



FCC RF Test Report

APPLICANT : Getac Technology Corporation.
EQUIPMENT : WLAN module
BRAND NAME : Getac
MODEL NAME : 8265NGW
FCC ID : QYL8265NG
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure

This is a partial report. The product was received on Dec. 13, 2017 and testing was completed on Jan. 02, 2018. 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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FCC ID : QYL8265NG

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR391803-34E	Rev. 01	Initial issue of report	Feb. 06, 2018



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.407(a)	Maximum Conducted Output Power	≤ 30 dBm	Pass	-
3.2	15.407(b)	Unwanted Emissions	15.407(b)(4)(i) & 15.209(a)	Pass	Under limit 3.86 dB at 311.900 MHz
3.3	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass	-
Remark: Except Unwanted Emissions is carrying out, FR391803-34E report reuses test data from the FR391803-21E report.					



1 General Description

1.1 Applicant

Getac Technology Corporation.

5F., Building A, No. 209, Sec.1, Nangang Rd.,Nangang Dist., Taipei City 11568, Taiwan, R.O.C.

1.2 Product Feature of Equipment Under Test

WCDMA/LTE, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n, Wi-Fi 5GHz 802.11a/n/ac, NFC, GNSS and Digitizer.

Product Specification subjective to this standard	
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna GPS: PATCH Antenna NFC: Loop Antenna Digitizer: Loop Antenna



The product was installed into Tablet (Brand Name: Getac, Model Name: RC11) during test, and all tests were performed with Sample 1.

Sample 1	Tablet with SKU A
Sample 2	Tablet with SKU B

SKU Table		
RC11 SKU		
	SKU A	SKU B
CPU	i3-7100U	i3-7100U
DDR	8G	8G
SSD	64GB	256GB
Panel	AUO HD B116XAN05.0	AUO HD B116XAN05.0
Digitizer	Getac	Not Support
Option Bay	BCR	NA(MSR)
Expansion Bay	RFID	NA
WLAN/BT	Support	Support
WWAN	Support	Support
GPS	Support	Support
Webcam FHD	Support	Support
IR Webcam	Support	Support
RFID	Support	Not Support

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. TW1190 and 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

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.
	03CH11-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:

- ♦ FCC Part 15 Subpart E
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

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: radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane for Ant. 1 and MIMO Ant. 1+2, Z Plane for Ant. 2) were recorded in this report.

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
	155 [#]	5775	165	5825

Note:

1. The above Frequency and Channel in "*" were 802.11n HT40 and 802.11ac VHT40.
2. The above Frequency and Channel in "[#]" were 802.11ac VHT80.



2.2 Test Mode

Final test modes are considering the modulation and worse data rates as below table.

Single Mode

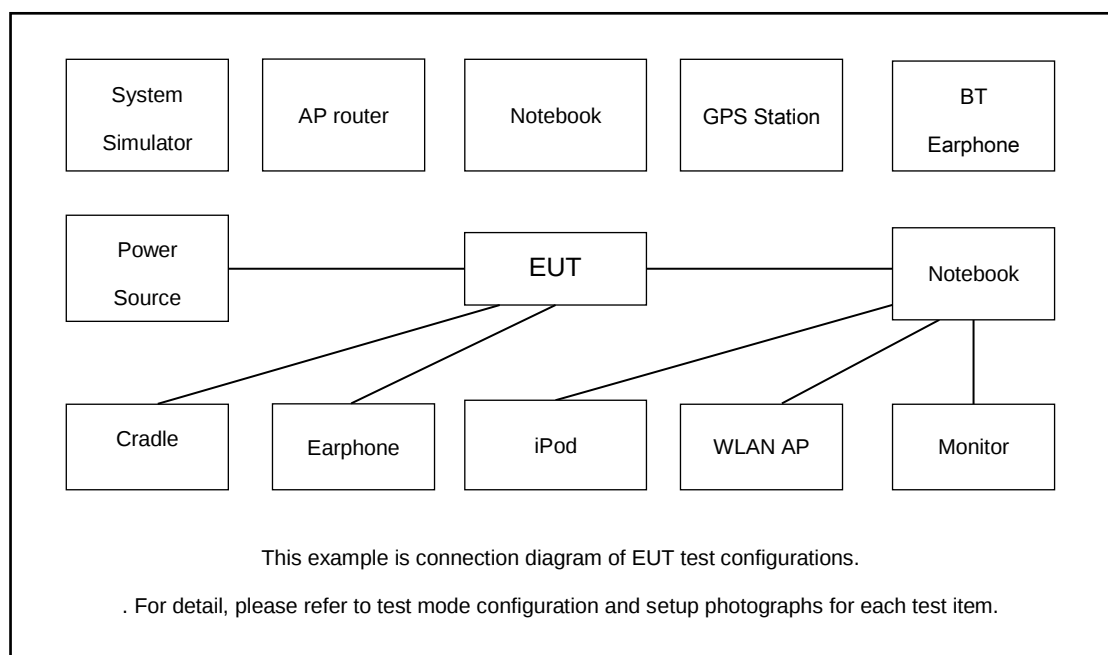
Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0

MIMO Mode

Modulation	Data Rate
802.11n HT20	MCS0

Ch. #		Band IV : 5725-5850 MHz	
		802.11a	802.11n HT20
L	Low		
M	Middle	157	157
H	High		

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.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A

2.5 EUT Operation Test Setup

The RF test items, utility “DRTU” was installed in Notebook which was programmed in order to make the EUT provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

3 Test Result

3.1 Maximum Conducted Output Power Measurement

3.1.1 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.

3.1.2 Measuring Instruments

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

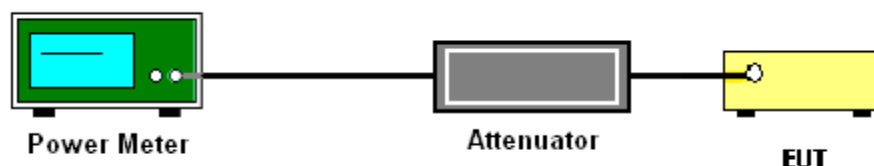
3.1.3 Test Procedures

The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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.

3.1.4 Test Setup



3.1.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.2 Unwanted Emissions Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

3.2.1 Limit of Unwanted Emissions

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

15.407(b)(4)(i) 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) KDB789033 D02 v02r01 G)2)c)

- (i) Section 15.407(b)(1) to (b)(3) specify the unwanted emission limits for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz.³
- (ii) Section 15.407(b)(4) specifies the unwanted emission limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are in terms of a Peak detector. An alternative to the band emissions mask is specified in Section 15.407(b)(4)(ii). The alternative limits are based on the highest antenna gain specified in the filing. There are also marketing and importation restrictions for the devices using the alternative limit.⁴

Note 3: An out-of-band emission that complies with both the average and peak limits of Section 15.209 is not required to satisfy the -27 dBm/MHz peak emission limit.

Note 4: Only devices with antenna gains of 10 dBi or less may be approved using the emission limits specified in Section 15.247(d) till March 2, 2018; all other devices operating in this band must use the mask specified in Section 15.407(b)(4)(i).

3.2.2 Measuring Instruments

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



3.2.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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

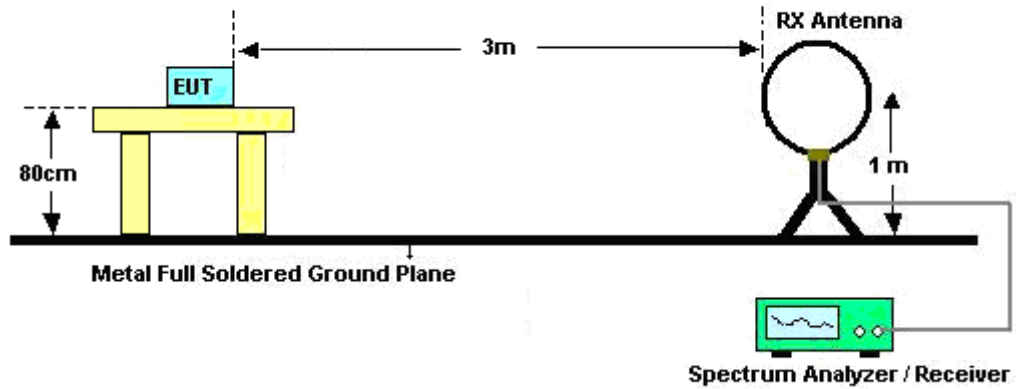
- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.



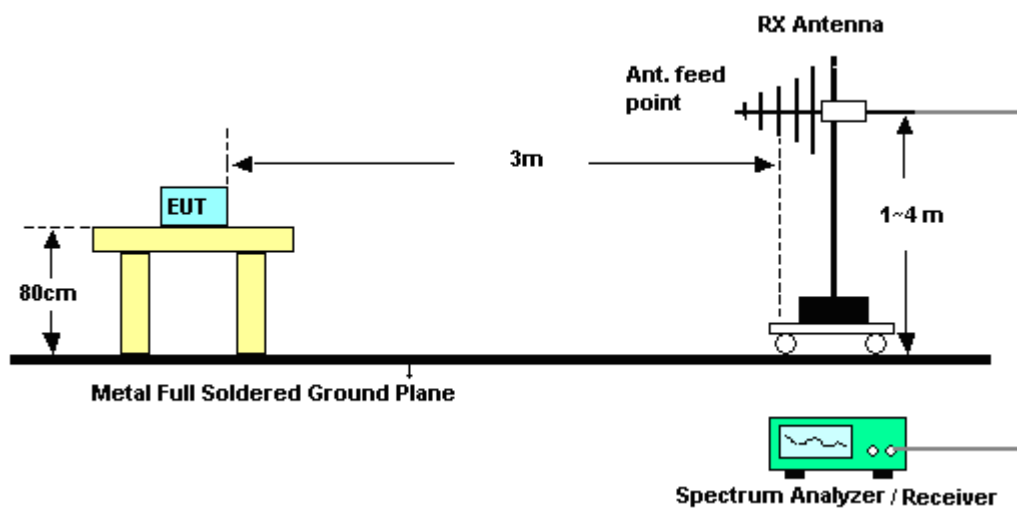
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband 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.

3.2.4 Test Setup

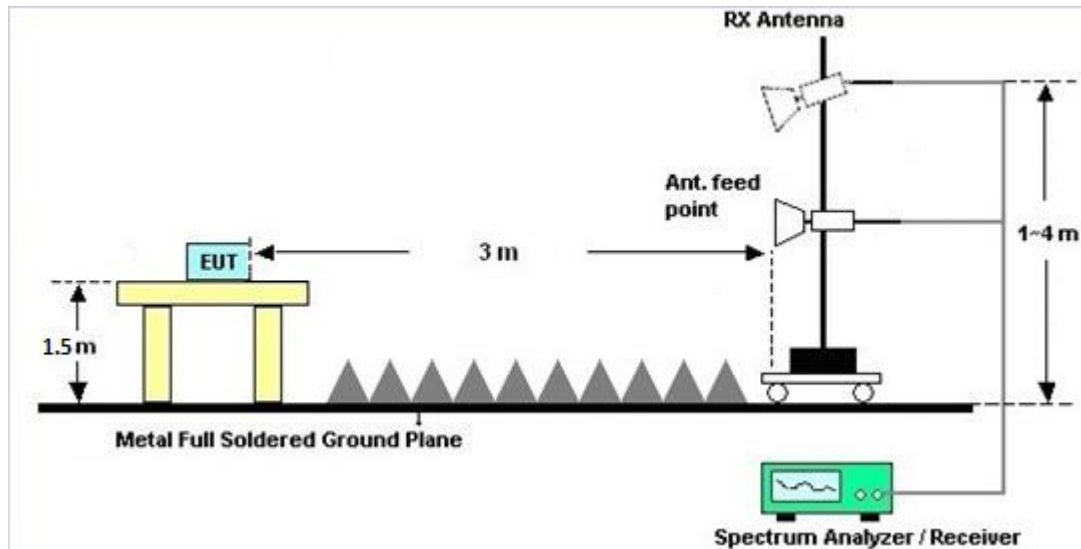
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.2.5 Test Results of Radiated 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 was not reported.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

3.2.6 Test Result of Radiated Band Edges

Please refer to Appendix B and C.

3.2.7 Duty Cycle

Please refer to Appendix D.

3.2.8 Test Result of Unwanted Radiated Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix B and C.

3.3 Antenna Requirements

3.3.1 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.

3.3.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.3.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain = GANT + Array Gain, where Array Gain is as follows.

For power spectral density (PSD) measurements on all devices,

Array Gain = $10 \log(\text{NANT}/\text{NSS}=1)$ dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $\text{NANT} \leq 4$.

Directional gain may be calculated by using the formulas applicable to equal gain antennas with GANT set equal to the gain of the antenna having the highest gain;

The EUT supports CDD mode.

For power, the directional gain G_{ANT} is set equal to the antenna having the highest gain, i.e., F)2)f)i).

For PSD, the directional gain calculation is following F)2)f)ii) of KDB 662911 D01 v02r01.

The power and PSD limit should be modified if the directional gain of EUT is over 6 dBi,

The directional gain "DG" is calculated as following table.

			DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
	Ant. 1 (dBi)	Ant. 2 (dBi)				
Band IV	2.80	1.11	2.80	2.80	0.00	0.00

$\text{Power Limit Reduction} = \text{DG}(\text{Power}) - 6\text{dBi}, (\text{min} = 0)$

$\text{PSD Limit Reduction} = \text{DG}(\text{PSD}) - 6\text{dBi}, (\text{min} = 0)$



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	1240001	N/A	Sep. 07, 2017	Dec. 21, 2017	Sep. 06, 2018	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1207349	300MHz~40GHz	Sep. 07, 2017	Dec. 21, 2017	Sep. 06, 2018	Conducted (TH05-HY)
AC Power Source	AC POWER	AFC-500W	F104070011	50Hz~60Hz	Dec. 01, 2016	Dec. 21, 2017	Nov. 30, 2018	Conducted (TH05-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 18, 2017	Dec. 28, 2017~Jan. 02, 2018	Jul. 17, 2018	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Nov. 10, 2016	Dec. 28, 2017~Jan. 02, 2018	Nov. 09, 2018	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D&N-6-06	35414&AT-N0602	30MHz~1GHz	Oct. 14, 2017	Dec. 28, 2017~Jan. 02, 2018	Oct. 13, 2018	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz ~ 18GHz	Oct. 16, 2017	Dec. 28, 2017~Jan. 02, 2018	Oct. 15, 2018	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Nov. 23, 2017	Dec. 28, 2017~Jan. 02, 2018	Nov. 22, 2019	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 10, 2016	Dec. 28, 2017~Jan. 02, 2018	Nov. 09, 2018	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz ~ 44GHz	Oct. 19, 2017	Dec. 28, 2017~Jan. 02, 2018	Oct. 18, 2018	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Dec. 28, 2017~Jan. 02, 2018	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Dec. 28, 2017~Jan. 02, 2018	N/A	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 27, 2017	Dec. 28, 2017~Jan. 02, 2018	Nov. 26, 2018	Radiation (03CH11-HY)
Preamplifier	Jet-Power	JPA0118-55-303	1710001800054001	1GHz~18GHz	Dec. 07, 2017	Dec. 28, 2017~Jan. 02, 2018	Dec. 06, 2018	Radiation (03CH11-HY)



5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.20
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.50
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.20
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Appendix A. Test Result of Conducted Test Items

Test Engineer:	White lin	Temperature:	21~25	°C
Test Date:	2017/12/21~2017/12/22	Relative Humidity:	51~54	%

TEST RESULTS DATA
Average Power Table

Band IV														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	149	5745	0.09	0.06	13.25	13.39		30.00	30.00	2.80	1.11	Pass
11a	6Mbps	1	157	5785	0.09	0.06	13.18	13.45		30.00	30.00	2.80	1.11	Pass
11a	6Mbps	1	165	5825	0.09	0.06	13.23	13.34		30.00	30.00	2.80	1.11	Pass
HT20	MCS0	1	149	5745	0.07	0.00	13.19	13.34		30.00	30.00	2.80	1.11	Pass
HT20	MCS0	1	157	5785	0.07	0.00	13.14	13.40		30.00	30.00	2.80	1.11	Pass
HT20	MCS0	1	165	5825	0.07	0.00	13.32	13.32		30.00	30.00	2.80	1.11	Pass
HT40	MCS0	1	151	5755	0.15	0.14	13.07	13.16		30.00	30.00	2.80	1.11	Pass
HT40	MCS0	1	159	5795	0.15	0.14	13.39	13.38		30.00	30.00	2.80	1.11	Pass
VHT20	MCS0	1	149	5745	0.07	0.07	13.26	13.20		30.00	30.00	2.80	1.11	Pass
VHT20	MCS0	1	157	5785	0.07	0.07	13.12	13.17		30.00	30.00	2.80	1.11	Pass
VHT20	MCS0	1	165	5825	0.07	0.07	13.23	13.12		30.00	30.00	2.80	1.11	Pass
VHT40	MCS0	1	151	5755	0.14	0.14	13.25	13.36		30.00	30.00	2.80	1.11	Pass
VHT40	MCS0	1	159	5795	0.14	0.14	13.18	13.38		30.00	30.00	2.80	1.11	Pass
VHT80	MCS0	1	155	5775	0.30	0.27	13.21	13.46		30.00	30.00	2.80	1.11	Pass
HT20	MCS0	2	149	5745	0.18	0.18	10.58	10.23	13.42	30.00		2.80		Pass
HT20	MCS0	2	157	5785	0.18	0.18	10.48	10.48	13.49	30.00		2.80		Pass
HT20	MCS0	2	165	5825	0.18	0.18	10.60	10.34	13.49	30.00		2.80		Pass
HT40	MCS0	2	151	5755	0.31	0.31	10.43	10.19	13.32	30.00		2.80		Pass
HT40	MCS0	2	159	5795	0.31	0.31	10.48	10.46	13.48	30.00		2.80		Pass
VHT20	MCS0	2	149	5745	0.18	0.16	10.64	10.31	13.49	30.00		2.80		Pass
VHT20	MCS0	2	157	5785	0.18	0.16	10.38	10.36	13.38	30.00		2.80		Pass
VHT20	MCS0	2	165	5825	0.18	0.16	10.57	10.20	13.40	30.00		2.80		Pass
VHT40	MCS0	2	151	5755	0.30	0.33	10.20	9.95	13.09	30.00		2.80		Pass
VHT40	MCS0	2	159	5795	0.30	0.33	10.22	10.33	13.29	30.00		2.80		Pass
VHT80	MCS0	2	155	5775	0.61	0.61	10.43	10.26	13.35	30.00		2.80		Pass



Appendix B. Radiated Spurious Emission

Test Engineer :	Hao Hsu, Jacky Hung and, Ken Wu	Temperature :	24~27°C
		Relative Humidity :	52~57%

Band 4 - 5725~5850MHz

WIFI 802.11n HT20 (Band Edge @ 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)
802.11n HT20 CH 157 5785MHz		5625	49.16	-19.04	68.2	40.37	32.32	9.55	33.08	211	169	P	H
		5698.6	51.64	-52.53	104.17	42.57	32.44	9.75	33.12	211	169	P	H
		5716.4	50.26	-59.53	109.79	41.11	32.47	9.81	33.13	211	169	P	H
		5723.6	49.8	-69.21	119.01	40.62	32.5	9.81	33.13	211	169	P	H
	*	5785	104.9	-	-	95.46	32.6	10.01	33.17	211	169	P	H
	*	5785	97.16	-	-	87.72	32.6	10.01	33.17	211	169	A	H
		5852	49.36	-68.28	117.64	39.81	32.72	10.02	33.19	211	169	P	H
		5858.8	50.34	-59.39	109.73	40.78	32.75	10.02	33.21	211	169	P	H
		5887	50.39	-45.9	96.29	40.81	32.78	10.02	33.22	211	169	P	H
		5937	50.26	-17.94	68.2	40.6	32.88	10.02	33.24	211	169	P	H
		5626.8	50.91	-17.29	68.2	42.06	32.32	9.61	33.08	206	154	P	V
		5686.2	50.83	-44.19	95.02	41.76	32.44	9.75	33.12	206	154	P	V
		5719	52.53	-57.99	110.52	43.35	32.5	9.81	33.13	206	154	P	V
		5723.2	51.65	-66.45	118.1	42.47	32.5	9.81	33.13	206	154	P	V
	*	5785	108.15	-	-	98.71	32.6	10.01	33.17	206	154	P	V
	*	5785	99.98	-	-	90.54	32.6	10.01	33.17	206	154	A	V
		5853.8	51.87	-61.67	113.54	42.29	32.75	10.02	33.19	206	154	P	V
		5856.2	50.98	-59.48	110.46	41.4	32.75	10.02	33.19	206	154	P	V
		5882.6	51.19	-48.37	99.56	41.6	32.78	10.02	33.21	206	154	P	V
		5929.8	52.33	-15.87	68.2	42.66	32.88	10.02	33.23	206	154	P	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. 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 157 5785MHz		11570	45.82	-28.18	74	51.71	39.86	15.49	61.52	100	0	P	H
		17355	46.01	-22.19	68.2	42.86	40.96	19.31	57.49	100	0	P	H
													H
													H
		11570	45.15	-28.85	74	51.04	39.86	15.49	61.52	100	0	P	V
		17355	46	-22.2	68.2	42.85	40.96	19.31	57.49	100	0	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 HT20 (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 HT20 LF		71.85	23.82	-16.18	40	42.91	12.16	1.22	32.49	-	-	P	H
		142.05	31.54	-11.96	43.5	45.34	17.06	1.51	32.44	-	-	P	H
		264.09	26.43	-19.57	46	37.07	19.57	2.09	32.38	-	-	P	H
		311.9	41.88	-4.12	46	52.68	19.17	2.31	32.37	100	0	P	H
		432.3	28.94	-17.06	46	35.93	22.68	2.63	32.35	-	-	P	H
		739.6	32.16	-13.84	46	33.26	27.72	3.4	32.35	-	-	P	H
													H
													H
													H
													H
													H
													H
		40.8	32.75	-7.25	40	45.73	18.68	0.82	32.49	100	0	P	V
		98.31	24.85	-18.65	43.5	40.37	15.55	1.39	32.48	-	-	P	V
		223.32	21.61	-24.39	46	36.85	15.37	1.72	32.39	-	-	P	V
		311.9	34.2	-11.8	46	45	19.17	2.31	32.37	-	-	P	V
		531.7	35.01	-10.99	46	40.52	23.91	2.91	32.41	-	-	P	V
		739.6	31.88	-14.12	46	32.98	27.72	3.4	32.35	-	-	P	V
													V
													V
												V	
												V	
												V	
												V	
												V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 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.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 157 5785MHz		5618	49.89	-18.31	68.2	41.1	32.32	9.55	33.08	223	144	P	H
		5685.6	49.65	-44.93	94.58	40.58	32.44	9.75	33.12	223	144	P	H
		5707.2	51.84	-55.38	107.22	42.69	32.47	9.81	33.13	223	144	P	H
		5720.4	49.63	-62.08	111.71	40.45	32.5	9.81	33.13	223	144	P	H
	*	5785	105.1	-	-	95.66	32.6	10.01	33.17	223	144	P	H
	*	5785	97.38	-	-	87.94	32.6	10.01	33.17	223	144	A	H
		5850	49.35	-72.85	122.2	39.8	32.72	10.02	33.19	223	144	P	H
		5862.4	49.43	-59.3	108.73	39.87	32.75	10.02	33.21	223	144	P	H
		5877.8	50.42	-52.7	103.12	40.83	32.78	10.02	33.21	223	144	P	H
		5934.6	49.3	-18.9	68.2	39.64	32.88	10.02	33.24	223	144	P	H
													H
													H
		5628.8	51.2	-17	68.2	42.37	32.32	9.61	33.1	182	159	P	V
		5699.6	50.66	-54.25	104.91	41.59	32.44	9.75	33.12	182	159	P	V
		5720	52.25	-58.55	110.8	43.07	32.5	9.81	33.13	182	159	P	V
		5723.6	51.96	-67.05	119.01	42.78	32.5	9.81	33.13	182	159	P	V
	*	5785	106.49	-	-	97.05	32.6	10.01	33.17	182	159	P	V
	*	5785	98.65	-	-	89.21	32.6	10.01	33.17	182	159	A	V
		5855	50.08	-60.72	110.8	40.5	32.75	10.02	33.19	182	159	P	V
		5857.8	50.18	-59.83	110.01	40.62	32.75	10.02	33.21	182	159	P	V
		5877.6	50.92	-52.35	103.27	41.33	32.78	10.02	33.21	182	159	P	V
		5947.2	49.64	-18.56	68.2	39.95	32.91	10.02	33.24	182	159	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 802.11a (Harmonic @ 3m)**

WIFI Ant. 2	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)
802.11a CH 157 5785MHz		11570	49.68	-24.32	74	55.57	39.86	15.49	61.52	100	0	P	H
		17355	48.36	-19.84	68.2	45.21	40.96	19.31	57.49	100	0	P	H
													H
													H
		11570	47.51	-26.49	74	53.4	39.86	15.49	61.52	100	0	P	V
		17355	47	-21.2	68.2	43.85	40.96	19.31	57.49	100	0	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 802.11a (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.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11a LF		40.8	22.42	-17.58	40	35.4	18.68	0.82	32.49	-	-	P	H
		151.5	30.81	-12.69	43.5	44.76	16.79	1.61	32.43	-	-	P	H
		264.09	24.49	-21.51	46	35.13	19.57	2.09	32.38	-	-	P	H
		311.9	37.59	-8.41	46	48.39	19.17	2.31	32.37	100	0	P	H
		531	33.68	-12.32	46	39.2	23.9	2.91	32.4	-	-	P	H
		738.9	36.34	-9.66	46	37.49	27.68	3.4	32.36	-	-	P	H
													H
													H
													H
													H
													H
													H
		40.8	31.85	-8.15	40	44.83	18.68	0.82	32.49	100	0	P	V
		126.12	29.59	-13.91	43.5	43.25	17.24	1.51	32.46	-	-	P	V
		243.03	21.37	-24.63	46	34.21	17.52	1.95	32.38	-	-	P	V
		311.9	34.83	-11.17	46	45.63	19.17	2.31	32.37	-	-	P	V
		531	30.22	-15.78	46	35.74	23.9	2.91	32.4	-	-	P	V
		738.9	32.56	-13.44	46	33.71	27.68	3.4	32.36	-	-	P	V
													V
													V
													V
													V
												V	
												V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Band 4 - 5725~5850MHz

WIFI 802.11n HT20 (Band Edge @ 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+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 157 5785MHz		5649.2	49.64	-18.56	68.2	40.78	32.35	9.61	33.1	221	177	P	H
		5683.6	49.74	-43.36	93.1	40.67	32.44	9.75	33.12	221	177	P	H
		5713.6	51.42	-57.59	109.01	42.27	32.47	9.81	33.13	221	177	P	H
		5725	49.17	-73.03	122.2	39.99	32.5	9.81	33.13	221	177	P	H
	*	5785	107.4	-	-	97.96	32.6	10.01	33.17	221	177	P	H
	*	5785	100.34	-	-	90.9	32.6	10.01	33.17	221	177	A	H
		5851.6	50.16	-68.39	118.55	40.61	32.72	10.02	33.19	221	177	P	H
		5863.6	50.56	-57.83	108.39	41	32.75	10.02	33.21	221	177	P	H
		5910.8	49.95	-28.73	78.68	40.32	32.84	10.02	33.23	221	177	P	H
		5934.8	49	-19.2	68.2	39.34	32.88	10.02	33.24	221	177	P	H
													H
													H
		5630.4	50.56	-17.64	68.2	41.73	32.32	9.61	33.1	182	185	P	V
		5685.4	49.27	-45.16	94.43	40.2	32.44	9.75	33.12	182	185	P	V
		5719	50.38	-60.14	110.52	41.2	32.5	9.81	33.13	182	185	P	V
		5723.2	49.32	-68.78	118.1	40.14	32.5	9.81	33.13	182	185	P	V
	*	5785	107.09	-	-	97.65	32.6	10.01	33.17	182	185	P	V
	*	5785	99.88	-	-	90.44	32.6	10.01	33.17	182	185	A	V
		5854.6	49.67	-62.04	111.71	40.09	32.75	10.02	33.19	182	185	P	V
		5872.8	50	-55.82	105.82	40.41	32.78	10.02	33.21	182	185	P	V
		5902.4	50.98	-33.91	84.89	41.37	32.81	10.02	33.22	182	185	P	V
		5941	49.86	-18.34	68.2	40.17	32.91	10.02	33.24	182	185	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. 1+2	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 157 5785MHz		11570	47.67	-26.33	74	53.56	39.86	15.49	61.52	100	0	P	H
		17355	45.81	-22.39	68.2	42.66	40.96	19.31	57.49	100	0	P	H
													H
													H
		11570	46.36	-27.64	74	52.25	39.86	15.49	61.52	100	0	P	V
		17355	46.18	-22.02	68.2	43.03	40.96	19.31	57.49	100	0	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 HT20 (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+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11n HT20 LF		72.12	23.27	-16.73	40	42.36	12.16	1.22	32.49	-	-	P	H
		142.86	31.71	-11.79	43.5	45.51	17.06	1.51	32.44	-	-	P	H
		264.09	25.66	-20.34	46	36.3	19.57	2.09	32.38	-	-	P	H
		311.9	42.14	-3.86	46	52.94	19.17	2.31	32.37	100	0	P	H
		407.8	30.05	-15.95	46	37.69	22	2.63	32.33	-	-	P	H
		738.9	31.71	-14.29	46	32.86	27.68	3.4	32.36	-	-	P	H
													H
													H
													H
													H
													H
													H
		40.8	32.39	-7.61	40	45.37	18.68	0.82	32.49	100	0	P	V
		98.31	25.06	-18.44	43.5	40.58	15.55	1.39	32.48	-	-	P	V
		227.91	21.99	-24.01	46	36.5	15.85	1.95	32.38	-	-	P	V
		311.9	33.43	-12.57	46	44.23	19.17	2.31	32.37	-	-	P	V
		531	30.58	-15.42	46	36.1	23.9	2.91	32.4	-	-	P	V
		738.9	31.15	-14.85	46	32.3	27.68	3.4	32.36	-	-	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”.



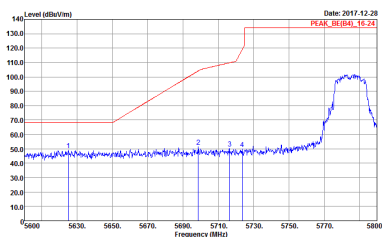
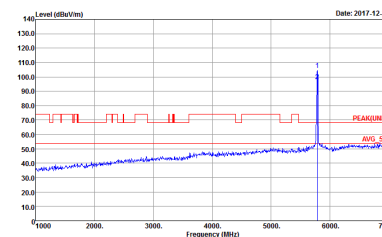
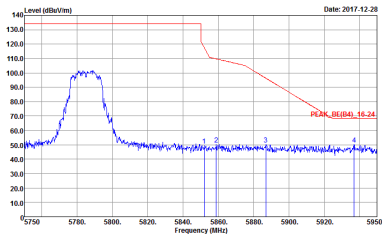
Appendix C. Radiated Spurious Emission Plots

Test Engineer :	Hao Hsu, Jacky Hung and, Ken Wu	Temperature :	24~27°C
		Relative Humidity :	52~57%

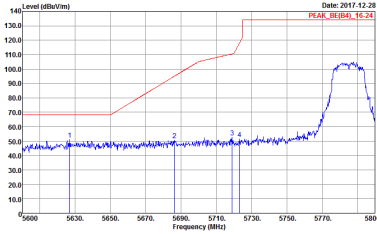
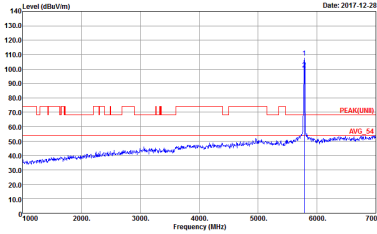
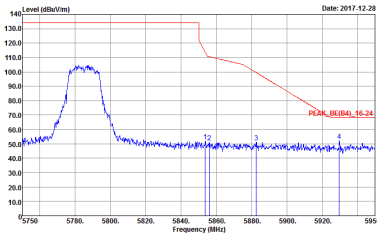
Note symbol

-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 CH157 5785MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 391803-34	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 91200-HF HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 391803-34
	 Site : 03CH11-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 391803-34	Left blank



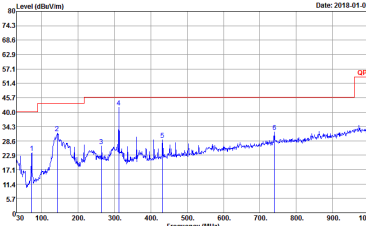
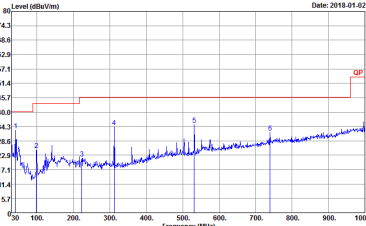
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34
	 Site : 03CH11-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34	Left blank



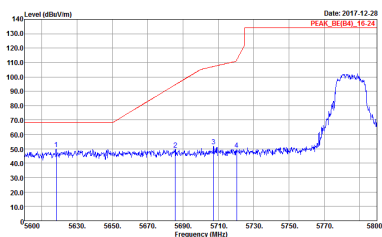
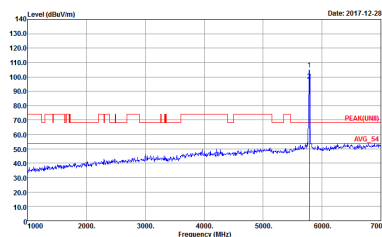
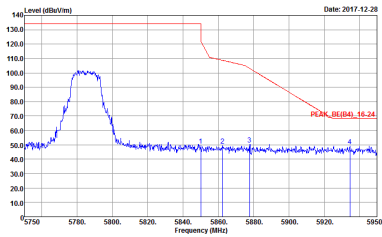
Band 4 - 5725~5850MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

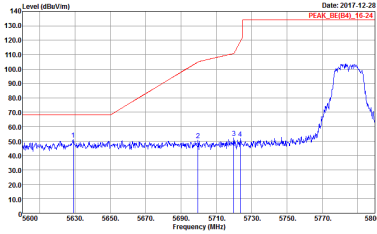
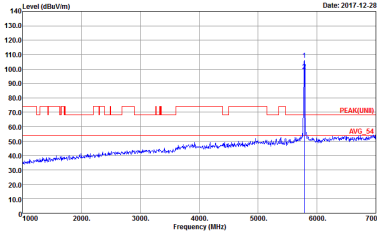
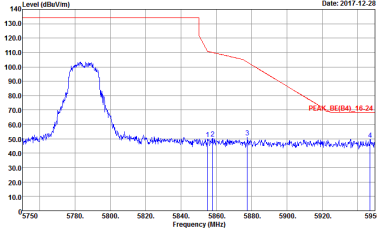
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1	Horizontal	Vertical
Peak Avg.	Site : 03CH11-HY Condition : PEAK(UNIT) 3m HORN 9120D-HF HORIZONTAL Project : 391803-34	Site : 03CH11-HY Condition : PEAK(UNIT) 3m HORN 9120D-HF VERTICAL Project : 391803-34

Emission below 1GHz
5GHz WIFI 802.11n HT20 (LF)

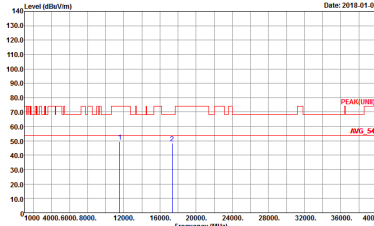
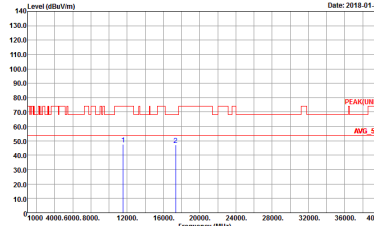
WIFI	5GHz 5725~5850MHz	
ANT	802.11n HT20 LF	
1	Horizontal	Vertical
QP / Peak	 Site : 03CH11-4FY Condition : QP 3m BT-LOG 6111D-LF_ETC HORIZONTAL Detector : Peak Project : 391803-34	 Site : 03CH11-4FY Condition : QP 3m BT-LOG 6111D-LF_ETC VERTICAL Detector : Peak Project : 391803-34

Band 4 - 5725~5850MHz
WIFI 802.11a (Band Edge @ 3m)

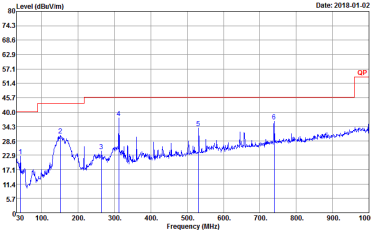
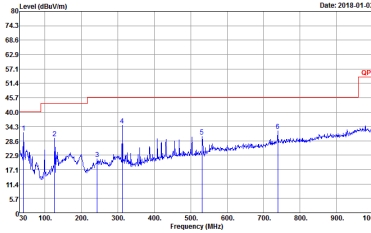
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 391803-34	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 391803-34
	 Site : 03CH11-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 391803-34	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34
	 Site : 03CH11-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34	Left blank

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

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNIT) 3m HORN 9120D-HF HORIZONTAL Project : 391803-34	 Site : 03CH11-HY Condition : PEAK(UNIT) 3m HORN 9120D-HF VERTICAL Project : 391803-34

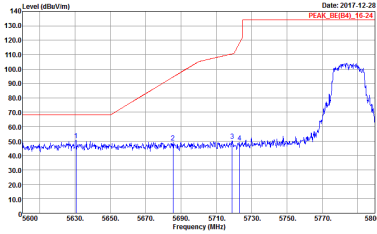
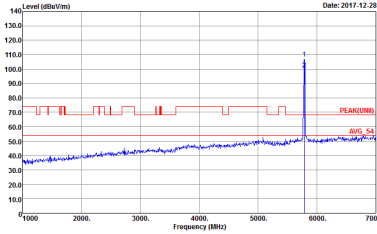
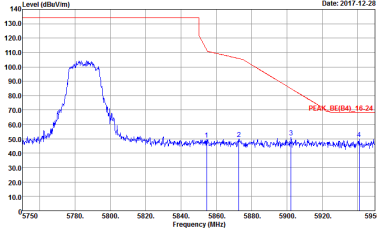
Emission below 1GHz
5GHz WIFI 802.11a (LF)

WIFI	5GHz 5725~5850MHz	
ANT	802.11a LF	
2	Horizontal	Vertical
QP / Peak	 Site : 03CH11-4-FY Condition : QP 3m BT-LOG 6111D-LF_ETC HORIZONTAL Detector : Peak Project : 391803-34	 Site : 03CH11-4-FY Condition : QP 3m BT-LOG 6111D-LF_ETC VERTICAL Detector : Peak Project : 391803-34

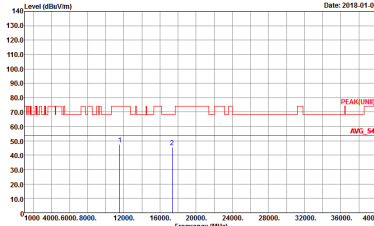
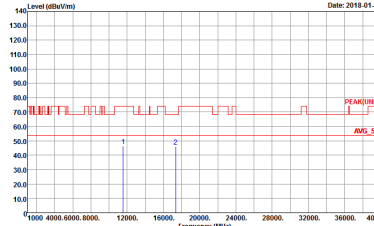


Band 4 - 5725~5850MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak	Site : 03CH11-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 391803-34	Site : 03CH11-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 391803-34
Peak	Site : 03CH11-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF HORIZONTAL Detector : Peak Project : 391803-34	Left blank

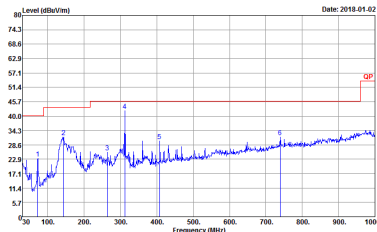
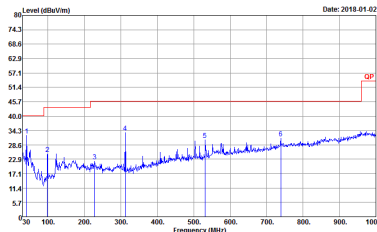
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34
Peak	 Site : 03CH11-HY Condition : PEAK_BE(84)_16-24 3m HORN 91200-HF VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 391803-34	Left blank

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

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNIT) 3m HORN 9120D-HF HORIZONTAL Project : 391803-34	 Site : 03CH11-HY Condition : PEAK(UNIT) 3m HORN 9120D-HF VERTICAL Project : 391803-34

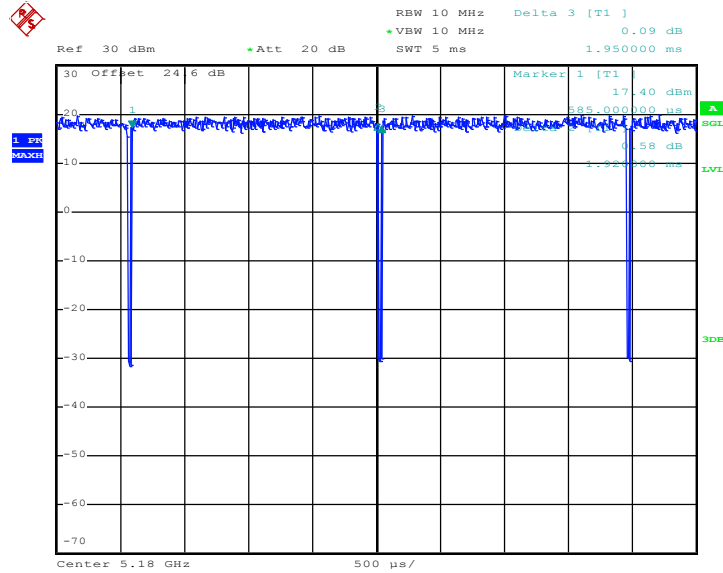


Emission below 1GHz
5GHz WIFI 802.11n HT20 (LF)

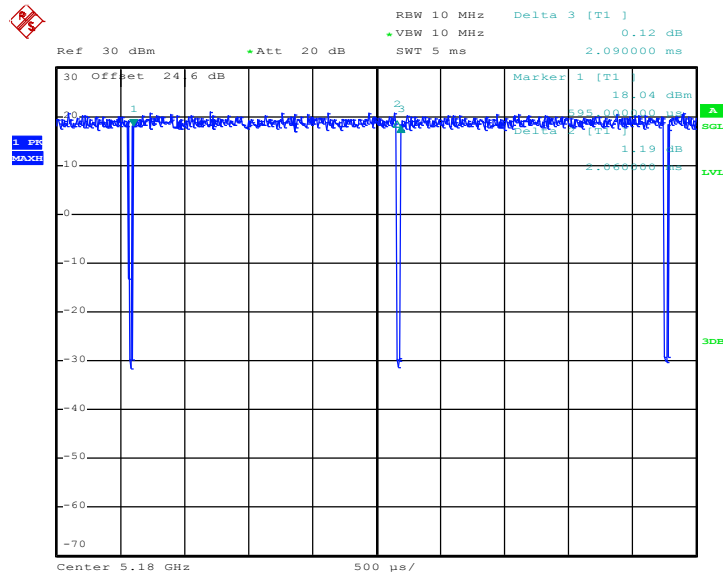
WIFI	5GHz 5725~5850MHz	
ANT	802.11n HT20 LF	
1+2	Horizontal	Vertical
QP / Peak	 Site : 03CH11-4FY Condition : QP 3m BT-LOG 6111D-LF_ETC HORIZONTAL Detector : Peak Project : 391803-34	 Site : 03CH11-4FY Condition : QP 3m BT-LOG 6111D-LF_ETC VERTICAL Detector : Peak Project : 391803-34

Appendix D. Duty Cycle Plots

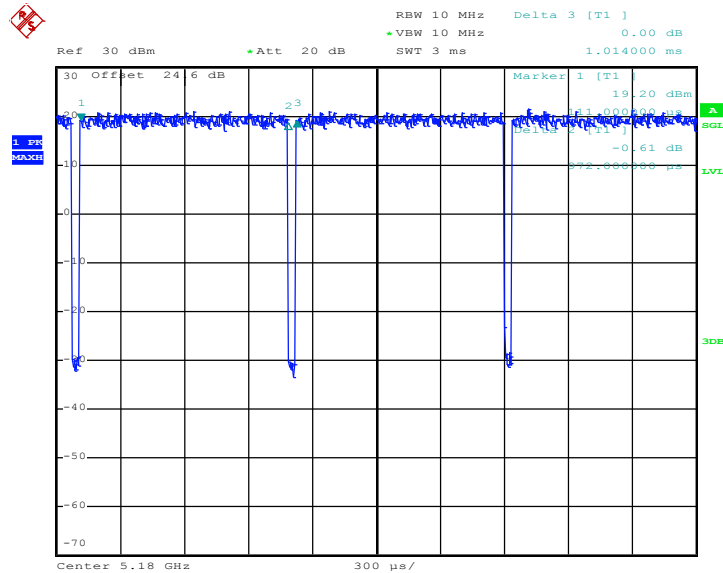
Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1	5GHz 802.11n HT20	98.46	-	-	10Hz
2	802.11a	98.57	-	-	10Hz
1+2	5GHz 802.11n HT20 for Ant. 1	95.86	972	1.03	3kHz
1+2	5GHz 802.11n HT20 for Ant. 2	95.86	972	1.03	3kHz

<Ant. 1>
802.11n HT20


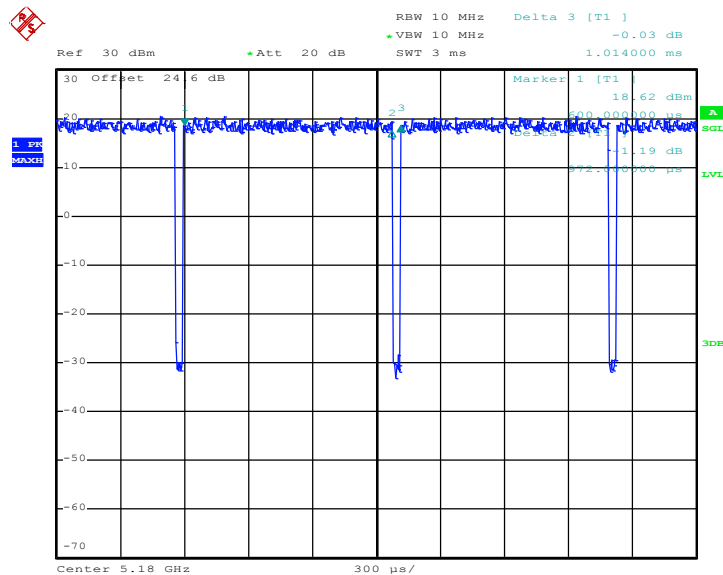
Date: 13.JUN.2017 15:25:17

<Ant. 2>
802.11a


Date: 13.JUN.2017 14:36:33

<MIMO Ant. 1>
802.11n HT20


Date: 13.JUN.2017 15:33:06

<MIMO Ant. 2>
802.11n HT20


Date: 13.JUN.2017 15:34:25