



FCC CO-LOCATION RADIO TEST REPORT

FCC ID : ACJFZN1E
Equipment : Tablet Computer
Brand Name : Panasonic
Model Name : FZ-N1KB
Marketing Name : FZ-N1
Applicant : Panasonic Corporation of North America
Two Riverfront Plaza, 9th Floor, Newark, NJ
07102-5490
Manufacturer : Panasonic Mobile Communications Co., Ltd.
600 Saedo-cho, Tsuzuki-ku, Yokohama City
224-8539, Japan
Standard : FCC Part 15 Subpart E §15.407

The product was received on Apr. 22, 2020 and testing was started from May 01, 2020 and completed on May 19, 2020. We, SPORTON INTERNATIONAL INC., EMC & Wireless Communications Laboratory, 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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

Louis Wu

Approved by: Louis Wu

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issued Date
FR042038G	01	Initial issue of report	May 25, 2020
FR042038G	02	1. Adding Accessories Information 2. Revising test data	Jun. 04, 2020



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.407(b)	Unwanted Emissions	Pass	Under limit 6.26 dB at 2483.860 MHz
3.2	15.203 15.407(a)	Antenna Requirement	Pass	-

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: **Wii Chang**
Report Producer: **Yimin Ho**



1 General Description

1.1 Product Feature of Equipment Under Test

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

Product Specification subjective to this standard	
Antenna Type	WWAN: Fixed Internal Antenna WLAN: Monopole Antenna Bluetooth: Monopole Antenna GPS / Glonass: Monopole Antenna NFC: Loop Antenna

Accessories Information		
Cradle	Brand Name	Panasonic
	Model Name	FZ-VEBN111A
AC Adapter 1	Brand Name	Panasonic
	Model Name	CF-AA6413A
AC Adapter 2	Brand Name	Panasonic
	Model Name	FZ-AAE184EM
USB Cable 1	Brand Name	Panasonic
	Model Name	K2KYYYYY00221
USB Cable 2	Brand Name	N/A
	Model Name	SPA-US15
Battery	Brand Name	Panasonic
	Model Name	FZ-VZSUN110U

1.2 Modification of EUT

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



1.3 Testing Location

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
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.
	03CH15-HY

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

FCC designation No.: TW0007

1.4 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 Publication No. 558074 D01 DTS Meas. Guidance v05r02
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ 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.
3. The TAF code is not including all the FCC KDB listed without accreditation.



2 Test Configuration of Equipment Under Test

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 (Z plane) were recorded in this report.

2.1 Carrier Frequency and Channel

2400-2483.5 MHz		5470-5725 MHz	
802.11g		802.11n HT20	
Channel	Freq. (MHz)	Channel	Freq. (MHz)
10	2457	140	5700

2.2 Test Mode

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

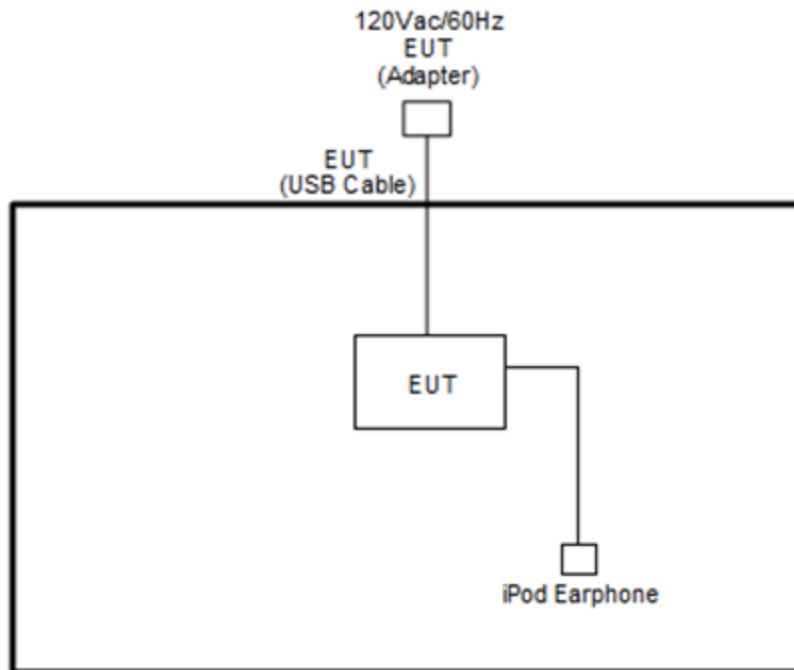
<Co-Location>

Modulation	Data Rate
2.4GHz 802.11g + LTE Band 2	6Mbps + QPSK
5GHz 802.11n HT20 + LTE Band 2	MCS0 + QPSK

Remark:

1. During the Radiated Spurious Emission test, the EUT turn on the WWAN functions simultaneously.
2. All the tests were performed with AC Adapter 2 and USB Cable 1.

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 "QRCT v3.0.298.0" was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.



3 Test Result

3.1 Unwanted Emissions Measurement

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

3.1.1 Limit of Unwanted Emissions

(1) 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.

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

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

(2) KDB789033 D02 v02r01 G)2)c)

- (i) Sections 15.407(b)(1-3) specifies the unwanted emissions limit 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.
- (ii) Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are based on the use of a peak detector.

3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

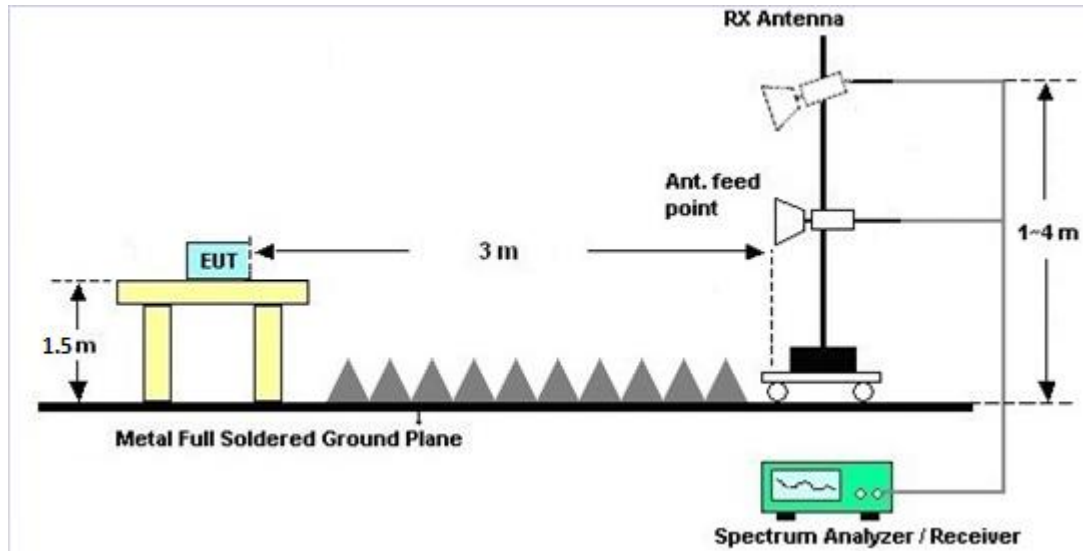


3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.
 - (1) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
 - RBW = 1 MHz
 - VBW \geq 3 MHz
 - Detector = Peak
 - Sweep time = auto
 - Trace mode = max hold
 - (2) 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 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 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.

3.1.4 Test Setup

For radiated emissions above 1GHz



3.1.5 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix A and B.

3.1.6 Duty Cycle

Please refer to Appendix C.

3.1.7 Test Result of Radiated Spurious Emissions

Please refer to Appendix A and B.



3.2 Antenna Requirements

3.2.1 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.

3.2.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.2.3 Antenna Gain

The antenna peak gain of EUT 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
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-2114	1-18GHz	Jul. 31, 2019	May 01, 2020~ May 19, 2020	Jul. 30, 2020	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Dec. 10, 2019	May 01, 2020~ May 19, 2020	Dec. 09, 2020	Radiation (03CH15-HY)
Preamplifier	Jet-Power	JPA0118-55-303	1710001800055007	1GHz~18GHz	Mar. 31, 2020	May 01, 2020~ May 19, 2020	Mar. 30, 2021	Radiation (03CH15-HY)
Preamplifier	Keysight	83017A	MY53270195	1GHz~26.5GHz	Aug. 23, 2019	May 01, 2020~ May 19, 2020	Aug. 22, 2020	Radiation (03CH15-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz ~ 40GHz	Dec. 13, 2019	May 01, 2020~ May 19, 2020	Dec. 12, 2020	Radiation (03CH15-HY)
EMI Test Receiver	Keysight	N9038A (MXE)	MY54130085	20MHz~8.4GHz	Nov. 01, 2019	May 01, 2020~ May 19, 2020	Oct. 31, 2020	Radiation (03CH15-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100390	20Hz~26.5GHz	Feb. 25, 2020	May 01, 2020~ May 19, 2020	Feb. 24, 2021	Radiation (03CH15-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	May 01, 2020~ May 19, 2020	N/A	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	May 01, 2020~ May 19, 2020	N/A	Radiation (03CH15-HY)
Software	Audix	E3 6.2009-8-24 (k5)	RK-000451	N/A	N/A	May 01, 2020~ May 19, 2020	N/A	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY36980/4	30M-18G	Apr. 14, 2020	May 01, 2020~ May 19, 2020	Apr. 13, 2021	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9838/4 PE	30M-18G	Apr. 14, 2020	May 01, 2020~ May 19, 2020	Apr. 13, 2021	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY802430/4	30M~18GHz	Apr. 14, 2020	May 01, 2020~ May 19, 2020	Apr. 13, 2021	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz-40GHz	Feb. 25, 2020	May 01, 2020~ May 19, 2020	Feb. 24, 2021	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz-40GHz	Feb. 25, 2020	May 01, 2020~ May 19, 2020	Feb. 24, 2021	Radiation (03CH15-HY)
Filter	Wainwright	WLK4-1000-1530-8000-40S S	SN4	1.53G Low Pass	Jul. 04, 2019	May 01, 2020~ May 19, 2020	Jul. 03, 2020	Radiation (03CH15-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN6	6.75GHz High Pass Filter	Jul. 02, 2019	May 01, 2020~ May 19, 2020	Jul. 01, 2020	Radiation (03CH15-HY)



5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.4
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.0
-------------------------------------------------------------------------	-----



Appendix A. Radiated Spurious Emission

Test Engineer :	Leo Lee, Mancy Chou and Bigshow Wang	Temperature :	22.1 ~ 23.1°C
		Relative Humidity :	55 ~ 60%

2.4G 2400~2483.5MHz (Band Edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
11g_Tx_Ch10 + LTE B2-BW: 20M-L Ch	*	2457	112.37	-	-	98.42	27.59	17.47	31.11	247	49	P	H	
	*	2457	104.26	-	-	90.31	27.59	17.47	31.11	247	49	A	H	
		2483.62	63.49	-10.51	74	49.54	27.53	17.52	31.1	247	49	P	H	
		2483.86	47.74	-6.26	54	33.79	27.53	17.52	31.1	247	49	A	H	
													H	
														H
	*	2457	108.76	-	-	94.81	27.59	17.47	31.11	200	105	P	V	
	*	2457	100.96	-	-	87.01	27.59	17.47	31.11	200	105	A	V	
		2486.14	61.55	-12.45	74	47.6	27.53	17.52	31.1	200	105	P	V	
		2484.04	46.77	-7.23	54	32.82	27.53	17.52	31.1	200	105	A	V	
														V
														V



2.4G 2400~2483.5MHz (Harmonic @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
11g_Tx_Ch10 + LTE B2-BW: 20M-L Ch		4914	40.81	-33.19	74	57.92	31.28	10.76	59.15	100	0	P	H	
		7371	43.6	-30.4	74	52.91	36.52	12.65	58.48	100	0	P	H	
													H	
													H	
													H	
													H	
													H	
													H	
			4914	39.2	-34.8	74	56.31	31.28	10.76	59.15	100	0	P	V
			7371	43.92	-30.08	74	53.23	36.52	12.65	58.48	100	0	P	V
														V
														V
														V
														V
														V
	Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5GHz Band 3 - 5150~5250MHz (Band Edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
11a(n20)_Tx_ Ch140+LTE B2 BW:20M-L CH	*	5700	106.01	-	-	83.7	32	20.86	30.55	233	344	P	H
	*	5700	98.39	-	-	76.08	32	20.86	30.55	233	344	A	H
		5726.6	60.49	-7.71	68.2	47.76	32	11.3	30.57	233	344	P	H
													H
													H
													H
	*	5700	103.12	-	-	80.81	32	20.86	30.55	398	22	P	V
	*	5700	95.5	-	-	73.19	32	20.86	30.55	398	22	A	V
		5728.2	58.23	-9.97	68.2	45.5	32	11.3	30.57	398	22	P	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



5GHz Band 3 - 5150~5250MHz (Harmonic @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
11a(n20)_Tx_ Ch140+LTE B2 BW:20M-L CH		11400	47.79	-26.21	74	53.56	40.3	14.87	60.94	100	0	P	H	
		17100	50.1	-18.1	68.2	49.77	40.8	18.51	58.98	100	0	P	H	
													H	
													H	
													H	
													H	
			11400	47.02	-26.98	74	52.79	40.3	14.87	60.94	100	0	P	V
			17100	49.37	-18.83	68.2	49.04	40.8	18.51	58.98	100	0	P	V
														V
														V
														V
														V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average 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	Horizontal or Vertical



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	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. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) =
Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)
= Antenna Factor(dB/m) + Path 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) + Path 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 B. Radiated Spurious Emission Plots

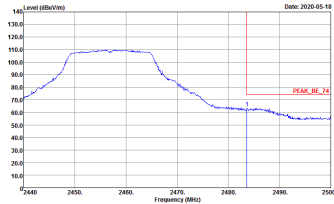
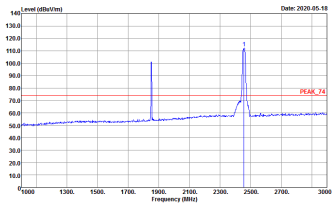
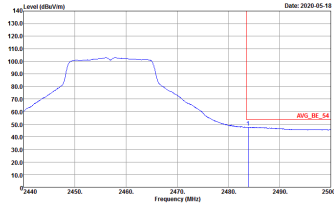
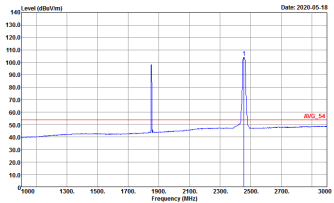
Test Engineer :	Leo Lee, Mancy Chou and Bigshow Wang	Temperature :	22.1 ~ 23.1°C
		Relative Humidity :	55 ~ 60%

Note symbol

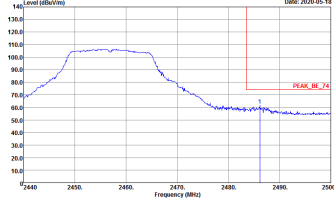
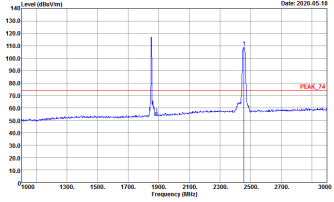
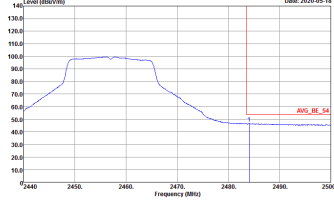
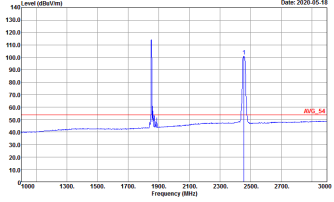
-L	Low channel location
-R	High channel location



2.4G 2400~2483.5MHz (Band Edge @ 3m)

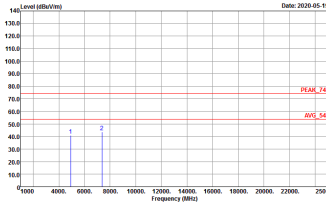
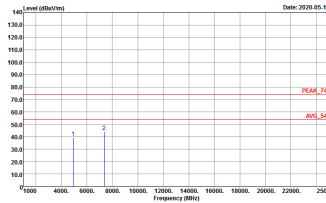
ANT	11g_Tx_Ch10+LTE B2 BW:20M L CH - R	
Simultaneously	Horizontal	Fundamental
<p>Peak</p>	 <p>Site : 03CH5-HY Condition : PEAK_BE_74 3m 91200_15_1620 HORIZONTAL Detector : Peak Project : 042038 Mode : 11g_Tx_Ch10+LTE B2-20M-L Ch 1R80 QPSK</p>	 <p>Site : 03CH5-HY Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL Detector : Peak Project : 042038 Mode : 11g_Tx_Ch10+LTE B2-20M-L Ch 1R80 QPSK</p>
<p>Avg.</p>	 <p>Site : 03CH5-HY Condition : AVG_BE_54 3m 91200_15_1620 HORIZONTAL Detector : Peak Project : 042038 Mode : 11g_Tx_Ch10+LTE B2-20M-L Ch 1R80 QPSK</p>	 <p>Site : 03CH5-HY Condition : AVG_54 3m 91200_15_1620 HORIZONTAL Detector : Peak Project : 042038 Mode : 11g_Tx_Ch10+LTE B2-20M-L Ch 1R80 QPSK</p>



ANT	11g_Tx_Ch10+LTE B2 BW:20M L CH - R	
Simultaneously	Vertical	Fundamental
<p style="text-align: center;">Peak</p>	 <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 91200_15_1620 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWF:Auto Detector : Peak Project : 042038 Mode : 11g_Tx_Ch10+LTE B2-20M-L Ch 1R80 QPSK</p>	 <p>Site : 03CH15-HY Condition : PEAK_74 3m 91200_15_1620 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWF:Auto Detector : Peak Project : 042038 Mode : 11g_Tx_Ch10+LTE B2-20M-L Ch 1R80 QPSK</p>
<p style="text-align: center;">Avg.</p>	 <p>Site : 03CH15-HY Condition : AVG_BE_54 3m 91200_15_1620 VERTICAL : RBW:1000.000kHz VBW:10000Hz SWF:Auto Detector : Peak Project : 042038 Mode : 11g_Tx_Ch10+LTE B2-20M-L Ch 1R80 QPSK</p>	 <p>Site : 03CH15-HY Condition : AVG_54 3m 91200_15_1620 VERTICAL : RBW:1000.000kHz VBW:10000Hz SWF:Auto Detector : Peak Project : 042038 Mode : 11g_Tx_Ch10+LTE B2-20M-L Ch 1R80 QPSK</p>



2.4GHz 2400~2483.5MHz (Harmonic @ 3m)

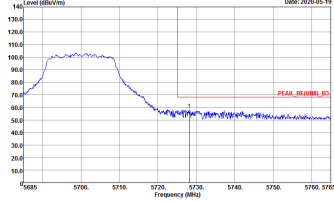
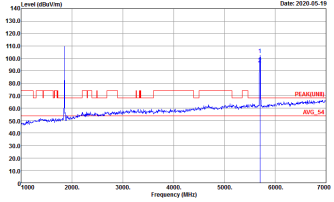
ANT	11g_Tx_Ch10+LTE B2 BW:20M L CH	
Simultaneously	Horizontal	Vertical
<p>Peak Avg.</p>	 <p>Site : 03CH15-HY Condition : PEAK_74 3m 91200_15_1620 HORIZONTAL Detector : Peak Project : 042038</p>	 <p>Site : 03CH15-HY Condition : PEAK_74 3m 91200_15_1620 VERTICAL Detector : Peak Project : 042038</p>



5GHz Band 3 - 5470~5725MHz (Band Edge @ 3m)

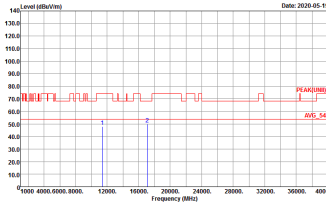
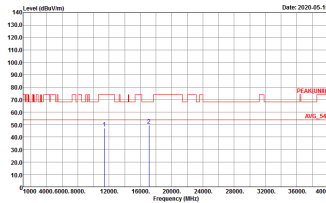
ANT	11a(n20)_Tx_Ch140+LTE B2 BW:20M-L CH	
Simultaneously	Horizontal	Fundamental
<p>Peak</p>	<p>Site : 03CH15-HY Condition : PEAK_BE[UNITE]_B3 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 042038</p>	<p>Site : 03CH15-HY Condition : PEAK[UNITE] 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 042038</p>



ANT	11a(n20)_Tx_Ch140+LTE B2 BW:20M-L CH	
Simultaneously	Vertical	Fundamental
<p style="text-align: center;">Peak</p>	 <p>Site : 03CH15-HY Condition : PEAK_UNIT1_83 3m 91200_15_1620 VERTICAL RBW:3000.000kHz VBW:3000.000kHz SWT:Auto Detector : Peak Project : 042038</p>	 <p>Site : 03CH15-HY Condition : PEAK_UNIT1_3m 91200_15_1620 VERTICAL RBW:3000.000kHz VBW:3000.000kHz SWT:Auto Detector : Peak Project : 042038</p>



5GHz Band 3 - 5470~5725MHz (Harmonic @ 3m)

ANT	11a(n20)_Tx_Ch140+LTE B2 BW:20M-L CH	
Simultaneously	Horizontal	Vertical
<p style="text-align: center;">Peak Avg.</p>	 <p style="font-size: small;"> Date: 2020-05-19 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak Project : 1942038 </p>	 <p style="font-size: small;"> Date: 2020-05-19 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak Project : 1942038 </p>

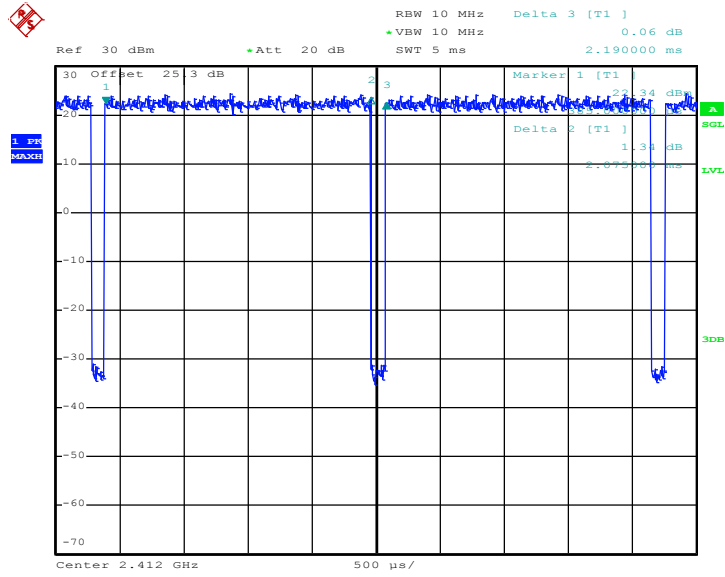


Appendix C. Duty Cycle Plots

Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
2.4GHz 802.11g	94.75	2075	0.48	1kHz	0.23
5GHz 802.11n HT20	94.62	1935	0.52	1kHz	0.24



2.4GHz 802.11g



5GHz 802.11n HT20

