

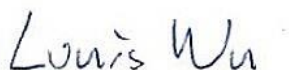


FCC CO-LOCATION RADIO TEST REPORT

FCC ID : AK8VTG100
Equipment : Visilion Tracker G100
Brand Name : Sony Group Corporation
Applicant : Sony Group Corporation
1-7-1 Konan Minato-ku, Tokyo, 108-0075 Japan
Manufacturer : Sony Network Communications Europe B.V.
Taurusavenue 16, 2132LS Hoofddorp, Netherlands
Standard : FCC Part 15 Subpart C §15.247

The product was received on May 06, 2021 and testing was started from May 21, 2021 and completed on Jun. 03, 2021. We, Sporton International Inc. Wensan 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 test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.



Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issued Date
FR140729-02B	01	Initial issue of report	Aug. 13, 2021
FR140729-02B	02	Revise standard	Sep. 09, 2021

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.247(d)	Radiated Band Edges and Spurious Emission	Pass	Under limit 3.21 dB at 17925.000 MHz
3.2	15.203 & 15.247(b)	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: Keven Cheng

Report Producer: Celery Wei

1 General Description

1.1 Product Feature of Equipment Under Test

GSM/LTE, Bluetooth - LE and GNSS.

Product Specification subjective to this standard	
Antenna Type	WWAN: PIFA Antenna Bluetooth - LE: PIFA Antenna GPS: PIFA Antenna

Remark: The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.

EUT Information List			
HW Version	SW Version	IMEI	Performed Test Item
0B	0.1.28-test	864475047642839	WLAN colocation

Accessory List	
AC Adapter	Model Name : UCH32
	S/N : 6218W30200191
USB Cable	Model Name : UCB24
	S/N : N/A

Note:

1. Above EUT list used are electrically identical per declared by manufacturer.
2. Above the accessories list are used to exercise the EUT during test, and the serial number of each type of accessories is listed in each section of this report.
3. For other wireless features of this EUT, test report will be issued separately.

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. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No. 03CH12-HY

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

FCC designation No.: TW3786

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 C §15.247
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v05r02
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.
- ♦ 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. The TAF code is not including all the FCC KDB listed without accreditation.
3. 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, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and find X plane as worst plane.

2.1 Carrier Frequency and Channel

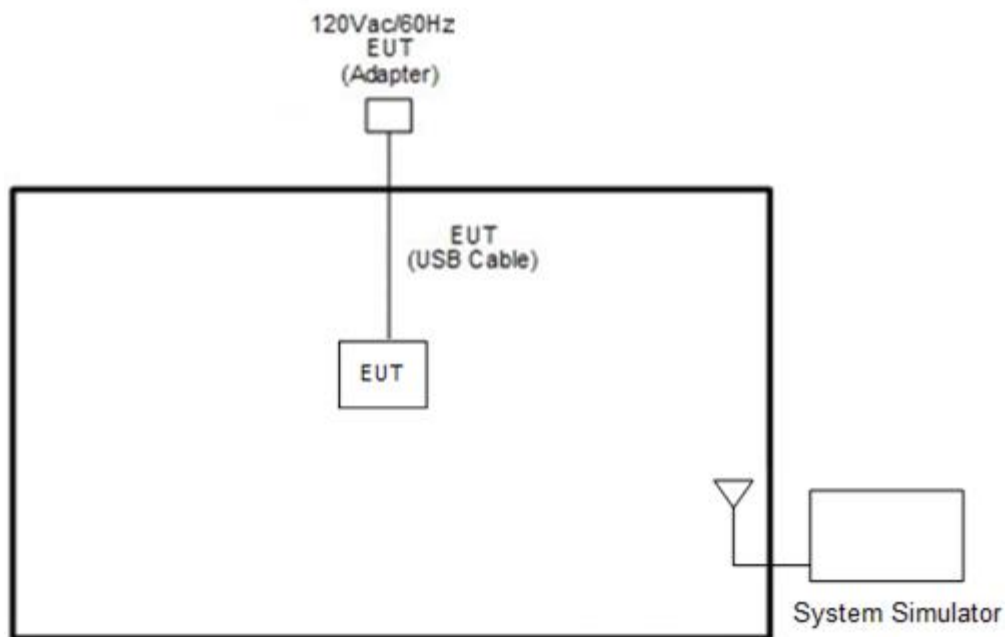
2400-2483.5 MHz	
Bluetooth - LE	
Channel	Freq. (MHz)
39	2480

Remark: During the Radiated Spurious Emission test, the EUT turn on the WWAN functions simultaneously.

<Co-Location>

Modulation	Data Rate
Bluetooth – LE + LTE Cat M1. Band 2	2 Mbps + GMSK

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8m

2.4 EUT Operation Test Setup

The RF test items, utility "Tera Term v 1.0.0.24" 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 Radiated Band Edges and Spurious Emission Measurement

3.1.1 Limit of Radiated Band Edges and Spurious Emission

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

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

3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

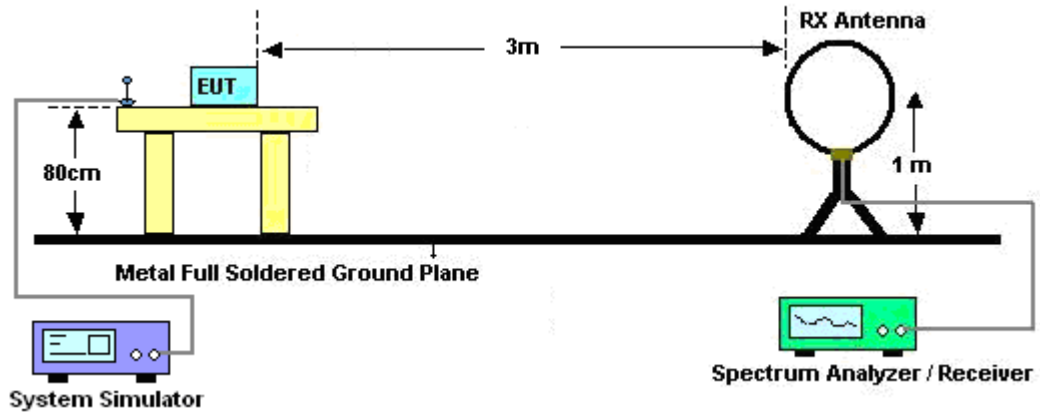


3.1.3 Test Procedures

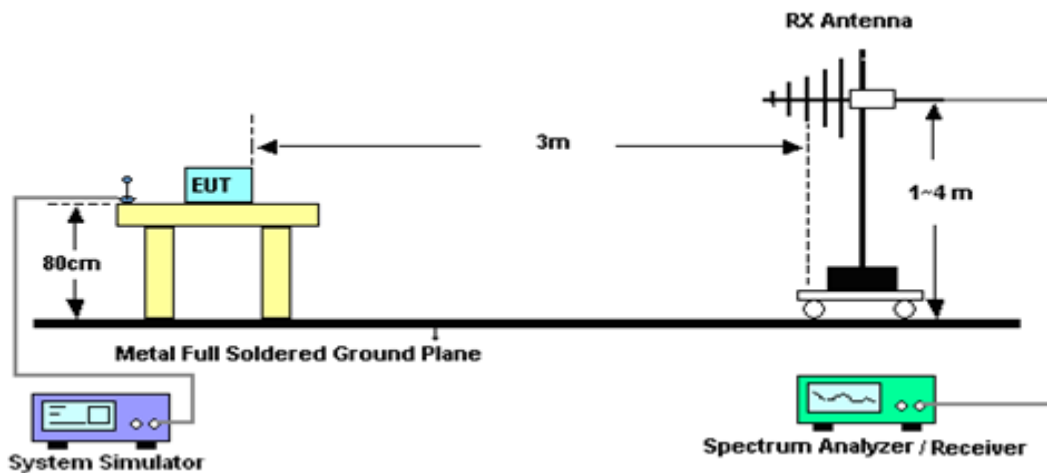
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For testing below 1 GHz, 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 be reported.
7. For testing above 1 GHz, the emission level of the EUT in peak mode was 20 dB 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 be reported.
8. Use the following spectrum analyzer settings:
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Set RBW = 100 kHz for $f < 1$ GHz; $VBW \geq RBW$; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW = 3 MHz for $f \geq 1$ GHz for peak measurement.
For average measurement:
 - $VBW = 10$ 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.

3.1.4 Test Setup

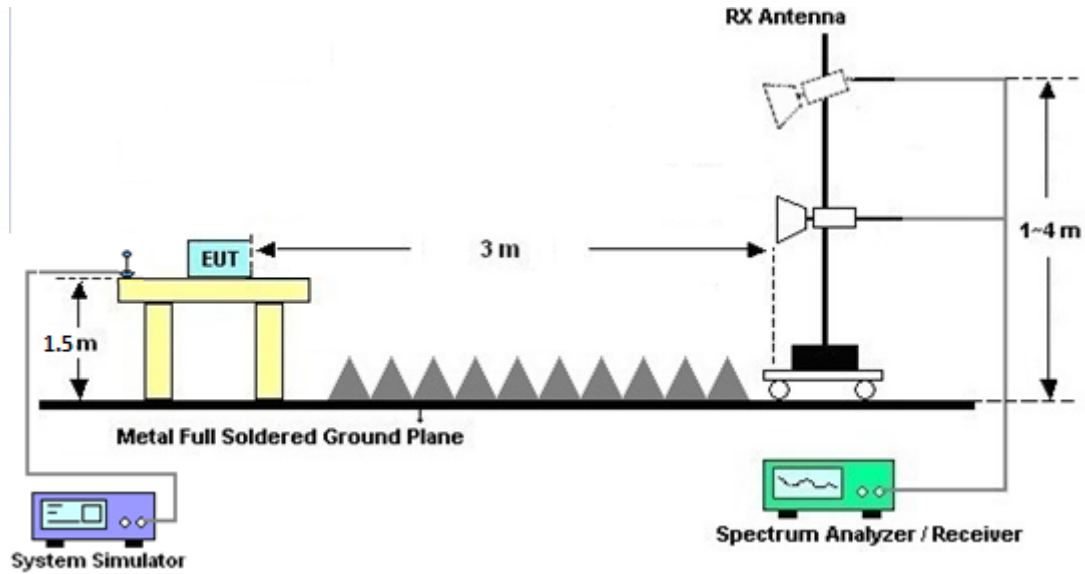
For radiated emissions below 30MHz



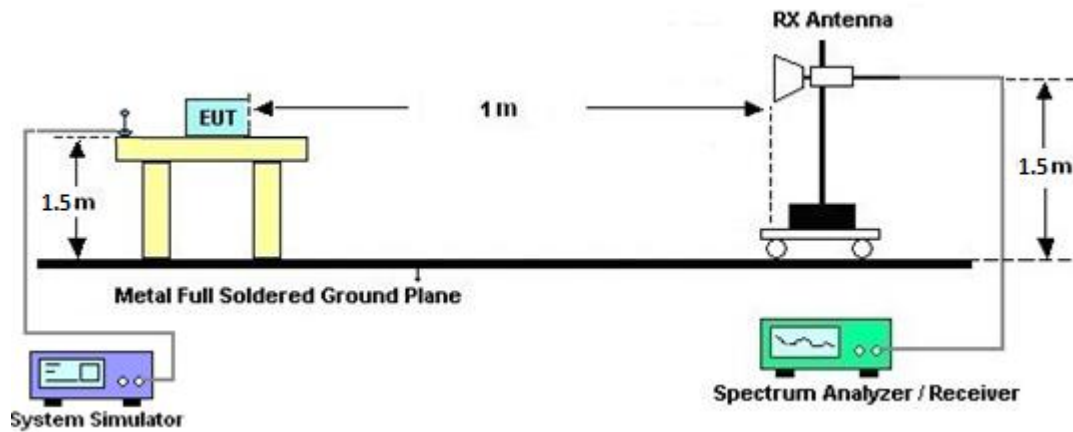
For radiated emissions from 30MHz to 1GHz



For radiated emissions from 1GHz to 18GHz



For radiated emissions above 18GHz





3.1.5 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 was not reported.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.1.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix A and B.

3.1.7 Duty Cycle

Please refer to Appendix C.

3.1.8 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	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jul. 14, 2020	May 21, 2021~ Jun. 03, 2021	Jul. 13, 2021	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	37059 & 01	30MHz~1GHz	Oct. 11, 2020	May 21, 2021~ Jun. 03, 2021	Oct. 10, 2021	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-1328	1GHz~18GHz	Nov. 23, 2020	May 21, 2021~ Jun. 03, 2021	Nov. 22, 2021	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA917058 4	18GHz~40GHz	Dec. 11, 2020	May 21, 2021~ Jun. 03, 2021	Dec. 10, 2021	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 24, 2021	May 21, 2021~ Jun. 03, 2021	Mar. 23, 2022	Radiation (03CH12-HY)
Preamplifier	Keysight	83017A	MY57280120	1GHz~26.5GHz	Jul. 20, 2020	May 21, 2021~ Jun. 03, 2021	Jul. 19, 2021	Radiation (03CH12-HY)
Preamplifier	E-INSTRUME NT TECH LTD.	ERA-100M-18 G-56-01-A70	EC1900249	1GHz~18GHz	Dec. 05, 2020	May 21, 2021~ Jun. 03, 2021	Dec. 04, 2021	Radiation (03CH12-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 11, 2020	May 21, 2021~ Jun. 03, 2021	Dec. 10, 2021	Radiation (03CH12-HY)
Spectrum Analyzer	Agilent	N9010A	MY53470118	10Hz~44GHz	Sep. 14, 2020	May 21, 2021~ Jun. 03, 2021	Sep. 13, 2021	Radiation (03CH12-HY)
Signal Generator	Rohde & Schwarz	SMB100A	101107	100kHz~40GHz	Dec. 04, 2020	May 21, 2021~ Jun. 03, 2021	Dec. 03, 2021	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30MHz~18GHz	Dec. 11, 2020	May 21, 2021~ Jun. 03, 2021	Dec. 10, 2021	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz~40GHz	Feb. 22, 2021	May 21, 2021~ Jun. 03, 2021	Feb. 21, 2022	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz~40GHz	Feb. 22, 2021	May 21, 2021~ Jun. 03, 2021	Feb. 21, 2022	Radiation (03CH12-HY)
Filter	Wainwright	WLKS1200-12 SS	SN2	1.2GHz Low Pass Filter	Mar. 17, 2021	May 21, 2021~ Jun. 03, 2021	Mar. 16, 2022	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-1080 -1200-15000-6 0SS	SN1	1.2GHz High Pass Filter	Mar. 17, 2021	May 21, 2021~ Jun. 03, 2021	Mar. 16, 2022	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-2700 -3000-18000-6 0ST	SN2	3GHz High Pass Filter	Jul. 14, 2020	May 21, 2021~ Jun. 03, 2021	Jul. 13, 2021	Radiation (03CH12-HY)
Hygrometer	TECPEL	DTM-303B	TP140349	N/A	Oct. 02, 2020	May 21, 2021~ Jun. 03, 2021	Oct. 01, 2021	Radiation (03CH12-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	May 21, 2021~ Jun. 03, 2021	N/A	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	May 21, 2021~ Jun. 03, 2021	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	May 21, 2021~ Jun. 03, 2021	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-000989	N/A	N/A	May 21, 2021~ Jun. 03, 2021	N/A	Radiation (03CH12-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.9
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.6
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.9
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Appendix A. Radiated Spurious Emission

Test Engineer :	Jack Cheng, Lance Chiang and Chuan Chu	Temperature :	22.5~26.8°C
		Relative Humidity :	54.6~66.8%

2.4GHz 2400~2483.5MHz

Bluetooth - LE (2Mbps)_Tx_Ch39 + LTE Cat. M1 Band 2 Link_Ch18900 (Band Edge @ 3m)

BLE	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)
Bluetooth- LE (2Mbps) CH 39 2480MHz + LTE Cat. M1 Band 2 Link	*	2480	104.38	-	-	94.13	27.48	16.86	34.09	120	115	P	H
	*	2480	104	-	-	93.75	27.48	16.86	34.09	120	115	A	H
		2483.76	56.8	-17.2	74	46.56	27.46	16.87	34.09	120	115	P	H
		2483.52	45.04	-8.96	54	34.79	27.47	16.87	34.09	120	115	A	H
													H
													H
	*	2480	99.91	-	-	89.66	27.48	16.86	34.09	365	270	P	V
	*	2480	99.64	-	-	89.39	27.48	16.86	34.09	365	270	A	V
		2486.04	53.88	-20.12	74	43.64	27.46	16.87	34.09	365	270	P	V
		2483.52	43.66	-10.34	54	33.41	27.47	16.87	34.09	365	270	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

Bluetooth - LE (2Mbps)_Tx_Ch39 + LTE Cat. M1 Band 2 Link_Ch18900 (Harmonic @ 3m)

BLE	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)
Bluetooth- LE (2Mbps) CH 39 2480MHz + LTE Cat. M1 Band 2 Link		3090	58.37	-15.63	74	86.5	28.48	9.85	66.46	100	0	P	H
		4960	40.79	-33.21	74	65.01	31.24	11.15	66.61	100	0	P	H
		7440	45.92	-28.08	74	61.96	36.28	13.22	65.54	100	0	P	H
		17925	58.24	-15.76	74	58.33	48.22	20.88	69.19	100	0	P	H
		17925	49.59	-4.41	54	49.68	48.22	20.88	69.19	100	0	A	H
		3090	59.44	-14.56	74	87.57	28.48	9.85	66.46	100	0	P	V
		4960	41.41	-32.59	74	65.63	31.24	11.15	66.61	100	0	P	V
		7440	47.48	-26.52	74	63.52	36.28	13.22	65.54	100	0	P	V
		17925	58.62	-15.38	74	58.71	48.22	20.88	69.19	100	0	P	V
		17925	50.79	-3.21	54	50.88	48.22	20.88	69.19	100	0	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission above 18GHz

Bluetooth - LE (2Mbps)_Tx_Ch39 + LTE Cat. M1 Band 2 Link_Ch18900 (SHF)

BT	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
Bluetooth-LE (2Mbps) CH 39 2480MHz + LTE Cat. M1 Band 2 Link SHF		23467	41.87	-32.13	74	43.56	39.19	12.62	53.5	100	0	P	H
													H
													H
													H
													H
													H
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													H
													H
		23502	42.15	-31.85	74	43.71	39.3	12.64	53.5	100	0	P	V
													V
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													V
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													V
													V
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												V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Emission below 1GHz

Bluetooth - LE (2Mbps)_Tx_Ch39 + LTE Cat. M1 Band 2 Link_Ch18900 (LF)

BLE	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
Bluetooth-LE (2Mbps) CH 39 2480MHz + LTE Cat. M1 Band 2 Link LF		42.61	29.51	-10.49	40	40.15	18.09	0.92	29.65	100	196	Q	H
		165.8	35.29	-8.21	43.5	46.93	16.03	1.88	29.55	-	-	P	H
		254.07	33.21	-12.79	46	41.32	18.93	2.35	29.39	-	-	P	H
		718.7	38.4	-7.6	46	35.81	27.16	4	28.57	-	-	P	H
		873.9	36.11	-9.89	46	30.82	29.08	4.5	28.29	-	-	P	H
		944.71	37.24	-8.76	46	30.31	30.42	4.66	28.15	-	-	P	H
													H
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													H
													H
		40.67	31.63	-8.37	40	41.23	19.14	0.9	29.64	100	291	Q	V
		85.29	26.84	-13.16	40	41.01	14.13	1.36	29.66	299	235	Q	V
		152.22	34.99	-8.51	43.5	45.8	16.96	1.8	29.57	-	-	P	V
		713.85	37.4	-8.6	46	35.05	26.93	3.99	28.57	-	-	P	V
		857.41	35.71	-10.29	46	30.42	29.2	4.45	28.36	-	-	P	V
		954.41	37.91	-8.09	46	30.58	30.77	4.69	28.13	-	-	P	V
													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	P eak or A verage
H/V	H orizontal or V ertical

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

BLE	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BLE CH 00 2402MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

$$1. \text{ Path Loss(dB)} = \text{Cable loss(dB)} + \text{Filter loss(dB)} + \text{Attenuator loss(dB)}$$

$$2. \text{ Level(dB}\mu\text{V/m)} =$$

$$\text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$$

$$3. \text{ Over Limit(dB)} = \text{Level(dB}\mu\text{V/m)} - \text{Limit Line(dB}\mu\text{V/m)}$$

For Peak Limit @ 2390MHz:

$$1. \text{ Level(dB}\mu\text{V/m)}$$

$$= \text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$$

$$= 32.22(\text{dB/m}) + 4.58(\text{dB}) + 54.51(\text{dB}\mu\text{V}) - 35.86(\text{dB})$$

$$= 55.45(\text{dB}\mu\text{V/m})$$

$$2. \text{ Over Limit(dB)}$$

$$= \text{Level(dB}\mu\text{V/m)} - \text{Limit Line(dB}\mu\text{V/m)}$$

$$= 55.45(\text{dB}\mu\text{V/m}) - 74(\text{dB}\mu\text{V/m})$$

$$= -18.55(\text{dB})$$

For Average Limit @ 2390MHz:

$$1. \text{ Level(dB}\mu\text{V/m)}$$

$$= \text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB}\mu\text{V)} - \text{Preamp Factor(dB)}$$

$$= 32.22(\text{dB/m}) + 4.58(\text{dB}) + 42.6(\text{dB}\mu\text{V}) - 35.86(\text{dB})$$

$$= 43.54(\text{dB}\mu\text{V/m})$$

$$2. \text{ Over Limit(dB)}$$

$$= \text{Level(dB}\mu\text{V/m)} - \text{Limit Line(dB}\mu\text{V/m)}$$

$$= 43.54(\text{dB}\mu\text{V/m}) - 54(\text{dB}\mu\text{V/m})$$

$$= -10.46(\text{dB})$$

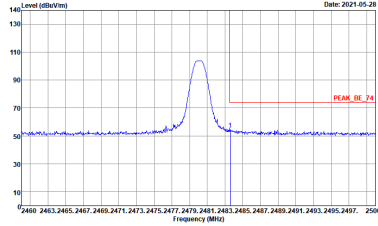
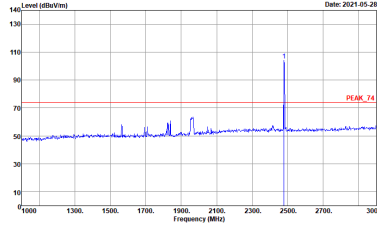
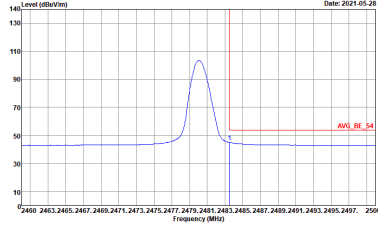
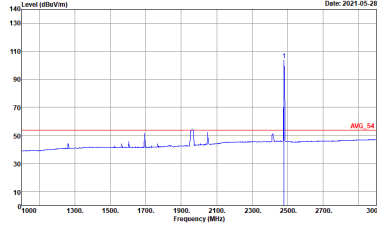
Both peak and average measured complies with the limit line, so test result is "PASS".

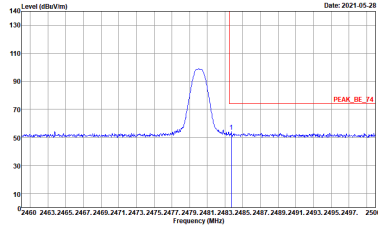
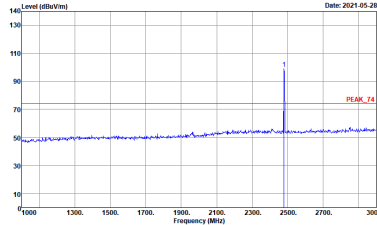
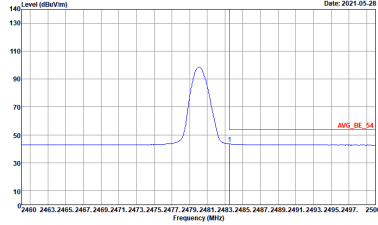
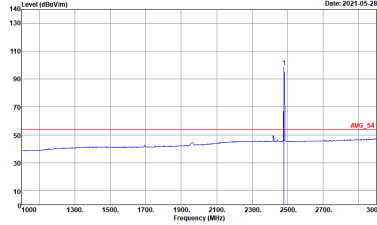


Appendix B. Radiated Spurious Emission Plots

Test Engineer :	Jack Cheng, Lance Chiang and Chuan Chu	Temperature :	22.5~26.8°C
		Relative Humidity :	54.6~66.8%

2.4GHz 2400~2483.5MHz
Bluetooth - LE (2Mbps)_Ch 39 + LTE Cat. M1 Band 2_BW 20M Ch18900 (Band Edge @ 3m)

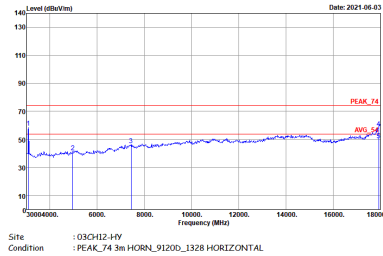
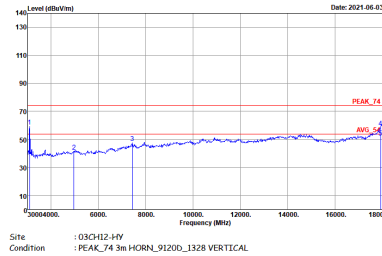
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE (2Mbps) CH39 2480MHz + LTE Cat. M1 Band 2_BW 20M Ch18900	
	Horizontal	Fundamental
Peak	 <p>Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_91200_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	 <p>Site : 03CH12-HY Condition : PEAK_74 3m HORN_91200_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>
Avg.	 <p>Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_91200_1328 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>	 <p>Site : 03CH12-HY Condition : AVG_54 3m HORN_91200_1328 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE (2Mbps) CH39 2480MHz + LTE Cat. M1 Band 2_ BW 20M Ch18900	
	Vertical	Fundamental
Peak	 <p>Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_91200_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	 <p>Site : 03CH12-HY Condition : PEAK_74 3m HORN_91200_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>
Avg.	 <p>Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_91200_1328 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto</p>	 <p>Site : 03CH12-HY Condition : AVG_54 3m HORN_91200_1328 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto</p>

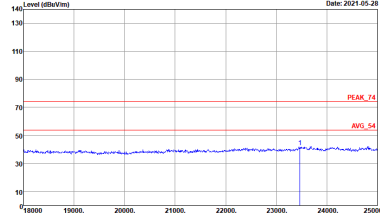
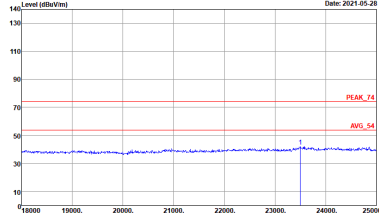


2.4GHz 2400~2483.5MHz

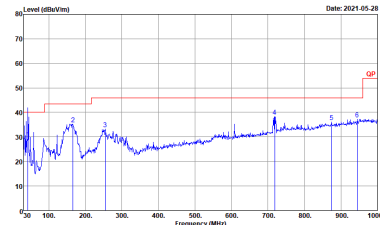
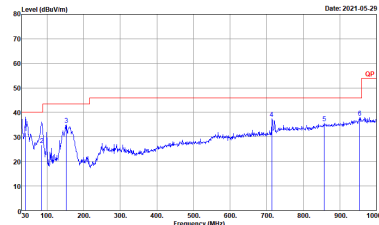
Bluetooth - LE (2Mbps)_Ch 39 + LTE Cat. M1 Band 2_BW 20M Ch18900 (Harmonic @ 3m)

BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE (2Mbps) CH39 2480MHz + LTE Cat. M1 Band 2_ BW 20M Ch18900	
	Horizontal	Vertical
Peak Avg.	 <p>Site : 03CH12-11Y Condition : PEAK_74 3m HORN_91200_1328 HORIZONTAL</p>	 <p>Site : 03CH12-11Y Condition : PEAK_74 3m HORN_91200_1328 VERTICAL</p>

Emission above 18GHz
Bluetooth - LE (2Mbps)_Ch 39 + LTE Cat. M1 Band 2_BW 20M Ch18900 (SHF)

BLE	2.4GHz 2400~2483.5MHz	
	BLE (2Mbps) CH39 2480MHz + LTE Cat. M1 Band 2_ BW 20M Ch18900	
	Horizontal	Vertical
QP / Peak	 <p>Site : 03CH12-HY Condition : PEAK_74 1m SHF HORN 88HA9170993 HORIZONTAL</p>	 <p>Site : 03CH12-HY Condition : PEAK_74 1m SHF HORN 88HA9170993 VERTICAL</p>

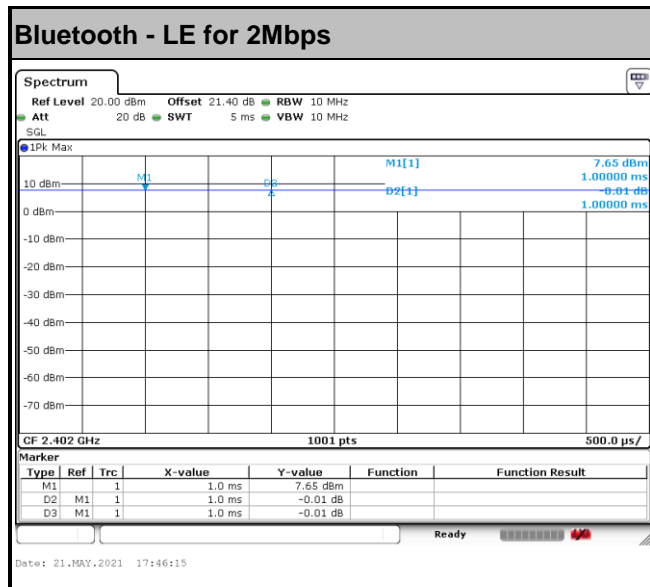
Emission below 1GHz
Bluetooth - LE (2Mbps)_Ch 39 + LTE Cat. M1 Band 2_BW 20M Ch18900 (LF)

BLE	2.4GHz 2400~2483.5MHz	
	BLE (2Mbps) CH39 2480MHz + LTE Cat. M1 Band 2_ BW 20M Ch18900	
	Horizontal	Vertical
QP / Peak	 <p>Site : 03CH12-HY Condition : QP 3m B106_6111D_37059 HORIZONTAL</p>	 <p>Site : 03CH12-HY Condition : QP 3m B106_6111D_37059 VERTICAL</p>



Appendix C. Duty Cycle Plots

Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
Bluetooth - LE for 2Mbps	100.00	-	-	10Hz	0.00



—THE END—