

TEST REPORT

Applicant Name: M5Stack Technology Co.,Ltd
Address: Block A10, Expo Bay South Coast, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Report Number: 2504Z07319E-RFA1-00B
FCC ID: 2AN3WM5STICKCPLUS

Test Standard (s)

FCC PART 15.247

Sample Description

Product Name: M5StickC-Plus SE
Model No.: StickC-Plus SE
Trade Mark:



Date Received: 2025-11-19
Report Date: 2026-01-14

Test Result:	The EUT complied with the standards above.
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Prepared and Checked By:

Roger Ling

Roger Ling
EMC Engineer

Approved By:

Bob. Liao

Bob.Liao
EMC Engineer

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Shenzhen Accurate Technology Co., Ltd.

Floor 1, KuMaKe Building, Dongzhou Community, Guangming Street, Guangming District, Shenzhen, Guangdong, China.

Tel: +86 755-26503290

Web: www.atc-lab.com

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
Rev.00	2504Z07319E-RFA1-00B	Class II Permissive Change Report	2026-01-14

Note[#]: This is Class II permissive change application based on the original device(Test model: M5StickC PLUS, FCC ID: 2AN3WM5STICKCPLUS), which was tested by Bay Area Compliance Laboratories Corp. (Kunshan).

- (1) Changing the Address to “Block A10, Expo Bay South Coast, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China”.
- (2) Changing Product name “M5StickC-Plus SE”.
- (3) Changing the Model from “M5StickC PLUS, M5StickT” to “StickC-Plus SE”.
- (4) Adding the Trade Mark 
- (5) Changing the appearance.
- (6) Reducing gyroscope.

Per Spot check with RF output power, the RF parameters are identical with the original device. Therefore, AC line conducted emissions/Radiated Spurious Emissions(Below 1GHz) was tested based on the change.

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product Name	M5StickC-Plus SE
Tested Model	StickC-Plus SE
Voltage Range [#]	DC 3.7V from battery or DC 5.0V
Frequency Range	BLE 1M: 2402-2480MHz
	2.4G Wi-Fi: 802.11b/g/n20/n40: 2412-2462MHz
Maximum Conducted Peak Output Power (actual test result)	BLE: 4.98 dBm
	2.4G Wi-Fi: 20.54dBm
Modulation Technique	BLE: GFSK 2.4G Wi-Fi: DSSS, OFDM, OFDMA
Antenna Specification [#]	Antenna gain: 2.0 dBi (It is provided by the applicant.)
Sample Serial Number	For CE&RE Test: 3EDA-2 For RF Conducted Test: 3EDA-1 (Assigned by ATC, Shenzhen)
Sample/EUT Status	Good condition

Objective

This test report is in accordance with Part 2-Subpart J, Part 15-Subparts A and C of the Federal Communication Commission's rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2020, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices, and KDB 558074 D01 15.247 Meas Guidance v05r02.

Unless otherwise stated there are no any additions to, deviations, or exclusions from the method.

Test Facility

The test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the Floor 1, KuMaKe Building, Dongzhou Community, Guangming Street, Guangming District, Shenzhen, Guangdong, China.

Accredited by American Association for Laboratory Accreditation (A2LA).The Certificate Number is 4297.01.

Measurement Uncertainty

Parameter		Uncertainty
RF Frequency		0.064*10 ⁻⁷
RF output power, conducted		0.3 dB
Unwanted Emission, conducted		1.2 dB
AC Power Lines Conducted Emissions		2.7 dB
Radiated Spurious Emissions	9kHz - 30MHz	2.1 dB
	30MHz - 1GHz	4.3 dB
Temperature		1 °C
Humidity		7 %
Supply voltages		0.4 %

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user).

For BLE, 40 channels are provided to testing:

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	39	2480

EUT was tested with Channel 0, 19 and 39.

For 2.4G Wi-Fi, total 11 channels are provided to testing:

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
1	2412	4	2427	7	2442	10	2457
2	2417	5	2432	8	2447	11	2462
3	2422	6	2437	9	2452	/	/

802.11b/g/n20 mode was tested with Channel 1, 6 and 11.

802.11n40 mode was tested with Channel 3, 6 and 9.

EUT Exercise Software and Power Level[#]

Exercise Software:		EspRFtestTool		
Mode	Data Rate	Power Level		
		Low Channel	Middle Channel	High Channel
BLE 1M	1Mbps	6	6	6
802.11 b	1Mbps	16	16	16
802.11 g	6Mbps	16	16	16
802.11 n20	MCS0	16	16	16
802.11 n40	MCS0	16	16	16

Note 1: The information in the above table is provided by the applicant.

Note 2: The worse-case data rates are determined to be as above for each mode based upon investigations by measuring the output power and PSD across all data rates, bandwidths and modulations.

Special Accessories

No special accessory.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

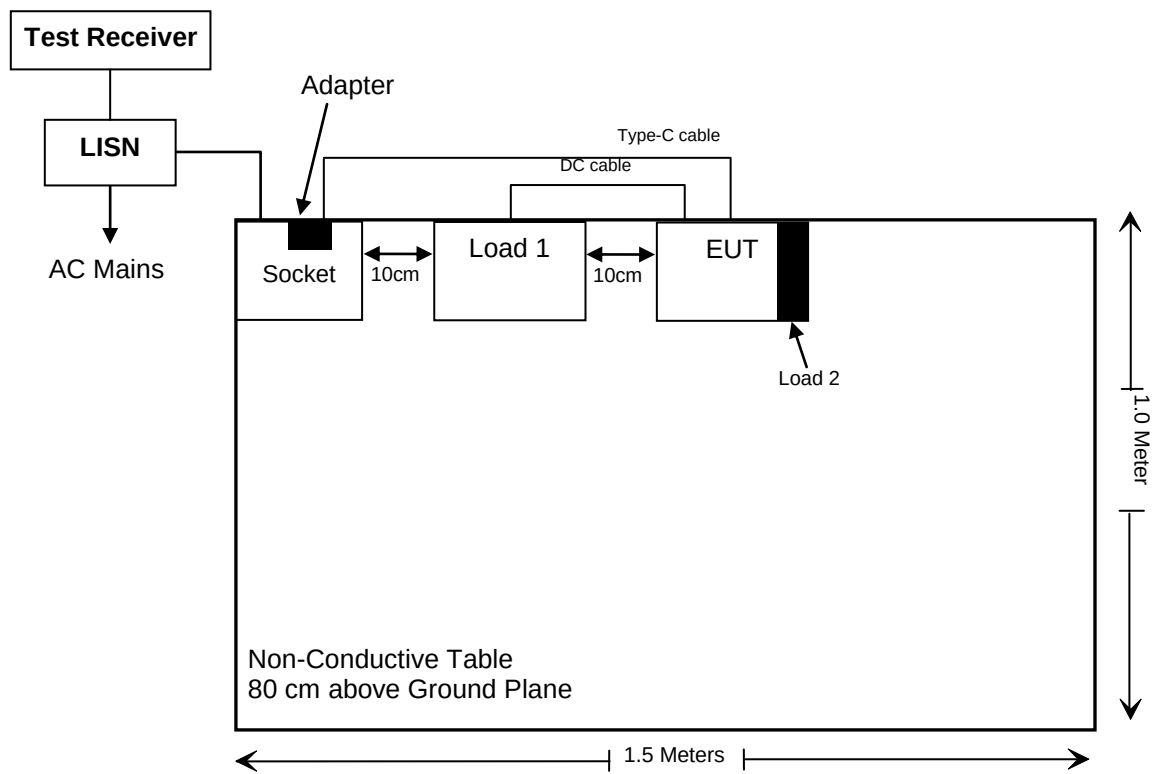
Manufacturer	Description	Model	Serial Number
Unknown	Adapter Input: 100-240V~ 50/60Hz 0.3A Output: 5.0V $\overline{\overline{=}}$ 2.0A 10.0W	G005A0501000U	Unknown
M5STACK	Load 1 [#]	Unknown	Unknown
M5STACK	Load 2 [#]	Unknown	Unknown

External I/O Cable

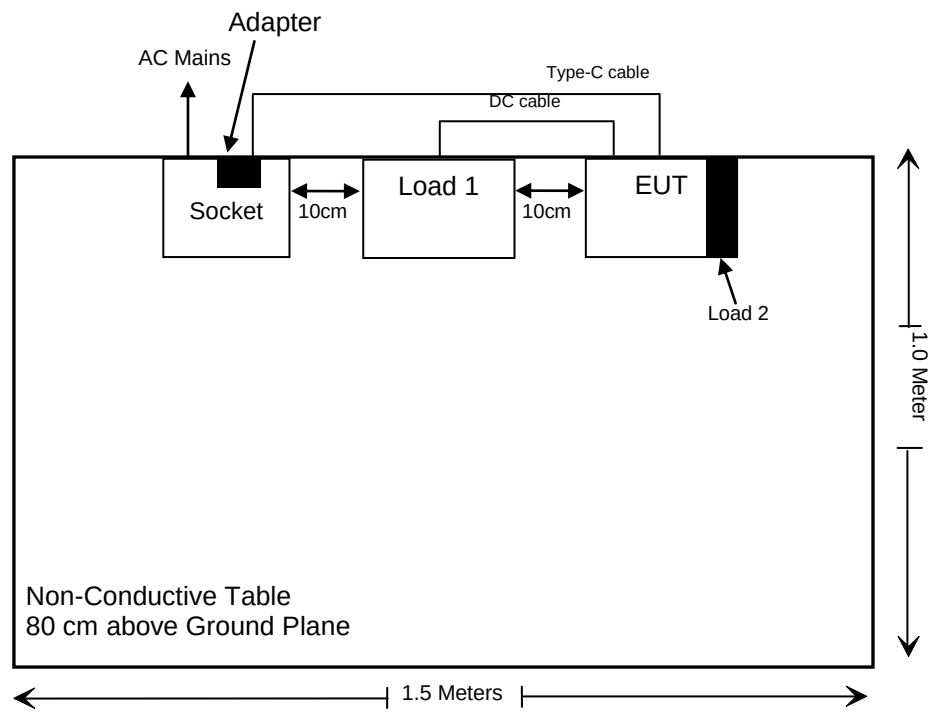
Cable Description	Shielding Type	Length (m)	From Port	To
Type-C Cable	No	1.0	Adapter	EUT
DC Cable	No	0.1	EUT	Load 1

Block Diagram of Test Setup

For Conducted Emission:



For Radiated Emission (Below 1GHz):



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliance
§15.207(a)	AC Line Conducted Emissions	Compliance
§15.205	Radiated Spurious Emissions(Below 1GHz)	Compliance
§15.209		See Note 1
§15.247(d)	Radiated Spurious Emissions(Above 1GHz)	
§15.247(a)(2)	6 dB Emission Bandwidth & Occupied Bandwidth	See Note 1
§15.247(b)(3)	Maximum Conducted Output Power	Reporting
§15.247(d)	Conducted Spurious Emission	See Note 1
§15.247(e)	Power Spectral Density	See Note 1

Note 1: The changes not affect this item, the test data and related details for them please refer to the original report: RSHD200602001-00B.

Note 2: The maximum output power mode and channel is from to the original report: RSHD200602001-00B.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emissions Test					
Rohde & Schwarz	EMI Test Receiver	ESCI	100784	2025/09/17	2026/09/16
Rohde & Schwarz	L.I.S.N.	ENV216	101314	2025/09/17	2026/09/16
Anritsu Corp	50 Coaxial Switch	MP59B	6100237248	2025/09/18	2026/09/17
Rohde & Schwarz	Pulse Limiter	ESH3-Z2	100312	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.17	N0350	2025/05/30	2026/05/29
Test Software: e3 191218 (V9)					
Radiated Spurious Emission Test(Below 1GHz)					
Rohde & Schwarz	Test Receiver	ESR	102725	2025/09/18	2026/09/17
SONOMA INSTRUMENT	Amplifier	310N	186131	2025/03/26	2026/03/25
Schwarzbeck	Bilog Antenna	VULB9163	9163-323	2024/08/08	2027/08/07
Unknown	RF Coaxial Cable	No.12	N040	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.13	N300	2025/05/30	2026/05/29
Unknown	RF Coaxial Cable	No.14	N800	2025/05/30	2026/05/29
BACL	LOOP ANTENNA	1313-1A	3110711	2024/01/16	2027/01/15
Test Software: e3 191218 (V9)					
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSV-40	101590	2026/09/17	2026/09/16
Anritsu	Microwave Peak Power Sensor	MA24418A	12619	2025/03/26	2026/03/25
WEINSCHEL	10dB Attenuator	5324	AU 3842	2025/03/26	2026/03/25
Test Software: JDAutoTestSystem V1.0.0					

* **Statement of Traceability:** Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

ANTENNA REQUIREMENT

Applicable Standard

According to FCC § 15.203, 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 user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.
- c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.247 (b), if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Antenna Connector Construction

The EUT has one internal antenna arrangement, which were permanently attached to the EUT. The antenna gain is 2.0dBi[#]. Fulfill the requirement of this section. Please refer to the EUT photos.

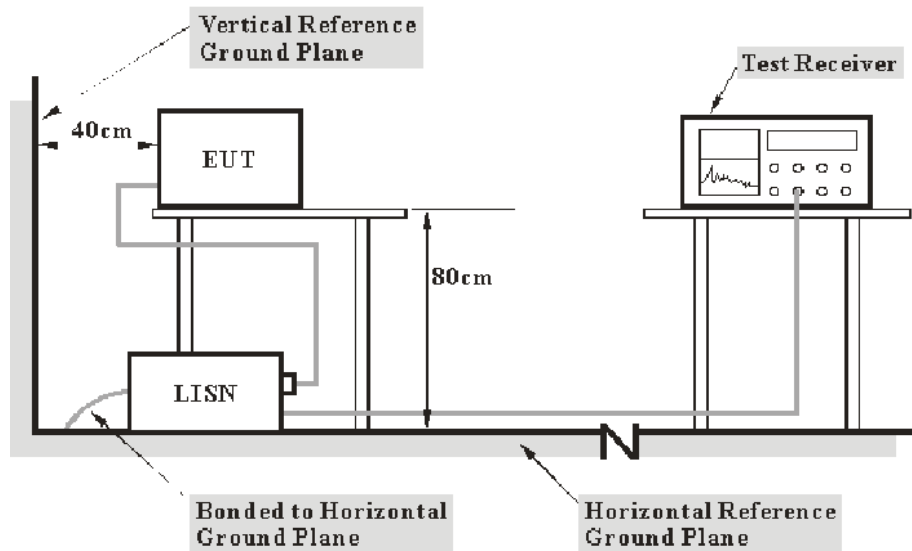
Result: Compliance.

AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207(a).

EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2020 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All final data was recorded in the Quasi-peak and average detection mode.

Calculation

The factor is calculated by adding LISN VDF (Voltage Division Factor) and Cable Loss. The basic equation is as follows:

$$\text{Factor} = \text{LISN VDF} + \text{Cable Loss} + 10\text{dB Attenuation(Limiter)}$$

The “**Over limit**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit of -7 dB means the emission is 7 dB below the limit. The equation for calculation is as follows:

$$\text{Over Limit} = \text{Level} - \text{Limit}$$

$$\text{Level} = \text{Read Level} + \text{Factor}$$

Test Data

For BLE:

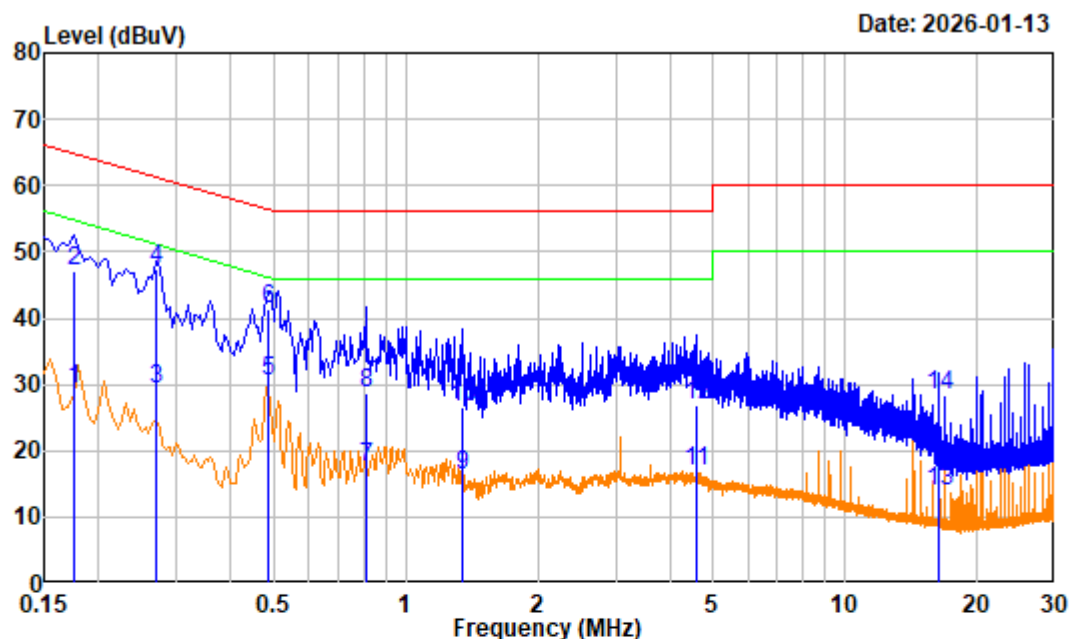
Environmental Conditions

Temperature:	22.1℃
Relative Humidity:	42 %
ATM Pressure:	101.8 kPa
Test Engineer:	Jason Fan
Test Date:	2026-01-13
EUT Operation Mode:	BLE Transmitting

Test Result: Compliance, please refer to the below data.

Note: The maximum output power mode and channel: BLE 1M High Channel 2480MHz was tested.

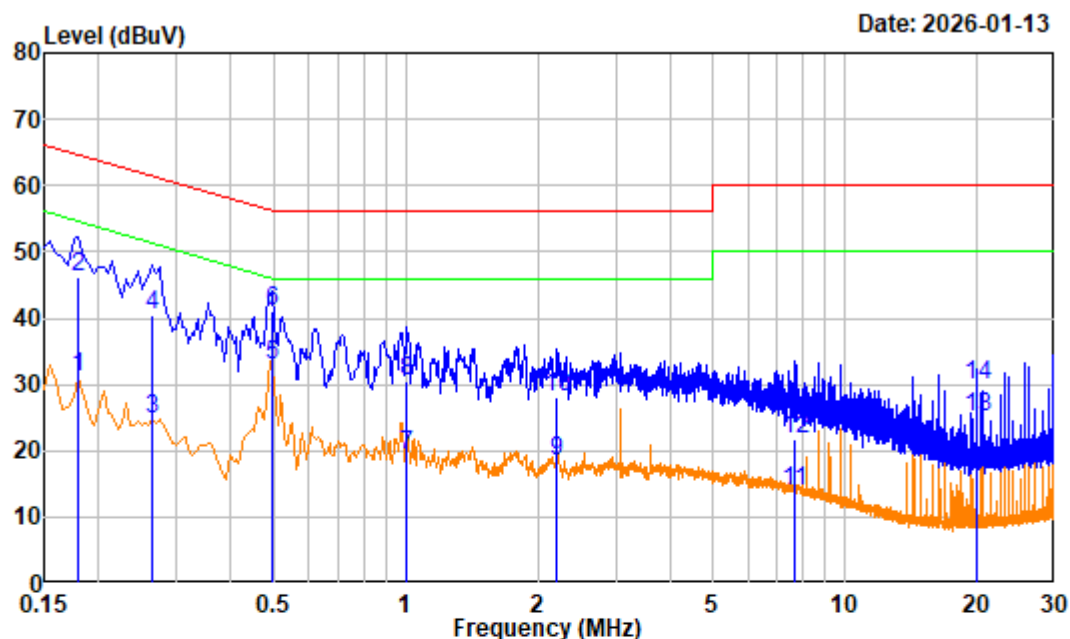
AC 120V/60Hz, Line:



Site : Shielding Room
 Condition : Line
 Job No. : 2504Z07319E-RFA1
 Test Mode : BLE Transmitting
 Tester : Jason Fan
 Receiver Setting: IF B/W 9kHz PK/AV

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.175	19.86	9.45	29.31	54.72	-25.41	Average
2	0.175	19.86	27.34	47.20	64.72	-17.52	QP
3	0.270	19.95	9.44	29.39	51.12	-21.73	Average
4	0.270	19.95	27.34	47.29	61.12	-13.83	QP
5	0.485	19.99	10.37	30.36	46.25	-15.89	Average
6	0.485	19.99	21.45	41.44	56.25	-14.81	QP
7	0.810	20.19	-2.62	17.57	46.00	-28.43	Average
8	0.810	20.19	8.63	28.82	56.00	-27.18	QP
9	1.350	20.41	-4.06	16.35	46.00	-29.65	Average
10	1.350	20.41	6.26	26.67	56.00	-29.33	QP
11	4.590	21.62	-4.64	16.98	46.00	-29.02	Average
12	4.590	21.62	5.24	26.86	56.00	-29.14	QP
13	16.405	23.62	-9.64	13.98	50.00	-36.02	Average
14	16.405	23.62	4.63	28.25	60.00	-31.75	QP

AC 120V/60Hz, Neutral:



Site : Shielding Room
 Condition : neutral
 Job No. : 2504Z07319E-RFA1
 Test Mode : BLE Transmitting
 Tester : Jason Fan
 Receiver Setting: IF B/W 9kHz PK/AV

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.180	19.83	11.41	31.24	54.49	-23.25	Average
2	0.180	19.83	26.28	46.11	64.49	-18.38	QP
3	0.265	19.95	4.89	24.84	51.27	-26.43	Average
4	0.265	19.95	20.57	40.52	61.27	-20.75	QP
5	0.495	20.03	12.93	32.96	46.08	-13.12	Average
6	0.495	20.03	21.04	41.07	56.08	-15.01	QP
7	1.005	20.46	-1.01	19.45	46.00	-26.55	Average
8	1.005	20.46	10.03	30.49	56.00	-25.51	QP
9	2.205	20.98	-2.43	18.55	46.00	-27.45	Average
10	2.205	20.98	7.17	28.15	56.00	-27.85	QP
11	7.640	22.38	-8.38	14.00	50.00	-36.00	Average
12	7.640	22.38	-0.65	21.73	60.00	-38.27	QP
13	19.935	24.01	1.11	25.12	50.00	-24.88	Average
14	19.935	24.01	6.00	30.01	60.00	-29.99	QP

For 2.4G WIFI:

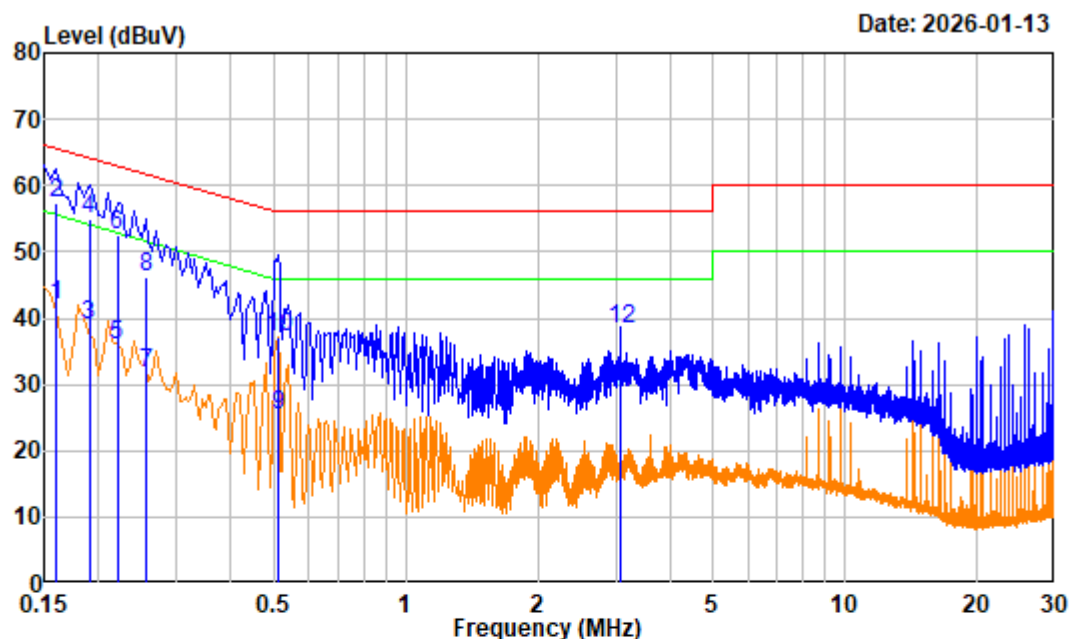
Environmental Conditions

Temperature:	22.1℃
Relative Humidity:	42 %
ATM Pressure:	101.8 kPa
Test Engineer:	Jason Fan
Test Date:	2026-01-13
EUT Operation Mode:	2.4G WIFI Transmitting

Test Result: Compliance, please refer to the below data.

Note: The maximum output power mode and channel: BLE 1M High Channel 2480MHz was tested.

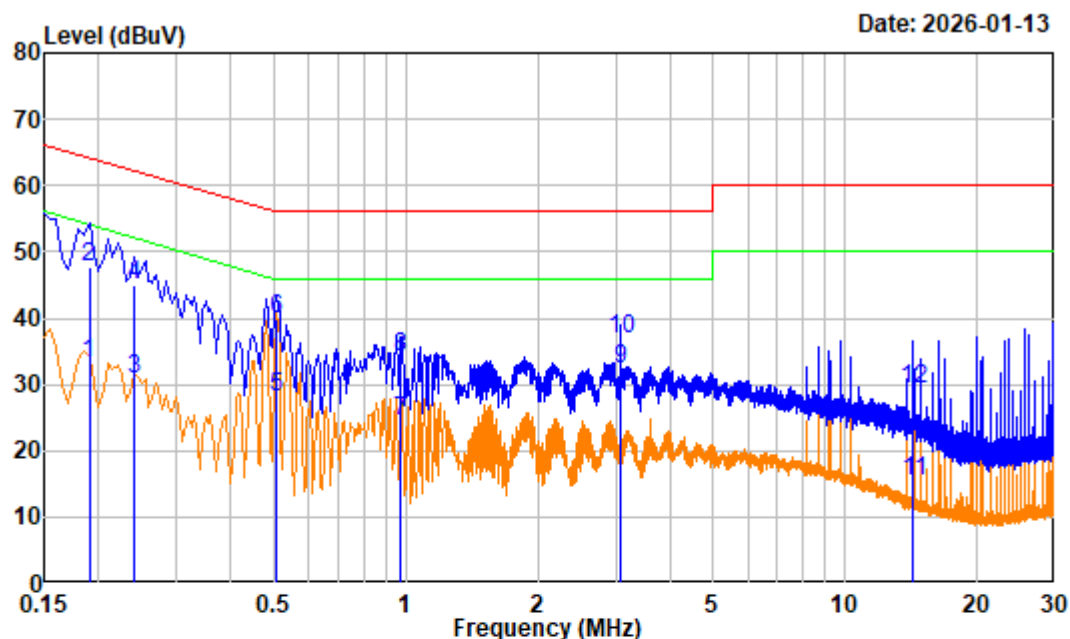
AC 120V/60Hz, Line:



Site : Shielding Room
 Condition : Line
 Job No. : 2504Z07319E-RFA1
 Test Mode : 2.4G WIFI Transmitting
 Tester : Jason Fan
 Receiver Setting: IF B/W 9kHz PK/AV

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.160	19.91	21.94	41.85	55.46	-13.61	Average
2	0.160	19.91	37.47	57.38	65.46	-8.08	QP
3	0.190	19.93	18.87	38.80	54.04	-15.24	Average
4	0.190	19.93	35.08	55.01	64.04	-9.03	QP
5	0.220	19.97	16.08	36.05	52.82	-16.77	Average
6	0.220	19.97	32.50	52.47	62.82	-10.35	QP
7	0.255	19.95	11.79	31.74	51.59	-19.85	Average
8	0.255	19.95	26.32	46.27	61.59	-15.32	QP
9	0.510	20.00	5.22	25.22	46.00	-20.78	Average
10	0.510	20.00	17.04	37.04	56.00	-18.96	QP
11	3.070	21.12	7.64	28.76	46.00	-17.24	Average
12	3.070	21.12	17.30	38.42	56.00	-17.58	QP

AC 120V/60Hz, Neutral:



Site : Shielding Room
 Condition : neutral
 Job No. : 2504Z07319E-RFA1
 Test Mode : 2.4G WIFI Transmitting
 Tester : Jason Fan
 Receiver Setting: IF B/W 9kHz PK/AV

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.190	19.87	13.20	33.07	54.04	-20.97	Average
2	0.190	19.87	27.86	47.73	64.04	-16.31	QP
3	0.240	19.93	10.78	30.71	52.10	-21.39	Average
4	0.240	19.93	25.03	44.96	62.10	-17.14	QP
5	0.505	20.03	8.10	28.13	46.00	-17.87	Average
6	0.505	20.03	19.74	39.77	56.00	-16.23	QP
7	0.975	20.43	3.95	24.38	46.00	-21.62	Average
8	0.975	20.43	13.59	34.02	56.00	-21.98	QP
9	3.070	21.19	11.06	32.25	46.00	-13.75	Average
10	3.070	21.19	15.73	36.92	56.00	-19.08	QP
11	14.315	23.49	-8.06	15.43	50.00	-34.57	Average
12	14.315	23.49	5.91	29.40	60.00	-30.60	QP

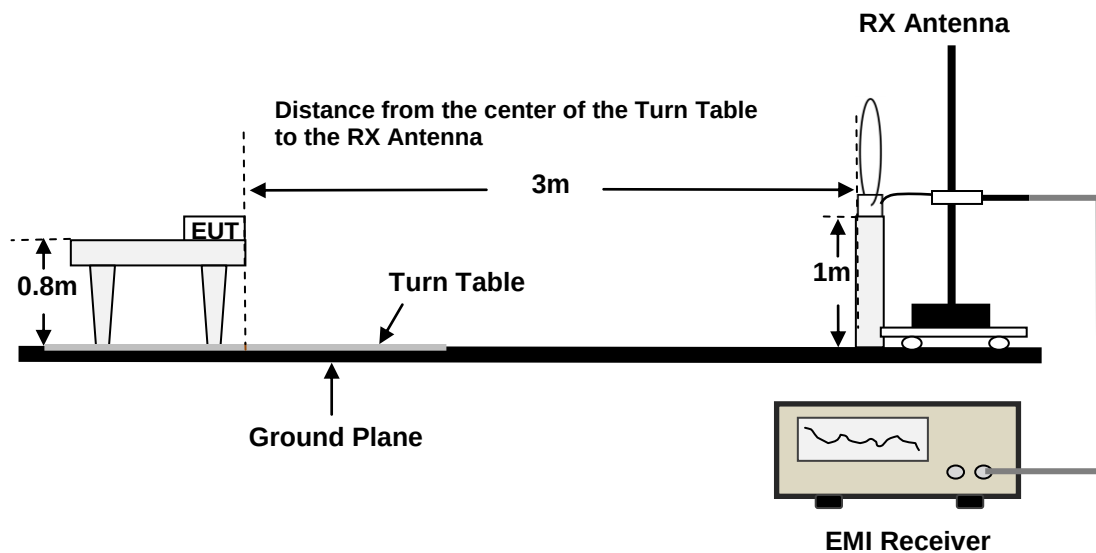
RADIATED SPURIOUS EMISSION

Applicable Standard

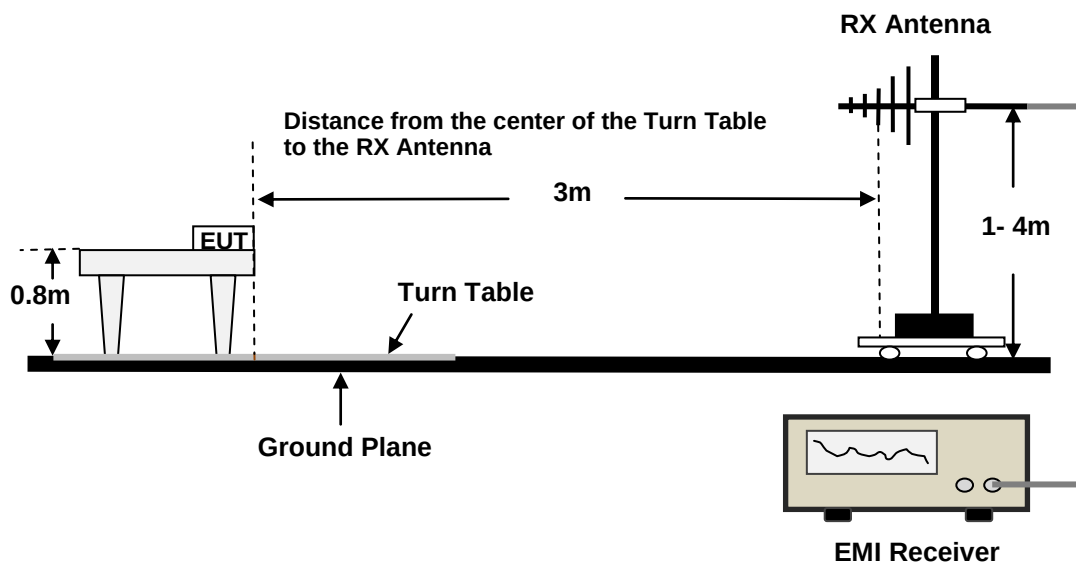
FCC §15.205; §15.209; §15.247(d)

EUT Setup

9kHz - 30MHz:



30MHz - 1GHz:



The radiated emission performed in the 3 meters, using the setup accordance with the ANSI C63.10-2020. The specification used was the FCC 15.209, FCC 15.247 limits.

EMI Test Receiver

The system was investigated from 9kHz to 1GHz.

During the radiated emission test, the EMI test receiver was set with the following configurations:

9kHz -1000MHz:

Frequency Range	Measurement	RBW	Video B/W	IF B/W	Detector
9kHz - 150kHz	PK	0.3kHz	1kHz	/	PK
	QP/AV	/	/	200Hz	QP/AV
150kHz - 30MHz	PK	10kHz	30kHz	/	PK
	QP/AV	/	/	9kHz	QP/AV
30MHz - 1000MHz	PK	100kHz	300kHz	/	PK
	QP	/	/	120kHz	QP

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

According to ANSI C63.10-2020,9.2: For field strength measurements made at other than the distance specified by the limit, extrapolate the measured field strength to the field strength at the distance specified by the limit using an inverse distance correction factor (20 dB/decade of distance).

$$E_{SpecLimit} = E_{Meas} + 20 \log \left(\frac{D_{Meas}}{D_{SpecLimit}} \right)$$

where

$E_{SpecLimit}$	is the field strength of the emission at the distance specified by the limit, in dBuV/m
E_{Meas}	is the field strength of the emission at the measurement distance, in dBuV/m
D_{Meas}	is the measurement distance, in m
$D_{SpecLimit}$	is the distance specified by the limit, in m

Note 1: If the maximized peak measured value is under the QP/Average limit by more than 6dB, then it is unnecessary to perform an QP/Average measurement.

Calculation

The Factor is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain. The basic equation is as follows:

$$\text{Factor} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Over Limit/Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit/margin of -7dB means the emission is 7dB below the limit. The equation for calculation is as follows:

$$\begin{aligned} \text{Over Limit/Margin} &= \text{Level} / \text{Corrected Amplitude} - \text{Limit} \\ \text{Level} / \text{Corrected Amplitude} &= \text{Read Level} + \text{Factor} \end{aligned}$$

Test Data

For Radiated Spurious Emissions, after pre-scan testing in the X, Y and Z axes of orientation, the worst case as setup photos was recorded.

For BLE:

9kHz-1GHz

Environmental Conditions

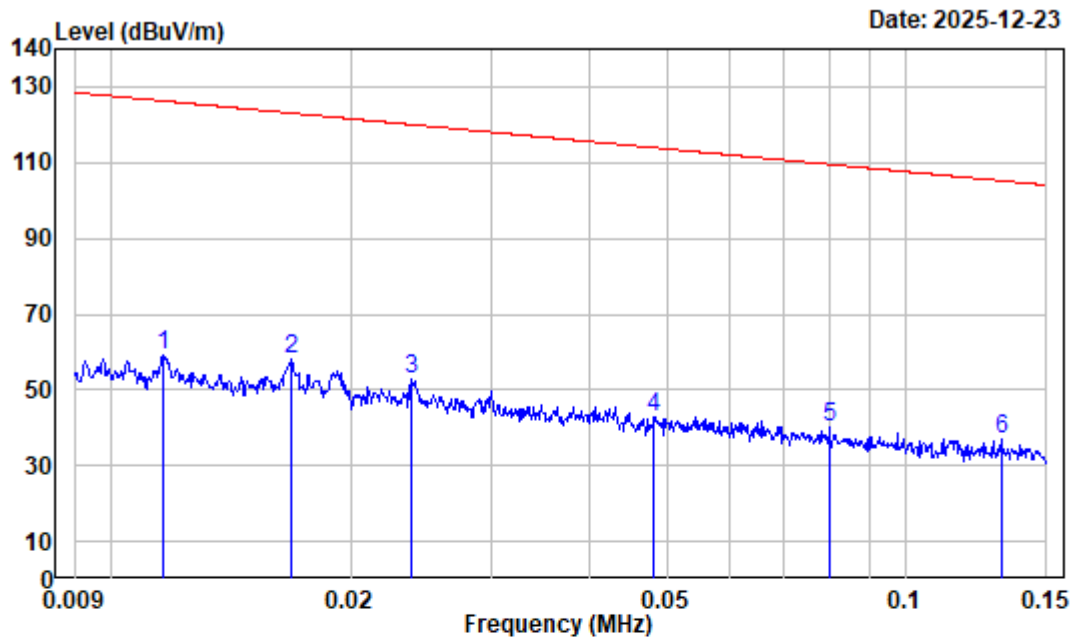
Temperature:	23.8 °C
Relative Humidity:	54 %
ATM Pressure:	100.9 kPa
Test Engineer:	Colin Lin
Test Date:	2025-12-23
EUT Operation Mode:	BLE Transmitting

Test Result: Compliance, please refer to the below data.

Note 1: The Loop Antenna were tested in parallel, perpendicular, and ground-parallel. The worst orientation was parallel and the data was recorded in report.

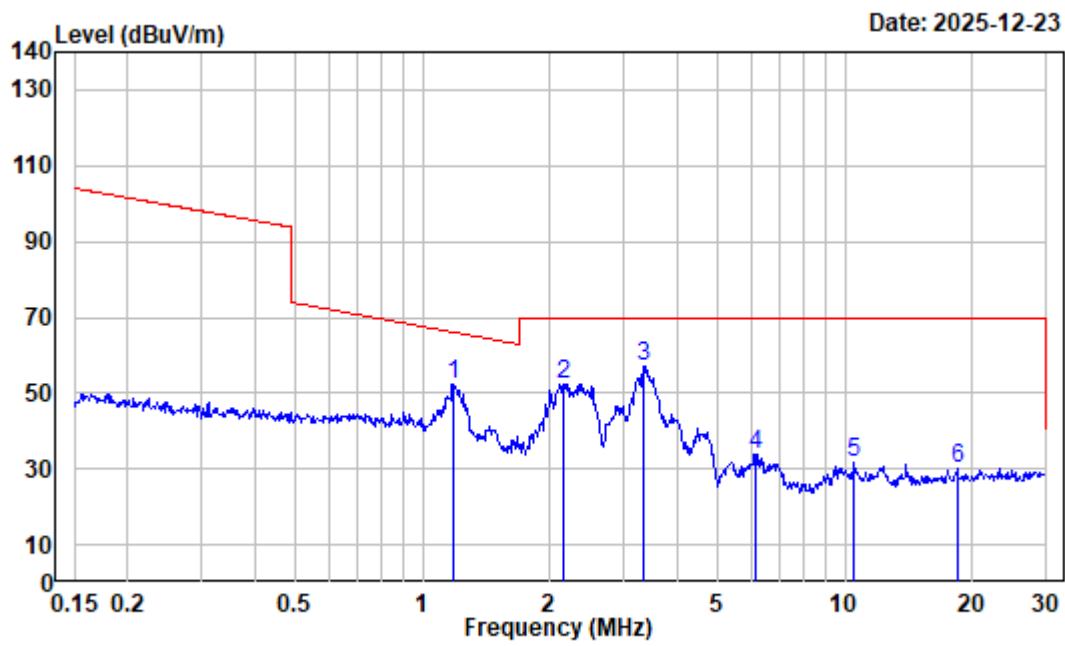
Note 2: The maximum output power mode and channel: BLE 1M High Channel 2480MHz was tested.

9kHz~30MHz:



Site : chamber
Condition : 3m
Job No. : 2504Z07319E-RFA1
Polarization : Parallel Tester: Colin Lin
Test Mode : BLE Transmitting
Receiver Setting: RBW:300Hz VBW:1kHz

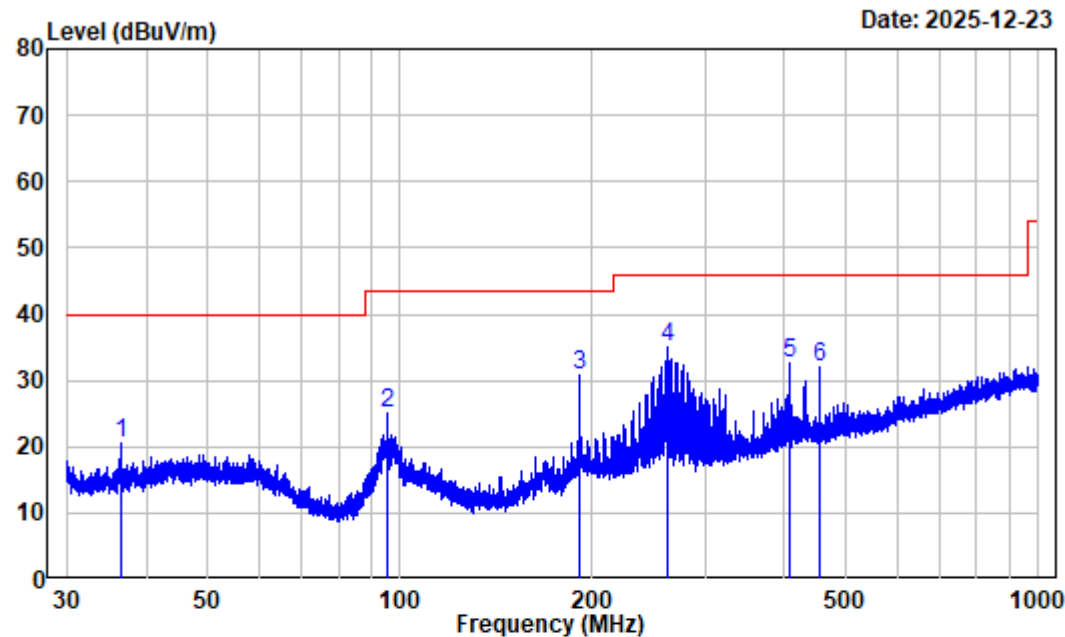
	Freq Factor		Read	Limit	Over	Remark
	MHz	dB/m	Level	Level	Limit	
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB
1	0.012	35.11	24.14	59.25	126.30	-67.05 Peak
2	0.017	32.79	25.37	58.16	123.07	-64.91 Peak
3	0.024	29.66	22.93	52.59	120.04	-67.45 Peak
4	0.048	23.19	19.77	42.96	113.96	-71.00 Peak
5	0.080	18.52	21.61	40.13	109.53	-69.40 Peak
6	0.132	15.00	22.03	37.03	105.21	-68.18 Peak



Site : chamber
Condition : 3m
Job No. : 2504Z07319E-RFA1
Polarization : Parallel Tester: Colin Lin
Test Mode : BLE Transmitting
Receiver Setting: RBW:10kHz VBW:30kHz

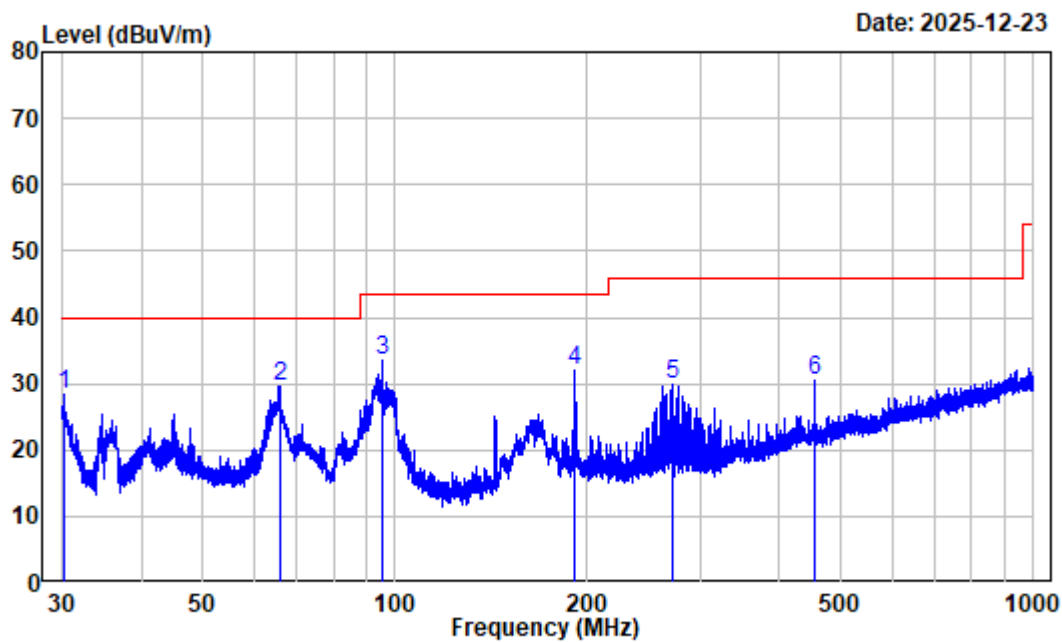
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1.178	-2.46	54.96	52.50	66.02	-13.52	Peak
2	2.167	-5.45	57.90	52.45	69.54	-17.09	Peak
3	3.346	-5.99	63.21	57.22	69.54	-12.32	Peak
4	6.121	-6.20	40.15	33.95	69.54	-35.59	Peak
5	10.508	-5.22	36.76	31.54	69.54	-38.00	Peak
6	18.426	-3.71	33.90	30.19	69.54	-39.35	Peak

30MHz~1GHz:



Site : chamber
Condition : 3m HORIZONTAL
Job No. : 2504Z07319E-RFA1 Tester: Colin Lin
Test Mode : BLE Transmitting
Receiver Setting: RBW:100kHz VBW:300kHz

	Freq	Factor	Read Level	Limit Level	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB
1	36.605	-11.34	31.94	20.60	40.00	-19.40 Peak
2	95.678	-12.21	37.41	25.20	43.50	-18.30 Peak
3	191.325	-10.24	41.10	30.86	43.50	-12.64 Peak
4	263.126	-10.00	44.92	34.92	46.00	-11.08 Peak
5	406.622	-5.75	38.36	32.61	46.00	-13.39 Peak
6	454.509	-4.81	36.94	32.13	46.00	-13.87 Peak



Site : chamber

Condition : 3m VERTICAL

Job No. : 2504Z07319E-RFA1 Tester: Colin Lin

Test Mode : BLE Transmitting

Receiver Setting: RBW:100kHz VBW:300kHz

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	30.238	-11.82	40.21	28.39	40.00	-11.61	Peak
2	65.919	-12.77	42.38	29.61	40.00	-10.39	Peak
3	95.720	-12.21	45.73	33.52	43.50	-9.98	Peak
4	191.325	-10.24	42.21	31.97	43.50	-11.53	Peak
5	271.444	-9.65	39.59	29.94	46.00	-16.06	Peak
6	454.708	-4.81	35.40	30.59	46.00	-15.41	Peak

For 2.4G WIFI:

9kHz-1GHz

Environmental Conditions

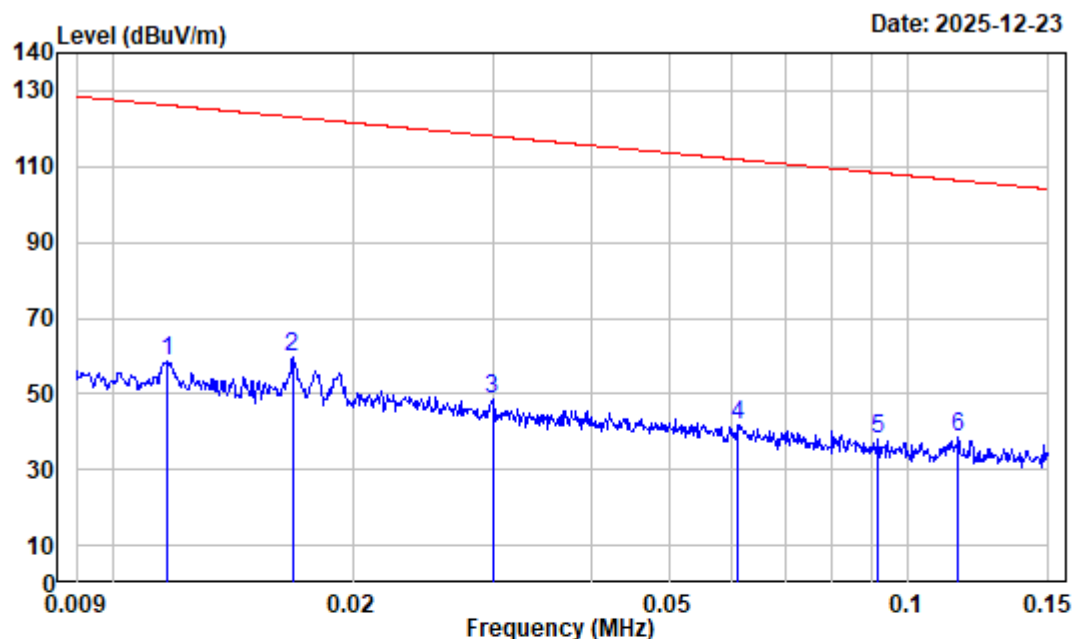
Temperature:	23.8 °C
Relative Humidity:	54 %
ATM Pressure:	100.9 kPa
Test Engineer:	Colin Lin
Test Date:	2025-12-23
EUT Operation Mode:	2.4G WIFI Transmitting

Test Result: Compliance, please refer to the below data.

Note 1: The Loop Antenna were tested in parallel, perpendicular, and ground-parallel. The worst orientation was parallel and the data was recorded in report.

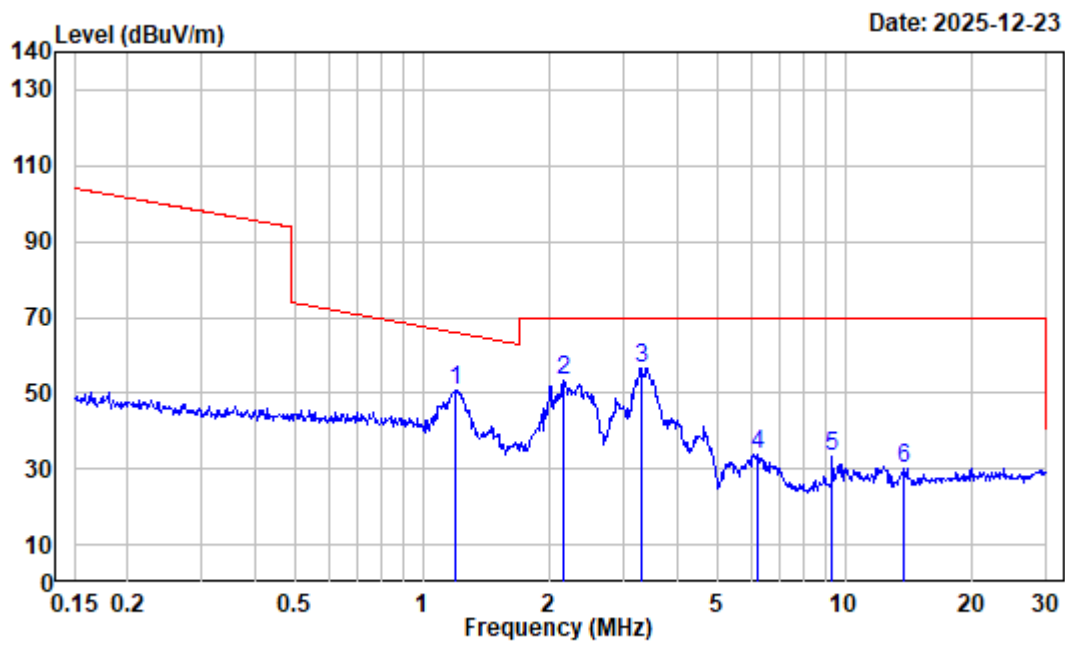
Note 2: The maximum output power mode and channel: 802.11b Low Channel 2412MHz was tested.

9kHz~30MHz:



Site : chamber
 Condition : 3m
 Job No. : 2504Z07319E-RFA1
 Polarization : Parallel Tester: Colin Lin
 Test Mode : 2.4G WIFI Transmitting
 Receiver Setting: RBW:300Hz VBW:1kHz

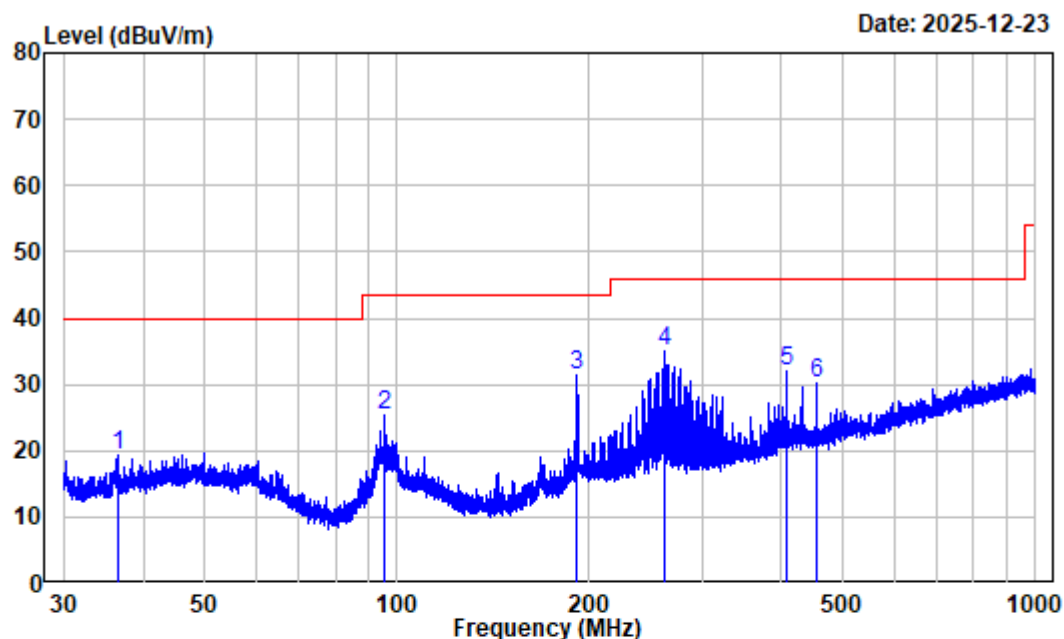
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.012	35.06	23.40	58.46	126.22	-67.76	Peak
2	0.017	32.81	26.82	59.63	123.09	-63.46	Peak
3	0.030	26.95	21.41	48.36	118.06	-69.70	Peak
4	0.061	21.22	20.77	41.99	111.88	-69.89	Peak
5	0.091	17.33	20.59	37.92	108.38	-70.46	Peak
6	0.115	15.74	22.69	38.43	106.36	-67.93	Peak



Site : chamber
Condition : 3m
Job No. : 2504Z07319E-RFA1
Polarization : Parallel Tester: Colin Lin
Test Mode : 2.4G WIFI Transmitting
Receiver Setting: RBW:10kHz VBW:30kHz

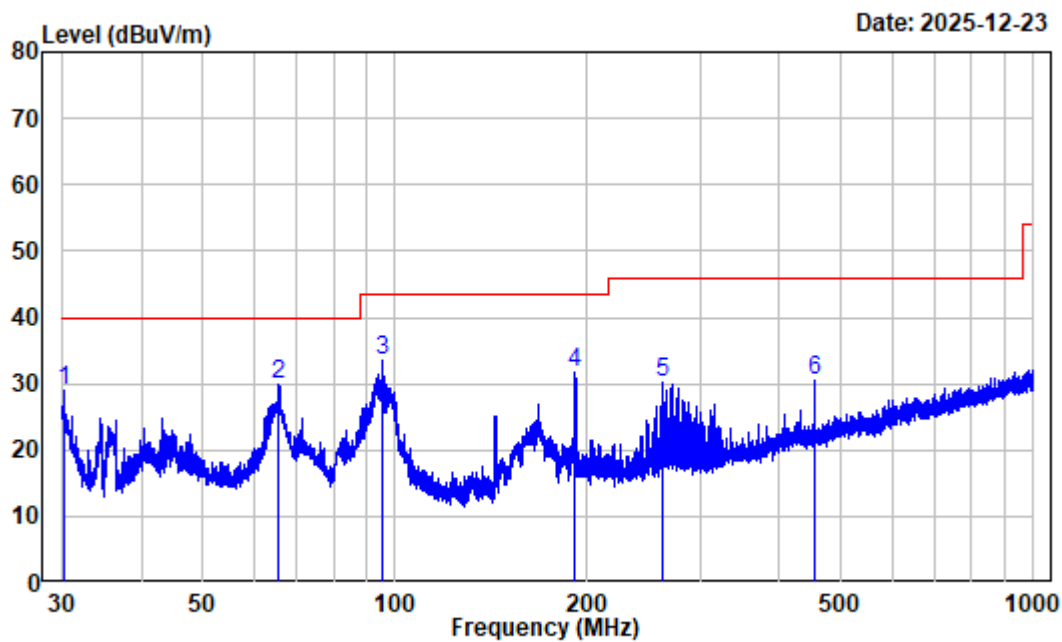
	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	1.197	-2.53	53.29	50.76	65.88	-15.12	Peak
2	2.167	-5.45	58.72	53.27	69.54	-16.27	Peak
3	3.293	-5.97	62.75	56.78	69.54	-12.76	Peak
4	6.219	-6.17	40.11	33.94	69.54	-35.60	Peak
5	9.352	-5.46	38.84	33.38	69.54	-36.16	Peak
6	13.768	-4.35	34.32	29.97	69.54	-39.57	Peak

30MHz~1GHz:



Site : chamber
 Condition : 3m HORIZONTAL
 Job No. : 2504Z07319E-RFA1 Tester: Colin Lin
 Test Mode : 2.4G WIFI Transmitting
 Receiver Setting: RBW:100kHz VBW:300kHz

	Freq	Factor	Read Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	36.573	-11.35	30.69	19.34	40.00	-20.66	Peak
2	95.678	-12.21	37.66	25.45	43.50	-18.05	Peak
3	191.493	-10.22	41.49	31.27	43.50	-12.23	Peak
4	263.126	-10.00	44.93	34.93	46.00	-11.07	Peak
5	406.801	-5.74	37.63	31.89	46.00	-14.11	Peak
6	454.509	-4.81	35.01	30.20	46.00	-15.80	Peak



Site : chamber
Condition : 3m VERTICAL
Job No. : 2504Z07319E-RFA1 Tester: Colin Lin
Test Mode : 2.4G WIFI Transmitting
Receiver Setting: RBW:100kHz VBW:300kHz

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	30.224	-11.81	40.84	29.03	40.00	-10.97	Peak
2	65.401	-12.56	42.34	29.78	40.00	-10.22	Peak
3	95.804	-12.19	45.56	33.37	43.50	-10.13	Peak
4	191.493	-10.22	42.00	31.78	43.50	-11.72	Peak
5	263.126	-10.00	40.22	30.22	46.00	-15.78	Peak
6	454.908	-4.80	35.41	30.61	46.00	-15.39	Peak

MAXIMUM CONDUCTED OUTPUT POWER

Applicable Standard

According to FCC §15.247(b)(3), for systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

Test Procedure

For BLE

According to ANSI C63.10-2020, section 11.9.1.1

- Measurement using a spectrum analyzer (SA)

The following procedure shall be used when an instrument with a resolution bandwidth that is greater than the DTS bandwidth is available to perform the measurement:

- a) Set the RBW $\geq$ DTS bandwidth.
- b) Set VBW $\geq$ $[3 \times \text{RBW}]$.
- c) Set span $\geq$ $[3 \times \text{RBW}]$.
- d) Sweep time = No faster than coupled (auto) time.
- e) Detector = peak.
- f) Trace mode = max-hold.
- g) Allow trace to fully stabilize.
- h) Use peak marker function to determine the peak amplitude level.

For 2.4G WIFI

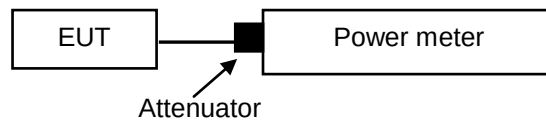
According to ANSI C63.10-2020, section 11.9.1.2

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast responding diode detector.

According to ANSI C63.10-2020, section 11.9.2.3

● Measurement using a power meter (PM)(Method AVGPM)

- a) As an alternative to spectrum analyzer or EMI receiver measurements, measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent, if all of the conditions listed below are satisfied:
 - 1) The EUT is configured to transmit continuously, or to transmit with a constant duty cycle.
 - 2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.
 - 3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
- b) If the transmitter does not transmit continuously, measure the duty cycle, D, of the transmitter output signal as described in 11.6.
- c) Measure the average power of the transmitter. This measurement is an average over both the ON and OFF periods of the transmitter.
- d) Correct the measurement in dBm by adding $[10 \log (1 / D)]$, where D is the duty cycle.



Test Data

Please refer to the "Appendix A-BLE" and "Appendix B-2.4G WIFI".

APPENDIX A-BLE

Test Information:

Sample No.:	3EDA-1	Test Date:	2025/12/29
Test Site:	RF	Test Mode:	Transmitting
Tester:	Cayde Hou	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	21.2	Relative Humidity: (%)	53	ATM Pressure: (kPa)	100.9
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Spot Check with Maximum Conducted Output Power

BLE 1M

Channel	Peak Output Power (dBm)	Limit (dBm)	Verdict
Low	4.09	30.00	Pass
Middle	4.38	30.00	Pass
High	4.98	30.00	Pass

APPENDIX B-2.4G WIFI

Test Information:

Sample No.:	3EDA-1	Test Date:	2025/12/29
Test Site:	RF	Test Mode:	Transmitting
Tester:	Cayde Hou	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	21.2	Relative Humidity: (%)	53	ATM Pressure: (kPa)	100.9
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Spot Check with Maximum Conducted Output Power

Mode	Test Frequency (MHz)	Peak Output Power(dBm)	Limit (dBm)	Verdict
802.11b	2412	20.54	30	Pass
	2437	20.07	30	Pass
	2462	19.42	30	Pass
802.11g	2412	19.89	30	Pass
	2437	19.46	30	Pass
	2462	19.28	30	Pass
802.11n20	2412	19.87	30	Pass
	2437	19.64	30	Pass
	2462	19.45	30	Pass
802.11n40	2422	20.16	30	Pass
	2437	19.92	30	Pass
	2452	19.86	30	Pass

EXHIBIT A-EUT PHOTOGRAPHS

Please refer to the Attachment No.1 2504Z07319E-RFA1 EUT External Photos and Attachment No.2 2504Z07319E-RFA1 EUT Internal Photos.

EXHIBIT B-TEST SETUP PHOTOGRAPHS

Please refer to the Attachment No.3 2504Z07319E-RFA1 Test Photos.

******* END OF REPORT *******