



NCC RF Test Report

APPLICANT : 神基科技股份有限公司
EQUIPMENT : Wireless module
BRAND NAME : Getac
MODEL NAME : WLE200NX
MARKETING NAME : WLE200NX
STANDARD : NCC LP0002 (2016-08-23)

The product was received on May 23, 2017 and testing was completed on Aug. 31, 2017. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
TR752305C	Rev. 01	Initial issue of report	Sep. 04, 2017

SUMMARY OF TEST RESULT

Report Section	NCC Rule	Description	Limit	Result	Remark
3.1	LP0002 4.7.3 4.7.5	6dB, 26dB and 99% Occupied Bandwidth	> 500kHz	Pass	-
3.2	LP0002 4.7.3	Maximum Conducted Output Power	≤ 30 dBm	Pass	-
3.3	LP0002 4.7.3	Power Spectral Density	≤ 30 dBm/500kHz	Pass	-
3.4	LP0002 4.7.4	Unwanted Emissions	LP0002 4.7.4	Pass	Under limit 10.97 dB at 746.600 MHz
3.5	LP0002 2.11	Receiver Radiated Emission	LP0002 2.8	Pass	Under limit 3.54 dB at 373.500 MHz
3.6	LP0002 2.3	AC Conducted Emission	LP0002 2.3	Pass	Under limit 14.70 dB at 0.574 MHz
3.7	-	Frequency Stability	-	Pass	-
3.8	LP0002 4.7.6	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.9	LP0002 2.2 4.7.8	Antenna Requirement	-	Pass	-



1 General Description

1.1 Applicant

神基科技股份有限公司
新竹科學工業園區新竹縣寶山鄉研發二路 1 號 4 樓

1.2 Product Feature of Equipment Under Test

Wi-Fi 2.4GHz 802.11b/g/n/ac, Wi-Fi 5GHz 802.11a/n

Product Specification subjective to this standard	
Installed into Notebook	Brand Name: Getac Model Name: B300G5
Antenna Type	WLAN: PIFA Antenna

1.3 Modification of EUT

No modifications are made to the EUT during all test items.

1.4 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW0007 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	Sporton Site No.	
	TH05-HY	CO05-HY

Note: The test site complies with ANSI C63.4 2014 requirement.

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd. Guishan Dist, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855	
Test Site No.	Sporton Site No.	
	03CH10-HY	

Note: The test site complies with ANSI C63.4 2014 requirement.

1.5 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- NCC LP0002 (2016-08-23)
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04
- ANSI C63.10-2013

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).
- b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5725-5850 MHz Band 4 (U-NII-3)	149	5745	157	5785
	151*	5755	159*	5795
	153	5765	161	5805
	-	-	165	5825

Note: The above Frequency and Channel in "*" were 802.11n HT40.

2.2 Test Mode

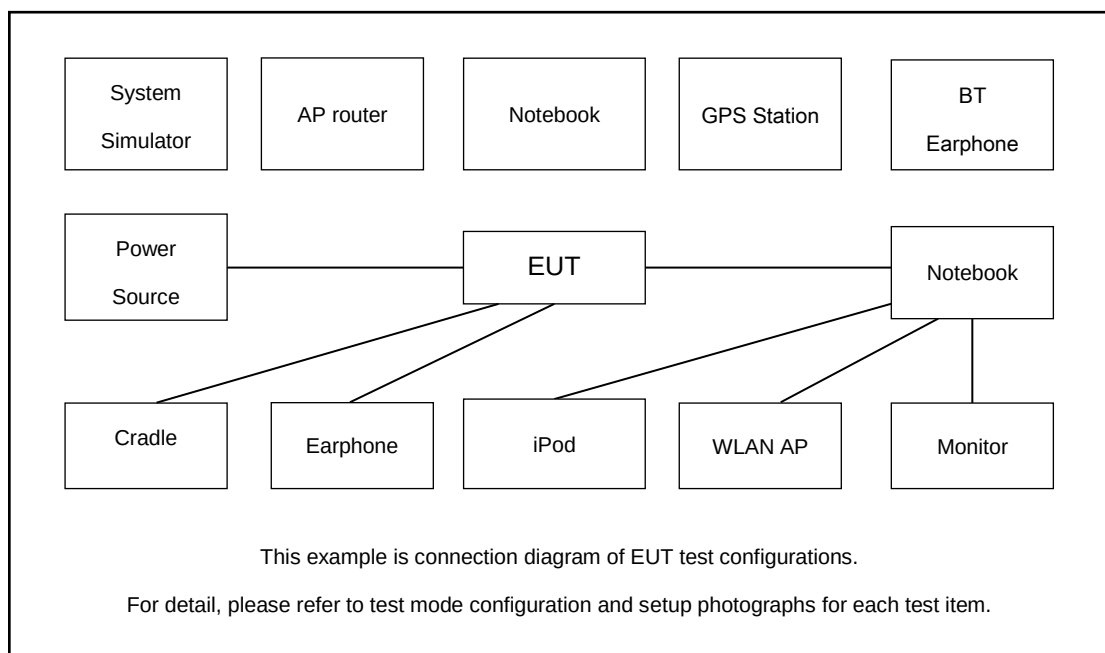
Final test mode of conducted test items and radiated spurious emissions are considering the modulation and worse data rates as below table.

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0

Test Cases	
AC Conducted Emission	Mode 1: WLAN (2.4GHz) Link + TF + TC Mode 2: WLAN (5GHz) Link + TF + TC Mode 3: WLAN (2.4GHz) Idle + TF + TC Mode 4: WLAN (5GHz) Idle + TF + TC
Receiver Radiated Emission	Mode 1 : WLAN (5GHz) Idle
Remark: - The worst case of conducted emission is mode 4; only the test data of it was reported. - TF stands for Test Function, and consists of H-Pattern and MPEG4. - TC stands for Test Configuration, and consists of SD Card, eSATA HD*2, USB HD, 1394a HD, Monitor (VGA Out), Monitor (HDMI Out), Modem (Serial Out), RS-232 Cable (Load), PCMCIA Card, Smart Card, Earphone with Mic, RJ-45 Link, Battery, and AC Adapter.	

Ch. #		Band IV : 5725-5850 MHz	
		802.11n HT20	802.11n HT40
L	Low	149	151
M	Middle	157	-
H	High	165	159

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded,1.8m
2.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	LCD Monitor	Dell	2715Qt	FCC DoC	Shielded, 1.6m	Unshielded,1.8m
4.	LCD Monitor	Dell	U2410	FCC DoC	Shielded, 1.6m	Unshielded,1.8m
5.	e-SATA HD	WD	Studio Edition II	FCC DoC	Shielded, 1.05m	Unshielded,1.8m
6.	1394a HD	dataTale	TQ-M12H	FCC DoC	Shielded, 1.8m	Unshielded,1.8m
7.	USB HD	WD	WDBAAR3200ABK-PESN	FCC DoC	Shielded, 0.5m	Unshielded,1.8m
8.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A
9.	Modem	ACCEX	DM1414	IFAXDM1414	Shielded, 1.5 m	N/A
10.	Earphone + Mic	Ergotech	ET-E200	FCC DoC	Unshielded, 1.8m	N/A
11.	PCMCIA Card	D-Link	DWL-650	KA2DWL-650V2	N/A	N/A
12.	Smart Card	N/A	N/A	N/A	N/A	N/A
13.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A



2.5 EUT Operation Test Setup

The RF test items, programmed RF utility, "art.exe" installed in the notebook make the EUT provide functions like channel selection and power level for continuous transmitting and receiving signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

$$\begin{aligned}\text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\ &= 4.2 + 10 = 14.2 \text{ (dB)}\end{aligned}$$

3 Test Result

3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement

3.1.1 Description of 6dB and 26dB and 99% Occupied Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

26dB and 99% Occupied bandwidth are reporting only.

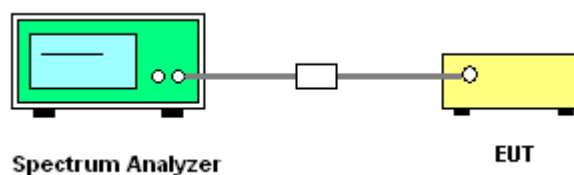
3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedures

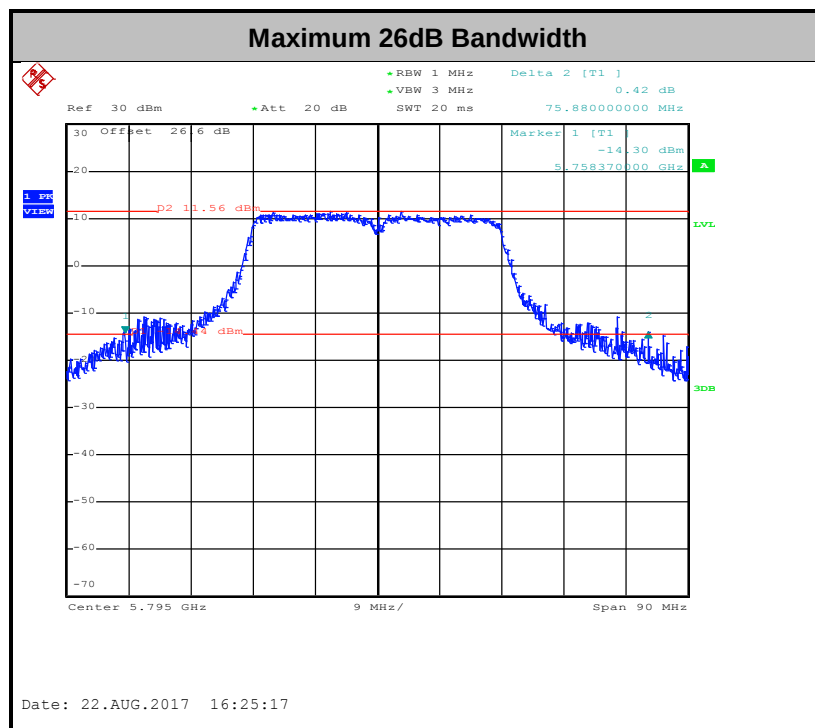
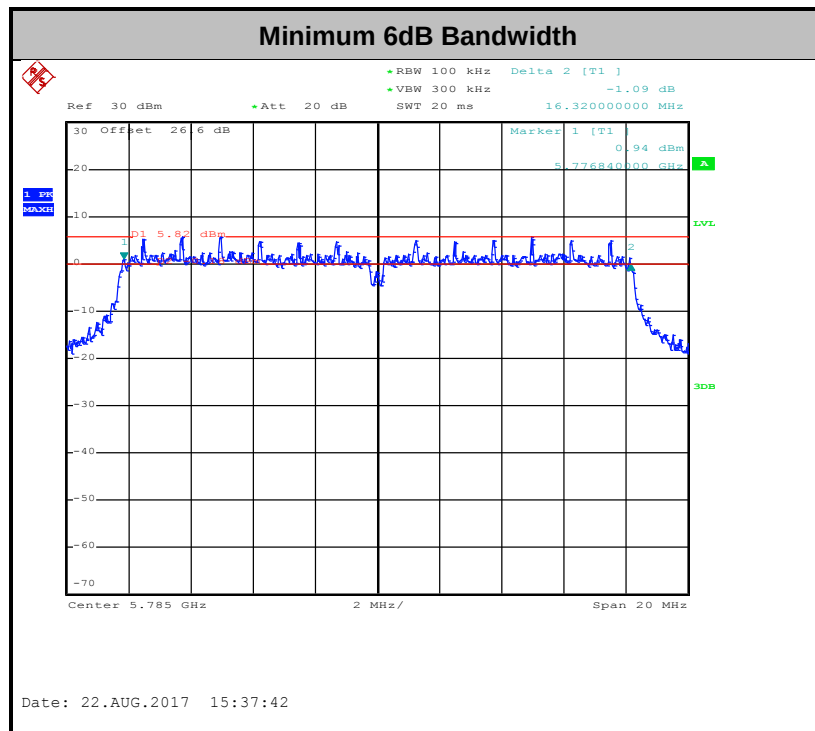
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.
Section C) Emission bandwidth for the band 5.725-5.85GHz
2. Set RBW = 100kHz.
3. Set the VBW $\geq 3 \times$ RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.
7. Measure and record the results in the test report.

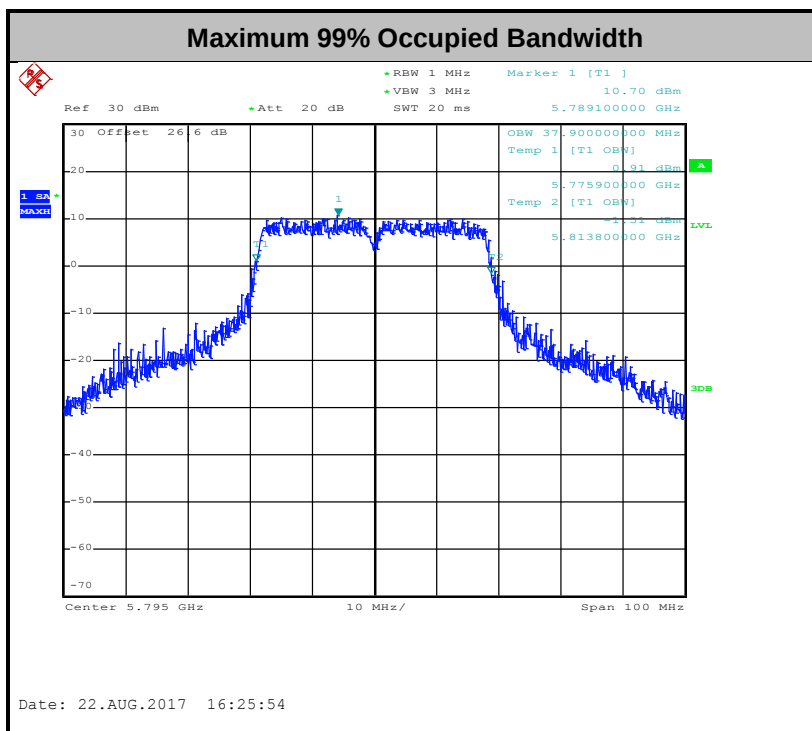
3.1.4 Test Setup



3.1.5 Test Result of 6dB and 26dB and 99% Occupied Bandwidth

Please refer to Appendix A.





Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

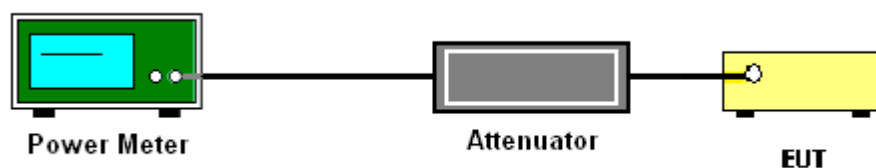
3.2.3 Test Procedures

The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.

Method PM (Measurement using an RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, $10 \log(1/x)$, where x is the duty cycle.

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.



3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

For the band 5.725–5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.3.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.3.3 Test Procedures

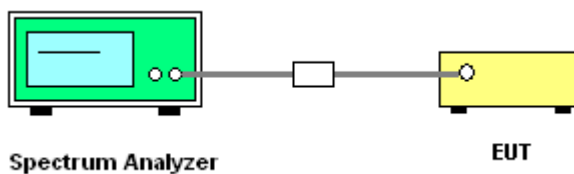
The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.
Section F) Maximum power spectral density.

Method SA-2

(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

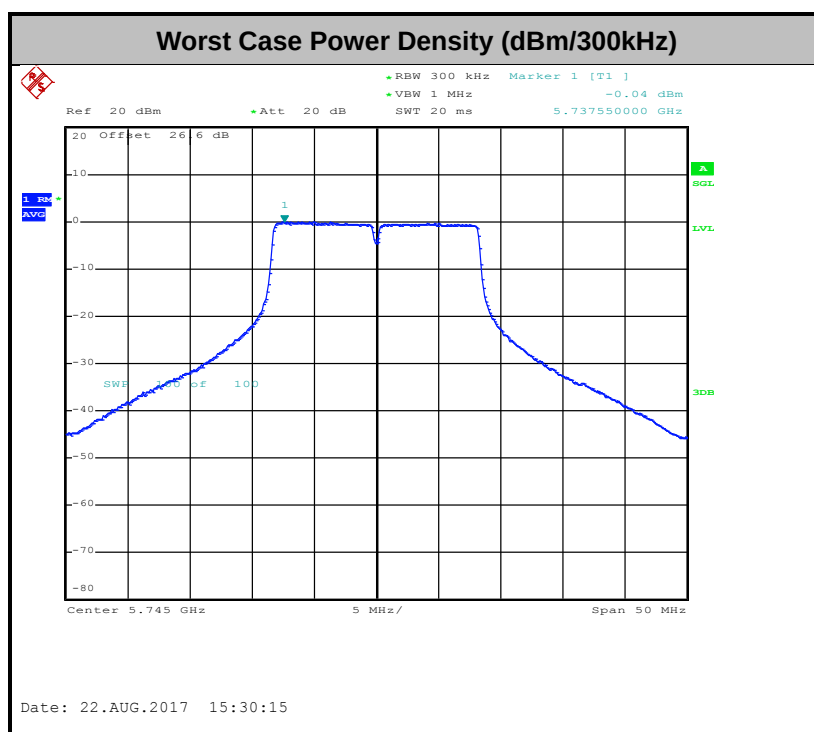
- Measure the duty cycle.
 - Set span to encompass the entire emission bandwidth (EBW) of the signal.
 - Set RBW = 300 kHz.
 - Set VBW $\geq$ 1 MHz.
 - Number of points in sweep $\geq$ 2 Span / RBW.
 - Sweep time = auto.
 - Detector = RMS
 - Trace average at least 100 traces in power averaging mode.
 - Add $10 \log(500\text{kHz}/\text{RBW})$ to the test result.
 - Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add $10 \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.
1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
 2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.



3.4 Unwanted Emissions Measurement

3.4.1 Limit of Unwanted Emissions

- (1) For transmitters operating in the 5.725-5.85 GHz band:

All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

- (2) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits as below table,

Frequency (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: The following formula is used to convert the EIRP to field strength.

$$E = \frac{1000000\sqrt{30P}}{3} \text{ } \mu\text{V/m, where P is the eirp (Watts)}$$

EIRP (dBm)	Field Strength at 3m (dBμV/m)
-17	78.3
- 27	68.3

- (3) ANSI C63.10-2013 clause 12.7.3 note 97

As specified by regulatory requirements, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit. However, an out-of-band emission that complies with both the average and peak general regulatory limits is not required to satisfy the peak emission limit.

3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

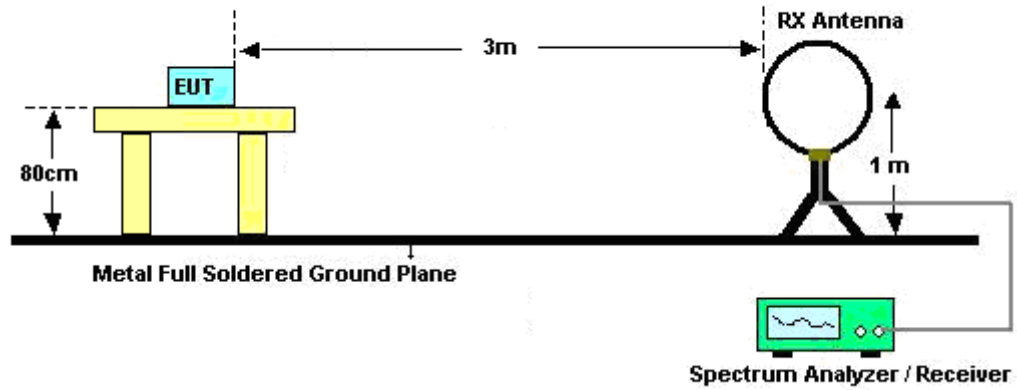
3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.
Section G) Unwanted emissions measurement.
(1) Procedure for Unwanted Emissions Measurements Below 1000MHz
 - RBW = 120 kHz
 - VBW = 300 kHz
 - Detector = Peak
 - Trace mode = max hold(2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
 - RBW = 1 MHz
 - VBW $\geq$ 3 MHz
 - Detector = Peak
 - Sweep time = auto
 - Trace mode = max hold(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
 - RBW = 1 MHz
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq$ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be

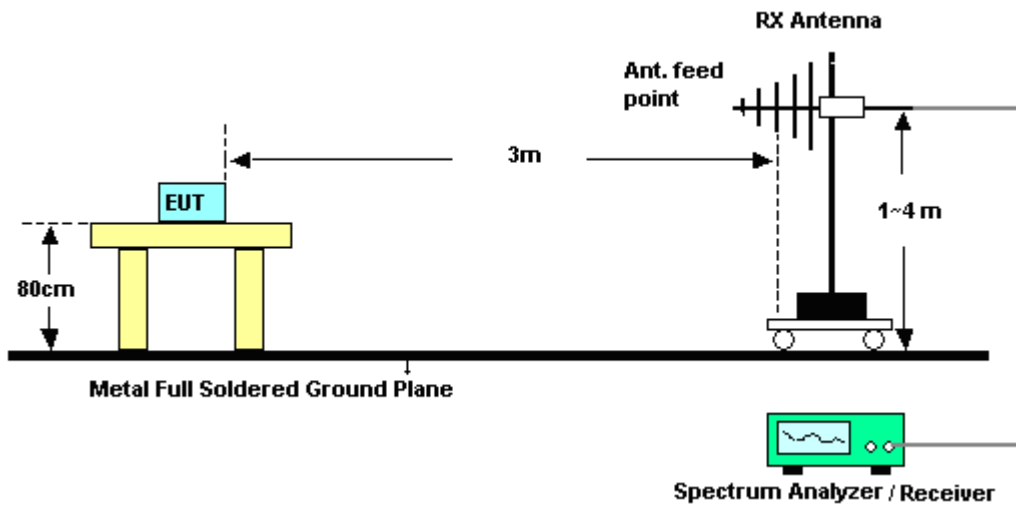
measured in average mode again and reported.

3.4.4 Test Setup

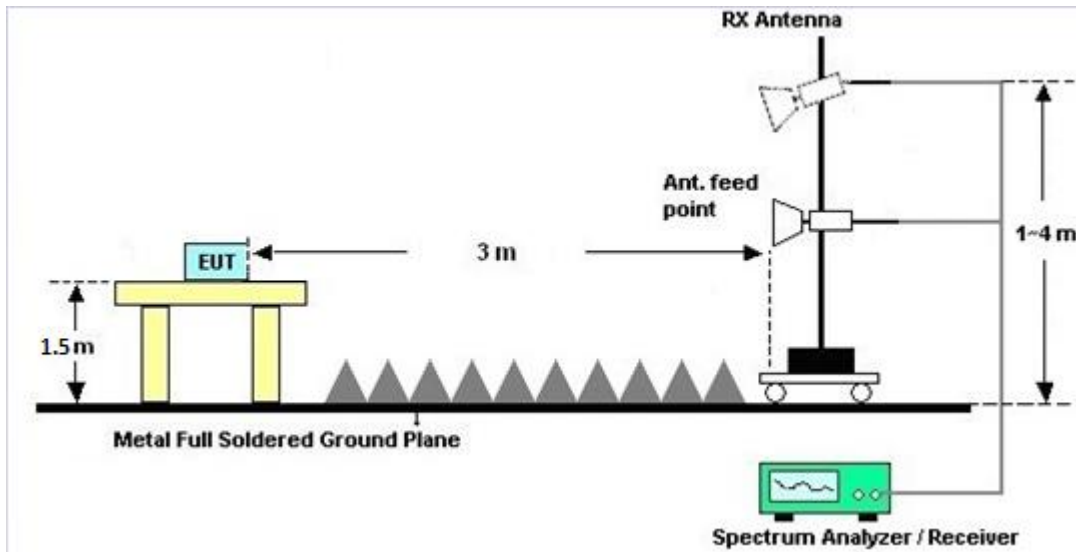
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.4.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per NCC LP0002 section 5.13 was not reported.

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.4.7 Duty Cycle

Please refer to Appendix E.

3.4.8 Test Result of Radiated Spurious Emissions (30MHz ~ 10th Harmonic)

Please refer to Appendix C and D.

3.5 Test of Receiver Radiated Emission Measurement

3.5.1 Limit of Receiver Radiated Emission

Frequency (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

3.5.2 Measuring Instruments

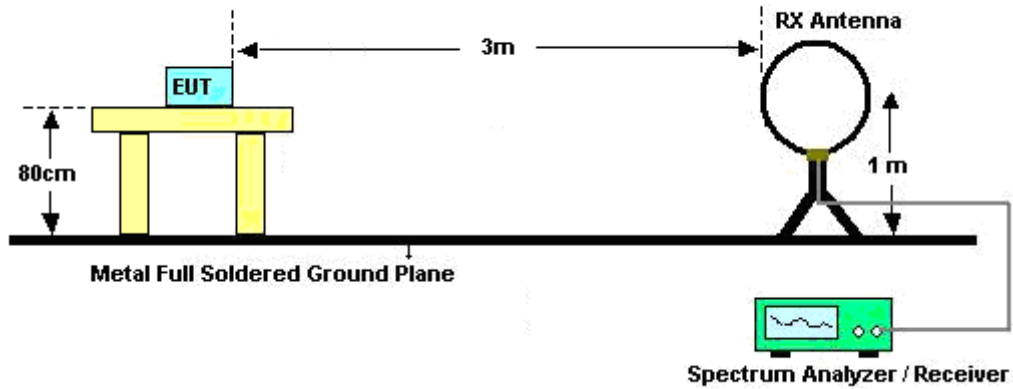
The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

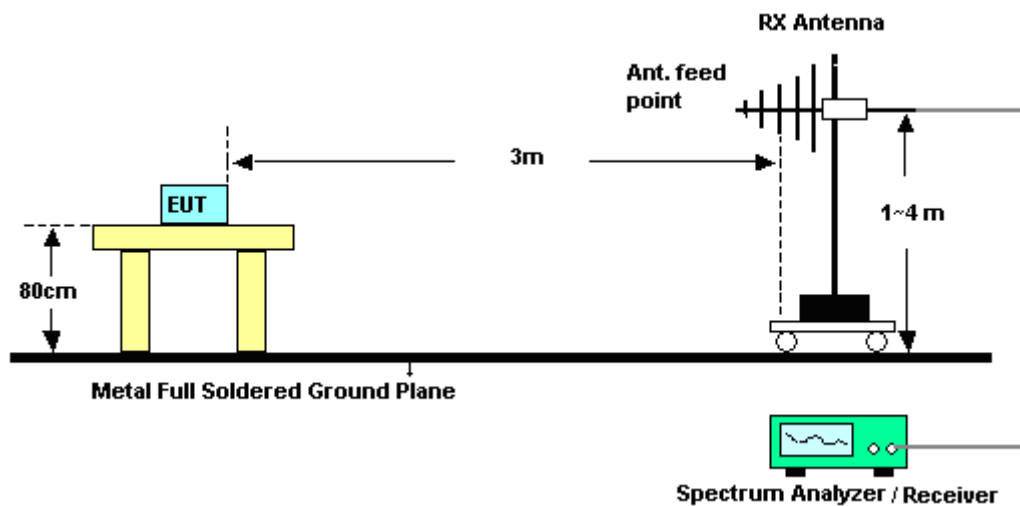
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a Bi-Log antenna and its height is adjusted between one to four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode (RBW=120kHz/VBW=300kHz for frequency below 1GHz; RBW=1MHz VBW=3MHz (Peak), RBW=1MHz/VBW=10Hz (Average) for frequency above 1GHz).
7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.
8. Emission level (dBμV/m) = 20 log Emission level (μV/m)
9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

3.5.4 Test Setup

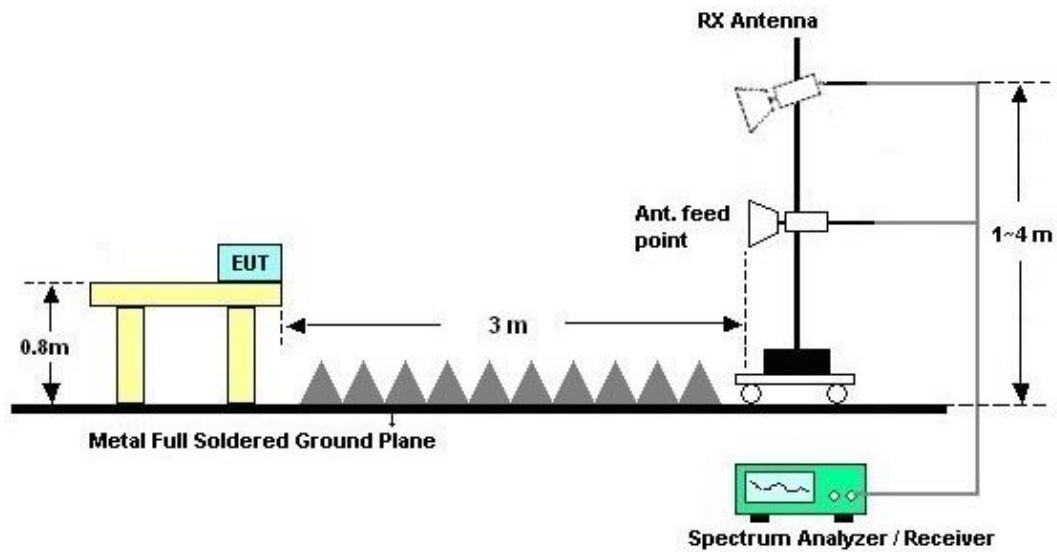
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.5.5 Test Result of Receiver Radiated Spurious Emissions (9kHz ~ 30MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per NCC LP0002 section 5.13 was not reported.

3.5.6 Test Result of Receiver Radiated Spurious Emission (30MHz ~ 5th Harmonic)

Please refer to Appendix D.

3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

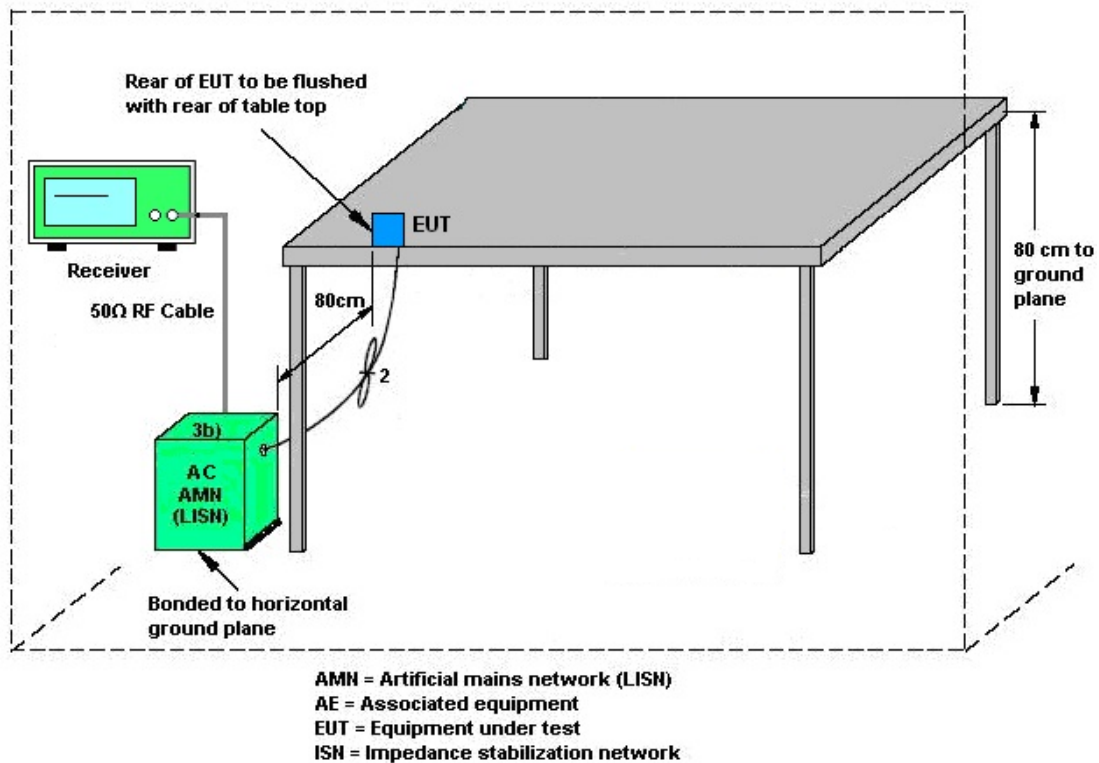
3.6.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.6.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF bandwidth = 9kHz) with Maximum Hold Mode.

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.7 Frequency Stability Measurement (Reporting Only)

3.7.1 Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

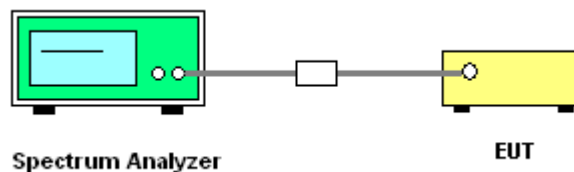
3.7.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.7.3 Test Procedures

1. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
2. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.
3. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

3.7.4 Test Setup



3.7.5 Test Result of Frequency Stability

Please refer to Appendix A.

3.8 Automatically Discontinue Transmission

3.8.1 Limit of Automatically Discontinue Transmission

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

3.8.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.8.3 Test Result of Automatically Discontinue Transmission

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.



3.9 Antenna Requirements

3.9.1 Standard Applicable

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.9.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.9.3 Antenna Gain

The antenna gain is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	0932001	300MHz~40GHz	Sep. 29, 2016	Aug. 18, 2017~ Aug. 29, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Sep. 29, 2016	Aug. 18, 2017~ Aug. 29, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 25, 2016	Aug. 18, 2017~ Aug. 29, 2017	Nov. 24, 2017	Conducted (TH05-HY)
Temperature Chamber	ESPEC	SU-241	92003713	-30℃ ~95℃	Jun. 07, 2017	Aug. 18, 2017~ Aug. 29, 2017	Jun. 06, 2018	Conducted (TH05-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890094	1V~20V 0.5A~5A	Oct. 11, 2016	Aug. 18, 2017~ Aug. 29, 2017	Oct. 10, 2017	Conducted (TH05-HY)
AC Power Source	AC POWER	AFC-500W	F104070011	50Hz~60Hz	Dec 01.2016	Aug. 18, 2017~ Aug. 29, 2017	Nov 30 2017	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Aug. 31, 2017	N/A	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 29, 2016	Aug. 31, 2017	Nov. 28, 2017	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Dec. 06, 2016	Aug. 31, 2017	Dec. 05, 2017	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100472	20Hz~26.5GHz	Dec. 29, 2016	Aug. 31, 2017	Dec. 28, 2017	Conduction (CO05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Oct. 20, 2016	Aug. 24, 2017~ Aug. 28, 2017	Oct. 19, 2018	Radiation (03CH10-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	35413&02	30MHz~1GHz	Jan. 07, 2017	Aug. 24, 2017~ Aug. 28, 2017	Jan. 06, 2018	Radiation (03CH10-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1325	1GHz ~ 18GHz	Sep. 30, 2016	Aug. 24, 2017~ Aug. 28, 2017	Sep. 29, 2017	Radiation (03CH10-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA917058 4	18GHz- 40GHz	Nov. 08, 2016	Aug. 24, 2017~ Aug. 28, 2017	Nov. 07, 2017	Radiation (03CH10-HY)
Amplifier	SONOMA	310N	187311	9kHz~1GHz	Oct. 26, 2016	Aug. 24, 2017~ Aug. 28, 2017	Oct. 25, 2017	Radiation (03CH10-HY)
Preamplifier	Jet-Power	JPA00101800- 30-10P	16011855000 4	1GHz~18GHz	Apr. 13, 2017	Aug. 24, 2017~ Aug. 28, 2017	Apr. 12, 2018	Radiation (03CH10-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800	2025787	1GHz~18GHz	Feb. 13, 2017	Aug. 24, 2017~ Aug. 28, 2017	Feb. 12, 2018	Radiation (03CH10-HY)
Preamplifier	Keysight	83017A	MY53270078	1GHz~26.5GHz	Oct. 26, 2016	Aug. 24, 2017~ Aug. 28, 2017	Oct. 25, 2017	Radiation (03CH10-HY)
Amplifier	MITEQ	TTA1840-35-H G	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 18, 2017	Aug. 24, 2017~ Aug. 28, 2017	Jul. 17, 2018	Radiation (03CH10-HY)
EMI Test Receiver	Agilent	N9038A(MXE)	MY53290053	20Hz to 26.5GHz	Jan. 12, 2017	Aug. 24, 2017~ Aug. 28, 2017	Jan. 11, 2018	Radiation (03CH10-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200485	10Hz ~ 44GHz	Oct. 17, 2016	Aug. 24, 2017~ Aug. 28, 2017	Oct. 16, 2017	Radiation (03CH10-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Aug. 24, 2017~ Aug. 28, 2017	N/A	Radiation (03CH10-HY)
Turn Table	EMEC	TT 2200	N/A	0~360 Degree	N/A	Aug. 24, 2017~ Aug. 28, 2017	N/A	Radiation (03CH10-HY)

6 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.70
--	------

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.60
--	------

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.90
--	------

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.20
--	------

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Allen Lin	Temperature:	21~25	°C
Test Date:	2017/08/18 ~ 2017/08/29	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 26dB EBW and 99% OBW

Band IV									
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	6 dB Bandwidth (MHz)	6dB Bandwidth min. Limit (MHz)	Pass/Fail
11a	6M bps	1	149	5745	18.75	33.60	16.34	0.5	Pass
11a	6Mbps	1	157	5785	18.90	32.70	16.32	0.5	Pass
11a	6Mbps	1	165	5825	19.10	34.75	16.32	0.5	Pass
HT20	MCS 0	1	149	5745	19.90	37.75	17.56	0.5	Pass
HT20	MCS 0	1	157	5785	19.95	37.35	17.56	0.5	Pass
HT20	MCS 0	1	165	5825	20.35	37.15	17.58	0.5	Pass
HT40	MCS 0	1	151	5755	37.50	71.70	35.72	0.5	Pass
HT40	MCS 0	1	159	5795	37.90	75.88	36.08	0.5	Pass

TEST RESULTS DATA
Average Power Table

Band IV										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail
11a	6M bps	1	149	5745	0.03	16.31	30.00	-2.43		Pass
11a	6Mbps	1	157	5785	0.03	16.21	30.00	-2.43		Pass
11a	6Mbps	1	165	5825	0.03	16.25	30.00	-2.43		Pass
HT20	MCS 0	1	149	5745	0.03	16.37	30.00	-2.43		Pass
HT20	MCS 0	1	157	5785	0.03	16.25	30.00	-2.43		Pass
HT20	MCS 0	1	165	5825	0.03	16.26	30.00	-2.43		Pass
HT40	MCS 0	1	151	5755	0.06	16.25	30.00	-2.43		Pass
HT40	MCS 0	1	159	5795	0.06	16.21	30.00	-2.43		Pass

TEST RESULTS DATA
Power Spectral Density

Band IV										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)	10log (500kHz /RBW) Factor (dB)	Average Power Density (dBm/500kHz)	Average PSD Limit (dBm/500kHz)	DG (dBi)	Pass/Fail
11a	6M bps	1	149	5745	0.03	2.22	2.21	30.00	-2.43	Pass
11a	6Mbps	1	157	5785	0.03	2.22	1.79	30.00	-2.43	Pass
11a	6Mbps	1	165	5825	0.03	2.22	1.99	30.00	-2.43	Pass
HT20	MCS 0	1	149	5745	0.03	2.22	1.79	30.00	-2.43	Pass
HT20	MCS 0	1	157	5785	0.03	2.22	1.74	30.00	-2.43	Pass
HT20	MCS 0	1	165	5825	0.03	2.22	1.46	30.00	-2.43	Pass
HT40	MCS 0	1	151	5755	0.06	2.22	-0.62	30.00	-2.43	Pass
HT40	MCS 0	1	159	5795	0.06	2.22	-0.72	30.00	-2.43	Pass

TEST RESULTS DATA
Frequency Stability

Band IV										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6M bps	1	149	5745	5744.975	-0.025	-4.35	50	10.8	
11a	6M bps	1	149	5745	5745.025	0.025	4.35	-30	10.8	
11a	6M bps	1	149	5745	5744.975	-0.025	-4.35	20	10.9	
11a	6M bps	1	149	5745	5745.000	0.000	0.00	20	10.7	
11a	6M bps	1	149	5745	5744.975	-0.025	-4.35	20	10.8	



Appendix B. AC Conducted Emission Test Results

Test Engineer :	Shareef Yu	Temperature :	26~27°C
		Relative Humidity :	58~62%

EUT Information

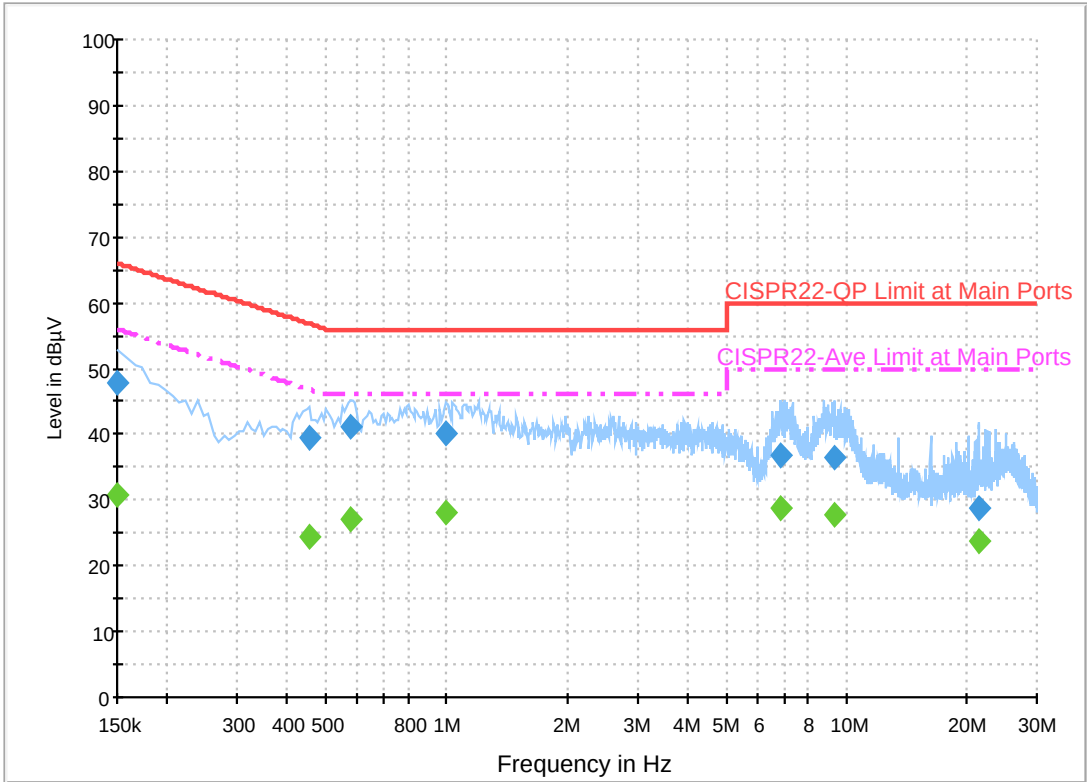
Report NO :752305

Test Mode :Mode 4

Test Voltage :110Vac/60Hz

Phase :Line

ENV216 Auto Test-L



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	48.0	Off	L1	19.6	18.0	66.0
0.454000	39.4	Off	L1	19.5	17.4	56.8
0.574000	41.3	Off	L1	19.5	14.7	56.0
0.998000	40.3	Off	L1	19.5	15.7	56.0
6.870000	36.8	Off	L1	19.6	23.2	60.0
9.310000	36.5	Off	L1	19.7	23.5	60.0
21.542000	28.8	Off	L1	19.8	31.2	60.0

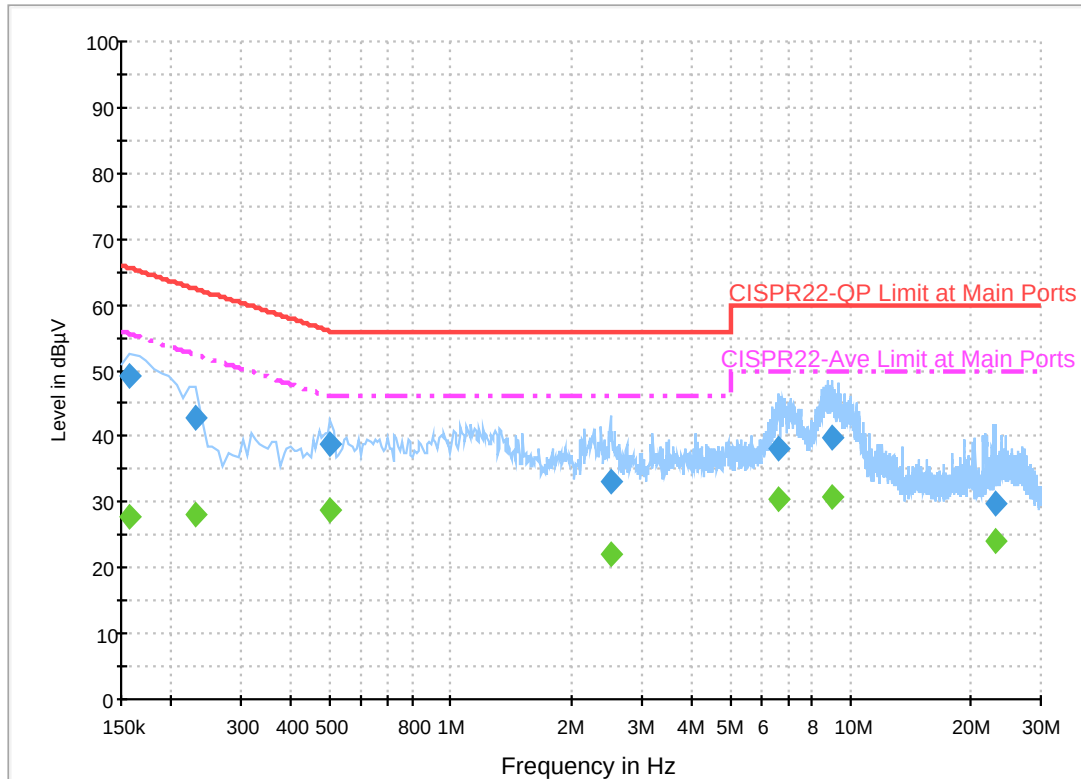
Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	30.6	Off	L1	19.6	25.4	56.0
0.454000	24.5	Off	L1	19.5	22.3	46.8
0.574000	27.3	Off	L1	19.5	18.7	46.0
0.998000	28.1	Off	L1	19.5	17.9	46.0
6.870000	28.7	Off	L1	19.6	21.3	50.0
9.310000	27.8	Off	L1	19.7	22.2	50.0
21.542000	23.7	Off	L1	19.8	26.3	50.0

EUT Information

Report NO : 752305
Test Mode : Mode 4
Test Voltage : 110Vac/60Hz
Phase : Neutral

ENV216 Auto Test-N



Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.158000	49.1	Off	N	19.5	16.5	65.6
0.230000	42.9	Off	N	19.5	19.5	62.4
0.502000	38.7	Off	N	19.5	17.3	56.0
2.510000	33.0	Off	N	19.2	23.0	56.0
6.646000	38.0	Off	N	19.6	22.0	60.0
9.030000	39.8	Off	N	19.7	20.2	60.0
23.166000	29.6	Off	N	19.9	30.4	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.158000	27.8	Off	N	19.5	27.8	55.6
0.230000	28.2	Off	N	19.5	24.2	52.4
0.502000	28.6	Off	N	19.5	17.4	46.0
2.510000	22.2	Off	N	19.2	23.8	46.0
6.646000	30.5	Off	N	19.6	19.5	50.0
9.030000	30.6	Off	N	19.7	19.4	50.0
23.166000	24.2	Off	N	19.9	25.8	50.0

Appendix C. Radiated Spurious Emission

Test Engineer :	Tsung Li, Stan Hsieh, and Kyle Chuang	Temperature :	24~26°C
		Relative Humidity :	45~47%

Band 4 - 5725~5850MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 149 5745MHz		5633.2	53.74	-14.46	68.2	46.66	32.72	6.97	32.61	100	69	P	H
		5692.8	54.76	-45.13	99.89	47.58	32.8	7.01	32.63	100	69	P	H
		5719.2	56.41	-54.17	110.58	49.16	32.86	7.03	32.64	100	69	P	H
		5724.8	73.7	-48.04	121.74	66.45	32.86	7.03	32.64	100	69	P	H
	*	5745	106.39	-	-	99.11	32.89	7.04	32.65	100	69	P	H
	*	5745	99.01	-	-	91.73	32.89	7.04	32.65	100	69	A	H
													H
													H
		5646.8	54.22	-13.98	68.2	47.12	32.72	6.99	32.61	214	49	P	V
		5673.8	53.24	-32.61	85.85	46.08	32.78	7	32.62	214	49	P	V
		5720	60.8	-50	110.8	53.55	32.86	7.03	32.64	214	49	P	V
		5724.6	66.7	-54.59	121.29	59.45	32.86	7.03	32.64	214	49	P	V
	*	5745	106.78	-	-	99.5	32.89	7.04	32.65	214	49	P	V
	*	5745	100.36	-	-	93.08	32.89	7.04	32.65	214	49	A	V
													V
													V



WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 157 5785MHz		5636.8	55.12	-13.08	68.2	48.04	32.72	6.97	32.61	102	252	P	H
		5674.6	55.94	-30.5	86.44	48.78	32.78	7	32.62	102	252	P	H
		5718.6	54.78	-55.63	110.41	47.53	32.86	7.03	32.64	102	252	P	H
		5723.2	52.41	-65.69	118.1	45.16	32.86	7.03	32.64	102	252	P	H
	*	5785	106.49	-	-	99.15	32.94	7.07	32.67	102	252	P	H
	*	5785	99.47	-	-	92.13	32.94	7.07	32.67	102	252	A	H
		5850	49.26	-72.94	122.2	41.8	33.05	7.1	32.69	102	252	P	H
		5868.4	50.11	-56.94	107.05	42.62	33.08	7.11	32.7	102	252	P	H
		5905.6	48.88	-33.64	82.52	41.31	33.16	7.12	32.71	102	252	P	H
		5944.2	49.55	-18.65	68.2	41.92	33.22	7.14	32.73	102	252	P	H
													H
													H
		5646.6	54.63	-13.57	68.2	47.53	32.72	6.99	32.61	208	46	P	V
		5670.8	54.33	-29.3	83.63	47.17	32.78	7	32.62	208	46	P	V
		5714.2	53.46	-55.72	109.18	46.25	32.83	7.02	32.64	208	46	P	V
		5722.6	52.04	-64.69	116.73	44.79	32.86	7.03	32.64	208	46	P	V
	*	5785	107.17	-	-	99.83	32.94	7.07	32.67	208	46	P	V
	*	5785	100.33	-	-	92.99	32.94	7.07	32.67	208	46	A	V
		5852.8	51.04	-64.78	115.82	43.58	33.05	7.1	32.69	208	46	P	V
		5866	51.46	-56.26	107.72	43.97	33.08	7.11	32.7	208	46	P	V
		5876.8	51.24	-52.62	103.86	43.72	33.11	7.11	32.7	208	46	P	V
		5928.6	50.64	-17.56	68.2	43.04	33.19	7.13	32.72	208	46	P	V
													V
													V



WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 165 5825MHz	*	5825	106.87	-	-	99.44	33.02	7.09	32.68	180	233	P	H
	*	5825	99.65	-	-	92.22	33.02	7.09	32.68	180	233	A	H
		5851.2	57.47	-61.99	119.46	50.01	33.05	7.1	32.69	180	233	P	H
		5855.6	51.77	-58.86	110.63	44.28	33.08	7.1	32.69	180	233	P	H
		5917	50.19	-23.91	74.1	42.62	33.16	7.13	32.72	180	233	P	H
		5946.2	51.36	-16.84	68.2	43.73	33.22	7.14	32.73	180	233	P	H
													H
													H
	*	5825	107.27	-	-	99.84	33.02	7.09	32.68	206	46	P	V
	*	5825	100.08	-	-	92.65	33.02	7.09	32.68	206	46	A	V
		5852.4	58.63	-58.1	116.73	51.17	33.05	7.1	32.69	206	46	P	V
		5859.8	54.18	-55.27	109.45	46.7	33.08	7.1	32.7	206	46	P	V
		5899.6	51.8	-35.16	86.96	44.26	33.13	7.12	32.71	206	46	P	V
		5948.8	50.21	-17.99	68.2	42.58	33.22	7.14	32.73	206	46	P	V
													V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 149 5745MHz		11490	47.97	-26.03	74	62.75	39.24	10.86	65.39	100	0	P	H
		17235	49.8	-18.4	68.2	58.26	41.15	14.02	64.27	100	0	P	H
													H
													H
		11490	48.4	-25.6	74	63.18	39.24	10.86	65.39	100	0	P	V
		17235	49.5	-18.7	68.2	57.96	41.15	14.02	64.27	100	0	P	V
													V
													V
802.11n HT20 CH 157 5785MHz		11570	47.56	-26.44	74	62.16	39.28	10.98	65.37	100	0	P	H
		17355	49.04	-19.16	68.2	56.92	41.52	14.08	64.11	100	0	P	H
													H
													H
		11570	49.48	-24.52	74	64.08	39.28	10.98	65.37	100	0	P	V
		17355	49.23	-18.97	68.2	57.11	41.52	14.08	64.11	100	0	P	V
													V
													V
802.11n HT20 CH 165 5825MHz		11650	52.85	-21.15	74	67.17	39.37	11.14	65.34	265	18	P	H
		11650	41.14	-12.86	54	55.46	39.37	11.14	65.34	265	18	A	H
		17475	50.45	-17.75	68.2	57.75	41.89	14.14	63.95	100	0	P	H
													H
		11650	49.46	-24.54	74	63.78	39.37	11.14	65.34	100	0	P	V
		17475	50.29	-17.91	68.2	57.59	41.89	14.14	63.95	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 151 5755MHz		5649.8	55.24	-12.96	68.2	48.11	32.75	6.99	32.61	190	231	P	H
		5698.6	56.75	-47.42	104.17	49.57	32.8	7.01	32.63	190	231	P	H
		5719.2	79.8	-30.78	110.58	72.55	32.86	7.03	32.64	190	231	P	H
		5721.2	80.25	-33.29	113.54	73	32.86	7.03	32.64	190	231	P	H
	*	5755	105.42	-	-	98.1	32.91	7.06	32.65	190	231	P	H
	*	5755	97.87	-	-	90.55	32.91	7.06	32.65	190	231	A	H
		5855	50.67	-60.13	110.8	43.18	33.08	7.1	32.69	190	231	P	H
		5863.6	52.48	-55.91	108.39	44.99	33.08	7.11	32.7	190	231	P	H
		5882.4	50.07	-49.63	99.7	42.54	33.11	7.12	32.7	190	231	P	H
		5930.6	49.82	-18.38	68.2	42.22	33.19	7.13	32.72	190	231	P	H
													H
													H
		5643.4	55.06	-13.14	68.2	47.98	32.72	6.97	32.61	262	48	P	V
		5700	61.46	-43.74	105.2	54.27	32.8	7.02	32.63	262	48	P	V
		5720	75.54	-35.26	110.8	68.29	32.86	7.03	32.64	262	48	P	V
		5724.8	77.02	-44.72	121.74	69.77	32.86	7.03	32.64	262	48	P	V
	*	5755	105.92	-	-	98.6	32.91	7.06	32.65	262	48	P	V
	*	5755	98.8	-	-	91.48	32.91	7.06	32.65	262	48	A	V
		5851.4	51.66	-67.35	119.01	44.2	33.05	7.1	32.69	262	48	P	V
		5865	52.22	-55.78	108	44.73	33.08	7.11	32.7	262	48	P	V
		5907	51.75	-29.73	81.48	44.18	33.16	7.12	32.71	262	48	P	V
		5947	49.9	-18.3	68.2	42.27	33.22	7.14	32.73	262	48	P	V
													V
													V

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 159 5795MHz		5625.6	55.85	-12.35	68.2	48.8	32.69	6.96	32.6	193	232	P	H
		5656	55.89	-16.77	72.66	48.77	32.75	6.99	32.62	193	232	P	H
		5715.4	54.68	-54.83	109.51	47.47	32.83	7.02	32.64	193	232	P	H
		5722.6	55.64	-61.09	116.73	48.39	32.86	7.03	32.64	193	232	P	H
	*	5795	106.35	-	-	98.97	32.97	7.08	32.67	193	232	P	H
	*	5795	99.08	-	-	91.7	32.97	7.08	32.67	193	232	A	H
		5854.2	55.62	-57	112.62	48.13	33.08	7.1	32.69	193	232	P	H
		5861.2	54.31	-54.75	109.06	46.83	33.08	7.1	32.7	193	232	P	H
		5878.2	52.18	-50.64	102.82	44.66	33.11	7.11	32.7	193	232	P	H
		5944.8	50.65	-17.55	68.2	43.02	33.22	7.14	32.73	193	232	P	H
													H
													H
		5611.6	55.08	-13.12	68.2	48.05	32.67	6.96	32.6	257	48	P	V
		5699.8	55.04	-50.01	105.05	47.85	32.8	7.02	32.63	257	48	P	V
		5718.8	54.68	-55.78	110.46	47.43	32.86	7.03	32.64	257	48	P	V
		5723.4	56.16	-62.39	118.55	48.91	32.86	7.03	32.64	257	48	P	V
	*	5795	105.83	-	-	98.45	32.97	7.08	32.67	257	48	P	V
	*	5795	98.64	-	-	91.26	32.97	7.08	32.67	257	48	A	V
		5851	57.33	-62.59	119.92	49.87	33.05	7.1	32.69	257	48	P	V
		5860	58.91	-50.49	109.4	51.43	33.08	7.1	32.7	257	48	P	V
		5886.4	52.36	-44.38	96.74	44.84	33.11	7.12	32.71	257	48	P	V
		5934	50.8	-17.4	68.2	43.19	33.19	7.14	32.72	257	48	P	V
													V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

5GHz WIFI 802.11n HT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11n HT40 LF		30	22.7	-17.3	40	30.63	24.22	0.53	32.76	-	-	P	H
		146.91	19.06	-24.44	43.5	33.05	17.21	1.2	32.76	-	-	P	H
		178.77	24.35	-19.15	43.5	40.31	15.1	1.26	32.75	-	-	P	H
		358.1	26.04	-19.96	46	35.99	20.61	1.77	32.74	-	-	P	H
		622	30.51	-15.49	46	34.49	26.15	2.29	33	-	-	P	H
		762	30.64	-15.36	46	32.1	28.32	2.54	32.93	100	0	P	H
													H
													H
													H
													H
													H
													H
		31.35	24.45	-15.55	40	32.81	23.78	0.53	32.75	-	-	P	V
		144.48	21.74	-21.76	43.5	35.78	17.25	1.12	32.76	-	-	P	V
		168.24	23.25	-20.25	43.5	38.51	15.82	1.26	32.76	-	-	P	V
		479.9	26.58	-19.42	46	33.3	23.62	2.05	32.86	-	-	P	V
		624.8	34.02	-11.98	46	37.93	26.22	2.29	33	-	-	P	V
		746.6	35.03	-10.97	46	36.65	28.22	2.51	32.95	100	0	P	V
													V
													V
													V
													V
													V
													V
												V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is over limit line.
P/A	Peak or Average
H/V	H orizontal or V ertical

A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Level(dBμV/m) =

Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

Both peak and average measured complies with the limit line, so test result is “PASS”.

Appendix D. Radiated Spurious Emission Plots

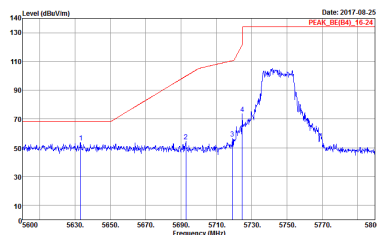
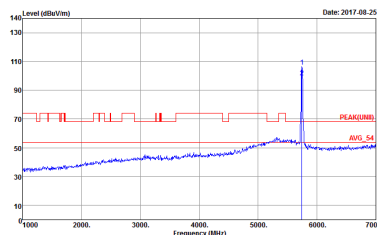
Test Engineer :	Tsung Li, Stan Hsieh, and Kyle Chuang	Temperature :	24~26°C
		Relative Humidity :	45~47%

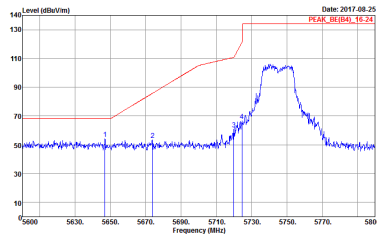
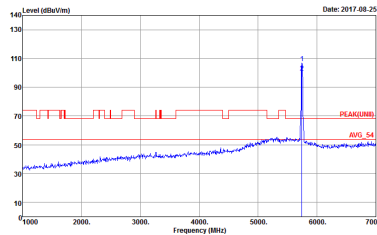
Note symbol

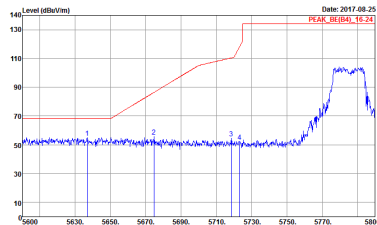
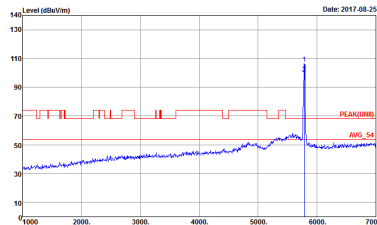
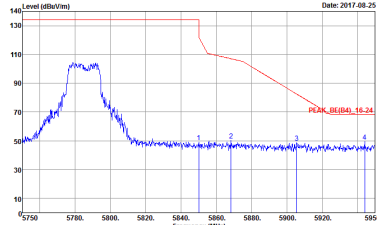
-L	Low channel location
-R	High channel location

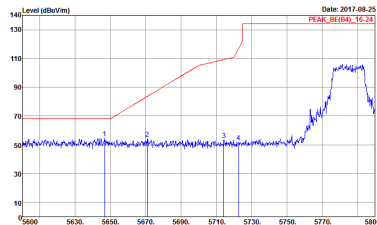
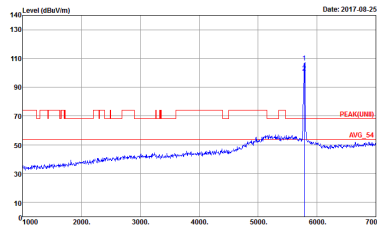
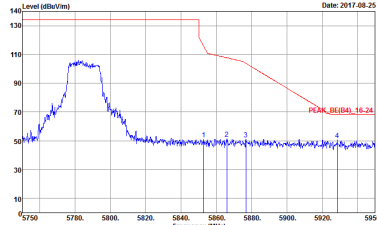
Band 4 - 5725~5850MHz

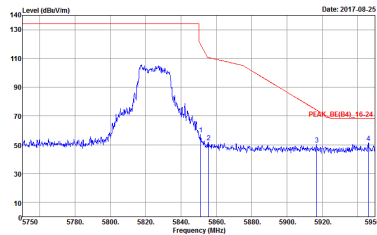
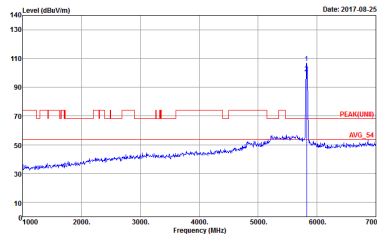
WIFI 802.11n HT20 (Band Edge @ 3m)

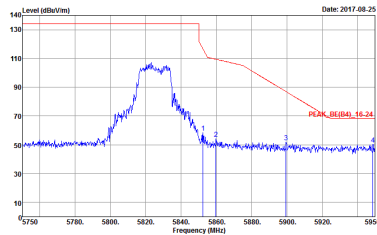
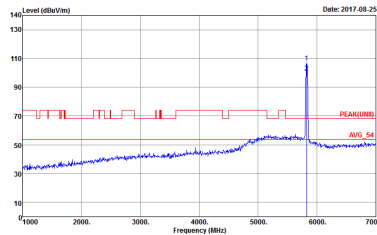
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : PEAK_36(B4)_16-24 3m HORN 9120S-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 33	 Site : 03CH10-HY Condition : PEAK(LINE) 3m HORN 9120S-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 33

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF VERTICAL Detector : Peak Project : 752305 Mode : 33	 Site : 03CH10-HY Condition : PEAK(UNIT) 3m HORN 91200-HF VERTICAL Detector : Peak Project : 752305 Mode : 33

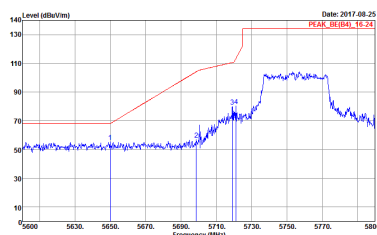
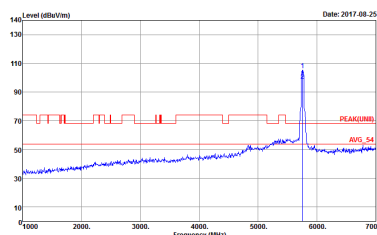
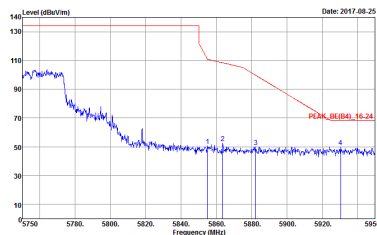
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 752305 Mode : 34	 Site : 03CH10-HY Condition : PEAK(UNIT) 3m HORN 91200-HF HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 752305 Mode : 34
Peak	 Site : 03CH10-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : 752305 Mode : 34	Left blank

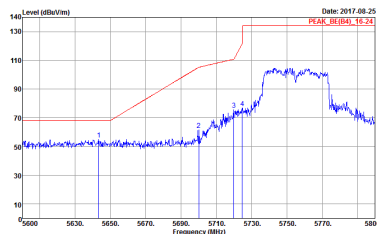
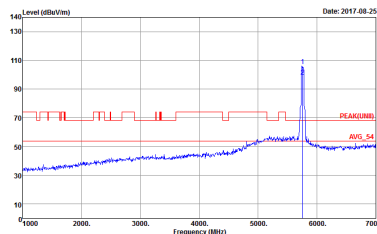
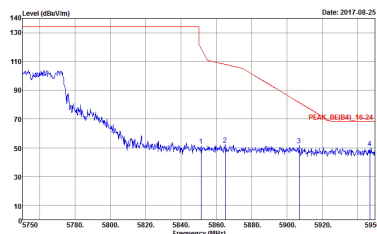
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : PEAK_BE(B4)_16-24 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 34	 Site : 03CH10-HY Condition : PEAK(UNIT) 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 34
Peak	 Site : 03CH10-HY Condition : PEAK_BE(B4)_16-24 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 34	Left blank

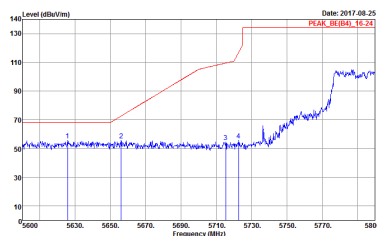
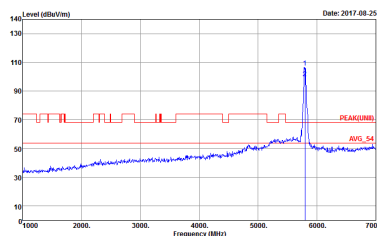
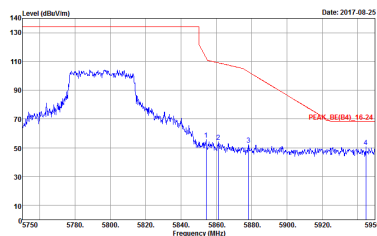
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : PEAK_BE(84)_16-24 3m HORN 9120D-HF HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 752305 Mode : 35	 Site : 03CH10-HY Condition : PEAK(UNIT) 3m HORN 9120D-HF HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 752305 Mode : 35

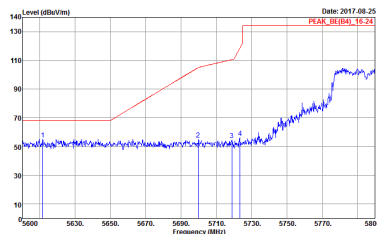
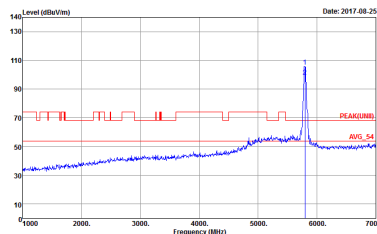
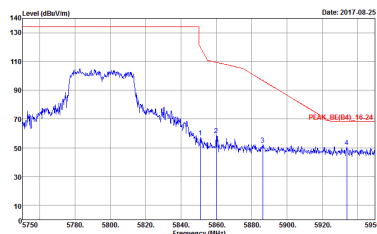
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : PEAK_BE(84)_16-24 3m HORN 9120D-HF VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 752305 Mode : 35	 Site : 03CH10-HY Condition : PEAK(UNIT) 3m HORN 9120D-HF VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 752305 Mode : 35

Band 4 5725~5850MHz WIFI 802.11n HT40 (Band Edge @ 3m)

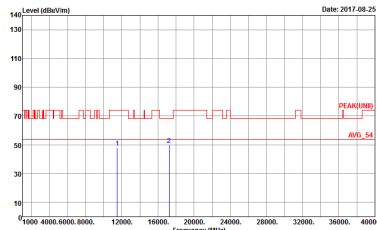
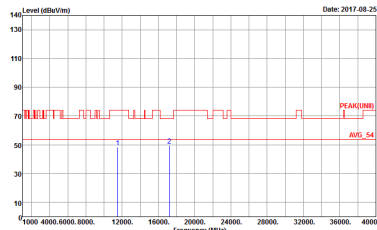
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : PEAK_BE(B4)_16-24 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 36	 Site : 03CH10-HY Condition : PEAK(UNB) 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 36
Peak	 Site : 03CH10-HY Condition : PEAK_BE(B4)_16-24 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 36	Left blank

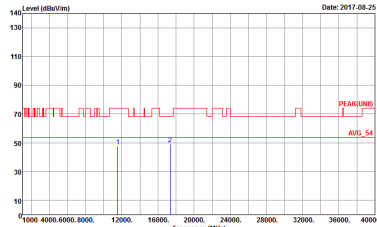
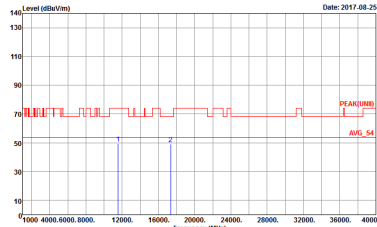
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : PEAK_BE(B4)_16-24 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 36	 Site : 03CH10-HY Condition : PEAK(BE) 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 36
Peak	 Site : 03CH10-HY Condition : PEAK_BE(B4)_16-24 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 36	Left blank

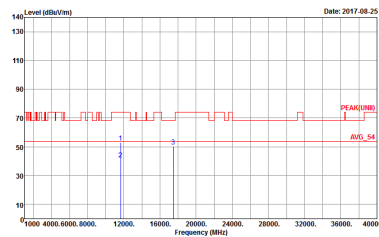
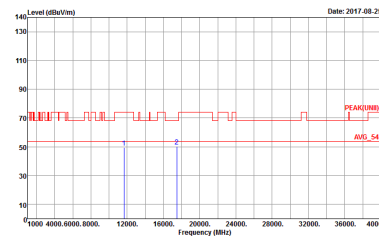
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH10-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 37	 Site : 03CH10-HY Condition : PEAK(UNIT) 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 37
Peak	 Site : 03CH10-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 37	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH10-HY Condition : PEAK_BE(B4)_16-24 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 37	 Site : 03CH10-HY Condition : PEAK(UNIT) 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 37
Peak	 Site : 03CH10-HY Condition : PEAK_BE(B4)_16-24 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 752305 Mode : 37	Left blank

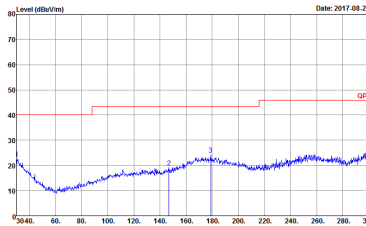
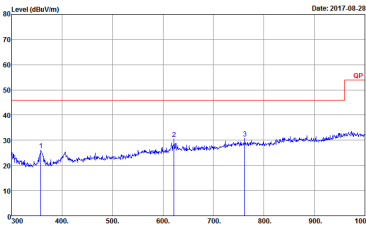
Band 4 - 5725~5850MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH10-HY Condition : PEAK(UNIT) 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 752305 Mode : 33	 Site : 03CH10-HY Condition : PEAK(UNIT) 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 752305 Mode : 33

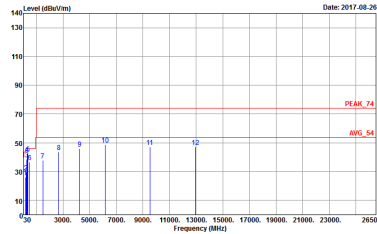
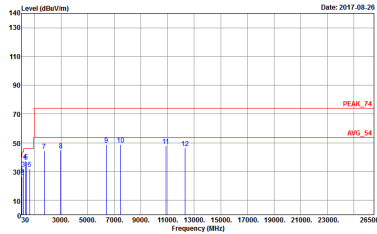
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH10-HY Condition : PEAK(UNIT) 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 752305 Mode : 34	 Site : 03CH10-HY Condition : PEAK(UNIT) 3m HORN 91200-HF VERTICAL Detector : Peak Project : 752305 Mode : 34

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH10-HY Condition : PEAK(UNIT) 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 752305 Mode : 35	 Site : 03CH10-HY Condition : PEAK(UNIT) 3m HORN 91200-HF VERTICAL Detector : Peak Project : 752305 Mode : 35

Emission below 1GHz
5GHz WIFI 802.11n HT40 (LF)

WIFI	5GHz 5725~5850MHz	
ANT	802.11n HT40 LF	
1	Horizontal	Vertical
QP / Peak	 Site : 03CH10-HY Condition : QP 3m BT-LOG 6111D-LF HORIZONTAL Detector : Peak Project : 752305 Mode : 38	 Site : 03CH10-HY Condition : QP 3m BT-LOG 6111D-LF HORIZONTAL Detector : Peak Project : 752305 Mode : 38

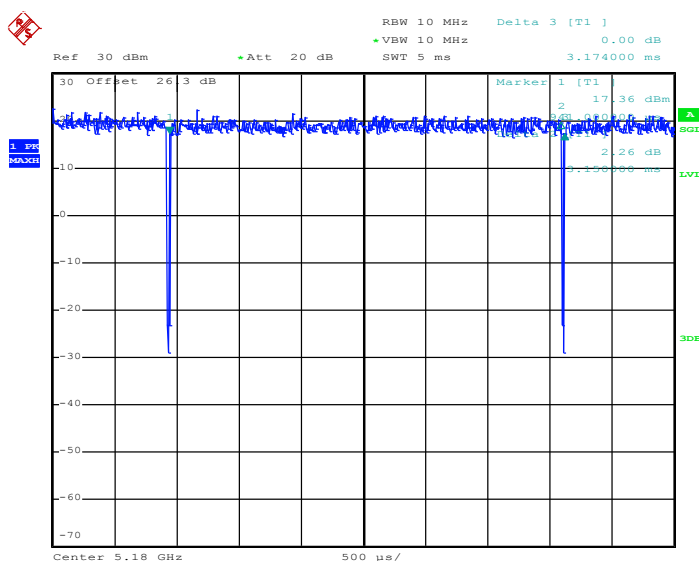


ANT	5GHz WLAN Idle																																																																																																																																																																																																																																																																																																																																																				
1	Horizontal					Vertical																																																																																																																																																																																																																																																																																																																																															
Peak Avg.																																																																																																																																																																																																																																																																																																																																																					
	Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D-HF HORIZONTAL Detector : Peak Project : 752305 Mode : 39 <table><thead><tr><th></th><th>Freq</th><th>Level</th><th>Over</th><th>Limit</th><th>ReadAntenna</th><th>Cable</th><th>Preamp</th><th>A/Pos</th><th>T/Pos</th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dB</th><th>dBuV/m</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr></thead><tbody><tr><td>1</td><td>183.90</td><td>26.29</td><td>-17.21</td><td>43.50</td><td>42.36</td><td>14.87</td><td>1.39</td><td>32.75</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>2</td><td>225.75</td><td>29.72</td><td>-16.28</td><td>46.00</td><td>44.82</td><td>15.76</td><td>1.48</td><td>32.74</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>3</td><td>299.73</td><td>38.41</td><td>-7.59</td><td>46.00</td><td>49.88</td><td>19.20</td><td>1.65</td><td>32.71</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>4</td><td>311.20</td><td>42.39</td><td>-3.61</td><td>46.00</td><td>53.70</td><td>19.33</td><td>1.69</td><td>32.72</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>5</td><td>373.50</td><td>42.46</td><td>-3.54</td><td>46.00</td><td>52.02</td><td>20.97</td><td>1.81</td><td>32.75</td><td>100</td><td>0</td><td>Peak</td></tr><tr><td>6</td><td>585.10</td><td>36.75</td><td>-9.25</td><td>46.00</td><td>43.11</td><td>23.95</td><td>2.08</td><td>32.89</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>7</td><td>1698.00</td><td>37.70</td><td>-36.30</td><td>74.00</td><td>44.01</td><td>24.10</td><td>3.48</td><td>34.86</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>8</td><td>2698.00</td><td>43.65</td><td>-30.35</td><td>74.00</td><td>43.25</td><td>27.86</td><td>4.71</td><td>33.11</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>9</td><td>4246.00</td><td>45.93</td><td>-28.07</td><td>74.00</td><td>41.53</td><td>30.70</td><td>5.99</td><td>32.66</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>10</td><td>6372.00</td><td>48.92</td><td>-25.08</td><td>74.00</td><td>48.17</td><td>33.80</td><td>7.21</td><td>32.85</td><td>100</td><td>0</td><td>Peak</td></tr><tr><td>11</td><td>9520.00</td><td>47.17</td><td>-26.83</td><td>74.00</td><td>62.62</td><td>38.50</td><td>10.43</td><td>65.20</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>12</td><td>12936.00</td><td>47.11</td><td>-26.89</td><td>74.00</td><td>60.62</td><td>38.77</td><td>12.25</td><td>65.21</td><td>---</td><td>---</td><td>Peak</td></tr></tbody></table>						Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	1	183.90	26.29	-17.21	43.50	42.36	14.87	1.39	32.75	---	---	Peak	2	225.75	29.72	-16.28	46.00	44.82	15.76	1.48	32.74	---	---	Peak	3	299.73	38.41	-7.59	46.00	49.88	19.20	1.65	32.71	---	---	Peak	4	311.20	42.39	-3.61	46.00	53.70	19.33	1.69	32.72	---	---	Peak	5	373.50	42.46	-3.54	46.00	52.02	20.97	1.81	32.75	100	0	Peak	6	585.10	36.75	-9.25	46.00	43.11	23.95	2.08	32.89	---	---	Peak	7	1698.00	37.70	-36.30	74.00	44.01	24.10	3.48	34.86	---	---	Peak	8	2698.00	43.65	-30.35	74.00	43.25	27.86	4.71	33.11	---	---	Peak	9	4246.00	45.93	-28.07	74.00	41.53	30.70	5.99	32.66	---	---	Peak	10	6372.00	48.92	-25.08	74.00	48.17	33.80	7.21	32.85	100	0	Peak	11	9520.00	47.17	-26.83	74.00	62.62	38.50	10.43	65.20	---	---	Peak	12	12936.00	47.11	-26.89	74.00	60.62	38.77	12.25	65.21	---	---	Peak	Site : 03CH10-HY Condition : PEAK_74 3m HORN 9120D-HF VERTICAL Detector : Peak Project : 752305 Mode : 39 <table><thead><tr><th></th><th>Freq</th><th>Level</th><th>Over</th><th>Limit</th><th>ReadAntenna</th><th>Cable</th><th>Preamp</th><th>A/Pos</th><th>T/Pos</th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dB</th><th>dBuV/m</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr></thead><tbody><tr><td>1</td><td>31.00</td><td>28.23</td><td>-11.77</td><td>40.00</td><td>36.59</td><td>23.78</td><td>0.53</td><td>32.75</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>2</td><td>76.44</td><td>26.50</td><td>-13.50</td><td>40.00</td><td>45.35</td><td>12.88</td><td>0.86</td><td>32.76</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>3</td><td>177.69</td><td>31.89</td><td>-11.61</td><td>43.50</td><td>47.80</td><td>15.15</td><td>1.26</td><td>32.75</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>4</td><td>310.50</td><td>37.61</td><td>-8.39</td><td>46.00</td><td>48.93</td><td>19.32</td><td>1.69</td><td>32.72</td><td>100</td><td>0</td><td>Peak</td></tr><tr><td>5</td><td>389.60</td><td>37.07</td><td>-8.93</td><td>46.00</td><td>46.15</td><td>21.42</td><td>1.84</td><td>32.75</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>6</td><td>646.50</td><td>31.93</td><td>-14.07</td><td>46.00</td><td>35.47</td><td>26.54</td><td>2.32</td><td>33.00</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>7</td><td>1744.00</td><td>44.34</td><td>-29.66</td><td>74.00</td><td>49.32</td><td>24.80</td><td>3.77</td><td>33.74</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>8</td><td>2980.00</td><td>44.71</td><td>-29.29</td><td>74.00</td><td>43.90</td><td>28.61</td><td>4.97</td><td>33.03</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>9</td><td>6418.00</td><td>48.94</td><td>-25.06</td><td>74.00</td><td>39.38</td><td>34.55</td><td>7.41</td><td>32.99</td><td>100</td><td>0</td><td>Peak</td></tr><tr><td>10</td><td>7660.00</td><td>48.59</td><td>-25.41</td><td>74.00</td><td>66.23</td><td>37.38</td><td>9.07</td><td>64.89</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>11</td><td>10880.00</td><td>47.86</td><td>-26.14</td><td>74.00</td><td>62.25</td><td>40.14</td><td>10.06</td><td>65.12</td><td>---</td><td>---</td><td>Peak</td></tr><tr><td>12</td><td>12312.00</td><td>46.34</td><td>-27.66</td><td>74.00</td><td>60.52</td><td>38.62</td><td>11.90</td><td>65.26</td><td>---</td><td>---</td><td>Peak</td></tr></tbody></table>						Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	1	31.00	28.23	-11.77	40.00	36.59	23.78	0.53	32.75	---	---	Peak	2	76.44	26.50	-13.50	40.00	45.35	12.88	0.86	32.76	---	---	Peak	3	177.69	31.89	-11.61	43.50	47.80	15.15	1.26	32.75	---	---	Peak	4	310.50	37.61	-8.39	46.00	48.93	19.32	1.69	32.72	100	0	Peak	5	389.60	37.07	-8.93	46.00	46.15	21.42	1.84	32.75	---	---	Peak	6	646.50	31.93	-14.07	46.00	35.47	26.54	2.32	33.00	---	---	Peak	7	1744.00	44.34	-29.66	74.00	49.32	24.80	3.77	33.74	---	---	Peak	8	2980.00	44.71	-29.29	74.00	43.90	28.61	4.97	33.03	---	---	Peak	9	6418.00	48.94	-25.06	74.00	39.38	34.55	7.41	32.99	100	0	Peak	10	7660.00	48.59	-25.41	74.00	66.23	37.38	9.07	64.89	---	---	Peak	11	10880.00	47.86	-26.14	74.00	62.25	40.14	10.06	65.12	---	---	Peak	12	12312.00	46.34	-27.66	74.00	60.52	38.62	11.90	65.26	---	---
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark																																																																																																																																																																																																																																																																																																																																											
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1	183.90	26.29	-17.21	43.50	42.36	14.87	1.39	32.75	---	---	Peak																																																																																																																																																																																																																																																																																																																																										
2	225.75	29.72	-16.28	46.00	44.82	15.76	1.48	32.74	---	---	Peak																																																																																																																																																																																																																																																																																																																																										
3	299.73	38.41	-7.59	46.00	49.88	19.20	1.65	32.71	---	---	Peak																																																																																																																																																																																																																																																																																																																																										
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7	1698.00	37.70	-36.30	74.00	44.01	24.10	3.48	34.86	---	---	Peak																																																																																																																																																																																																																																																																																																																																										
8	2698.00	43.65	-30.35	74.00	43.25	27.86	4.71	33.11	---	---	Peak																																																																																																																																																																																																																																																																																																																																										
9	4246.00	45.93	-28.07	74.00	41.53	30.70	5.99	32.66	---	---	Peak																																																																																																																																																																																																																																																																																																																																										
10	6372.00	48.92	-25.08	74.00	48.17	33.80	7.21	32.85	100	0	Peak																																																																																																																																																																																																																																																																																																																																										
11	9520.00	47.17	-26.83	74.00	62.62	38.50	10.43	65.20	---	---	Peak																																																																																																																																																																																																																																																																																																																																										
12	12936.00	47.11	-26.89	74.00	60.62	38.77	12.25	65.21	---	---	Peak																																																																																																																																																																																																																																																																																																																																										
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6	646.50	31.93	-14.07	46.00	35.47	26.54	2.32	33.00	---	---	Peak																																																																																																																																																																																																																																																																																																																																										
7	1744.00	44.34	-29.66	74.00	49.32	24.80	3.77	33.74	---	---	Peak																																																																																																																																																																																																																																																																																																																																										
8	2980.00	44.71	-29.29	74.00	43.90	28.61	4.97	33.03	---	---	Peak																																																																																																																																																																																																																																																																																																																																										
9	6418.00	48.94	-25.06	74.00	39.38	34.55	7.41	32.99	100	0	Peak																																																																																																																																																																																																																																																																																																																																										
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Appendix E. Duty Cycle Plots

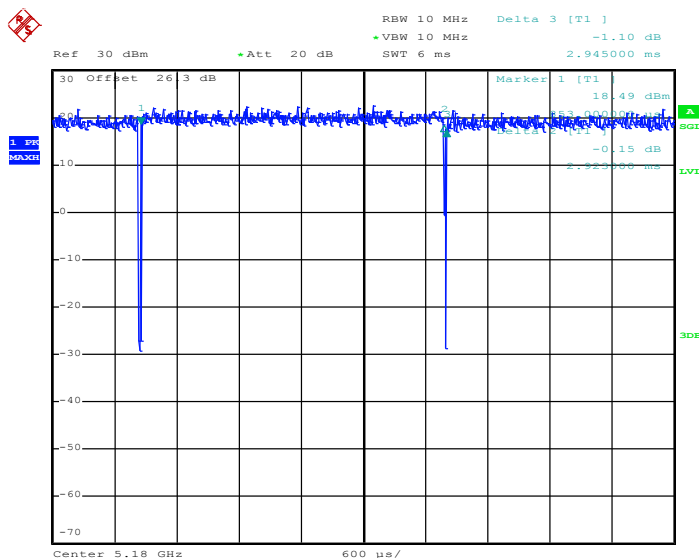
Band	Duty Cycle (%)	T(us)	1/T(kHz)	VBW Setting
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5GHz 802.11n HT20	99.25	-	-	10Hz
5GHz 802.11n HT40	98.62	-	-	10Hz

802.11a



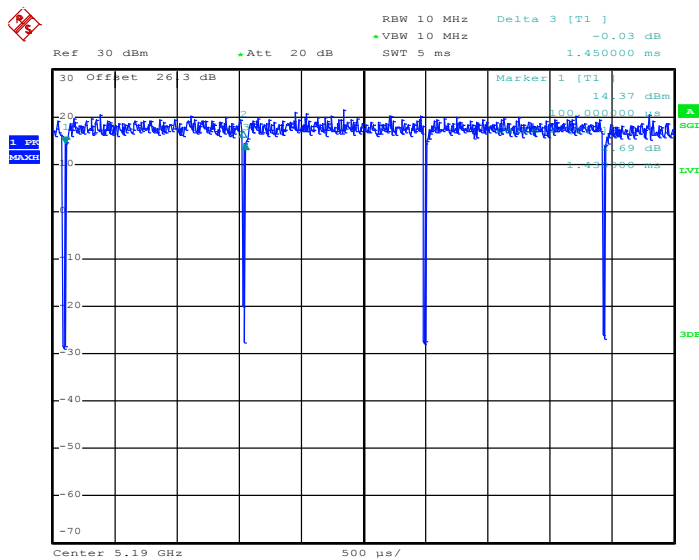
Date: 18.AUG.2017 16:03:53

802.11n HT20



Date: 18.AUG.2017 16:06:43

802.11n HT40



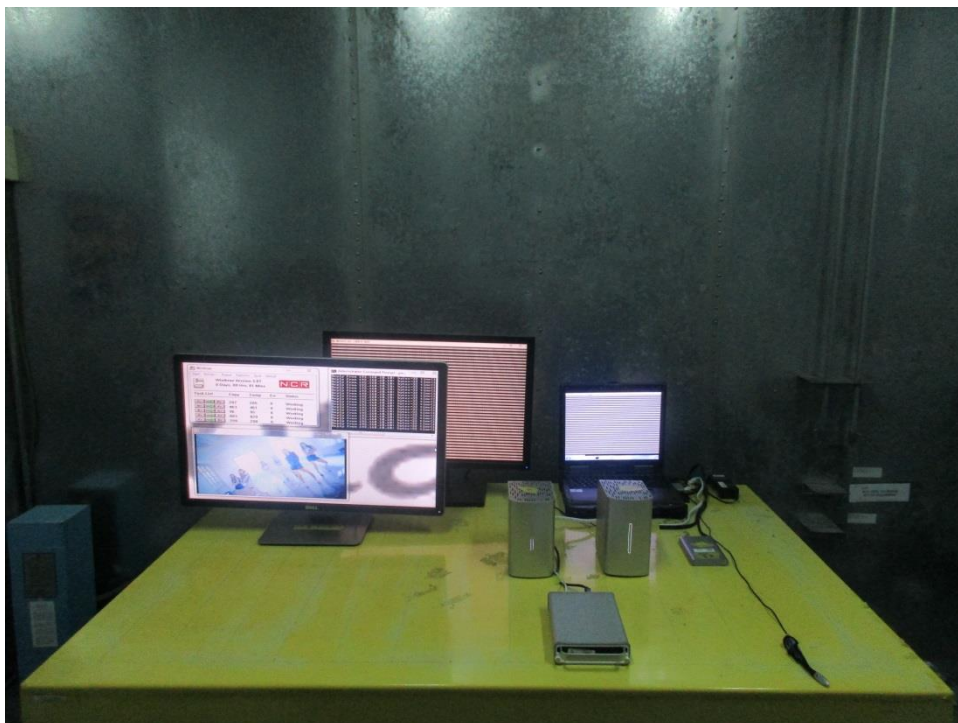
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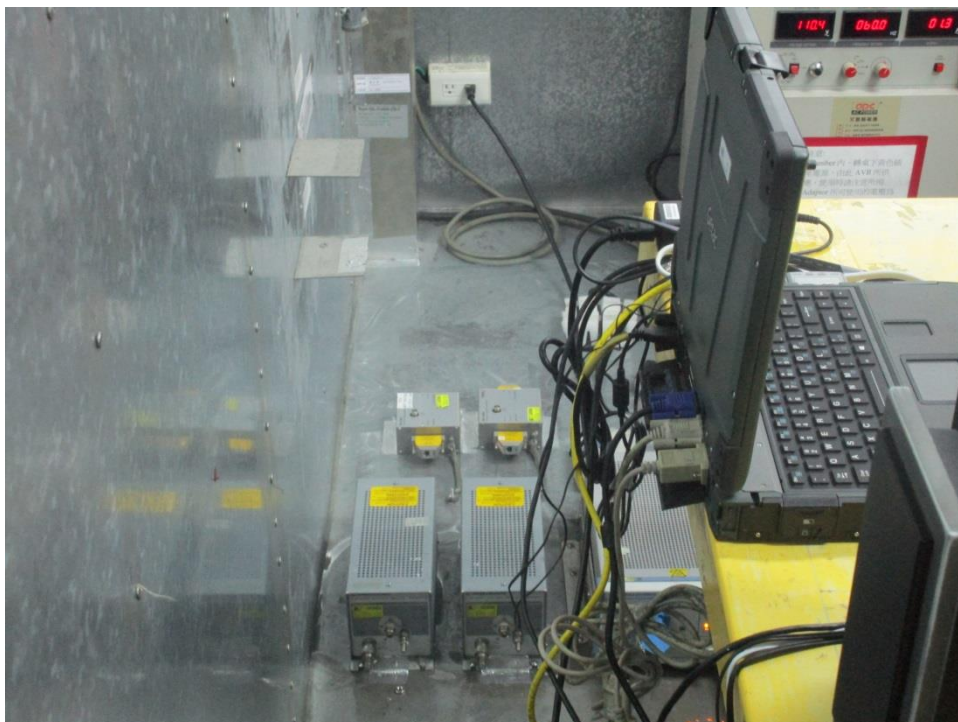
Appendix F. Setup Photographs

<Conducted Emission>

Mode 4

Remote View





Rear View

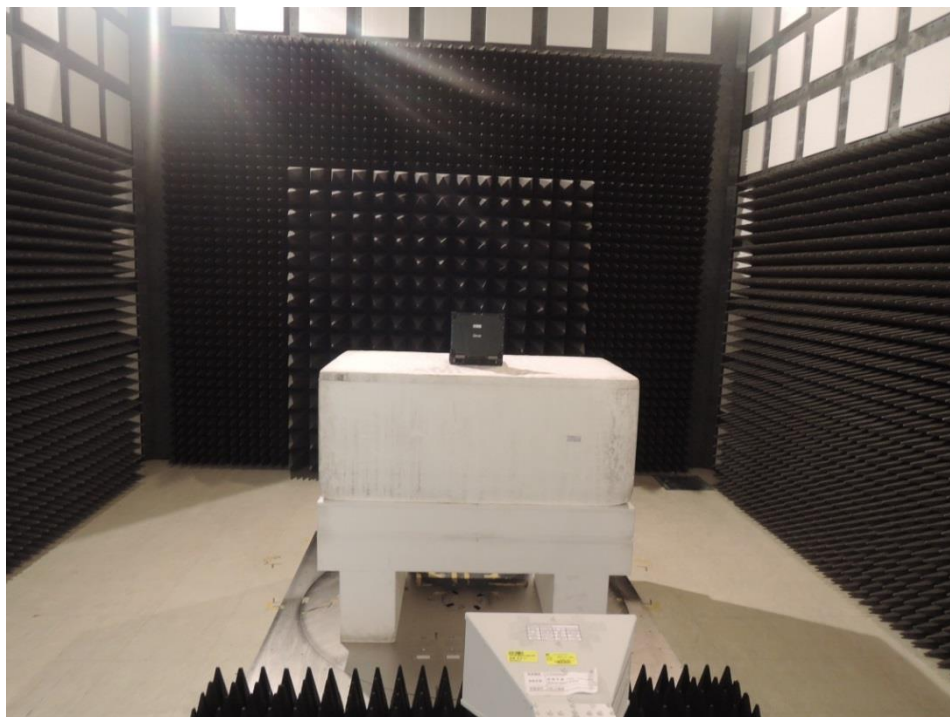


<Radiated Emission>

LF



HF



<Receiver Radiated Emission>

LF



HF

