December 10, 2021

Syncwise
Todd Nowak
2308 Kettner Blvd., Suite B
San Diego, CA 92101

Dear Todd Nowak,

Enclosed is the EMC Wireless test report for compliance testing of the Syncwise, T10-R Tablet as tested to the requirements of the FCC Part 15.247 & RSS-247 BLE.

Thank you for using the services of Eurofins Electrical and Electronic Testing NA, Inc. Please contact me if you have any questions regarding these results or if Eurofins E&E can be of further service to you.

Sincerely yours,

Rheine Nguyen

Documentation Department
Eurofins Electrical and Electronic Testing NA, Inc.

Reference: (\Syncwise\WIRS115236-FCC RSS BLE)

A2LA ACCREDITED
TESTING CERT #0591.02

FCC/ ISED Test Report

for the

Syncwise
T10-R Tablet

Standard
47 CFR FCC Part 15, Subpart C (Section 15.247)
558074 D01 15.247 Meas Guidance v05r02
RSS 247 Issue2, February 2017
ANSI C63.10:2013
RSS Gen Issue5, March 2019

Report: WIR115236-FCC RSS BLE

Prepared For:

Syncwise
2308 Kettner Blvd., Suite B
San Diego, CA 92101

Prepared By:
Eurofins Electrical and Electronic Testing NA, Inc.
3162 Belick St.
Santa Clara CA, 95054

FCC/ ISED Test Report

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T10-R Tablet

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Gary Chou
Wireless Engineering Manager, Wireless Laboratory

Engineering Statement: The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of Part 22 Subpart H and Part 24 Subpart E and Part 27 Subpart L of the FCC Rules under normal use and maintenance.

Eleazar Zuniga,
Director, Wireless Laboratory

Report Status Sheet

Revision	Report Date	Reason for Revision
∅	December 10, 2021	Initial Issue.

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I. Executive Summary

A. Purpose of Test

An EMC evaluation was performed to determine compliance of the Syncwise, T10-R Tablet, with the requirements of FCC Part 15.247 & RSS-247 BLE. All references are to the most current version of Title 47 of the Code of Federal Regulations in effect. In accordance with PVG-04 technical requirements, the following data is presented in support of the Certification of the T10-R Tablet. Syncwise should retain a copy of this document which should be kept on file for at least two years after the manufacturing of the T10-R Tablet, has been **permanently** discontinued.

B. Executive Summary

The following tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part 15.247 & RSS-247 BLE, in accordance with Syncwise, purchase order number 1084. All tests were conducted using measurement procedure.

FCC Reference	Description	Compliance
§ 15.247 (d), § 15.205, § 15.209	Spurious Radiated Emissions & Band Edges	Compliant
RSS Reference	**Description**	**Compliance**
RSS 247 5.5C	Radiated Spurious Emissions	Compliant

Note: For other test information please refer to FCC ID : XMR201706SC20A report/ ISED ID: 10224A-201707SC20A

Rationale:
Per KDB 996369 D04 "Modular Transmitter Integration Guide – Guidance for Host Product Manufacturers" only spot checks are reported in this filing

II. Equipment Information

A. Overview

Eurofins Electrical and Electronic Testing NA, Inc. was contracted by Syncwise to perform testing on the T10-R Tablet, under purchase order number 1084.

This document describes the test setups, test methods, required test equipment, and the test limit criteria used to perform compliance testing of Syncwise, T10-R Tablet.
The results obtained relate only to the item(s) tested.

EUT Summary Table

Model(s) Tested:	T10-R Tablet	
Model(s) Covered:	T10-R Tablet	
Filing Status:	Original	
EUT Specifications:	Primary Power: Voltage: 12 V external power supply. AC or DC: DC Voltage Frequency: NA Number of Phases: 1 Current: 0.5 Amp	
	Module Original Report Number(s):	
	Type of Modulations:	GFSK
	Technology:	Bluetooth low energy
	TX Frequency Range:	2402 MHz – 2480 MHz
	Product:	Tablet
	Brand:	Syncwise
	FCC ID:	2A3HW T10-R
	ISED ID:	10842AT10R
	Hardware Rev:	Syncwise 10R
	Firmwave Rev:	0
	Antenna Name:	2.4/5.0/6.0 GHz ISM Flexible Polymer
	Antenna Manufacturer/Module:	J2J :2JF0202P
	Antenna Type:	Embedded Antenna
	Antenna Gain:	4.4 dBi

Analysis:	The results obtained relate only to the item(s) tested.
Environmental Test Conditions:	Temperature: 15-35° C
	Relative Humidity: 30-60%
	Barometric Pressure: 860-1060 mbar
Evaluated by:	Rafael Aguilar
Date(s):	December 10, 2021

General Description of Applied Standards

B. References

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

- **47 CFR FCC Part 15, Subpart C (Section 15.247)**
- **558074 D01 15.247 Meas Guidance v05r02**
- **RSS 247 Issue2, February 2017**
- **ANSI C63.10:2013**
- **RSS Gen Issue 5, March 2019**

C. Test Site

All testing was performed at Eurofins Electrical and Electronic Testing NA, Inc., 3162 Belick St. Santa Clara, CA 95054. All equipment used in making physical determinations is accurate and bears recent traceability to the National Institute of Standards and Technology.

Eurofins Electrical and Electronic Testing NA, Inc. has been accredited by the American Association for Laboratory Accreditation (A2LA) (Certificate #: 0591.02) in accordance with ISO/IEC 17025:2017.

Eurofins Electrical and Electronic Testing NA, Inc. is part of the Eurofins Electrical & Electronics (E&E) global compliance network.

D. Measurement Uncertainty

Test Method	Typical Expanded Uncertainty	K	Confidence Level
RF Frequencies	±4.52 Hz	2	95%
RF Power Conducted Emissions	±2.32 dB	2	95%
RF Power Conducted Spurious Emissions	±2.25 dB	2	95%
RF Power Radiated Emissions	±3.01 dB	2	95%

Uncertainty Calculations Summary

E. Modifications

a) Modifications to EUT

No modifications were made to the EUT.

b) Modifications to Test Standard

No modifications were made to the test standard.

F. Disposition of EUT

The test sample including all support equipment (if any), submitted to the Electromagnetic Compatibility Lab for testing was returned to Syncwise upon completion of testing.

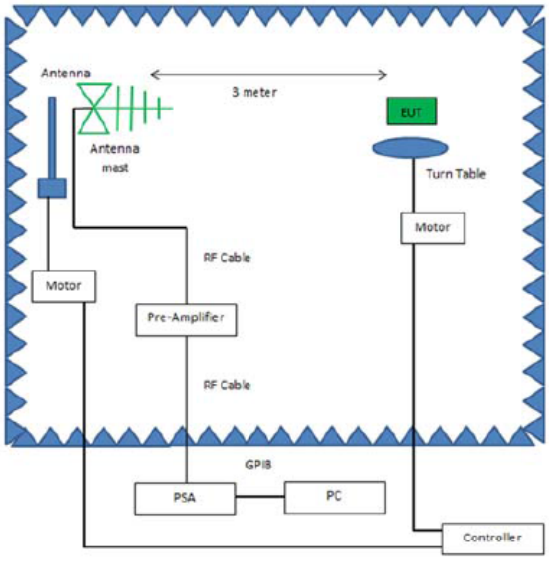
III. Electromagnetic Compatibility Criteria for Intentional Radiators

Radiated Emission and Bandage Measurement

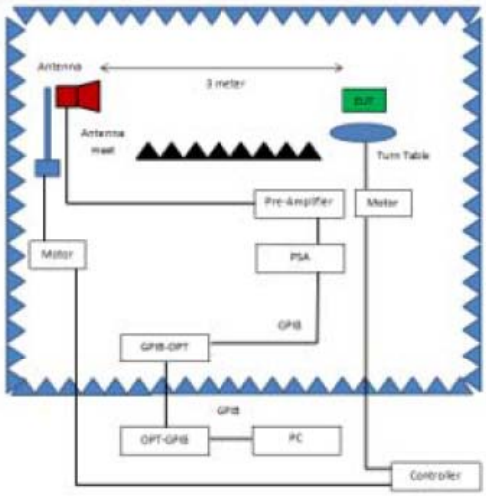
Limits of Radiated Emission and Bandage Measurement:
Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

Frequencies (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

Test Procedures: The transmitter was turned on. Measurements were performed of the low, mid and high Channels. The EUT was rotated orthogonally through all three axes. Plots shown are corrected for both antenna correction factor and distance and compared to a 3 m limit line. Only noise floor was measured above 18 GHz.



Radiated Emissions, Below 1GHz, Test Setup



Radiated Emissions, Above 1GHz, Test Setup

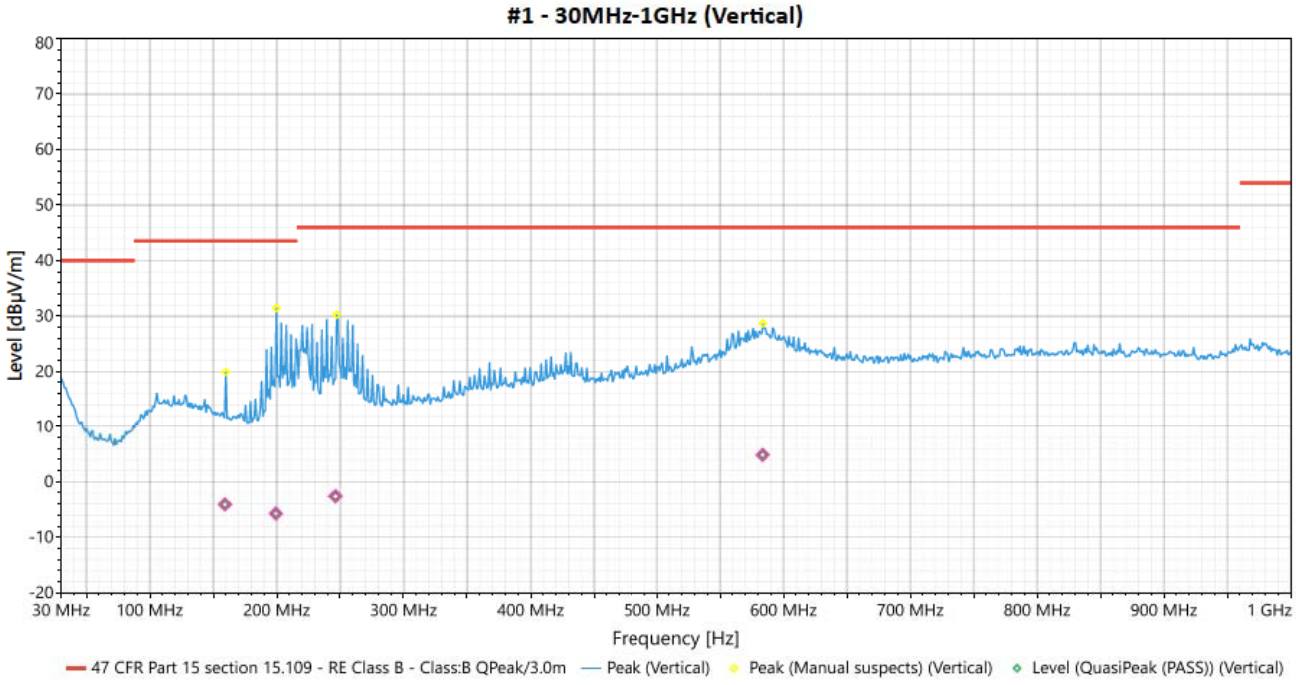
Test Results: The EUT was tested is **compliant** with § 15.209 Radiated Spurious Emissions Requirements.

Test Engineer: Rafael Aguilar

Test Date(s): 11/02/2021

Test Data
Radiated Emissions (30 MHz~1000 MHz)

EUT Test Condition		Measurement Detail	
Input Power	12Vdc	Frequency Range	30MHz-1GHz
Environmental Conditions	25 deg. C, 70% RH	Tested By	Rafael Aguilar
Test Mode	TX MODE BLE 2440 MHz		



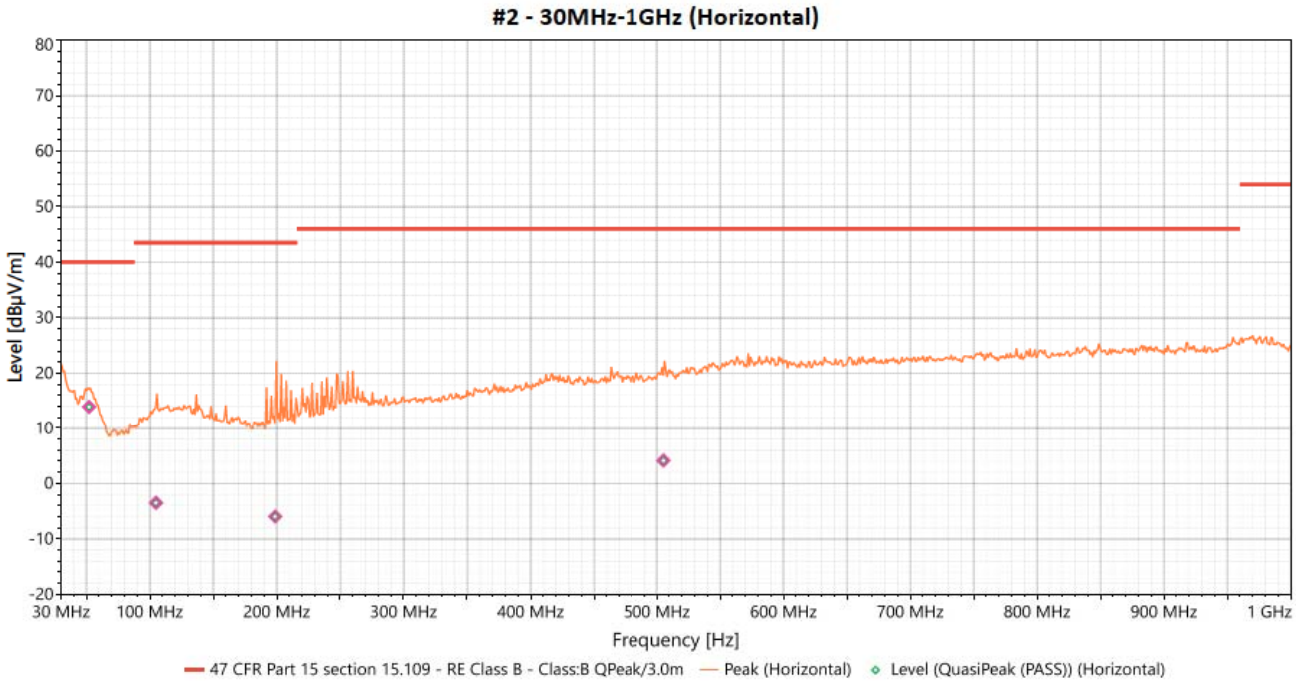
Antenna Polarity & Test Distance: Vertical at 3m									
No.	Frequency (MHz)	Polarization	Level Peak[dB(uV/m)]	Limit Peak dB(uV/m)	Margin Peak [dB]	Height (cm)	Angle (Deg)	Factor [dB(1/m)]	Pass/ Fail
1	159.272	Vertical	-4.093	43.5	-47.593	1	156	-14.79	Pass
2	199.378	Vertical	-5.735	43.5	-49.235	2.16	301	-15.45	Pass
3	246.248	Vertical	-2.6	46	-48.6	1.58	111	-13.15	Pass
4	583.618	Vertical	4.828	46	-41.172	1.43	240	-5.8	Pass

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.

4. The emission levels of other frequencies were less than 20dB margin against the limit.

EUT Test Condition		Measurement Detail	
Input Power	12Vdc	Frequency Range	30MHz-1GHz
Environmental Conditions	25 deg. C, 70% RH	Tested By	Rafael Aguilar
Test Mode	TX MODE BLE 2440 MHz		



Antenna Polarity & Test Distance: Horizontal at 3m									
No.	Frequency (MHz)	Polarization	Level Peak[dB(uV/m)]	Limit Peak dB(uV/m)	Margin Peak [dB]	Height (cm)	Angle (Deg)	Factor [dB(1/m)]	Pass/ Fail
1	52.348	Horizontal	13.902	40	-26.098	3.41	226	-17.82	Pass
2	104.892	Horizontal	-3.496	43.5	-46.996	3.38	179	-13.97	Pass
3	198.874	Horizontal	-5.974	43.5	-49.474	1.79	56	-15.7	Pass
4	505.334	Horizontal	4.117	46	-41.883	1.83	335	-7.13	Pass

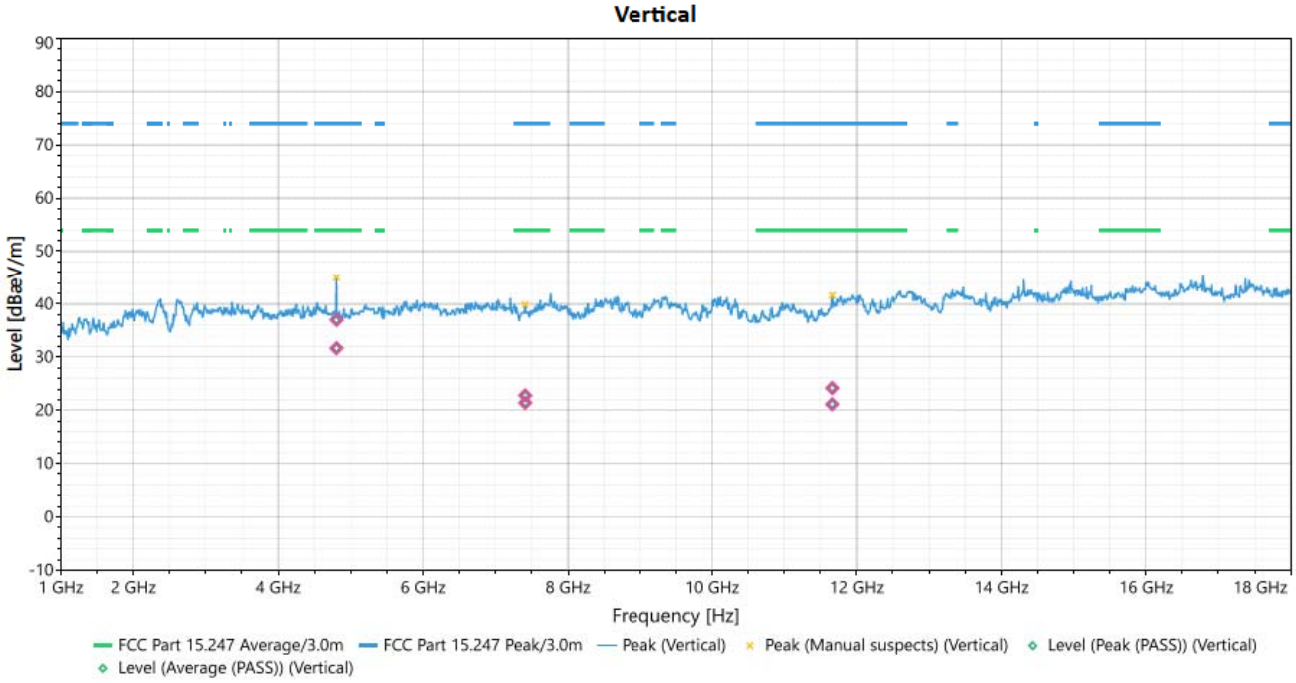
REMARKS:

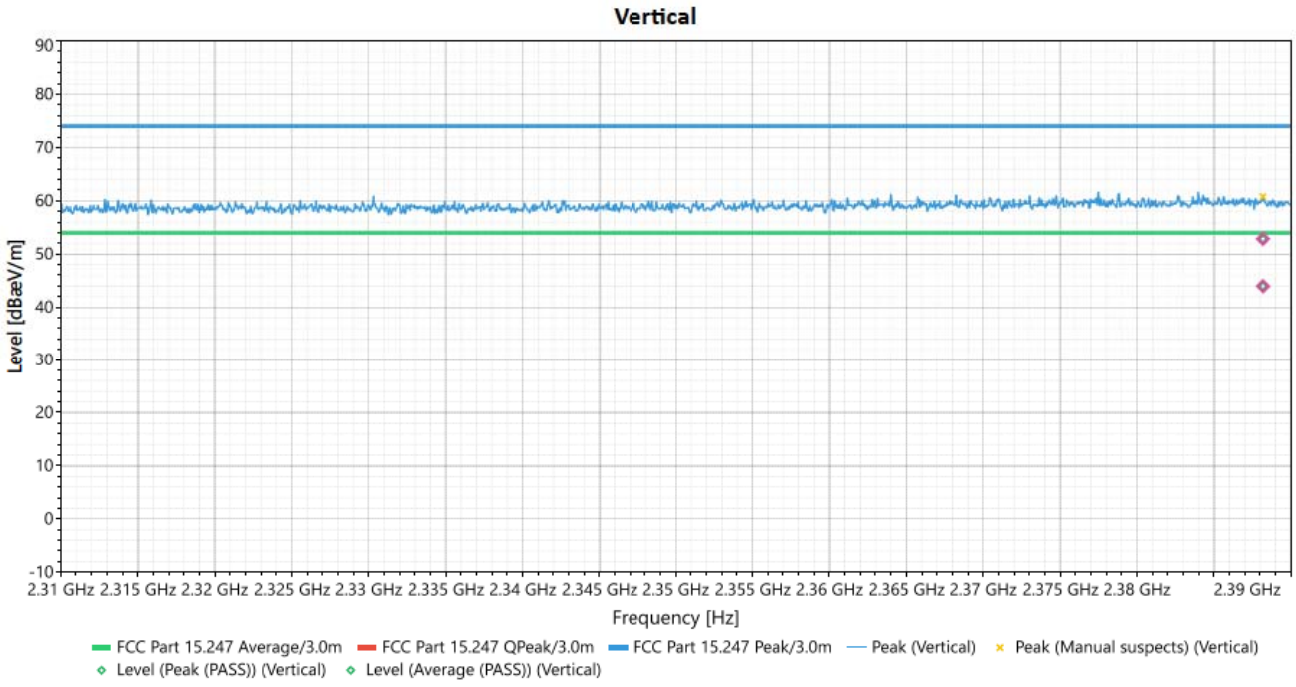
1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.

4. The emission levels of other frequencies were less than 20dB margin against the limit.

Radiated Emissions (Above 1GHz)

EUT Test Condition		Measurement Detail	
Input Power	12Vdc	Frequency Range	1GHz-26GHz
Environmental Conditions	25 deg. C, 70% RH	Tested By	Rafael Aguilar
Test Mode	TX MODE BLE 2402 MHz		



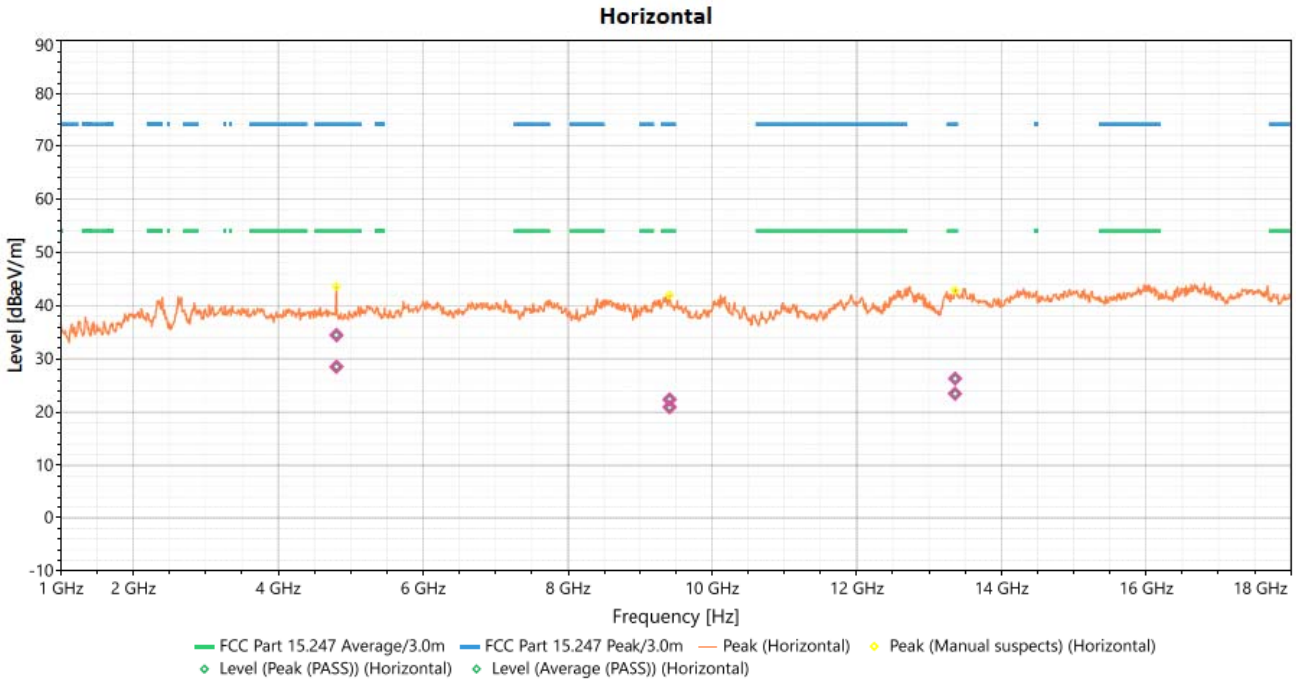


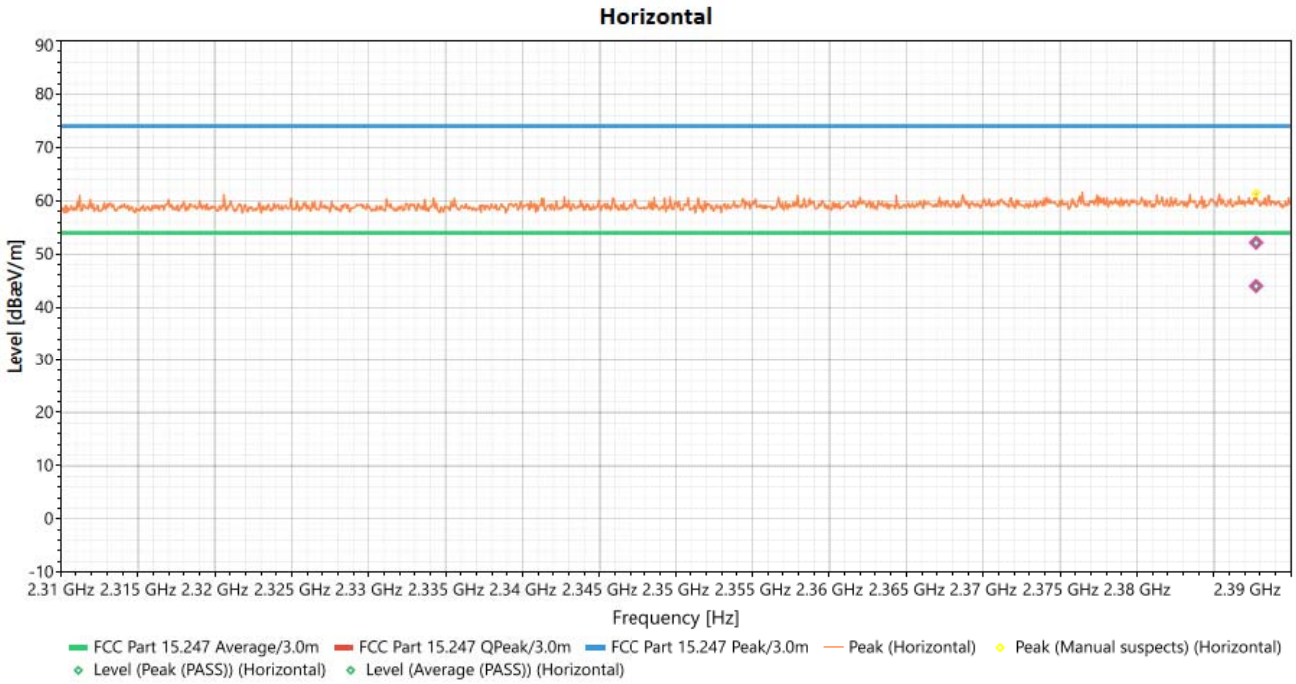
Antenna Polarity & Test Distance: Vertical at 3m									
No.	Frequency (MHz)	Polarization	Level Peak[dB(uV/m)]	Limit Peak dB(uV/m)	Margin Peak [dB]	Height (m)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	4804.299	Vertical	36.984	74	-37.016	1.36	74	0.3	Peak (PASS)
2	4804.299	Vertical	31.658	54	-22.342	1.36	74	0.3	Average (PASS)
3	7411.061	Vertical	21.403	74	-52.597	1.47	278	2.18	Peak (PASS)
4	7411.061	Vertical	22.78	54	-31.22	1.47	278	2.18	Average (PASS)
5	11665.73	Vertical	21.12	74	-52.88	1.15	222	3.15	Peak (PASS)
6	11665.73	Vertical	24.157	54	-29.843	1.15	222	3.15	Average (PASS)
7	4804.299	Vertical	36.984	74	-37.016	1.36	74	0.3	Peak (PASS)
8	4804.299	Vertical	31.658	54	-22.342	1.36	74	0.3	Average (PASS)
9	2388.194	Vertical	52.835	74	-21.165	1.58	203	35.81	Peak (PASS)
10	2388.194	Vertical	43.963	54	-10.037	1.58	203	35.81	Average (PASS)

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin against the limit.

EUT Test Condition		Measurement Detail	
Input Power	12Vdc	Frequency Range	1GHz-26GHz
Environmental Conditions	25 deg. C, 70% RH	Tested By	Rafael Aguilar
Test Mode	TX MODE BLE 2402 MHz		



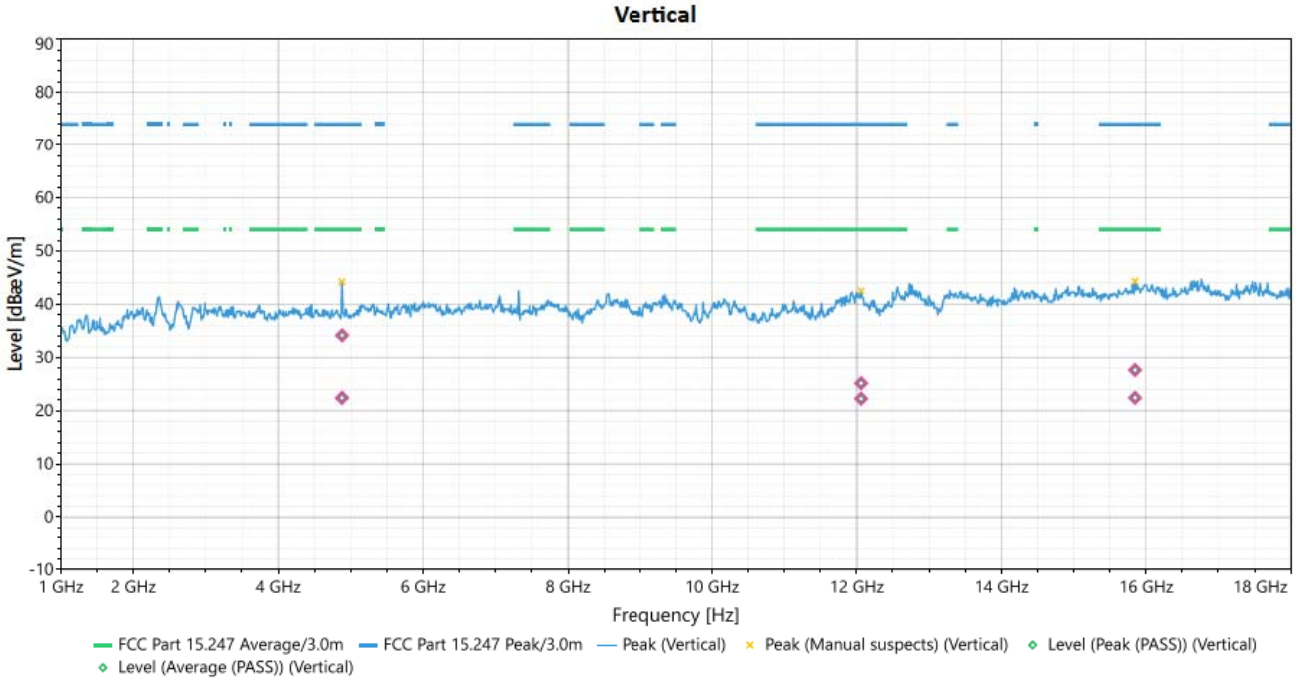


Antenna Polarity & Test Distance: Horizontal at 3m									
No.	Frequency (MHz)	Polarization	Level Peak[dB(uV/m)]	Limit Peak dB(uV/m)	Margin Peak [dB]	Height (m)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	4804.307	Horizontal	34.456	74	-39.544	1	259	0.45	Peak (PASS)
2	4804.307	Horizontal	28.513	54	-25.487	1	259	0.45	Average (PASS)
3	9415.948	Horizontal	20.928	74	-53.072	1.36	333	2.25	Peak (PASS)
4	9415.948	Horizontal	22.38	54	-31.62	1.36	333	2.25	Average (PASS)
5	13361.37	Horizontal	23.456	74	-50.544	1.04	0	3.2	Peak (PASS)
6	13361.37	Horizontal	26.303	54	-27.697	1.04	0	3.2	Average (PASS)
7	2387.746	Horizontal	52.116	74	-21.884	1.69	221	35.87	Peak (PASS)
8	2387.746	Horizontal	43.992	54	-10.008	1.69	221	35.87	Average (PASS)

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin against the limit.

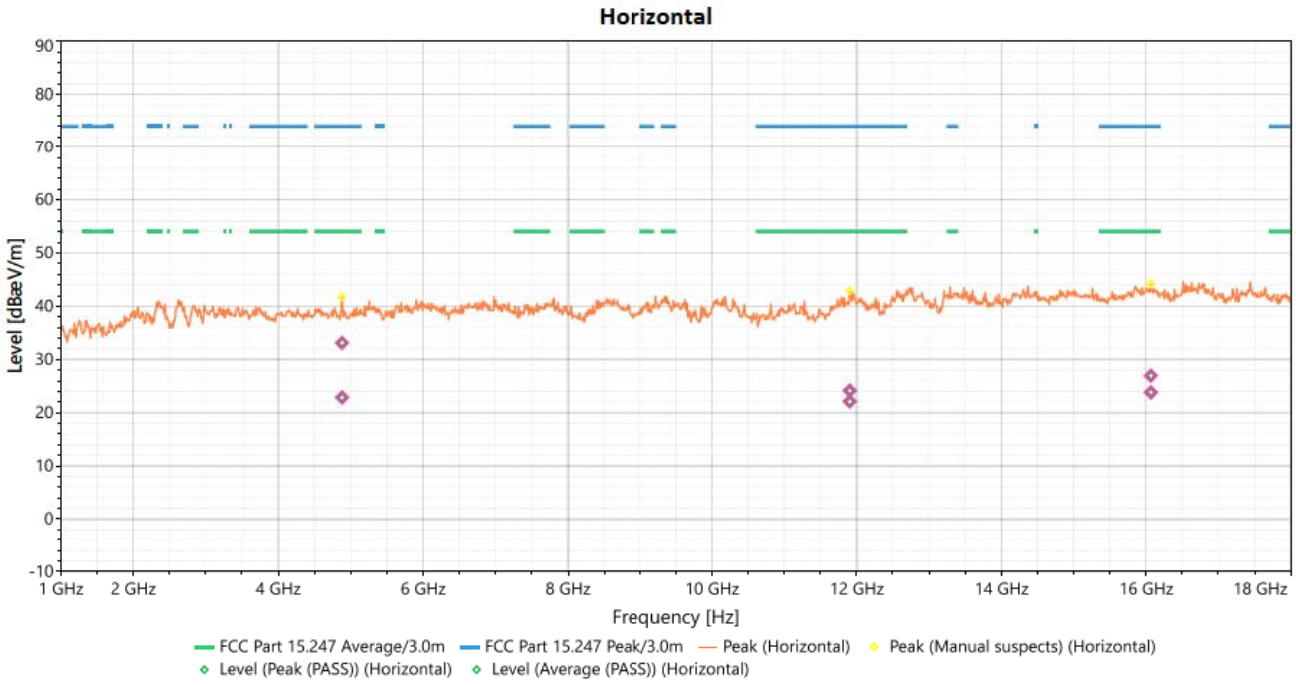
EUT Test Condition		Measurement Detail	
Input Power	12Vdc	Frequency Range	1GHz-26GHz
Environmental Conditions	25 deg. C, 70% RH	Tested By	Rafael Aguilar
Test Mode	TX MODE BLE 2440 MHz		



Antenna Polarity & Test Distance: Vertical at 3m									
No.	Frequency (MHz)	Polarization	Level Peak[dB(uV/m)]	Limit Peak dB(uV/m)	Margin Peak [dB]	Height (m)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	4881.088	Vertical	34.144	74	-39.856	1.04	203	0.17	Peak (PASS)
2	4881.088	Vertical	22.4	54	-31.6	1.04	203	0.17	Average (PASS)
3	12062.15	Vertical	22.246	74	-51.754	1.04	297	3.64	Peak (PASS)
4	12062.15	Vertical	25.156	54	-28.844	1.04	297	3.64	Average (PASS)
5	15847.76	Vertical	22.434	74	-51.566	1.15	74	4.97	Peak (PASS)
6	15847.76	Vertical	27.641	54	-26.359	1.15	74	4.97	Average (PASS)

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin against the limit.

EUT Test Condition		Measurement Detail	
Input Power	12Vdc	Frequency Range	1GHz-26GHz
Environmental Conditions	25 deg. C, 70% RH	Tested By	Rafael Aguilar
Test Mode	TX MODE BLE 2440 MHz		

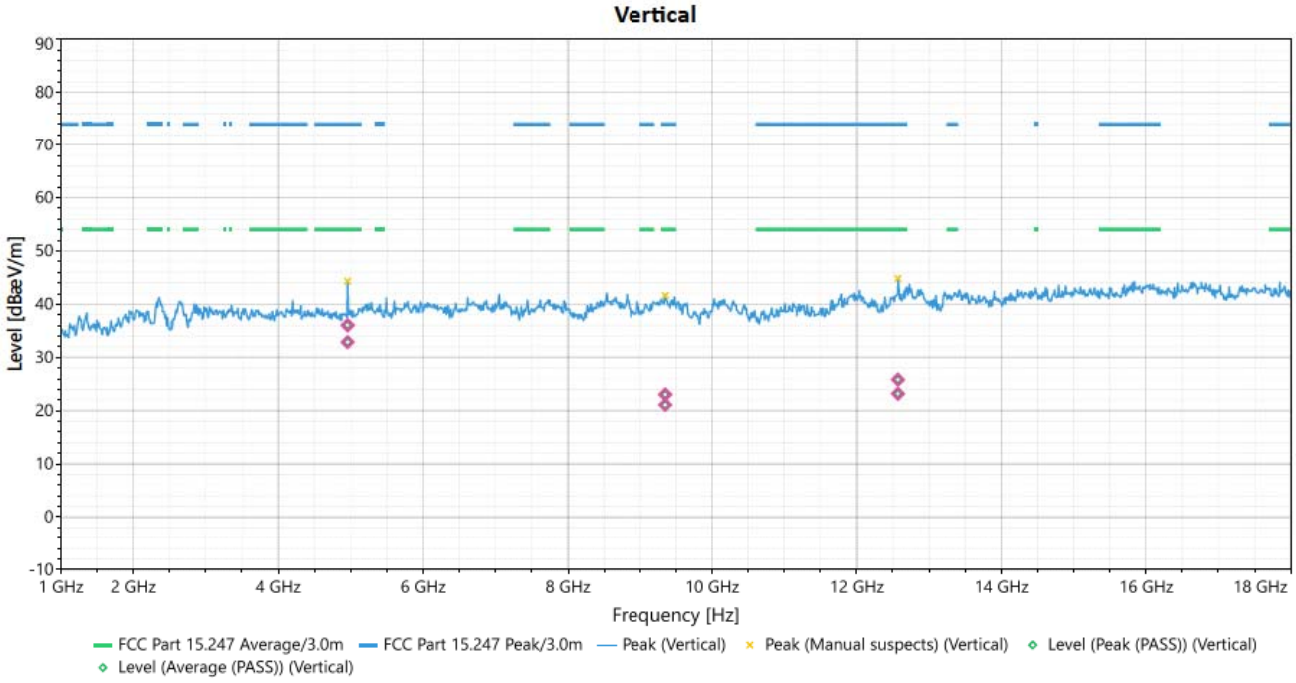


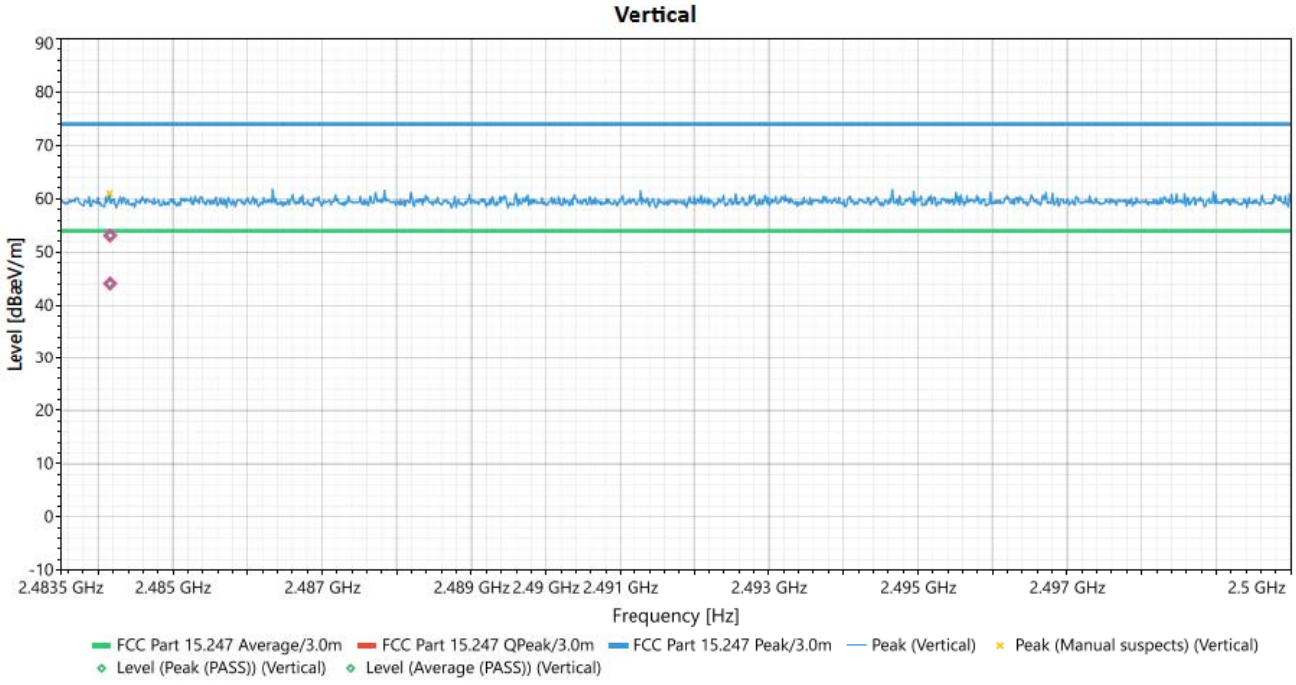
Antenna Polarity & Test Distance: Horizontal at 3m									
No.	Frequency (MHz)	Polarization	Level Peak[dB(uV/m)]	Limit Peak dB(uV/m)	Margin Peak [dB]	Height (cm)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	4881.09	Horizontal	33.115	74	-40.885	1.04	241	0.28	Peak (PASS)
2	4881.09	Horizontal	22.857	54	-31.143	1.04	241	0.28	Average (PASS)
3	11906.48	Horizontal	22.079	74	-51.921	1.47	203	3.43	Peak (PASS)
4	11906.48	Horizontal	24.133	54	-29.867	1.47	203	3.43	Average (PASS)
5	16065.68	Horizontal	23.821	74	-50.179	1	129	4.86	Peak (PASS)
6	16065.68	Horizontal	26.954	54	-27.046	1	129	4.86	Average (PASS)

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin against the limit.

EUT Test Condition		Measurement Detail	
Input Power	12Vdc	Frequency Range	1GHz-26GHz
Environmental Conditions	25 deg. C, 70% RH	Tested By	Rafael Aguilar
Test Mode	TX MODE BLE 2480 MHz		

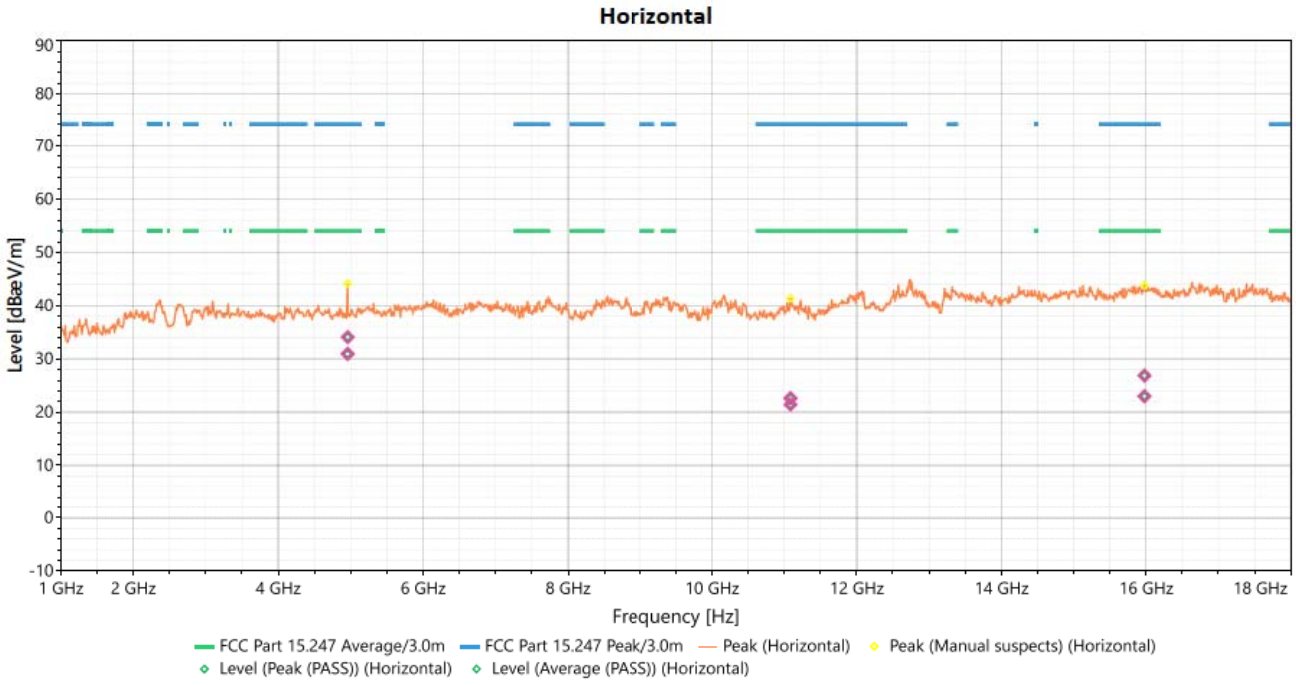


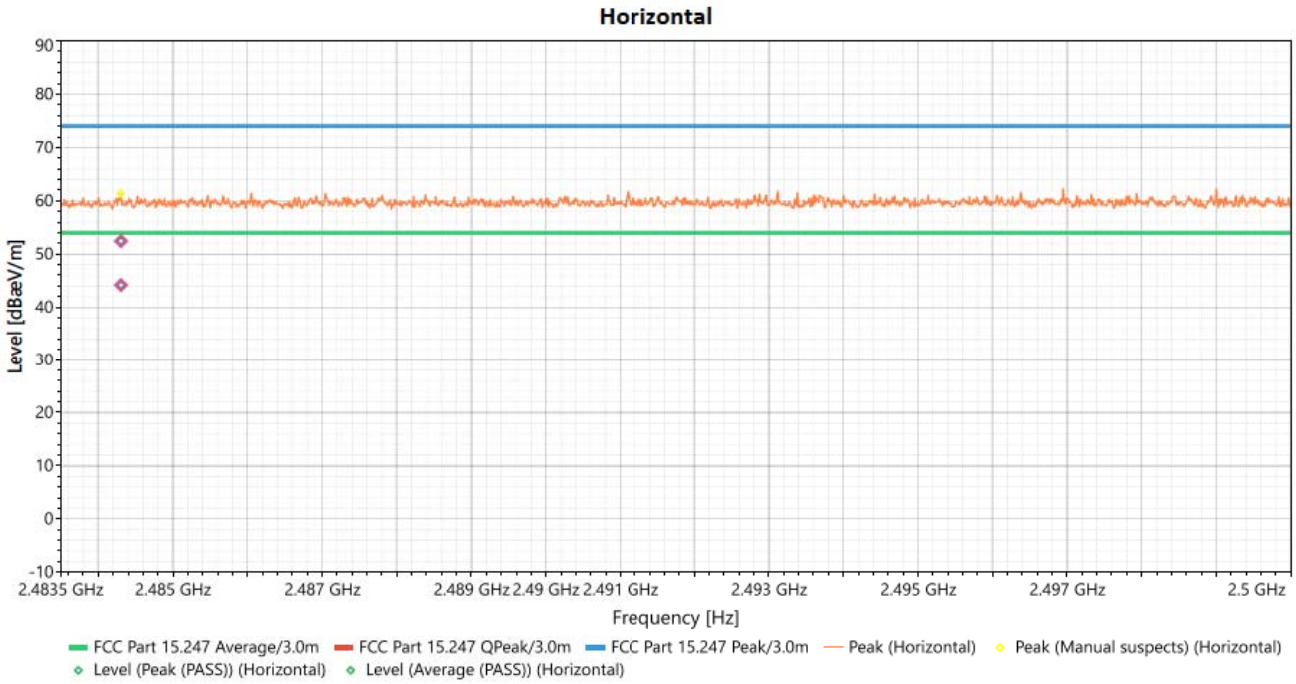


Antenna Polarity & Test Distance: Vertical at 3m									
No.	Frequency (MHz)	Polarization	Level Peak[dB(uV/m)]	Limit Peak dB(uV/m)	Margin Peak [dB]	Height (m)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	4959.962	Vertical	36.022	74	-37.978	1	277	0.17	Peak (PASS)
2	4959.962	Vertical	32.884	54	-21.116	1	277	0.17	Average (PASS)
3	9355.75	Vertical	21.104	74	-52.896	1.69	222	2.2	Peak (PASS)
4	9355.75	Vertical	23.029	54	-30.971	1.69	222	2.2	Average (PASS)
5	12570.63	Vertical	23.195	74	-50.805	1.37	222	3.83	Peak (PASS)
6	12570.63	Vertical	25.826	54	-28.174	1.37	222	3.83	Average (PASS)
7	2484.161	Vertical	53.107	74	-20.893	1	110	36.21	Peak (PASS)
8	2484.161	Vertical	44.089	54	-9.911	1	110	36.21	Average (PASS)

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin against the limit.

EUT Test Condition		Measurement Detail	
Input Power	12Vdc	Frequency Range	1GHz-26GHz
Environmental Conditions	25 deg. C, 70% RH	Tested By	Rafael Aguilar
Test Mode	TX MODE BLE 2480 MHz		





Antenna Polarity & Test Distance: Horizontal at 3m									
No.	Frequency (MHz)	Polarization	Level [dB(uV/m)]	Limit Peak dB(uV/m)	Margin Peak [dB]	Height (cm)	Angle (Deg)	Factor [dB(1/m)]	Measure Type/ Result
1	4959.959	Horizontal	34.085	74	-39.915	1	350	0.24	Peak (PASS)
2	4959.959	Horizontal	30.925	54	-23.075	1	350	0.24	Average (PASS)
3	11086.68	Horizontal	21.425	74	-52.575	1	0	2.79	Peak (PASS)
4	11086.68	Horizontal	22.622	54	-31.378	1	0	2.79	Average (PASS)
5	15978.51	Horizontal	22.989	74	-51.011	1.59	333	4.82	Peak (PASS)
6	15978.51	Horizontal	26.859	54	-27.141	1.59	333	4.82	Average (PASS)
7	2484.306	Horizontal	52.462	74	-21.538	1.47	147	36.33	Peak (PASS)
8	2484.306	Horizontal	44.155	54	-9.845	1.47	147	36.33	Average (PASS)

REMARKS:

1. Level (dBuV) = Reading (dBuV) + Factor (dB(1/m)).
2. Factor (dB(1/m)) = Antenna Factor(AF) (dB(1/m)) + Cable Loss (dB) +Preamplifier
3. Margin value = Emission level – Limit value.
4. The emission levels of other frequencies were less than 20dB margin against the limit.

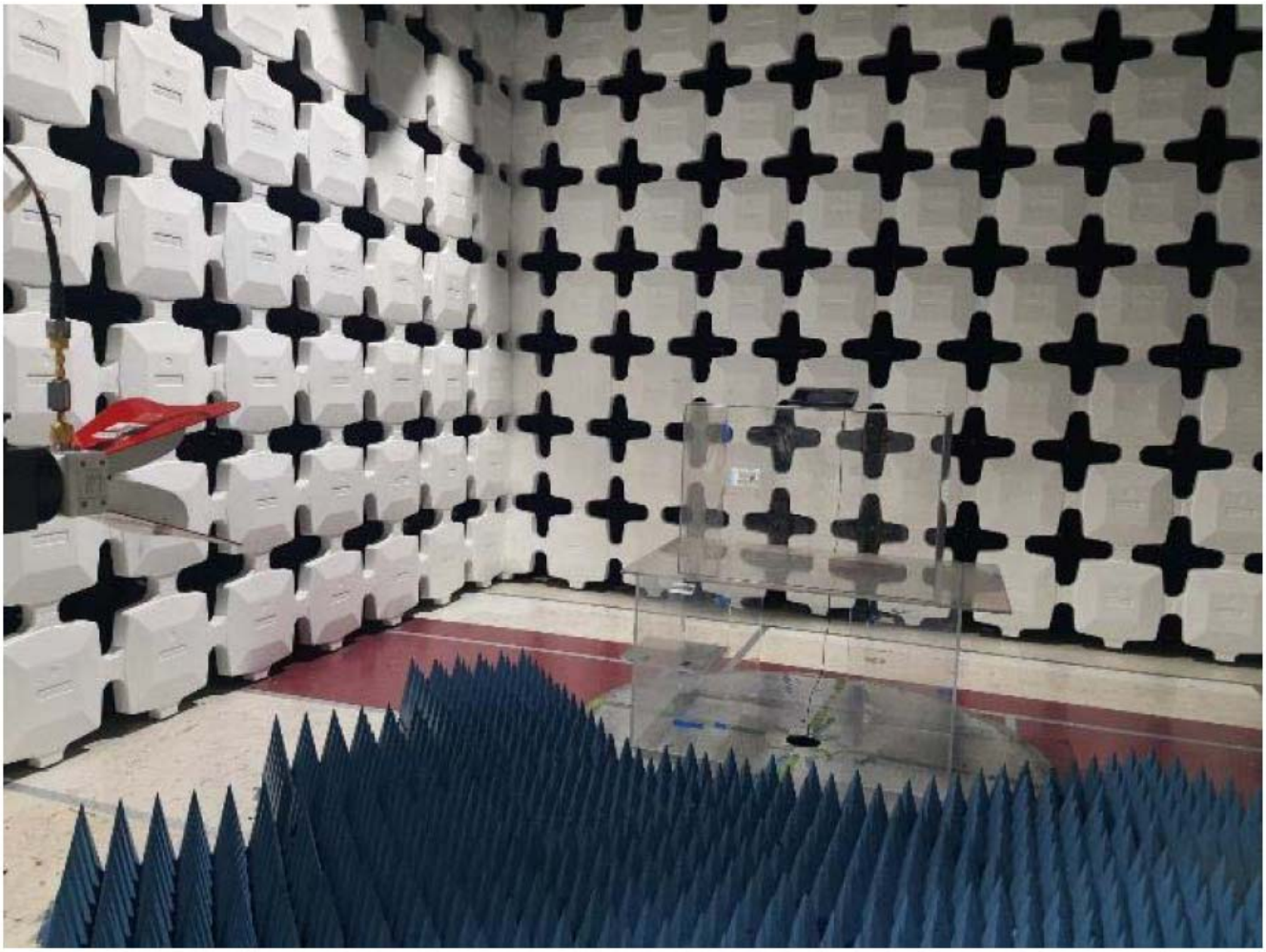


Figure 1. Radiated Emission and Bandage Measurement, Test Setup

Test Equipment List

Calibrated test equipment utilized during testing was maintained in a current state of calibration per the requirements of ISO/IEC 17025:2017.

Asset #	Equipment	Manufacturer	Model	Last Cal Date	Cal Due Date
1S2003	PXA Signal Analyzer	Keysight	N9030B	10/08/2021	10/08/2022
1S2399	Turntable Controller	SUNOL SCIENCE	SC99V	Not Required	Not Required
1S2435	Horn Antenna (Medium)	ETS-Lindgren	3117	03/09/2021	03/09/2023
1S2486	5 Meter Chamber Control Room	Panashield	5 Meter Control Room	Not Required	Not Required
1S2587	Preamplifier	AML Communications	AML0126L3801	Note 1	Note 1
Note 1: Verified by calibrated instrumentation at the time of testing					

Table 1. Radiated Emission and Bandage Measurement, Test Equipment List

END OF REPORT