FCC CO-LOCATION RADIO TEST REPORT

FCC ID	:	2ATQRCA
Equipment	:	Controller
Brand Name	:	Skydio
Model Name	:	CA110
Applicant	:	Skydio, Inc 3000 Clearview Way San Mateo CA 94402
Manufacturer	:	Skydio, Inc 3000 Clearview Way San Mateo CA 94402
Standard	:	FCC Part 15 Subpart C §15.247 FCC Part 15 Subpart E §15.407

The product was received on Oct. 01, 2025 and testing was performed from Mar. 12, 2026 to Mar. 13, 2026. 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 partial 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.)

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History of this test report

Report No.	Version	Description	Issue Date
FR531837R	01	Initial issue of report	May 20, 2026

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.247(d) 15.407(b)	Unwanted Emissions	Pass	-
3.2	15.203	Antenna Requirement	Pass	-

Note: The FR531837R report reuses test data from the original report FR531836R.

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: Danny Lee

Report Producer: Yuri Huang

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature
Integrated WLAN Module Brand Name: Skydio Model Name: SMODBV3S FCC ID: 2ATQRSMODBV3 Radio Specs: Wi-Fi 2.4GHz 802.11 g/n/ac/ax, Wi-Fi 5GHz 802.11a/n/ac/ax. **Antenna Type** WLAN: <Ant. 0>: Dipole Antenna <Ant. 2>: Dipole Antenna

Antenna information		
2400 MHz ~ 2483.5 MHz	Peak Gain (dBi)	Ant. 0: 4.57 Ant. 2: 4.62
5150 MHz ~ 5250 MHz	Peak Gain (dBi)	Ant. 0: 7.47 Ant. 2: 5.84
5250 MHz ~ 5350 MHz	Peak Gain (dBi)	Ant. 0: 7.76 Ant. 2: 6.46
5470 MHz ~ 5725 MHz	Peak Gain (dBi)	Ant. 0: 6.84 Ant. 2: 5.42
5725 MHz ~ 5850 MHz	Peak Gain (dBi)	Ant. 0 : 7.33 Ant. 2 : 6.03

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

The test location is accredited based on TAF code 3786 designated by NCC (National Communication Commission).

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.)

FCC designation No.: TW3786

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

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 E
- FCC Part 15 Subpart C §15.247
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- FCC KDB 987594 D02 U-NII 6 GHz EMC Measurement v03
- FCC KDB Publication No. 558074 D01 15.247 Meas Guidance v05r02
- FCC KDB 414788 D01 Radiated Test Site v01r01.
- ANSI C63.10-2020

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

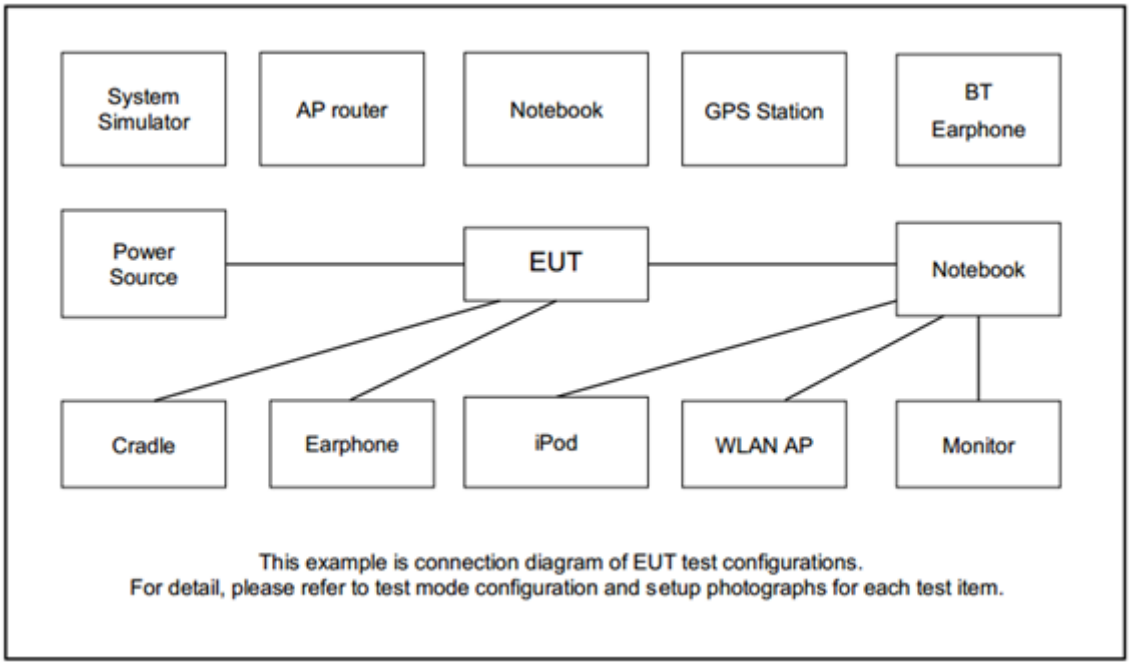
2.1 Test Mode

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.

<Co-Location>

Mode	Antenna	Test configuration	Remark
1	0	LTE Band 13 Link (5M CH23230 1RB0 QPSK)	FN990A40
	0+2	2.4GHz Tx 802.11ax HE20 Full RU Ch10 2457 MHz MCS0	Skydiolink Module
	0	5GHz Tx 802.11ax HE160 Ch114 5570 MHz MCS0	InfraWiFi Module
2	0	LTE Band 13 Link (5M CH23230 1RB0 QPSK)	FN990A40 Module
	0+2	2.4GHz Tx 802.11ax HE20 Full RU Ch10 2457 MHz MCS0	Skydiolink Module
	0	6GHz Tx 802.11ac VHT80 Ch215 7025MHz MCS0	InfraWiFi Module
3	0	LTE Band 13 Link (5M CH23230 1RB0 QPSK)	FN990A40 Module
	0+2	5GHz Tx 802.11ax HE20 Full RU Ch140 5700 MHz MCS0	Skydiolink Module
	0	2.4GHz Tx 802.11b Ch06 2437 MHz 6Mbps	InfraWiFi Module
	1	Bluetooth Tx EDR 8-DPSK Ch78 2480 MHz	InfraWiFi Module
4	0	LTE Band 13 Link (5M CH23230 1RB0 QPSK)	FN990A40 Module
	0+2	5GHz Tx 802.11ax HE20 Full RU Ch140 5700 MHz MCS0	Skydiolink Module
	0	5GHz Tx 802.11ax HE160 Ch114 5570 MHz MCS0	InfraWiFi Module
	1	Bluetooth Tx EDR 8-DPSK Ch78 2480 MHz	InfraWiFi Module
5	0	LTE Band 13 Link (5M CH23230 1RB0 QPSK)	FN990A40 Module
	0+2	5GHz Tx 802.11ax HE20 Full RU Ch140 5700 MHz MCS0	Skydiolink Module
	0	6GHz Tx 802.11ac VHT80 Ch215 7025MHz MCS0	InfraWiFi Module
	1	Bluetooth Tx EDR 8-DPSK Ch78 2480 MHz	InfraWiFi Module

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.	Notebook	Lenovo	N/A	N/A	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
2.	System Simulator	Anritsu	8821C	N/A	N/A	Unshielded,1.8m

2.4 EUT Operation Test Setup

The RF test items, utility “Tera Term v4.89” 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 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

<For 2402 MHz ~ 2480 MHz>

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.

<For 5470 MHz ~ 5725 MHz >

For transmitters operating in the 5470-5600 MHz and 5650-5725MHz band: all emissions outside of the 5470-5600 MHz and 5650-5725MHz band shall not exceed an EIRP of -27 dBm/MHz.

<For 5925 MHz ~ 7125 MHz >

(1) For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of −27 dBm/MHz.

EIRP (dBm)	Field Strength at 3m (dBμV/m)
- 27 (RMS)	68.3
- 7 (Peak)	88.3

According 987594 D02 U-NII 6GHz EMC Measurement v03 section G:
Unwanted emissions outside of restricted bands are measured with a RMS detector.
In addition, 15.35(b) applies where the peak emissions must be limited to no more than 20 dB above the average limit

(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.

$$E=\frac{1000000\sqrt{30P}}{3}$$ μV/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

Please refer to the measuring equipment list in 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 Unwanted Emissions Measurements Below 1000 MHz
   - RBW = 120 kHz
   - VBW = 300 kHz
   - Detector = Peak
   - Trace mode = max hold

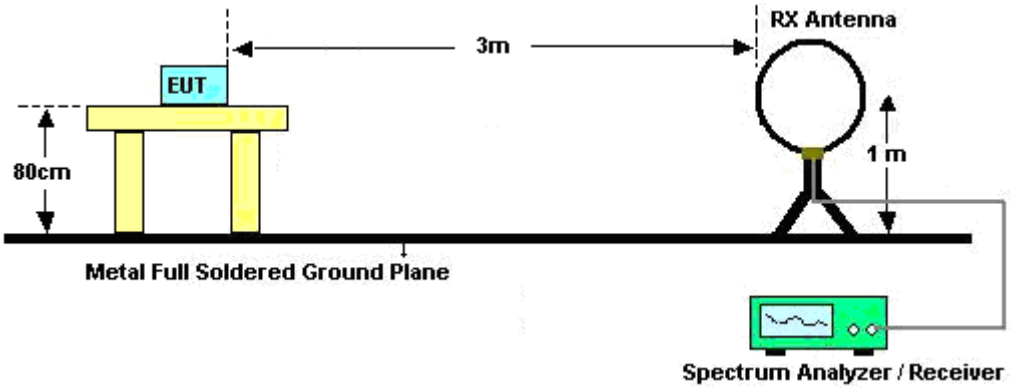
   (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
   - RBW = 1 MHz
   - VBW ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

   (3) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz
   - RBW = 1 MHz
   - 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.
2. 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.
3. The EUT is set 3 meters away from the receiving antenna which is 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 is 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. 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 “-“.

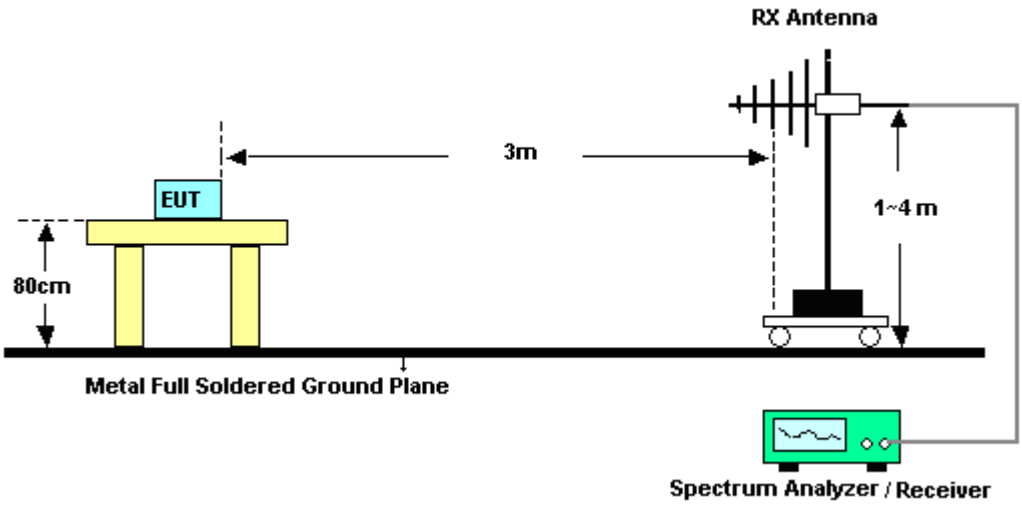
7. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies. When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as "-".

3.1.4 Test Setup

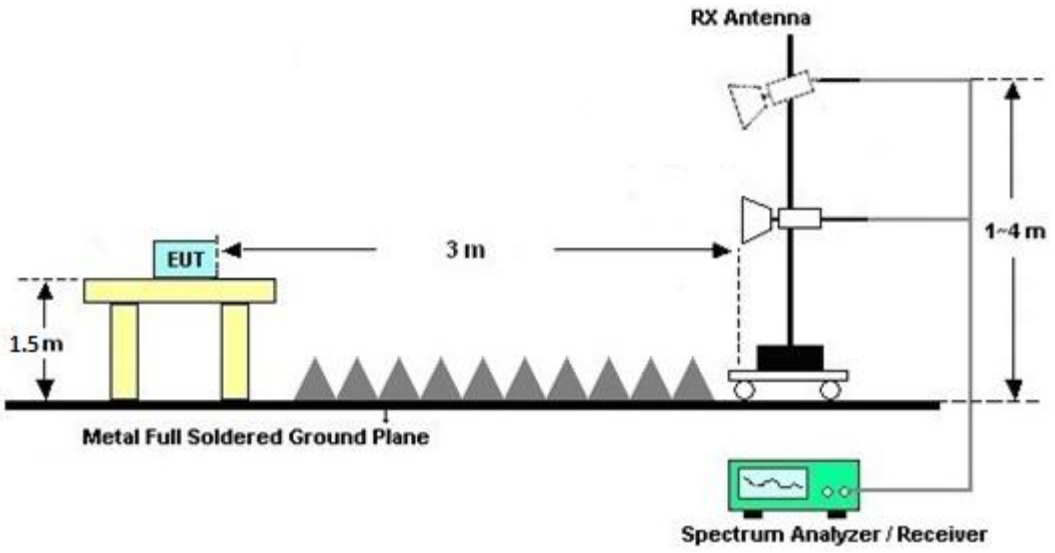
For radiated emissions below 30MHz



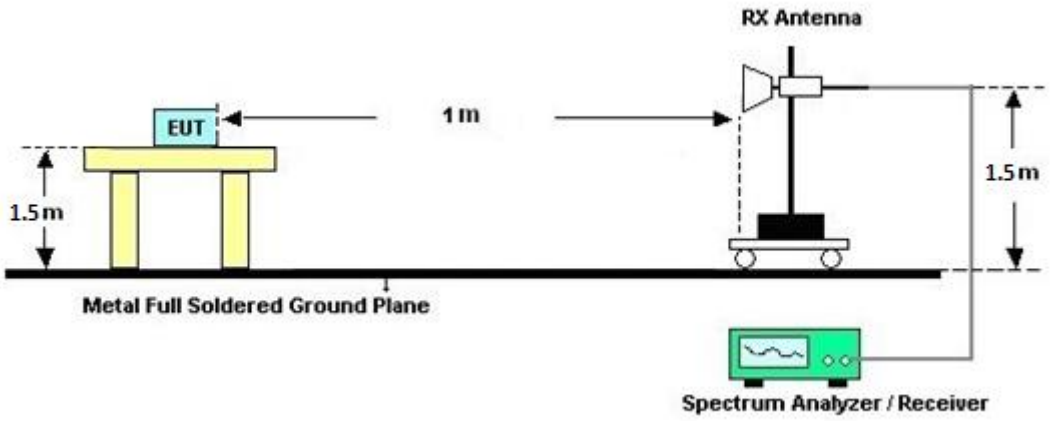
For radiated emissions from 30MHz to 1GHz



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 came 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 Emissions (30MHz ~ 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

Antenna permanently attached.

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	101108	9kHz~30MHz	Dec. 11, 2025	Mar. 12, 2026~ Mar. 13, 2026	Dec. 10, 2026	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	1225	18GHz-40GHz	Jul. 02, 2025	Mar. 12, 2026~ Mar. 13, 2026	Jul. 01, 2026	Radiation (03CH16-HY)
EXA Signal Analyzer	Keysight	N9010B	MY60241055	10Hz~44GHz	Nov. 18, 2025	Mar. 12, 2026~ Mar. 13, 2026	Nov. 17, 2026	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00802N1D01N-06	47020 & 06	30MHz to 1GHz	Oct. 04, 2025	Mar. 12, 2026~ Mar. 13, 2026	Oct. 03, 2026	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-02038	1G~18GHz	Aug. 07, 2025	Mar. 12, 2026~ Mar. 13, 2026	Aug. 06, 2026	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1GHz	Jun. 30, 2025	Mar. 12, 2026~ Mar. 13, 2026	Jun. 29, 2026	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz~26.5GHz	Sep. 12, 2025	Mar. 12, 2026~ Mar. 13, 2026	Sep. 11, 2026	Radiation (03CH16-HY)
Preamplifier	EMEC	EM1G18G	060812	1GHz~18GHz	Dec. 22, 2025	Mar. 12, 2026~ Mar. 13, 2026	Dec. 21, 2026	Radiation (03CH16-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	May 26, 2025	Mar. 12, 2026~ Mar. 13, 2026	May 25, 2026	Radiation (03CH16-HY)
Filter	Wainwright	WLK4-1000-1530-8000-40SS	SN17	1.53GHz Low Pass Filter	Jan. 13, 2026	Mar. 12, 2026~ Mar. 13, 2026	Jan. 12, 2027	Radiation (03CH16-HY)
Notch Filter	Wainwright	WHKX12-2700-3000-18000-60ST	SN3	3GHz High Pass Filter	Jun. 26, 2025	Mar. 12, 2026~ Mar. 13, 2026	Jun. 25, 2026	Radiation (03CH16-HY)
Notch Filter	Titan Microwave Co., Ltd	T04H80002500060S01	SN1	8GHz High Pass Filter	Aug. 19, 2025	Mar. 12, 2026~ Mar. 13, 2026	Aug. 18, 2026	Radiation (03CH16-HY
RF Cable	HUBER + SUHNER	SUCOFLEX 102	801606/2	9KHz ~ 40GHz	Apr. 23, 2025	Mar. 12, 2026~ Mar. 13, 2026	Apr. 22, 2026	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102/SUCOFLEX 104	EC-A5-300-5757,805935/4,802434/4	30MHz~18GHz	Aug. 06, 2025	Mar. 12, 2026~ Mar. 13, 2026	Aug. 05, 2026	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804011/2,804012/2	18-40GHz	Dec. 18, 2025	Mar. 12, 2026~ Mar. 13, 2026	Dec. 17, 2026	Radiation (03CH16-HY)
Software	Audix	E3 230621 V9	RK-002393	N/A	N/A	Mar. 12, 2026~ Mar. 13, 2026	N/A	Radiation (03CH16-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Mar. 12, 2026~ Mar. 13, 2026	N/A	Radiation (03CH16-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Mar. 12, 2026~ Mar. 13, 2026	N/A	Radiation (03CH16-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Mar. 12, 2026~ Mar. 13, 2026	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))	4.6 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.6 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.2 dB

Appendix A. Radiated Spurious Emission Test Data

Test Engineer :	Jerry Lan, Gary Guo, Steven Wu	Temperature :	22.8~25.2°C
		Relative Humidity :	48.2~54.3%

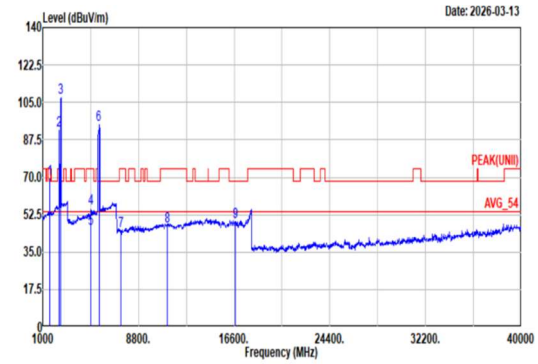
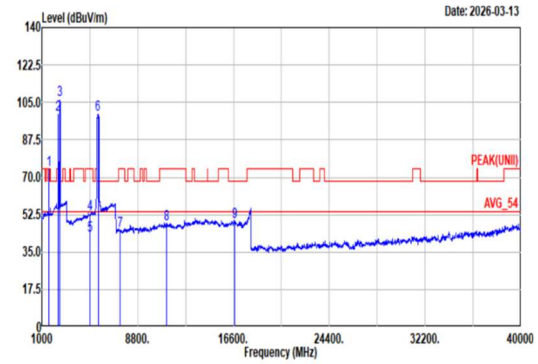
A1.Radiated Spurious Emission Test Modes

Mode	Band (MHz)	Antenna	Modulation	Channel	Frequency	Data Rate	RU	Remark
Mode 1 (Harmonic)	700MHz	-	Band 13 5M 1RB0 QPSK	23230	782	-	-	FN990A40
	2400-2483.5	0+2	802.11ax HE20	10	2457	MCS0	Full RU	Skydiolink
	5.47-5.725	0	802.11ax HE160	114	5570	MCS0	Full RU	InfraWiFi
Mode 2 (Harmonic)	700MHz	-	Band 13 5M 1RB0 QPSK	23230	782	-	-	FN990A40
	2400-2483.5	0+2	802.11ax HE20	10	2457	MCS0	Full RU	Skydiolink
	6.875-7.125	0	802.11ac VHT80	215	7025	MCS0		InfraWiFi
Mode 3 (Harmonic)	700MHz	-	Band 13 5M 1RB0 QPSK	23230	782	-	-	FN990A40
	5.47-5.725	0+2	802.11ax HE20	140	5700	MCS0	Full RU	Skydiolink
	2400-2483.5	0	802.11b	06	2437	1Mbps	-	InfraWiFi
	2400-2483.5	1	Bluetooth EDR 8-DPSK	78	2480	3Mbps	-	InfraWiFi

Mode	Band (MHz)	Antenna	Modulation	Channel	Frequency	Data Rate	RU	Remark
Mode 4 (Harmonic)	700MHz	-	Band 13 5M 1RB0 QPSK	23230	782	-	-	FN990A40
	5.47-5.725	0+2	802.11ax HE20	140	5700	MCS0	Full RU	Skydiolink
	5.47-5.725	0	802.11ax HE160	114	5570	MCS0	Full RU	InfraWiFi
	2400-2483.5	1	Bluetooth EDR 8-DPSK	78	2480	3Mbps	-	InfraWiFi
Mode 5 (Harmonic)	700MHz	-	Band 13 5M 1RB0 QPSK	23230	782	-	-	FN990A40
	5.47-5.725	0+2	802.11ax HE20	140	5700	MCS0	Full RU	Skydiolink
	6.875-7.125	0	802.11ac VHT80	215	7025	MCS0	-	InfraWiFi
	2400-2483.5	1	Bluetooth EDR 8-DPSK	78	2480	3Mbps	-	InfraWiFi
Mode 6 (LF)	700MHz	-	Band 13 5M 1RB0 QPSK	23230	782	-	-	FN990A40
	2400-2483.5	0+2	802.11ax HE20	10	2457	MCS0	Full RU	Skydiolink
	6.875-7.125	0	802.11ac VHT80	215	7025	MCS0		InfraWiFi

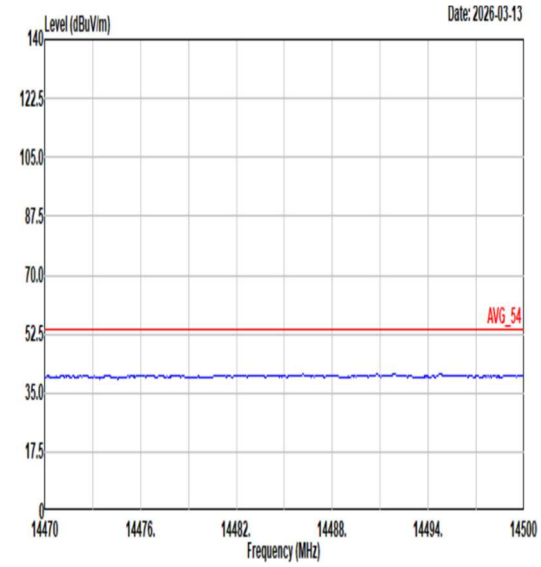
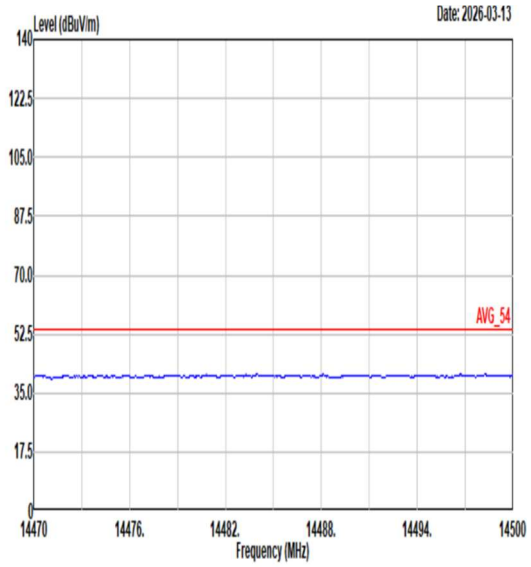
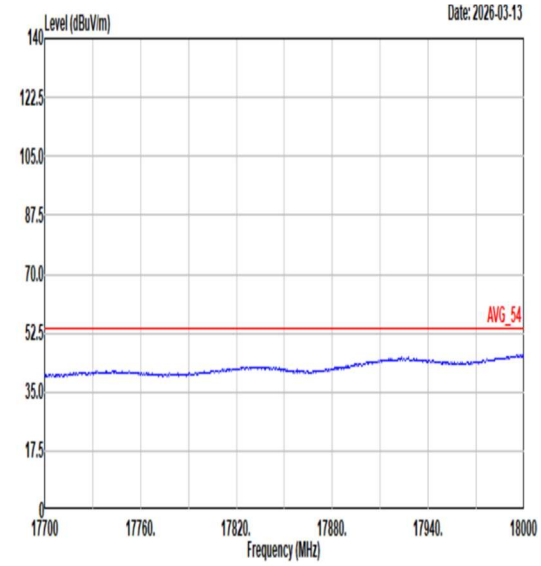
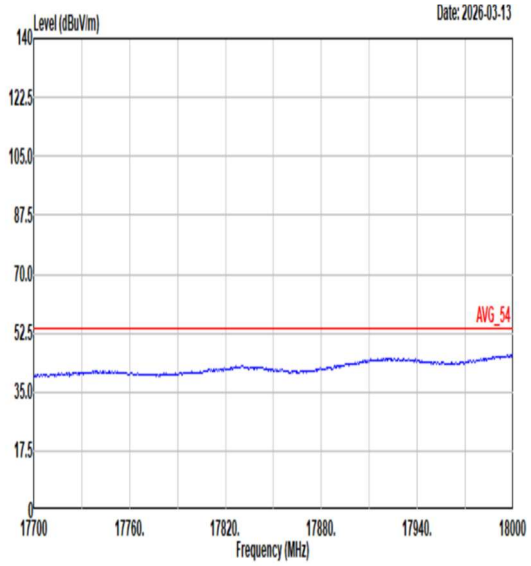
C2. Summary of each worse mode

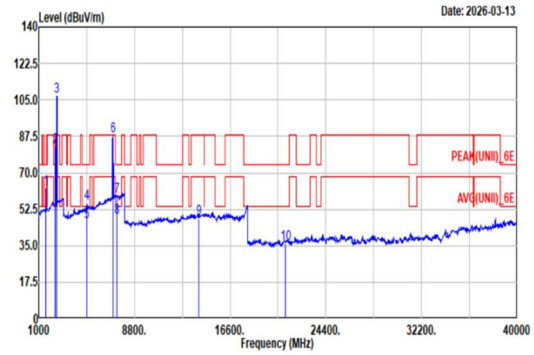
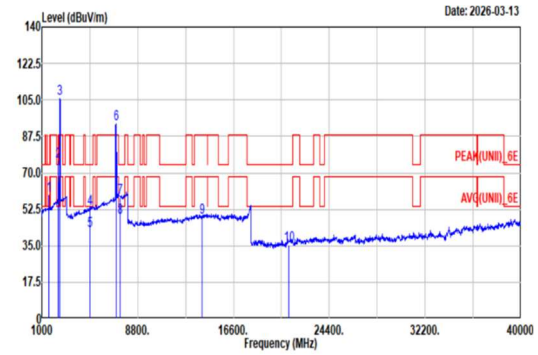
Mode	Freq. (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol.	Peak Avg.	Result	Remark
1	4914.00	46.15	54.00	-7.85	H	Avg.	Pass	Harmonic
2	7371.00	48.51	54.00	-5.49	H	Avg.	Pass	Harmonic
3	4874.00	44.83	54.00	-9.17	H	Avg.	Pass	Harmonic
4	16710.00	48.60	68.20	-19.60	H	Peak	Pass	Harmonic
5	7440.00	58.59	74.00	-15.41	H	Peak	Pass	Harmonic
6	180.35	36.51	43.50	-6.99	V	Peak	Pass	LF

Mode	1	
	Harmonic	
	Simultaneous	
Pol.	Horizontal	Vertical
Peak Avg	 Site : 03CH16-HY Condition: PEAK(UNII) 1m SHF_1224_250702 HORIZONTAL 1 1559.00 69.03 ------ ------ 63.25 25.31 6.72 36.39 9.93 -- -- Peak 2 2339.00 91.77 ------ ------ 82.38 27.30 8.12 36.09 9.92 -- -- Peak 3 2457.00 107.06 ------ ------ 97.30 27.50 8.27 36.11 9.92 -- -- Peak 4 4914.00 55.44 74.00 -18.56 47.18 32.71 11.31 36.17 0.41 183 360 Peak 5 4914.00 46.15 54.00 -7.85 37.89 32.71 11.31 36.17 0.41 183 360 Average 6 5570.00 94.72 ------ ------ 85.89 32.80 11.90 36.25 0.38 300 30 Peak 7 7371.00 44.90 74.00 -29.10 59.60 36.47 13.66 65.79 0.96 -- -- Peak 8 11140.00 46.86 74.00 -27.14 56.62 38.60 16.72 65.91 0.83 -- -- Peak 9 16710.00 49.04 68.20 -19.16 56.10 38.36 20.64 66.81 0.75 -- -- Peak	 Site : 03CH16-HY Condition: PEAK(UNII) 1m SHF_1224_250702 VERTICAL 1 1559.00 73.46 ------ ------ 67.68 25.31 6.72 36.39 9.93 -- -- Peak 2 2339.00 99.36 ------ ------ 89.97 27.30 8.12 36.09 9.92 -- -- Peak 3 2457.00 106.17 ------ ------ 96.41 27.50 8.27 36.11 9.92 -- -- Peak 4 4914.00 52.98 74.00 -21.02 44.72 32.71 11.31 36.17 0.41 300 0 Peak 5 4914.00 42.54 54.00 -11.46 34.28 32.71 11.31 36.17 0.41 300 0 Average 6 5570.00 99.39 ------ ------ 90.58 32.80 11.86 36.24 0.39 -- -- Peak 7 7371.00 44.93 74.00 -29.07 59.63 36.47 13.66 65.79 0.96 -- -- Peak 8 11140.00 47.92 74.00 -26.08 57.68 38.60 16.72 65.91 0.83 -- -- Peak 9 16710.00 49.09 68.20 -19.11 56.15 38.36 20.64 66.81 0.75 -- -- Peak

Note:

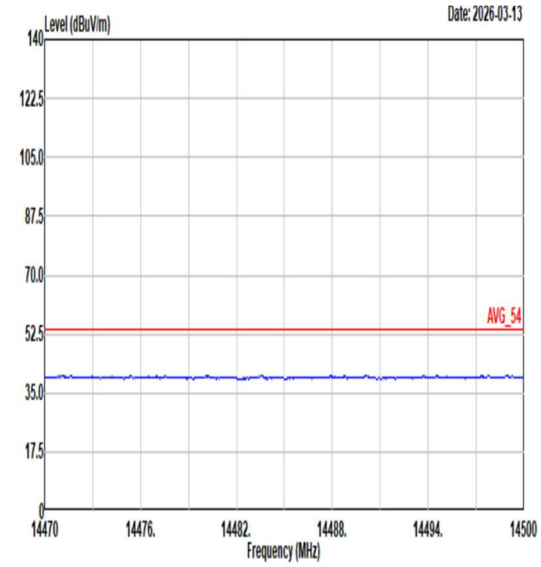
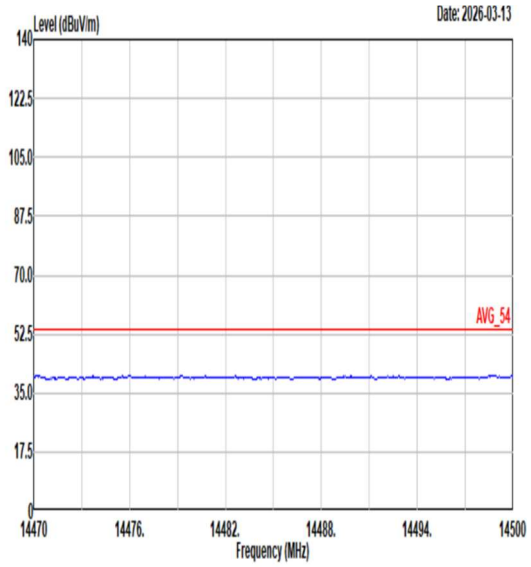
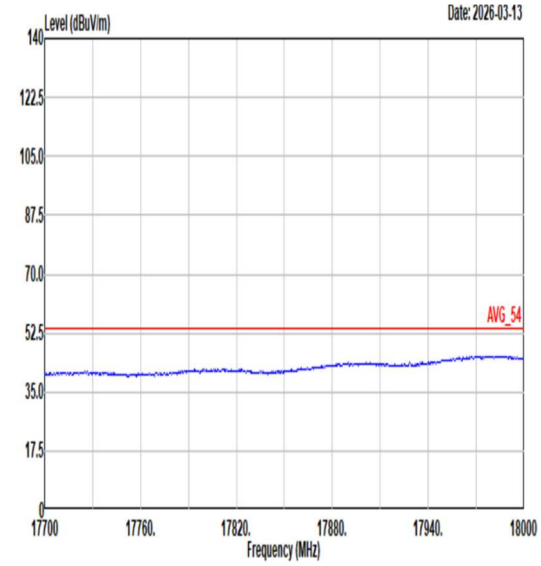
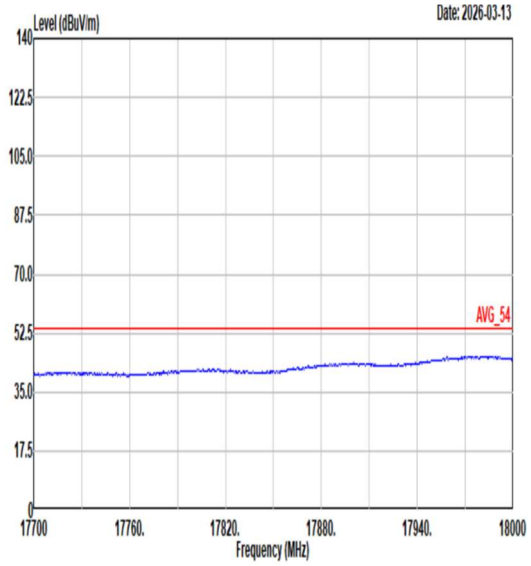
1. #1 and #2 are WWAN harmonic signals and can be ignored.
2. #3 and #6 are WLAN fundamental signals and can be ignored.

Mode	1	
	Harmonic	
	Simultaneous	
Pol.	Horizontal	Vertical
14.47G ~14.5G Avg	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 HORIZONTAL	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 VERTICAL
17G ~18G Avg	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 HORIZONTAL	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 VERTICAL

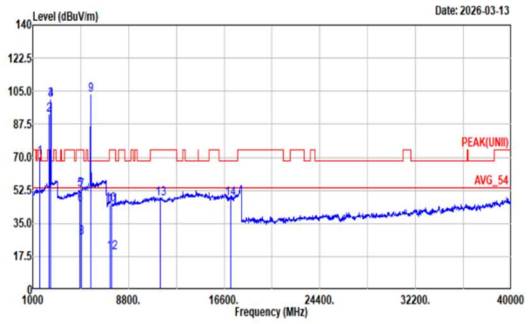
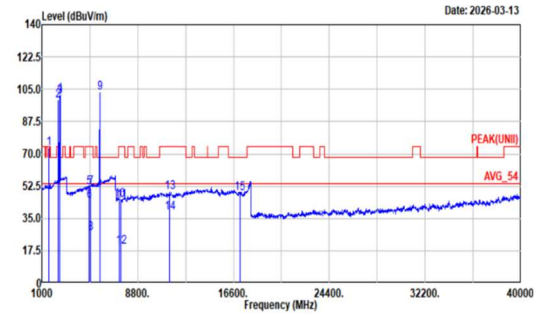
Mode	2	
	Harmonic	
	Simultaneous	
Pol.	Horizontal	Vertical
Peak Avg	 Site : 03CH16-HY Condition: PEAK(UNII)_6E 1m SHF_1224_250702 HORIZONTAL 1 1559.00 62.16 ------ ------ 56.33 25.34 6.73 36.38 9.93 -- -- Peak 2 2339.00 82.24 ------ ------ 72.81 27.34 8.12 36.09 9.92 -- -- Peak 3 2457.00 106.73 ------ ------ 96.97 27.50 8.27 36.11 9.92 -- -- Peak 4 4914.00 55.61 74.00 -18.39 47.35 32.71 11.31 36.17 0.41 187 336 Peak 5 4914.00 46.45 54.00 -7.55 38.19 32.71 11.31 36.17 0.41 187 336 Average 6 7025.00 87.61 ------ ------ 75.15 35.60 13.35 36.80 0.31 -- -- Peak 7 7371.00 58.57 74.00 -15.43 44.99 36.47 13.66 36.91 0.36 100 153 Peak 8 7371.00 48.51 54.00 -5.49 34.93 36.47 13.66 36.91 0.36 100 153 Average 9 14050.00 48.34 68.20 -19.86 54.27 40.50 18.83 65.64 0.38 -- -- Peak 10 21075.00 36.17 74.00 -37.83 56.49 38.00 5.96 54.74 -9.54 -- -- Peak	 Site : 03CH16-HY Condition: PEAK(UNII)_6E 1m SHF_1224_250702 VERTICAL 1 1559.00 58.93 ------ ------ 53.15 25.31 6.72 36.39 9.93 -- -- Peak 2 2339.00 75.37 ------ ------ 65.98 27.30 8.12 36.09 9.92 -- -- Peak 3 2457.00 105.46 ------ ------ 95.70 27.50 8.27 36.11 9.92 -- -- Peak 4 4914.00 52.86 74.00 -21.14 44.60 32.71 11.31 36.17 0.41 211 163 Peak 5 4914.00 42.35 54.00 -11.65 34.09 32.71 11.31 36.17 0.41 211 163 Average 6 7025.00 93.70 ------ ------ 81.27 35.56 13.34 36.79 0.32 -- -- Peak 7 7371.00 58.18 74.00 -15.82 44.60 36.47 13.66 36.91 0.36 400 299 Peak 8 7371.00 48.45 54.00 -5.55 34.87 36.47 13.66 36.91 0.36 400 299 Average 9 14050.00 48.48 68.20 -19.72 54.41 40.50 18.83 65.64 0.38 -- -- Peak 10 21075.00 35.64 74.00 -38.36 55.96 38.00 5.96 54.74 -9.54 -- -- Peak

Note:

1. #1 and #2 are WWAN harmonic signals and can be ignored.
2. #3 and #6 are WLAN fundamental signals and can be ignored.

Mode	2	
	Harmonic	
	Simultaneous	
Pol.	Horizontal	Vertical
14.47G ~14.5G Avg	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 HORIZONTAL	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 VERTICAL
17G ~18G Avg	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 HORIZONTAL	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 VERTICAL

Mode	3
	Harmonic
	Simultaneous

Pol.	Horizontal	Vertical
Peak Avg	 Site : 03CH16-HY Condition: PEAK(UNII) 1m SHF_1224_250702 HORIZONTAL	 Site : 03CH16-HY Condition: PEAK(UNII) 1m SHF_1224_250702 VERTICAL

Horizontal:

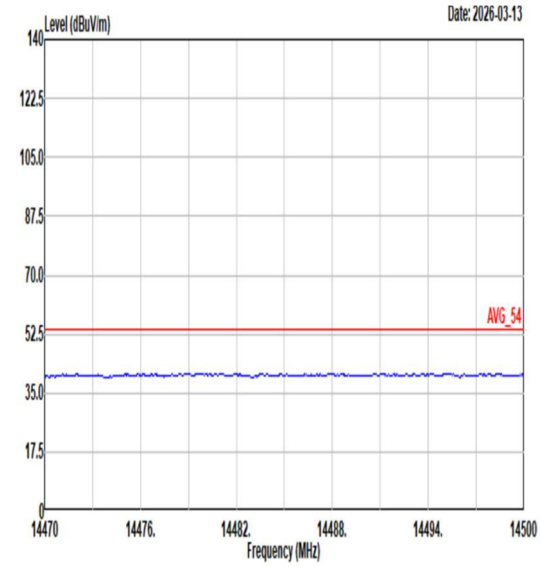
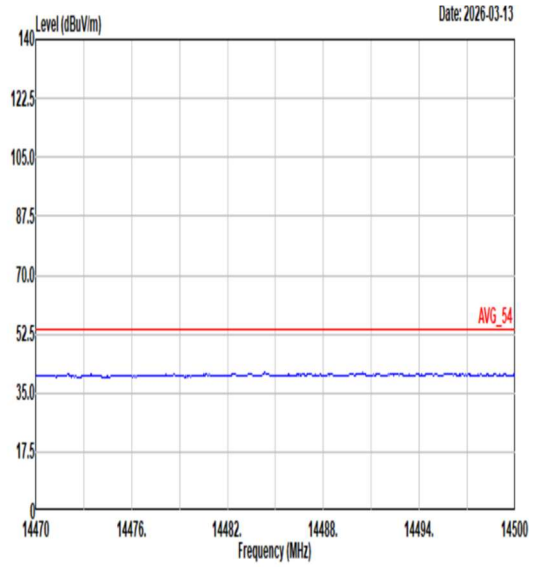
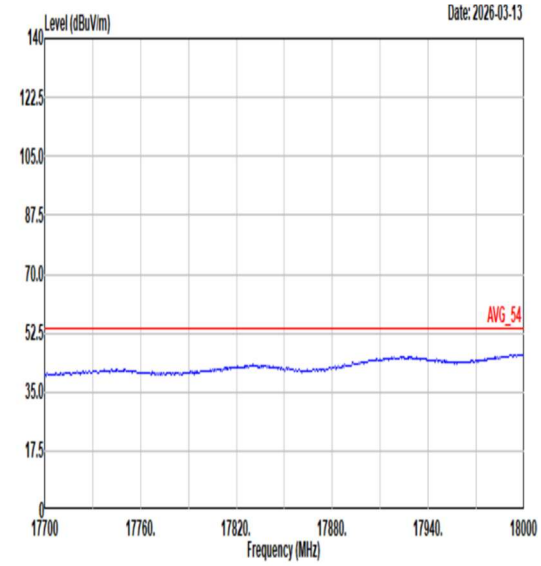
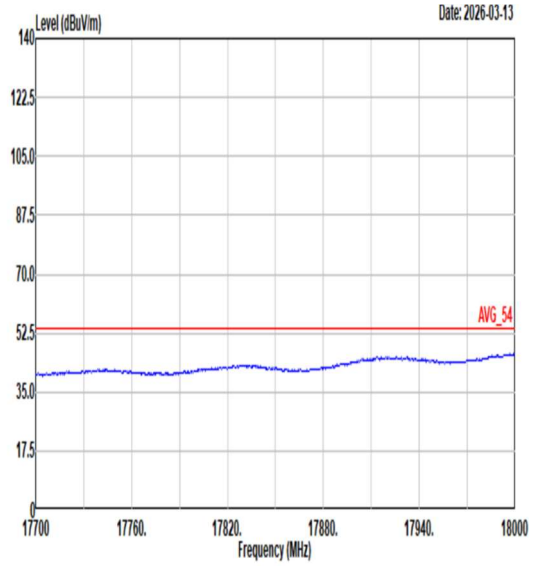
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	1559.00	69.99	------	------	64.21	25.31	6.72	36.39	9.93	--	--	Peak
2	2339.00	92.49	------	------	83.10	27.30	8.12	36.09	9.92	--	--	Peak
3	2437.00	100.36	------	------	90.55	27.57	8.25	36.10	9.92	--	--	Peak
4	2480.00	100.36	------	------	90.27	27.80	8.30	36.11	9.92	--	--	Peak
5	4874.00	52.59	74.00	-21.41	44.46	32.60	11.31	36.18	0.40	100	15	Peak
6	4874.00	44.83	54.00	-9.17	36.70	32.60	11.31	36.18	0.40	100	15	Average
7	4960.00	52.50	74.00	-21.50	43.94	33.02	11.30	36.17	0.41	200	294	Peak
8	4960.00	27.71	54.00	-26.29	--	--	--	--	--	--	--	Average
9	5700.00	103.16	------	------	93.68	33.35	12.02	36.29	0.40	--	--	Peak
10	7311.00	44.88	74.00	-29.12	59.40	36.68	13.61	65.76	0.95	--	--	Peak
11	7440.00	44.34	74.00	-29.66	59.10	36.30	13.73	65.81	1.02	--	--	Peak
12	7440.00	19.55	54.00	-34.45	--	--	--	--	--	--	--	Average
13	11400.00	47.99	74.00	-26.01	57.28	39.00	16.92	66.00	0.79	--	--	Peak
14	17100.00	47.94	68.20	-20.26	54.51	38.00	20.90	66.25	0.78	--	--	Peak

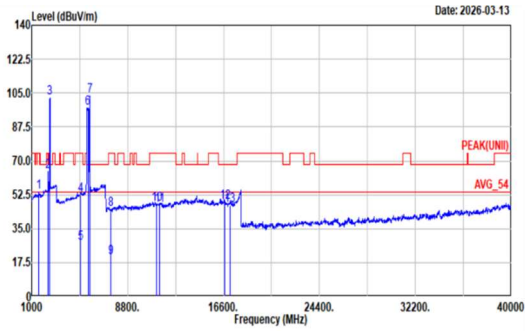
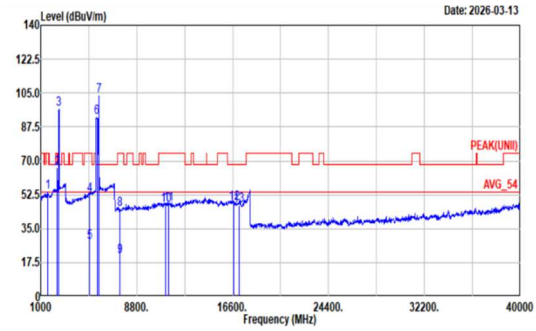
Vertical:

	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	1559.00	72.99	------	------	67.22	25.30	6.72	36.39	9.93	--	--	Peak
2	2339.00	98.85	------	------	89.46	27.30	8.12	36.09	9.92	--	--	Peak
3	2437.00	101.03	------	------	91.19	27.60	8.25	36.10	9.92	--	--	Peak
4	2480.00	101.85	------	------	91.73	27.82	8.31	36.11	9.92	--	--	Peak
5	4874.00	51.69	74.00	-22.31	43.56	32.60	11.31	36.18	0.40	198	333	Peak
6	4874.00	44.31	54.00	-9.69	36.18	32.60	11.31	36.18	0.40	198	333	Average
7	4960.00	51.90	74.00	-22.10	43.34	33.02	11.30	36.17	0.41	100	46	Peak
8	4960.00	27.11	54.00	-26.89	--	--	--	--	--	--	--	Average
9	5700.00	102.84	------	------	93.49	33.24	12.00	36.28	0.39	--	--	Peak
10	7311.00	44.84	74.00	-29.16	59.36	36.68	13.61	65.76	0.95	--	--	Peak
11	7440.00	44.31	74.00	-29.69	59.07	36.30	13.73	65.81	1.02	--	--	Peak
12	7440.00	19.52	54.00	-34.48	--	--	--	--	--	--	--	Average
13	11400.00	48.89	74.00	-25.11	58.18	39.00	16.92	66.00	0.79	299	166	Peak
14	11400.00	38.00	54.00	-16.00	47.29	39.00	16.92	66.00	0.79	299	166	Average
15	17100.00	48.45	68.20	-19.75	55.02	38.00	20.90	66.25	0.78	--	--	Peak

Note:

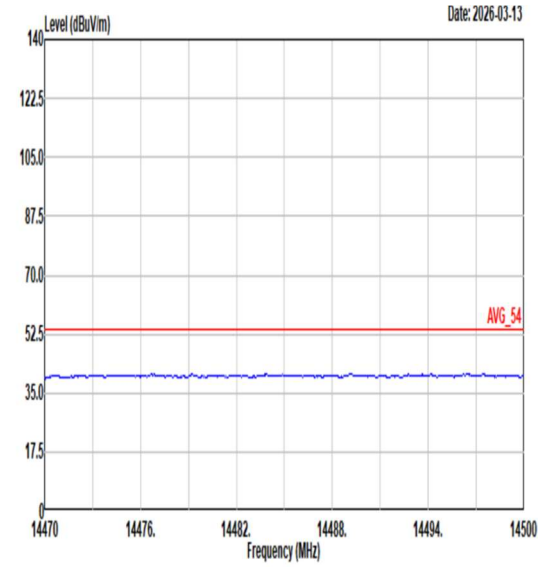
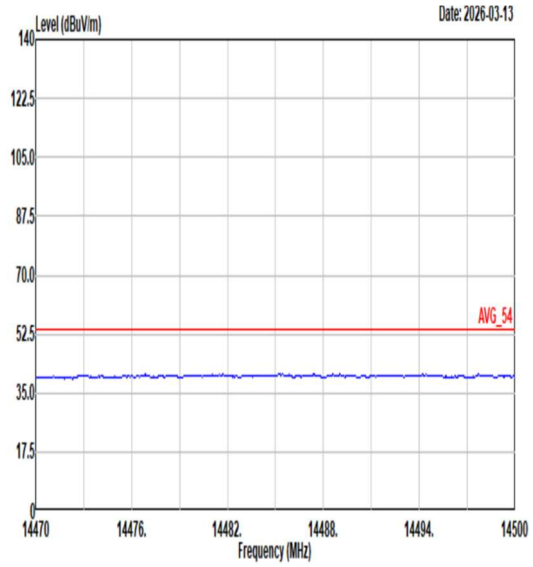
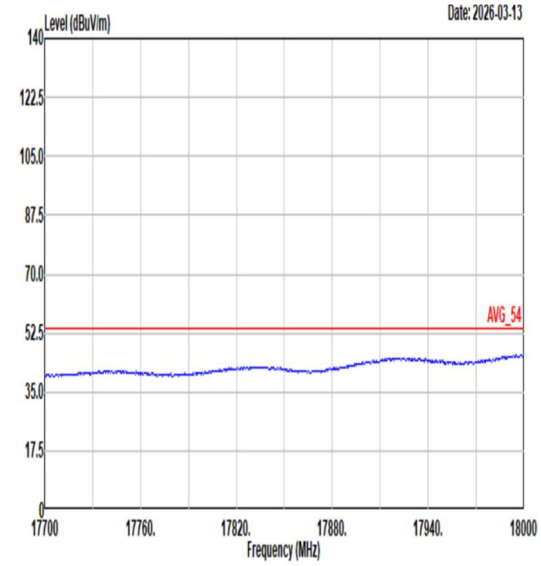
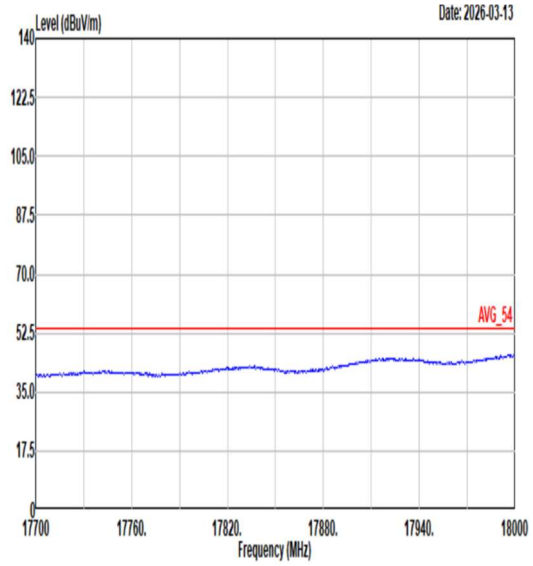
1. #1 and #2 are WWAN harmonic signals and can be ignored.
2. #3 and #9 are WLAN fundamental signals and can be ignored.
3. #4 is a Bluetooth fundamental signal and can be ignored.

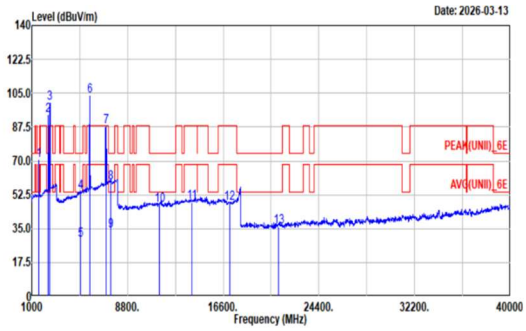
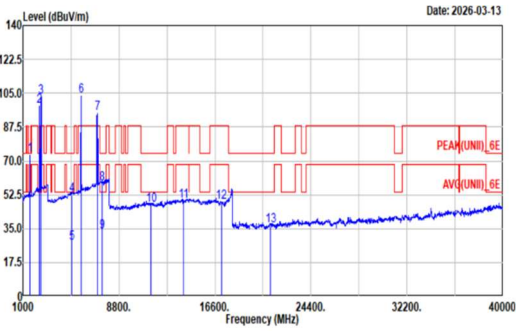
Mode	3	
	Harmonic	
	Simultaneous	
Pol.	Horizontal	Vertical
14.47G ~14.5G Avg	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 HORIZONTAL	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 VERTICAL
17G ~18G Avg	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 HORIZONTAL	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 VERTICAL

Mode	4	
	Harmonic	
	Simultaneous	
Pol.	Horizontal	Vertical
Peak Avg	 Site : 03CH16-HY Condition: PEAK(UNII) 1m SHF_1224_250702 HORIZONTAL 1 1559.00 53.74 ------ ------ 47.97 25.30 6.72 36.39 9.93 -- -- Peak 2 2339.00 64.49 ------ ------ 55.10 27.30 8.12 36.09 9.92 -- -- Peak 3 2480.00 102.23 ------ ------ 92.11 27.82 8.31 36.11 9.92 -- -- Peak 4 4960.00 52.42 74.00 -21.58 43.86 33.02 11.30 36.17 0.41 200 330 Peak 5 4960.00 27.63 54.00 -26.37 -- -- -- -- -- -- -- Average 6 5570.00 97.44 ------ ------ 88.61 32.83 11.85 36.24 0.39 -- -- Peak 7 5700.00 103.36 ------ ------ 94.01 33.24 12.00 36.28 0.39 -- -- Peak 8 7440.00 44.91 74.00 -29.09 59.67 36.30 13.73 65.81 1.02 -- -- Peak 9 7440.00 20.12 54.00 -33.88 -- -- -- -- -- -- -- Average 10 11140.00 47.52 74.00 -26.48 57.28 38.60 16.72 65.91 0.83 -- -- Peak 11 11400.00 46.94 74.00 -27.06 56.23 39.00 16.92 66.00 0.79 -- -- Peak 12 16710.00 48.60 68.20 -19.60 55.66 38.36 20.64 66.81 0.75 -- -- Peak 13 17100.00 47.08 68.20 -21.12 53.65 38.00 20.90 66.25 0.78 -- -- Peak	 Site : 03CH16-HY Condition: PEAK(UNII) 1m SHF_1224_250702 VERTICAL 1 1559.00 53.89 ------ ------ 48.12 25.30 6.72 36.39 9.93 100 -- Peak 2 2339.00 65.94 ------ ------ 56.55 27.30 8.12 36.09 9.92 -- -- Peak 3 2480.00 96.69 ------ ------ 86.57 27.82 8.31 36.11 9.92 -- -- Peak 4 4960.00 52.54 74.00 -21.46 43.98 33.02 11.30 36.17 0.41 199 215 Peak 5 4960.00 27.75 54.00 -26.25 -- -- -- -- -- -- -- Average 6 5570.00 92.33 ------ ------ 83.46 32.88 11.83 36.23 0.39 -- -- Peak 7 5700.00 103.35 ------ ------ 93.87 33.35 12.02 36.29 0.40 -- -- Peak 8 7440.00 45.14 74.00 -28.86 59.90 36.30 13.73 65.81 1.02 -- -- Peak 9 7440.00 20.35 54.00 -33.65 -- -- -- -- -- -- -- Average 10 11140.00 46.89 74.00 -27.11 56.65 38.60 16.72 65.91 0.83 -- -- Peak 11 11400.00 47.50 74.00 -26.50 56.79 39.00 16.92 66.00 0.79 -- -- Peak 12 16710.00 48.20 68.20 -20.00 55.26 38.36 20.64 66.81 0.75 -- -- Peak 13 17100.00 46.94 68.20 -21.26 53.51 38.00 20.90 66.25 0.78 -- -- Peak

Note:

1. #1 and #2 are WWAN harmonic signals and can be ignored.
2. #3 is a Bluetooth fundamental signal and can be ignored.
3. #6 and #7 are WLAN fundamental signals and can be ignored.

Mode	4	
	Harmonic	
	Simultaneous	
Pol.	Horizontal	Vertical
14.47G ~14.5G Avg	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 HORIZONTAL	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 VERTICAL
17G ~18G Avg	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 HORIZONTAL	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 VERTICAL

Mode	5	
	Harmonic	
	Simultaneous	
Pol.	Horizontal	Vertical
Peak Avg	 Site : 03CH16-HY Condition: PEAK(UNII)_6E 1m SHF_1224_250702 HORIZONTAL	 Site : 03CH16-HY Condition: PEAK(UNII)_6E 1m SHF_1224_250702 VERTICAL

Site : 03CH16-HY
Condition: PEAK(UNII)_6E 1m SHF_1224_250702 HORIZONTAL

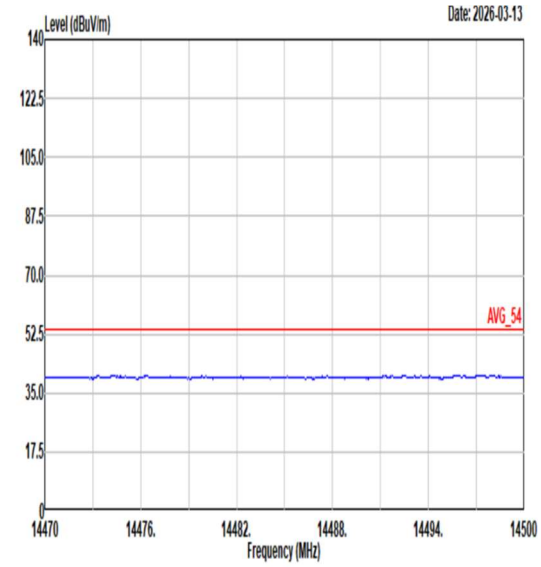
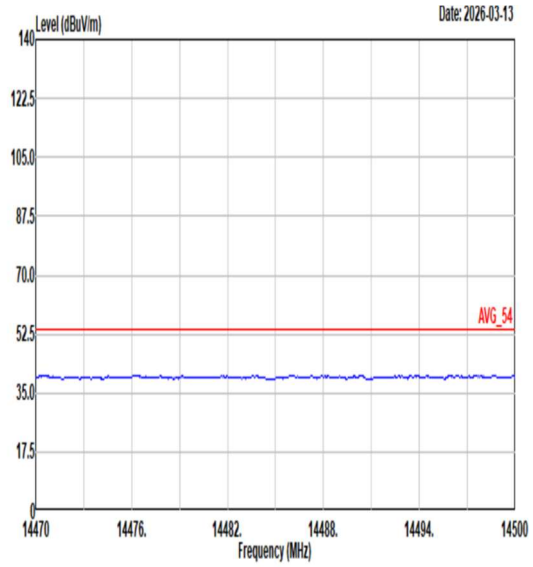
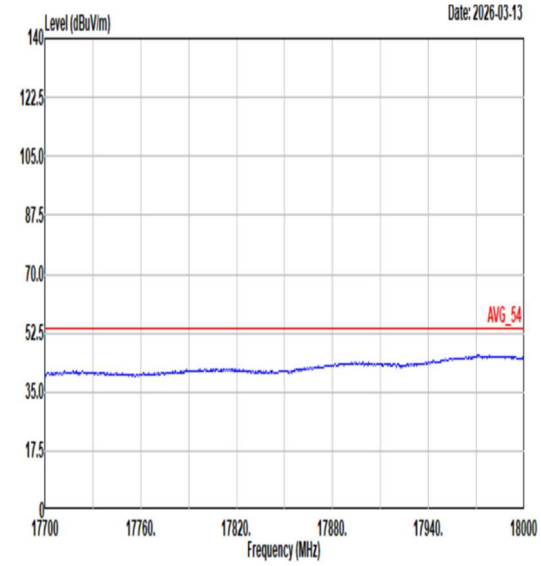
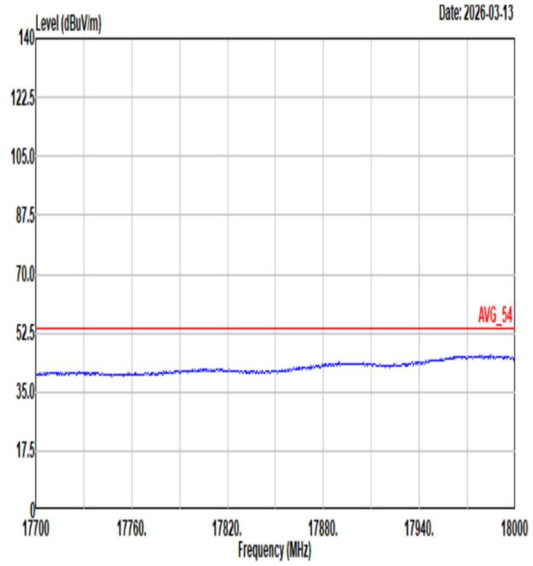
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	1559.00	70.46	------	------	64.68	25.31	6.72	36.39	9.93	--	--	Peak
2	2339.00	93.62	------	------	84.23	27.30	8.12	36.09	9.92	--	--	Peak
3	2480.00	99.80	------	------	89.71	27.80	8.30	36.11	9.92	--	--	Peak
4	4960.00	53.63	74.00	-20.37	45.07	33.02	11.30	36.17	0.41	205	0	Peak
5	4960.00	28.84	54.00	-25.16	--	--	--	--	--	--	--	Average
6	5700.00	103.56	------	------	94.18	33.26	12.01	36.28	0.39	--	--	Peak
7	7025.00	87.87	------	------	75.38	35.62	13.36	36.80	0.31	--	--	Peak
8	7440.00	58.59	74.00	-15.41	45.12	36.30	13.73	36.93	0.37	201	0	Peak
9	7440.00	33.80	54.00	-20.20	--	--	--	--	--	--	--	Average
10	11400.00	47.20	74.00	-26.80	56.74	39.00	16.92	66.00	0.54	--	--	Peak
11	14050.00	48.57	68.20	-19.63	54.50	40.50	18.83	65.64	0.38	--	--	Peak
12	17100.00	48.15	68.20	-20.05	54.81	38.00	20.90	66.25	0.69	--	--	Peak
13	21075.00	35.73	74.00	-38.27	56.05	38.00	5.96	54.74	-9.54	--	--	Peak

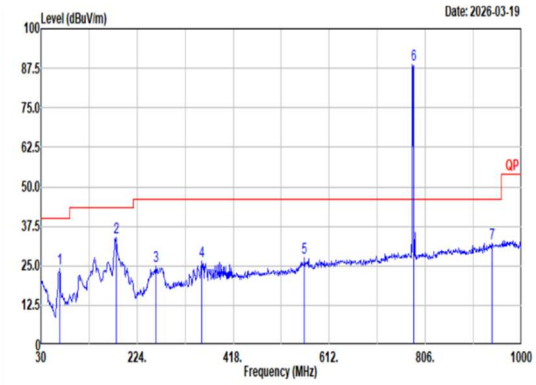
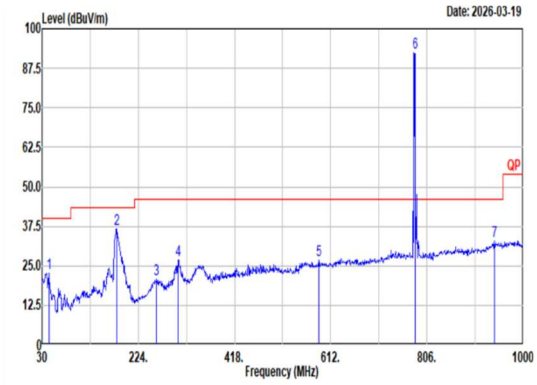
Site : 03CH16-HY
Condition: PEAK(UNII)_6E 1m SHF_1224_250702 VERTICAL

	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	1559.00	72.76	------	------	66.99	25.30	6.72	36.39	9.93	--	--	Peak
2	2339.00	98.22	------	------	88.83	27.30	8.12	36.09	9.92	--	--	Peak
3	2480.00	102.92	------	------	92.80	27.82	8.31	36.11	9.92	--	--	Peak
4	4960.00	52.47	74.00	-21.53	43.91	33.02	11.30	36.17	0.41	383	360	Peak
5	4960.00	27.68	54.00	-26.32	--	--	--	--	--	--	--	Average
6	5700.00	103.54	------	------	94.06	33.34	12.02	36.28	0.40	--	--	Peak
7	7025.00	94.50	------	------	81.99	35.64	13.36	36.80	0.31	--	--	Peak
8	7440.00	58.30	74.00	-15.70	44.83	36.30	13.73	36.93	0.37	400	266	Peak
9	7440.00	33.51	54.00	-20.49	--	--	--	--	--	--	--	Average
10	11400.00	47.09	74.00	-26.91	56.63	39.00	16.92	66.00	0.54	--	--	Peak
11	14050.00	48.93	68.20	-19.27	54.86	40.50	18.83	65.64	0.38	--	--	Peak
12	17100.00	48.62	68.20	-19.58	55.28	38.00	20.90	66.25	0.69	--	--	Peak
13	21075.00	36.50	74.00	-37.50	56.82	38.00	5.96	54.74	-9.54	--	--	Peak

Note:

1. #1 and #2 are WWAN harmonic signals and can be ignored.
2. #3 is a Bluetooth fundamental signal and can be ignored.
3. #6 and #7 are WLAN fundamental signals and can be ignored.

Mode	5	
	Harmonic	
	Simultaneous	
Pol.	Horizontal	Vertical
14.47G ~14.5G Avg	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 HORIZONTAL	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 VERTICAL
17G ~18G Avg	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 HORIZONTAL	 Site : 03CH16-HY Condition: AVG_54 3m 9120D-02038_250807 VERTICAL

Mode	6	
	LF	
	Simultaneous	
Pol.	Horizontal	Vertical
QP/ Peak	 Site : 03CH16-HY Condition: QP 3m CBL6111D&00802N1D01N-06 _47020 & 06_251004 Horizontal Freq Level Limit Margin Reading Ant Factor Cbl Amp Aux APos TPos Detector 1 67.83 24.31 40.00 -15.69 138.27 11.96 1.49 32.19 0.01 -- -- Peak 2 182.29 33.95 43.50 -9.55 144.43 14.58 2.32 32.18 0.03 -- -- Peak 3 261.83 24.99 46.00 -21.01 129.95 19.67 2.74 32.22 0.08 -- -- Peak 4 354.95 26.36 46.00 -19.64 130.57 20.05 3.17 32.24 0.04 -- -- Peak 5 561.56 27.38 46.00 -18.62 125.41 25.48 3.93 32.36 0.15 -- -- Peak 6 782.00 88.59 ------ ------ 183.77 27.54 4.63 32.25 0.13 -- -- Peak 7 939.86 32.06 46.00 -13.94 123.57 29.69 5.09 31.27 0.21 -- -- Peak	 Site : 03CH16-HY Condition: QP 3m CBL6111D&00802N1D01N-06 _47020 & 06_251004 Vertical Freq Level Limit Margin Reading Ant Factor Cbl Amp Aux APos TPos Detector 1 43.58 22.82 40.00 -17.18 131.63 17.44 1.22 32.25 0.01 -- -- Peak 2 180.35 36.51 43.50 -6.99 146.95 14.64 2.31 32.18 0.02 -- -- Peak 3 260.86 20.87 46.00 -25.13 125.83 19.68 2.73 32.22 0.08 -- -- Peak 4 303.54 26.75 46.00 -19.25 132.21 18.98 2.95 32.22 0.06 -- -- Peak 5 587.75 26.61 46.00 -19.39 124.77 25.23 4.03 32.38 0.19 -- -- Peak 6 782.00 92.47 ------ ------ 187.65 27.54 4.63 32.25 0.13 -- -- Peak 7 942.77 32.85 46.00 -13.15 124.17 29.84 5.10 31.24 0.21 -- -- Peak

Note: #6 is a WWAN fundamental signal and can be ignored.

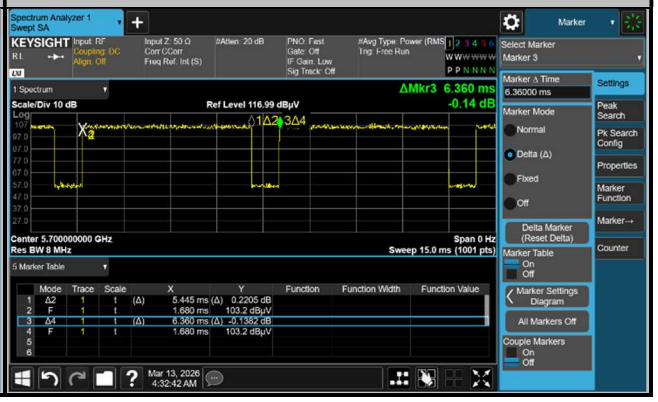
Appendix B. Duty Cycle Plots

<Skydiolink Module>

Antenna	Band	Duty Cycle (%)	T(us)	1/T(kHz)	VBW Setting
0+2	2.4GHz 802.11ax HE20 Full RU	85.80	5440	0.18	200Hz
0+2	5GHz 802.11ax HE20 Full RU	85.61	5445	0.18	200Hz

2.4GHz 802.11ax HE20 Full RU

5GHz 802.11ax HE20 Full RU



<InfraWiFi Module>

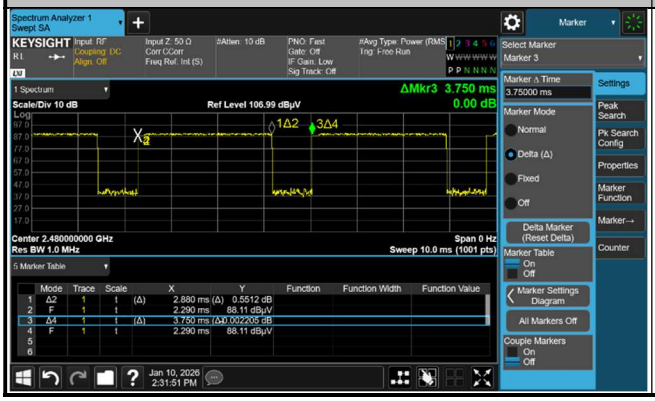
Antenna	Band	Duty Cycle (%)	T(us)	1/T(kHz)	VBW Setting
0	802.11b	91.71	3430	0.29	300Hz
0	5GHz 802.11ax HE160 Full RU	99.58	-	-	10Hz
0	6GHz 802.11ac VHT80	99.69	-	-	10Hz

802.11b

5GHz 802.11ax HE160 Full RU

6GHz 802.11ac VHT80

<Bluetooth>

3DH5 on time (One Pulse) Plot on Channel 78	on time (Count Pulses) Plot on Channel 78
	

Note:

1. Worst case Duty cycle = on time/100 milliseconds = 2 * 2.88 / 100 = 5.76 %
2. Worst case Duty cycle correction factor = 20*log(Duty cycle) = -24.79 dB
3. **3DH5** has the highest duty cycle worst case and is reported.

Duty Cycle Correction Factor Consideration for AFH mode:

Bluetooth normal hopping rate is 1600Hz and reduced to 800Hz in AFH mode; due to the reduced number of hopping frequencies, with the same packet configuration the dwell time in each channel frequency within 100msec period is longer in AFH mode than normal mode.

In AFH mode, the minimum hopping frequencies are 20, to get the longest dwell time DH5 packet is observed; the on time period to have DH5 packet completing one hopping sequence is

2.88 ms x 20 channels = 57.6 ms

There cannot be 2 complete hopping sequences within 100ms period, considering the random hopping behavior, maximum 2 hops can be possibly observed within the period. [100 ms / 57.6 ms] = 2 hops

Thus, the maximum possible ON time:

2.88 ms x 2 = 5.76 ms

Worst case Duty Cycle Correction factor, which is derived from the maximum possible ON time,

20 x log(5.76 ms/100 ms) = -24.79 dB