device is professionally installed) Antenna connector is RSMA not a standard connector.

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	Enterprise Access Point
MODEL NO.	EAP210/OWL530; IWF5210 (Refer to Note as below)
POWER SUPPLY	12Vdc (adapter)
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 ~ 5805MHz
NUMBER OF CHANNEL	**2.4GHz:** 11 for 802.11b, 802.11g, 802.11n (20MHz) 7 for 802.11n (40MHz) **5.0GHz:** 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz)
OUTPUT POWER	339.625mW for 2412 ~ 2462MHz 176.604mW for 5745 ~ 5805MHz
ANTENNA TYPE	**2.4GHz:** Dipole antenna with 5dBi gain **5.0GHz:** Dipole antenna with 5dBi gain
ANTENNA CONNECTOR	SMA and N-Type
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 detail information of model names and the differences of three samples are as below.

Sample	Model	Difference	Power Supply
A	EAP210	SMA connectors	from Adapter or POE
B	OWL530	N-type connectors	from POE only
C	IWF5210		

* Sample B and Sample C are electrically identical, different model names and brand name. The model of 'OWL530' was chosen for final test.

2. The EUT contains following accessory devices.

ITEM	BRAND	MODEL	SPECIFICATION
Adapter 1 (for EAP210)	OEM	ADS0271-W 120200	I/P: 100-240Vac, 600mA O/P: 12Vdc, 2000mA Cpu pins
Adapter 2 (for EAP210)	Ktec	KSASB0241200200D5	I/P: 100-240Vac, 600mA O/P: 12Vdc, 2000mA
RS 232 Cable (for EAP210)	E-FLY	DB9F-DB9F-050	--
Earth Wire (for OWL530)	N/A	N/A	--
U-Type Bolts (for OWL530)	N/A	N/A	--
Dipole Antenna 1 (for EAP210)	N/A	AN2450-9221RS	--
Dipole Antenna 2 (for EAP210)	N/A	AN2450-5003BRS	--

*The Dipole Antenna 1 and Dipole Antenna 2 are different in the appearance only. Therefore, Dipole Antenna 1 was chosen for final testing.

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

MODULATION MODE	TX FUNCTION	Antenna (dBi)	
		1TX	2TX
802.11b	1TX	5.0	-
802.11g	1TX	5.0	-
802.11a	1TX	5.0	-
802.11n (20MHz)	1TX, 2TX	5.0	8.0
802.11n (40MHz)	1TX, 2TX	5.0	8.0

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 (5745 ~ 5805MHz):

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755MHz	159	5795MHz

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

FOR 2.4GHz:

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	Sample A with 1TX
B	√	-	-	√	Sample A with 2TX
C	√	√	√	-	Sample B with 1TX
D	√	-	-	-	Sample B with 2TX

Where **RE≥1G:** Radiated Emission above 1GHz **RE<1G:** Radiated Emission below 1GHz

PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

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

RADIATED EMISSION TEST (ABOVE 1GHz):

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, C	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
A, C	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
A, B, C, D	802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	MCS0
A, B, C, D	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, C	802.11b	1 to 11	11	DSSS	DBPSK	1.0

POWER LINE CONDUCTED EMISSION TEST:

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, C	802.11b	1 to 11	11	DSSS	DBPSK	1.0

BANDEDGE MEASUREMENT:

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

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

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
A	802.11g	1 to 11	1, 11	OFDM	BPSK	6.0
A, B	802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	MCS0
A, B	802.11n (40MHz)	3 to 9	3, 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, 6, 11	DSSS	DBPSK	1.0
A	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
A, B	802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	MCS0
A, B	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	Kay Wu
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu
PLC	25deg. C, 65%RH	120Vac, 60Hz	Johnson Liao
APCM	25deg. C, 65%RH	120Vac, 60Hz	Demon Lin

FOR 5.0GHz (5745 ~ 5805MHz):

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	Sample A with 1TX
B	√	-	-	√	Sample A with 2TX
C	√	√	√	-	Sample B with 1TX
D	√	-	-	-	Sample B with 2TX

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

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

RADIATED EMISSION TEST (ABOVE 1GHz):

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, C	802.11a	149 to 161	149, 157, 161	OFDM	BPSK	6.0
A, B, C, D	802.11n (20MHz)	149 to 161	149, 157, 161	OFDM	BPSK	MCS0
A, B, C, D	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, C	802.11a	149 to 161	157	OFDM	BPSK	6.0

POWER LINE CONDUCTED EMISSION TEST:

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, C	802.11a	149 to 161	157	OFDM	BPSK	6.0

BANDEDGE MEASUREMENT:

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	149 to 161	149, 165	OFDM	BPSK	6.0
A, B	802.11n (20MHz)	149 to 161	149, 165	OFDM	BPSK	MCS0
A, B	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 161	149, 157, 165	OFDM	BPSK	6.0
A, B	802.11n (20MHz)	149 to 161	149, 157, 165	OFDM	BPSK	MCS0
A, B	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	Kay Wu
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu
PLC	25deg. C, 65%RH	120Vac, 60Hz	Johnson Liao
APCM	25deg. C, 65%RH	120Vac, 60Hz	Demon Lin

3.3 DESCRIPTION OF SUPPORT UNITS

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

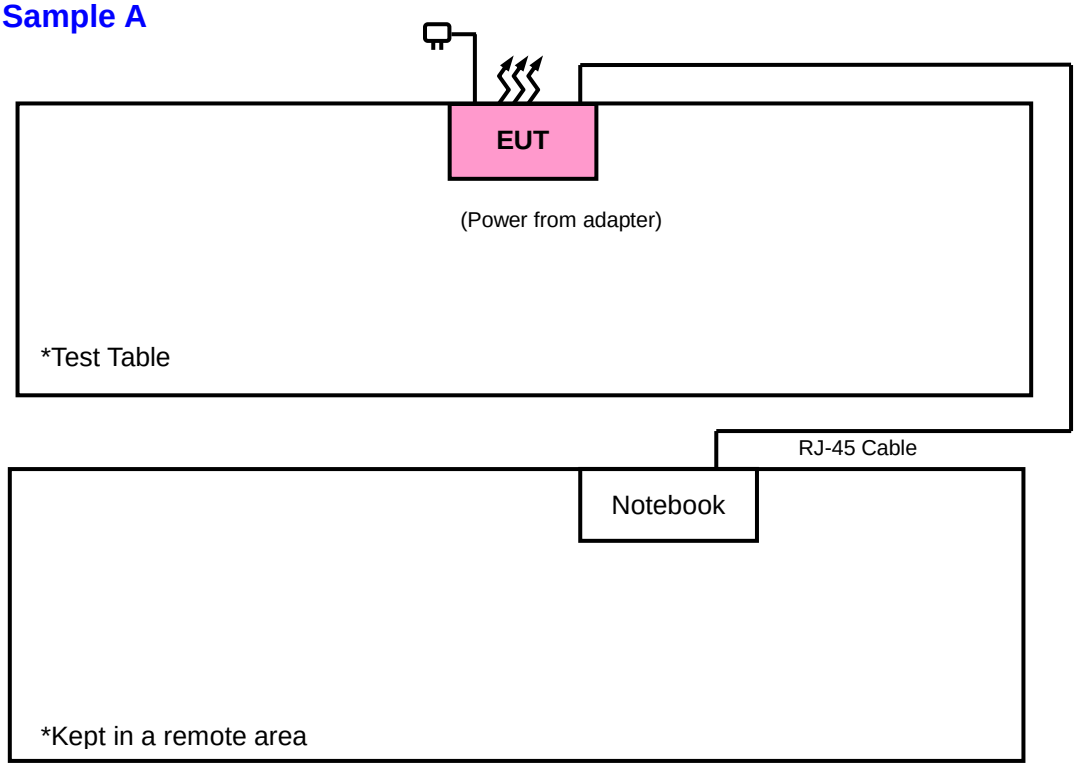
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Notebook	DELL	PP02X	W4TYK9CQCJ3K3K CBRXTRFWYRB	QDS-BRCM1005-D

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

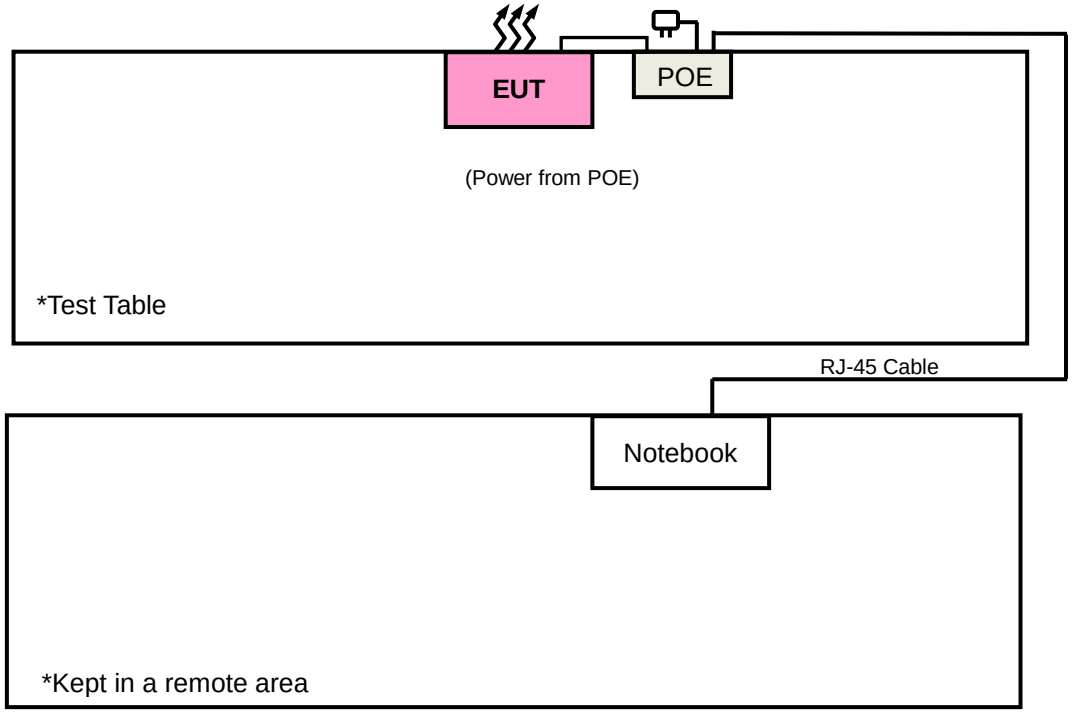
NOTE: 1. All power cords of the above support units are non shielded (1.8m).

3.3.1 CONFIGURATION OF SYSTEM UNDER TEST

For Sample A



For Sample A & B



3.4 DUTY CYCLE TEST SIGNAL

2.4GHz

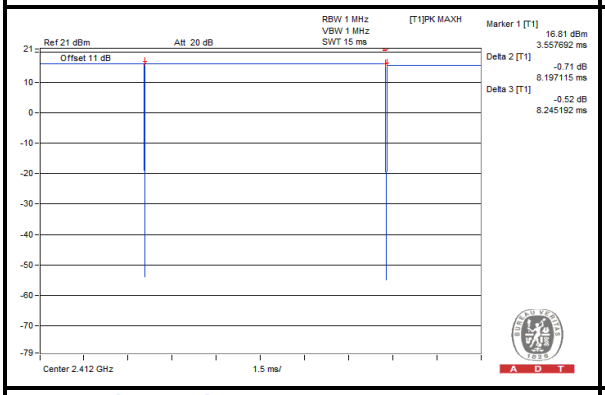
MODE A

802.11b: Duty cycle of test signal is > 98%, duty factor is not required.

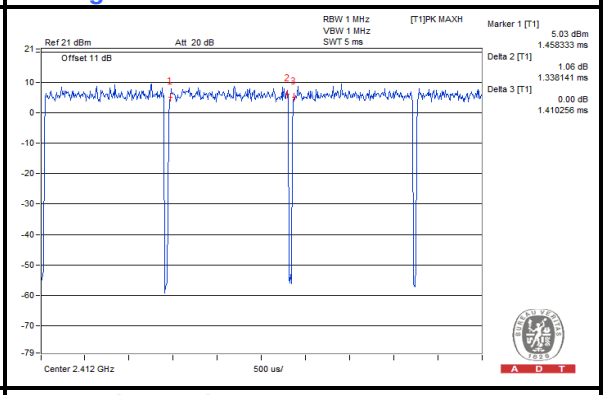
If duty cycle is < 98%

802.11g: Duty cycle = 1.338/1.410 = 0.949, Duty factor = 10*log(1/0.949) = 0.23
802.11n (20MHz): Duty cycle = 1.258/1.330 = 0.946, Duty factor = 10*log(1/0.946) = 0.24
802. 11n (40MHz): Duty cycle = 0.609/0.676 = 0.901, Duty factor = 10*log(1/0.901) = 0.45

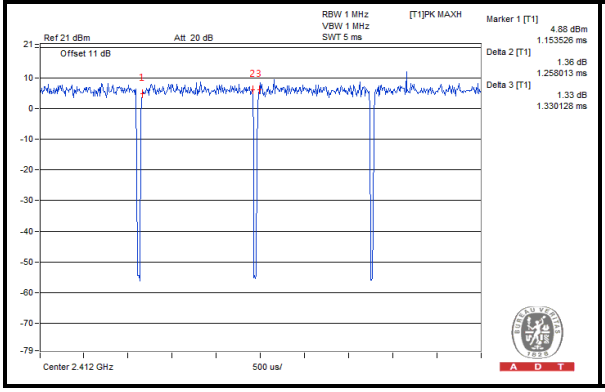
802.11b



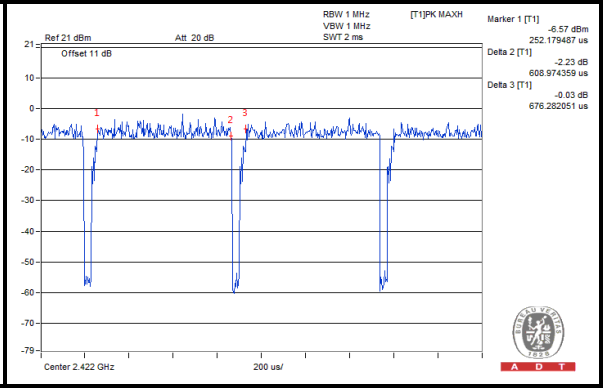
802.11g



802.11n (20MHz)



802.11n (40MHz)

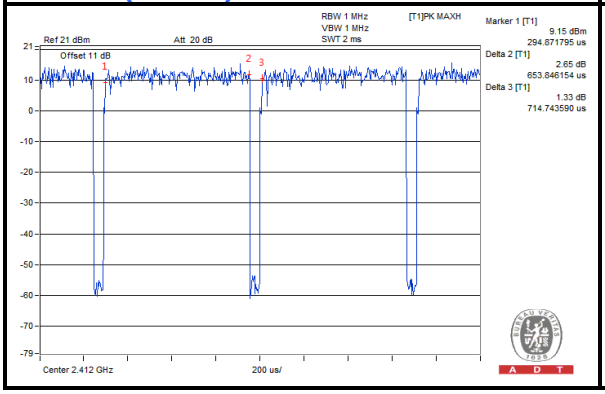


MODE B

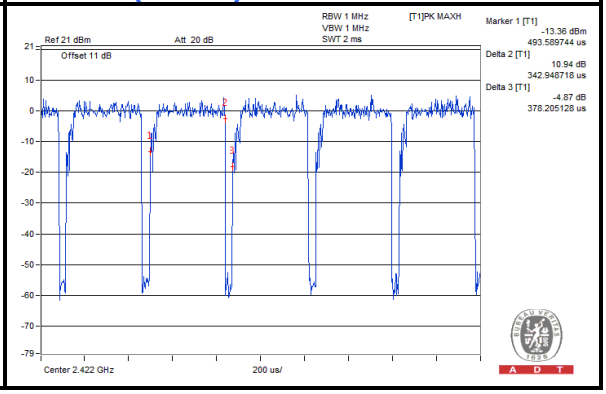
If duty cycle is < 98%

802.11n (20MHz): Duty cycle = 653/714 = 0.915, Duty factor = 10*log(1/0.915) = 0.38
802. 11n (40MHz): Duty cycle = 343/378 = 0.907, Duty factor = 10*log(1/0.907) = 0.42

802.11n (20MHz)



802. 11n (40MHz)



MODE C

5745MHz ~ 5825MHz

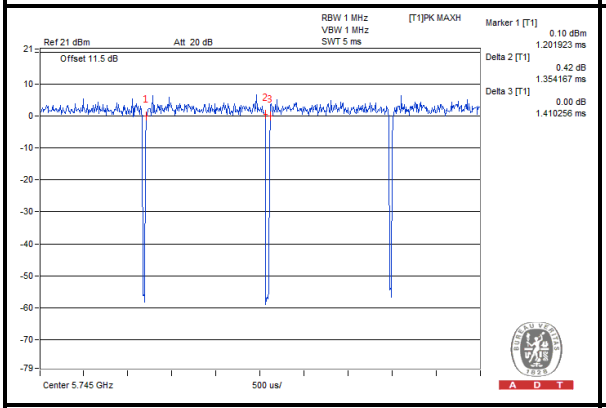
If duty cycle is < 98%

802.11a: Duty cycle = 1.354/1.410 = 0.960, Duty factor = 10*log(1/0.960) = 0.18

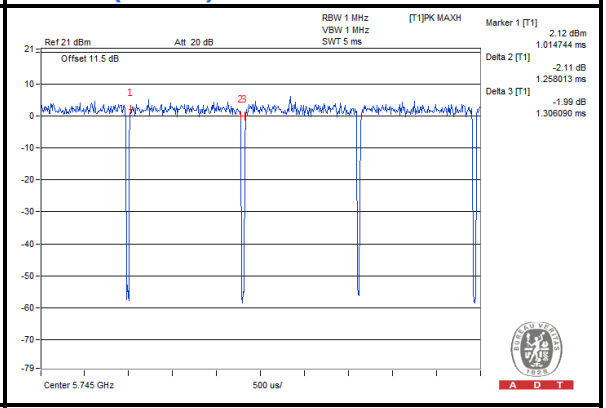
802.11n (20MHz): Duty cycle = 1.258/1.306 = 0.963, Duty factor = 10*log(1/0.963) = 0.16

802.11n (40MHz): Duty cycle = 0.631/0.668 = 0.944, Duty factor = 10*log(1/0.944) = 0.25

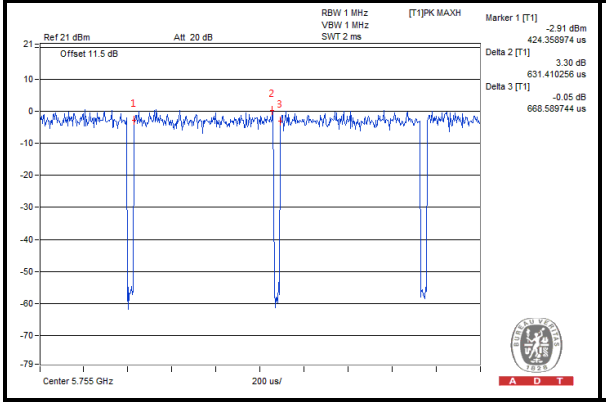
802.11a



802.11n (20MHz)



802.11n (40MHz)



MODE D

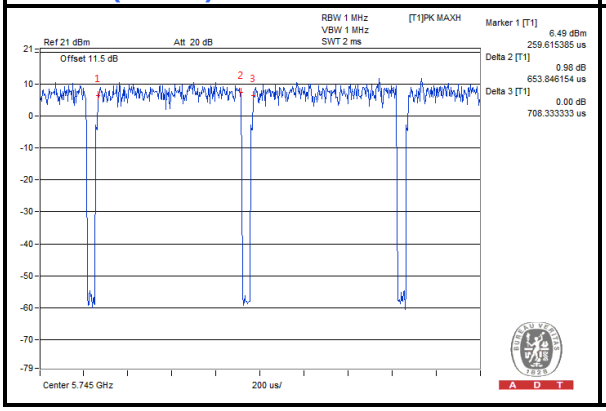
5745MHz ~ 5825MHz

If duty cycle is < 98%

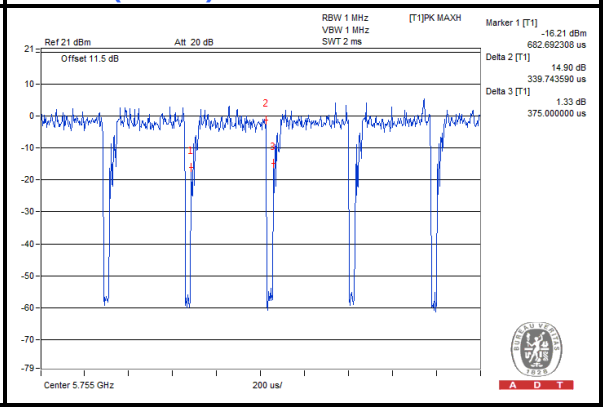
802.11n (20MHz): Duty cycle = 654/708 = 0.923, Duty factor = 10*log(1/0.923) = 0.34

802.11n (40MHz): Duty cycle = 340/375 = 0.906, Duty factor = 10*log(1/0.906) = 0.43

802.11n (20MHz)



802.11n (40MHz)



3.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C (15.247)
ANSI C63.10-2009
KDB 558074 D01 DTS Meas Guidance v03r01
KDB 662911 D01 Multiple Transmitter Output v01 r02

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	100744	Apr. 15, 2013	Apr. 14, 2014
Test Receiver ROHDE & SCHWARZ	ESCI	100744	Apr. 15, 2014	Apr. 14, 2015
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 21, 2013	Dec. 20, 2014
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Mar. 25, 2013	Mar. 24, 2014
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Feb. 27, 2014	Feb. 26, 2015
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-563	Nov. 01, 2013	Oct. 31, 2014
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Dec. 18, 2013	Dec. 17, 2014
Loop Antenna	HFH2-Z2	100070	Jan. 31, 2012	Jan. 30, 2014
Loop Antenna	HFH2-Z2	100070	Mar. 06, 2014	Mar. 05, 2016
Preamplifier EMCI	EMC 012645	980115	Dec. 26, 2013	Dec. 25, 2014
Preamplifier EMCI	EMC 184045	980116	Jan. 13, 2014	Jan. 12, 2015
Preamplifier EMCI	EMC 330H	980112	Dec. 27, 2013	Dec. 26, 2014
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309219/4 2950114	Oct. 18, 2013	Oct. 17, 2014
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250130/4	Oct. 18, 2013	Oct. 17, 2014
RF signal cable Worken	RG-213	NA	Nov. 07, 2013	Nov. 06, 2014
Software BV ADT	E3 6.120103	NA	NA	NA
Antenna Tower MF	MFA-440H	NA	NA	NA
Turn Table MF	MFT-201SS	NA	NA	NA
Antenna Tower &Turn Table Controller MF	MF-7802	NA	NA	NA
Power Meter	ML2495A	1232002	Aug. 23, 2013	Aug. 22, 2014
Power Sensor	MA2411B	1207325	Aug. 23, 2013	Aug. 22, 2014

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

4.1.3 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:

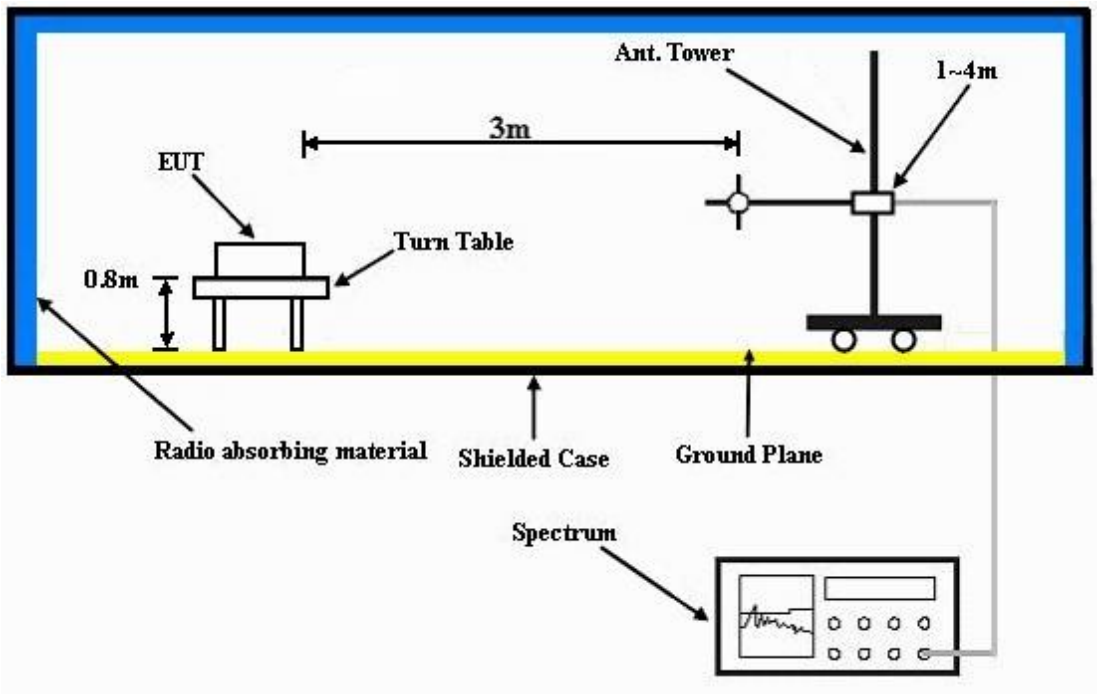
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution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

4.1.4 DEVIATION FROM TEST STANDARD

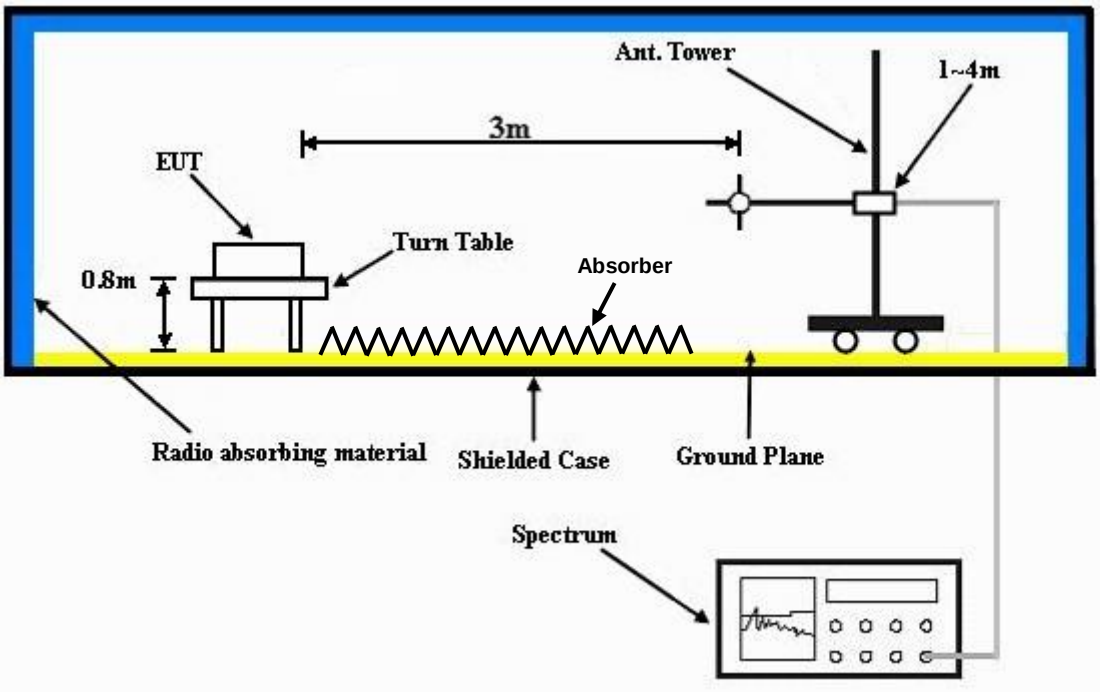
No deviation.

4.1.5 TEST SETUP

Frequency Range 30MHz ~ 1GHz



Frequency Range above 1GHz



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

4.1.6 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**	Harry Hsueh

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**
2312	42.35	40.87	54	-11.65	31.71	5.3	35.53	100	238	Average
2312	55.62	54.14	74	-18.38	31.71	5.3	35.53	100	238	Peak
2412	101.43	99.66			31.81	5.43	35.47	100	238	Average
2412	104.4	102.63			31.81	5.43	35.47	100	238	Peak
2492	42.3	40.28	54	-11.7	31.9	5.53	35.41	100	238	Average
2492	56.42	54.4	74	-17.58	31.9	5.53	35.41	100	238	Peak
7236	47.06	36.53	81.43	-34.37	35.55	9.94	34.96	156	214	Average
7236	59.64	49.11	84.4	-24.76	35.55	9.94	34.96	156	214	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	50.8	49.09	54	-3.2	31.8	5.4	35.49	124	266	Average
2386	61.77	60.06	74	-12.23	31.8	5.4	35.49	124	266	Peak
2412	109.16	107.39			31.81	5.43	35.47	124	266	Average
2412	111.78	110.01			31.81	5.43	35.47	124	266	Peak
2490	45.75	43.74	54	-8.25	31.9	5.53	35.42	124	266	Average
2490	57.9	55.89	74	-16.1	31.9	5.53	35.42	124	266	Peak
4824	51.98	43.85	54	-2.02	33.97	8.26	34.1	103	265	Average
4824	53.86	45.73	74	-20.14	33.97	8.26	34.1	103	265	Peak
7236	60.04	49.51	89.16	-29.12	35.55	9.94	34.96	103	265	Average
7236	64	53.47	91.78	-27.78	35.55	9.94	34.96	103	265	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2412MHz: Fundamental frequency.
3. 7236MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2352	43.22	41.52	54	-10.78	31.87	5.33	35.5	135	60	Average
2352	61.79	60.09	74	-12.21	31.87	5.33	35.5	135	60	Peak
2437	109.51	107.5			32.01	5.46	35.46	135	60	Average
2437	112.14	110.13			32.01	5.46	35.46	135	60	Peak
2492	43.11	40.89	54	-10.89	32.1	5.53	35.41	135	60	Average
2492	63.02	60.8	74	-10.98	32.1	5.53	35.41	135	60	Peak
7311	47.65	36.7	54	-6.35	36	9.95	35	100	227	Average
7311	54.87	43.92	74	-19.13	36	9.95	35	100	227	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	49.02	47.16	54	-4.98	31.93	5.4	35.47	118	240	Average
2390	64.25	62.39	74	-9.75	31.93	5.4	35.47	118	240	Peak
2437	116.85	114.84			32.01	5.46	35.46	118	240	Average
2437	119.44	117.43			32.01	5.46	35.46	118	240	Peak
2484	49.75	47.57	54	-4.25	32.1	5.5	35.42	118	240	Average
2484	64.58	62.4	74	-9.42	32.1	5.5	35.42	118	240	Peak
7311	53.04	42.09	54	-0.96	36	9.95	35	100	72	Average
7311	56.92	45.97	74	-17.08	36	9.95	35	100	72	Peak
2390	49.02	47.16	54	-4.98	31.93	5.4	35.47	118	240	Average

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2437MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2388	43.8	41.96	54	-10.2	31.93	5.4	35.49	100	120	Average
2388	61.58	59.74	74	-12.42	31.93	5.4	35.49	100	120	Peak
2462	107.55	105.45			32.04	5.5	35.44	100	120	Average
2462	110.59	108.49			32.04	5.5	35.44	100	120	Peak
2492	44.78	42.56	54	-9.22	32.1	5.53	35.41	100	120	Average
2492	62.3	60.08	74	-11.7	32.1	5.53	35.41	100	120	Peak
7386	47.77	36.87	54	-6.23	36	9.95	35.05	107	267	Average
7386	53.83	42.93	74	-20.17	36	9.95	35.05	107	267	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2384	49.18	47.34	54	-4.82	31.93	5.4	35.49	100	86	Average
2384	62.79	60.95	74	-11.21	31.93	5.4	35.49	100	86	Peak
2462	113.25	111.15			32.04	5.5	35.44	100	86	Average
2462	116.28	114.18			32.04	5.5	35.44	100	86	Peak
2484	50.47	48.29	54	-3.53	32.1	5.5	35.42	100	86	Average
2484	63.94	61.76	74	-10.06	32.1	5.5	35.42	100	86	Peak
7386	53.05	42.15	54	-0.95	36	9.95	35.05	100	292	Average
7386	56.92	46.02	74	-17.08	36	9.95	35.05	100	292	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2462MHz: Fundamental frequency.

802.11g

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	44.3	42.44	54	-9.7	31.93	5.4	35.47	100	239	Average
2390	58.16	56.3	74	-15.84	31.93	5.4	35.47	100	239	Peak
2412	97.44	95.52			31.96	5.43	35.47	100	239	Average
2412	105.46	103.54			31.96	5.43	35.47	100	239	Peak
2486	42.58	40.37	54	-11.42	32.1	5.53	35.42	100	239	Average
2486	56.77	54.56	74	-17.23	32.1	5.53	35.42	100	239	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	51.26	49.4	54	-2.74	31.93	5.4	35.47	119	118	Average
2390	64.39	62.53	74	-9.61	31.93	5.4	35.47	119	118	Peak
2412	102.74	100.82			31.96	5.43	35.47	119	118	Average
2412	110.88	108.96			31.96	5.43	35.47	119	118	Peak
2486	44.78	42.57	54	-9.22	32.1	5.53	35.42	119	118	Average
2486	57.88	55.67	74	-16.12	32.1	5.53	35.42	119	118	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2412MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2370	41.55	39.77	54	-12.45	31.9	5.37	35.49	100	240	Average
2370	55.54	53.76	74	-18.46	31.9	5.37	35.49	100	240	Peak
2437	97.88	95.87			32.01	5.46	35.46	100	240	Average
2437	106.68	104.67			32.01	5.46	35.46	100	240	Peak
2492	42.97	40.75	54	-11.03	32.1	5.53	35.41	100	240	Average
2492	56.21	53.99	74	-17.79	32.1	5.53	35.41	100	240	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	46.38	44.54	54	-7.62	31.93	5.4	35.49	116	60	Average
2388	58.75	56.91	74	-15.25	31.93	5.4	35.49	116	60	Peak
2437	104.53	102.52			32.01	5.46	35.46	116	60	Average
2437	113.41	111.4			32.01	5.46	35.46	116	60	Peak
2484	46.79	44.61	54	-7.21	32.1	5.5	35.42	116	60	Average
2484	58.86	56.68	74	-15.14	32.1	5.5	35.42	116	60	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2437MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2384	41.96	40.12	54	-12.04	31.93	5.4	35.49	100	240	Average
2384	56.99	55.15	74	-17.01	31.93	5.4	35.49	100	240	Peak
2462	98.05	95.95			32.04	5.5	35.44	100	240	Average
2462	106.31	104.21			32.04	5.5	35.44	100	240	Peak
2484	44.7	42.52	54	-9.3	32.1	5.5	35.42	100	240	Average
2484	58.33	56.15	74	-15.67	32.1	5.5	35.42	100	240	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2384	44.78	42.94	54	-9.22	31.93	5.4	35.49	122	269	Average
2384	57.76	55.92	74	-16.24	31.93	5.4	35.49	122	269	Peak
2462	101.69	99.59			32.04	5.5	35.44	122	269	Average
2462	110.36	108.26			32.04	5.5	35.44	122	269	Peak
2484	48.16	45.98	54	-5.84	32.1	5.5	35.42	122	269	Average
2484	62.41	60.23	74	-11.59	32.1	5.5	35.42	122	269	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2462MHz: Fundamental frequency.

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	43.92	42.06	54	-10.08	31.93	5.4	35.47	134	117	Average
2390	57.76	55.9	74	-16.24	31.93	5.4	35.47	134	117	Peak
2412	95.43	93.51			31.96	5.43	35.47	134	117	Average
2412	104.01	102.09			31.96	5.43	35.47	134	117	Peak
2488	43.26	41.05	54	-10.74	32.1	5.53	35.42	134	117	Average
2488	55.37	53.16	74	-18.63	32.1	5.53	35.42	134	117	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	53.01	51.15	54	-0.99	31.93	5.4	35.47	119	299	Average
2390	67.91	66.05	74	-6.09	31.93	5.4	35.47	119	299	Peak
2412	103.39	101.47			31.96	5.43	35.47	119	299	Average
2412	112.28	110.36			31.96	5.43	35.47	119	299	Peak
2492	46.16	43.94	54	-7.84	32.1	5.53	35.41	119	299	Average
2492	58.1	55.88	74	-15.9	32.1	5.53	35.41	119	299	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2412MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2358	41.81	40.07	54	-12.19	31.87	5.37	35.5	130	119	Average
2358	57.48	55.74	74	-16.52	31.87	5.37	35.5	130	119	Peak
2437	96.79	94.78			32.01	5.46	35.46	130	119	Average
2437	104.91	102.9			32.01	5.46	35.46	130	119	Peak
2490	43.29	41.08	54	-10.71	32.1	5.53	35.42	130	119	Average
2490	58.72	56.51	74	-15.28	32.1	5.53	35.42	130	119	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	47.9	46.04	54	-6.1	31.93	5.4	35.47	116	298	Average
2390	60.55	58.69	74	-13.45	31.93	5.4	35.47	116	298	Peak
2437	107.08	105.07			32.01	5.46	35.46	116	298	Average
2437	114.91	112.9			32.01	5.46	35.46	116	298	Peak
2496	49.2	46.98	54	-4.8	32.1	5.53	35.41	116	298	Average
2496	61.02	58.8	74	-12.98	32.1	5.53	35.41	116	298	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2437MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2384	43.19	41.35	54	-10.81	31.93	5.4	35.49	100	118	Average
2384	56.18	54.34	74	-17.82	31.93	5.4	35.49	100	118	Peak
2462	98.73	96.63			32.04	5.5	35.44	100	118	Average
2462	107.25	105.15			32.04	5.5	35.44	100	118	Peak
2483.5	46.43	44.28	54	-7.57	32.07	5.5	35.42	100	118	Average
2483.5	61.27	59.12	74	-12.73	32.07	5.5	35.42	100	118	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	47.08	45.22	54	-6.92	31.93	5.4	35.47	100	86	Average
2390	62.24	60.38	74	-11.76	31.93	5.4	35.47	100	86	Peak
2462	104.29	102.19			32.04	5.5	35.44	100	86	Average
2462	112.42	110.32			32.04	5.5	35.44	100	86	Peak
2483.5	52.28	50.13	54	-1.72	32.07	5.5	35.42	100	86	Average
2483.5	68.04	65.89	74	-5.96	32.07	5.5	35.42	100	86	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2462MHz: Fundamental frequency.

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	44.92	43.06	54	-9.08	31.93	5.4	35.47	135	59	Average
2390	60.37	58.51	74	-13.63	31.93	5.4	35.47	135	59	Peak
2422	88.33	86.37			31.99	5.43	35.46	135	59	Average
2422	97.02	95.06			31.99	5.43	35.46	135	59	Peak
2496	43.32	41.1	54	-10.68	32.1	5.53	35.41	135	59	Average
2496	56.25	54.03	74	-17.75	32.1	5.53	35.41	135	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	52.9	51.04	54	-1.1	31.93	5.4	35.47	115	60	Average
2390	70.21	68.35	74	-3.79	31.93	5.4	35.47	115	60	Peak
2422	96.1	94.14			31.99	5.43	35.46	115	60	Average
2422	105.05	103.09			31.99	5.43	35.46	115	60	Peak
2485	44.38	42.17	54	-9.62	32.1	5.53	35.42	115	60	Average
2485	57.33	55.12	74	-16.67	32.1	5.53	35.42	115	60	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2422MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	46.22	44.36	54	-7.78	31.93	5.4	35.47	137	58	Average
2390	58.01	56.15	74	-15.99	31.93	5.4	35.47	137	58	Peak
2437	94.34	92.33			32.01	5.46	35.46	137	58	Average
2437	103.77	101.76			32.01	5.46	35.46	137	58	Peak
2484	43.46	41.28	54	-10.54	32.1	5.5	35.42	137	58	Average
2484	55.8	53.62	74	-18.2	32.1	5.5	35.42	137	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	52.19	50.33	54	-1.81	31.93	5.4	35.47	115	59	Average
2390	64.21	62.35	74	-9.79	31.93	5.4	35.47	115	59	Peak
2437	102.07	100.06			32.01	5.46	35.46	115	59	Average
2437	110.22	108.21			32.01	5.46	35.46	115	59	Peak
2484	49.12	46.94	54	-4.88	32.1	5.5	35.42	115	59	Average
2484	60.91	58.73	74	-13.09	32.1	5.5	35.42	115	59	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2437MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2318	41.68	40.09	54	-12.32	31.81	5.3	35.52	100	119	Average
2318	55.59	54	74	-18.41	31.81	5.3	35.52	100	119	Peak
2452	92.65	90.59			32.04	5.46	35.44	100	119	Average
2452	101.61	99.55			32.04	5.46	35.44	100	119	Peak
2483.5	49.16	47.01	54	-4.84	32.07	5.5	35.42	100	119	Average
2483.5	66.25	64.1	74	-7.75	32.07	5.5	35.42	100	119	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	47.19	45.33	54	-6.81	31.93	5.4	35.47	124	242	Average
2390	58.94	57.08	74	-15.06	31.93	5.4	35.47	124	242	Peak
2452	99.1	97.04			32.04	5.46	35.44	124	242	Average
2452	108.09	106.03			32.04	5.46	35.44	124	242	Peak
2483.5	52.7	50.55	54	-1.3	32.07	5.5	35.42	124	242	Average
2483.5	69.68	67.53	74	-4.32	32.07	5.5	35.42	124	242	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2452MHz: Fundamental frequency.

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	Kay Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	44.19	42.33	54	-9.81	31.93	5.4	35.47	102	237	Average
2390	56.76	54.9	74	-17.24	31.93	5.4	35.47	102	237	Peak
2412	97	95.08			31.96	5.43	35.47	102	237	Average
2412	105.11	103.19			31.96	5.43	35.47	102	237	Peak
2488	44.2	41.99	54	-9.8	32.1	5.53	35.42	102	237	Average
2488	55.31	53.1	74	-18.69	32.1	5.53	35.42	102	237	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	52.59	50.73	54	-1.41	31.93	5.4	35.47	118	60	Average
2390	68.94	67.08	74	-5.06	31.93	5.4	35.47	118	60	Peak
2412	106.55	104.63			31.96	5.43	35.47	115	58	Average
2412	113.88	111.96			31.96	5.43	35.47	115	58	Peak
2488	48.15	45.94	54	-5.85	32.1	5.53	35.42	112	60	Average
2488	59.25	57.04	74	-14.75	32.1	5.53	35.42	112	60	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2412MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	43.18	41.32	54	-10.82	31.93	5.4	35.47	101	237	Average
2390	57.23	55.37	74	-16.77	31.93	5.4	35.47	101	237	Peak
2437	99.34	97.33			32.01	5.46	35.46	101	237	Average
2437	107	104.99			32.01	5.46	35.46	101	237	Peak
2486	44.49	42.28	54	-9.51	32.1	5.53	35.42	101	237	Average
2486	57.04	54.83	74	-16.96	32.1	5.53	35.42	101	237	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2384	50.48	48.64	54	-3.52	31.93	5.4	35.49	118	58	Average
2384	61.64	59.8	74	-12.36	31.93	5.4	35.49	118	58	Peak
2437	106.9	104.89			32.01	5.46	35.46	127	270	Average
2437	115.8	113.79			32.01	5.46	35.46	127	270	Peak
2488	49.79	47.58	54	-4.21	32.1	5.53	35.42	112	297	Average
2488	61.11	58.9	74	-12.89	32.1	5.53	35.42	112	297	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2437MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2382	43.9	42.06	54	-10.1	31.93	5.4	35.49	130	241	Average
2382	55.73	53.89	74	-18.27	31.93	5.4	35.49	130	241	Peak
2462	98.23	96.13			32.04	5.5	35.44	130	241	Average
2462	105.55	103.45			32.04	5.5	35.44	130	241	Peak
2485	44.49	42.28	54	-9.51	32.1	5.53	35.42	102	60	Average
2485	56.79	54.58	74	-17.21	32.1	5.53	35.42	102	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
2382	49.58	47.74	54	-4.42	31.93	5.4	35.49	115	59	Average
2382	60.39	58.55	74	-13.61	31.93	5.4	35.49	115	59	Peak
2462	105.83	103.73			32.04	5.5	35.44	102	268	Average
2462	114.4	112.3			32.04	5.5	35.44	102	268	Peak
2483.5	52.15	50	54	-1.85	32.07	5.5	35.42	111	59	Average
2483.5	67.65	65.5	74	-6.35	32.07	5.5	35.42	111	59	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2462MHz: Fundamental frequency.

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	44.49	42.76	54	-9.51	31.8	5.4	35.47	133	116	Average
2390	57.69	55.96	74	-16.31	31.8	5.4	35.47	133	116	Peak
2422	88.89	87.09			31.83	5.43	35.46	133	116	Average
2422	96.51	94.71			31.83	5.43	35.46	133	116	Peak
2488	41.64	39.63	54	-12.36	31.9	5.53	35.42	133	116	Average
2488	55.61	53.6	74	-18.39	31.9	5.53	35.42	133	116	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	51.29	49.56	54	-2.71	31.8	5.4	35.47	103	264	Average
2390	67.38	65.65	74	-6.62	31.8	5.4	35.47	103	264	Peak
2422	95.46	93.66			31.83	5.43	35.46	126	262	Average
2422	103.08	101.28			31.83	5.43	35.46	126	262	Peak
2492	43.66	41.64	54	-10.34	31.9	5.53	35.41	126	262	Average
2492	56.5	54.48	74	-17.5	31.9	5.53	35.41	126	262	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2422MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2374	41.83	40.05	54	-12.17	31.9	5.37	35.49	129	239	Average
2374	55.71	53.93	74	-18.29	31.9	5.37	35.49	129	239	Peak
2437	94.16	92.15			32.01	5.46	35.46	129	239	Average
2437	102.56	100.55			32.01	5.46	35.46	129	239	Peak
2500	43.33	41.11	54	-10.67	32.1	5.53	35.41	129	239	Average
2500	56.49	54.27	74	-17.51	32.1	5.53	35.41	129	239	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	47.81	45.95	54	-6.19	31.93	5.4	35.47	119	240	Average
2390	61.59	59.73	74	-12.41	31.93	5.4	35.47	119	240	Peak
2437	101.05	99.04			32.01	5.46	35.46	148	268	Average
2437	109.37	107.36			32.01	5.46	35.46	148	268	Peak
2485	45.2	42.99	54	-8.8	32.1	5.53	35.42	148	268	Average
2485	58.3	56.09	74	-15.7	32.1	5.53	35.42	148	268	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2437MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2366	42.89	41.11	54	-11.11	31.9	5.37	35.49	129	239	Average
2366	55.26	53.48	74	-18.74	31.9	5.37	35.49	129	239	Peak
2452	92.03	89.97			32.04	5.46	35.44	129	239	Average
2452	100.56	98.5			32.04	5.46	35.44	129	239	Peak
2483.5	47.07	44.92	54	-6.93	32.07	5.5	35.42	127	264	Average
2483.5	63.13	60.98	74	-10.87	32.07	5.5	35.42	127	264	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2384	47.28	45.44	54	-6.72	31.93	5.4	35.49	117	240	Average
2384	58.32	56.48	74	-15.68	31.93	5.4	35.49	117	240	Peak
2452	98.74	96.68			32.04	5.46	35.44	140	269	Average
2452	107.26	105.2			32.04	5.46	35.44	140	269	Peak
2483.5	52.95	50.8	54	-1.05	32.07	5.5	35.42	144	274	Average
2483.5	70.65	68.5	74	-3.35	32.07	5.5	35.42	144	274	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2452MHz: Fundamental frequency.

MODE C

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	Harry Hsueh

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	42.72	40.99	54	-11.28	31.8	5.4	35.47	100	56	Average
2390	58.3	56.57	74	-15.7	31.8	5.4	35.47	100	56	Peak
2412	103.67	101.9			31.81	5.43	35.47	100	56	Average
2412	106.34	104.57			31.81	5.43	35.47	100	56	Peak
2490	43.27	41.26	54	-10.73	31.9	5.53	35.42	100	56	Average
2490	58.92	56.91	74	-15.08	31.9	5.53	35.42	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
2386	50.82	49.11	54	-3.18	31.8	5.4	35.49	114	64	Average
2386	64.44	62.73	74	-9.56	31.8	5.4	35.49	114	64	Peak
2412	113.88	112.11			31.81	5.43	35.47	114	64	Average
2412	116.62	114.85			31.81	5.43	35.47	114	64	Peak
2490	51.57	49.56	54	-2.43	31.9	5.53	35.42	114	64	Average
2490	63.44	61.43	74	-10.56	31.9	5.53	35.42	114	64	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2412MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2384	41.85	40.01	54	-12.15	31.93	5.4	35.49	147	360	Average
2384	55.73	53.89	74	-18.27	31.93	5.4	35.49	147	360	Peak
2437	106.44	104.43			32.01	5.46	35.46	147	360	Average
2437	108.82	106.81			32.01	5.46	35.46	147	360	Peak
2484	43.25	41.07	54	-10.75	32.1	5.5	35.42	147	360	Average
2484	56.17	53.99	74	-17.83	32.1	5.5	35.42	147	360	Peak
4874	44.07	35.56	54	-9.93	34.3	8.27	34.06	165	124	Average
4874	47.42	38.91	74	-26.58	34.3	8.27	34.06	165	124	Peak
7311	45.51	34.56	54	-8.49	36	9.95	35	159	223	Average
7311	51.39	40.44	74	-22.61	36	9.95	35	159	223	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	47.68	45.84	54	-6.32	31.93	5.4	35.49	156	346	Average
2388	58.82	56.98	74	-15.18	31.93	5.4	35.49	156	346	Peak
2437	115.87	113.86			32.01	5.46	35.46	156	346	Average
2437	118.03	116.02			32.01	5.46	35.46	156	346	Peak
2484	47.49	45.31	54	-6.51	32.1	5.5	35.42	156	346	Average
2484	59.53	57.35	74	-14.47	32.1	5.5	35.42	156	346	Peak
4874	46.6	38.09	54	-7.4	34.3	8.27	34.06	169	52	Average
4874	47.24	38.73	74	-26.76	34.3	8.27	34.06	169	52	Peak
7311	49.43	38.48	54	-4.57	36	9.95	35	127	45	Average
7311	55.91	44.96	74	-18.09	36	9.95	35	127	45	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2437MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2324	42.74	41.15	54	-11.26	31.81	5.3	35.52	190	339	Average
2324	55.49	53.9	74	-18.51	31.81	5.3	35.52	190	339	Peak
2462	106.8	104.7			32.04	5.5	35.44	190	339	Average
2462	108.96	106.86			32.04	5.5	35.44	190	339	Peak
2486	43.85	41.64	54	-10.15	32.1	5.53	35.42	190	339	Average
2486	56.55	54.34	74	-17.45	32.1	5.53	35.42	190	339	Peak
4924	43.82	35.22	54	-10.18	34.34	8.28	34.02	188	352	Average
4924	47.08	38.48	74	-26.92	34.34	8.28	34.02	188	352	Peak
7386	41.05	30.15	54	-12.95	36	9.95	35.05	106	300	Average
7386	50.83	39.93	74	-23.17	36	9.95	35.05	106	300	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
2382	52.56	50.72	54	-1.44	31.93	5.4	35.49	183	357	Average
2382	60.33	58.49	74	-13.67	31.93	5.4	35.49	183	357	Peak
2462	116.03	113.93			32.04	5.5	35.44	183	331	Average
2462	118.14	116.04			32.04	5.5	35.44	183	331	Peak
2486	51.76	49.55	54	-2.24	32.1	5.53	35.42	182	328	Average
2486	63.02	60.81	74	-10.98	32.1	5.53	35.42	182	328	Peak
4924	44.04	35.44	54	-9.96	34.34	8.28	34.02	190	360	Average
4924	48.01	39.41	74	-25.99	34.34	8.28	34.02	190	360	Peak
7386	43.08	32.18	54	-10.92	36	9.95	35.05	100	242	Average
7386	52.36	41.46	74	-21.64	36	9.95	35.05	100	242	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2462MHz: Fundamental frequency.

802.11g

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	45.19	43.33	54	-8.81	31.93	5.4	35.47	126	333	Average
2390	56.59	54.73	74	-17.41	31.93	5.4	35.47	126	333	Peak
2412	98.37	96.45			31.96	5.43	35.47	126	333	Average
2412	106.2	104.28			31.96	5.43	35.47	126	333	Peak
2492	43.3	41.08	54	-10.7	32.1	5.53	35.41	126	333	Average
2492	55.94	53.72	74	-18.06	32.1	5.53	35.41	126	333	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	51.6	49.74	54	-2.4	31.93	5.4	35.47	103	268	Average
2390	63.89	62.03	74	-10.11	31.93	5.4	35.47	103	268	Peak
2412	103.55	101.63			31.96	5.43	35.47	103	268	Average
2412	110.94	109.02			31.96	5.43	35.47	103	268	Peak
2486	43.16	40.95	54	-10.84	32.1	5.53	35.42	103	268	Average
2486	56.89	54.68	74	-17.11	32.1	5.53	35.42	103	268	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2412MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2388	40.38	38.54	54	-13.62	31.93	5.4	35.49	123	338	Average
2388	55.13	53.29	74	-18.87	31.93	5.4	35.49	123	338	Peak
2437	98.07	96.06			32.01	5.46	35.46	123	338	Average
2437	106.17	104.16			32.01	5.46	35.46	123	338	Peak
2486	42.16	39.95	54	-11.84	32.1	5.53	35.42	123	338	Average
2486	55.92	53.71	74	-18.08	32.1	5.53	35.42	123	338	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	43.9	42.04	54	-10.1	31.93	5.4	35.47	101	270	Average
2390	57.21	55.35	74	-16.79	31.93	5.4	35.47	101	270	Peak
2437	103.39	101.38			32.01	5.46	35.46	101	270	Average
2437	111.71	109.7			32.01	5.46	35.46	101	270	Peak
2486	43.29	41.08	54	-10.71	32.1	5.53	35.42	101	270	Average
2486	56.37	54.16	74	-17.63	32.1	5.53	35.42	101	270	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2437MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2378	40.79	39.01	54	-13.21	31.9	5.37	35.49	101	331	Average
2378	55.66	53.88	74	-18.34	31.9	5.37	35.49	101	331	Peak
2462	95.4	93.3			32.04	5.5	35.44	101	331	Average
2462	103.18	101.08			32.04	5.5	35.44	101	331	Peak
2490	43.19	40.98	54	-10.81	32.1	5.53	35.42	101	331	Average
2490	56.53	54.32	74	-17.47	32.1	5.53	35.42	101	331	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	45.89	44.03	54	-8.11	31.93	5.4	35.47	100	268	Average
2390	57.43	55.57	74	-16.57	31.93	5.4	35.47	100	268	Peak
2462	101.21	99.11			32.04	5.5	35.44	100	268	Average
2462	109.87	107.77			32.04	5.5	35.44	100	268	Peak
2483.5	46.72	44.57	54	-7.28	32.07	5.5	35.42	100	268	Average
2483.5	59.62	57.47	74	-14.38	32.07	5.5	35.42	100	268	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2462MHz: Fundamental frequency.

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	44.92	43.06	54	-9.08	31.93	5.4	35.47	113	333	Average
2390	56.21	54.35	74	-17.79	31.93	5.4	35.47	113	333	Peak
2412	97.17	95.25			31.96	5.43	35.47	113	333	Average
2412	105	103.08			31.96	5.43	35.47	113	333	Peak
2494	42.19	39.97	54	-11.81	32.1	5.53	35.41	113	333	Average
2494	56.41	54.19	74	-17.59	32.1	5.53	35.41	113	333	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	52.8	50.94	54	-1.2	31.93	5.4	35.47	121	241	Average
2390	67.43	65.57	74	-6.57	31.93	5.4	35.47	121	241	Peak
2412	105.63	103.71			31.96	5.43	35.47	121	241	Average
2412	114.3	112.38			31.96	5.43	35.47	121	241	Peak
2483.5	49.46	47.31	54	-4.54	32.07	5.5	35.42	121	241	Average
2483.5	60.8	58.65	74	-13.2	32.07	5.5	35.42	121	241	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2412MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	41.89	40.03	54	-12.11	31.93	5.4	35.47	144	347	Average
2390	55.85	53.99	74	-18.15	31.93	5.4	35.47	144	347	Peak
2437	96.2	94.19			32.01	5.46	35.46	144	347	Average
2437	104.24	102.23			32.01	5.46	35.46	144	347	Peak
2500	43.01	40.79	54	-10.99	32.1	5.53	35.41	144	347	Average
2500	55.71	53.49	74	-18.29	32.1	5.53	35.41	144	347	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	45.89	44.05	54	-8.11	31.93	5.4	35.49	118	243	Average
2388	58.06	56.22	74	-15.94	31.93	5.4	35.49	118	243	Peak
2437	106.07	104.06			32.01	5.46	35.46	118	243	Average
2437	113.77	111.76			32.01	5.46	35.46	118	243	Peak
2488	48.2	45.99	54	-5.8	32.1	5.53	35.42	118	243	Average
2488	59.73	57.52	74	-14.27	32.1	5.53	35.42	118	243	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2437MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2376	42.83	41.05	54	-11.17	31.9	5.37	35.49	145	360	Average
2376	55.4	53.62	74	-18.6	31.9	5.37	35.49	145	360	Peak
2462	96.7	94.6			32.04	5.5	35.44	145	360	Average
2462	104.56	102.46			32.04	5.5	35.44	145	360	Peak
2484	45.06	42.88	54	-8.94	32.1	5.5	35.42	145	360	Average
2484	57.74	55.56	74	-16.26	32.1	5.5	35.42	145	360	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2386	47.02	45.18	54	-6.98	31.93	5.4	35.49	118	240	Average
2386	58.76	56.92	74	-15.24	31.93	5.4	35.49	118	240	Peak
2462	105.47	103.37			32.04	5.5	35.44	118	240	Average
2462	113.79	111.69			32.04	5.5	35.44	118	240	Peak
2483.5	52.75	50.6	54	-1.25	32.07	5.5	35.42	118	240	Average
2483.5	66	63.85	74	-8	32.07	5.5	35.42	118	240	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2462MHz: Fundamental frequency.

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	45.85	43.99	54	-8.15	31.93	5.4	35.47	143	345	Average
2390	60.54	58.68	74	-13.46	31.93	5.4	35.47	143	345	Peak
2422	89.51	87.55			31.99	5.43	35.46	143	345	Average
2422	97.96	96			31.99	5.43	35.46	143	345	Peak
2488	43.25	41.04	54	-10.75	32.1	5.53	35.42	143	345	Average
2488	55.6	53.39	74	-18.4	32.1	5.53	35.42	143	345	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	52.69	50.83	54	-1.31	31.93	5.4	35.47	122	234	Average
2390	67.89	66.03	74	-6.11	31.93	5.4	35.47	122	234	Peak
2422	98.06	96.1			31.99	5.43	35.46	123	242	Average
2422	106.78	104.82			31.99	5.43	35.46	123	242	Peak
2492	44.49	42.27	54	-9.51	32.1	5.53	35.41	123	242	Average
2492	56.5	54.28	74	-17.5	32.1	5.53	35.41	123	242	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2422MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	43.85	41.99	54	-10.15	31.93	5.4	35.47	145	345	Average
2390	56.09	54.23	74	-17.91	31.93	5.4	35.47	145	345	Peak
2437	91.27	89.26			32.01	5.46	35.46	145	345	Average
2437	99.28	97.27			32.01	5.46	35.46	145	345	Peak
2492	44.52	42.3	54	-9.48	32.1	5.53	35.41	145	345	Average
2492	55.65	53.43	74	-18.35	32.1	5.53	35.41	145	345	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	45.19	43.35	54	-8.81	31.93	5.4	35.49	124	239	Average
2388	59.63	57.79	74	-14.37	31.93	5.4	35.49	124	239	Peak
2437	100.8	98.79			32.01	5.46	35.46	124	239	Average
2437	108.52	106.51			32.01	5.46	35.46	124	239	Peak
2484	46.12	43.94	54	-7.88	32.1	5.5	35.42	124	239	Average
2484	58.07	55.89	74	-15.93	32.1	5.5	35.42	124	239	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2437MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2368	42.92	41.14	54	-11.08	31.9	5.37	35.49	143	345	Average
2368	55.46	53.68	74	-18.54	31.9	5.37	35.49	143	345	Peak
2452	87.05	84.99			32.04	5.46	35.44	143	345	Average
2452	94.95	92.89			32.04	5.46	35.44	143	345	Peak
2484	45.46	43.28	54	-8.54	32.1	5.5	35.42	143	345	Average
2484	59.34	57.16	74	-14.66	32.1	5.5	35.42	143	345	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	41.9	40.06	54	-12.1	31.93	5.4	35.49	115	242	Average
2386	56.13	54.29	74	-17.87	31.93	5.4	35.49	115	242	Peak
2452	96.56	94.5			32.04	5.46	35.44	115	242	Average
2452	103.98	101.92			32.04	5.46	35.44	115	242	Peak
2483.5	52.93	50.78	54	-1.07	32.07	5.5	35.42	115	242	Average
2483.5	70.26	68.11	74	-3.74	32.07	5.5	35.42	115	242	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2452MHz: Fundamental frequency.

MODE D

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	44.91	43.05	54	-9.09	31.93	5.4	35.47	147	1	Average
2390	60.56	58.7	74	-13.44	31.93	5.4	35.47	147	1	Peak
2412	98.25	96.33			31.96	5.43	35.47	147	1	Average
2412	105.62	103.7			31.96	5.43	35.47	147	1	Peak
2494	41.16	38.94	54	-12.84	32.1	5.53	35.41	147	1	Average
2494	57.25	55.03	74	-16.75	32.1	5.53	35.41	147	1	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	52.95	51.09	54	-1.05	31.93	5.4	35.47	146	119	Average
2390	69.17	67.31	74	-4.83	31.93	5.4	35.47	146	119	Peak
2412	105.86	103.94			31.96	5.43	35.47	148	243	Average
2412	113.46	111.54			31.96	5.43	35.47	148	243	Peak
2486	45.22	43.01	54	-8.78	32.1	5.53	35.42	148	243	Average
2486	59.19	56.98	74	-14.81	32.1	5.53	35.42	148	243	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2412MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	42.94	41.08	54	-11.06	31.93	5.4	35.47	114	39	Average
2390	58.82	56.96	74	-15.18	31.93	5.4	35.47	114	39	Peak
2437	99.3	97.29			32.01	5.46	35.46	114	39	Average
2437	107.26	105.25			32.01	5.46	35.46	114	39	Peak
2488	43.29	41.08	54	-10.71	32.1	5.53	35.42	114	39	Average
2488	57.99	55.78	74	-16.01	32.1	5.53	35.42	114	39	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2386	45.84	44	54	-8.16	31.93	5.4	35.49	143	114	Average
2386	59.43	57.59	74	-14.57	31.93	5.4	35.49	143	114	Peak
2437	108.34	106.33			32.01	5.46	35.46	143	114	Average
2437	116.13	114.12			32.01	5.46	35.46	143	114	Peak
2486	45.49	43.28	54	-8.51	32.1	5.53	35.42	143	114	Average
2486	59.25	57.04	74	-14.75	32.1	5.53	35.42	143	114	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2437MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2372	40.79	39.01	54	-13.21	31.9	5.37	35.49	118	0	Average
2372	57.52	55.74	74	-16.48	31.9	5.37	35.49	118	0	Peak
2462	97.81	95.71			32.04	5.5	35.44	118	0	Average
2462	105.97	103.87			32.04	5.5	35.44	118	0	Peak
2483.5	43.23	41.08	54	-10.77	32.07	5.5	35.42	118	0	Average
2483.5	58.25	56.1	74	-15.75	32.07	5.5	35.42	118	0	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2382	44.19	42.35	54	-9.81	31.93	5.4	35.49	143	114	Average
2382	59.08	57.24	74	-14.92	31.93	5.4	35.49	143	114	Peak
2462	106.93	104.83			32.04	5.5	35.44	143	114	Average
2462	114.36	112.26			32.04	5.5	35.44	143	114	Peak
2483.5	49.14	46.99	54	-4.86	32.07	5.5	35.42	143	114	Average
2483.5	63.33	61.18	74	-10.67	32.07	5.5	35.42	143	114	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 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	Harry Hsueh

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	44.76	43.03	54	-9.24	31.8	5.4	35.47	100	4	Average
2390	59.16	57.43	74	-14.84	31.8	5.4	35.47	100	4	Peak
2422	89.22	87.42			31.83	5.43	35.46	100	4	Average
2422	97.36	95.56			31.83	5.43	35.46	100	4	Peak
2486	40.94	38.95	54	-13.06	31.88	5.53	35.42	100	4	Average
2486	57.18	55.19	74	-16.82	31.88	5.53	35.42	100	4	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	53.44	51.71	54	-0.56	31.8	5.4	35.47	120	299	Average
2390	68.69	66.96	74	-5.31	31.8	5.4	35.47	120	299	Peak
2422	98.52	96.72			31.83	5.43	35.46	116	301	Average
2422	106.07	104.27			31.83	5.43	35.46	116	301	Peak
2490	42	39.99	54	-12	31.9	5.53	35.42	116	301	Average
2490	57.11	55.1	74	-16.89	31.9	5.53	35.42	116	301	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2422MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2388	41.9	40.06	54	-12.1	31.93	5.4	35.49	146	58	Average
2388	57.61	55.77	74	-16.39	31.93	5.4	35.49	146	58	Peak
2437	92.87	90.86			32.01	5.46	35.46	146	58	Average
2437	100.53	98.52			32.01	5.46	35.46	146	58	Peak
2498	43.2	40.98	54	-10.8	32.1	5.53	35.41	146	58	Average
2498	58.14	55.92	74	-15.86	32.1	5.53	35.41	146	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	46.85	44.99	54	-7.15	31.93	5.4	35.47	146	244	Average
2390	60.39	58.53	74	-13.61	31.93	5.4	35.47	146	244	Peak
2437	101.44	99.43			32.01	5.46	35.46	146	244	Average
2437	109.72	107.71			32.01	5.46	35.46	146	244	Peak
2483.5	47.27	45.12	54	-6.73	32.07	5.5	35.42	146	244	Average
2483.5	60.05	57.9	74	-13.95	32.07	5.5	35.42	146	244	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2437MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2342	40.73	39.06	54	-13.27	31.84	5.33	35.5	146	0	Average
2342	57.44	55.77	74	-16.56	31.84	5.33	35.5	146	0	Peak
2452	91.5	89.44			32.04	5.46	35.44	146	0	Average
2452	98.27	96.21			32.04	5.46	35.44	146	0	Peak
2483.5	45.43	43.28	54	-8.57	32.07	5.5	35.42	146	0	Average
2483.5	60.57	58.42	74	-13.43	32.07	5.5	35.42	146	0	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2388	42.45	40.61	54	-11.55	31.93	5.4	35.49	142	244	Average
2388	58.21	56.37	74	-15.79	31.93	5.4	35.49	142	244	Peak
2452	98.9	96.84			32.04	5.46	35.44	142	244	Average
2452	106.66	104.6			32.04	5.46	35.44	142	244	Peak
2483.5	52.93	50.78	54	-1.07	32.07	5.5	35.42	145	244	Average
2483.5	69.7	67.55	74	-4.3	32.07	5.5	35.42	145	244	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 2452MHz: Fundamental frequency.

BELOW 1GHz WORST-CASE DATA:

MODE A

802.11b

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Quasi-peak (QP)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Harry Hsueh
POWER SUPPLY	adapter		

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
195.24	35.16	55.15	43.5	-8.34	10.68	1.61	32.28	129	92	Peak
240.06	36.69	54.43	46	-9.31	12.54	1.85	32.13	113	198	Peak
288.12	35.72	52.01	46	-10.28	13.81	2.03	32.13	104	165	Peak
349.7	33.87	47.35	46	-12.13	16.4	2.19	32.07	133	109	Peak
449.8	28.99	40.65	46	-17.01	18	2.49	32.15	18	0	Peak
623.4	31.06	38.2	46	-14.94	22.1	2.93	32.17	145	189	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
59.97	31.02	55.55	40	-8.98	6.8	0.9	32.23	203	208	Peak
119.91	33.14	55.41	43.5	-10.36	8.7	1.28	32.25	137	94	Peak
195.24	31.69	51.68	43.5	-11.81	10.68	1.61	32.28	155	235	Peak
449.8	30.7	42.36	46	-15.3	18	2.49	32.15	188	164	Peak
815.9	30.96	35.67	46	-15.04	23.94	3.32	31.97	111	86	Peak
995.8	35.61	36.2	54	-18.39	26.04	3.72	30.35	101	345	Peak

REMARKS: Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value

MODE A

802.11b

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Quasi-peak (QP)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Harry Hsueh
POWER SUPPLY	POE		

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
98.85	37.29	58.64	43.5	-6.21	9.58	1.28	32.21	201	66	Peak
141.78	31.75	53.16	43.5	-11.75	9.48	1.38	32.27	168	174	Peak
250.05	30.9	48.15	46	-15.1	13	1.85	32.1	132	142	Peak
349.7	33.55	47.03	46	-12.45	16.4	2.19	32.07	100	156	Peak
598.9	28.68	36.9	46	-17.32	21.1	2.87	32.19	106	88	Peak
797	32.75	37.07	46	-13.25	24.42	3.32	32.06	108	101	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
49.98	25.95	49.47	40	-14.05	7.8	0.9	32.22	108	19	Peak
91.02	38.35	60.03	43.5	-5.15	8.98	1.11	31.77	164	30	Peak
250.05	30.95	48.2	46	-15.05	13	1.85	32.1	147	138	Peak
398	26.8	38.73	46	-19.2	17.95	2.34	32.22	117	187	Peak
578.6	30.07	39.22	46	-15.93	20.23	2.82	32.2	166	201	Peak
797.7	36.66	40.98	46	-9.34	24.42	3.32	32.06	118	39	Peak

REMARKS: Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value

MODE C

802.11b

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Quasi-peak (QP)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Harry Hsueh
POWER SUPPLY	POE		

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
88.59	39.44	61.31	43.5	-4.06	8.83	1.11	31.81	112	95	Peak
145.29	35.3	56.46	43.5	-8.2	9.73	1.38	32.27	164	78	Peak
180.93	37.2	57.43	43.5	-6.3	10.4	1.61	32.24	138	18	Peak
374.9	30.74	44.33	46	-15.26	16.3	2.26	32.15	105	110	Peak
624.8	31.26	38.4	46	-14.74	22.1	2.93	32.17	100	198	Peak
875.4	35.9	39.24	46	-10.1	24.8	3.49	31.63	145	132	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
67.26	34.15	57.69	40	-5.85	7.78	0.9	32.22	189	135	Peak
78.87	36.97	59.71	40	-3.03	8.36	1.11	32.21	145	193	Peak
172.83	32.6	53.21	43.5	-10.9	10.11	1.52	32.24	132	66	Peak
449.8	32.75	44.41	46	-13.25	18	2.49	32.15	196	203	Peak
624.8	37.14	44.28	46	-8.86	22.1	2.93	32.17	168	101	Peak
874.7	35.53	38.88	46	-10.47	24.8	3.49	31.64	108	137	Peak

REMARKS: Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value

4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

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

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

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

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100289	Nov. 29, 2013	Nov. 28, 2014
RF signal cable Woken	5D-FB	Cable-HYC01-01	Dec. 27, 2013	Dec. 26, 2014
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100311	Jul. 17, 2013	Jul. 16, 2014
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	835239/001	Feb. 04, 2013	Feb. 03, 2014
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 17, 2013	Jul. 16, 2014
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.

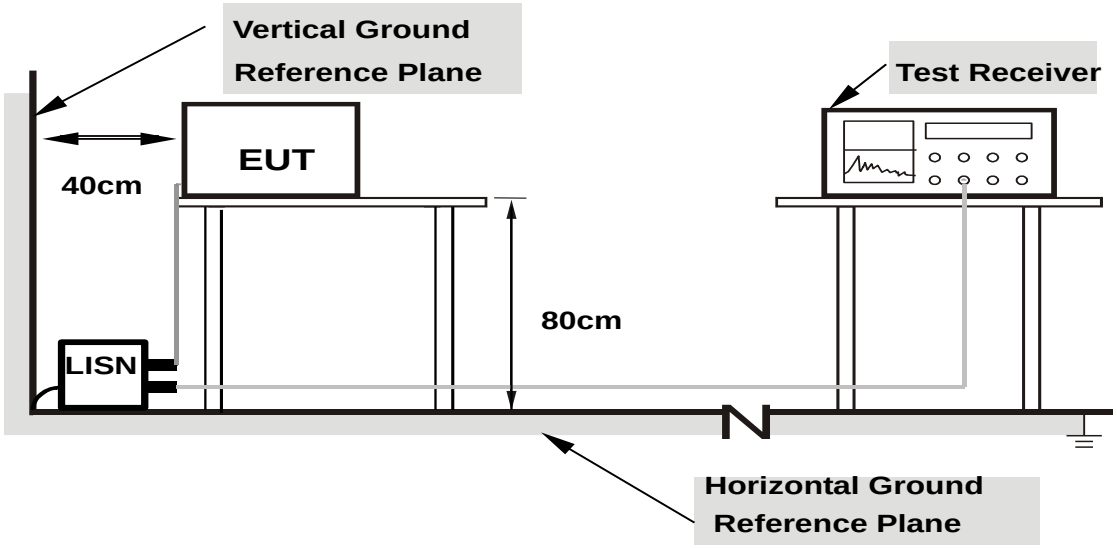
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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：

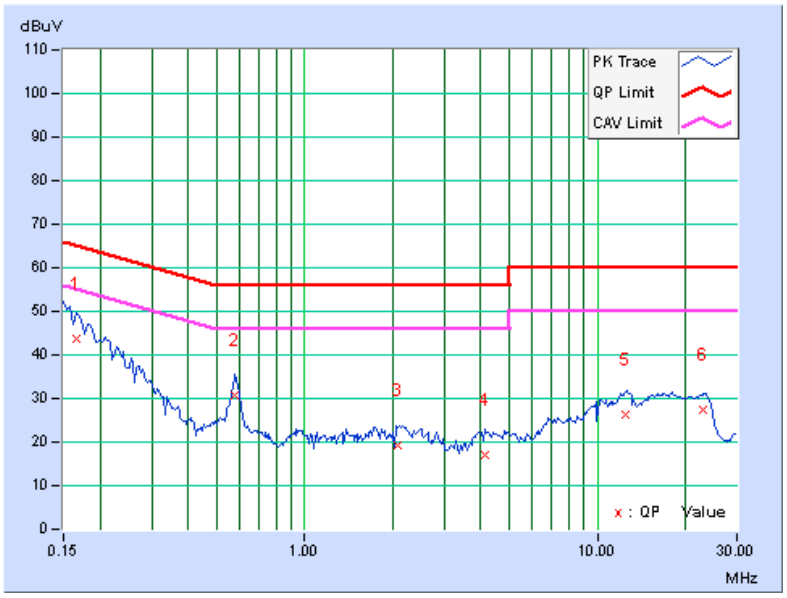
MODE A

PHASE	Line 1	**6dB BANDWIDTH**	9kHz
POWER SUPPLY	adapter		

Phase Of Power : Line (L)										
No	Frequency	Correction Factor	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
	(MHz)	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16562	0.27	43.45	29.69	43.72	29.96	65.18	55.18	-21.46	-25.22
2	0.57969	0.31	30.44	24.12	30.75	24.43	56.00	46.00	-25.25	-21.57
3	2.08984	0.36	18.89	11.28	19.25	11.64	56.00	46.00	-36.75	-34.36
4	4.12109	0.43	16.67	9.09	17.10	9.52	56.00	46.00	-38.90	-36.48
5	12.50391	0.52	25.85	19.23	26.37	19.75	60.00	50.00	-33.63	-30.25
6	23.00000	0.56	26.93	21.58	27.49	22.14	60.00	50.00	-32.51	-27.86

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

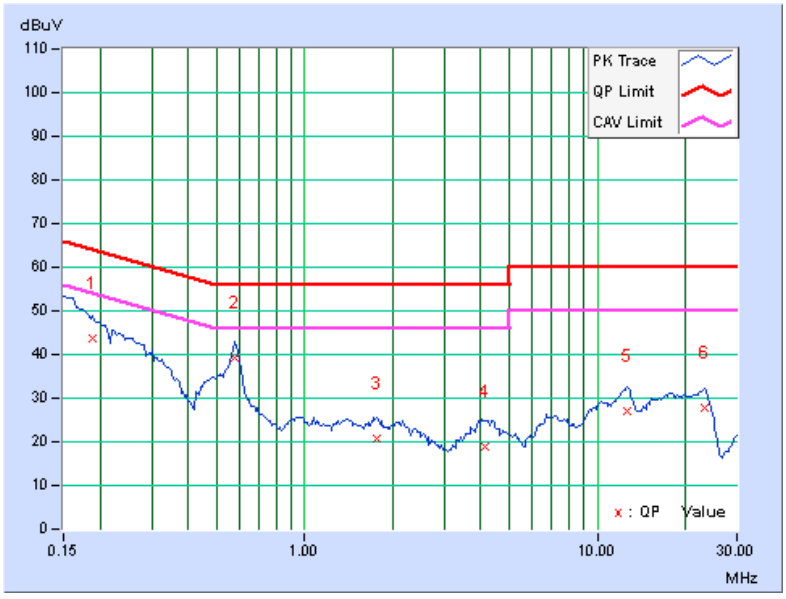


PHASE	Line 2	6dB BANDWIDTH	9kHz
POWER SUPPLY	adapter		

Phase Of Power : Neutral (N)										
No	Frequency	Correction Factor	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
	(MHz)	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.18906	0.28	43.51	30.07	43.79	30.35	64.08	54.08	-20.29	-23.73
2	0.57578	0.31	39.13	32.75	39.44	33.06	56.00	46.00	-16.56	-12.94
3	1.76563	0.36	20.52	12.53	20.88	12.89	56.00	46.00	-35.12	-33.11
4	4.14453	0.44	18.44	9.80	18.88	10.24	56.00	46.00	-37.12	-35.76
5	12.59375	0.54	26.44	19.65	26.98	20.19	60.00	50.00	-33.02	-29.81
6	23.19531	0.59	27.02	21.55	27.61	22.14	60.00	50.00	-32.39	-27.86

Remarks:

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



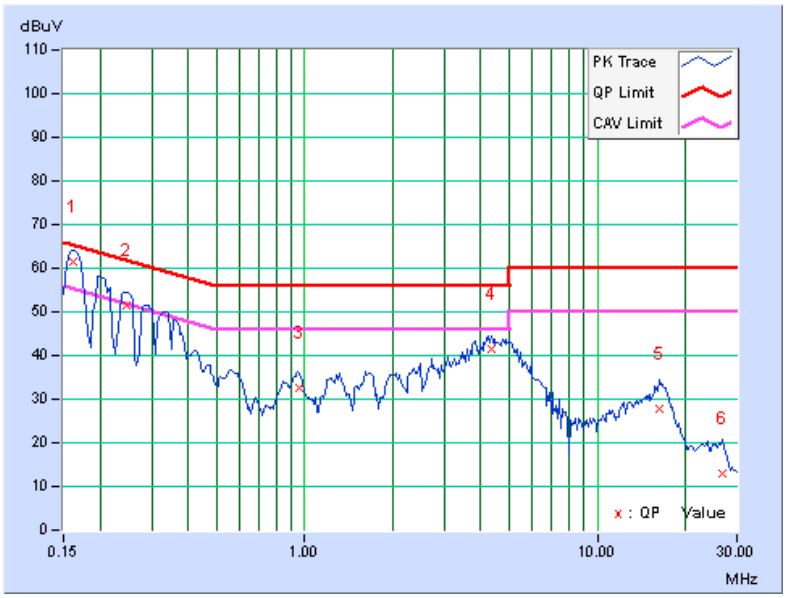
MODE A

PHASE	Line 1	6dB BANDWIDTH	9kHz
POWER SUPPLY	POE		

Phase Of Power : Line (L)										
No	Frequency	Correction Factor	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
	(MHz)	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16172	0.27	61.26	48.47	61.53	48.74	65.38	55.38	-3.85	-6.64
2	0.24766	0.28	51.06	38.97	51.34	39.25	61.84	51.84	-10.49	-12.58
3	0.95859	0.34	32.10	22.29	32.44	22.63	56.00	46.00	-23.56	-23.37
4	4.34766	0.43	41.16	35.78	41.59	36.21	56.00	46.00	-14.41	-9.79
5	16.26563	0.55	27.10	21.03	27.65	21.58	60.00	50.00	-32.35	-28.42
6	26.69531	0.50	12.42	7.50	12.92	8.00	60.00	50.00	-47.08	-42.00

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

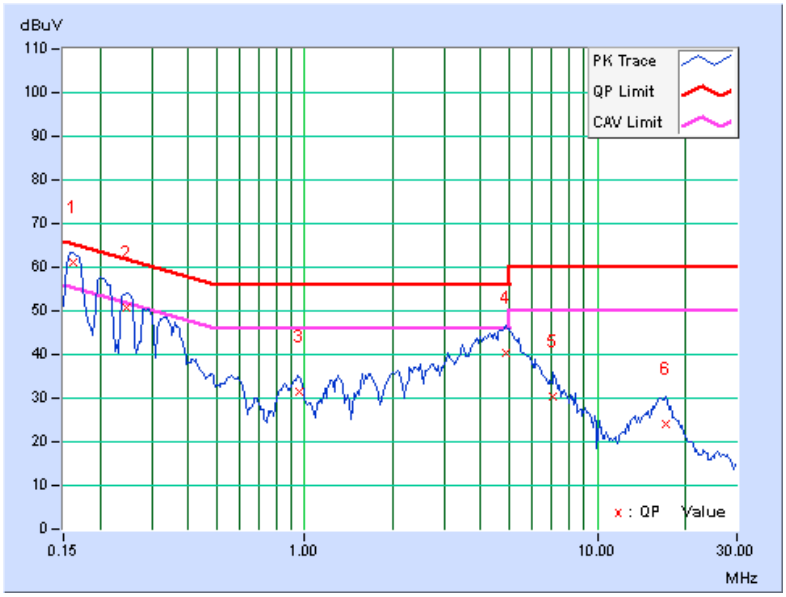


PHASE	Line 2	**6dB BANDWIDTH**	9kHz
POWER SUPPLY	POE		

Phase Of Power : Neutral (N)										
No	**Frequency**	**Correction Factor**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
	(MHz)	**(dB)**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	0.16172	0.27	60.66	48.10	60.93	48.37	65.38	55.38	-4.45	-7.01
2	0.24766	0.28	50.48	38.07	50.76	38.35	61.84	51.84	-11.07	-13.48
3	0.96250	0.34	31.31	21.09	31.65	21.43	56.00	46.00	-24.35	-24.57
4	4.85547	0.45	40.08	31.63	40.53	32.08	56.00	46.00	-15.47	-13.92
5	7.08203	0.48	29.76	24.94	30.24	25.42	60.00	50.00	-29.76	-24.58
6	17.14844	0.60	23.60	18.01	24.20	18.61	60.00	50.00	-35.80	-31.39

Remarks:

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



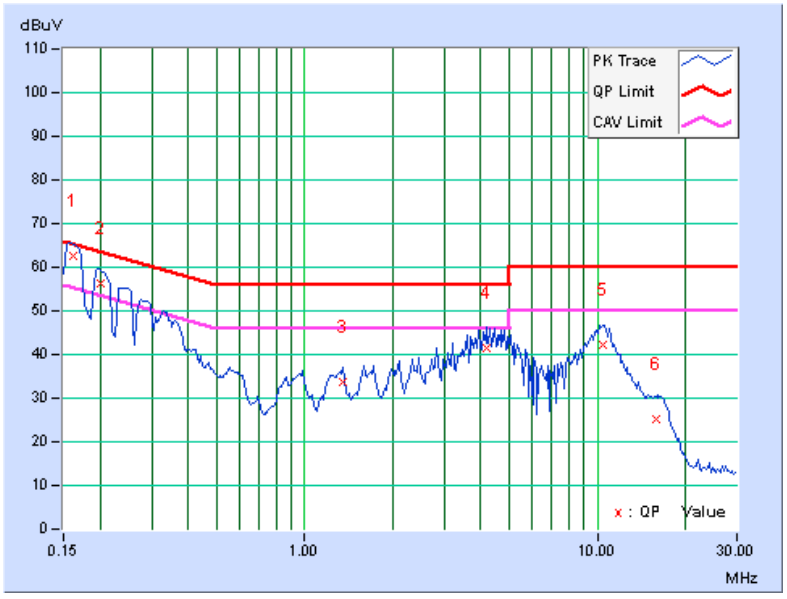
MODE C

PHASE	Line 1	6dB BANDWIDTH	9kHz
POWER SUPPLY	POE		

Phase Of Power : Line (L)										
No	Frequency	Correction Factor	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
	(MHz)	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	**0.16172**	**0.27**	**62.32**	**50.84**	**62.59**	**51.11**	**65.38**	**55.38**	**-2.79**	**-4.27**
2	0.20078	0.28	56.14	43.62	56.42	43.90	63.58	53.58	-7.16	-9.68
3	1.35938	0.35	33.36	25.87	33.71	26.22	56.00	46.00	-22.29	-19.78
4	4.19531	0.43	41.09	37.06	41.52	37.49	56.00	46.00	-14.48	-8.51
5	10.48828	0.50	41.83	37.21	42.33	37.71	60.00	50.00	-17.67	-12.29
6	15.83203	0.54	24.83	19.20	25.37	19.74	60.00	50.00	-34.63	-30.26

Remarks:

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

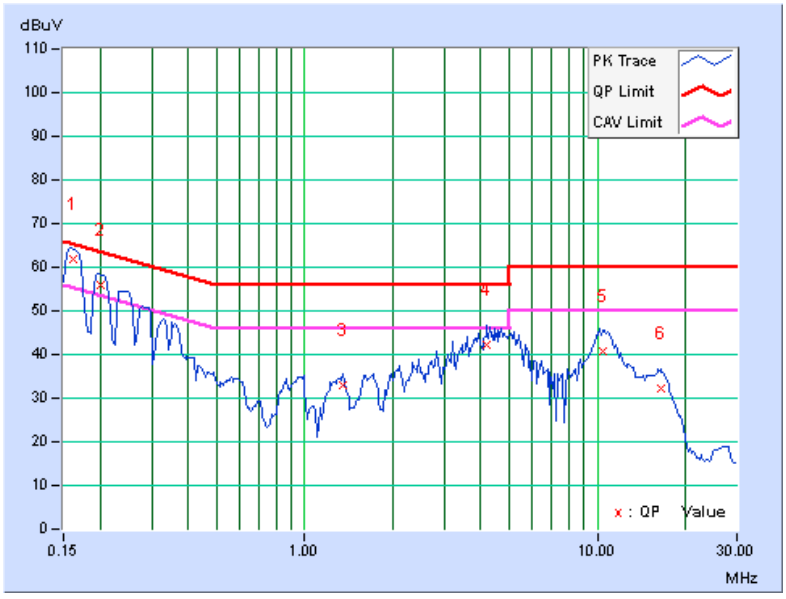


PHASE	Line 2	6dB BANDWIDTH	9kHz
POWER SUPPLY	POE		

Phase Of Power : Neutral (N)										
No	Frequency	Correction Factor	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
	(MHz)	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16172	0.27	61.68	50.10	61.95	50.37	65.38	55.38	-3.43	-5.01
2	0.20078	0.28	55.73	41.68	56.01	41.96	63.58	53.58	-7.57	-11.62
3	1.35547	0.35	32.46	24.72	32.81	25.07	56.00	46.00	-23.19	-20.93
4	4.19531	0.44	41.65	36.84	42.09	37.28	56.00	46.00	-13.91	-8.72
5	10.49609	0.52	40.27	34.94	40.79	35.46	60.00	50.00	-19.21	-14.54
6	16.48828	0.59	31.50	24.99	32.09	25.58	60.00	50.00	-27.91	-24.42

Remarks:

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

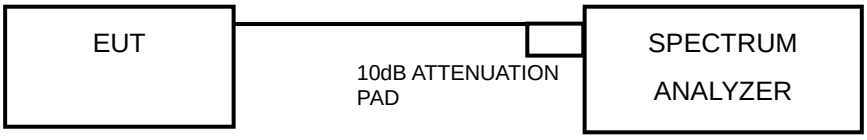


4.3 6dB BANDWIDTH MEASUREMENT

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) = 100kHz
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	10.10	0.5	PASS
6	2437	10.11	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	16.35	0.5	PASS
6	2437	16.40	0.5	PASS
11	2462	16.36	0.5	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	17.58	0.5	PASS
6	2437	17.61	0.5	PASS
11	2462	17.60	0.5	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
3	2422	36.42	0.5	PASS
6	2437	36.45	0.5	PASS
6	2452	36.43	0.5	PASS

MODE B

802.11n (20MHz)

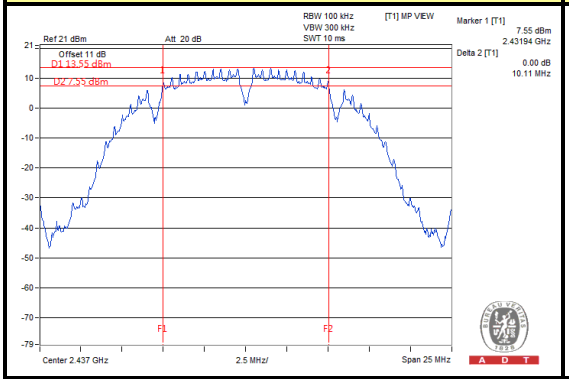
CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	17.66	17.62	0.5	PASS
6	2437	17.72	17.68	0.5	PASS
11	2462	17.72	17.66	0.5	PASS

802.11n (40MHz)

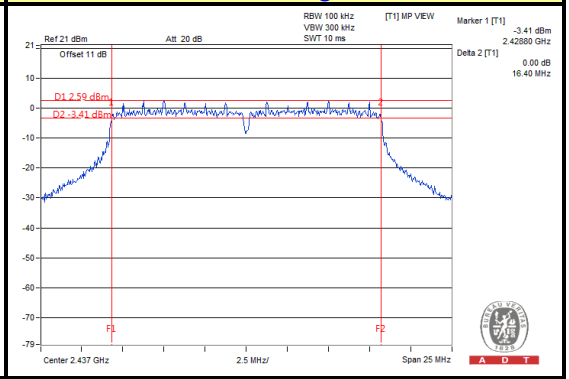
CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
3	2422	36.46	36.49	0.5	PASS
6	2437	36.55	36.22	0.5	PASS
9	2452	36.46	36.45	0.5	PASS

SPECTRUM PLOT OF WORST VALUE

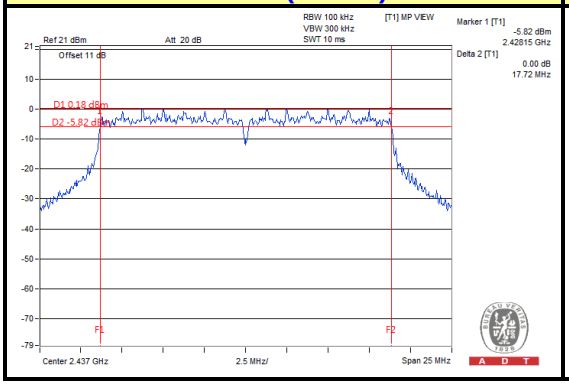
802.11b



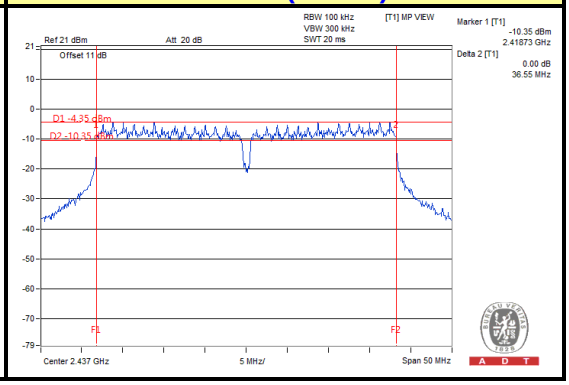
802.11g



802.11n (20MHz)



802.11n (40MHz)

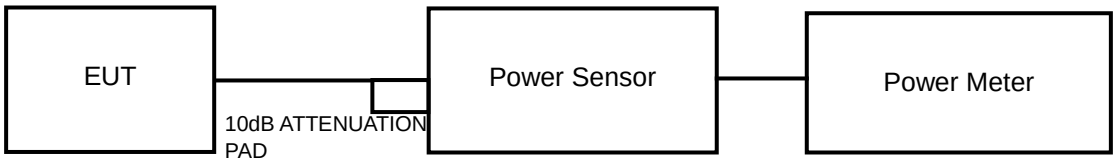


4.4 CONDUCTED OUTPUT POWER

4.4.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

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

4.4.2 TEST SETUP



4.4.3 TEST INSTRUMENTS

Refer to section 4.1.2 to get information of above instrument.

4.4.4 TEST PROCEDURES

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

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6.

4.4.7 TEST RESULTS

MODE A

802.11b

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	321.366	25.07	30	PASS
6	2437	324.340	25.11	30	PASS
11	2462	339.625	25.31	30	PASS

802.11g

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	268.534	24.29	30	PASS
6	2437	266.073	24.25	30	PASS
11	2462	252.348	24.02	30	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	287.078	24.58	30	PASS
6	2437	267.301	24.27	30	PASS
11	2462	291.072	24.64	30	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
3	2422	146.893	21.67	30	PASS
6	2437	137.721	21.39	30	PASS
9	2452	134.276	21.28	30	PASS

MODE B

802.11n (20MHz)

CHAN.	FREQ. (MHz)	PEAK POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	21.59	21.82	296.266	24.72	28	PASS
6	2437	21.56	21.84	295.975	24.71	28	PASS
11	2462	21.64	21.57	289.430	24.62	28	PASS

NOTE: Directional gain = 5dBi + 10log(2) = 8dBi > 6dBi , so the power density limit shall be reduced to 30-(8-6) = 28dBm.

802.11n (40MHz)

CHAN.	FREQ. (MHz)	PEAK POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
3	2422	20.23	20.56	219.201	23.41	28	PASS
6	2437	21.58	21.86	297.342	24.73	28	PASS
9	2452	22.27	21.93	324.611	25.11	28	PASS

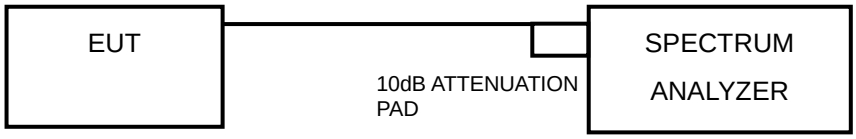
NOTE: Directional gain = 5dBi + 10log(2) = 8dBi > 6dBi , so the power density limit shall be reduced to 30-(8-6) = 28dBm.

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	-0.54	8	PASS
6	2437	-0.48	8	PASS
11	2462	-0.51	8	PASS

802.11g

Channel	FREQ. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
1	2412	-10.64	8	PASS
6	2437	-11.67	8	PASS
11	2462	-11.90	8	PASS

802.11n (20MHz)

Channel	FREQ. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
1	2412	-10.35	8	PASS
6	2437	-10.82	8	PASS
11	2462	-11.05	8	PASS

802.11n (40MHz)

Channel	FREQ. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
3	2422	-19.33	8	PASS
6	2437	-20.10	8	PASS
9	2452	-17.82	8	PASS

MODE B

802.11n (20MHz)

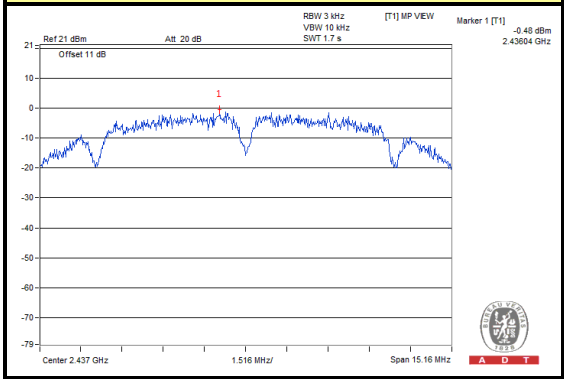
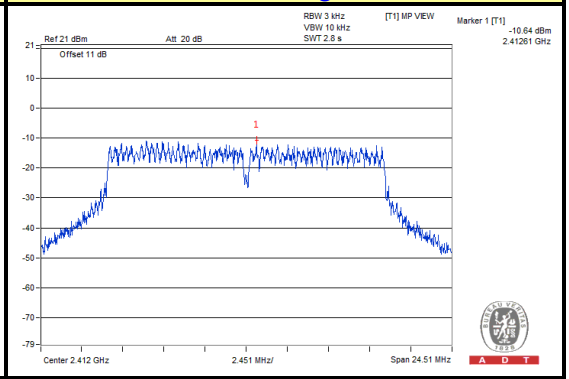
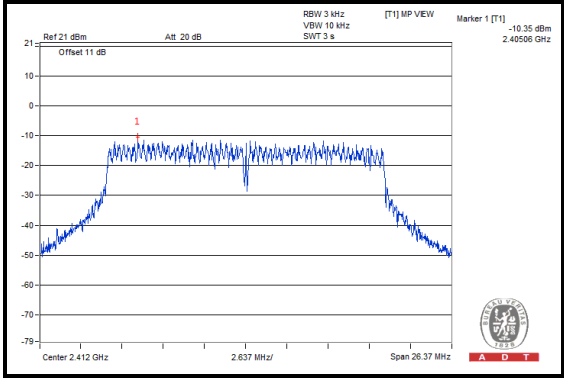
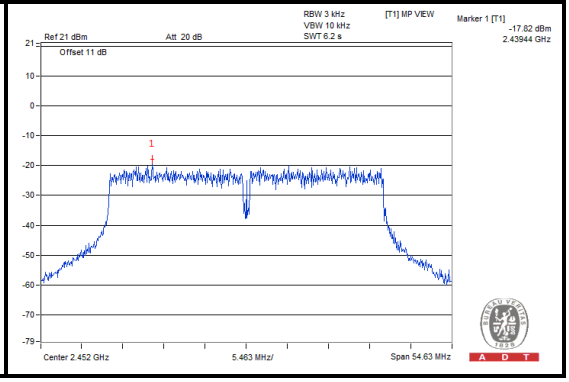
TX Chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	1	2412	-14.84	3.01	-11.83	6	PASS
	6	2437	-13.83	3.01	-10.82	6	PASS
	11	2462	-14.05	3.01	-11.04	6	PASS
1	1	2412	-14.29	3.01	-11.28	6	PASS
	6	2437	-13.24	3.01	-10.23	6	PASS
	11	2462	-13.61	3.01	-10.60	6	PASS

NOTE: Directional gain = 5dBi + 10log(2) = 8dBi > 6dBi , so the power density limit shall be reduced to 8-(8-6) = 6dBm.

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	-20.50	3.01	-17.49	6	PASS
	6	2437	-18.62	3.01	-15.61	6	PASS
	9	2452	-19.02	3.01	-16.01	6	PASS
1	3	2422	-19.77	3.01	-16.76	6	PASS
	6	2437	-18.75	3.01	-15.74	6	PASS
	9	2452	-18.52	3.01	-15.51	6	PASS

NOTE: Directional gain = 5dBi + 10log(2) = 8dBi > 6dBi , so the power density limit shall be reduced to 8-(8-6) = 6dBm.

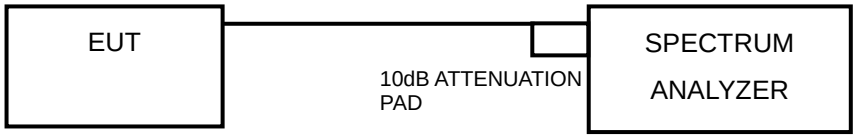
SPECTRUM PLOT OF WORST VALUE	
802.11b	802.11g
	
802.11n (20MHz)	802.11n (40MHz)
	

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. Ensure that the number of measurement points ≥ span/RBW
4. According to measurement points to set differ measurement span.
5. Detector = peak.
6. Trace Mode = max hold.
7. Sweep = auto couple.

4.6.5 DEVIATION FROM TEST STANDARD

No deviation.

4.6.6 EUT OPERATING CONDITION

Same as Item 4.3.6

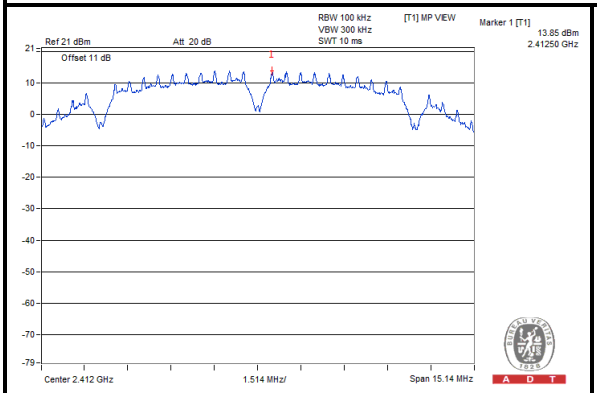
4.6.7 TEST RESULTS

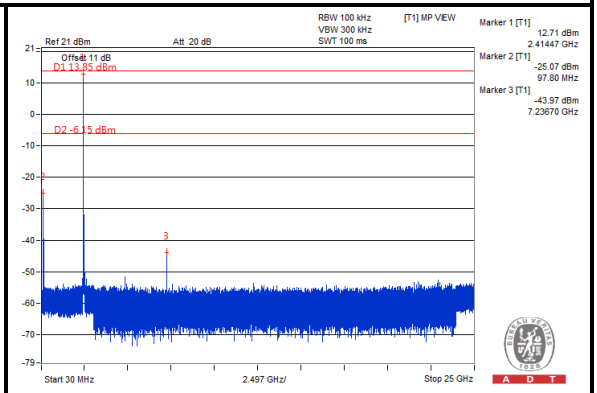
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement.

MODE A

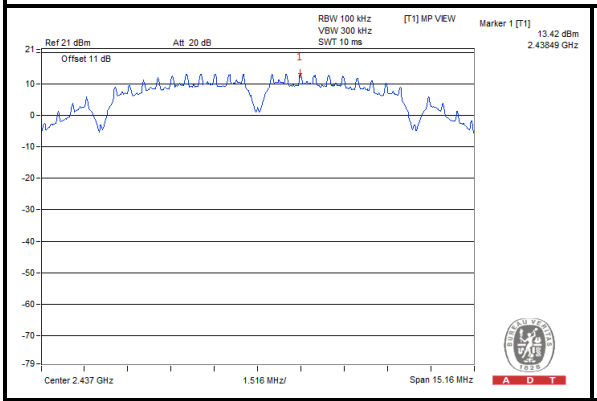
802.11b

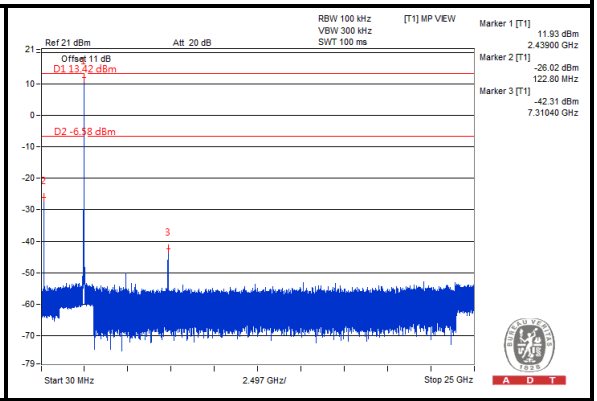
CH 1



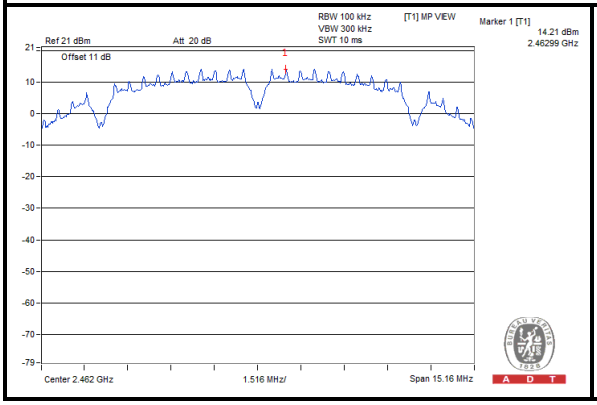


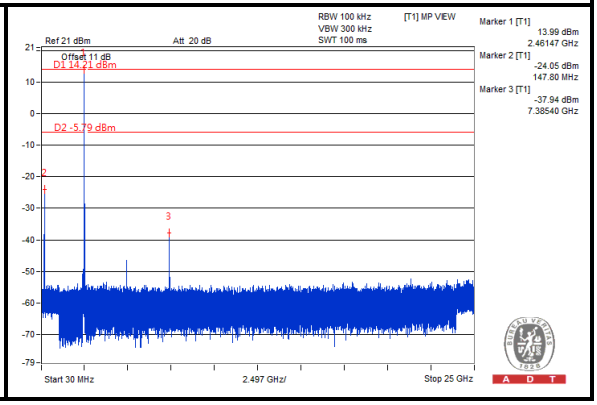
CH 6





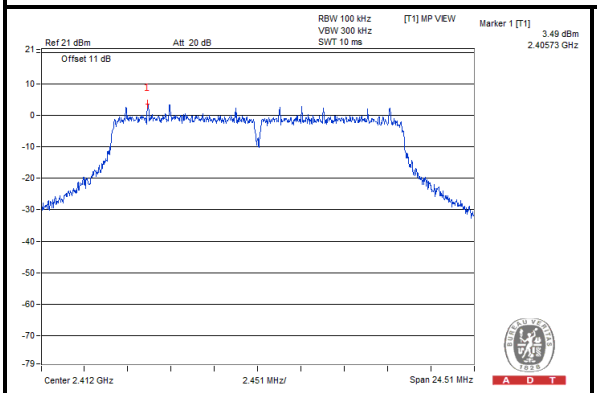
CH 11

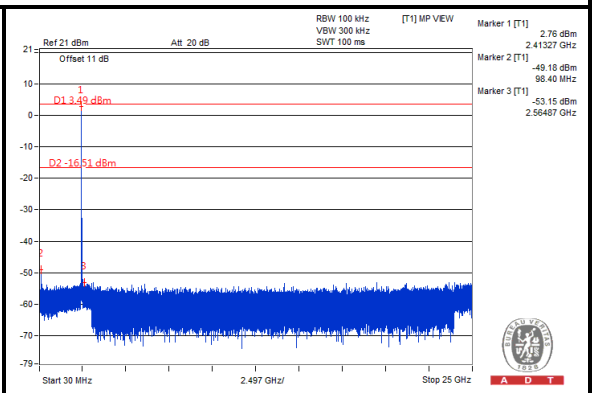




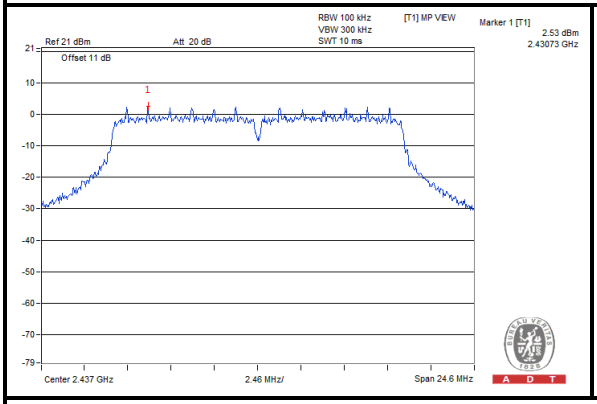
802.11g

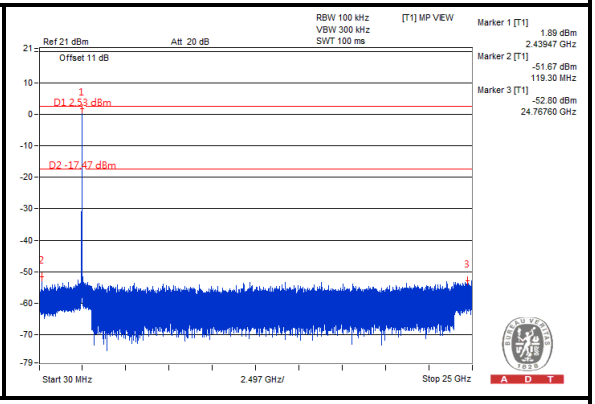
CH 1



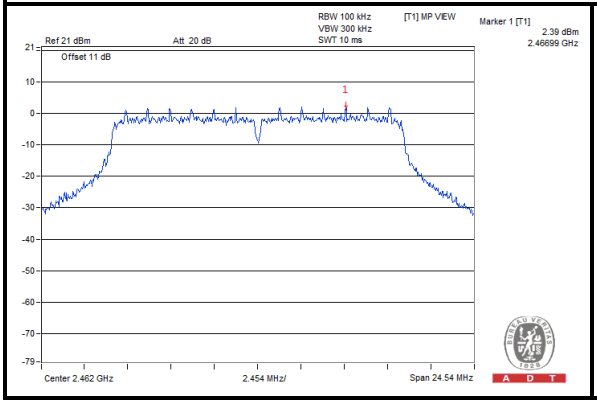


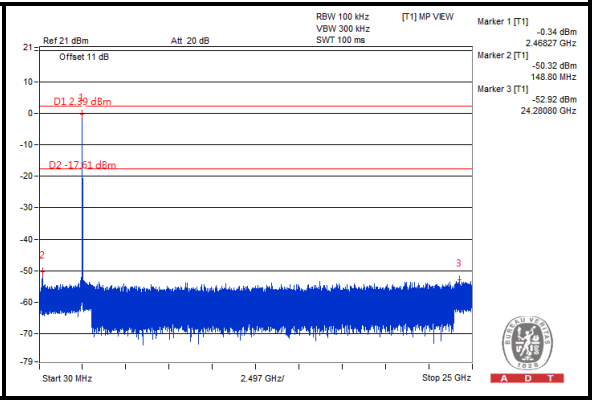
CH 6





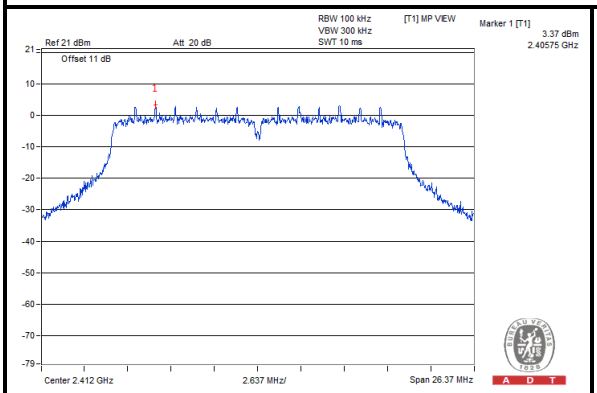
CH 11

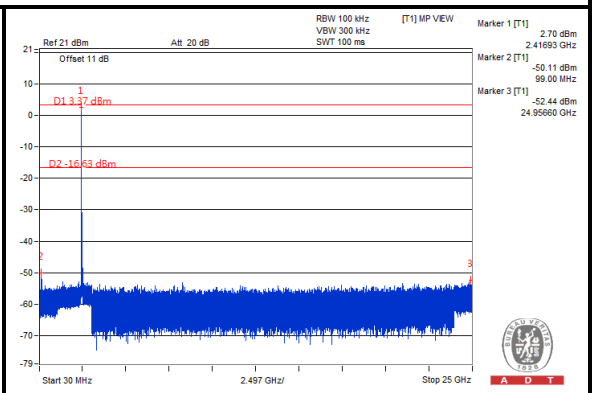




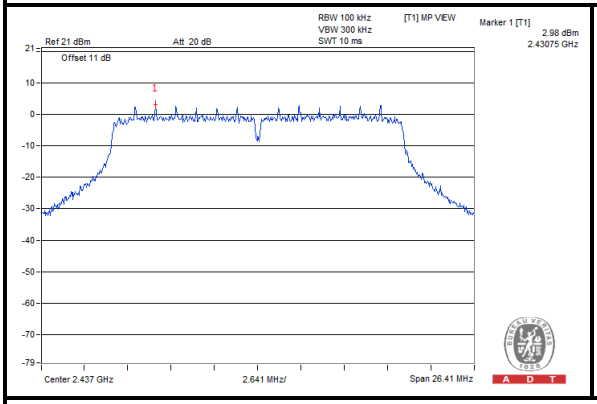
802.11n (20MHz)

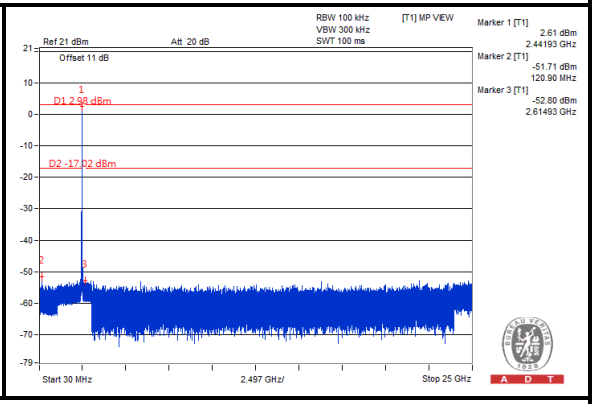
CH 1



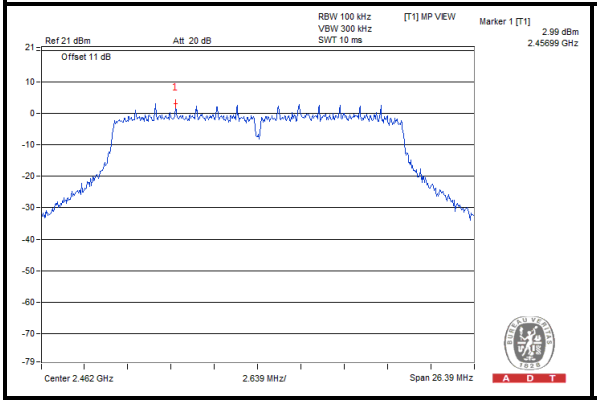


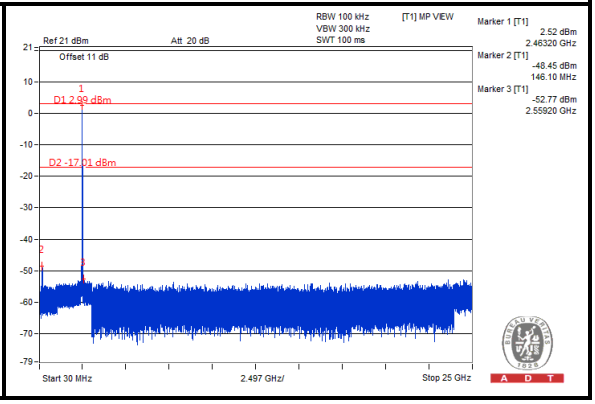
CH 6





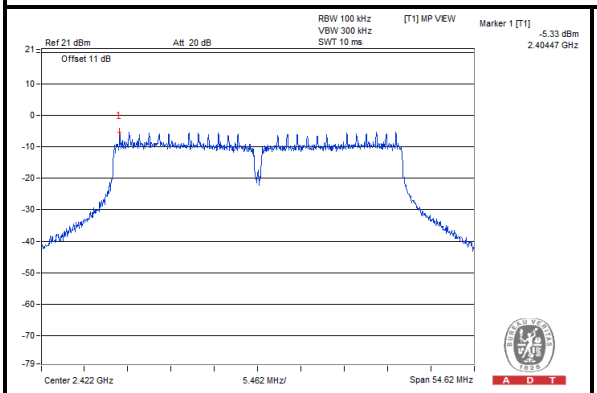
CH 11

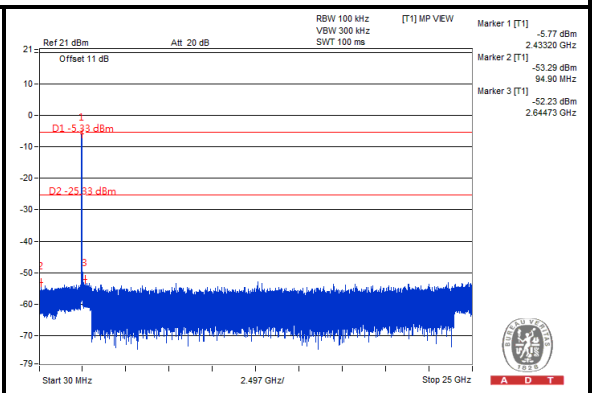




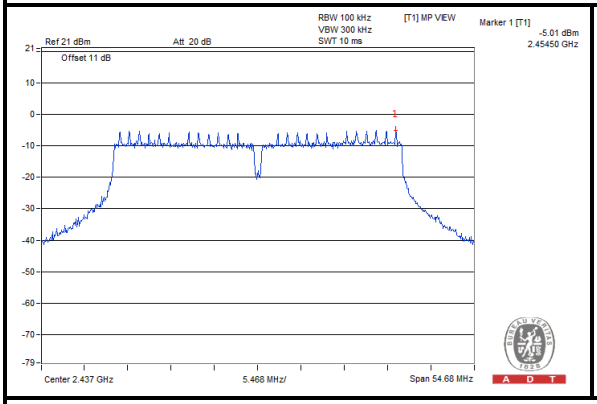
802.11n (40MHz)

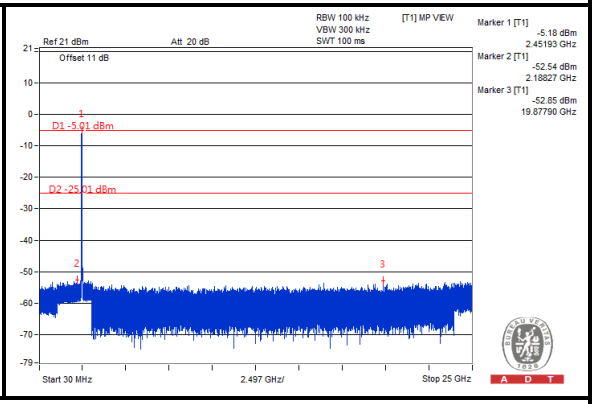
CH 3



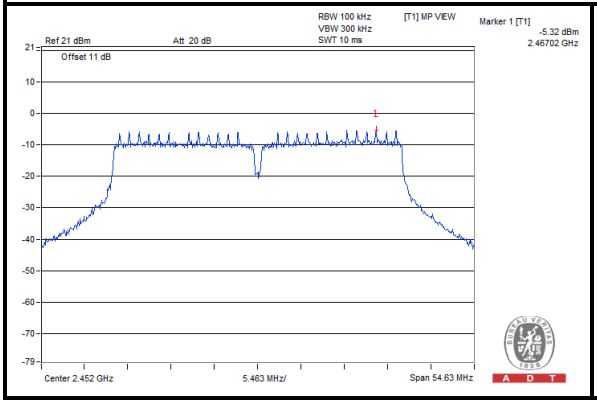


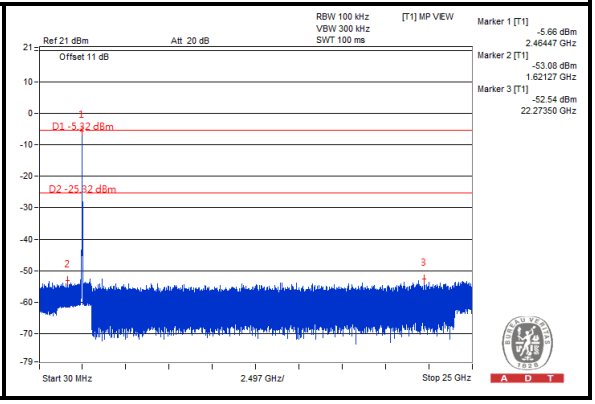
CH 6





CH 9

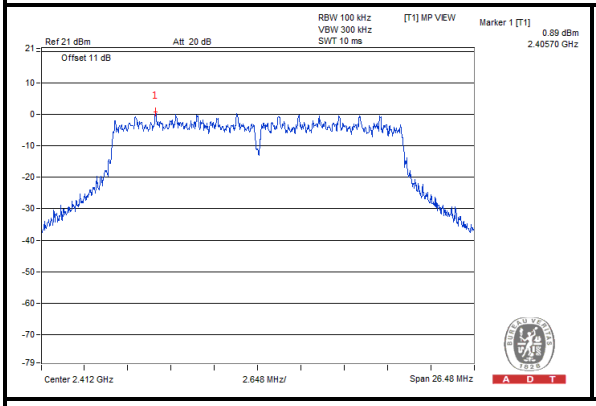


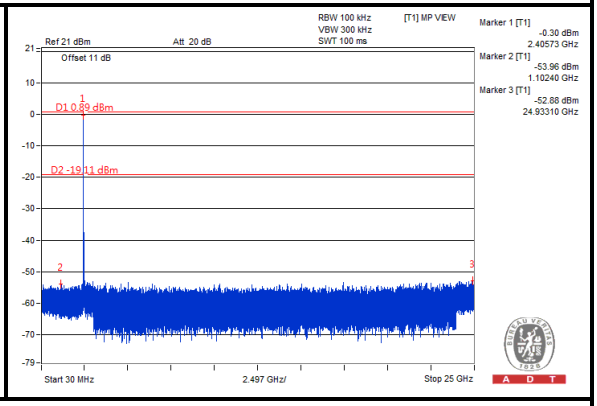


MODE B (Chain 0)

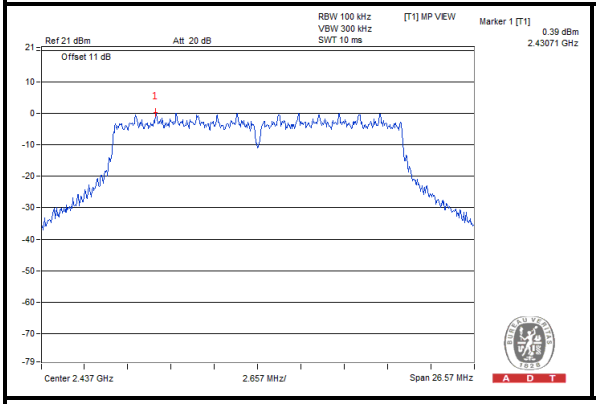
802.11n (20MHz)

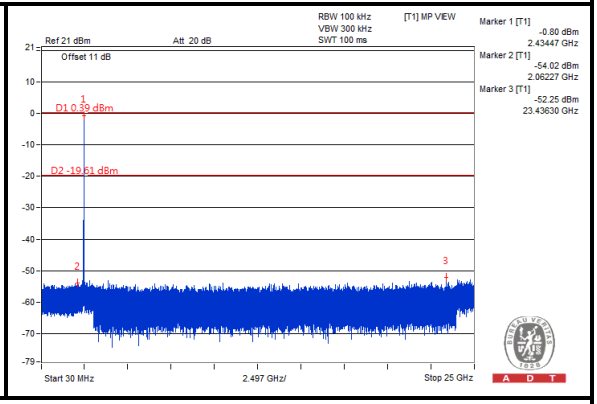
CH 1



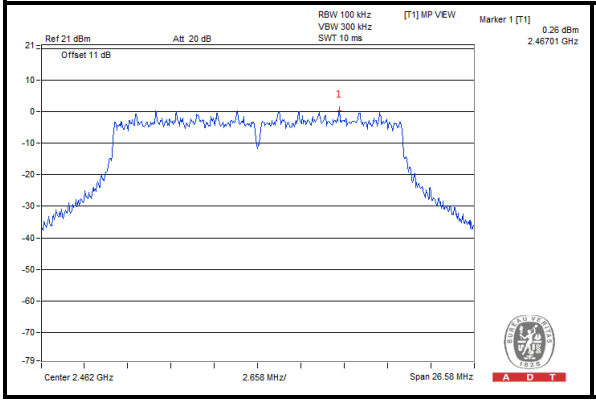


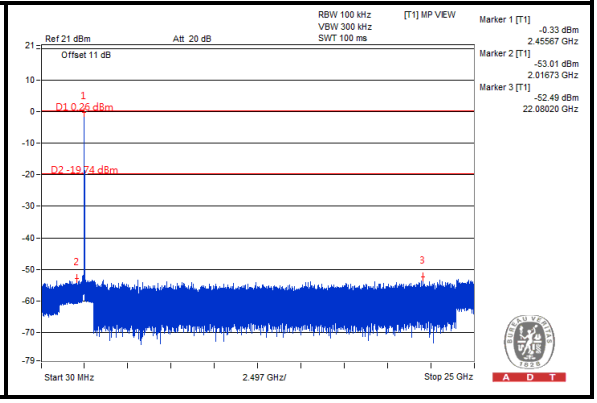
CH 6





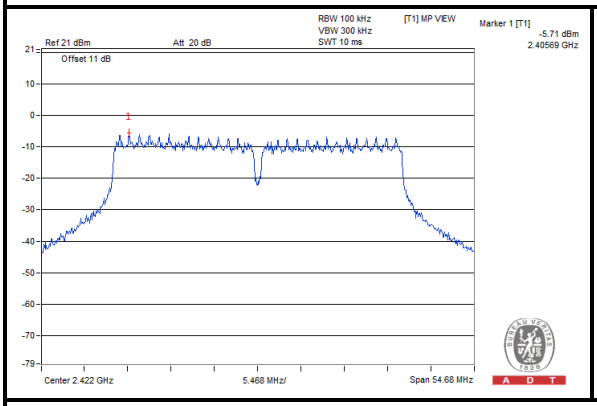
CH 11

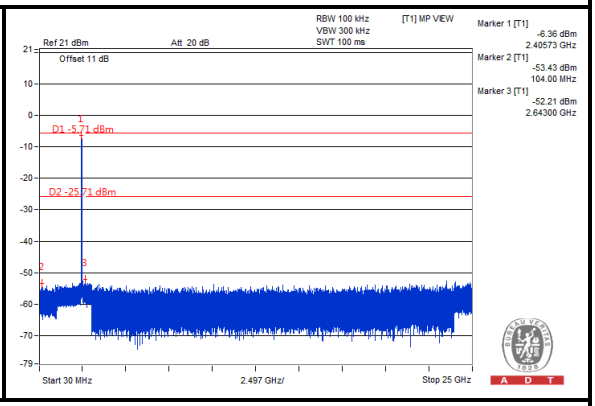




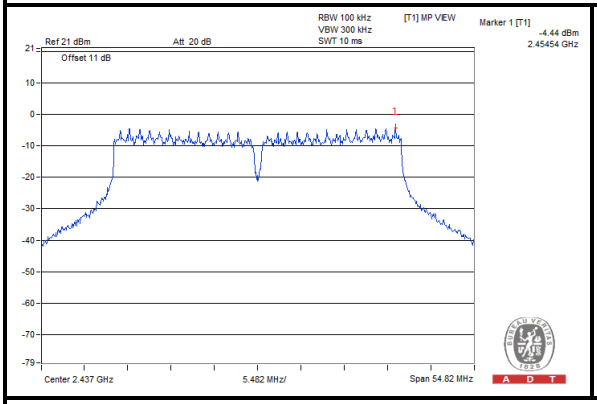
802.11n (40MHz)

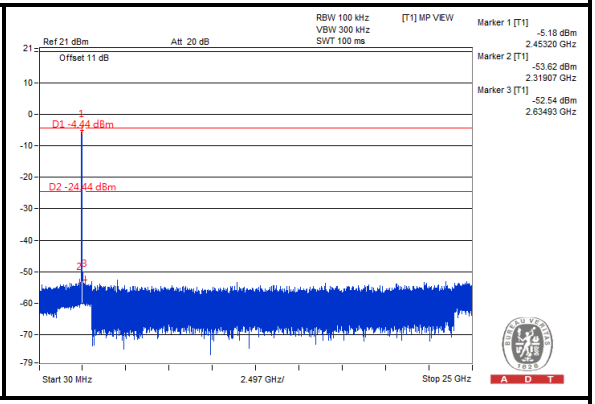
CH 3



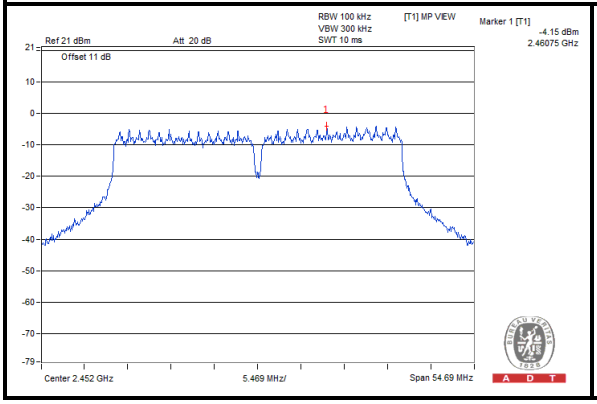


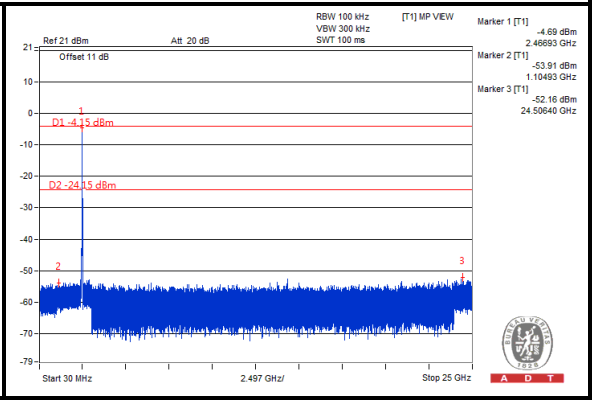
CH 6





CH 9

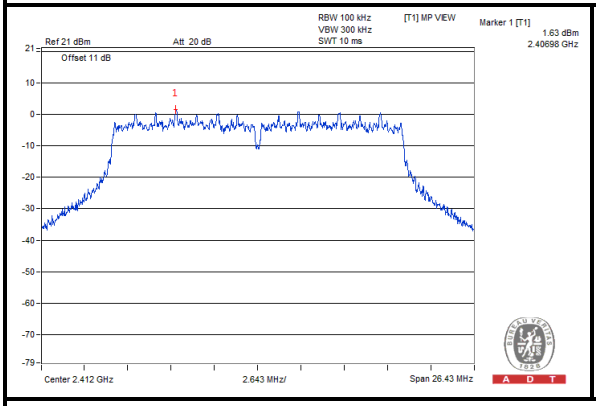


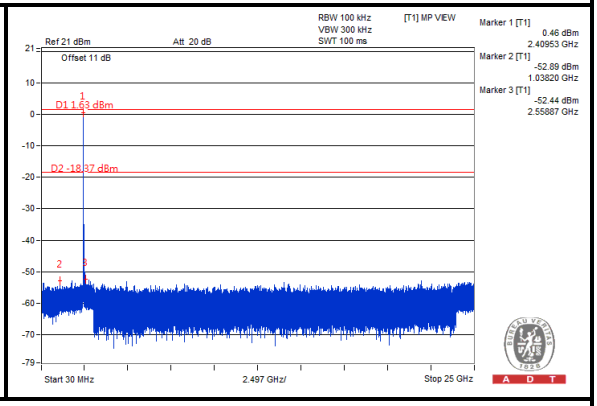


MODE B (Chain 1)

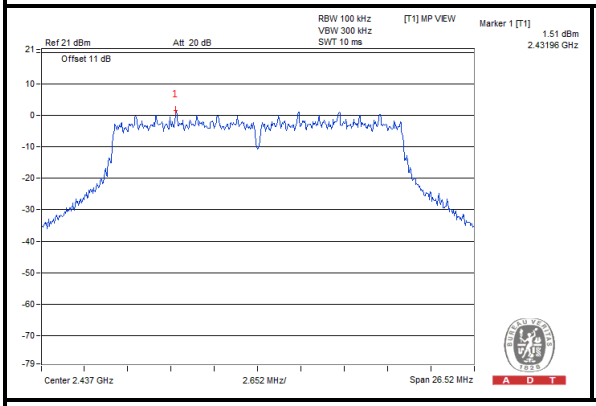
802.11n (20MHz)

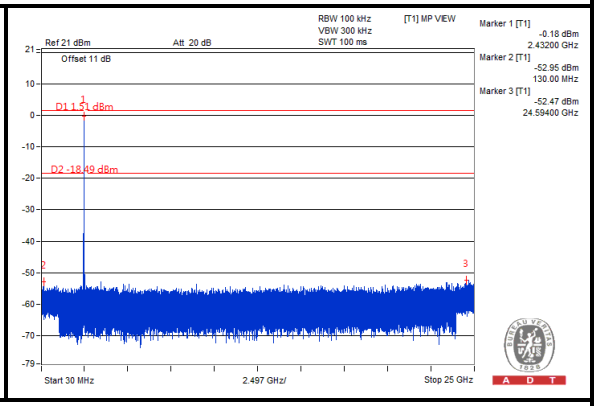
CH 1



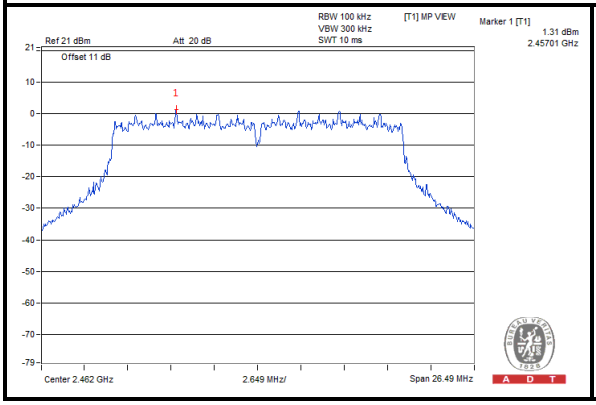


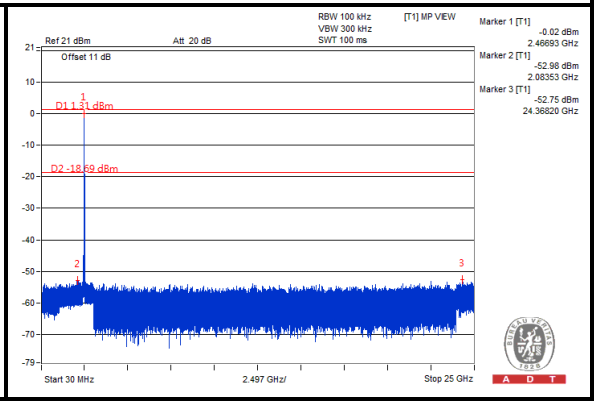
CH 6





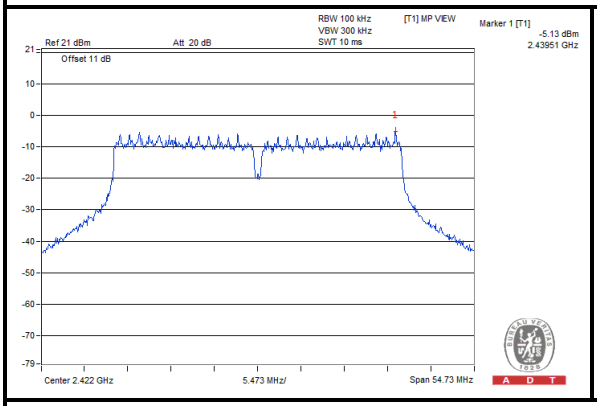
CH 11

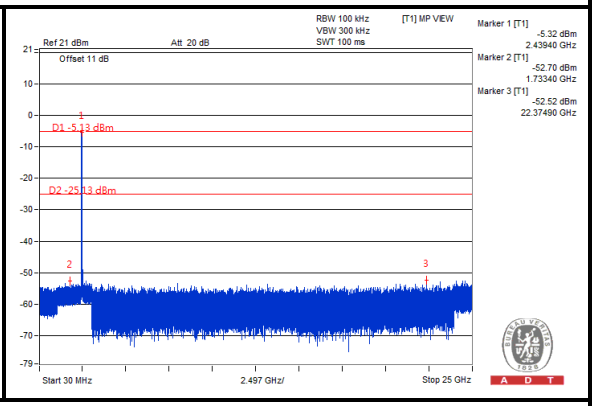




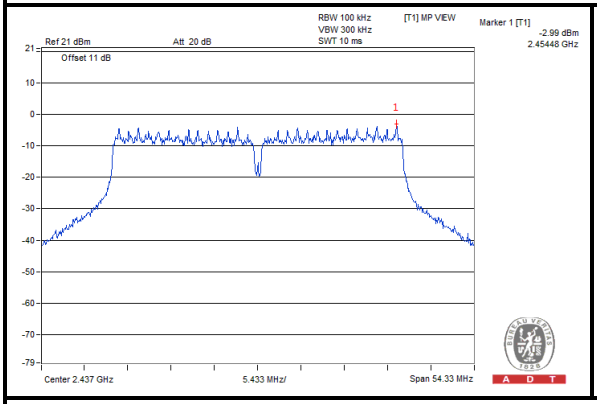
802.11n (40MHz)

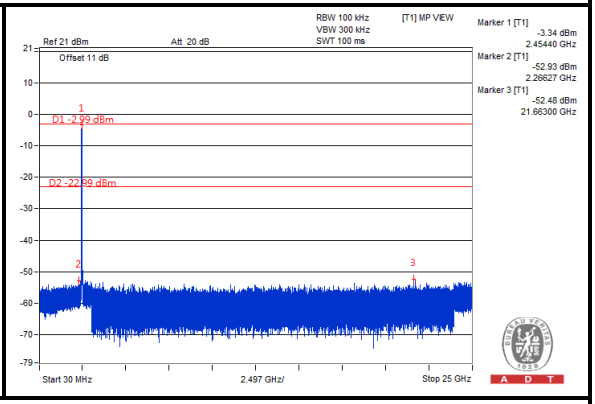
CH 3



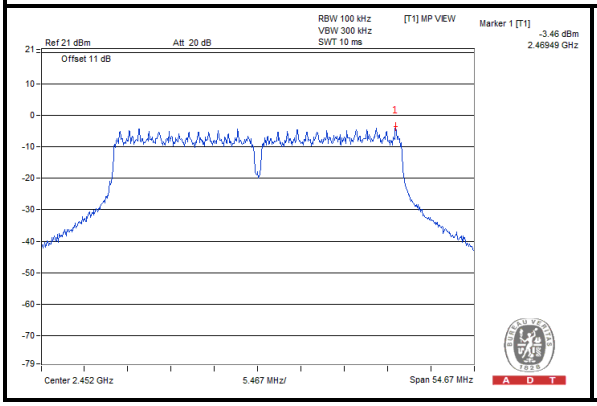


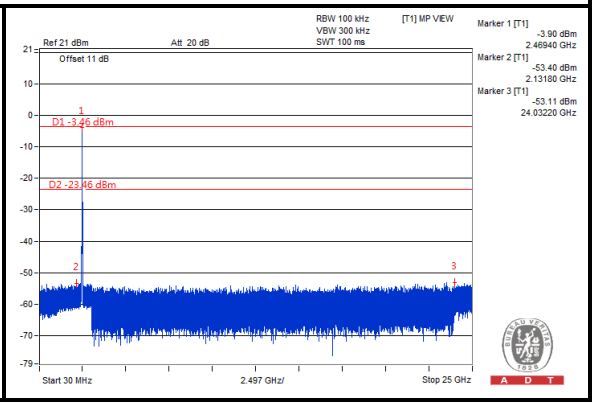
CH 6





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

MODE A

ABOVE 1GHz WORST-CASE DATA：802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	46.85	37.64	68.22	-21.37	34.67	8.65	34.11	181	330	Average
5725	59.77	50.56	75.59	-15.82	34.67	8.65	34.11	181	330	Peak
5745	88.22	78.97			34.7	8.66	34.11	181	330	Average
5745	95.59	86.34			34.7	8.66	34.11	181	330	Peak
5825	45.62	36.25	68.22	-22.6	34.81	8.69	34.13	181	330	Average
5825	58.71	49.34	75.59	-16.88	34.81	8.69	34.13	181	330	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	49.02	39.81	75.03	-26.01	34.67	8.65	34.11	163	264	Average
5725	61.26	52.05	82.04	-20.78	34.67	8.65	34.11	163	264	Peak
5745	95.03	85.78			34.7	8.66	34.11	163	264	Average
5745	102.04	92.79			34.7	8.66	34.11	163	264	Peak
5825	46.03	36.66	75.03	-29	34.81	8.69	34.13	163	264	Average
5825	57.57	48.2	82.04	-24.47	34.81	8.69	34.13	163	264	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5745MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	45.94	36.73	67.43	-21.49	34.67	8.65	34.11	110	79	Average
5725	58.48	49.27	75.98	-17.5	34.67	8.65	34.11	110	79	Peak
5785	87.43	78.12			34.76	8.68	34.13	110	79	Average
5785	95.98	86.67			34.76	8.68	34.13	110	79	Peak
5825	45.06	35.69	67.43	-22.37	34.81	8.69	34.13	110	79	Average
5825	58.38	49.01	75.98	-17.6	34.81	8.69	34.13	110	79	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	45.44	36.23	76.81	-31.37	34.67	8.65	34.11	101	81	Average
5725	61	51.79	83.8	-22.8	34.67	8.65	34.11	101	81	Peak
5785	96.81	87.5			34.76	8.68	34.13	101	81	Average
5785	103.8	94.49			34.76	8.68	34.13	101	81	Peak
5825	45.17	35.8	76.81	-31.64	34.81	8.69	34.13	101	81	Average
5825	58.41	49.04	83.8	-25.39	34.81	8.69	34.13	101	81	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5785MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	45.32	36.11	67.35	-22.03	34.67	8.65	34.11	110	81	Average
5725	59.15	49.94	75.91	-16.76	34.67	8.65	34.11	110	81	Peak
5805	87.35	78.01			34.79	8.68	34.13	110	81	Average
5805	95.91	86.57			34.79	8.68	34.13	110	81	Peak
5825	46.19	36.82	67.35	-21.16	34.81	8.69	34.13	110	81	Average
5825	59.48	50.11	75.91	-16.43	34.81	8.69	34.13	110	81	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	45.85	36.64	75.83	-29.98	34.67	8.65	34.11	100	80	Average
5725	60.08	50.87	83.05	-22.97	34.67	8.65	34.11	100	80	Peak
5805	95.83	86.49			34.79	8.68	34.13	100	80	Average
5805	103.05	93.71			34.79	8.68	34.13	100	80	Peak
5825	46.17	36.8	75.83	-29.66	34.81	8.69	34.13	100	80	Average
5825	59.03	49.66	83.05	-24.02	34.81	8.69	34.13	100	80	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5805MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	45.84	36.63	67.02	-21.18	34.67	8.65	34.11	111	80	Average
5725	59.47	50.26	75.19	-15.72	34.67	8.65	34.11	111	80	Peak
5745	87.02	77.77			34.7	8.66	34.11	111	80	Average
5745	95.19	85.94			34.7	8.66	34.11	111	80	Peak
5825	45.03	35.66	67.02	-21.99	34.81	8.69	34.13	111	80	Average
5825	57.7	48.33	75.19	-17.49	34.81	8.69	34.13	111	80	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	49.89	40.68	75.92	-26.03	34.67	8.65	34.11	102	82	Average
5725	65.67	56.46	83.67	-18	34.67	8.65	34.11	102	82	Peak
5745	95.92	86.67			34.7	8.66	34.11	102	82	Average
5745	103.67	94.42			34.7	8.66	34.11	102	82	Peak
5825	46.02	36.65	75.92	-29.9	34.81	8.69	34.13	102	82	Average
5825	58.09	48.72	83.67	-25.58	34.81	8.69	34.13	102	82	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5745MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	45.49	36.28	67.33	-21.84	34.67	8.65	34.11	111	80	Average
5725	58.96	49.75	75.35	-16.39	34.67	8.65	34.11	111	80	Peak
5785	87.33	78.02			34.76	8.68	34.13	111	80	Average
5785	95.35	86.04			34.76	8.68	34.13	111	80	Peak
5825	45.62	36.25	67.33	-21.71	34.81	8.69	34.13	111	80	Average
5825	58.24	48.87	75.35	-17.11	34.81	8.69	34.13	111	80	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	45.98	36.77	75.81	-29.83	34.67	8.65	34.11	100	81	Average
5725	57.58	48.37	83.75	-26.17	34.67	8.65	34.11	100	81	Peak
5785	95.81	86.5			34.76	8.68	34.13	100	81	Average
5785	103.75	94.44			34.76	8.68	34.13	100	81	Peak
5825	45.09	35.72	75.81	-30.72	34.81	8.69	34.13	100	81	Average
5825	57.78	48.41	83.75	-25.97	34.81	8.69	34.13	100	81	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5785MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	45.88	36.67	66.03	-20.15	34.67	8.65	34.11	100	71	Average
5725	59.46	50.25	74.55	-15.09	34.67	8.65	34.11	100	71	Peak
5805	86.03	76.69			34.79	8.68	34.13	100	71	Average
5805	94.55	85.21			34.79	8.68	34.13	100	71	Peak
5825	45.07	35.7	66.03	-20.96	34.81	8.69	34.13	100	71	Average
5825	59.18	49.81	74.55	-15.37	34.81	8.69	34.13	100	71	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	45.99	36.78	75.35	-29.36	34.67	8.65	34.11	100	83	Average
5725	59.87	50.66	82.11	-22.24	34.67	8.65	34.11	100	83	Peak
5805	95.35	86.01			34.79	8.68	34.13	100	83	Average
5805	102.11	92.77			34.79	8.68	34.13	100	83	Peak
5825	46.62	37.25	75.35	-28.73	34.81	8.69	34.13	100	83	Average
5825	57.91	48.54	82.11	-24.2	34.81	8.69	34.13	100	83	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5805MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

802.11n (40MHz)

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

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	48.67	39.51	65.66	-16.99	34.62	8.65	34.11	148	329	Average
5725	60.15	50.99	73.17	-13.02	34.62	8.65	34.11	148	329	Peak
5755	85.66	76.45			34.66	8.66	34.11	148	329	Average
5755	93.17	83.96			34.66	8.66	34.11	148	329	Peak
5825	43.6	34.31	65.66	-22.06	34.73	8.69	34.13	148	329	Average
5825	56.11	46.82	73.17	-17.06	34.73	8.69	34.13	148	329	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	53.99	44.83	72.02	-18.03	34.62	8.65	34.11	100	241	Average
5725	66.09	56.93	79.59	-13.5	34.62	8.65	34.11	100	241	Peak
5755	92.02	82.81			34.66	8.66	34.11	100	241	Average
5755	99.59	90.38			34.66	8.66	34.11	100	241	Peak
5825	44.22	34.93	72.02	-27.8	34.73	8.69	34.13	100	241	Average
5825	57.4	48.11	79.59	-22.19	34.73	8.69	34.13	100	241	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5755MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	45.85	36.64	62.33	-16.48	34.67	8.65	34.11	140	122	Average
5725	59.45	50.24	69.3	-9.85	34.67	8.65	34.11	140	122	Peak
5795	82.33	73.02			34.76	8.68	34.13	140	122	Average
5795	89.3	79.99			34.76	8.68	34.13	140	122	Peak
5825	47.14	37.77	62.33	-15.19	34.81	8.69	34.13	140	122	Average
5825	57	47.63	69.3	-12.3	34.81	8.69	34.13	140	122	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	45.85	36.64	69.12	-23.27	34.67	8.65	34.11	101	159	Average
5725	58.24	49.03	77.1	-18.86	34.67	8.65	34.11	101	159	Peak
5795	89.12	79.81			34.76	8.68	34.13	101	159	Average
5795	97.1	87.79			34.76	8.68	34.13	101	159	Peak
5825	50.39	41.02	69.12	-18.73	34.81	8.69	34.13	101	159	Average
5825	62.66	53.29	77.1	-14.44	34.81	8.69	34.13	101	159	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5795MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

MODE B

ABOVE 1GHz WORST-CASE DATA：

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	45.99	36.78	65.53	-19.54	34.67	8.65	34.11	101	82	Average
5725	59.21	50	73.56	-14.35	34.67	8.65	34.11	101	82	Peak
5745	85.53	76.28			34.7	8.66	34.11	101	82	Average
5745	93.56	84.31			34.7	8.66	34.11	101	82	Peak
5825	45.62	36.25	65.53	-19.91	34.81	8.69	34.13	101	82	Average
5825	58.5	49.13	73.56	-15.06	34.81	8.69	34.13	101	82	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	49.66	40.45	75.7	-26.04	34.67	8.65	34.11	101	275	Average
5725	63.83	54.62	82.68	-18.85	34.67	8.65	34.11	101	275	Peak
5745	95.7	86.45			34.7	8.66	34.11	100	274	Average
5745	102.68	93.43			34.7	8.66	34.11	100	274	Peak
5825	46.06	36.69	75.7	-29.64	34.81	8.69	34.13	100	274	Average
5825	58.9	49.53	82.68	-23.78	34.81	8.69	34.13	100	274	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5745MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	45.84	36.63	66.01	-20.17	34.67	8.65	34.11	100	82	Average
5725	58.43	49.22	73.2	-14.77	34.67	8.65	34.11	100	82	Peak
5785	86.01	76.7			34.76	8.68	34.13	100	82	Average
5785	93.2	83.89			34.76	8.68	34.13	100	82	Peak
5825	45.62	36.25	66.01	-20.39	34.81	8.69	34.13	100	82	Average
5825	58.99	49.62	73.2	-14.21	34.81	8.69	34.13	100	82	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	45.89	36.68	74.96	-29.07	34.67	8.65	34.11	100	273	Average
5725	57.62	48.41	81.21	-23.59	34.67	8.65	34.11	100	273	Peak
5785	94.96	85.65			34.76	8.68	34.13	100	273	Average
5785	101.21	91.9			34.76	8.68	34.13	100	273	Peak
5825	46.17	36.8	74.96	-28.79	34.81	8.69	34.13	100	273	Average
5825	57.63	48.26	81.21	-23.58	34.81	8.69	34.13	100	273	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5785MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	45.44	36.23	67.03	-21.59	34.67	8.65	34.11	100	82	Average
5725	58.94	49.73	73.73	-14.79	34.67	8.65	34.11	100	82	Peak
5805	87.03	77.69			34.79	8.68	34.13	100	82	Average
5805	93.73	84.39			34.79	8.68	34.13	100	82	Peak
5825	45.84	36.47	67.03	-21.19	34.81	8.69	34.13	100	82	Average
5825	57.73	48.36	73.73	-16	34.81	8.69	34.13	100	82	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	45.66	36.45	74.69	-29.03	34.67	8.65	34.11	100	274	Average
5725	59.31	50.1	81.23	-21.92	34.67	8.65	34.11	100	274	Peak
5805	94.69	85.35			34.79	8.68	34.13	100	274	Average
5805	101.23	91.89			34.79	8.68	34.13	100	274	Peak
5825	47.06	37.69	74.69	-27.63	34.81	8.69	34.13	100	274	Average
5825	58.15	48.78	81.23	-23.08	34.81	8.69	34.13	100	274	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5805MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

802.11n (40MHz)

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

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	46.4	37.24	63.83	-17.43	34.62	8.65	34.11	144	328	Average
5725	58.89	49.73	72.44	-13.55	34.62	8.65	34.11	144	328	Peak
5755	83.83	74.62			34.66	8.66	34.11	144	328	Average
5755	92.44	83.23			34.66	8.66	34.11	144	328	Peak
5825	43.58	34.29	63.83	-20.25	34.73	8.69	34.13	144	328	Average
5825	55.83	46.54	72.44	-16.61	34.73	8.69	34.13	144	328	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	50.72	41.56	70.55	-19.83	34.62	8.65	34.11	100	2	Average
5725	62.64	53.48	78.98	-16.34	34.62	8.65	34.11	100	2	Peak
5755	90.55	81.34			34.66	8.66	34.11	100	2	Average
5755	98.98	89.77			34.66	8.66	34.11	100	2	Peak
5825	43.92	34.63	70.55	-26.63	34.73	8.69	34.13	100	2	Average
5825	57.44	48.15	78.98	-21.54	34.73	8.69	34.13	100	2	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5755MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	45.98	36.77	60.03	-14.05	34.67	8.65	34.11	100	82	Average
5725	58.5	49.29	68.29	-9.79	34.67	8.65	34.11	100	82	Peak
5795	80.03	70.72			34.76	8.68	34.13	100	82	Average
5795	88.29	78.98			34.76	8.68	34.13	100	82	Peak
5825	46.17	36.8	60.03	-13.86	34.81	8.69	34.13	100	82	Average
5825	59.47	50.1	68.29	-8.82	34.81	8.69	34.13	100	82	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	45.44	36.23	69.3	-23.86	34.67	8.65	34.11	100	273	Average
5725	59.47	50.26	77.36	-17.89	34.67	8.65	34.11	100	273	Peak
5795	89.3	79.99			34.76	8.68	34.13	100	273	Average
5795	97.36	88.05			34.76	8.68	34.13	100	273	Peak
5825	45.67	36.3	69.3	-23.63	34.81	8.69	34.13	100	273	Average
5825	59.33	49.96	77.36	-18.03	34.81	8.69	34.13	100	273	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5795MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

MODE C

ABOVE 1GHz WORST-CASE DATA：802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	48.95	39.74	69.69	-20.74	34.67	8.65	34.11	138	134	Average
5725	57.91	48.7	77.07	-19.16	34.67	8.65	34.11	138	134	Peak
5745	89.69	80.44			34.7	8.66	34.11	138	134	Average
5745	97.07	87.82			34.7	8.66	34.11	138	134	Peak
5825	47.03	37.66	69.69	-22.66	34.81	8.69	34.13	138	134	Average
5825	56.43	47.06	77.07	-20.64	34.81	8.69	34.13	138	134	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	52.02	42.81	78.19	-26.17	34.67	8.65	34.11	100	84	Average
5725	66.38	57.17	86.16	-19.78	34.67	8.65	34.11	100	84	Peak
5745	98.19	88.94			34.7	8.66	34.11	100	84	Average
5745	106.16	96.91			34.7	8.66	34.11	100	84	Peak
5825	46.77	37.4	78.19	-31.42	34.81	8.69	34.13	100	84	Average
5825	56.27	46.9	86.16	-29.89	34.81	8.69	34.13	100	84	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5745MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	46.85	37.64	69.56	-22.71	34.67	8.65	34.11	138	133	Average
5725	56.76	47.55	77.04	-20.28	34.67	8.65	34.11	138	133	Peak
5785	89.56	80.25			34.76	8.68	34.13	138	133	Average
5785	97.04	87.73			34.76	8.68	34.13	138	133	Peak
5825	46.07	36.7	69.56	-23.49	34.81	8.69	34.13	138	133	Average
5825	57.55	48.18	77.04	-19.49	34.81	8.69	34.13	138	133	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	46.85	37.64	78.67	-31.82	34.67	8.65	34.11	155	84	Average
5725	56.42	47.21	86	-29.58	34.67	8.65	34.11	155	84	Peak
5785	98.67	89.36			34.76	8.68	34.13	155	84	Average
5785	106	96.69			34.76	8.68	34.13	155	84	Peak
5825	46.07	36.7	78.67	-32.6	34.81	8.69	34.13	155	84	Average
5825	56.9	47.53	86	-29.1	34.81	8.69	34.13	155	84	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5785MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	46.89	37.68	69.46	-22.57	34.67	8.65	34.11	139	136	Average
5725	58.35	49.14	76.86	-18.51	34.67	8.65	34.11	139	136	Peak
5805	89.46	80.12			34.79	8.68	34.13	139	136	Average
5805	96.86	87.52			34.79	8.68	34.13	139	136	Peak
5825	46.62	37.25	69.46	-22.84	34.81	8.69	34.13	139	136	Average
5825	57.51	48.14	76.86	-19.35	34.81	8.69	34.13	139	136	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	46.85	37.64	76.98	-30.13	34.67	8.65	34.11	154	84	Average
5725	58.08	48.87	85.59	-27.51	34.67	8.65	34.11	154	84	Peak
5805	96.98	87.64			34.79	8.68	34.13	154	84	Average
5805	105.59	96.25			34.79	8.68	34.13	154	84	Peak
5825	50.06	40.69	76.98	-26.92	34.81	8.69	34.13	154	84	Average
5825	59.25	49.88	85.59	-26.34	34.81	8.69	34.13	154	84	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5805MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	46.89	37.68	68.91	-22.02	34.67	8.65	34.11	143	132	Average
5725	59.85	50.64	76.29	-16.44	34.67	8.65	34.11	143	132	Peak
5745	88.91	79.66			34.7	8.66	34.11	143	132	Average
5745	96.29	87.04			34.7	8.66	34.11	143	132	Peak
5825	47.06	37.69	68.91	-21.85	34.81	8.69	34.13	143	132	Average
5825	57.24	47.87	76.29	-19.05	34.81	8.69	34.13	143	132	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	51.89	42.68	77.25	-25.36	34.67	8.65	34.11	158	85	Average
5725	62.55	53.34	85.22	-22.67	34.67	8.65	34.11	158	85	Peak
5745	97.25	88			34.7	8.66	34.11	158	85	Average
5745	105.22	95.97			34.7	8.66	34.11	158	85	Peak
5825	47.07	37.7	77.25	-30.18	34.81	8.69	34.13	158	85	Average
5825	56.69	47.32	85.22	-28.53	34.81	8.69	34.13	158	85	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5745MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	46.89	37.68	69.3	-22.41	34.67	8.65	34.11	142	133	Average
5725	56	46.79	76.46	-20.46	34.67	8.65	34.11	142	133	Peak
5785	89.3	79.99			34.76	8.68	34.13	142	133	Average
5785	96.46	87.15			34.76	8.68	34.13	142	133	Peak
5825	45.72	36.35	69.3	-23.58	34.81	8.69	34.13	142	133	Average
5825	56.26	46.89	76.46	-20.2	34.81	8.69	34.13	142	133	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	46.89	37.68	77.7	-30.81	34.67	8.65	34.11	155	85	Average
5725	56.4	47.19	85.76	-29.36	34.67	8.65	34.11	155	85	Peak
5785	97.7	88.39			34.76	8.68	34.13	155	85	Average
5785	105.76	96.45			34.76	8.68	34.13	155	85	Peak
5825	47.06	37.69	77.7	-30.64	34.81	8.69	34.13	155	85	Average
5825	56.11	46.74	85.76	-29.65	34.81	8.69	34.13	155	85	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5785MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	46.85	37.64	68.32	-21.47	34.67	8.65	34.11	140	144	Average
5725	56.55	47.34	74.95	-18.4	34.67	8.65	34.11	140	144	Peak
5805	88.32	78.98			34.79	8.68	34.13	140	144	Average
5805	94.95	85.61			34.79	8.68	34.13	140	144	Peak
5825	47.06	37.69	68.32	-21.26	34.81	8.69	34.13	140	144	Average
5825	57.78	48.41	74.95	-17.17	34.81	8.69	34.13	140	144	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	46.89	37.68	77.95	-31.06	34.67	8.65	34.11	154	85	Average
5725	58.04	48.83	85.04	-27	34.67	8.65	34.11	154	85	Peak
5805	97.95	88.61			34.79	8.68	34.13	154	85	Average
5805	105.04	95.7			34.79	8.68	34.13	154	85	Peak
5825	52.07	42.7	77.95	-25.88	34.81	8.69	34.13	154	85	Average
5825	61.78	52.41	85.04	-23.26	34.81	8.69	34.13	154	85	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5805MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

802.11n (40MHz)

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

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	47.84	38.68	60.18	-12.34	34.62	8.65	34.11	100	207	Average
5725	56.83	47.67	67.99	-11.16	34.62	8.65	34.11	100	207	Peak
5755	80.18	70.97			34.66	8.66	34.11	100	207	Average
5755	87.99	78.78			34.66	8.66	34.11	100	207	Peak
5825	45.99	36.7	60.18	-14.19	34.73	8.69	34.13	100	207	Average
5825	56.48	47.19	67.99	-11.51	34.73	8.69	34.13	100	207	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	53.1	43.94	70.92	-17.82	34.62	8.65	34.11	144	266	Average
5725	65.33	56.17	77.23	-11.9	34.62	8.65	34.11	144	266	Peak
5755	90.92	81.71			34.66	8.66	34.11	144	266	Average
5755	97.23	88.02			34.66	8.66	34.11	144	266	Peak
5825	45.99	36.7	70.92	-24.93	34.73	8.69	34.13	144	266	Average
5825	55.6	46.31	77.23	-21.63	34.73	8.69	34.13	144	266	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5755MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	47.85	38.64	62.33	-14.48	34.67	8.65	34.11	178	332	Average
5725	56.07	46.86	70.92	-14.85	34.67	8.65	34.11	178	332	Peak
5795	82.33	73.02			34.76	8.68	34.13	178	332	Average
5795	90.92	81.61			34.76	8.68	34.13	178	332	Peak
5825	49.28	39.91	62.33	-13.05	34.81	8.69	34.13	178	332	Average
5825	58.11	48.74	70.92	-12.81	34.81	8.69	34.13	178	332	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	48.59	39.38	71.3	-22.71	34.67	8.65	34.11	149	131	Average
5725	57.7	48.49	78.1	-20.4	34.67	8.65	34.11	149	131	Peak
5795	91.3	81.99			34.76	8.68	34.13	149	131	Average
5795	98.1	88.79			34.76	8.68	34.13	149	131	Peak
5825	52.09	42.72	71.3	-19.21	34.81	8.69	34.13	149	131	Average
5825	61.15	51.78	78.1	-16.95	34.81	8.69	34.13	149	131	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5795MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

MODE D

ABOVE 1GHz WORST-CASE DATA：

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	45.95	36.74	67.71	-21.76	34.67	8.65	34.11	168	155	Average
5725	61.24	52.03	74.66	-13.42	34.67	8.65	34.11	168	155	Peak
5745	87.71	78.46			34.7	8.66	34.11	168	155	Average
5745	94.66	85.41			34.7	8.66	34.11	168	155	Peak
5825	45.16	35.79	67.71	-22.55	34.81	8.69	34.13	168	155	Average
5825	57.64	48.27	74.66	-17.02	34.81	8.69	34.13	168	155	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	49.68	40.47	78.04	-28.36	34.67	8.65	34.11	100	86	Average
5725	63.13	53.92	86.1	-22.97	34.67	8.65	34.11	100	86	Peak
5745	98.04	88.79			34.7	8.66	34.11	100	86	Average
5745	106.1	96.85			34.7	8.66	34.11	100	86	Peak
5825	45.86	36.49	78.04	-32.18	34.81	8.69	34.13	100	86	Average
5825	59.45	50.08	86.1	-26.65	34.81	8.69	34.13	100	86	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5745MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	45.98	36.77	67.43	-21.45	34.67	8.65	34.11	144	158	Average
5725	58.22	49.01	74.02	-15.8	34.67	8.65	34.11	144	158	Peak
5785	87.43	78.12			34.76	8.68	34.13	144	158	Average
5785	94.02	84.71			34.76	8.68	34.13	144	158	Peak
5825	46.72	37.35	67.43	-20.71	34.81	8.69	34.13	144	158	Average
5825	57.31	47.94	74.02	-16.71	34.81	8.69	34.13	144	158	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	45.65	36.44	77.94	-32.29	34.67	8.65	34.11	100	86	Average
5725	59	49.79	85.51	-26.51	34.67	8.65	34.11	100	86	Peak
5785	97.94	88.63			34.76	8.68	34.13	100	86	Average
5785	105.51	96.2			34.76	8.68	34.13	100	86	Peak
5825	45.67	36.3	77.94	-32.27	34.81	8.69	34.13	100	86	Average
5825	58.51	49.14	85.51	-27	34.81	8.69	34.13	100	86	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5785MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	46.54	37.33	68.03	-21.49	34.67	8.65	34.11	184	155	Average
5725	58.27	49.06	75.89	-17.62	34.67	8.65	34.11	184	155	Peak
5805	88.03	78.69			34.79	8.68	34.13	184	155	Average
5805	95.89	86.55			34.79	8.68	34.13	184	155	Peak
5825	45.67	36.3	68.03	-22.36	34.81	8.69	34.13	184	155	Average
5825	58.28	48.91	75.89	-17.61	34.81	8.69	34.13	184	155	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	46.58	37.37	76.68	-30.1	34.67	8.65	34.11	100	94	Average
5725	59.74	50.53	83.23	-23.49	34.67	8.65	34.11	100	94	Peak
5805	96.68	87.34			34.79	8.68	34.13	100	94	Average
5805	103.23	93.89			34.79	8.68	34.13	100	94	Peak
5825	46.84	37.47	76.68	-29.84	34.81	8.69	34.13	100	94	Average
5825	58.68	49.31	83.23	-24.55	34.81	8.69	34.13	100	94	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5805MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

802.11n (40MHz)

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

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	47.54	38.38	63.84	-16.3	34.62	8.65	34.11	108	201	Average
5725	56.38	47.22	70.87	-14.49	34.62	8.65	34.11	108	201	Peak
5755	83.84	74.63			34.66	8.66	34.11	108	201	Average
5755	90.87	81.66			34.66	8.66	34.11	108	201	Peak
5825	45.94	36.65	63.84	-17.9	34.73	8.69	34.13	108	201	Average
5825	55.08	45.79	70.87	-15.79	34.73	8.69	34.13	108	201	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	49.84	40.68	72.57	-22.73	34.62	8.65	34.11	100	86	Average
5725	61.8	52.64	80	-18.2	34.62	8.65	34.11	100	86	Peak
5755	92.57	83.36			34.66	8.66	34.11	100	86	Average
5755	100	90.79			34.66	8.66	34.11	100	86	Peak
5825	45.99	36.7	72.57	-26.58	34.73	8.69	34.13	100	86	Average
5825	57.56	48.27	80	-22.44	34.73	8.69	34.13	100	86	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5755MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5725	45.98	36.77	64.43	-18.45	34.67	8.65	34.11	155	149	Average
5725	57.73	48.52	71.7	-13.97	34.67	8.65	34.11	155	149	Peak
5795	84.43	75.12			34.76	8.68	34.13	155	149	Average
5795	91.7	82.39			34.76	8.68	34.13	155	149	Peak
5825	47.03	37.66	64.43	-17.4	34.81	8.69	34.13	155	149	Average
5825	59.2	49.83	71.7	-12.5	34.81	8.69	34.13	155	149	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	45.89	36.68	73.67	-27.78	34.67	8.65	34.11	100	86	Average
5725	58.91	49.7	80.05	-21.14	34.67	8.65	34.11	100	86	Peak
5795	93.67	84.36			34.76	8.68	34.13	100	86	Average
5795	100.05	90.74			34.76	8.68	34.13	100	86	Peak
5825	48.07	38.7	73.67	-25.6	34.81	8.69	34.13	100	86	Average
5825	61.46	52.09	80.05	-18.59	34.81	8.69	34.13	100	86	Peak

REMARKS:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5795MHz: Fundamental frequency.
3. 5725MHz & 5825MHz: Out of restricted band

BELOW 1GHz WORST-CASE DATA：

MODE A

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 157	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Quasi-peak (QP)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Harry Hsueh
POWER SUPPLY	adapter		

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
125.04	33.58	55.47	43.5	-9.92	8.97	1.38	32.24	135	179	Peak
199.83	34.96	54.71	43.5	-8.54	10.9	1.65	32.3	110	89	Peak
240.06	36.1	53.84	46	-9.9	12.54	1.85	32.13	166	202	Peak
339.9	34.17	48.17	46	-11.83	15.89	2.19	32.08	104	182	Peak
623.4	31.27	38.41	46	-14.73	22.1	2.93	32.17	100	310	Peak
925.1	31.42	32.98	46	-14.58	26.2	3.53	31.29	107	259	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
119.91	33.5	55.77	43.5	-10	8.7	1.28	32.25	140	163	Peak
184.98	31.93	52.16	43.5	-11.57	10.4	1.61	32.24	199	154	Peak
288.12	29.79	46.08	46	-16.21	13.81	2.03	32.13	124	73	Peak
449.8	30.73	42.39	46	-15.27	18	2.49	32.15	100	192	Peak
630.4	30.6	37.74	46	-15.4	22.1	2.93	32.17	149	281	Peak
997.9	34.89	35.45	54	-19.11	26.04	3.72	30.32	114	38	Peak

REMARKS: Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 157	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Quasi-peak (QP)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Harry Hsueh
POWER SUPPLY	POE		

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
98.85	36.38	57.73	43.5	-7.12	9.58	1.28	32.21	112	100	Peak
142.05	31.59	53	43.5	-11.91	9.48	1.38	32.27	141	297	Peak
250.05	31.6	48.85	46	-14.4	13	1.85	32.1	162	87	Peak
349.7	34.35	47.83	46	-11.65	16.4	2.19	32.07	100	193	Peak
449.8	28.63	40.29	46	-17.37	18	2.49	32.15	114	138	Peak
797	33.49	37.81	46	-12.51	24.42	3.32	32.06	139	241	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
92.64	37.3	58.93	43.5	-6.2	9.14	1.11	31.88	203	229	Peak
142.59	27.96	49.3	43.5	-15.54	9.55	1.38	32.27	164	137	Peak
250.05	28.24	45.49	46	-17.76	13	1.85	32.1	150	77	Peak
449.8	26.95	38.61	46	-19.05	18	2.49	32.15	155	190	Peak
797.7	35.68	40	46	-10.32	24.42	3.32	32.06	132	317	Peak
876.8	36.32	39.62	46	-9.68	24.84	3.49	31.63	180	36	Peak

REMARKS: Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value

MODE C

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 157	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Quasi-peak (QP)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Harry Hsueh
POWER SUPPLY	POE		

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
99.12	40.31	61.62	43.5	-3.19	9.62	1.28	32.21	103	14	Peak
149.34	39.45	60.16	43.5	-4.05	10.04	1.52	32.27	137	195	Peak
210.36	35.19	54.49	43.5	-8.31	11.31	1.65	32.26	162	178	Peak
374.9	32.82	46.41	46	-13.18	16.3	2.26	32.15	118	138	Peak
624.8	31.05	38.19	46	-14.95	22.1	2.93	32.17	107	205	Peak
875.4	37.17	40.51	46	-8.83	24.8	3.49	31.63	164	35	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
53.76	36.85	60.79	40	-3.15	7.39	0.9	32.23	156	228	Peak
103.44	40.39	61.78	43.5	-3.11	9.59	1.28	32.26	133	174	Peak
166.62	39.75	60.19	43.5	-3.75	10.29	1.52	32.25	203	45	Peak
449.8	32.34	44	46	-13.66	18	2.49	32.15	100	91	Peak
624.8	36.8	43.94	46	-9.2	22.1	2.93	32.17	117	142	Peak
877.5	35.97	39.26	46	-10.03	24.84	3.49	31.62	139	155	Peak

REMARKS: Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value

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 :

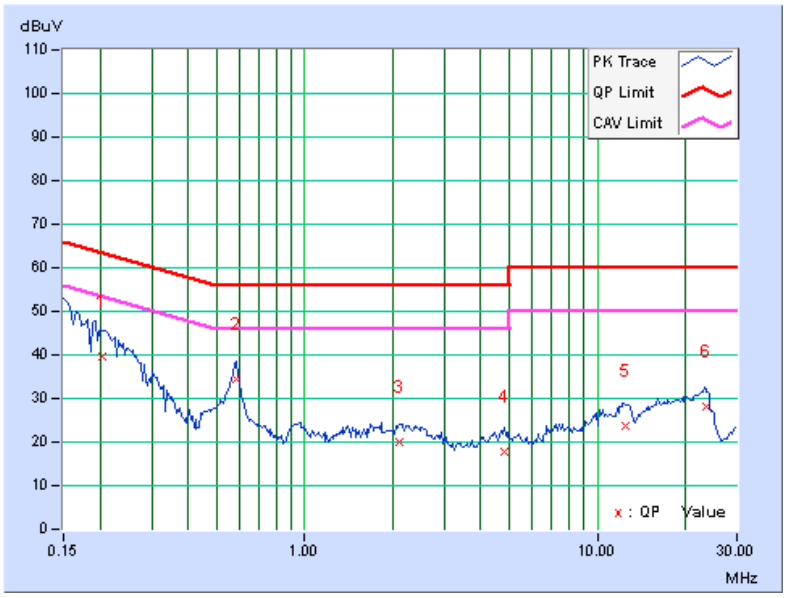
MODE A

PHASE	Line 1	**6dB BANDWIDTH**	9kHz
POWER SUPPLY	adapter		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.20469	0.28	39.29	25.70	39.57	25.98	63.42	53.42	-23.85	-27.44
2	0.58359	0.31	33.99	27.56	34.30	27.87	56.00	46.00	-21.70	-18.13
3	2.10156	0.36	19.54	12.92	19.90	13.28	56.00	46.00	-36.10	-32.72
4	4.78906	0.44	17.23	9.73	17.67	10.17	56.00	46.00	-38.33	-35.83
5	12.48047	0.51	23.18	16.46	23.69	16.97	60.00	50.00	-36.31	-33.03
6	23.58984	0.55	27.46	22.16	28.01	22.71	60.00	50.00	-31.99	-27.29

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

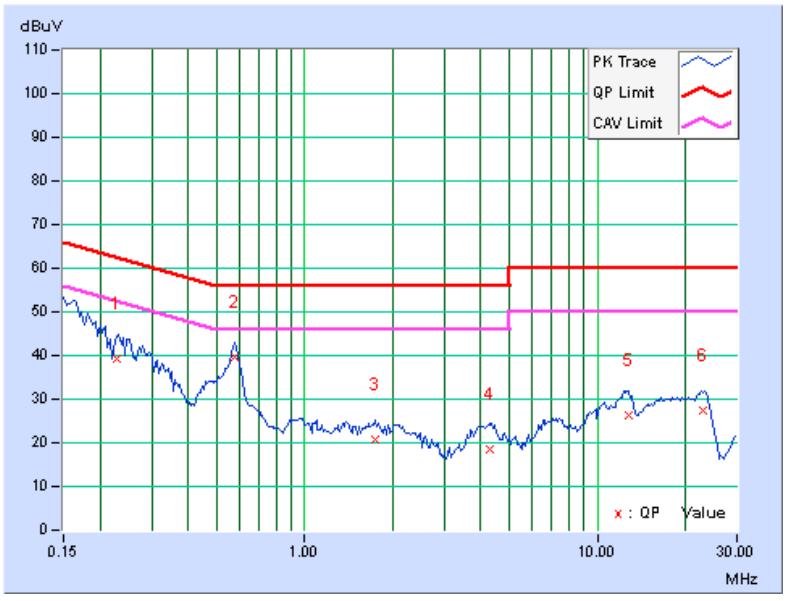


PHASE	Line 2	**6dB BANDWIDTH**	9kHz
POWER SUPPLY	adapter		

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	0.22812	0.28	38.99	28.29	39.27	28.57	62.52	52.52	-23.25	-23.95
2	0.57578	0.31	39.21	32.89	39.52	33.20	56.00	46.00	-16.48	-12.80
3	1.74609	0.36	20.24	12.71	20.60	13.07	56.00	46.00	-35.40	-32.93
4	4.27734	0.44	17.99	10.15	18.43	10.59	56.00	46.00	-37.57	-35.41
5	12.82422	0.55	25.63	18.34	26.18	18.89	60.00	50.00	-33.82	-31.11
6	22.93750	0.60	26.88	21.41	27.48	22.01	60.00	50.00	-32.52	-27.99

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



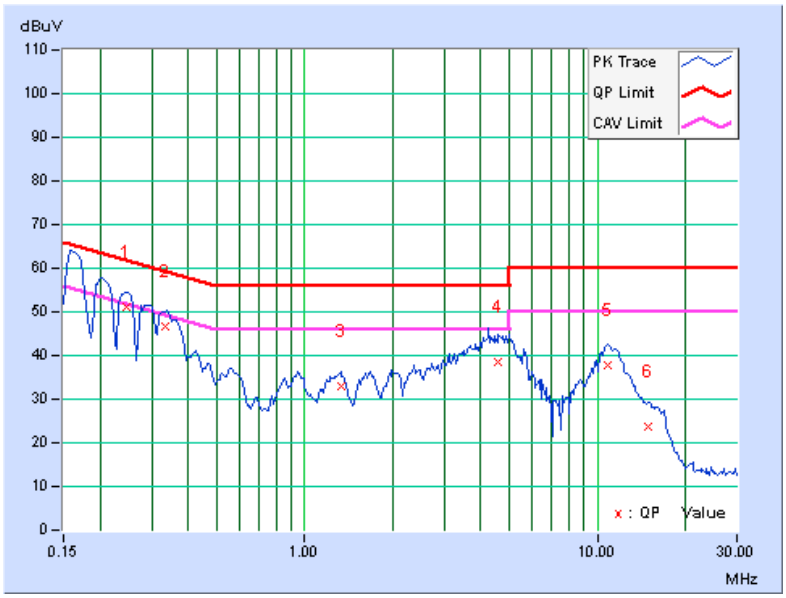
MODE A

PHASE	Line 1	6dB BANDWIDTH	9kHz
POWER SUPPLY	POE		

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	0.24766	0.28	50.88	39.05	51.16	39.33	61.84	51.84	-10.67	-12.50
2	0.33359	0.29	46.20	36.80	46.49	37.09	59.36	49.36	-12.87	-12.27
3	1.33203	0.35	32.57	21.37	32.92	21.72	56.00	46.00	-23.08	-24.28
4	4.55078	0.44	38.22	29.69	38.66	30.13	56.00	46.00	-17.34	-15.87
5	10.85938	0.51	37.22	30.65	37.73	31.16	60.00	50.00	-22.27	-18.84
6	14.89063	0.53	23.00	17.18	23.53	17.71	60.00	50.00	-36.47	-32.29

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

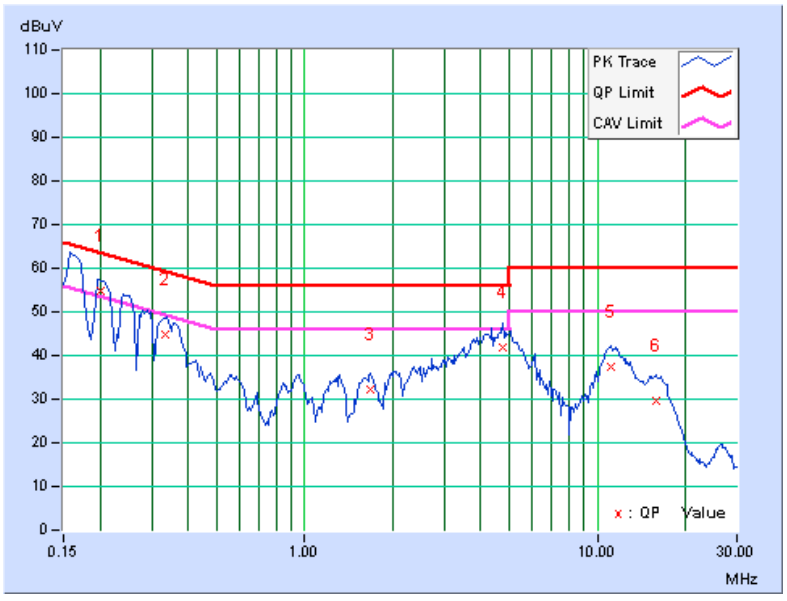


PHASE	Line 2	**6dB BANDWIDTH**	9kHz
POWER SUPPLY	POE		

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	0.20078	0.28	54.64	40.25	54.92	40.53	63.58	53.58	-8.66	-13.05
2	0.33359	0.29	44.54	35.00	44.83	35.29	59.36	49.36	-14.53	-14.07
3	1.67188	0.36	31.81	21.53	32.17	21.89	56.00	46.00	-23.83	-24.11
4	4.72656	0.45	41.34	35.01	41.79	35.46	56.00	46.00	-14.21	-10.54
5	11.08594	0.53	37.05	30.34	37.58	30.87	60.00	50.00	-22.42	-19.13
6	15.85156	0.58	29.13	23.08	29.71	23.66	60.00	50.00	-30.29	-26.34

REMARKS:

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



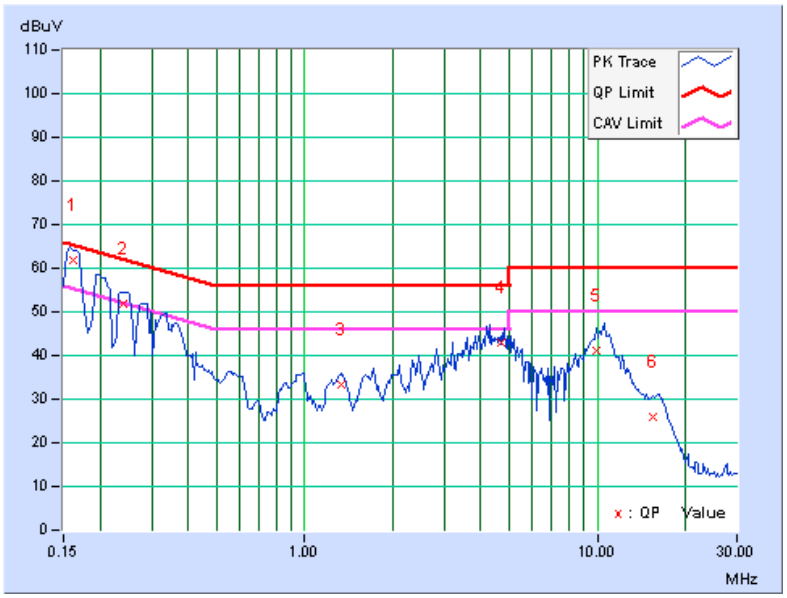
MODE C

PHASE	Line 1	6dB BANDWIDTH	9kHz
POWER SUPPLY	POE		

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	**0.16172**	**0.27**	**61.66**	**49.51**	**61.93**	**49.78**	**65.38**	**55.38**	**-3.45**	**-5.60**
2	0.23984	0.28	51.41	39.36	51.69	39.64	62.10	52.10	-10.41	-12.46
3	1.33203	0.35	32.93	22.89	33.28	23.24	56.00	46.00	-22.72	-22.76
4	4.69141	0.44	42.59	40.02	43.03	40.46	56.00	46.00	-12.97	-5.54
5	9.87891	0.50	40.52	37.07	41.02	37.57	60.00	50.00	-18.98	-12.43
6	15.42969	0.54	25.39	19.86	25.93	20.40	60.00	50.00	-34.07	-29.60

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

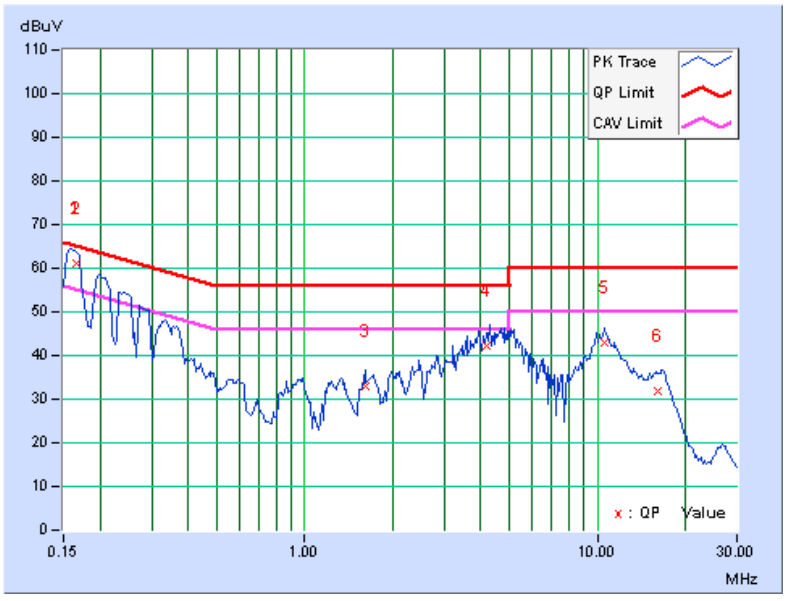


PHASE	Line 2	**6dB BANDWIDTH**	9kHz
POWER SUPPLY	POE		

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	0.16562	0.27	60.78	48.14	61.05	48.41	65.18	55.18	-4.13	-6.77
2	0.16562	0.27	60.76	47.09	61.03	47.36	65.18	55.18	-4.15	-7.82
3	1.60547	0.36	32.53	26.02	32.89	26.38	56.00	46.00	-23.11	-19.62
4	4.19922	0.44	41.63	36.54	42.07	36.98	56.00	46.00	-13.93	-9.02
5	10.61719	0.53	42.26	38.46	42.79	38.99	60.00	50.00	-17.21	-11.01
6	16.12500	0.58	31.18	25.10	31.76	25.68	60.00	50.00	-28.24	-24.32

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	16.06	0.5	PASS
157	5785	16.34	0.5	PASS
161	5805	16.10	0.5	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
149	5745	16.91	0.5	PASS
157	5785	17.34	0.5	PASS
161	5805	17.31	0.5	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
151	5755	35.81	0.5	PASS
159	5795	35.61	0.5	PASS

MODE B

802.11n (20MHz)

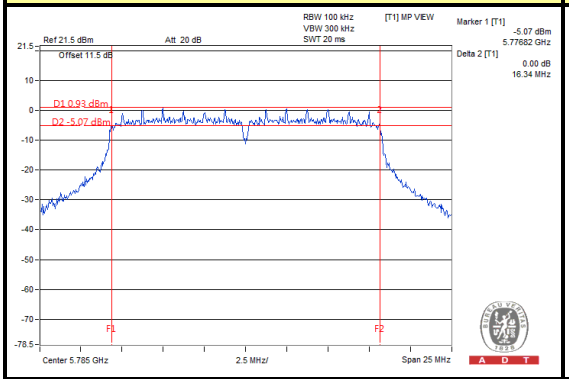
CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
149	5745	17.20	17.26	0.5	PASS
157	5785	17.33	16.69	0.5	PASS
161	5805	16.97	17.17	0.5	PASS

802.11n (40MHz)

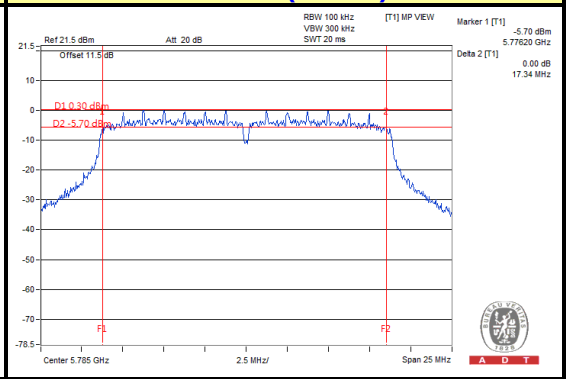
CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
151	5755	35.83	35.82	0.5	PASS
159	5795	35.98	35.84	0.5	PASS

SPECTRUM PLOT OF WORST VALUE

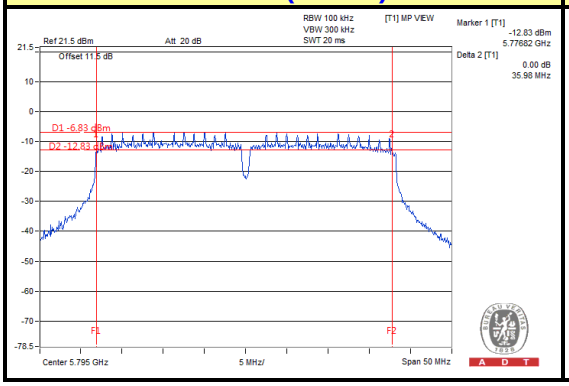
802.11a



802.11n (20MHz)



802.11n (40MHz)



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	175.792	22.45	30	PASS
157	5785	176.604	22.47	30	PASS
161	5805	172.187	22.36	30	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
149	5745	175.792	22.45	30	PASS
157	5785	176.604	22.47	30	PASS
161	5805	164.437	22.16	30	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
151	5755	174.181	22.41	30	PASS
159	5795	168.655	22.27	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	19.06	19.07	161.261	22.08	30	PASS
157	5785	19.43	18.52	158.821	22.01	30	PASS
161	5805	19.06	19.02	160.337	22.05	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	19.69	19.25	177.250	22.49	30	PASS
159	5795	19.47	18.66	161.963	22.09	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	-13.62	8	PASS
157	5785	-13.48	8	PASS
161	5805	-11.38	8	PASS

802.11n (20MHz)

Channel	FREQ. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
149	5745	-13.04	8	PASS
157	5785	-13.64	8	PASS
161	5805	-13.41	8	PASS

802.11n (40MHz)

Channel	FREQ. (MHz)	PSD (dBm/100kHz)	Limit (dBm/3kHz)	PASS /FAIL
151	5755	-18.92	8	PASS
159	5795	-18.59	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	-18.03	3.01	-15.02	6	PASS
	157	5785	-17.28	3.01	-14.27	6	PASS
	161	5805	-17.67	3.01	-14.66	6	PASS
1	149	5745	-19.15	3.01	-16.14	6	PASS
	157	5785	-18.21	3.01	-15.20	6	PASS
	161	5805	-18.47	3.01	-15.46	6	PASS

NOTE: Directional gain = 5dBi + 10log(2) = 8dBi > 6dBi , so the power density limit shall be reduced to 8-(8-6) = 6dBm.

802.11n (40MHz)

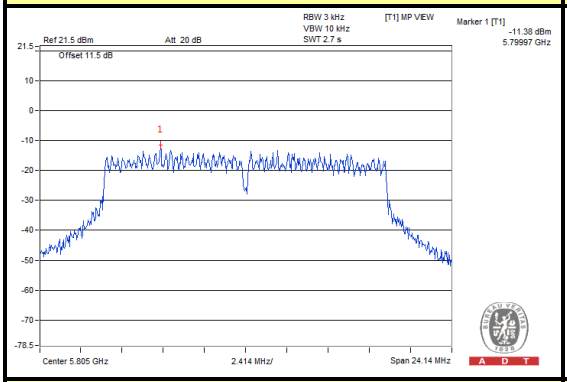
802.11n (40MHz)

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	-21.78	3.01	-18.77	6	PASS
	159	5795	-20.56	3.01	-17.55	6	PASS
1	151	5755	-22.16	3.01	-19.15	6	PASS
	159	5795	-22.46	3.01	-19.45	6	PASS

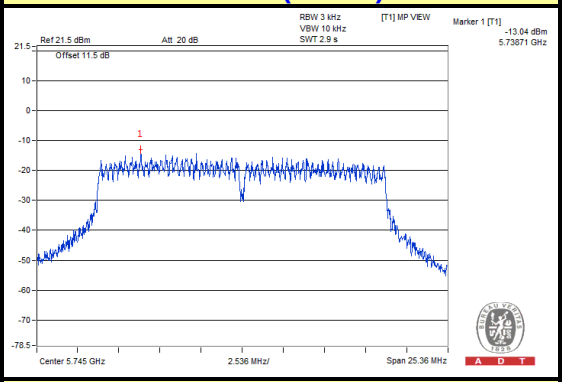
NOTE: Directional gain = 5dBi + 10log(2) = 8dBi > 6dBi , so the power density limit shall be reduced to 8-(8-6) = 6dBm.

SPECTRUM PLOT OF WORST VALUE

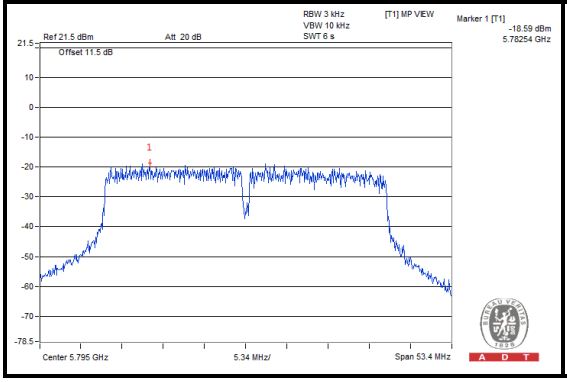
802.11a



802.11n (20MHz)



802.11n (40MHz)



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

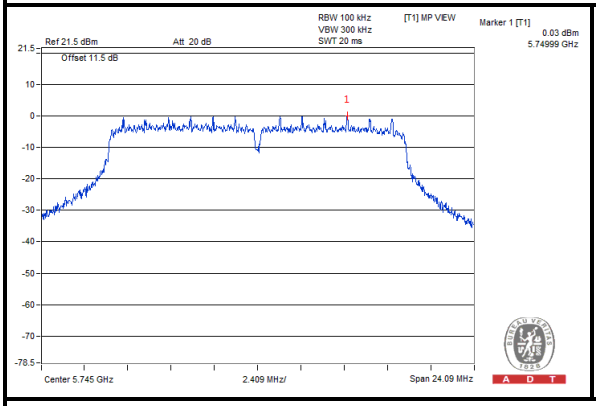
5.6.7 TEST RESULTS

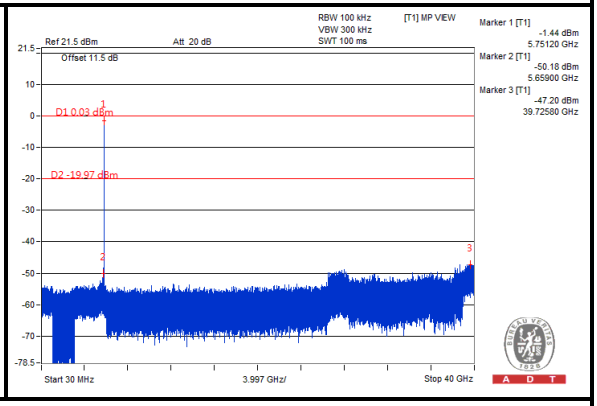
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement.

MODE A

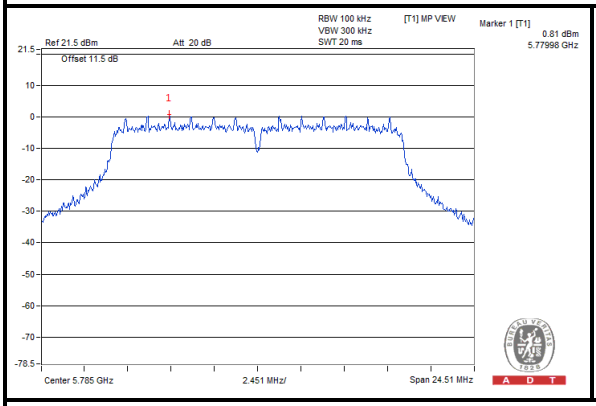
802.11a

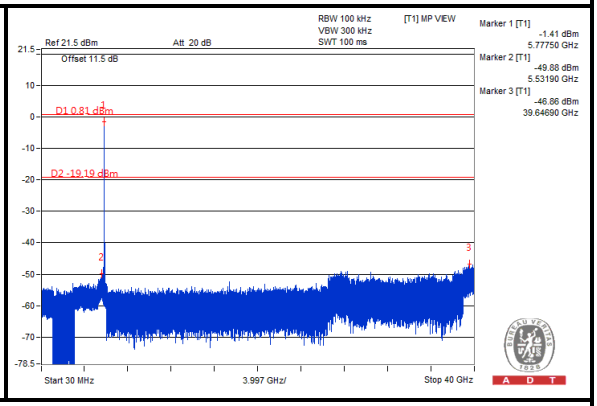
CH 149



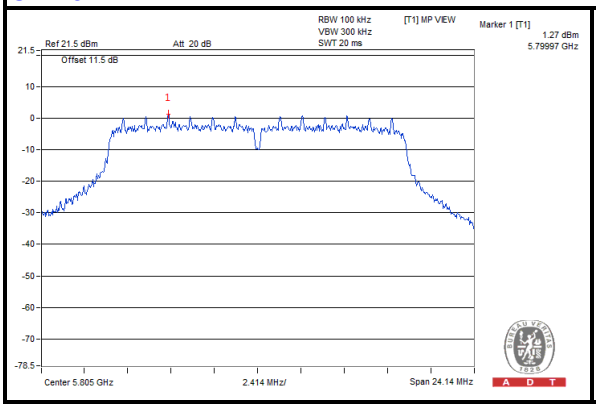


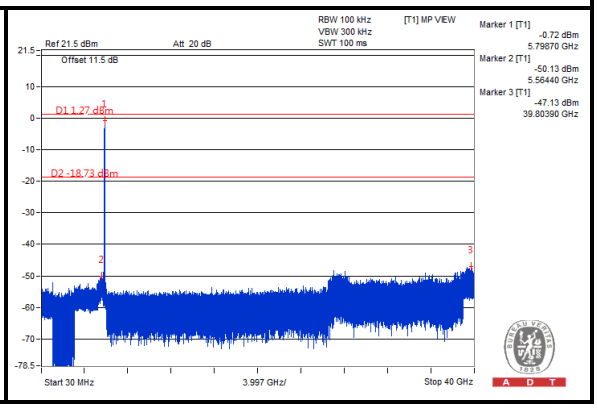
CH 157





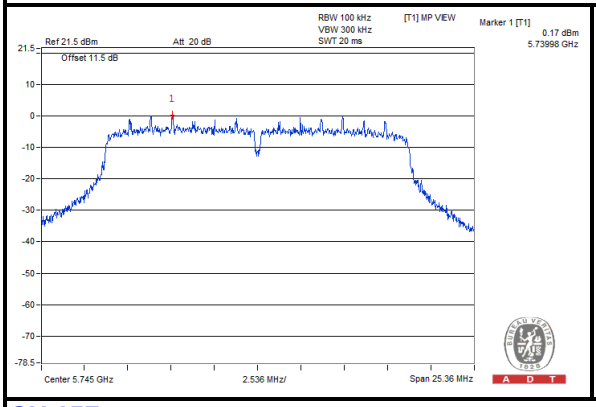
CH 161

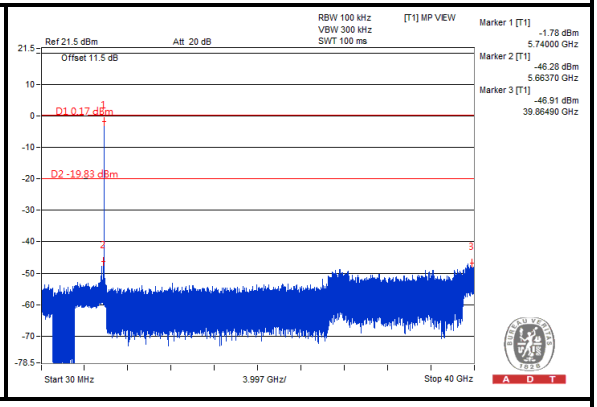




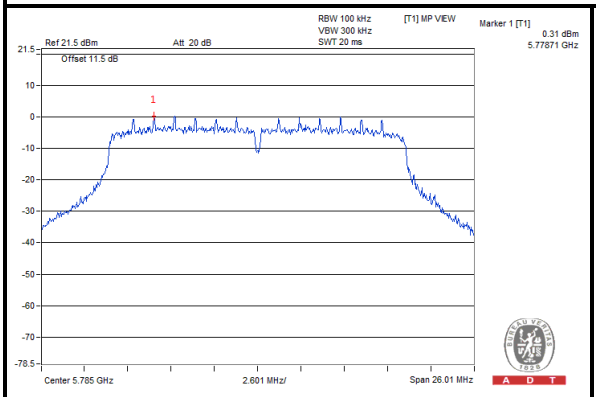
802.11n (20MHz)

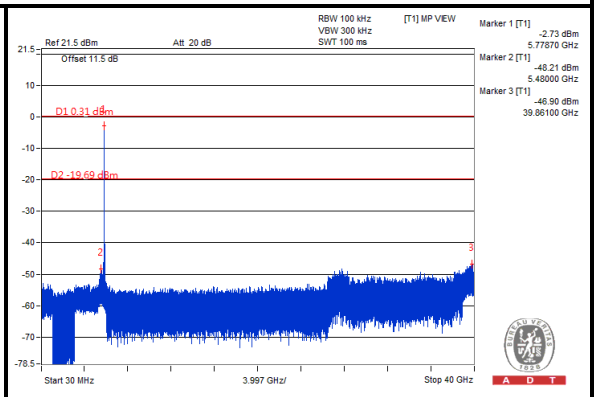
CH 149



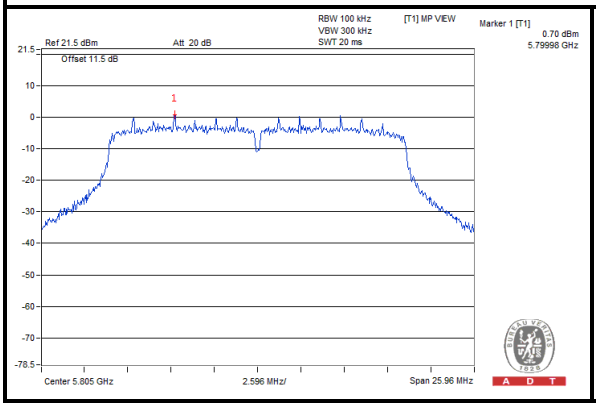


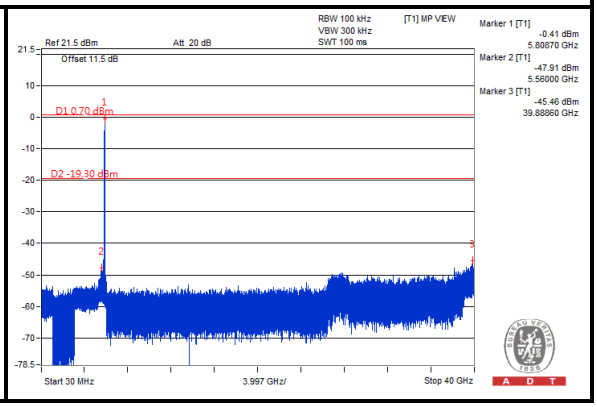
CH 157





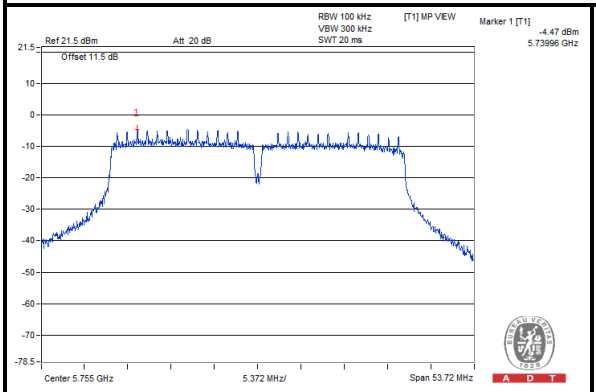
CH 161

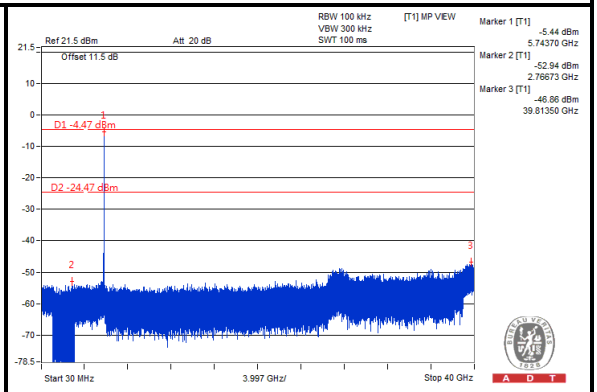




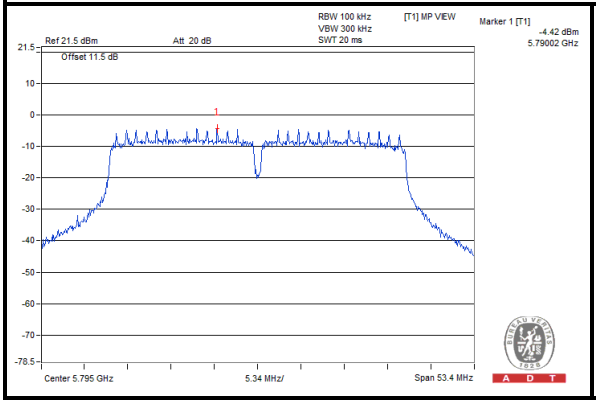
802.11n (40MHz)

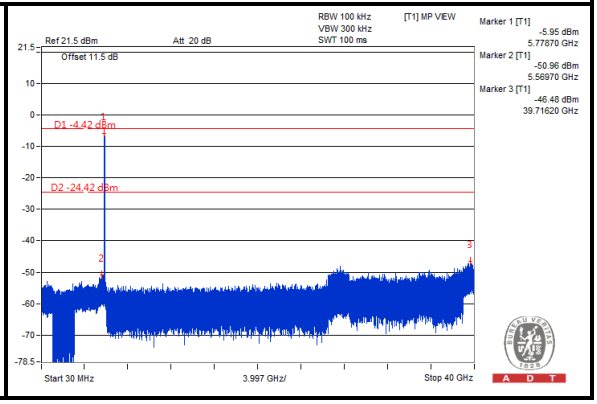
CH 151





CH 159

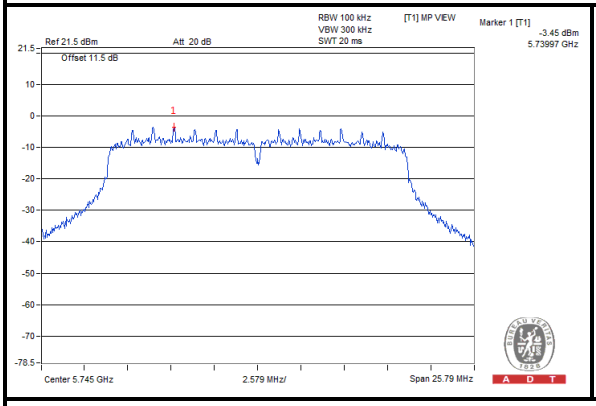


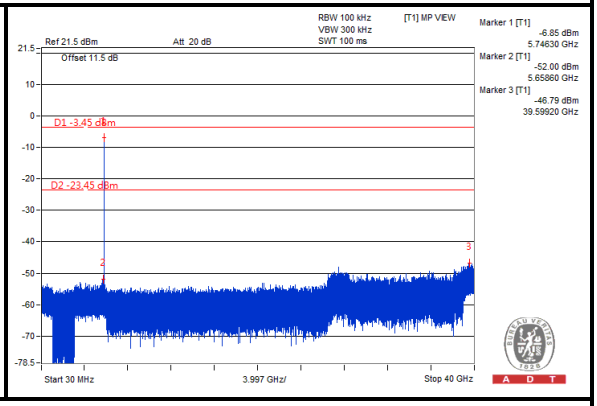


MODE B (Chain 0)

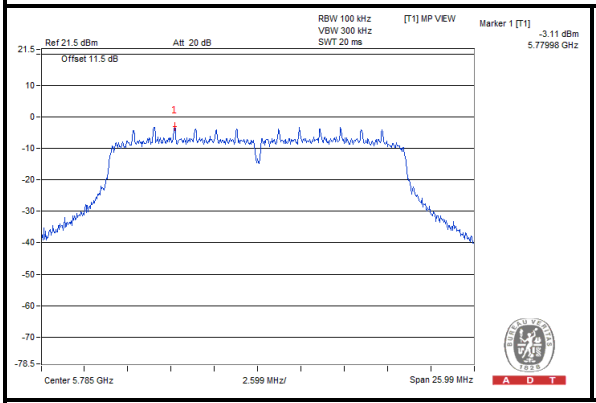
802.11n (20MHz)

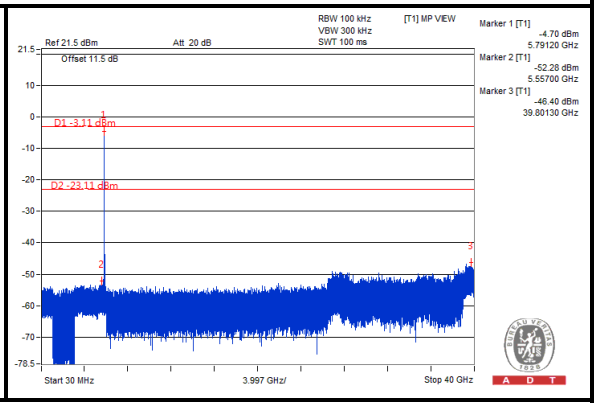
CH 149



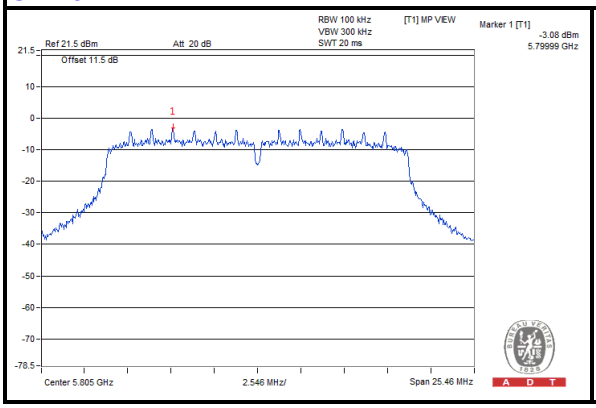


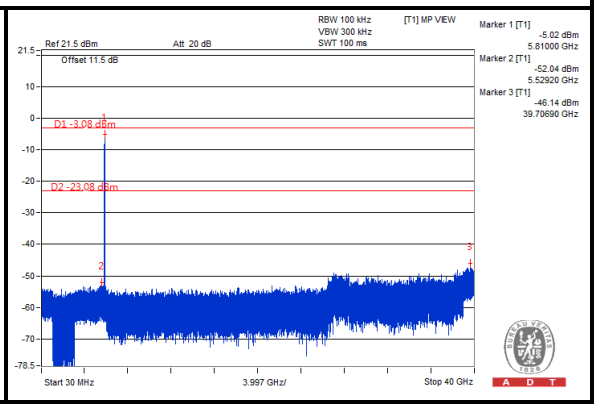
CH 157





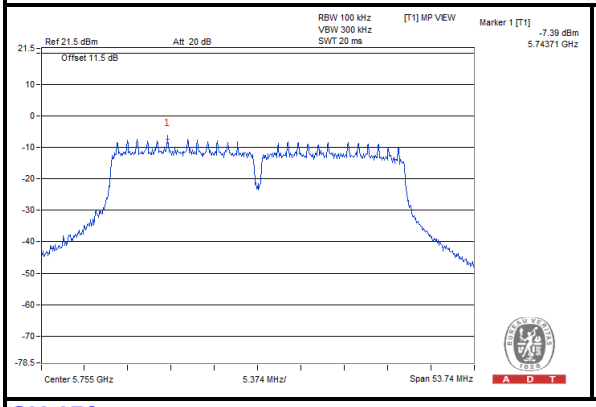
CH 161

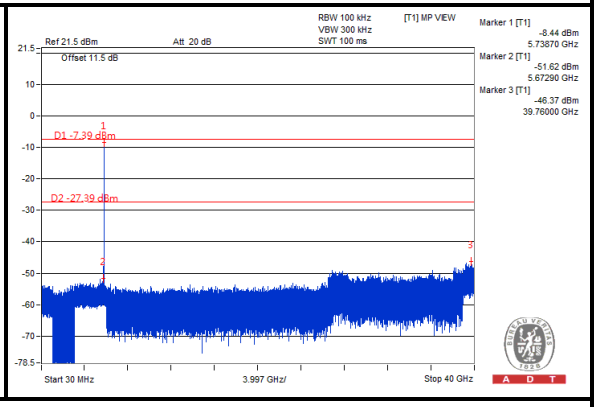




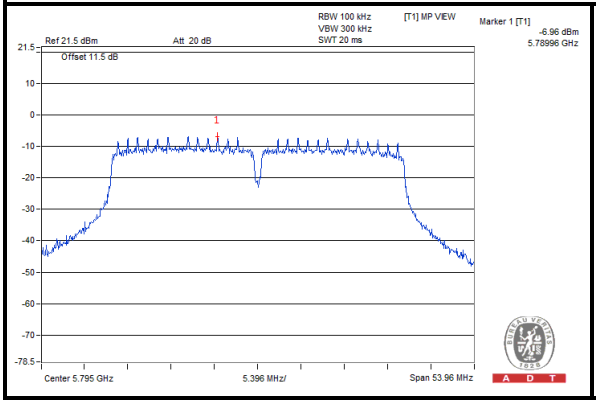
802.11n (40MHz)

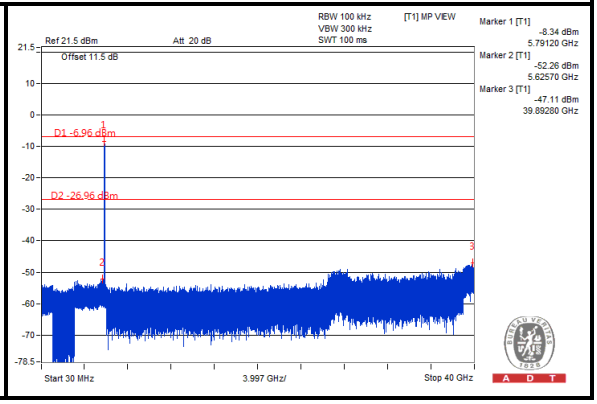
CH 151





CH 159

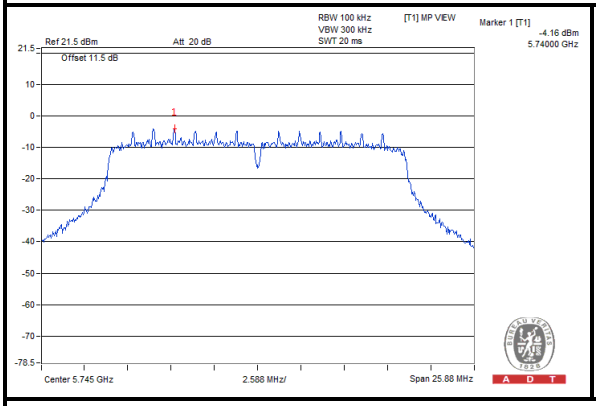


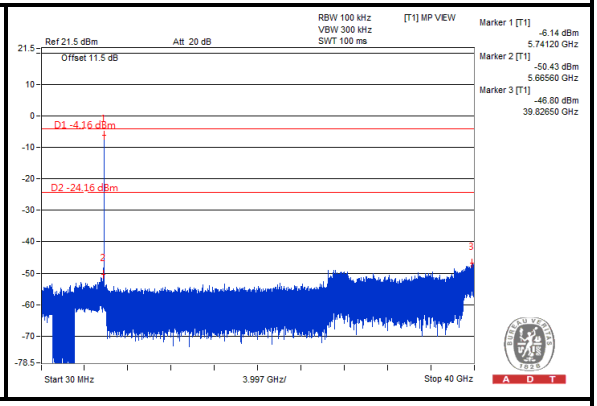


MODE B (Chain 1)

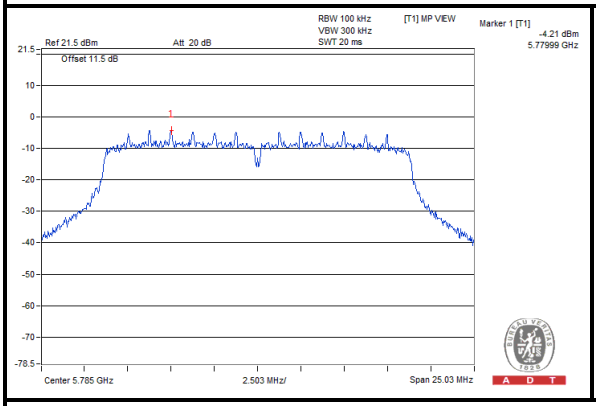
802.11n (20MHz)

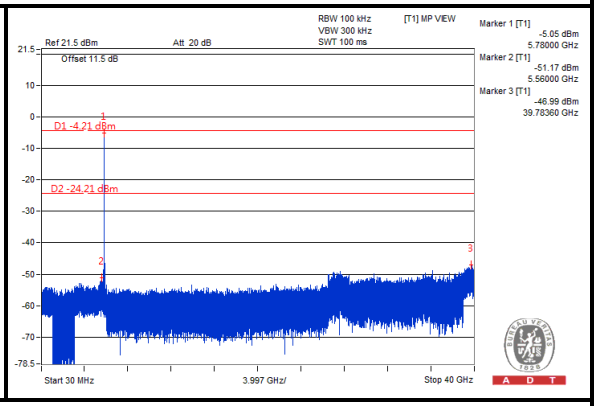
CH 149



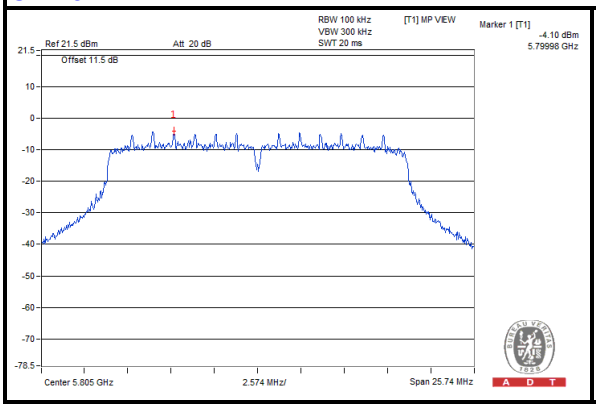


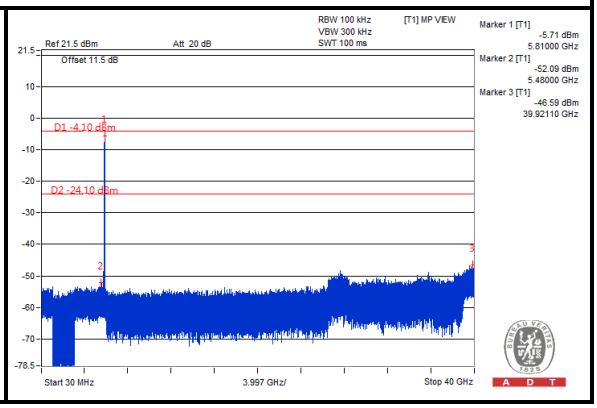
CH 157





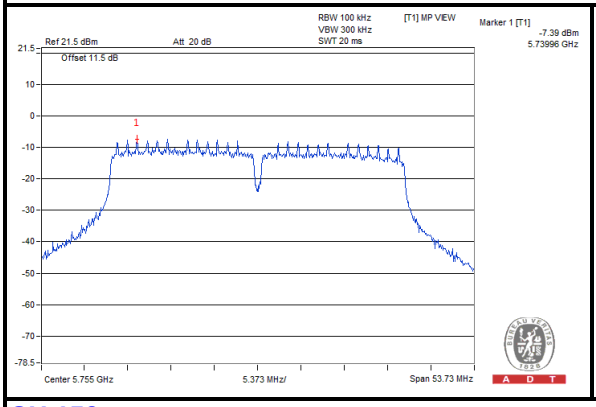
CH 161

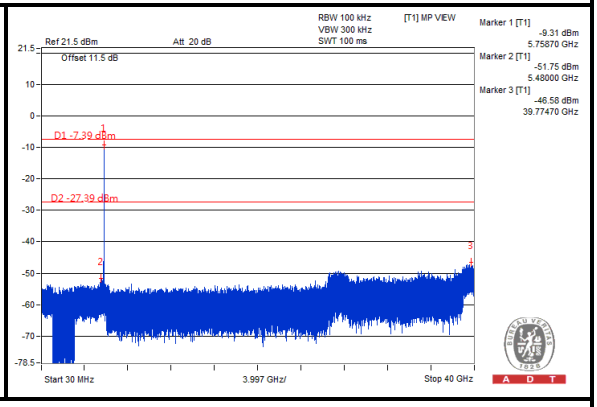




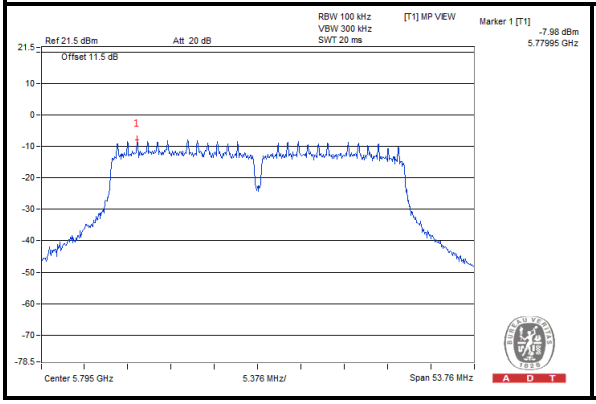
802.11n (40MHz)

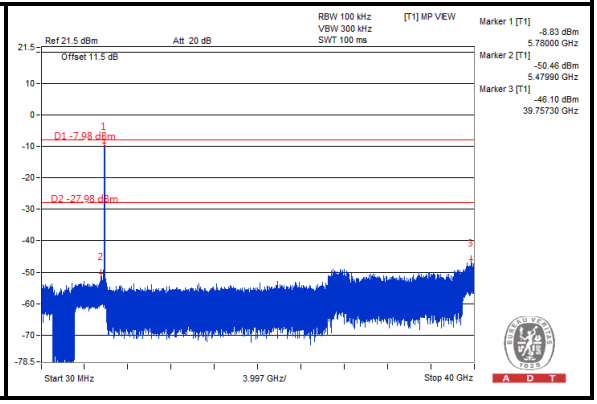
CH 151





CH 159





6. PHOTOGRAPHS OF THE TEST CONFIGURATION

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

7. INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

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

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---