FCC CO-LOCATION RADIO TEST REPORT

FCC ID	:	**H8N-CTX0800**
Equipment	:	**OBU**
Brand Name	:	**ASKEY**
Model Name	:	**CTX0800-RoHS-US**
Applicant	:	**ASKEY COMPUTER CORPORATION** **10F, No.119, Jiankang Rd., Zhonghe Dist., New Taipei City, Taiwan**
Manufacturer	:	**ASKEY COMPUTER CORPORATION** **10F, No.119, Jiankang Rd., Zhonghe Dist., New Taipei City, Taiwan**
Standard	:	**FCC Part 15 Subpart C §15.247**

The product was received on Aug. 01, 2024 and testing was performed from Aug. 26, 2024 to Sep. 11, 2024. 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 from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

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.)

Table of Contents

History of this test report **3**
Summary of Test Result **4**
1 General Description **5**
1.1 Product Feature of Equipment Under Test 5
1.2 Modification of EUT 5
1.3 Testing Location 5
1.4 Applicable Standards 6
2 Test Configuration of Equipment Under Test **7**
2.1 Carrier Frequency and Channel 7
2.2 Test Mode 7
2.3 Connection Diagram of Test System 8
2.4 Support Unit used in test configuration and system 8
2.5 EUT Operation Test Setup 8
3 Test Result **9**
3.1 Radiated Band Edges and Spurious Emission Measurement 9
3.2 Antenna Requirements 14
4 List of Measuring Equipment **15**
5 Measurement Uncertainty **16**
Appendix A. Radiated Spurious Emission
Appendix B. Duty Cycle Plots
Appendix C. Setup Photographs

History of this test report

Report No.	Version	Description	Issue Date
FR2N3001-01E	01	Initial issue of report	Sep. 24, 2024
FR2N3001-01E	02	Revise Section 1.1 This report is an updated version, replacing the report issued on Sep. 24, 2024.	Oct. 01, 2024

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	Pass	1.73 dB under the limit at 2385.40 MHz
3.2	15.203	Antenna Requirement	Pass	-

Conformity Assessment Condition:
1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section “Measurement Uncertainty”.
Disclaimer:
The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Keven Cheng

Report Producer: Lucy Wu

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
General Specs GSM/WCDMA/LTE/5G NR, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n, Wi-Fi 5GHz 802.11a/n/ac and GNSS. **Antenna Type** **WWAN:** Combination Antenna **WLAN:** **<Ant.10>:** Combination Antenna **<Ant.11>:** Combination Antenna **Bluetooth:** Combination Antenna GPS / Glonass / BDS / Galileo: Combination Antenna	
Integrated WWAN Module	Brand Name: ALPS ALPINE CO., LTD Model Name: UMNZ1A2 FCC ID: CWTUMNZ1A2

Antenna information		
2400 MHz ~ 2483.5 MHz	Peak Gain (dBi)	Ant. 11: 2.66

Remark: The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.

1.2 Modification of EUT

No modifications made to the EUT during the testing.

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.**
	03CH16-HY

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

FCC designation No.: TW3786

1.4 Applicable Standards

According to the specifications declared by 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 15.247 Meas Guidance v05r02
- FCC KDB 414788 D01 Radiated Test Site v01r01.
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ANSI C63.10-2013

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
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 only the worst case emissions were reported in this report.

2.1 Carrier Frequency and Channel

2400-2483.5 MHz	
802.11b	
Channel	**Freq. (MHz)**
01	2412

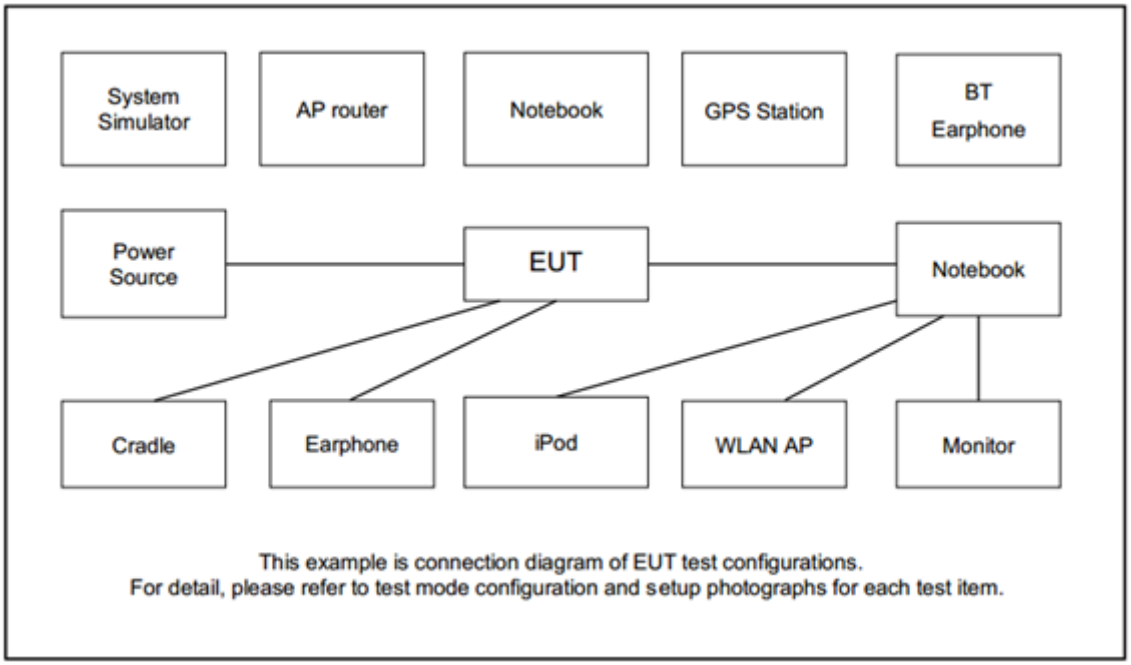
2.2 Test Mode

<Co-Location>

Modulation	Data Rate
802.11b + LTE Band 12	1Mbps + QPSK

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

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	DC Power Supply	GW Instek	GEU810968	GPE-2323	N/A	N/A
2.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m

2.5 EUT Operation Test Setup

The RF test items, utility “Tera Term Version 4.89” 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 edge and Spurious Emission Measurement

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 is 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

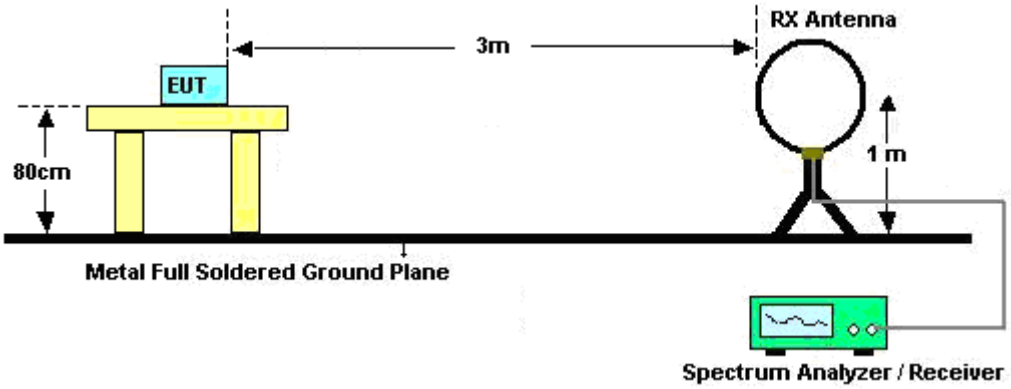
Please refer to the measuring equipment list in this test report.

3.1.3 Test Procedures

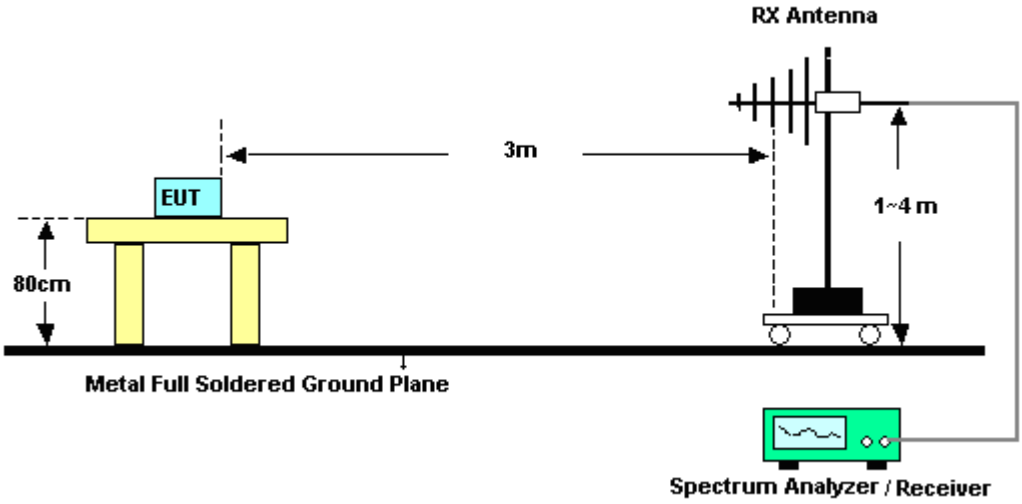
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements
2. The EUT is arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT is 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 is set 3 meters away from the receiving antenna, which is mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit line, the position is marked as "-".
7. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies. When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as "-".
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 ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
   (3) Set RBW = 1 MHz, VBW = 3 MHz for f ≥ 1 GHz for peak measurement.
   For average measurement:
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 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

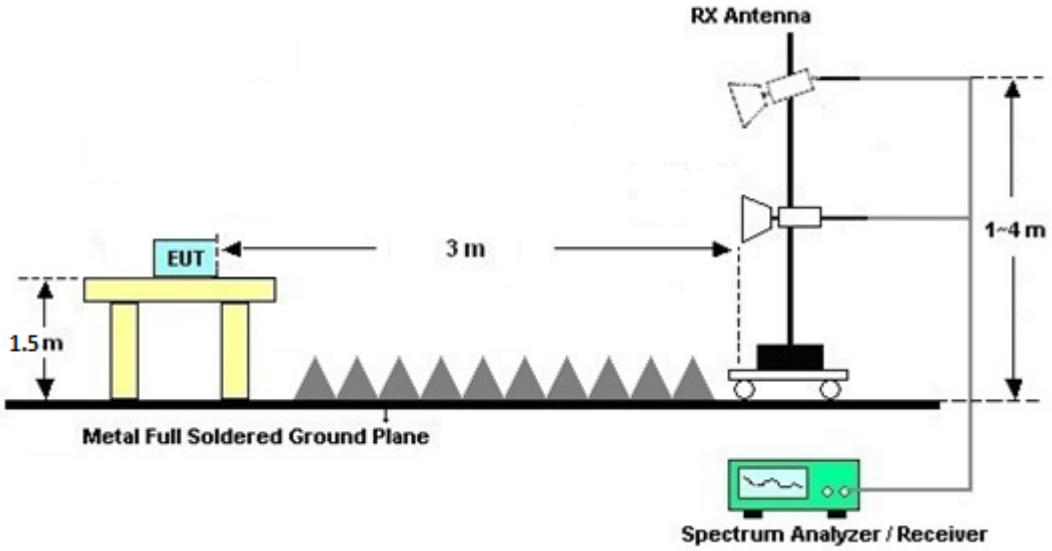
For radiated emissions below 30MHz



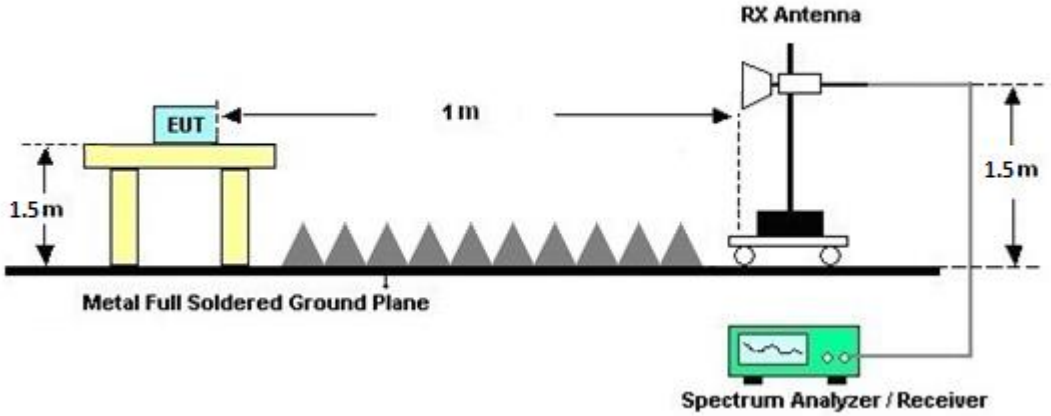
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



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

The low frequency, which starts from 9 kHz to 30 MHz, is pre-scanned and the result which is 20 dB lower than the limit line is 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 comes out very similar.

3.1.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix A.

3.1.7 Duty Cycle

Please refer to Appendix B.

3.1.8 Test Result of Radiated Spurious Emission (30 MHz ~ 10th Harmonic)

Please refer to Appendix A.

3.2 Antenna Requirements

3.2.1 Standard Applicable

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, 15.213, 15.217, 15.219, 15.221, or § 15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

3.2.2 Antenna Anti-Replacement Construction

Unique (non-standard) antenna connector.

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	100315	9 kHz~30 MHz	Feb. 23, 2024	Aug. 26, 2024~ Sep. 11, 2024	Feb. 22, 2025	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	1223	18GHz-40GHz	Jun. 24, 2024	Aug. 26, 2024~ Sep. 11, 2024	Jun. 23, 2025	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY57290111	3Hz~26.5GHz	Dec. 04, 2023	Aug. 26, 2024~ Sep. 11, 2024	Dec. 03, 2024	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00802N1D01N -06	47020 & 06	30MHz to 1GHz	Oct. 07, 2023	Aug. 26, 2024~ Sep. 11, 2024	Oct. 06, 2024	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1522	1G~18GHz	Mar. 28, 2024	Aug. 26, 2024~ Sep. 11, 2024	Mar. 27, 2025	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1GHz	Jul. 02, 2024	Aug. 26, 2024~ Sep. 11, 2024	Jul. 01, 2025	Radiation (03CH16-HY)
DC Power Supply	GW Instek	GPE-2323	GEU810968	0V~64V ; 0A~6A	Apr. 29, 2024	Aug. 26, 2024~ Sep. 11, 2024	Apr. 28, 2025	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz~26.5GHz	Dec. 07, 2023	Aug. 26, 2024~ Sep. 11, 2024	Dec. 06, 2024	Radiation (03CH16-HY)
Preamplifier	EMEC	EM1G18G	060812	1GHz~18GHz	Dec. 25, 2023	Aug. 26, 2024~ Sep. 11, 2024	Dec. 24, 2024	Radiation (03CH16-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	May 27, 2024	Aug. 26, 2024~ Sep. 11, 2024	May 26, 2025	Radiation (03CH16-HY)
Filter	Wainwright	WLK4-1000-1530-8000-40SS	SN17	1.53GHz Low Pass Filter	Jan. 15, 2024	Aug. 26, 2024~ Sep. 11, 2024	Jan. 14, 2025	Radiation (03CH16-HY)
Filter	Wainwright	WHKX12-2700-3000-18000-60ST	SN3	3GHz High Pass Filter	Jun. 28, 2024	Aug. 26, 2024~ Sep. 11, 2024	Jun. 27, 2025	Radiation (03CH16-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN27	6.75GHz High Pass Filter	Nov. 13, 2023	Aug. 26, 2024~ Sep. 11, 2024	Nov. 12, 2024	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9K~30M	Mar. 06, 2024	Aug. 26, 2024~ Sep. 11, 2024	Mar. 05, 2025	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102/SUCOFLEX 104	EC-A5-300-5757,805935/4,802434/4	30MHz~18GHz	Aug. 07, 2024	Aug. 26, 2024~ Sep. 11, 2024	Aug. 06, 2025	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804011/2,804012/2	18-40GHz	Jan. 02, 2024	Aug. 26, 2024~ Sep. 11, 2024	Jan. 01, 2025	Radiation (03CH16-HY)
Software	Audix	E3 230621 V9	RK-002393	N/A	N/A	Aug. 26, 2024~ Sep. 11, 2024	N/A	Radiation (03CH16-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Aug. 26, 2024~ Sep. 11, 2024	N/A	Radiation (03CH16-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Aug. 26, 2024~ Sep. 11, 2024	N/A	Radiation (03CH16-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Aug. 26, 2024~ Sep. 11, 2024	N/A	Radiation (03CH16-HY)

5 Measurement Uncertainty

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**6.5 dB**

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 6000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.5 dB**

Uncertainty of Radiated Emission Measurement (6000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.5 dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.5 dB**

Appendix A. Radiated Spurious Emission Test Data

Test Engineer :	Bill Chang, Gary Guo and Steven Wu	**Temperature :**	18.2~20.2°C
		Relative Humidity :	54.2~56.1%

A1. Radiated Spurious Emission Test Modes

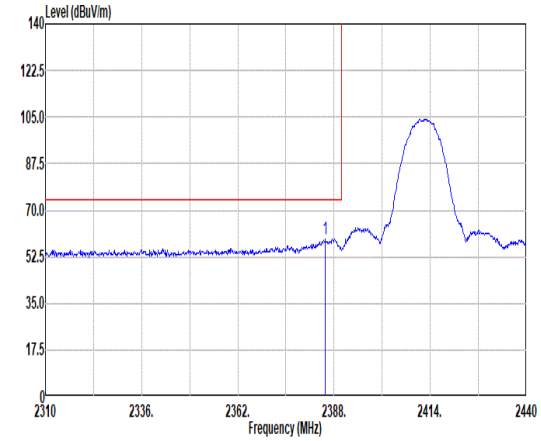
Mode	Band (MHz)	Antenna	Modulation	Channel	Frequency	Data Rate / RB Size	Remark
Mode 19	2400-2483.5	11	802.11b	01	2412	1Mbps	-
	699-716	-	LTE Band 12	QPSK	707.5	1RB0	
Mode 20	2400-2483.5	11	802.11b	01	2412	1Mbps	LF
	699-716	-	LTE Band 12	QPSK	707.5	1RB0	
Mode 21	2400-2483.5	11	802.11b	01	2412	1Mbps	SHF
	699-716	-	LTE Band 12	QPSK	707.5	1RB0	

A2. Summary of each worse mode

Mode	Modulation	Ch.	Freq. (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol.	Peak Avg.	Result	RU	Remark
19	802.11b + LTE Band 12	01	2385.40	52.27	54.00	-1.73	H	Avg.	Pass	-	Band Edge
		01	4824.00	43.35	54.00	-10.65	H	Avg.	Pass	-	Harmonic
20		01	58.13	29.99	40.00	-10.01	V	Peak	Pass	-	LF
21		01	24424.00	41.16	74.00	-32.84	V	Peak	Pass	-	SHF

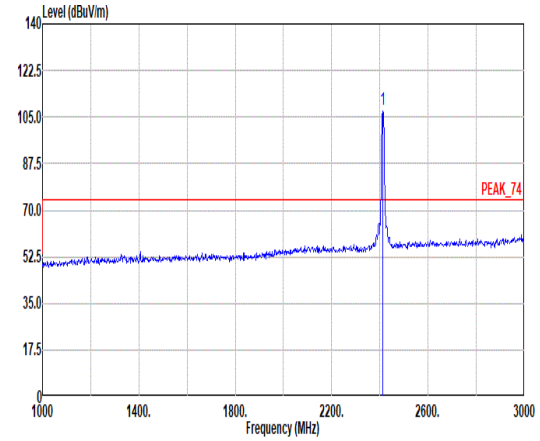
Mode	19	
	802.11b_Ch01	
	LTE B12 10M Ch23095 1RB0 QPSK	
ANT	11	
Pol.	Horizontal	Fundamental

Peak



Site : 03CH16-HY
Condition: PEAK_BE_74 3m 9120D-1522_240328 HORIZONTAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

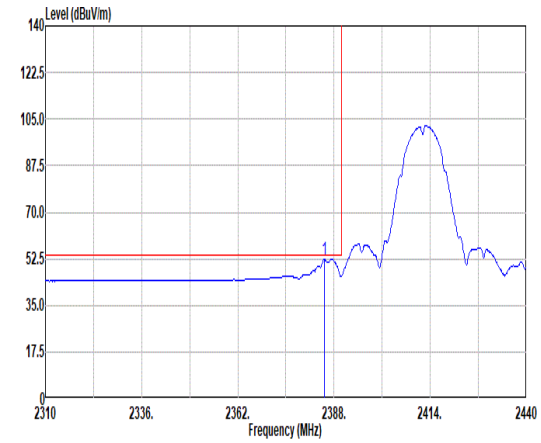
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2385.66	59.05	74.00	-14.95	44.07	27.26	7.71	29.91	9.92	200	351	PEAK



Site : 03CH16-HY
Condition: PEAK_74 3m 9120D-1522_240328 HORIZONTAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

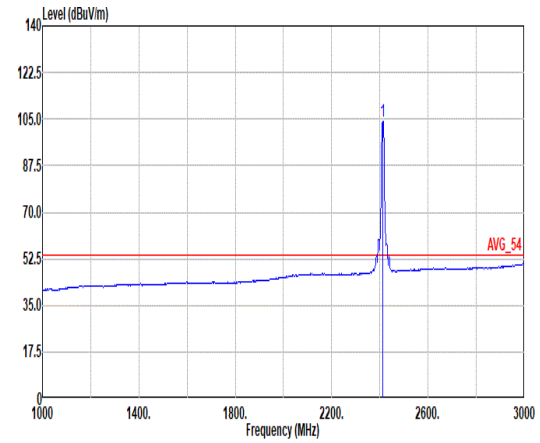
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2412.00	107.95	------	------	92.79	27.40	7.75	29.91	9.92	200	351	PEAK

Avg



Site : 03CH16-HY
Condition: AVG_BE_54 3m 9120D-1522_240328 HORIZONTAL
: RBW:1000.000kHz VBW:0.010kHz SWT:Auto

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2385.40	52.27	54.00	-1.73	37.30	27.25	7.71	29.91	9.92	200	351	AVERAGE

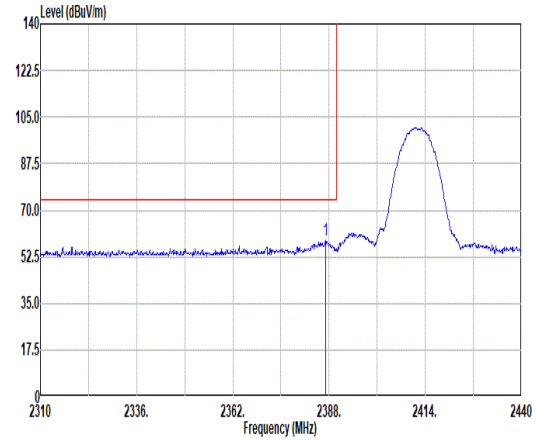


Site : 03CH16-HY
Condition: AVG_54 3m 9120D-1522_240328 HORIZONTAL
: RBW:1000.000kHz VBW:0.010kHz SWT:Auto

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2412.00	103.94	------	------	88.78	27.40	7.75	29.91	9.92	200	351	AVERAGE

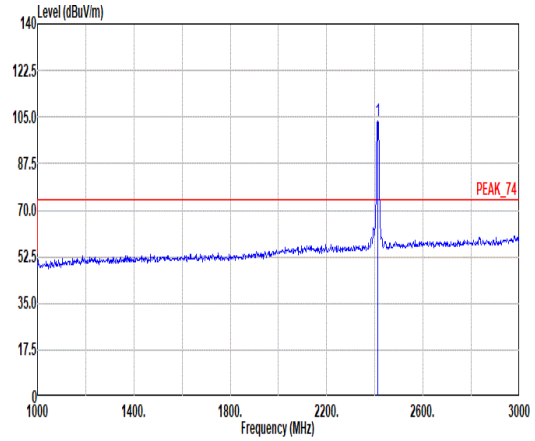
Mode	19	
	802.11b_Ch01	
	LTE B12 10M Ch23095 1RB0 QPSK	
ANT	11	
Pol.	Vertical	Fundamental

Peak



Site : 03CH16-HY
Condition: PEAK_BE_74 3m 9120D-1522_240328 VERTICAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

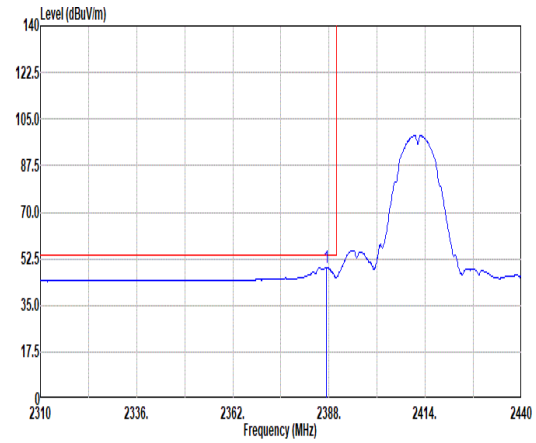
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2387.09	58.43	74.00	-15.57	43.44	27.27	7.71	29.91	9.92	400	121	PEAK



Site : 03CH16-HY
Condition: PEAK_74 3m 9120D-1522_240328 VERTICAL
: RBW:1000.000kHz VBW:3000.000kHz SWT:Auto

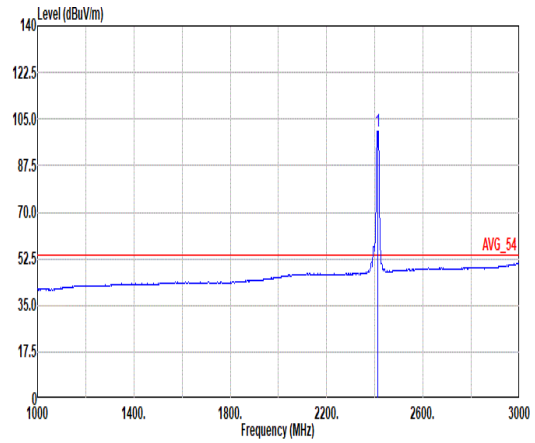
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2412.00	103.52	------	------	88.36	27.40	7.75	29.91	9.92	400	121	PEAK

Avg



Site : 03CH16-HY
Condition: AVG_BE_54 3m 9120D-1522_240328 VERTICAL
: RBW:1000.000kHz VBW:0.010kHz SWT:Auto

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2387.35	49.30	54.00	-4.70	34.31	27.27	7.71	29.91	9.92	400	121	AVERAGE



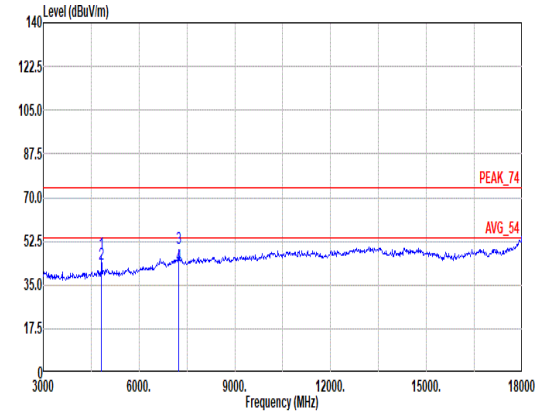
Site : 03CH16-HY
Condition: AVG_54 3m 9120D-1522_240328 VERTICAL
: RBW:1000.000kHz VBW:0.010kHz SWT:Auto

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2412.00	100.43	------	------	85.27	27.40	7.75	29.91	9.92	400	121	AVERAGE

Mode	19	
	802.11b_Ch01	
	LTE B12 10M Ch23095 1RB0 QPSK	
ANT	11	
Pol.	Horizontal	Vertical

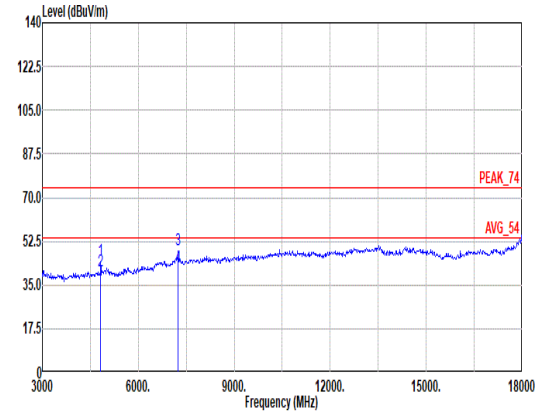
Peak

Avg



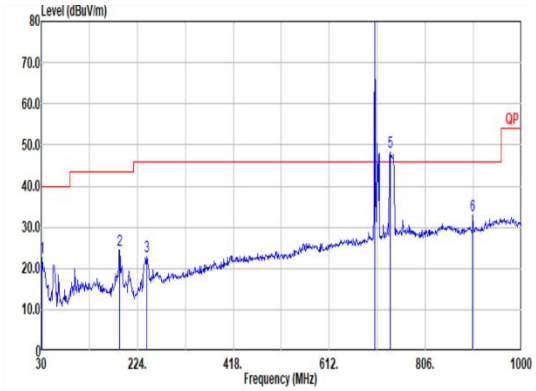
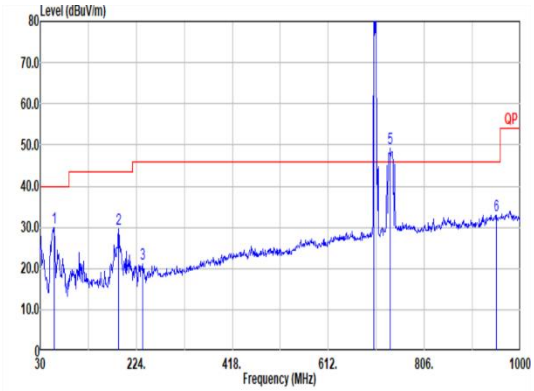
Site : 03CH16-HY
Condition: PEAK_74 3m 9120D-1522_240328 HORIZONTAL

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	4824.00	47.32	74.00	-26.68	69.52	32.40	11.04	66.13	0.49	100	271	PEAK
2	4824.00	43.35	54.00	-10.65	65.55	32.40	11.04	66.13	0.49	100	271	AVERAGE
3	7236.00	49.89	74.00	-24.11	64.79	36.94	13.24	65.45	0.37	197	358	PEAK
4	7236.00	42.87	54.00	-11.13	57.77	36.94	13.24	65.45	0.37	197	358	AVERAGE



Site : 03CH16-HY
Condition: PEAK_74 3m 9120D-1522_240328 VERTICAL

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	4824.00	44.93	74.00	-29.07	67.13	32.40	11.04	66.13	0.49	100	329	PEAK
2	4824.00	40.70	54.00	-13.30	62.90	32.40	11.04	66.13	0.49	100	329	AVERAGE
3	7236.00	49.20	74.00	-24.80	64.10	36.94	13.24	65.45	0.37	302	43	PEAK
4	7236.00	42.30	54.00	-11.70	57.20	36.94	13.24	65.45	0.37	302	43	AVERAGE

Mode	20	
	LF	
	LTE B12 10M Ch23095 1RB0 QPSK+802.11b_Ch01	
ANT	11	
Pol.	Horizontal	Vertical
QP/ Peak		

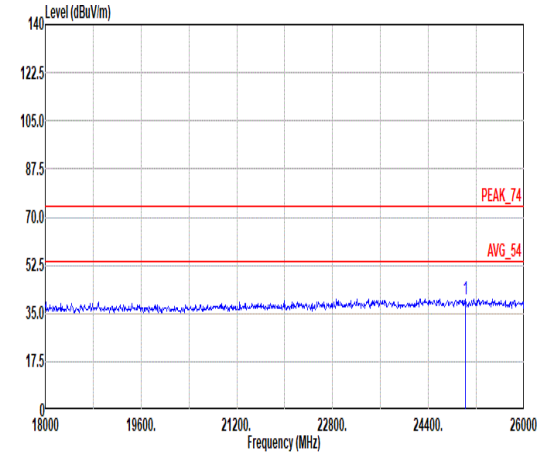
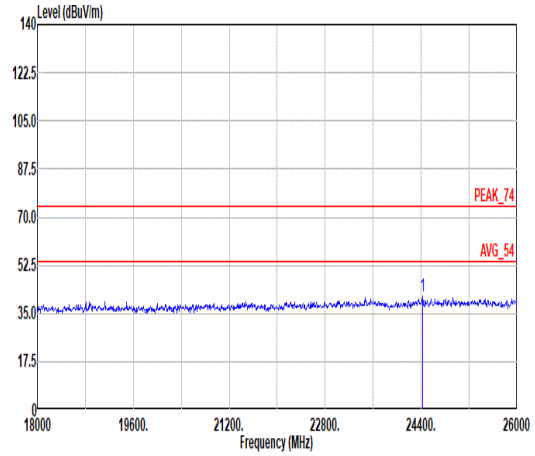
Site : 03CH16-HY
Condition: QP 3m CBL6111D&00802N1D01N-06 _47020 & 06 HORIZONTAL

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	31.94	22.75	40.00	-17.25	30.69	23.71	0.91	32.60	0.04	--	--	Peak
2	188.11	24.54	43.50	-18.96	39.79	14.91	2.13	32.36	0.07	--	--	Peak
3	242.43	22.81	46.00	-23.19	35.25	17.56	2.41	32.45	0.04	--	--	Peak
4	703.18	93.07	46.00	47.07	94.37	26.57	4.12	32.18	0.19	--	--	Peak
5	735.19	48.19	46.00	2.19	47.97	27.92	4.22	32.11	0.19	--	--	Peak
6	902.03	32.80	46.00	-13.20	31.17	29.01	4.68	32.25	0.19	--	--	Peak

Site : 03CH16-HY
Condition: QP 3m CBL6111D&00802N1D01N-06 _47020 & 06 VERTICAL

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	58.13	29.99	40.00	-10.01	49.05	11.98	1.19	32.29	0.06	--	--	Peak
2	188.11	29.48	43.50	-14.02	44.73	14.91	2.13	32.36	0.07	--	--	Peak
3	236.61	21.00	46.00	-25.00	34.15	16.90	2.38	32.47	0.04	--	--	Peak
4	703.18	92.33	46.00	46.33	93.63	26.57	4.12	32.18	0.19	--	--	Peak
5	737.13	49.27	46.00	3.27	49.00	27.96	4.22	32.10	0.19	--	--	Peak
6	951.50	33.03	46.00	-12.97	28.88	30.76	4.81	31.73	0.31	--	--	Peak

Remark: #4, /#5 are WWAN fundamental signal which can be ignored.

Mode	21	
	SHF	
	LTE B12 10M Ch23095 1RB0 QPSK+802.11b_Ch01	
ANT	11	
Pol.	Horizontal	Vertical
Peak		

Site : 03CH16-HY
Condition: PEAK_74 1m SHF_1223_230710 HORIZONTAL

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	25016.00	40.33	74.00	-33.67	56.58	39.48	7.11	53.30	-9.54	--	--	Peak

Site : 03CH16-HY
Condition: PEAK_74 1m SHF_1223_230710 VERTICAL

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	24424.00	41.16	74.00	-32.84	58.02	39.14	7.10	53.56	-9.54	--	--	Peak

Appendix B. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
11	802.11b	98.97	-	-	10Hz

<Ant. 11>

802.11b