FCC CO-LOCATION RADIO TEST REPORT

FCC ID	:	**A4RG9BQD**
Equipment	:	**Phone**
Model Name	:	**G9BQD**
Applicant	:	**Google LLC** **1600 Amphitheatre Parkway,** **Mountain View, California, 94043 USA**
Standard	:	**FCC Part 15 Subpart E §15.407**

The product was received on May 26, 2023 and testing was performed from Jun. 12, 2023 to Jun. 15, 2023. 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.)

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History of this test report

Report No.	Version	Description	Issue Date
FR2D0208-07I	01	Initial issue of report	Jun. 28, 2023
FR2D0208-07I	02	Revise Appendix B This report is an updated version, replacing the report issued on Jun. 28, 2023.	Jul. 06, 2023

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.407(b)	Unwanted Emissions	Pass	3.80 dB under the limit at 7311.00 MHz
3.2	15.203 15.407(a)	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: William Chen

Report Producer: Rachel Hsieh

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Phone
Model Name	G9BQD
FCC ID	A4RG9BQD
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE/5G NR/NFC/GNSS/ WPT WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80/VHT160 WLAN 11ax HE20/HE40/HE80/HE160 WLAN 11be EHT20/EHT40/EHT80/EHT160 Bluetooth BR/EDR/LE/HR

Remark: The above EUT's information was declared by manufacturer.

EUT Information List	
S/N	Performed Test Item
35161FDJH0003B	Radiated Spurious Emission

1.2 Product Specification of Equipment Under Test

<table>
<tr><th colspan="2">Product Specification is subject to this standard</th></tr>
<tr><td>Tx/Rx Channel Frequency Range</td><td>2402 MHz ~ 2480 MHz
5150 MHz ~ 5250 MHz
5925 MHz ~ 6425 MHz</td></tr>
<tr><td>Antenna Type / Gain</td><td><Bluetooth-LE>
<Ant. 3> : Loop Antenna with gain -2.2 dBi
<Ant. 4> : Monopole Antenna with gain -0.6 dBi
<2402 MHz ~ 2480 MHz>
<Ant. 3> : Loop Antenna with gain -2.2 dBi
<Ant. 4> : Monopole Antenna with gain -0.6 dBi
<5150 MHz ~ 5250 MHz>
<Ant. 3> : Loop Antenna with gain -4.0 dBi
<Ant. 4> : Monopole Antenna with gain -4.1 dBi
<5925 MHz ~ 6425 MHz>
<Ant. 3> : Loop Antenna with gain -3.4 dBi
<Ant. 4> : Monopole Antenna with gain -3.7 dBi</td></tr>
<tr><td>Type of Modulation</td><td>Bluetooth LE: GFSK
802.11g/a: OFDM (BPSK / QPSK / 16QAM / 64QAM)</td></tr>
<tr><td>Antenna Function for Transmitter</td><td>
<table>
<tr><td></td><td>Ant. 3</td><td>Ant. 4</td></tr>
<tr><td>Bluetooth-LE</td><td>V</td><td>V</td></tr>
<tr><td>802.11g/a MIMO</td><td>V</td><td>V</td></tr>
</table>
</td></tr>
</table>

Remark:

1. MIMO Ant. 3+4 is a calculated result from sum of the power MIMO Ant. 3 and MIMO Ant. 4.
2. The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.

1.3 Modification of EUT

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

1.4 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

1.5 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart E
- FCC Part 15 Subpart C §15.247
- FCC KDB Publication No. 558074 D01 15.247 Meas Guidance v05r02
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- FCC KDB 414788 D01 Radiated Test Site v01r01.
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. 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

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 accessory (Adapter or Earphone) 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			
Bluetooth – LE for 1Mbps		802.11g	
Channel	Freq. (MHz)	Channel	Freq. (MHz)
39	2480	6	2437

5150~5250 MHz		5925~6425 MHz	
802.11a		802.11a	
Channel	Freq. (MHz)	Channel	Freq. (MHz)
36	5180	1	5955

2.2 Test Mode

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

<Co-Location>

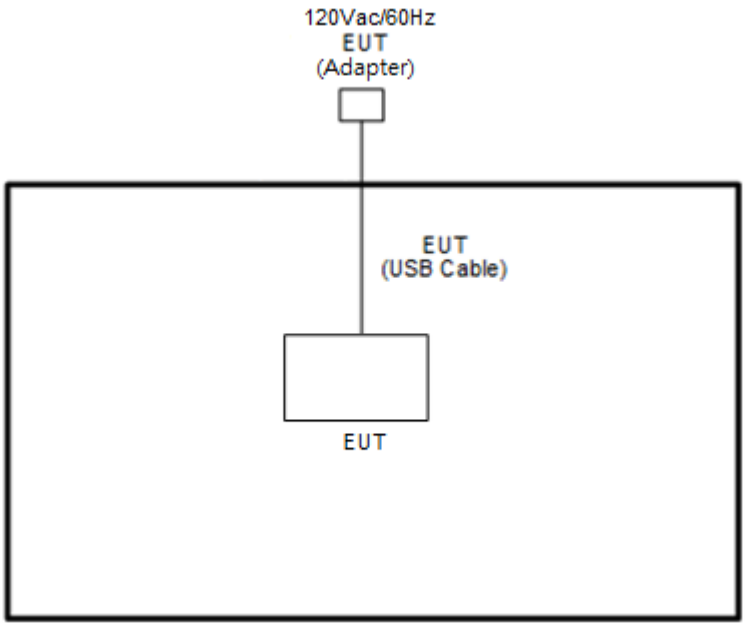
Test Mode	Modulation	Data Rate
Mode 1	WLAN 2.4GHz 802.11g for MIMO < Ant. 3+4> + WLAN 5GHz 802.11a for MIMO < Ant. 3+4>	6Mbps + 6Mbps
Mode 2	WLAN 2.4GHz 802.11g for MIMO < Ant. 3+4> + WLAN 6GHz 802.11a for MIMO < Ant. 3+4>	6Mbps + 6Mbps
Mode 3	WLAN 5GHz 802.11a for MIMO < Ant. 3+4> + Bluetooth-LE for MIMO < Ant. 3+4>	6Mbps + 1Mbps

Remark:

1. For Radiated Test Cases, the tests were performed with Adapter 1 and USB Cable 1.
2. During the preliminary test, both charging modes (Adapter mode and WPT mode) were verified. It is determined that the adaptor mode is the worst case for official test.

2.3 Connection Diagram of Test System

<Co-Location Tx Mode>



2.4 EUT Operation Test Setup

The RF test items, utility “CMD Version 10.0.19045.2486” 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 5150 MHz ~ 5250 MHz>

For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of –27dBm/MHz.

<For 5925 MHz ~ 6425 MHz>

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 v01 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

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

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 1000MHz
   - RBW = 120 kHz
   - VBW = 300 kHz
   - Detector = Peak
   - Trace mode = max hold

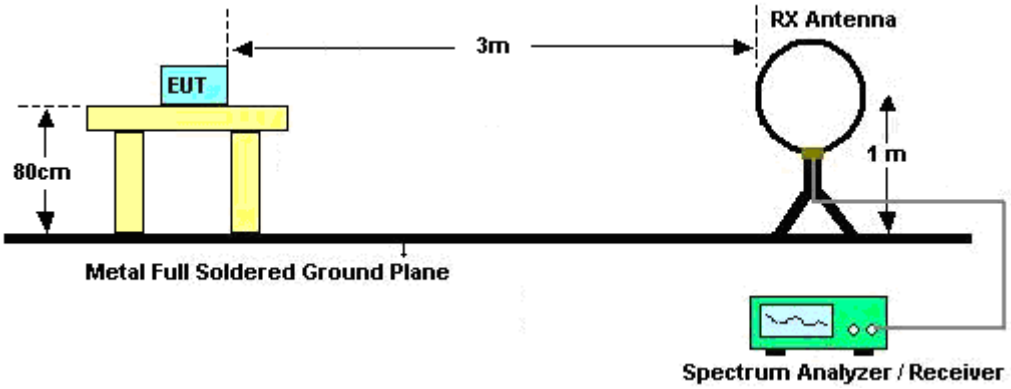
   (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
   - RBW = 1 MHz
   - VBW ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 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.

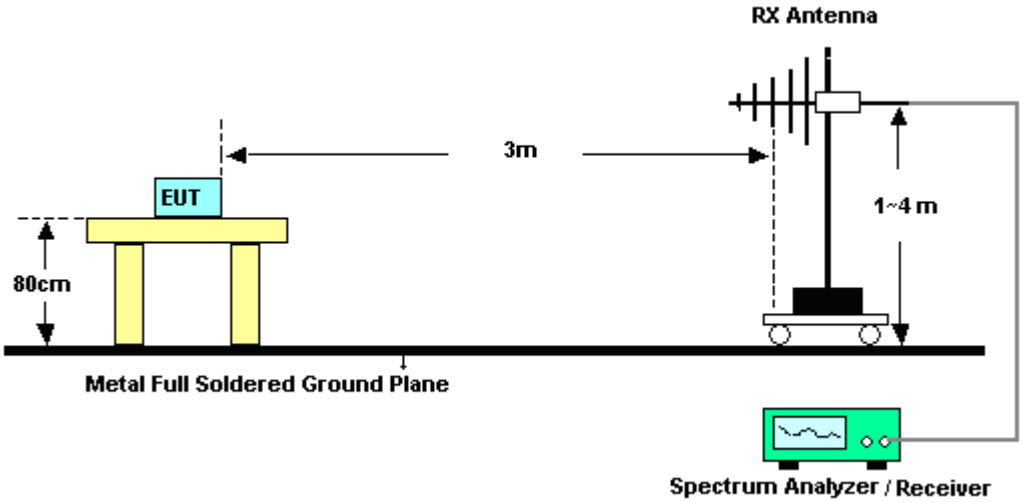
6. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit 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

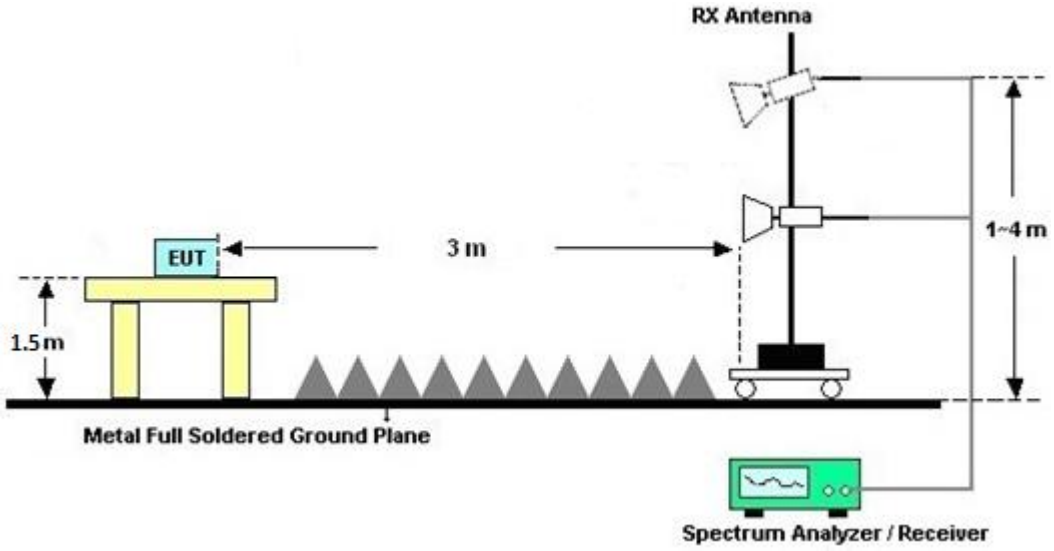
For radiated emissions below 30MHz



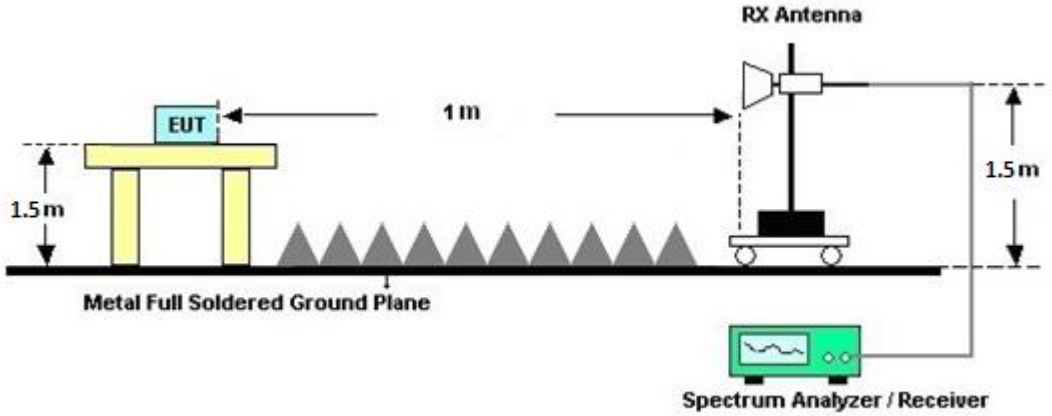
For radiated emissions from 30MHz to 1GHz



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 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 (30MHz ~ 10th Harmonic)

Please refer to Appendix A and B.

3.2 Antenna Requirements

3.2.1 Standard Applicable

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 rule.

3.2.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-02038	1GHz~18GHz	Aug. 09, 2022	Jun. 12, 2023~ Jun. 15, 2023	Aug. 08, 2023	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00994	18GHz-40GHz	Nov. 04, 2022	Jun. 12, 2023~ Jun. 15, 2023	Nov. 03, 2023	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00802N1D01N-06	47020 & 06	30MHz~1GHz	Oct. 08, 2022	Jun. 12, 2023~ Jun. 15, 2023	Oct. 07, 2023	Radiation (03CH16-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Sep. 20, 2022	Jun. 12, 2023~ Jun. 15, 2023	Sep. 19, 2023	Radiation (03CH16-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 28, 2022	Jun. 12, 2023~ Jun. 15, 2023	Jun. 27, 2023	Radiation (03CH16-HY)
Preamplifier	EMEC	EM1G18G	060812	1GHz~18GHz	Dec. 26, 2022	Jun. 12, 2023~ Jun. 15, 2023	Dec. 25, 2023	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz~26.5GHz	Dec. 09, 2022	Jun. 12, 2023~ Jun. 15, 2023	Dec. 08, 2023	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1GHz	Jul. 04, 2022	Jun. 12, 2023~ Jun. 15, 2023	Jul. 03, 2023	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY57290111	3Hz~26.5GHz	Dec. 15, 2022	Jun. 12, 2023~ Jun. 15, 2023	Dec. 14, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	805935/4	N/A	Aug. 09, 2022	Jun. 12, 2023~ Jun. 15, 2023	Aug. 08, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	802434/4	N/A	Aug. 09, 2022	Jun. 12, 2023~ Jun. 15, 2023	Aug. 08, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	EC-A5-300-5757	N/A	Aug. 09, 2022	Jun. 12, 2023~ Jun. 15, 2023	Aug. 08, 2023	Radiation (03CH16-HY)
Software	Audix	E3 6.2009-8-24	RK-001136	N/A	N/A	Jun. 12, 2023~ Jun. 15, 2023	N/A	Radiation (03CH16-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Jun. 12, 2023~ Jun. 15, 2023	N/A	Radiation (03CH16-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Jun. 12, 2023~ Jun. 15, 2023	N/A	Radiation (03CH16-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Jun. 12, 2023~ Jun. 15, 2023	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))	**4.5 dB**

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

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

Appendix A. Radiated Spurious Emission

Test Engineer :	Bill Chang, Gary Guo and Steven Wu	**Temperature :**	20~25°C
		Relative Humidity :	50~65%

2.4GHz 2402~2480MHz + Band 1 - 5150~5250MHz

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 3+4	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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)
802.11g CH 06 2437MHz		2387.42	54.05	-19.95	74	39.8	27.37	17.35	30.47	400	192	P	H
		2388.4	43.66	-10.34	54	29.39	27.38	17.36	30.47	400	192	A	H
	*	2437	112.5	-	-	97.91	27.6	17.44	30.45	400	192	P	H
	*	2437	105.25	-	-	90.66	27.6	17.44	30.45	400	192	A	H
		2486.84	54.42	-19.58	74	39.57	27.77	17.51	30.43	400	192	P	H
		2483.83	44.46	-9.54	54	29.65	27.74	17.51	30.44	400	192	A	H
		2375.24	54.12	-19.88	74	40.01	27.25	17.33	30.47	391	93	P	V
		2389.38	43.65	-10.35	54	29.37	27.39	17.36	30.47	391	93	A	V
	*	2437	113.51	-	-	98.92	27.6	17.44	30.45	391	93	P	V
	*	2437	106.13	-	-	91.54	27.6	17.44	30.45	391	93	A	V
		2484.95	55.45	-18.55	74	40.62	27.75	17.51	30.43	391	93	P	V
		2486.77	44.56	-9.44	54	29.71	27.77	17.51	30.43	391	93	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
3+4		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5150	56.12	-17.88	74	41.63	33	10.96	29.47	100	37	P	H
		5150	46.04	-7.96	54	31.55	33	10.96	29.47	100	37	A	H
	*	5180	106.1	-	-	91.64	33	10.96	29.5	100	37	P	H
	*	5180	99.55	-	-	85.09	33	10.96	29.5	100	37	A	H
													H
													H
		5148.72	61.88	-12.12	74	47.39	33	10.96	29.47	180	152	P	V
		5149.5	48.26	-5.74	54	33.77	33	10.96	29.47	180	152	A	V
	*	5180	108.41	-	-	93.95	33	10.96	29.5	180	152	P	V
	*	5180	101.99	-	-	87.53	33	10.96	29.5	180	152	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

802.11g_Tx_Ch06 + 802.11a_Tx_Ch36 (Harmonic @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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)
802.11g CH 06 2437MHz + 802.11a CH 36 5180MHz Harmonic		4874	55.17	-18.83	74	40.64	32.65	11.35	29.47	396	27	P	H
		4874	43.86	-10.14	54	29.33	32.65	11.35	29.47	396	27	A	H
		7311	49.42	-24.58	74	65.06	36.88	13.81	66.33	298	248	P	H
		7311	38.67	-15.33	54	54.31	36.88	13.81	66.33	298	248	A	H
		10360	47.5	-20.7	68.2	59.74	38.7	16.22	67.16	-	-	P	H
		15540	46.06	-27.94	74	55.32	37.54	19.81	66.61	-	-	P	H
													H
													H
													H
		4874	55.47	-18.53	74	40.94	32.65	11.35	29.47	400	96	P	V
		4874	43.66	-10.34	54	29.13	32.65	11.35	29.47	400	96	A	V
		7311	50.09	-23.91	74	65.73	36.88	13.81	66.33	206	5	P	V
		7311	38.85	-15.15	54	54.49	36.88	13.81	66.33	206	5	A	V
		10360	47.96	-20.24	68.2	60.2	38.7	16.22	67.16	-	-	P	V
		15540	46.88	-27.12	74	56.14	37.54	19.81	66.61	-	-	P	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line. 3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.												

Emission above 18GHz

802.11g_Tx_Ch06 + 802.11a_Tx_Ch36 (SHF)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
Simultaneously		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11g_Tx_Ch06 + 802.11a_Tx_Ch36 _SHF		22696	39.99	-34.01	74	58.18	39.28	-2.95	54.52	-	-	P	H
		35408	45.12	-28.88	74	63.05	41.95	-1.12	58.76	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		21776	39.09	-34.91	74	58.14	38.89	-3.2	54.74	-	-	P	V
		35254	45.73	-28.27	74	63.4	42.19	-1.16	58.7	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Emission below 1GHz

802.11g_Tx_Ch06 + 802.11a_Tx_Ch36 (LF @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
Simultaneously		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		30	21.83	-18.17	40	29.05	24.5	0.46	32.18	-	-	P	H
		96.15	32.15	-11.35	43.5	47.53	15.39	1.48	32.25	-	-	P	H
		227.64	22.03	-23.97	46	36.09	15.95	2.32	32.33	-	-	P	H
		475.7	25.03	-20.97	46	30.68	23.5	3.36	32.51	-	-	P	H
		742.4	33.53	-12.47	46	34.12	27.6	4.24	32.43	-	-	P	H
		904.1	33.52	-12.48	46	31.88	28.66	4.68	31.7	-	-	P	H
802.11g													H
CH 06													H
2437MHz													H
+													H
802.11a		34.05	28.99	-11.01	40	38.13	22.51	0.55	32.2	-	-	P	V
CH 36		95.61	28.21	-15.29	43.5	43.69	15.3	1.48	32.26	-	-	P	V
5180MHz		263.55	19.88	-26.12	46	29.65	20.08	2.49	32.34	-	-	P	V
LF		498.1	24.72	-21.28	46	29.99	23.85	3.43	32.55	-	-	P	V
		666.8	28.07	-17.93	46	30.63	26.04	3.99	32.59	-	-	P	V
		948.9	33.02	-12.98	46	29.41	30.15	4.81	31.35	-	-	P	V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.
3. The emission position marked as “-” means no suspected emission found and emission level has at least 6dB margin against limit or emission is noise floor only.

2.4GHz 2402~2480MHz + Band 5 - 5925~6425MHz

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
3+4		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11g CH 06 2437MHz		2356.34	54.47	-19.53	74	40.46	27.2	17.29	30.48	100	144	P	H
		2389.94	44.12	-9.88	54	29.83	27.4	17.36	30.47	100	144	A	H
	*	2437	113.2	-	-	98.61	27.6	17.44	30.45	100	144	P	H
	*	2437	105.64	-	-	91.05	27.6	17.44	30.45	100	144	A	H
		2489.15	54.7	-19.3	74	39.83	27.79	17.51	30.43	100	144	P	H
		2485.79	45.03	-8.97	54	30.19	27.76	17.51	30.43	100	144	A	H
		2389.24	55.13	-18.87	74	40.85	27.39	17.36	30.47	100	258	P	V
		2389.8	44.61	-9.39	54	30.32	27.4	17.36	30.47	100	258	A	V
	*	2437	115.89	-	-	101.3	27.6	17.44	30.45	100	258	P	V
	*	2437	108.43	-	-	93.84	27.6	17.44	30.45	100	258	A	V
		2484.39	57.55	-16.45	74	42.73	27.74	17.51	30.43	100	258	P	V
		2483.5	45.78	-8.22	54	30.97	27.74	17.51	30.44	100	258	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 5 - 5925~6425MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
3+4		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 01 5955MHz		5925	68.26	-19.94	88.2	52.14	34.2	11.89	29.97	100	68	P	H
		5924.84	54.84	-13.36	68.2	38.72	34.2	11.89	29.97	100	68	A	H
	*	5955	113.3	-	-	97.18	34.18	11.92	29.98	100	68	P	H
	*	5955	107.04	-	-	90.92	34.18	11.92	29.98	100	68	A	H
													H
													H
		5921.64	66.7	-21.5	88.2	50.58	34.2	11.89	29.97	196	168	P	V
		5923.88	53.51	-14.69	68.2	37.39	34.2	11.89	29.97	196	168	A	V
	*	5955	111.95	-	-	95.83	34.18	11.92	29.98	196	168	P	V
	*	5955	104.41	-	-	88.29	34.18	11.92	29.98	196	168	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

802.11g_Tx_Ch06 + 802.11a_Tx_Ch01 (Harmonic @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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)
802.11g CH 06 2437MHz + 802.11a CH 01 5955MHz Harmonic		4874	55.71	-18.29	74	41.18	32.65	11.35	29.47	151	349	P	H
		4874	43.93	-10.07	54	29.4	32.65	11.35	29.47	151	349	A	H
		7311	62.16	-11.84	74	42.31	36.88	13.5	30.53	298	177	P	H
		7311	50.2	-3.8	54	30.35	36.88	13.5	30.53	298	177	A	H
		11910	46.85	-27.15	74	56.71	38.72	17.63	66.21	-	-	P	H
		17865	60.42	-13.58	74	62.58	41.31	21.84	65.31	183	345	P	H
		17865	48.04	-5.96	54	50.2	41.31	21.84	65.31	183	345	A	H
													H
													H
													H
													H
													H
		4874	55.5	-18.5	74	40.97	32.65	11.35	29.47	106	115	P	V
		4874	43.83	-10.17	54	29.3	32.65	11.35	29.47	106	115	A	V
		7311	61.11	-12.89	74	41.26	36.88	13.5	30.53	164	257	P	V
		7311	50.09	-3.91	54	30.24	36.88	13.5	30.53	298	177	A	V
		11910	47.12	-26.88	74	56.98	38.72	17.63	66.21	-	-	P	V
		17865	61.03	-12.97	74	63.19	41.31	21.84	65.31	375	20	P	V
		17865	48.51	-5.49	54	50.67	41.31	21.84	65.31	375	20	A	V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

2.4GHz 2402~2480MHz + Band 1 - 5150~5250MHz

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
3+4		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BLE CH 39 2480MHz	*	2480	105.31	-	-	90.55	27.7	17.5	30.44	100	153	P	H
	*	2480	104.98	-	-	90.22	27.7	17.5	30.44	100	153	A	H
		2495.72	55.25	-18.75	74	40.36	27.8	17.52	30.43	100	153	P	H
		2483.88	45.5	-8.5	54	30.69	27.74	17.51	30.44	100	153	A	H
													H
													H
	*	2480	109.25	-	-	94.49	27.7	17.5	30.44	100	231	P	V
	*	2480	108.83	-	-	94.07	27.7	17.5	30.44	100	231	A	V
		2490.84	54.95	-19.05	74	40.06	27.8	17.52	30.43	100	231	P	V
		2483.5	45.72	-8.28	54	30.91	27.74	17.51	30.44	100	188	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
3+4		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5150	58.52	-15.48	74	44.03	33	10.96	29.47	309	121	P	H
		5150	49.41	-4.59	54	34.92	33	10.96	29.47	309	121	A	H
	*	5180	110.03	-	-	95.57	33	10.96	29.5	309	121	P	H
	*	5180	102.9	-	-	88.44	33	10.96	29.5	309	121	A	H
													H
													H
		5149.5	60.69	-13.31	74	46.2	33	10.96	29.47	100	90	P	V
		5150	47.71	-6.29	54	33.22	33	10.96	29.47	100	90	A	V
	*	5180	107.64	-	-	93.18	33	10.96	29.5	100	90	P	V
	*	5180	100.96	-	-	86.5	33	10.96	29.5	100	90	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

BLE_Tx_Ch39 + 802.11a_Tx_Ch36 (Harmonic @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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)
BLE CH 39 2480MHz + 802.11a CH 36 5180MHz Harmonic		4960	56.12	-17.88	74	41.2	32.88	11.41	29.37	100	124	P	H
		4960	45.64	-8.36	54	30.72	32.88	11.41	29.37	100	124	A	H
		7440	44.03	-29.97	74	60.15	36.44	13.82	66.38	-	-	P	H
		10360	47.33	-20.87	68.2	59.57	38.7	16.22	67.16	-	-	P	H
		15540	47.34	-26.66	74	56.6	37.54	19.81	66.61	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
		4960	55.77	-18.23	74	40.85	32.88	11.41	29.37	132	176	P	V
		4960	45.42	-8.58	54	30.5	32.88	11.41	29.37	132	176	A	V
		7440	44.14	-29.86	74	60.26	36.44	13.82	66.38	-	-	P	V
		10360	47.42	-20.78	68.2	59.66	38.7	16.22	67.16	-	-	P	V
		15540	46.89	-27.11	74	56.15	37.54	19.81	66.61	-	-	P	V
													V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Emission above 18GHz

BLE_Tx_Ch39 + 802.11a_Tx_Ch36 (SHF)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
Simultaneously		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		22336	39.03	-34.97	74	57.65	39.07	-3.06	54.63	-	-	P	H
		32580	40.88	-33.12	74	58.16	40.66	-1.29	56.65	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
BLE_Tx_CH 39													H
+													H
802.11a_Tx_		21840	39.75	-34.25	74	58.83	38.86	-3.21	54.73	-	-	P	V
CH 36_SHF		33112	43.07	-30.93	74	58.53	40.8	-1.24	55.02	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Note symbol

*	**Fundamental Frequency** which can be ignored. However, tEHT level of any unwanted emissions shall not exceed tEHT level of tEHT 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:

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
3+4		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5150	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		5150	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) =

Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

3. Margin(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Margin(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)

= 43.54 (dBμV/m)

2. Margin(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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

Appendix B. Radiated Spurious Emission Plots

Test Engineer :	Bill Chang, Gary Guo and Steven Wu	**Temperature :**	20~25°C
		Relative Humidity :	50~65%

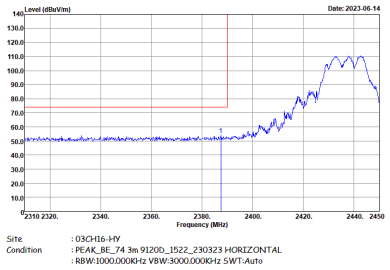
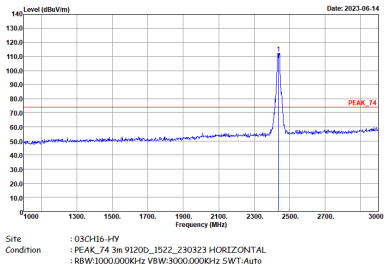
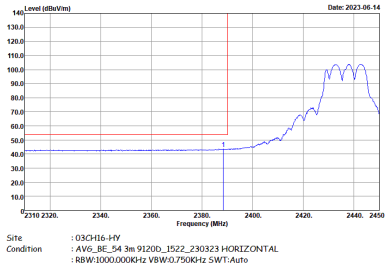
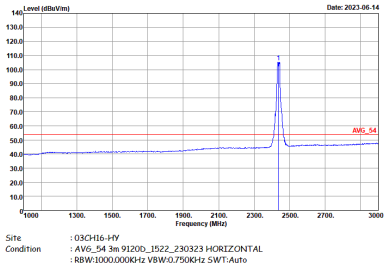
Note symbol

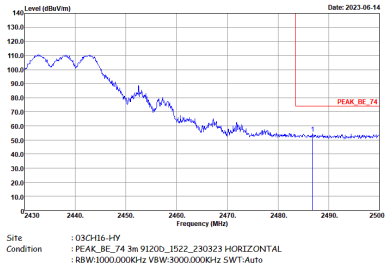
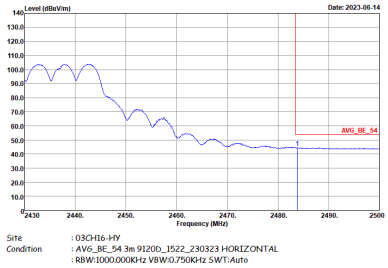
-L	**Low channel location**
-R	**High channel location**

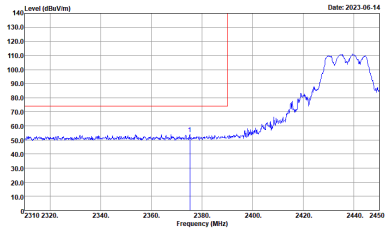
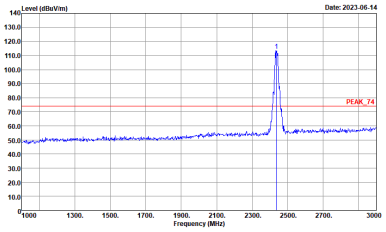
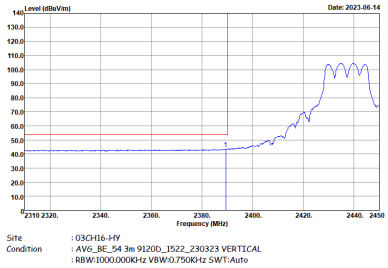
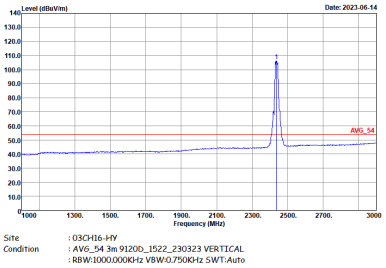
2.4GHz 2402~2480MHz + Band 1 - 5150~5250MHz

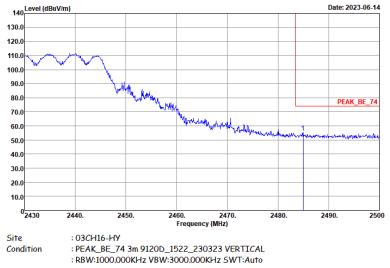
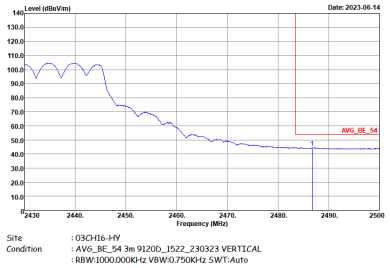
2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		

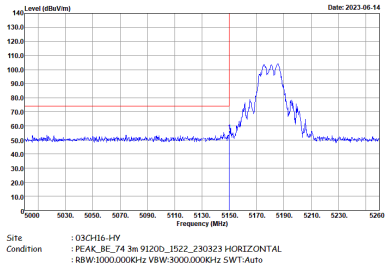
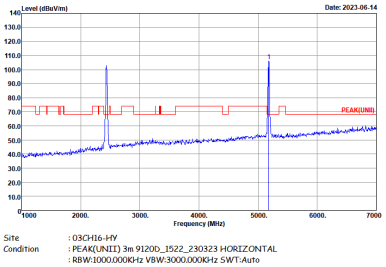
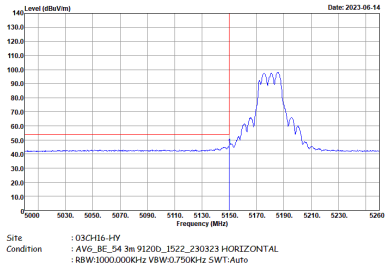
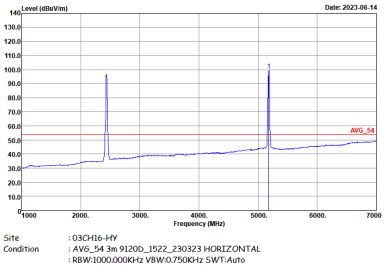
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

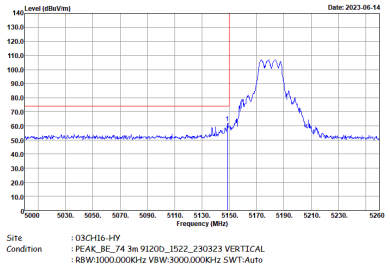
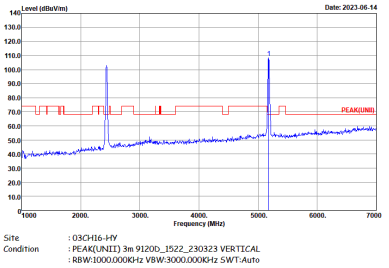
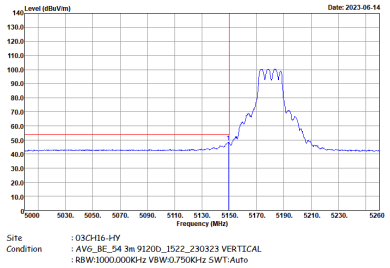
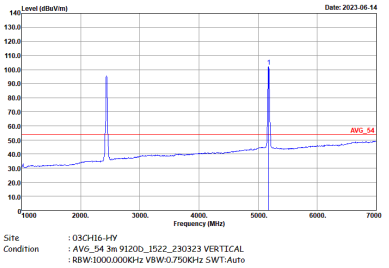
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

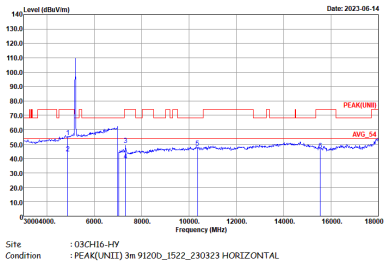
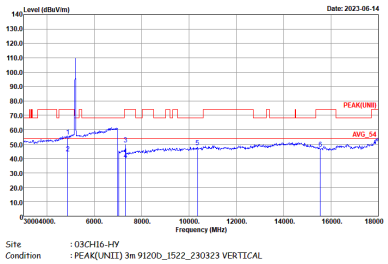
Band 1 - 5150~5250MHz

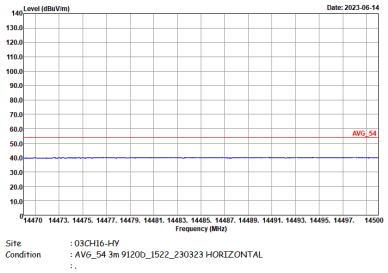
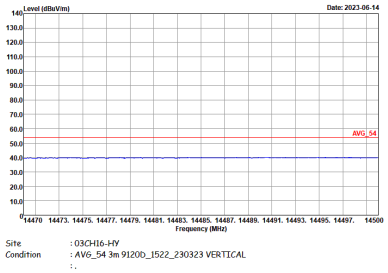
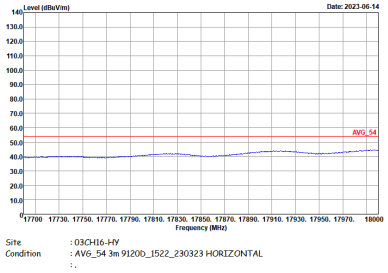
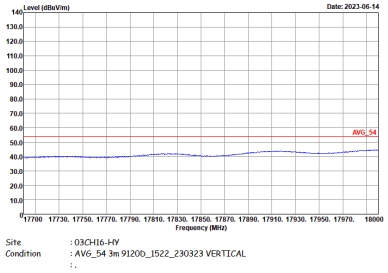
WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
3+4	Horizontal	Fundamental
Peak		
Avg.		

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
3+4	Vertical	Fundamental
Peak		
Avg.		

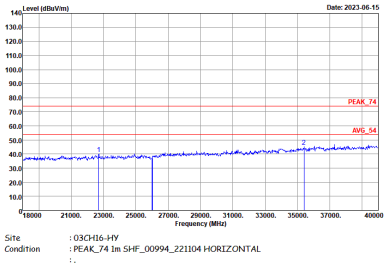
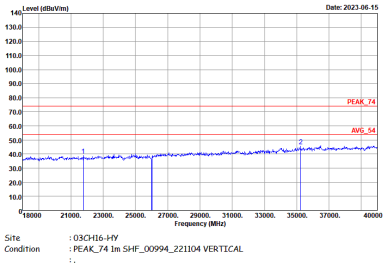
802.11g_Tx_Ch06 + 802.11a_Tx_Ch36 (Harmonic @ 3m)

WIFI	WIFI 802.11g + WIFI 802.11a Harmonic @ 3m	
ANT	802.11g_Tx_Ch06 + 802.11a_Tx_Ch36	
Simultaneously	Horizontal	Vertical
Peak Avg.		

WIFI	WIFI 802.11g + WIFI 802.11a Harmonic @ 3m	
ANT	802.11g_Tx_Ch06 + 802.11a_Tx_Ch36	
Simultaneously	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

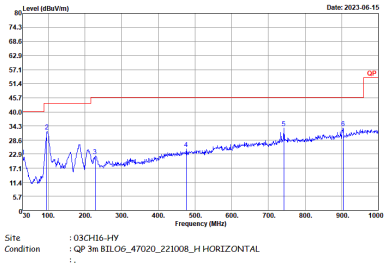
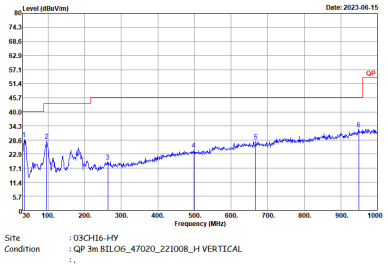
Emission above 18GHz

802.11g_Tx_Ch06 + 802.11a_Tx_Ch36 (SHF @ 1m)

WIFI	WIFI 802.11g + WIFI 802.11a SHF @ 1m	
ANT	802.11g_Tx_Ch06 + 802.11a_Tx_Ch36	
Simultaneously	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

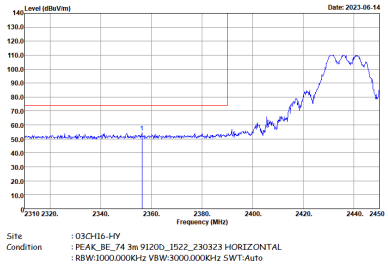
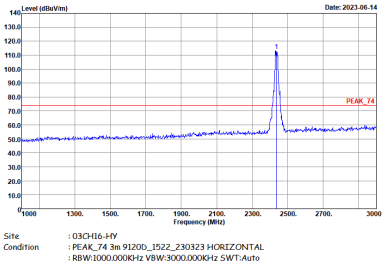
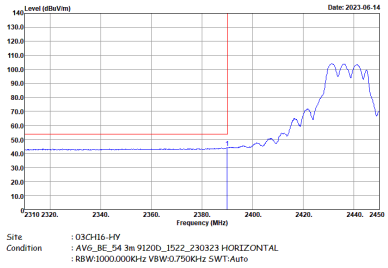
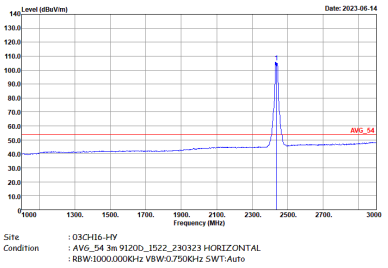
802.11g_Tx_Ch06+ 802.11a_Tx_Ch36 (LF)

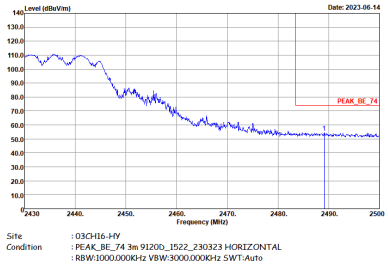
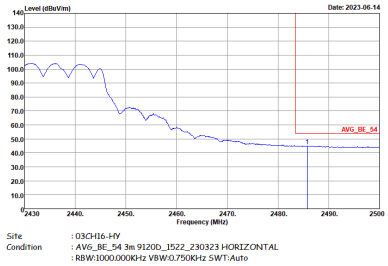
WIFI	WIFI 802.11g + WIFI 802.11a LF	
ANT	802.11g_Tx_Ch06+ 802.11a_Tx_Ch36	
Simultaneously	Horizontal	Vertical
QP / Peak		

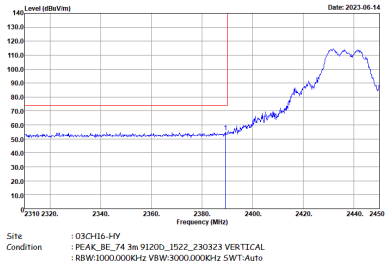
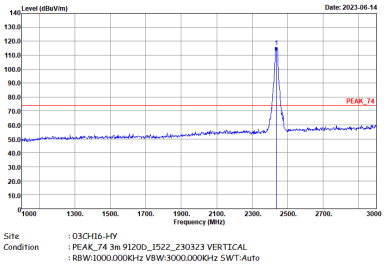
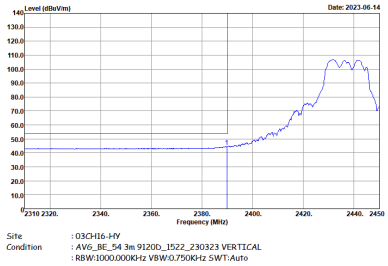
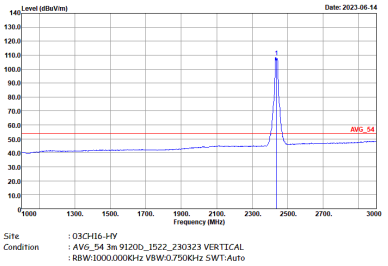
2.4GHz 2402~2480MHz + Band 5 - 5925~6425MHz

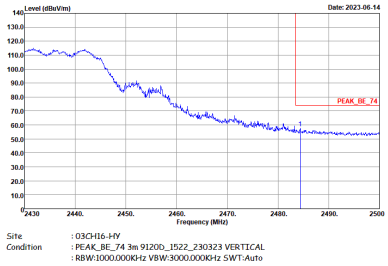
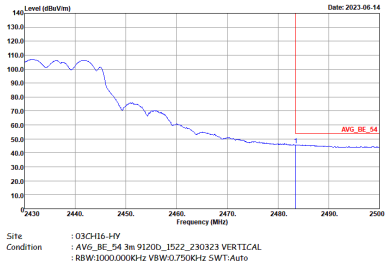
2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		

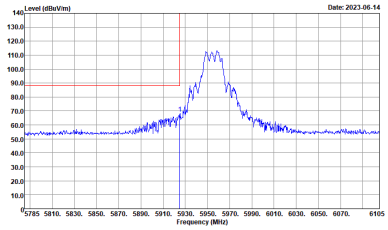
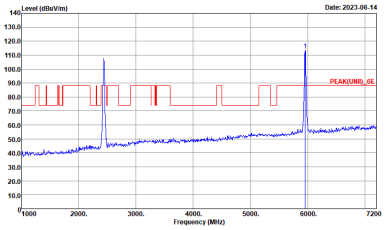
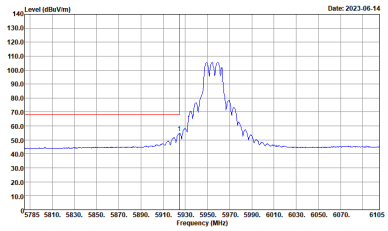
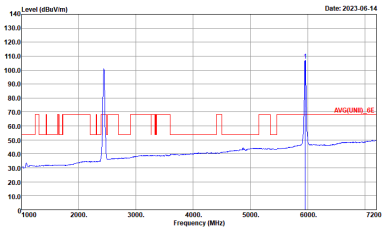
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

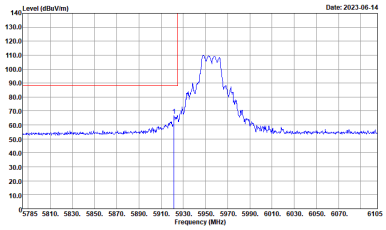
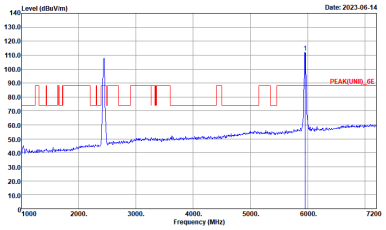
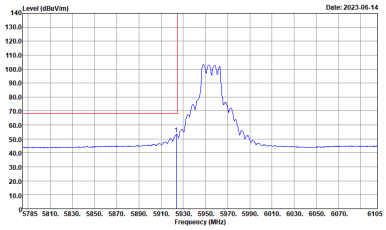
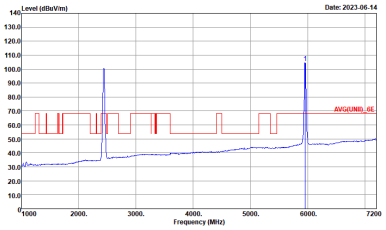
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

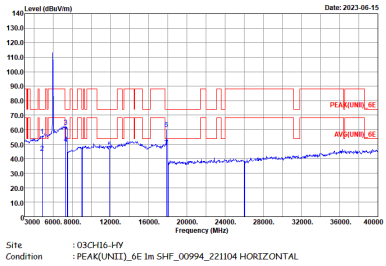
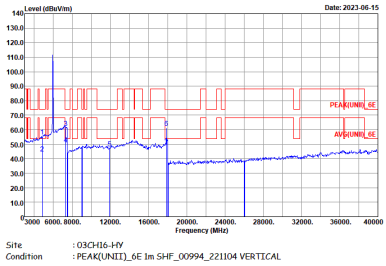
Band 5 - 5925~6425MHz

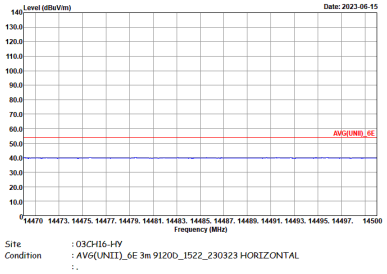
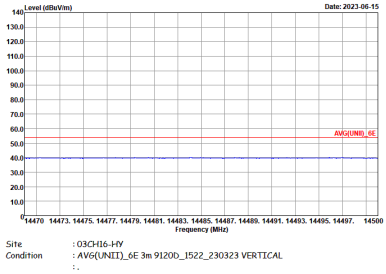
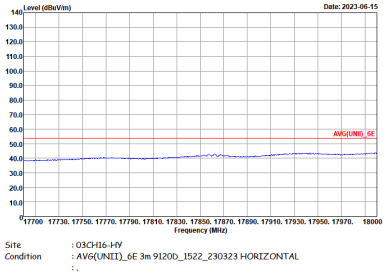
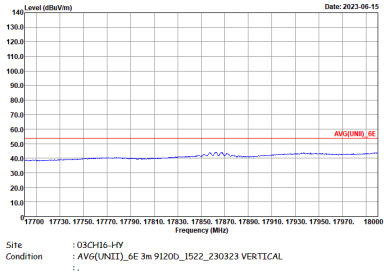
WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 5 5925~6425MHz Band Edge @ 3m	
ANT	802.11a CH01 5955MHz	
3+4	Horizontal	Fundamental
Peak		
Avg.		

WIFI	Band 5 5925~6425MHz Band Edge @ 3m	
ANT	802.11a CH01 5955MHz	
3+4	Vertical	Fundamental
Peak		
Avg.		

802.11g_Tx_Ch06 + 802.11a_Tx_Ch01 (Harmonic @ 3m)

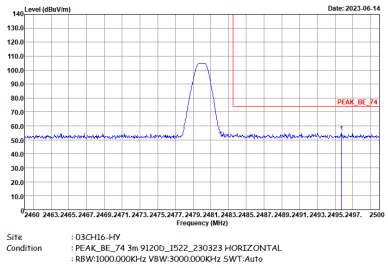
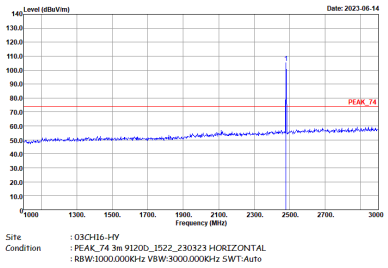
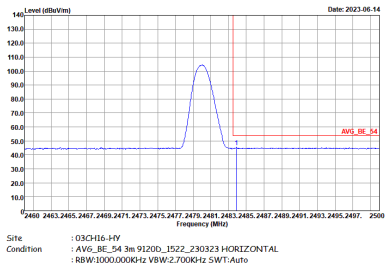
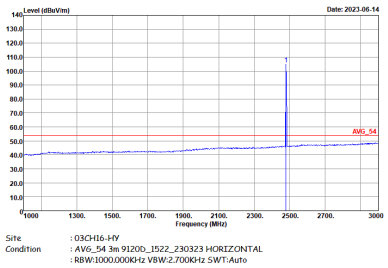
WIFI	WIFI 802.11g + WIFI 802.11a Harmonic @ 3m	
ANT	802.11g_Tx_Ch06 + 802.11a_Tx_Ch01	
Simultaneously	Horizontal	Vertical
Peak Avg.		

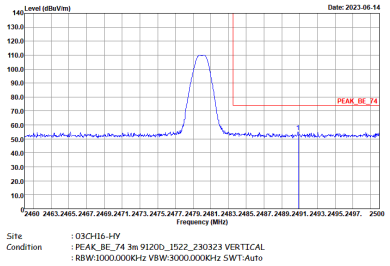
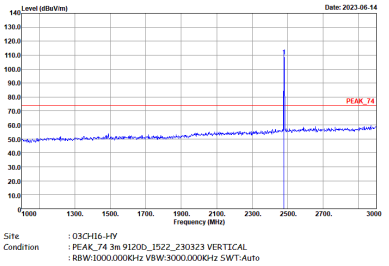
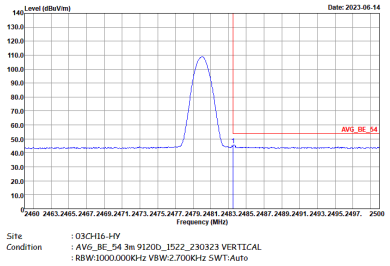
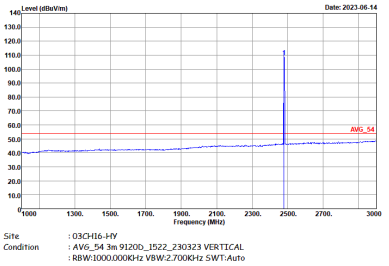
WIFI	WIFI 802.11g + WIFI 802.11a Harmonic @ 3m	
ANT	802.11g_Tx_Ch06 + 802.11a_Tx_Ch01	
Simultaneously	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

2.4GHz 2402~2480MHz + Band 1 - 5150~5250MHz

2.4GHz 2400~2483.5MHz

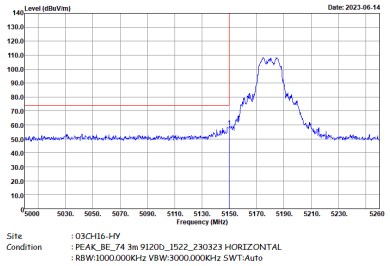
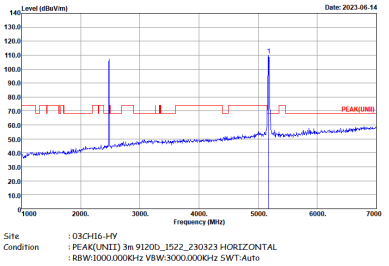
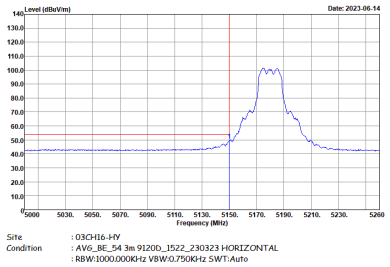
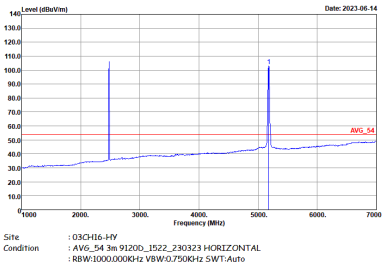
BLE (Band Edge @ 3m)

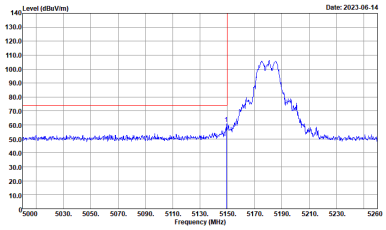
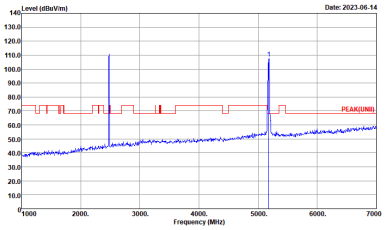
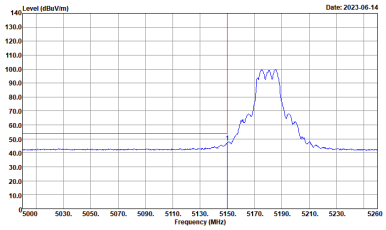
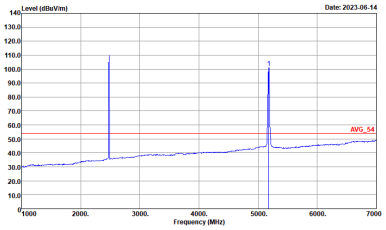
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
3+4	Horizontal	Fundamental
Peak		
Avg.		

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
3+4	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_230323 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_230323 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 9120D_1522_230323 VERTICAL : RBW:1000.000KHz VBW:2.700KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_230323 VERTICAL : RBW:1000.000KHz VBW:2.700KHz SWT:Auto

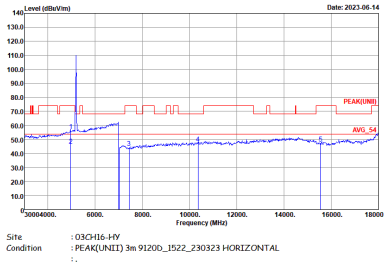
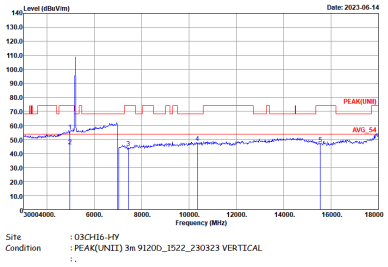
Band 1 - 5150~5250MHz

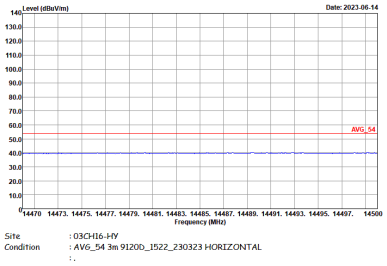
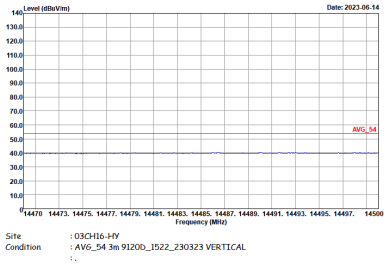
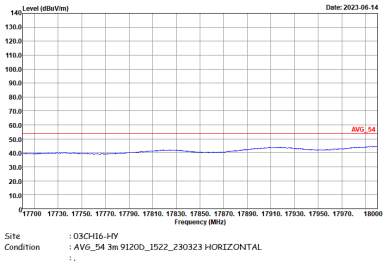
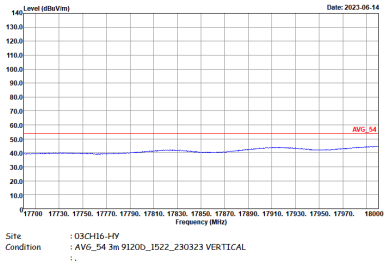
WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
3+4	Horizontal	Fundamental
Peak		
Avg		

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
3+4	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_230323 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522_230323 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	 Site : 03CH16-HY Condition : AVG_BE_54 3m 9120D_1522_230323 VERTICAL : RBW:1000.000KHz VBW:0.750KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_230323 VERTICAL : RBW:1000.000KHz VBW:0.750KHz SWT:Auto

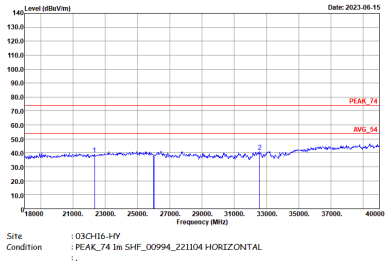
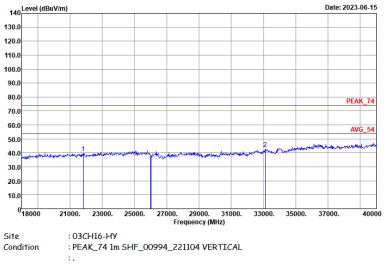
BLE_Tx_Ch39 + 802.11a_Tx_Ch36 (Harmonic @ 3m)

WIFI	2.4GHz 2402~2480MHz + Band 1 - 5150~5250MHz Harmonic @ 3m	
ANT	BLE_Tx_Ch39 + 802.11a_Tx_Ch36	
Simultaneously	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2402~2480MHz + Band 1 - 5150~5250MHz Harmonic @ 3m	
ANT	BLE_Tx_Ch39 + 802.11a_Tx_Ch36	
Simultaneously	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

Emission above 18GHz

BLE_Tx_Ch39 + *802.*11a_Tx_Ch36 (SHF @ 1m)

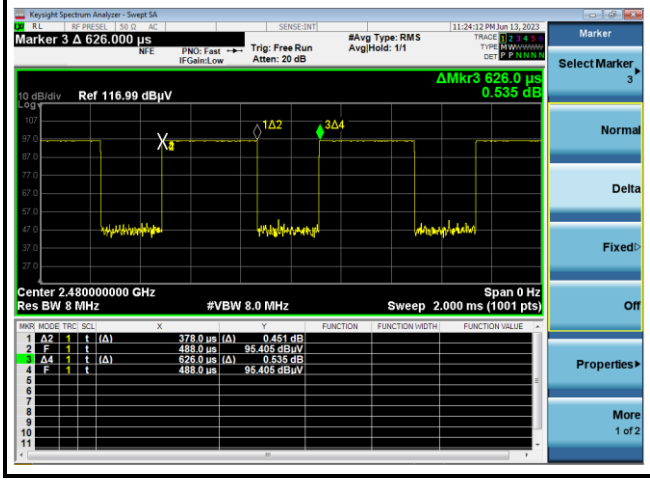
WIFI	2.4GHz 2402~2480MHz + Band 1 - 5150~5250MHz SHF @ 1m	
ANT	BLE_Tx_Ch39 + 802.11a_Tx_Ch36	
3+4	Horizontal	Vertical
Peak Avg.		

Appendix C. Duty Cycle Plots

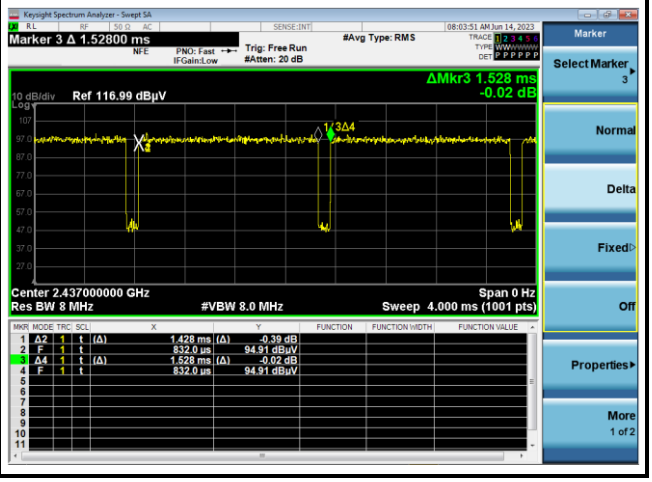
Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
3+4	Bluetooth –LE for 1Mbps	60.38	378	2.65	2.7KHz
3+4	802.11g	93.46	1428	0.70	750Hz
3+4	5GHz 802.11a	93.44	1425	0.70	750Hz
3+4	6GHz 802.11a	93.44	1425	0.70	750Hz

MIMO <Ant. 3+4>

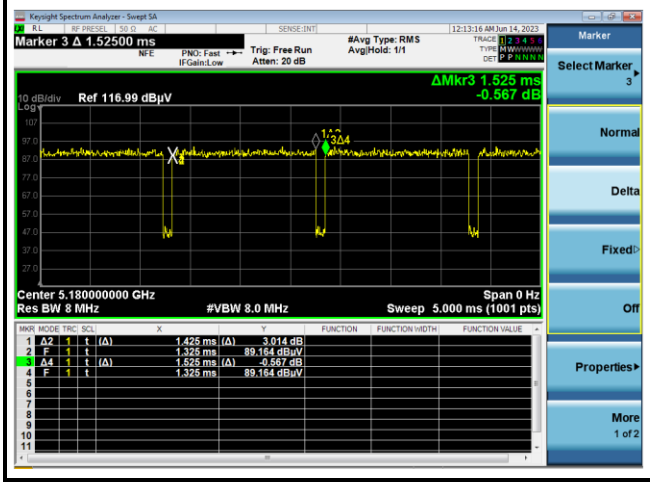
Bluetooth – LE



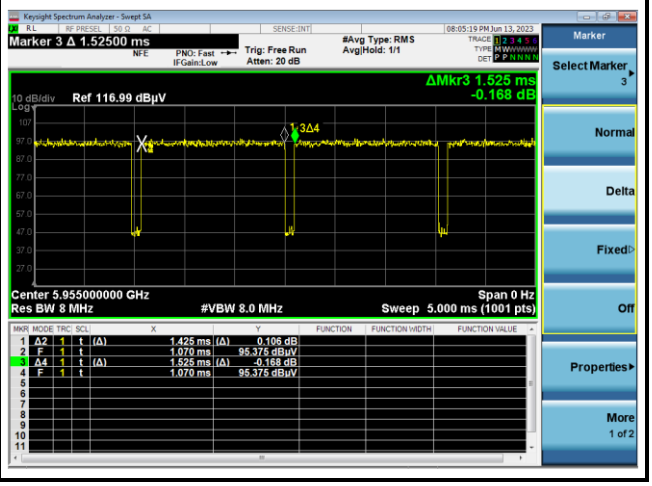
802.11g



5GHz 802.11a



6GHz 802.11a



———THE END———